

## Men's 400m Hurdles Touchdown Times - by athlete

LAST UPDATE: 5-Mar-25

														Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<b>Abakar, Ismail Doudai (QAT) (2004)</b>																			
<b>Heat 5 - 2024 Olympic Games (Paris, FRA)</b>														<i>Paris 2024 Olympic Games - Results Book (2024)</i>					
date	05-Aug-24	time	5.79	9.45	13.24	17.07									dnf	8 / --			
reaction time	0.177	interval		3.66	3.79	3.83												11.28	
		velocity	7.77	9.56	9.23	9.14												9.31	
H1 lead leg	L	strides	20	13	13	13									59				
<b>FINAL - 2024 London Athletics Meet (London, GBR)</b>														<i>Omega Timing (2024) - diamond league race analysis</i>					
date	20-Jul-24	time	5.78	9.36	13.00	16.68	20.55	24.66	28.77	33.05	37.51	42.15			47.72	8 / 3			
reaction time	0.198	interval		3.58	3.64	3.68	3.87	4.11	4.11	4.28	4.46	4.64	5.57	<b>PB</b>			10.90	12.09	13.38
		velocity	7.79	9.78	9.62	9.51	9.04	8.52	8.52	8.18	7.85	7.54	7.18		8.38		9.63	8.68	7.85
H1 lead leg	L	strides	20	13	13	13	13			13	13	14	17.2		129.2				
<b>FINAL - 2024 Meeting de Paris (Paris, FRA)</b>														<i>Omega Timing (2024) - diamond league race analysis</i>					
date	07-Jul-24	time	5.75	9.49	13.34	17.23	21.10	25.18	29.44	33.82	38.31	42.98			48.79	1 / 7			
reaction time	0.192	interval		3.74	3.85	3.89	3.87	4.08	4.26	4.38	4.49	4.67	5.81				11.48	12.21	13.54
		velocity	7.83	9.36	9.09	9.00	9.04	8.58	8.22	7.99	7.80	7.49	6.88		8.20		9.15	8.60	7.75
H1 lead leg	L	strides	20	13	13	13	13			13	13	15	17.2		130.2				
<b>FINAL - 2024 Seashore Doha Meeting (Doha, QAT)</b>														<i>Omega Timing (2024) - diamond league race analysis</i>					
date	10-May-24	time	5.97	9.89	14.00	18.18	22.52	26.95	31.34	35.78	40.33	44.95			50.34	3 / 7			
reaction time	0.167	interval		3.92	4.11	4.18	4.34	4.43	4.39	4.44	4.55	4.62	5.39				12.21	13.16	13.61
		velocity	7.54	8.93	8.52	8.37	8.06	7.90	7.97	7.88	7.69	7.58	7.42	7.95			8.60	7.98	7.71
H1 lead leg	L	strides	20	13	13	13	13	13		13	13	13	16.5		140.5				
<b>Abdalmujied, Amor Ebed (QAT) (200)</b>																			
<b>B FINAL - 2021 Doha Diamond League (Doha, QAT) (TV Analysis)</b>														<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>					
date	28-May-21	time	6.10	9.93	14.00	18.20	22.53	24.5	26.97	31.70	36.37	41.17	45.97		51.40	3 / 3			
reaction time	0.168	interval		3.83	4.07	4.20	4.33		4.44	4.73	4.67	4.80	4.80	5.43	<b>PB</b>		12.10	13.50	14.27
		velocity	7.38	9.14	8.60	8.33	8.08	8.16	7.88	7.40	7.49	7.29	7.29	7.37	7.78		8.68	7.78	7.36
H1 lead leg	L	strides	22	14	14	14	14	14		14	15	15	15	18.7	155.7				
<b>Abe, Takatoshi (JPN) (1991)</b>																			
<b>Heat 5 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>														<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>					
date	30-Jul-21	time	6.03	9.80	13.63	17.70	21.80	26.05	30.53	35.13	39.66	44.45			49.98	8 / 6			
reaction time	0.166	interval		3.77	3.83	4.07	4.10	4.25	4.48	4.60	4.53	4.79	5.53				11.67	12.83	13.92
		velocity	7.46	9.28	9.14	8.60	8.54	8.24	7.81	7.61	7.73	7.31	7.23	8.00			9.00	8.18	7.54
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	15	15	17.7		161.7				
<b>FINAL - 2021 Japanese National Championships (Osaka, JPN)</b>														<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>					
date	26-Jun-21	time	5.93	9.57	13.36	17.15	21.02	25.04	29.33	33.77	38.40	43.21			48.87	5 / 2			
reaction time	0.173	interval		3.64	3.79	3.87	3.87	4.02	4.29	4.44	4.63	4.81	5.66				11.22	12.18	13.88
		velocity	7.59	9.62	9.23	9.23	9.04	8.71	8.16	7.88	7.56	7.28	7.07	8.18			9.36	8.62	7.56
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	15	15	18		162				
<b>FINAL - 2021 Ready Steady Tokyo (Tokyo, JPN)</b>														<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>					
date	09-May-21	time	5.96	9.61	13.36	17.25	21.25	25.48	29.96	34.47	39.14	43.94			49.45	5 / 4			
reaction time	0.164	interval		3.65	3.75	3.89	4.00	4.23	4.48	4.51	4.67	4.80	5.51				11.29	12.71	13.98
		velocity	7.55	9.59	9.33	9.00	8.75	8.27	7.81	7.76	7.49	7.29	7.26	8.09			9.30	8.26	7.51
H1 lead leg		strides		13	13	13	13	13	14	14	15	15		123					
<b>FINAL - 2021 Shizuoka International Athletics Meeting (Fukuroi, JPN)</b>														<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>					
date	03-May-21	time	6.02	9.66	13.46	17.33	21.29	25.49	29.85	34.40	39.16	44.09			50.35	4 / 3			
reaction time	0.166	interval		3.64	3.80	3.87	3.96	4.20	4.36	4.55	4.76	4.93	6.26				11.31	12.52	14.24
		velocity	7.48	9.62	9.21	9.04	8.84	8.33	8.03	7.69	7.35	7.10	6.39	7.94			9.28	8.39	7.37
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	19.2		165.2				
<b>FINAL - 2020 Japanese National Championships (Niigata, JPN)</b>														<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>					
date	02-Oct-20	time	6.01	9.59	13.35	17.17	21.10	25.28	29.68	34.23	39.01	43.94			49.73	5 / 1			
reaction time	0.170	interval		3.58	3.76	3.82	3.93	4.18	4.40	4.55	4.78	4.93	5.79				11.16	12.51	14.26
		velocity	7.49	9.78	9.31	9.16	8.91	8.37	7.95	7.69	7.32	7.10	6.91	8.04			9.41	8.39	7.36
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	15	15	19		163				
<b>FINAL - 2020 All Japan Corporate Championships (Kumagaya, JPN)</b>														<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>					
date	20-Sep-20	time	6.04	9.71	13.48	17.32	21.25	25.34	29.73	34.23	38.92	43.69			49.38	6 / 1			
reaction time	0.196	interval		3.67	3.77	3.84	3.93	4.09	4.39	4.50	4.69	4.77	5.69				11.28	12.41	13.96
		velocity	7.45	9.54	9.28	9.11	8.91	8.56	7.97	7.78	7.46	7.34	7.03	8.10			9.31	8.46	7.52
H1 lead leg		strides		13	13	13	13	13	14	14	15	15		123					
<b>FINAL - 2020 Seiko Golden Grand Prix (Tokyo, JPN)</b>														<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>					
date	23-Aug-20	time	5.96	9.64	13.36	17.20	21.12	25.23	29.58	34.08	38.79	43.66			49.31	6 / 1			
reaction time	0.150	interval		3.68	3.72	3.84	3.92	4.11	4.35	4.50	4.71	4.87	5.65				11.24	12.38	14.08
		velocity	7.55	9.51	9.41	9.11	8.93	8.52	8.05	7.78	7.43	7.19	7.08	8.11			9.34	8.48	7.46
H1 lead leg		strides		13	13	13	13	13	14	14	15	15		123					

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

**Semi-Final 3 - 2019 IAAF World Championships (Doha, QAT)***Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships*

date	28-Sep-19	time	5.90	9.63	13.42	17.28	21.31	25.44	29.82	34.30	38.88	43.53	48.97	4 / 3				
reaction time	0.161	interval		3.73	3.79	3.86	4.03	4.13	4.38	4.48	4.58	4.65	5.44		11.38	12.54	13.71	
		velocity	7.63	9.38	9.23	9.07	8.68	8.47	7.99	7.81	7.64	7.53	7.35	8.17		9.23	8.37	7.66
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	15	15	18	162				

**FINAL - 2019 Müller Grand Prix (Birmingham, GBR) (TV Analysis)***Henson (2020) - Athlete First: 2019 year end hurdle report*

date	18-Aug-19	time	5.96	9.72	13.56	17.44	21.44	23.2	25.52	29.96	34.68	39.48	44.48	50.36	2 / 6			
reaction time	0.148	interval		3.76	3.84	3.88	4.00	4.08	4.44	4.72	4.80	5.00	5.88		11.48	12.52	14.52	
		velocity	7.55	9.31	9.11	9.02	8.75	8.62	8.58	7.88	7.42	7.29	7.00	6.80	7.94	9.15	8.39	7.23
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	15	15	18	162				

**FINAL - 2019 Japanese National Championships (Fukuoka, JPN)***Yamanaka (2019) - research on athlete performance and technique- 2019 data book*

date	29-Jun-19	time	5.96	9.63	13.45	17.26	21.15	25.19	29.53	33.95	38.51	43.23	48.80	8 / 1				
reaction time	0.140	interval		3.67	3.82	3.81	3.89	4.04	4.34	4.42	4.56	4.72	5.57		11.30	12.27	13.70	
		velocity	7.55	9.54	9.16	9.19	9.00	8.66	8.06	7.92	7.68	7.42	7.18	8.20		9.29	8.56	7.66
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	15	15	18.2	162.2				

**FINAL - 2019 Bislett Games (Oslo, NOR) (TV Analysis)***Henson (2020) - Athlete First: 2019 year end hurdle report*

date	13-Jun-19	time	6.02	9.78	13.68	17.58	21.72	23.5	25.92	30.29	34.83	39.54	44.31	49.78	8 / 5			
reaction time	0.188	interval		3.76	3.90	3.90	4.14	4.20	4.37	4.54	4.71	4.77	5.47		11.56	12.71	14.02	
		velocity	7.48	9.31	8.97	8.97	8.45	8.51	8.33	8.01	7.71	7.43	7.34	7.31	8.04	9.08	8.26	7.49
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	15	15	17.5	161.5				

**FINAL - 2019 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)***Henson (2020) - Athlete First: 2019 year end hurdle report*

date	06-Jun-19	time	5.87	9.62	13.49	17.56	21.66	25.88	30.19	34.79	39.40	44.09	49.57	7 / 3				
reaction time	0.164	interval		3.75	3.87	4.07	4.10	4.22	4.31	4.60	4.61	4.69	5.48		11.69	12.63	13.90	
		velocity	7.67	9.33	9.04	8.60	8.54	8.29	8.12	7.61	7.59	7.46	7.30	8.07		8.98	8.31	7.55
H1 lead leg	R	strides	21	13	13	13	13	13	13	14	14	15	17.5	159.5				

**FINAL - 2019 Asian Athletics Championships (Doha, QAT)***Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season*

date	22-Apr-19	time	5.97	9.64	13.33	17.10	21.04	25.19	29.66	34.27	39.06	43.93	49.74	7 / 5				
reaction time	0.189	interval		3.67	3.69	3.77	3.94	4.15	4.47	4.61	4.79	4.87	5.81		11.13	12.56	14.27	
		velocity	7.54	9.54	9.49	9.28	8.88	8.43	7.83	7.59	7.31	7.19	6.88	8.04		9.43	8.36	7.36
H1 lead leg		strides		13	13	13	13	13	14	14	15	15	123					

**FINAL - 2018 IAAF Continental Cup (Ostrava, CZE) (TV Analysis)***Henson (2021) - Athlete First: 2018 year end hurdle report*

date	08-Sep-18	time	5.92	9.60	13.40	17.32	21.36	25.52	29.96	34.52	39.32	44.16	49.80	7 / 6				
reaction time	0.192	interval		3.68	3.80	3.92	4.04	4.16	4.44	4.56	4.80	4.84	5.64		11.40	12.64	14.20	
		velocity	7.60	9.51	9.21	8.93	8.66	8.41	7.88	7.68	7.29	7.23	7.09	8.03		9.21	8.31	7.39
H1 lead leg	R	strides	20	13	13	13	13		14	14	15	15	17.5	147.5				

**FINAL - 2018 Japanese National Championships (Yamaguchi, JPN)***Morioka (2018) - race pattern analysis of Japan's top 400m hurdles - main national competitions in 2018*

date	23-Jun-18	time	5.98	9.65	13.39	17.24	21.21	25.33	29.80	34.40	39.10	43.87	49.44	7 / 2				
reaction time	0.201	interval		3.67	3.74	3.85	3.97	4.12	4.47	4.60	4.70	4.77	5.57		11.26	12.56	14.07	
		velocity	7.53	9.54	9.36	9.09	8.82	8.50	7.83	7.61	7.45	7.34	7.18	8.09		9.33	8.36	7.46
H1 lead leg	R	strides	20	13	13	13	13	13	14	14	15	15	18	161				

**FINAL - 2018 Seiko Golden Grand Prix (Osaka, JPN)***Morioka (2018) - race pattern analysis of Japan's top 400m hurdles - main national competitions in 2018*

date	20-May-18	time	5.91	9.51	13.16	16.90	20.74	24.74	29.03	33.60	38.47	43.41	48.97	7 / 1				
reaction time	0.194	interval		3.60	3.65	3.74	3.84	4.00	4.29	4.57	4.87	4.94	5.56		10.99	12.13	14.38	
		velocity	7.61	9.72	9.59	9.36	9.11	8.75	8.16	7.66	7.19	7.09	7.19	8.17		9.55	8.66	7.30
H1 lead leg	R	strides	20	13	13	13	13	13	13	14	16	15	18	161				

**A FINAL - 2018 Shizuoka International Athletics Meeting (Fukuuroi, JPN)***Morioka (2018) - race pattern analysis of Japan's top 400m hurdles - main national competitions in 2018*

date	03-May-18	time	5.97	9.64	13.38	17.15	20.99	24.96	29.20	33.67	38.27	43.06	48.68	6 / 1				
reaction time	0.222	interval		3.67	3.74	3.77	3.84	3.97	4.24	4.47	4.60	4.79	5.62	PB	11.18	12.05	13.86	
		velocity	7.54	9.54	9.36	9.28	9.11	8.82	8.25	7.83	7.61	7.31	7.12	8.22		9.39	8.71	7.58
H1 lead leg	R	strides	20	13	13	13	13	13	14	14	15	15	18	161				

**Semi-Final 2 - 2017 IAAF World Championships (London, GBR)***Morioka (2018) - Analysis of the race patterns of the top 400m hurdles in Japan*

date	07-Aug-17	time	5.98	9.65	13.39	17.16	21.06	25.10	29.50	34.20	39.10	44.07	49.93	4 / 5				
reaction time	0.212	interval		3.67	3.74	3.77	3.90	4.04	4.40	4.70	4.90	4.97	5.86		11.18	12.34	14.57	
		velocity	7.53	9.54	9.36	9.28	8.97	8.66	7.95	7.45	7.14	7.04	6.83	8.01		9.39	8.51	7.21
H1 lead leg	R	strides	20	13	13	13	13	13	14	14	15	15	18	161				

**Heat 1 - 2017 IAAF World Championships (London, GBR)***Morioka (2018) - Analysis of the race patterns of the top 400m hurdles in Japan*

date	06-Aug-17	time	6.22	9.89	13.66	17.46	21.36	25.46	29.86	34.40	39.00	43.90	49.65	3 / 2				
reaction time	0.316	interval		3.67	3.77	3.80	3.90	4.10	4.40	4.54	4.60	4.90	5.75		11.24	12.40	14.04	
		velocity	7.23	9.54	9.28	9.21	8.97	8.54	7.95	7.71	7.61	7.14	6.96	8.06		9.34	8.47	7.48
H1 lead leg	R	strides	20	13	13	13	13	13	14	14	15	15	18	161				

**FINAL - 2017 Japanese National Championships (Osaka, JPN)***Morioka (2018) - Analysis of the race patterns of the top 400m hurdles in Japan*

date	24-Jun-17	time	6.01	9.71	13.53	17.37	21.39	25.54	29.98	34.50	39.17	43.91	49.32	1 / 1				
reaction time	0.193	interval		3.70	3.82	3.84	4.02	4.15	4.44	4.52	4.67	4.74	5.41		11.36	12.61	13.93	
		velocity	7.49	9.46	9.16	9.11	8.71	8.43	7.88	7.74	7.49	7.38	7.39	8.11		9.24	8.33	7.54
H1 lead leg		strides		13	13	13	13	13	14	14	15	15	123					

**FINAL - 2017 Seiko Golden Grand Prix (Kawasaki, JPN)**

							<i>Morioka (2018) - Analysis of the race patterns of the top 400m hurdles in Japan</i>										
date	21-May-17	time	5.97	9.67	13.49	17.34	21.31	25.38	29.75	34.22	38.89	43.66	49.20	2 / 2			
reaction time	0.191	interval		3.70	3.82	3.85	3.97	4.07	4.37	4.47	4.67	4.77	5.54	11.37	12.41	13.91	
		velocity	7.54	9.46	9.16	9.09	8.82	8.60	8.01	7.83	7.49	7.34	7.22	8.13	9.23	8.46	7.55
H1 lead leg	R	strides	20	13	13	13	13	13	14	14	15	15	18	161			

**B FINAL - 2017 Shizuoka International Athletics Meeting (Fukuroi, JPN)**

							<i>Morioka (2018) - Analysis of the race patterns of the top 400m hurdles in Japan</i>										
date	03-May-17	time	6.04	9.78	13.58	17.45	21.42	25.56	30.01	34.81	39.66	44.56	50.15	/ 1			
reaction time		interval		3.74	3.80	3.87	3.97	4.14	4.45	4.80	4.85	4.90	5.59	11.41	12.56	14.55	
		velocity	7.45	9.36	9.21	9.04	8.82	8.45	7.87	7.29	7.22	7.14	7.16	7.98	9.20	8.36	7.22
H1 lead leg		strides		13	13	13	13	13	14	16	15	15	125				

**FINAL - 2014 Seiko Golden Grand Prix (Tokyo, JPN)**

							<i>Yasunori (2014) - race pattern analysis of Japanese top 400m hurdlers for major domestic competitions</i>										
date	11-May-14	time	6.14	9.94	13.78	17.70	21.74	25.84	30.28	34.87	39.82	44.94	51.14	/ 7			
reaction time		interval		3.80	3.84	3.92	4.04	4.10	4.44	4.59	4.95	5.12	6.20	11.56	12.58	14.66	
		velocity	7.33	9.21	9.11	8.93	8.66	8.54	7.88	7.63	7.07	6.84	6.45	7.82	9.08	8.35	7.16
H1 lead leg		strides		13	13	13	13	14	14	14	15	16	125				

**A FINAL - 2014 Shizuoka International Athletics Meeting (Fukuroi, JPN)**

							<i>Yasunori (2014) - race pattern analysis of Japanese top 400m hurdlers for major domestic competitions</i>										
date	03-May-14	time	6.19	10.04	13.96	18.03	22.12	26.42	30.77	35.26	39.91	44.68	50.32	/ 3			
reaction time		interval		3.85	3.92	4.07	4.09	4.30	4.35	4.49	4.65	4.77	5.64	11.84	12.74	13.91	
		velocity	7.27	9.09	8.93	8.60	8.56	8.14	8.05	7.80	7.53	7.34	7.09	7.95	8.87	8.24	7.55
H1 lead leg		strides		13	13	13	13	14	14	14	14	15	123				

**FINAL - 2012 Japanese National Championships (Osaka, JPN)**

							<i>Yasunori (2013) - race pattern analysis for the top Japanese 400m hurdlers in major domestic competitions</i>										
date	09-Jun-12	time	6.02	9.79	13.57	17.42	21.46	25.66	29.93	34.45	39.15	43.99	49.57	4 / 5			
reaction time		interval		3.77	3.78	3.85	4.04	4.20	4.27	4.52	4.70	4.84	5.58	11.40	12.51	14.06	
		velocity	7.48	9.28	9.26	9.09	8.66	8.33	8.20	7.74	7.45	7.23	7.17	8.07	9.21	8.39	7.47
H1 lead leg	R	strides	20	13	13	13	13	14	14	15	15	15	18.2	163			

**FINAL - 2011 Asian Championships (Kobe, JPN)**

							<i>Yasunori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>										
date	09-Jul-11	time	6.03	9.75	13.55	17.44	21.39	25.56	29.86	34.38	39.20	44.05	49.64	/ 1			
reaction time	0.168	interval		3.72	3.80	3.89	3.95	4.17	4.30	4.52	4.82	4.85	5.59	11.41	12.42	14.19	
		velocity	7.46	9.41	9.21	9.00	8.86	8.39	8.14	7.74	7.26	7.22	7.16	8.06	9.20	8.45	7.40
H1 lead leg		strides		13	13	13	13	14	14	14	16	15	125				

**FINAL - 2011 Japanese National Championships (Kumagaya, JPN)**

							<i>Yasunori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>										
date	11-Jun-11	time	6.19	10.08	14.02	18.02	22.14	26.41	30.71	35.20	39.74	44.41	49.81	/ 3			
reaction time		interval		3.89	3.94	4.00	4.12	4.27	4.30	4.49	4.54	4.67	5.40	11.83	12.69	13.70	
		velocity	7.27	9.00	8.88	8.75	8.50	8.20	8.14	7.80	7.71	7.49	7.41	8.03	8.88	8.27	7.66
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	125				

**FINAL - 2009 Japanese National High School Championships (Nara, JPN)**

							<i>Matsuo (2009) - 62nd high school championships: JAF scientific committee- biomechanics</i>										
date	31-Jul-09	time	6.11	10.05	14.17	18.39	22.76	27.15	31.62	36.22	40.96	45.76	51.04	/ 1			
reaction time		interval		3.94	4.12	4.22	4.37	4.39	4.47	4.60	4.74	4.80	5.28	12.28	13.23	14.14	
		velocity	7.36	8.88	8.50	8.29	8.01	7.97	7.83	7.61	7.38	7.29	7.58	7.84	8.55	7.94	7.43
H1 lead leg		strides		13	13	13	14	14	15	15	15	15	127				

**FINAL - 2008 Japanese National High School Championships (Kumagaya, JPN)**

							<i>Abe (2008) - 61st high school championships: JAF scientific committee- biomechanics data</i>										
date	31-Jul-08	time	6.42	10.57	14.76	19.00	23.25	27.56	32.01	36.57	41.37	46.41	52.16	/ 3			
reaction time		interval		4.15	4.19	4.24	4.25	4.31	4.45	4.56	4.80	5.04	5.75	12.58	13.01	14.40	
		velocity	7.01	8.43	8.35	8.25	8.24	8.12	7.87	7.68	7.29	6.94	6.96	7.67	8.35	8.07	7.29
H1 lead leg		strides		14	14	14	14	15	15	15	15	15	131				

**Aburkan, Saïd (MOR) (1963)**

							H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<i>FINAL - 1992 French National Championships (Narbonne, FRA)</i>																								
<i>Veney - split times from PJ</i>																								
date	28-Jun-92	time	6.44	10.38	14.32	18.36	22.42	26.64	31.04	35.56	40.22	45.36	51.27	/ 3										
reaction time		interval		3.94	3.94	4.04	4.06	4.22	4.40	4.52	4.66	5.14	5.91	11.92	12.68	14.32								
		velocity	6.99	8.88	8.88	8.66	8.62	8.29	7.95	7.74	7.51	6.81	6.77	7.80	8.81	8.28	7.33							
H1 lead leg		strides	21	14	14	14	14	14	15	15	15	16	19	171										

**Abuaku, Joshua (GER) (1996)**

							H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<i>Semi-Final 1 - 2024 Olympic Games (Paris, FRA)</i>																								
<i>Paris 2024 Olympc Games - Results Book (2024)</i>																								
date	07-Aug-24	time	5.83	9.54	13.34	17.17	21.16	25.35	29.76	34.39	39.23	44.22	50.19	3 / 8										
reaction time	0.186	interval		3.71	3.80	3.83	3.99	4.19	4.41	4.63	4.84	4.99	5.97	11.34	12.59	14.46								
		velocity	7.72	9.43	9.21	9.14	8.77	8.35	7.94	7.56	7.23	7.01	6.70	7.97	9.26	8.34	7.26							
H1 lead leg	L	strides	20			13	13	13	14	14	15	15	117											

**Repechage 3 - 2024 Olympic Games (Paris, FRA)**

							<i>Paris 2024 Olympc Games - Results Book (2024)</i>										
date	06-Aug-24	time	5.74	9.38	13.10	16.88	20.83	25.06	29.40	33.96	38.63	43.36	48.87	6 / 2			
reaction time	0.159	interval		3.64	3.72	3.78	3.95	4.23	4.34	4.56	4.67	4.73	5.51	11.14	12.52	13.96	
		velocity	7.84	9.62	9.41	9.26	8.86	8.27	8.06	7.68	7.49	7.40	7.26	8.18	9.43	8.39	7.52
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	15	15	18.5	161.5			

**Heat 5 - 2024 Olympic Games (Paris, FRA)**

							<i>Paris 2024 Olympc Games - Results Book (2024)</i>									
date	05-Aug-24	time	5.77	9.42	13.14	16.94	20.90	25.06	29.42	33.98	38.67	43.49	49.00	7 / 4		



reaction time	0.151	interval	3.65	3.72	3.80	3.96	4.16	4.36	4.56	4.69	4.82	5.51	11.17	12.48	14.07			
		velocity	7.80	9.59	9.41	9.21	8.84	8.41	8.03	7.68	7.46	7.26	7.26	8.16	9.40	8.41	7.46	
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	14	14	18	159				
<b>Semi-Final 2 - 2024 European Athletics Championships (Roma, ITA)</b>													<i>European Athletics (2024) - 2024 european athletics championships - results book</i>					
date	10-Jun-24	time	5.82	9.55	13.38	17.24	21.26	25.56	29.87	34.32	39.14	43.80	49.13	5 / 4				
reaction time	0.170	interval	3.73	3.83	3.86	4.02	4.30	4.31	4.45	4.82	4.66	5.33	11.42	12.63	13.93			
		velocity	7.73	9.38	9.14	9.07	8.71	8.14	8.12	7.87	7.26	7.51	7.50	8.14	9.19	8.31	7.54	
H1 lead leg	L	strides	20	13	13	13	13	14	14	14	15	15	18	162				
<b>FINAL - 2024 Bislett Games (Oslo, NOR) (TV Analysis)</b>													<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>					
date	30-May-24	time	5.91	9.58	13.38	17.25	21.32	25.52	34.40	39.14	43.95	49.37	3 / 5					
reaction time	0.173	interval	3.67	3.80	3.87	4.07	4.20	4.20	4.88	4.74	4.81	5.42	11.34					
		velocity	7.61	9.54	9.21	9.04	8.60	8.33	7.88	7.38	7.28	7.38	8.10	9.26				
H1 lead leg	L	strides	20	13	13	13	13	13		15	15	115						
<b>FINAL - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>													<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>					
date	23-Aug-23	time	5.97	9.83	13.45	17.22	21.13	29.56	34.03	38.64	43.34	48.53	2 / 8					
reaction time	0.156	interval	3.86	3.62	3.77	3.91	4.07	4.43	4.47	4.61	4.70	5.19	11.25	12.34	13.78			
		velocity	7.54	9.07	9.67	9.28	8.95	8.30	7.83	7.59	7.45	7.71	8.24	9.33	8.51	7.62		
H1 lead leg	L	strides	20	13	13	13	13	14	14	14	18	119						
<b>Semi-Final 3 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>													<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>					
date	21-Aug-23	time	5.90	9.68	13.31	16.92	20.79	24.83	29.19	33.63	43.01	48.39	8 / 4					
reaction time	0.179	interval	3.78	3.63	3.61	3.87	4.04	4.36	4.44	9.38	5.38	11.02	12.27	13.82				
		velocity	7.63	9.26	9.64	9.70	9.04	8.66	8.03	7.88	7.46	7.43	8.27	9.53	8.56	7.60		
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	18	131						
<b>Heat 4 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>													<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>					
date	20-Aug-23	time	6.03	9.83	13.50	17.27	21.03	25.10	33.77	38.36	43.03	48.32	5 / 1					
reaction time	0.207	interval	3.80	3.67	3.77	3.76	4.07	4.07	8.67	4.59	4.67	5.29	PB	11.24				
		velocity	7.46	9.21	9.54	9.28	9.31	8.60	8.07	7.63	7.49	7.56	8.28	9.34				
H1 lead leg	L	strides	20	13	13	13	13	13		14	14	18	131					
<b>FINAL - 2023 FBK Games (Hengelo, NED)</b>													<i>Omega Timing (2023) - continental tour race analysis</i>					
date	04-Jun-23	time	5.83	9.51	13.27	17.07	21.02	25.23	29.62	34.17	38.87	43.70	49.23	8 / 3				
reaction time	0.207	interval	3.68	3.76	3.80	3.95	4.21	4.39	4.55	4.70	4.83	5.53	11.24	12.55	14.08			
		velocity	7.72	9.51	9.31	9.21	8.86	8.31	7.97	7.69	7.45	7.25	7.23	8.13	9.34	8.37	7.46	
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	15	15	18	161				
<b>FINAL - 2022 ISTAF (Berlin, GER) (TV Analysis)</b>													<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	04-Sep-22	time	5.96				20.92	25.04	29.44	33.92	38.52	43.24	48.55	5 / 3				
reaction time	0.174	interval				14.96	4.12	4.40	4.48	4.60	4.72	5.31	PB		13.80			
		velocity	7.55			9.36	8.50	7.95	7.81	7.61	7.42	7.53	8.24		7.61			
H1 lead leg	R	strides	20				13	14	14	15	15	18	109					
<b>FINAL - 2022 European Athletics Championships (Munich, GER)</b>													<i>European Athletics (2022) - european athletics championships race analysis</i>					
date	19-Aug-22	time	5.74	9.45	13.18	16.94	20.86	22.62	24.95	29.33	33.89	38.44	43.26	48.79	7 / 5			
reaction time	0.168	interval	3.71	3.73	3.76	3.92	4.09	4.38	4.56	4.55	4.82	5.53	PB	11.20	12.39	13.93		
		velocity	7.84	9.43	9.38	9.31	8.93	8.84	8.56	7.99	7.68	7.69	7.26	7.23	8.20	9.38	8.47	7.54
H1 lead leg	L	strides	20	13		13	13	13	14	14	15	15	18	135				
<b>Semi-Final 1 - 2022 European Athletics Championships (Munich, GER)</b>													<i>European Athletics (2022) - european athletics championships race analysis</i>					
date	18-Aug-22	time	5.79	9.49	13.28	17.07	20.99	22.65	24.99	29.31	33.98	38.58	43.32	49.05	5 / 2			
reaction time	0.188	interval	3.70	3.79	3.79	3.92	4.00	4.32	4.67	4.60	4.74	5.73	11.28	12.24	14.01			
		velocity	7.77	9.46	9.23	9.23	8.93	8.83	8.75	8.10	7.49	7.61	7.38	6.98	8.15	9.31	8.58	7.49
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	14	15	18	160				
<b>Semi-Final 1 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>													<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>					
date	01-Aug-21	time	6.00	9.76	13.60	17.50	21.53	25.76	30.36	34.93	39.60	44.50	49.93	2 / 8				
reaction time	0.179	interval	3.76	3.84	3.90	4.03	4.23	4.60	4.57	4.67	4.90	5.43	11.50	12.86	14.14			
		velocity	7.50	9.31	9.11	8.97	8.68	8.27	7.61	7.66	7.49	7.14	7.37	8.01	9.13	8.16	7.43	
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	15	15	143					
<b>Heat 4 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>													<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>					
date	30-Jul-21	time	6.03	9.73	13.53	17.46	21.53	25.73	30.25	39.37	44.13	49.50	8 / 5					
reaction time	0.169	interval	3.70	3.80	3.93	4.07	4.20	4.52	9.12	4.76	5.37	11.43	12.79	13.88				
		velocity	7.46	9.46	9.21	8.91	8.60	8.33	7.74	7.68	7.35	7.45	8.08	9.19	8.21	7.56		
H1 lead leg	L	strides	20	13	13	13	13	13	14		14	18	131					
<b>Ackermann, Uwe (GDR) (1960)</b>																		
<b>FINAL - 1982 European Championships (Athens, GRE)</b>													<i>(1982) - XIII championnats d'Europe d'Atletisma, Athens 1982</i>					
date	08-Sep-82	time	5.9	9.7	13.5	17.3	21.3	25.6	30.0	34.2	38.7	43.3	48.64	6 / 3				
reaction time		interval	3.80	3.80	3.80	4.00	4.30	4.40	4.20	4.50	4.60	5.34	11.40	12.70	13.30			
		velocity	7.63	9.21	9.21	9.21	8.75	8.14	7.95	8.33	7.78	7.61	7.49	8.22	9.21	8.27	7.89	
H1 lead leg	L	strides	20	13	13	13	13	15	15	15	15	15	18.2	165.2				



H1 lead leg	R	velocity	7.31	9.13	9.21		8.30	7.83	7.45	7.40	7.63	8.16						7.55	
		strides	20			13		14	15	15	18	95							
<b>Akabusi, Kriss (GBR) (1958)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 1992 Olympic Games (Barcelona, ESP)</b>			<i>Arnold (1992) - Hurdling</i>																
date	06-Aug-92	time	6.0	9.7	13.6	17.4	21.3	23.1	25.4	29.5	33.8	38.2	42.7		47.82	5 / 3			
reaction time		interval		3.70	3.90	3.80	3.90		4.10	4.10	4.30	4.40	4.50	5.12	<b>NR</b>		11.40	12.10	13.20
		velocity	7.50	9.46	8.97	9.21	8.97	8.66	8.54	8.54	8.14	7.95	7.78	7.81	8.36		9.21	8.68	7.95
H1 lead leg	R	strides	20	13	13	13	13		13	13	14	14	15	18	159				
<b>FINAL - 1991 IAAF World Championships (Tokyo, JPN)</b>			<i>Behm (1995) - la tactique du 400 haies</i>																
date	27-Aug-91	time	6.0	9.7	13.4	17.2	21.1		25.1	29.1	33.4	37.8	42.3		47.86	4 / 3			
reaction time		interval		3.70	3.70	3.80	3.90		4.00	4.00	4.30	4.40	4.50	5.56	<b>NR</b>		11.20	11.90	13.20
		velocity	7.50	9.46	9.46	9.21	8.97		8.75	8.75	8.14	7.95	7.78	7.19	8.36		9.38	8.82	7.95
H1 lead leg	R	strides	21	13	13	13	13		13	13	14	14	14	19	160				
<b>FINAL - 1991 European Cup (Frankfurt, GER)</b>			<i>Federle (2003) - http://www.fgs.uni-halle.de</i>																
date	29-Jun-91	time	6.13	9.90	13.73	17.52	21.41		25.43	29.53	33.85	38.41	43.04		48.39	/ 1			
reaction time		interval		3.77	3.83	3.79	3.89		4.02	4.10	4.32	4.56	4.63	5.35			11.39	12.01	13.51
		velocity	7.34	9.28	9.14	9.23	9.00		8.71	8.54	8.10	7.68	7.56	7.48	8.27		9.22	8.74	7.77
H1 lead leg		strides																	
<b>FINAL - 1990 European Championships (Split, CRO)</b>			<i>Arnold (1992) - Hurdling</i>																
date	29-Aug-90	time	6.0	9.7	13.6	17.4	21.3	23.1	25.4	29.5	33.8	38.2	42.7		47.92	5 / 1			
reaction time		interval		3.70	3.90	3.80	3.90		4.10	4.10	4.30	4.40	4.50	5.22	<b>NR</b>		11.40	12.10	13.20
		velocity	7.50	9.46	8.97	9.21	8.97	8.66	8.54	8.54	8.14	7.95	7.78	7.66	8.35		9.21	8.68	7.95
H1 lead leg	R	strides	20	13	13	13	13		13	13	14	14	15	16	157				
<b>FINAL - 1988 Olympic Games (Seoul, KOR)</b>			<i>Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988</i>																
date	25-Sep-88	time	6.08	9.80	13.57	17.41	21.41		25.62	29.82	34.22	38.75	43.47		48.69	7 / 6			
reaction time	0.223	interval		3.72	3.77	3.84	4.00		4.21	4.20	4.40	4.53	4.72	5.22			11.33	12.41	13.65
		velocity	7.40	9.41	9.28	9.11	8.75		8.31	8.33	7.95	7.73	7.42	7.66	8.22		9.27	8.46	7.69
H1 lead leg	R	strides	20	13	13	13	13		14	14	14	14	15	18	161				
<b>Semi-Final 1 - 1988 Olympic Games (Seoul, KOR)</b>			<i>Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988</i>																
date	24-Sep-88	time	6.14	9.93	13.81	17.74	21.78		25.87	30.11	34.49	39.20	43.92		49.22	6 / 4			
reaction time		interval		3.79	3.88	3.93	4.04		4.09	4.24	4.38	4.71	4.72	5.30			11.60	12.37	13.81
		velocity	7.33	9.23	9.02	8.91	8.66		8.56	8.25	7.99	7.43	7.42	7.55	8.13		9.05	8.49	7.60
H1 lead leg		strides	20	13	13	13	13		14	14	14	15	15	18	162				
<b>Akawa, Koki (JPN)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2017 Shimane High School Championships (Izumo, JPN)</b>			<i>Shimizu (2018) - shimane high school championships 2018 - biomechanics data analysis</i>																
date	27-May-17	time	6.27	10.37	14.60	18.90	23.33		27.97	33.00	37.93	43.03	48.40		54.54	7 / 1			
reaction time		interval		4.10	4.23	4.30	4.43		4.64	5.03	4.93	5.10	5.37	6.14			12.63	14.10	15.40
		velocity	7.18	8.54	8.27	8.14	7.90		7.54	6.96	7.10	6.86	6.52	6.51	7.33		8.31	7.45	6.82
H1 lead leg		strides	22	15	15	15	15		15	16	16	17	17	21	184				
<b>Akçam, Berke (TUR) (2002)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2024 Kamila Skolimowska Memorial (Silesia, POL)</b>			<i>Omega Timing (2023) - diamond league race analysis</i>																
date	25-Aug-24	time	5.96	9.72	13.50	17.36	21.34		25.41	29.72	34.06	38.56	43.21		48.58	3 / 7			
reaction time	0.162	interval		3.76	3.78	3.86	3.98		4.07	4.31	4.34	4.50	4.65	5.37			11.62	12.36	13.49
		velocity	7.55	9.31	9.26	9.07	8.79		8.60	8.12	8.06	7.78	7.53	7.45	8.23		9.04	8.50	7.78
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	15	15	18.5	162.5				
<b>Semi-Final 2 - 2024 Olympic Games (Paris, FRA)</b>			<i>Paris 2024 Olympic Games - Results Book (2024)</i>																
date	07-Aug-24	time	5.83	9.48	13.21	17.01	20.88		24.91	29.23	33.78	38.50	43.32		49.12	2 / 8			
reaction time	0.158	interval		3.65	3.73	3.80	3.87		4.03	4.32	4.55	4.72	4.82	5.80			11.18	12.22	14.09
		velocity	7.72	9.59	9.38	9.21	9.04		8.68	8.10	7.69	7.42	7.26	6.90	8.14		9.39	8.59	7.45
H1 lead leg	L	strides	21			13	13		13	14	14	15	15	19	137				
<b>Repechage 3 - 2024 Olympic Games (Paris, FRA)</b>			<i>Paris 2024 Olympic Games - Results Book (2024)</i>																
date	06-Aug-24	time	5.79	9.43	13.14	16.92	20.83		24.92	29.21	33.71	38.43	43.20		48.72	5 / 1			
reaction time	0.146	interval		3.64	3.71	3.78	3.91		4.09	4.29	4.50	4.72	4.77	5.52			11.13	12.29	13.99
		velocity	7.77	9.62	9.43	9.26	8.95		8.56	8.16	7.78	7.42	7.34	7.25	8.21		9.43	8.54	7.51
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	15	15	18.5	162.5				
<b>Heat 5 - 2024 Olympic Games (Paris, FRA)</b>			<i>Paris 2024 Olympic Games - Results Book (2024)</i>																
date	05-Aug-24	time	5.92	9.67	13.50	17.38	21.36		25.51	29.95	34.46	39.22	43.96		49.48	3 / 5			
reaction time	0.143	interval		3.75	3.83	3.88	3.98		4.15	4.44	4.51	4.76	4.74	5.52			11.46	12.57	14.01
		velocity	7.60	9.33	9.14	9.02	8.79		8.43	7.88	7.76	7.35	7.38	7.25	8.08		9.16	8.35	7.49
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	15	15	18.2	162.2				
<b>FINAL - 2024 Meeting de Paris (Paris, FRA)</b>			<i>Omega Timing (2024) - diamond league race analysis</i>																
date	07-Jul-24	time	5.84	9.80	13.82	17.74	21.82		26.00	30.31	34.69	39.25	43.81		49.23	8 / 8			
reaction time	0.144	interval		3.96	4.02	3.92	4.08		4.18	4.31	4.38	4.56	4.56	5.42			11.90	12.57	13.50
		velocity	7.71	8.84	8.71	8.93	8.58		8.37	8.12	7.99	7.68	7.68	7.38	8.13		8.82	8.35	7.78
H1 lead leg	L	strides	21	13	13	13	13		14	14	15	15	15	146					



**FINAL - 2024 European Athletics Championships (Roma, ITA)**

													<i>European Athletics (2024) - 2024 european athletics championships - results book</i>						
date	11-Jun-24	time	5.84	9.56	13.43	17.25	21.21	25.26	29.38	33.72	38.23	42.82	48.17	6 / 5					
reaction time	0.172	interval		3.72	3.87	3.82	3.96	4.05	4.12	4.34	4.51	4.59	5.35		11.41	12.13	13.44		
		velocity	7.71	9.41	9.04	9.16	8.84	8.64	8.50	8.06	7.76	7.63	7.48	8.30		9.20	8.66	7.81	
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	15	15	19	150					

**Semi-Final 3 - 2024 European Athletics Championships (Roma, ITA)**

													<i>European Athletics (2024) - 2024 european athletics championships - results book</i>						
date	10-Jun-24	time	5.87	9.66	13.50	17.36	21.28	25.36	29.60	33.89	38.40	42.93	48.14	4 / 2					
reaction time	0.160	interval		3.79	3.84	3.86	3.92	4.08	4.24	4.29	4.51	4.53	5.21		11.49	12.24	13.33		
		velocity	7.67	9.23	9.11	9.07	8.93	8.58	8.25	8.16	7.76	7.73	7.68	8.31		9.14	8.58	7.88	
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	15	15	18.2	162.2					

**Heat 2 - 2024 European Athletics Championships (Roma, ITA)**

													<i>European Athletics (2024) - 2024 european athletics championships - results book</i>						
date	09-Jun-24	time	5.84	9.63	13.47	17.38	21.39	25.52	29.86	34.47	39.20	43.91	49.32	4 / 1					
reaction time	0.161	interval		3.79	3.84	3.91	4.01	4.13	4.34	4.61	4.73	4.71	5.41		11.54	12.48	14.05		
		velocity	7.71	9.23	9.11	8.95	8.73	8.47	8.06	7.59	7.40	7.43	7.39	8.11		9.10	8.41	7.47	
H1 lead leg		strides											0						

**Akii-Bua, John (UGA) (1949)**

													<i>McFarlane (1981) - understanding the 400m hurdles (in Jarver (ed) - the hurdles, 1981)</i>						
date	03-Sep-72	time	6.1	9.8	13.6	17.4	21.3	23.0	25.4	29.5	33.7	38.1	42.6	47.82	1 / 1				
reaction time		interval		3.70	3.80	3.80	3.90	4.10	4.10	4.20	4.40	4.50	5.22	WR		11.30	12.10	13.10	
		velocity	7.38	9.46	9.21	9.21	8.97	8.70	8.54	8.54	8.33	7.95	7.78	7.66	8.36		9.29	8.68	8.02
H1 lead leg	R	strides	21	13	13	13	13	14	14	14	15	15	18	163					

**Semi-Final 1 - 1972 Olympic Games (Munich, FRG)**

													<i>Schmidt (1973) - vorolympisches training von john akii-bua über 400 hürden</i>						
date	02-Sep-72	time					21.0			29.9			43.6	49.25	2 / 1				
reaction time		interval								8.90			13.70	5.65					13.70
		velocity					8.81			7.87			7.66	7.08	8.12				7.66
H1 lead leg		strides																	

**Heat 4 - 1972 Olympic Games (Munich, FRG)**

													<i>Schmidt (1973) - vorolympisches training von john akii-bua über 400 hürden</i>						
date	01-Sep-72	time					21.5			29.9			43.3	50.35	2 / 1				
reaction time		interval								8.40			13.40	7.05					13.40
		velocity					8.60			8.33			7.84	5.67	7.94				7.84
H1 lead leg		strides																	

**Al-Najem, Zahirudin (SYR) (1977)**

													<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>						
date	24-Sep-00	time	6.00	9.84	13.72	17.68	21.76	26.00	30.68	35.60	41.16		52.70	6 / 7					
reaction time	0.160	interval		3.84	3.88	3.96	4.08	4.24	4.68	4.92	5.56					11.68	17.92		
		velocity	7.50	9.11	9.02	8.84	8.58	8.25	7.48	7.11	6.29		7.59		8.99	5.86			
H1 lead leg		strides	21	13	13	13	13	13	14	16	16		132						

**Al-Nubi, Mubarak Sultan (QAT) (1977)**

													<i>Behm (2003) - Paris 2003:Le quatrache masculin - féminin</i>						
date	29-Aug-03	time	6.0	9.7	13.7	17.7	21.7	25.9	30.4	35.2	40.1	44.7	52.64	1 / 7					
reaction time	0.164	interval		3.70	4.00	4.00	4.00	4.20	4.50	4.80	4.90	4.60	7.94		11.70	12.70	14.30		
		velocity	7.50	9.46	8.75	8.75	8.75	8.33	7.78	7.29	7.14	7.61	5.04	7.60		8.97	8.27	7.34	
H1 lead leg	R	strides	21	13	13	13	13	13	13	15	15	15	144						

**FINAL - 2002 IAAF World Cup (Madrid, ESP)**

													<i>Sanchez (2002) - copa del mundo de Madrid '02: análisis de la carreras con villas</i>						
date	20-Sep-02	time	6.07	9.94	13.80	17.77	21.88	25.99	30.15	34.51	38.87	43.63	48.96	7 / 2					
reaction time	0.158	interval		3.87	3.86	3.97	4.11	4.11	4.16	4.36	4.36	4.76	5.33		11.70	12.38	13.48		
		velocity	7.41	9.04	9.07	8.82	8.52	8.52	8.41	8.03	8.03	7.35	7.50	8.17		8.97	8.48	7.79	
H1 lead leg	R	strides	21	13	13	13	13	13	13	13	13	15	16.5	156.5					

**Al-Somaily, Hadi Sou'an (KSA) (1976)**

													<i>Behm (2001) - Edmonton: Le quatrache: les finales</i>						
date	10-Aug-01	time	5.8	9.4	13.1	16.9	20.9	24.9	28.9	33.1	37.7	42.4	47.99	1 / 4					
reaction time	0.164	interval		3.60	3.70	3.80	4.00	4.00	4.00	4.20	4.60	4.70	5.59		11.10	12.00	13.50		
		velocity	7.76	9.72	9.46	9.21	8.75	8.75	8.75	8.33	7.61	7.45	7.16	8.34		9.46	8.75	7.78	
H1 lead leg	L	strides	21	13	13	13	13	13	13	13	13	14	17.5	156.5					

**FINAL - 2000 Olympic Games (Sydney, AUS)**

													<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>						
date	27-Sep-00	time	5.94	9.66	13.42	17.26	21.14	22.62	25.14	29.18	33.38	37.82	42.34	47.53	4 / 2				
reaction time	0.437	interval		3.72	3.76	3.84	3.88	4.00	4.04	4.20	4.44	4.52	5.19	AR		11.32	11.92	13.16	
		velocity	7.58	9.41	9.31	9.11	9.02	8.84	8.75	8.66	8.33	7.88	7.74	7.71	8.42		9.28	8.81	7.98
H1 lead leg		strides	22	13	13	13	13	13	13	13	13	13	14	17	157				

**Semi-Final 1 - 2000 Olympic Games (Sydney, AUS)**

													<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>						
date	25-Sep-00	time	5.94	9.74	13.58	17.46	21.42	22.94	25.50	29.62	33.94	39.30	42.82	48.14	6 / 1				
reaction time	0.316	interval		3.80	3.84	3.88	3.96	4.08	4.12	4.32	4.56	5.32	AR		11.52	12.16	13.20		
		velocity	7.58	9.21	9.11	9.02	8.84	8.72	8.58	8.50	8.10	6.53	9.94	7.52	8.31		9.11	8.63	7.95
H1 lead leg		strides	21	13	13	13	13	13	13	13	13	14	17	156					

**Heat 6 - 2000 Olympic Games (Sydney, AUS)***Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games*

date	24-Sep-00	time	5.98	9.66	13.50	17.38	21.34	25.42	29.78	34.34	38.98	43.70	49.28	1 / 1			
reaction time	0.174	interval		3.68	3.84	3.88	3.96	4.08	4.36	4.56	4.64	4.72	5.58		11.40	12.40	13.92
		velocity	7.53	9.51	9.11	9.02	8.84	8.58	8.03	7.68	7.54	7.42	7.17	8.12	9.21	8.47	7.54
H1 lead leg		strides	21	13	13	13	13	13	13	14	14	14	17.7	158.7			

**Aldirawi, Ahmed Jamal (IRQ) (2003)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - West Asian Championships - 2024 Seashore Doha Meeting (Doha, QAT)** *Omega Timing (2024) - diamond league race analysis*

date	10-May-24	time	5.95	9.90	14.08	18.23	22.55	27.00	31.60	36.36	41.13	46.02	51.69	4 / 3				
reaction time	0.209	interval		3.95	4.18	4.15	4.32	4.45	4.60	4.76	4.77	4.89	5.67		PB	12.28	13.37	14.42
		velocity	7.56	8.86	8.37	8.43	8.10	7.87	7.61	7.35	7.34	7.16	7.05	7.74	8.55	7.85	7.28	
H1 lead leg		strides											0					

**Allen, CJ (USA) (1995)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2024 Memorial van damme (Brussels, BEL)** *Omega Timing (2023) - diamond league race analysis*

date	14-Sep-24	time	5.73	9.46	13.32	17.17	21.16	25.23	29.39	33.76	38.40	43.10	48.68	3 / 4			
reaction time	0.144	interval		3.73	3.86	3.85	3.99	4.07	4.16	4.37	4.64	4.70	5.58		11.70	12.22	13.71
		velocity	7.85	9.38	9.07	9.09	8.77	8.60	8.41	8.01	7.54	7.45	7.17	8.22	8.97	8.59	7.66
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	15	14	17.5	158.5			

**FINAL - 2024 Weltklasse (Zürich, SU)***Omega Timing (2023) - diamond league race analysis*

date	05-Sep-24	time	5.78	9.50	13.28	17.15	21.09	25.10	29.18	33.46	37.94	42.58	48.20	2 / 5			
reaction time	0.131	interval		3.72	3.78	3.87	3.94	4.01	4.08	4.28	4.48	4.64	5.62		11.59	12.03	13.40
		velocity	7.79	9.41	9.26	9.04	8.88	8.73	8.58	8.18	7.81	7.54	7.12	8.30	9.06	8.73	7.84
H1 lead leg	L	strides	20	13		13		13	13		14	15	17.7	118.7			

**Semi-Final 2 - 2024 Olympic Games (Paris, FRA)***Paris 2024 Olympc Games - Results Book (2024)*

date	07-Aug-24	time	5.68	9.35	13.14	16.97	20.88	24.84	28.99	33.33	37.93	42.69	48.44	8 / 4			
reaction time	0.154	interval		3.67	3.79	3.83	3.91	3.96	4.15	4.34	4.60	4.76	5.75		11.29	12.02	13.70
		velocity	7.92	9.54	9.23	9.14	8.95	8.84	8.43	8.06	7.61	7.35	6.96	8.26	9.30	8.74	7.66
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	15	15	17.7	159.7			

**Heat 3 - 2024 Olympic Games (Paris, FRA)***Paris 2024 Olympc Games - Results Book (2024)*

date	05-Aug-24	time	5.68	9.39	13.17	17.06	21.02	25.06	29.23	33.63	38.23	43.05	48.64	6 / 2			
reaction time	0.144	interval		3.71	3.78	3.89	3.96	4.04	4.17	4.40	4.60	4.82	5.59		11.38	12.17	13.82
		velocity	7.92	9.43	9.26	9.00	8.84	8.66	8.39	7.95	7.61	7.26	7.16	8.22	9.23	8.63	7.60
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	15	15	17.7	159.7			

**FINAL - 2024 London Athletics Meet (London, GBR)***Omega Timing (2024) - diamond league race analysis*

date	20-Jul-24	time	5.74	9.37	13.11	16.95	20.86	24.90	29.11	33.42	38.03	42.78	48.49	7 / 6			
reaction time	0.146	interval		3.63	3.74	3.84	3.91	4.04	4.21	4.31	4.61	4.75	5.71		11.21	12.16	13.67
		velocity	7.84	9.64	9.36	9.11	8.95	8.66	8.31	8.12	7.59	7.37	7.01	8.25	9.37	8.63	7.68
H1 lead leg	L	strides	20	13	13	13	13			14			18	104			

**FINAL - 2024 Herculis Meeting International d'Athlétisme (Monaco, MON)***Omega Timing (2024) - diamond league race analysis*

date	12-Jul-24	time	5.77	9.48	13.28	17.11	21.03	25.09	29.26	33.61	38.10	42.80	48.28	2 / 6			
reaction time	0.160	interval		3.71	3.80	3.83	3.92	4.06	4.17	4.35	4.49	4.70	5.48		11.34	12.15	13.54
		velocity	7.80	9.43	9.21	9.14	8.93	8.62	8.39	8.05	7.80	7.45	7.30	8.29	9.26	8.64	7.75
H1 lead leg	L	strides	20	13	13	13	13	13		14	15	15	17.7	146.7			

**FINAL - 2024 USA Olympic Trials (Eugene, OR)***USATF and Karmarush (2024) - USA Olympic trials results and race analysis*

date	30-Jun-24	time	5.66	9.33	13.17	17.08	20.96	22.65	24.84	28.84	33.15	37.63	42.24	47.81	8 / 2			
reaction time		interval		3.67	3.84	3.91	3.88	3.88	4.00	4.31	4.48	4.61	5.57		11.42	11.76	13.40	
		velocity	7.95	9.54	9.11	8.95	9.02	8.83	9.02	8.75	8.12	7.81	7.59	7.18	8.37	9.19	8.93	7.84
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	14	14	18	159				

**Semi-Final 3 - 2024 USA Olympic Trials (Eugene, OR)***USATF and Karmarush (2024) - USA Olympic trials results and race analysis*

date	28-Jun-24	time	5.86	9.46	13.10	16.92	20.83	22.61	24.77	28.92	33.34	37.89	42.52	48.16	5 / 2			
reaction time		interval		3.60	3.64	3.82	3.91	3.94	4.15	4.42	4.55	4.63	5.64		11.06	12.00	13.60	
		velocity	7.68	9.72	9.62	9.16	8.95	8.85	8.88	8.43	7.92	7.69	7.56	7.09	8.31	9.49	8.75	7.72
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	14	14	15	17.2	158.2			

**Heat 5 - 2024 USA Olympic Trials (Eugene, OR)***USATF and Karmarush (2024) - USA Olympic trials results and race analysis*

date	27-Jun-24	time	5.67	9.36	13.33	17.36	21.43	23.17	25.42	29.69	34.18	38.93	43.79	50.08	8 / 1			
reaction time		interval		3.69	3.97	4.03	4.07	3.99	4.27	4.49	4.75	4.86	6.29		11.69	12.33	14.10	
		velocity	7.94	9.49	8.82	8.68	8.60	8.63	8.77	8.20	7.80	7.37	7.20	6.36	7.99	8.98	8.52	7.45
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	14	14	15	18	159			

**FINAL - 2024 Bauhaus Galan (Stockholm, SWE) (TV Analysis)***Henson (2024) - Athlete First: 2024 year end hurdle report*

date	02-Jun-24	time	5.84	9.56	13.46	17.36	21.33	25.37	29.53	33.86	38.25	42.87	48.12	4 / 3			
reaction time	0.135	interval		3.72	3.90	3.90	3.97	4.04	4.16	4.33	4.39	4.62	5.25		11.52	12.17	13.34
		velocity	7.71	9.41	8.97	8.97	8.82	8.66	8.41	8.08	7.97	7.58	7.62	8.31	9.11	8.63	7.87
H1 lead leg	L	strides	13	13	13	13	13	13	13	14	14	15	17.5	151.5			

**FINAL - 2024 Bislett Games (Oslo, NOR) (TV Analysis)***Henson (2024) - Athlete First: 2024 year end hurdle report*

date	30-May-24	time	5.84	9.51	13.18	16.98	20.95	25.12	29.33	33.87	38.60	43.51	49.42	4 / 6			
reaction time	0.154	interval		3.67	3.67	3.80	3.97	4.17	4.21	4.54	4.73	4.91	5.91		11.14	12.35	14.18



H1 lead leg	L	velocity	7.71	9.54	9.54	9.21	8.82		8.39	8.31	7.71	7.40	7.13	6.77	8.09		9.43	8.50	7.40	
		strides	21	13	13	13	13		14	14	15	15	15		146					
<b>FINAL - 2024 Prefontaine Classic (Eugene, OR)</b>																<i>Omega Timing (2024) - diamond league race analysis</i>				
date	25-May-24	time	5.70	9.45	13.40	17.31	21.24		25.24	29.38	33.76	38.41	43.24		48.99		6 / 3			
reaction time	0.114	interval		3.75	3.95	3.91	3.93		4.00	4.14	4.38	4.65	4.83	5.75				11.61	12.07	13.86
		velocity	7.89	9.33	8.86	8.95	8.91		8.75	8.45	7.99	7.53	7.25	6.96	8.16			9.04	8.70	7.58
H1 lead leg		strides			13	13	13		13	13	14	15	15		109					
<b>FINAL - 2024 Seashore Doha Meeting (Doha, QAT)</b>																<i>Omega Timing (2024) - diamond league race analysis</i>				
date	10-May-24	time	5.63	9.27	12.97	16.79	20.72		24.73	28.87	33.28	37.87	42.66		48.39		6 / 2			
reaction time	0.139	interval		3.64	3.70	3.82	3.93		4.01	4.14	4.41	4.59	4.79	5.73				11.16	12.08	13.79
		velocity	7.99	9.62	9.46	9.16	8.91		8.73	8.45	7.94	7.63	7.31	6.98	8.27			9.41	8.69	7.61
H1 lead leg	L	strides	20	13	13	13	13		13	13	14	14	15	17.5	158.5					
<b>FINAL - 2023 Prefontaine Classic (Eugene, OR)</b>																<i>Omega Timing (2023) - diamond league race analysis</i>				
date	16-Sep-23	time	5.70	9.33	13.05	16.85	20.75		24.77	28.94	33.31	37.93	42.73		48.62		2 / 9			
reaction time	0.137	interval		3.63	3.72	3.80	3.90		4.02	4.17	4.37	4.62	4.80	5.89				11.15	12.09	13.79
		velocity	7.89	9.64	9.41	9.21	8.97		8.71	8.39	8.01	7.58	7.29	6.79	8.23			9.42	8.68	7.61
H1 lead leg	L	strides	20			13	13		13	14	14	14	14		115					
<b>FINAL - 2023 Weltklasse (Zürich, SUI)</b>																<i>Omega Timing (2023) - diamond league race analysis</i>				
date	31-Aug-23	time	5.64	9.23	12.94	16.74	20.64		24.63	28.73	33.07	37.63	42.36		48.28		3 / 4			
reaction time	0.141	interval		3.59	3.71	3.80	3.90		3.99	4.10	4.34	4.56	4.73	5.92				11.10	11.99	13.63
		velocity	7.98	9.75	9.43	9.21	8.97		8.77	8.54	8.06	7.68	7.40	6.76	8.29			9.46	8.76	7.70
H1 lead leg	L	strides	20	13			13		13	13			14	18	104					
<b>Semi-Final 1 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>																<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>				
date	21-Aug-23	time	5.83	9.73	13.43	17.07	20.93		25.00	29.23	33.56	38.17	42.96		48.44		6 / 3			
reaction time	0.152	interval		3.90	3.70	3.64	3.86		4.07	4.23	4.33	4.61	4.79	5.48				11.24	12.16	13.73
		velocity	7.72	8.97	9.46	9.62	9.07		8.60	8.27	8.08	7.59	7.31	7.30	8.26			9.34	8.63	7.65
H1 lead leg	L	strides	20	13	13	13	13		13	14	14	14	14	17.2	158.2					
<b>Heat 4 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>																<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>				
date	20-Aug-23	time	5.90	9.73	13.50	17.36	21.13		25.17		33.70	38.23	42.90		48.36		9 / 2			
reaction time	0.167	interval		3.83	3.77	3.86	3.77		4.04		8.53	4.53	4.67	5.46				11.46		
		velocity	7.63	9.14	9.28	9.07	9.28		8.66		8.21	7.73	7.49	7.33	8.27			9.16		
H1 lead leg	L	strides	20	13	13	13	13		13			14	14	17	130					
<b>FINAL - 2023 Herculis Meeting International d'Athlétisme (Monaco, MON)</b>																<i>Omega Timing (2023) - diamond league race analysis</i>				
date	21-Jul-23	time	5.64	9.25	12.92	16.67	20.54		24.53	28.66	32.99	37.55	42.29		47.84		5 / 3			
reaction time	0.148	interval		3.61	3.67	3.75	3.87		3.99	4.13	4.33	4.56	4.74	5.55				11.03	11.99	13.63
		velocity	7.98	9.70	9.54	9.33	9.04		8.77	8.47	8.08	7.68	7.38	7.21	8.36			9.52	8.76	7.70
H1 lead leg	L	strides	20	13	13	13				13	14	14	15		115					
<b>FINAL - 2023 USATF National Championships (Eugene, OR) (TV Analysis)</b>																<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>				
date	09-Jul-23	time	5.87	9.54	13.24	17.01	20.82		24.79	28.86	33.23	37.80	42.54		48.18		4 / 2			
reaction time		interval		3.67	3.70	3.77	3.81		3.97	4.07	4.37	4.57	4.74	5.64				11.14	11.85	13.68
		velocity	7.67	9.54	9.46	9.28	9.19		8.82	8.60	8.01	7.66	7.38	7.09	8.30			9.43	8.86	7.68
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	14	14	17.7	156.7					
<b>FINAL - 2023 Bislett Games (Oslo, NOR)</b>																<i>Omega Timing (2023) - diamond league race analysis</i>				
date	15-Jun-23	time	5.64	9.28	12.99	16.80	20.68		24.64	28.75	33.09	37.50	42.06		47.58		6 / 2			
reaction time	0.170	interval		3.64	3.71	3.81	3.88		3.96	4.11	4.34	4.41	4.56	5.52	<b>PB</b>			11.16	11.95	13.31
		velocity	7.98	9.62	9.43	9.19	9.02		8.84	8.52	8.06	7.94	7.68	7.25	8.41			9.41	8.79	7.89
H1 lead leg	L	strides	22	13	13	13	13		13	14	14	14	14	17	160					
<b>FINAL - 2023 Meeting de Paris (Paris, FRA)</b>																<i>Omega Timing (2023) - diamond league race analysis</i>				
date	09-Jun-23	time	5.72	9.43	13.27	17.20	21.14		25.08	29.10	33.34	37.78	42.36		47.92		7 / 1			
reaction time	0.138	interval		3.71	3.84	3.93	3.94		3.94	4.02	4.24	4.44	4.58	5.56				11.48	11.90	13.26
		velocity	7.87	9.43	9.11	8.91	8.88		8.88	8.71	8.25	7.88	7.64	7.19	8.35			9.15	8.82	7.92
H1 lead leg	L	strides	20	13	13	13	13		13	13	14	14	14	17	157					
<b>FINAL - 2023 FBK Games (Hengelo, NED)</b>																<i>Omega Timing (2023) - continental tour race analysis</i>				
date	04-Jun-23	time	5.75	9.46	13.29	17.17	21.12		25.14	29.27	33.59	38.10	42.73		48.24		6 / 1			
reaction time	0.166	interval		3.71	3.83	3.88	3.95		4.02	4.13	4.32	4.51	4.63	5.51				11.42	12.10	13.46
		velocity	7.83	9.43	9.14	9.02	8.86		8.71	8.47	8.10	7.76	7.56	7.26	8.29			9.19	8.68	7.80
H1 lead leg	L	strides	21	13	13	13	13		13	13	14	14	14	17	158					
<b>FINAL - 2023 Doha Diamond League (Doha, QAT)</b>																<i>Omega Timing (2023) - diamond league race analysis</i>				
date	05-May-23	time	5.66	9.29	13.06	16.93	20.89		24.94	29.12	33.47	37.96	42.49		47.93		3 / 2			
reaction time	0.144	interval		3.63	3.77	3.87	3.96		4.05	4.18	4.35	4.49	4.53	5.44	<b>PB</b>			11.27	12.19	13.37
		velocity	7.95	9.64	9.28	9.04	8.84		8.64	8.37	8.05	7.80	7.73	7.35	8.35			9.32	8.61	7.85
H1 lead leg	L	strides	20	13	13	13	13		13	13	14	14	14	17	157					
<b>FINAL - 2022 Weltklasse (Zürich, SUI) (TV Analysis)</b>																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	08-Sep-22	time	5.74	9.41		17.05	20.92	22.43	24.89	28.96	33.30	37.80	42.64		48.21		3 / 3			

reaction time	0.159	interval	3.67	7.64	3.87	3.97	4.07	4.34	4.50	4.84	5.57	11.31	11.91	13.68				
		velocity	7.84	9.54	9.16	9.04	8.92	8.82	8.60	8.06	7.78	7.23	7.18	8.30				
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	15	17.5	132.5	9.28	8.82	7.68		
<b>FINAL - 2022 Memorial van Damme (Brussels, BEL) (TV Analysis)</b>														<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	02-Sep-22	time	5.80	9.47	13.28	21.12	22.77	25.19	29.29	33.56	38.04	42.61	47.96	2 / 3				
reaction time	0.178	interval	3.67	3.81	7.84	4.07	4.10	4.27	4.48	4.57	5.35	DQ	13.32					
		velocity	7.76	9.54	9.19	8.93	8.78	8.60	8.54	8.20	7.81	7.66	7.48	8.34	7.88			
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	14	17	130					
<b>FINAL - 2022 NACAC Championships (Freeport, BAH) (TV Analysis)</b>														<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	21-Aug-22	time	5.73	9.50	13.36	17.20	21.16	25.23	29.33	33.60	38.00	48.23	3 / 3					
reaction time		interval	3.77	3.86	3.84	3.96	4.07	4.10	4.27	4.40	11.47	12.13						
		velocity	7.85	9.28	9.07	9.11	8.84	8.60	8.54	8.20	7.95	8.29	9.15	8.66				
H1 lead leg	L	strides	13	13	13	13	13	13	14	14	93							
<b>FINAL - 2022 Silesia Kamila Skolimowska Memorial (Chorzów, POL) (TV Analysis)</b>														<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	06-Aug-22	time	5.86	9.56	13.50	17.46	21.53	23.21	25.66	29.93	34.30	38.83	43.53	49.01	7 / 6			
reaction time	0.152	interval	3.70	3.94	3.96	4.07	4.13	4.27	4.37	4.53	4.70	5.48	11.60	12.47	13.60			
		velocity	7.68	9.46	8.88	8.84	8.60	8.62	8.47	8.20	8.01	7.73	7.45	7.30	8.16	9.05	8.42	7.72
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	15	18	146					
<b>FINAL - 2022 Bauhaus Galan (Stockholm, SWE) (TV Analysis)</b>														<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	30-Jun-22	time	5.86	9.64	13.46	17.38	21.34	22.98	25.38	29.54	33.84	38.22	42.86	48.28	3 / 2			
reaction time	0.138	interval	3.78	3.82	3.92	3.96	4.04	4.16	4.30	4.38	4.64	5.42	11.52	12.16	13.32			
		velocity	7.68	9.26	9.16	8.93	8.84	8.70	8.66	8.41	8.14	7.99	7.54	7.38	8.29	9.11	8.63	7.88
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	14	15	17.5	158.5				
<b>FINAL - 2022 USATF National Championships (Eugene, OR) (TV Analysis)</b>														<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	26-Jun-22	time	6.04	9.77	13.61	17.51	21.52	23.15	25.55	29.76	34.03	38.44	42.94	48.17	8 / 4			
reaction time		interval	3.73	3.84	3.90	4.01	4.03	4.21	4.27	4.41	4.50	5.23	PB	11.47	12.25	13.18		
		velocity	7.45	9.38	9.11	8.97	8.73	8.64	8.68	8.31	8.20	7.94	7.78	7.65	8.30	9.15	8.57	7.97
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	14	14	17.5	158.5				
<b>FINAL - 2022 Prefontaine Classic (Eugene, OR) (TV Analysis)</b>														<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	28-May-22	time	5.70	9.36	13.13	17.00	21.00	22.74	25.10	29.33	33.70	38.33	43.13	48.76	5 / 6			
reaction time	0.156	interval	3.66	3.77	3.87	4.00	4.10	4.23	4.37	4.63	4.80	5.63	11.30	12.33	13.80			
		velocity	7.89	9.56	9.28	9.04	8.75	8.80	8.54	8.27	8.01	7.56	7.29	7.10	8.20	9.29	8.52	7.61
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	15	15	142					
<b>Semi-Final 1 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)</b>														<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>				
date	25-Jun-21	time	6.10	10.00	13.90	17.87	21.97	26.10	30.47	34.93	39.50	44.30	49.72	3 / 4				
reaction time	0.225	interval	3.90	3.90	3.97	4.10	4.13	4.37	4.46	4.57	4.80	5.42	11.77	12.60	13.83			
		velocity	7.38	8.97	8.97	8.82	8.54	8.47	8.01	7.85	7.66	7.29	7.38	8.05	8.92	8.33	7.59	
H1 lead leg	L	strides	19	13	13	13	13	13	14	15	15	18.2	146.2					
<b>Heat 2 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)</b>														<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>				
date	24-Jun-21	time	5.94	9.71	13.54	17.55	21.65	25.89	30.30	34.67	39.26	43.91	49.45	4 / 4				
reaction time	0.235	interval	3.77	3.83	4.01	4.10	4.24	4.41	4.37	4.59	4.65	5.54	11.61	12.75	13.61			
		velocity	7.58	9.28	9.14	8.73	8.54	8.25	7.94	8.01	7.63	7.53	7.22	8.09	9.04	8.24	7.71	
H1 lead leg	L	strides	13	13	13	13	14	14	14	15	15	18	128					
<b>Alonso, José (ESP) (1957)</b>																		
		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>Semi-Final 1 - 1988 Olympic Games (Seoul, KOR)</b>														<i>Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988</i>				
date	24-Sep-88	time	6.05	9.89	13.77	17.70	21.74	25.95	30.26	34.71	39.40	44.20	49.57	8 / 6				
reaction time		interval	3.84	3.88	3.93	4.04	4.21	4.31	4.45	4.69	4.80	5.37	11.65	12.56	13.94			
		velocity	7.44	9.11	9.02	8.91	8.66	8.31	8.12	7.87	7.46	7.29	7.45	8.07	9.01	8.36	7.53	
H1 lead leg		strides	21	14	14	14	14	14	14	15	15	15	18	168				
<b>Alozidis, Minás (GRE) (1984)</b>																		
		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL - 2006 European Championships (Göteborg, SWE)</b>														<i>Behm (2006) - Göteborg 2006: Le quatrace</i>				
date	10-Aug-06	time	5.9	9.5	13.4	17.4	21.4	25.5	29.7	34.3	38.9	43.8	49.61	1 / 7				
reaction time		interval	3.60	3.90	4.00	4.00	4.10	4.20	4.60	4.60	4.90	5.81	11.50	12.30	14.10			
		velocity	7.63	9.72	8.97	8.75	8.75	8.54	8.33	7.61	7.61	7.14	6.88	8.06	9.13	8.54	7.45	
H1 lead leg	L	strides	21	13	13	13	14	14	15	15	15	16	149					
<b>Andersson, Isak (SWE) (1996)</b>																		
		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL - 2017 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)</b>														<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>				
date	18-Jun-17	time	6.08	9.96	18.16	22.36	26.64	31.12	35.64	40.24	44.92	50.50	1 / 7					
reaction time	0.202	interval	3.88	8.20	4.20	4.20	4.28	4.48	4.52	4.60	4.68	5.58	PB	12.08	12.96	13.80		
		velocity	7.40	9.02	8.54	8.33	8.18	7.81	7.74	7.61	7.48	7.17	7.92	8.69	8.10	7.61		
H1 lead leg	R	strides	23	15	15	15	15	15	15	15	15	15	113					
<b>Anderson, Jeshua (USA) (1989)</b>																		
		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL - 2016 USA Olympic Trials (Eugene, OR) (TV Analysis)</b>														<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>				
date	10-Jul-16	time	6.00	9.67	13.45	17.35	21.39	25.49	29.73	34.13	38.74	43.58	49.42	8 / 6				
reaction time	0.191	interval	3.67	3.78	3.90	4.04	4.10	4.24	4.40	4.61	4.84	5.84	DQ	11.35	12.38	13.85		

H1 lead leg	L	velocity	7.50	9.54	9.26	8.97	8.66		8.54	8.25	7.95	7.59	7.23	6.85	8.09		9.25	8.48	7.58
		strides	20	13	13	13	13		13	13	13	14	14	17	156				
<b>Andrade, Jordin (CPV) (1992)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>Heat 4 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>			<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>																
date	30-Jul-21	time	6.10	9.86	13.83	17.86	22.20		26.46	30.96		40.07	44.96		50.64	7 / 7			
reaction time	0.202	interval		3.76	3.97	4.03	4.34		4.26	4.50		9.11	4.89	5.68			11.76	13.10	14.00
		velocity	7.38	9.31	8.82	8.68	8.06		8.22	7.78		7.68	7.16	7.04	7.90		8.93	8.02	7.50
H1 lead leg	L	strides	22	14	14	14	14		15	15		15	15	138					
<b>Angela, Ramsey (NED) (1999)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>Semi-Final 3 - 2022 European Athletics Championships (Munich, GER)</b>			<i>European Athletics (2022) - european athletics championships race analysis</i>																
date	18-Aug-22	time	5.95	9.64	13.50	17.39	21.52	23.36	25.75	30.15	34.62	39.23	44.08		49.99	8 / 8			
reaction time	0.203	interval		3.69	3.86	3.89	4.13		4.23	4.40	4.47	4.61	4.85	5.91			11.44	12.76	13.93
		velocity	7.56	9.49	9.07	9.00	8.47	8.56	8.27	7.95	7.83	7.59	7.22	6.77	8.00		9.18	8.23	7.54
H1 lead leg	R	strides	22				14		14	14	15	15	15	18	127				
<b>Heat 2 - 2022 European Athletics Championships (Munich, GER)</b>			<i>European Athletics (2022) - european athletics championships race analysis</i>																
date	17-Aug-22	time	6.03	9.85	13.77	17.75	21.89	23.73	26.12	30.45	34.97	39.47	44.10		49.51	3 / 2			
reaction time	0.237	interval		3.82	3.92	3.98	4.14		4.23	4.33	4.52	4.50	4.63	5.41			11.72	12.70	13.65
		velocity	7.46	9.16	8.93	8.79	8.45	8.43	8.27	8.08	7.74	7.78	7.56	7.39	8.08		8.96	8.27	7.69
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	15	18.2	171.2				
<b>FINAL - 2022 Silesia Kamila Skolimowska Memorial (Chorzów, POL) (TV Analysis)</b>			<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>																
date	06-Aug-22	time	6.03	9.73	13.70	17.73	21.90	29.90				40.03			50.98	1 / 9			
reaction time	0.188	interval		3.70	3.97	4.03	4.17					18.13					11.70		
		velocity	7.46	9.46	8.82	8.68	8.39	6.69				7.72			7.85		8.97		
H1 lead leg	R	strides	22	15	15		14							66					
<b>Semi-Final 1 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)</b>			<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>																
date	17-Jul-22	time	5.90	9.70	13.57	17.56	21.67	23.51	25.90	30.17	34.67	39.40	44.23		49.77	4 / 4			
reaction time	0.155	interval		3.80	3.87	3.99	4.11		4.23	4.27	4.50	4.73	4.83	5.54			11.66	12.61	14.06
		velocity	7.63	9.21	9.04	8.77	8.52	8.51	8.27	8.20	7.78	7.40	7.25	7.22	8.04		9.01	8.33	7.47
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	15	18.2	171.2				
<b>Heat 5 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)</b>			<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>																
date	16-Jul-22	time	6.17	10.13	14.13	18.16	22.33	24.10		30.77	35.17	39.70	44.26		49.62	3 / 2			
reaction time	0.182	interval		3.96	4.00	4.03	4.17		4.44	4.40	4.53	4.56	5.36				11.99	12.61	13.49
		velocity	7.29	8.84	8.75	8.68	8.39	8.30		8.29	7.95	7.73	7.68	7.46	8.06		8.76	8.33	7.78
H1 lead leg	R	strides	22	14	14	14	14				15	15	15	18	141				
<b>FINAL - 2022 Bislett Games (Oslo, NOR) (TV Analysis)</b>			<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>																
date	16-Jun-22	time	5.92	9.68	13.52	17.52	21.84	23.62	26.18	30.58	34.78	39.68	44.52		50.21	2 / 8			
reaction time	0.184	interval		3.76	3.84	4.00	4.32		4.34	4.40	4.20	4.90	4.84	5.69			11.60	13.06	13.94
		velocity	7.60	9.31	9.11	8.75	8.10	8.47	8.06	7.95	8.33	7.14	7.23	7.03	7.97		9.05	8.04	7.53
H1 lead leg	R	strides	22	14	14	14	16		15		15	15	15	18.5	158.5				
<b>FINAL - 2021 Weltklasse (Zürich, SUI) (TV Analysis)</b>			<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>																
date	09-Sep-21	time	6.04				21.72	23.4	25.92	30.24		39.28	44.00		49.39	2 / 6			
reaction time	0.167	interval					15.68		4.20	4.32		9.04	4.72	5.39					13.76
		velocity	7.45				8.93	8.55	8.33	8.10		7.74	7.42	7.42	8.10				7.63
H1 lead leg	R	strides	22						15	15				18	70				
<b>FINAL - 2021 Memorial van Damme (Brussels, BEL) (TV Analysis)</b>			<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>																
date	03-Sep-21	time	6.08	9.96	13.80	17.84	21.92	23.7	26.12	30.44	34.88	39.48	44.24		49.53	2 / 6			
reaction time	0.197	interval		3.88	3.84	4.04	4.08		4.20	4.32	4.44	4.60	4.76	5.29			11.76	12.60	13.80
		velocity	7.40	9.02	9.11	8.66	8.58	8.44	8.33	8.10	7.88	7.61	7.35	7.56	8.08		8.93	8.33	7.61
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	15	18	171				
<b>FINAL - 2021 Bislett Games (Oslo, NOR) (TV Analysis)</b>			<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>																
date	01-Jul-21	time	6.08	9.96		18.02	22.16		26.44		35.26	39.90	44.54		49.81	1 / 6			
reaction time	0.199	interval		3.88		8.06	4.14		4.28		8.82	4.64	4.64	5.27			11.94		
		velocity	7.40	9.02		8.68	8.45		8.18		7.94	7.54	7.54	7.59	8.03		8.79		
H1 lead leg	R	strides	22	14					15			15	15	81					
<b>FINAL - 2020 ISTAF (Berlin, GER) (TV Analysis)</b>			<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>																
date	13-Sep-20	time	5.96	9.84	13.68	17.72	22.00		26.36	30.88	35.52	40.36		51.25	8 / 7				
reaction time	0.195	interval		3.88	3.84	4.04	4.28		4.36	4.52	4.64	4.84					11.76	13.16	
		velocity	7.55	9.02	9.11	8.66	8.18		8.03	7.74	7.54	7.23		7.80			8.93	7.98	
H1 lead leg	R	strides	22	14	14	14	14		15	15		14		122					
<b>FINAL - 2020 Bauhaus Galan (Stockholm, SWE) (TV Analysis)</b>			<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>																
date	23-Aug-20	time	6.16		13.90	17.94	22.12	24.0	26.44		35.58	40.42	45.50		51.90	1 / 8			
reaction time	0.210	interval			7.74	4.04	4.18		4.32		9.14	4.84	5.08	6.40			11.78		
		velocity	7.31		9.04	8.66	8.37	8.33	8.10		7.66	7.23	6.89	6.25	7.71		8.91		
H1 lead leg	R	strides	21	14		14	14		15			15	16	109					



Aragaki, Hayato (JPN)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<b>FINAL</b> - 2020 Japanese High School National Championships (Hiroshima, JPN)												<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>							
date	25-Oct-20	time	6.36	10.48	14.75	19.15	23.64	28.23	33.05	38.07	43.26	48.18		53.30	2 / 7				
reaction time	0.211	interval		4.12	4.27	4.40	4.49	4.59	4.82	5.02	5.19	4.92	5.12			12.79	13.90	15.13	
		velocity	7.08	8.50	8.20	7.95	7.80	7.63	7.26	6.97	6.74	7.11	7.81	7.50		8.21	7.55	6.94	
H1 lead leg	R	strides	22	15	15	15	15	15	15	15	17	17	19.2	180.2					
Arisaka, Tomotaka (JPN) (1999)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<b>FINAL</b> - 2017 Japanese National High School Championships (Yamagata, JPN)												<i>Kota (2017) - 70th high school championships: JAF scientific committee- biomechanics data</i>							
date	31-Jul-17	time	6.26	10.36	14.56	18.94	23.47	28.13	32.75	37.49	42.29	47.13		52.58	4 / 5				
reaction time	0.200	interval		4.10	4.20	4.38	4.53	4.66	4.62	4.74	4.80	4.84	5.45			12.68	13.81	14.38	
		velocity	7.19	8.54	8.33	7.99	7.73	7.51	7.58	7.38	7.29	7.23	7.34	7.61		8.28	7.60	7.30	
H1 lead leg		strides		14	14	14	14	15	15	15	15	15		131					
<b>FINAL</b> - 2016 Japanese National High School Championships (Okayama, JPN)												<i>Kota (2016) - 69th high school championships: JAF scientific committee- biomechanics data</i>							
date	31-Jul-16	time	6.21	10.23	14.48	18.85	23.17	27.71	32.33	37.07	41.81	46.48		51.81	2 / 2				
reaction time	0.147	interval		4.02	4.25	4.37	4.32	4.54	4.62	4.74	4.74	4.67	5.33			12.64	13.48	14.15	
		velocity	7.25	8.71	8.24	8.01	8.10	7.71	7.58	7.38	7.38	7.49	7.50	7.72		8.31	7.79	7.42	
H1 lead leg		strides		14	14	14	14	15	15	15	15	15		131					
Arkhipenko, Vasily (URS) (1957)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<b>FINAL</b> - 1980 Olympic Games (Moscow, URS)												<i>Behm (1999) - Les chiffres: Les podiums de tous les championnats</i>							
		time					21.5							48.86	2 / 2				
reaction time	0.137	interval																	
		velocity					8.60							8.19					
H1 lead leg		strides		15	15	15	15	15	15	15	15	15		135					
Armstrong, Sherman (USA) (1978)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<b>FINAL</b> - 2003 USATF National Championships (Palo Alto, CA)												<i>USATF Women's Sprint Development (2003)</i>							
date	22-Jun-03	time	5.97	9.81	13.71	17.62	21.71	26.01	30.40	34.87	39.49	44.33		49.89	7 / 5-4				
reaction time		interval		3.84	3.90	3.91	4.09	4.30	4.39	4.47	4.62	4.84	5.56			11.65	12.78	13.93	
		velocity	7.54	9.11	8.97	8.95	8.56	8.14	7.97	7.83	7.58	7.23	7.19	8.02		9.01	8.22	7.54	
H1 lead leg		strides																	
Azemia, Ned (SEY) (1997)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<b>Heat 2</b> - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)												<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>							
date	30-Jul-21	time	6.10	9.93	13.85	17.98	22.10	26.37	30.76	35.50	40.43	45.56		51.67	3 / 8				
reaction time	0.151	interval		3.83	3.92	4.13	4.12	4.27	4.39	4.74	4.93	5.13	6.11			11.88	12.78	14.80	
		velocity	7.38	9.14	8.93	8.47	8.50	8.20	7.97	7.38	7.10	6.82	6.55	7.74		8.84	8.22	7.09	
H1 lead leg	L	strides	23	15	15	15	15	15	15	16	16	16		161					
Babineaux, Ricky (USA) (1990)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<b>FINAL</b> - 2016 USA Olympic Trials (Eugene, OR) (TV Analysis)												<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>							
date	10-Jul-16	time	6.00	9.84	13.68	17.62	21.59	25.66	30.03	34.53	39.10	43.74		48.88	4 / 4				
reaction time	0.187	interval		3.84	3.84	3.94	3.97	4.07	4.37	4.50	4.57	4.64	5.14	<b>PB</b>		11.62	12.41	13.71	
		velocity	7.50	9.11	9.11	8.88	8.82	8.60	8.01	7.78	7.66	7.54	7.78	8.18		9.04	8.46	7.66	
H1 lead leg	R	strides	20	13	13	13	13	13	14	14	14	14	17.5	158.5					
Bäckman, Mattias (SWE) (1991)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<b>FINAL</b> - 2011 Fridrott (Stockholm, SWE)												<i>Blomkvist (2011) - www.elitlandslag.se/SprintHäck/LängSprintHäck.aspx</i>							
date	07-Jun-11	time	6.72	11.00	15.44	19.78	24.34	29.02	33.90	38.66	43.90	49.04		54.66	1 / 1				
reaction time		interval		4.28	4.44	4.34	4.56	4.68	4.88	4.76	5.24	5.14	5.62			13.06	14.12	15.14	
		velocity	6.70	8.18	7.88	8.06	7.68	7.48	7.17	7.35	6.68	6.81	7.12	7.32		8.04	7.44	6.94	
H1 lead leg	L	strides		15	15	15	15	15	15	15	15	15	19	154					
Bai Jiahao (CHN)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<b>U18 FINAL</b> - 2022 Shandong Provincial Games (Rizhao, CHN) (84cm)												<i>Shandong Athletics Sport Science (2022)</i>							
date	03-Sep-22	time	6.49	10.78	15.14	19.57	24.23	29.08	33.92	38.93	43.88	49.02		55.21	6 / 3				
reaction time	0.214	interval		4.29	4.36	4.43	4.66	29.08	4.84	5.01	4.95	5.14	6.19			13.08	14.35	15.10	
		velocity	6.93	8.16	8.03	7.90	7.51	1.20	7.23	6.99	7.07	6.81	6.46	7.25		8.03	7.32	6.95	
H1 lead leg	L	strides	22	15	15	15	15	15	15	16	16	16	18.7	178.7					
Bai Jiarui (CHN) (1995)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<b>Heat 2</b> - 2021 Chinese National Championships (Chongqing, CHN)												<i>CAA Hurdle Development (2021)</i>							
date	26-Jun-21	time	6.63	10.87	15.15	19.53	24.00	28.74	33.65	38.52				54.19	8 / 5				
reaction time	0.299	interval		4.24	4.28	4.38	4.47	4.74	4.91	4.87						12.90	14.12		
		velocity	6.79	8.25	8.18	7.99	7.83	7.38	7.13	7.19				7.38		8.14	7.44		
H1 lead leg	L	strides	22	14	14	14	14	14	14	15				121					
<b>FINAL</b> - 2021 East China District Meeting (Zhaoqing, CHN)												<i>CAA Hurdle Development (2021)</i>							
date	25-Apr-21	time	6.51	10.76	15.09	19.56	24.10	28.75	33.50	38.40	43.38	48.40		53.92	8 / 7				
reaction time	0.279	interval		4.25	4.33	4.47	4.54	4.65	4.75	4.90	4.98	5.02	5.52			13.05	13.94	14.90	
		velocity	6.91	8.24	8.08	7.83	7.71	7.53	7.37	7.14	7.03	6.97	7.25	7.42		8.05	7.53	7.05	
H1 lead leg	L	strides	22	14	14	14	14	14	14	15	15	15	17	168					
<b>Heat 2</b> - 2021 East China District Meeting (Zhaoqing, CHN)												<i>CAA Hurdle Development (2021)</i>							
date	25-Apr-21	time	6.41	10.58	14.83	19.13	23.49	27.93	32.51	37.17	42.04	46.96		52.34	5 / 3				

reaction time	0.233	interval	4.17	4.25	4.30	4.36	4.44	4.58	4.66	4.87	4.92	5.38	12.72	13.38	14.45		
		velocity	7.02	8.39	8.24	8.14	8.03	7.88	7.64	7.51	7.19	7.11	7.43	7.64	8.25	7.85	7.27
H1 lead leg	L	strides	22	14	14	14	14	14	14	15	15	15	17	168			

**Bailey, Aldrich (USA) (1994)**

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<b>FINAL - 2024 USA Olympic Trials (Eugene, OR)</b>													<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>					
date	30-Jun-24	time	5.75	9.47	13.28	17.15	21.05	22.86	25.20	29.52	34.29	39.12	43.83	49.73	3 / 6			
reaction time		interval		3.72	3.81	3.87	3.90		4.15	4.32	4.77	4.83	4.71	5.90		11.40	12.37	14.31
		velocity	7.83	9.41	9.19	9.04	8.97	8.75	8.43	8.10	7.34	7.25	7.43	6.78	8.04	9.21	8.49	7.34
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	14	14	17.5	159.5			

**Semi-Final 3 - 2024 USA Olympic Trials (Eugene, OR)**

<b>Semi-Final 3 - 2024 USA Olympic Trials (Eugene, OR)</b>													<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>					
date	28-Jun-24	time	5.87	9.58	13.32	17.09	21.01	22.79	25.01	29.26	33.83	38.63	43.20	48.69	6 / 3			
reaction time		interval		3.71	3.74	3.77	3.92		4.00	4.25	4.57	4.80	4.57	5.49		11.22	12.17	13.94
		velocity	7.67	9.43	9.36	9.28	8.93	8.78	8.75	8.24	7.66	7.29	7.66	7.29	8.22	9.36	8.63	7.53
H1 lead leg	L	strides	21	13	13	13	13		13	13	14	14	14	17	158			

**Heat 4 - 2024 USA Olympic Trials (Eugene, OR)**

<b>Heat 4 - 2024 USA Olympic Trials (Eugene, OR)</b>													<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>					
date	27-Jun-24	time	5.98	9.72	13.59	17.55	21.53	23.37	25.70	30.10	34.89	39.71	44.72	50.41	3 / 2			
reaction time		interval		3.74	3.87	3.96	3.98		4.17	4.40	4.79	4.82	5.01	5.69		11.57	12.55	14.62
		velocity	7.53	9.36	9.04	8.84	8.79	8.56	8.39	7.95	7.31	7.26	6.99	7.03	7.93	9.08	8.37	7.18
H1 lead leg	L	strides	21	13	13	13	13		13	13	14	14	14	17	158			

**FINAL - 2022 USATF National Championships (Eugene, OR) (TV Analysis)**

<b>FINAL - 2022 USATF National Championships (Eugene, OR) (TV Analysis)</b>													<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	26-Jun-22	time	6.00	9.71	13.48	17.25	21.12	22.83	25.22	29.79	34.40	39.14	43.91	49.43	9 / 7			
reaction time		interval		3.71	3.77	3.77	3.87		4.10	4.57	4.61	4.74	4.77	5.52		11.25	12.54	14.12
		velocity	7.50	9.43	9.28	9.28	9.04	8.76	8.54	7.66	7.59	7.38	7.34	7.25	8.09	9.33	8.37	7.44
H1 lead leg	L	strides	21	13	13	12	12		13	14	13	14	14	139				

**FINAL - 2021 Herculis Meeting International d'Athletisme (Monaco, MON) (TV Analysis)**

<b>FINAL - 2021 Herculis Meeting International d'Athletisme (Monaco, MON) (TV Analysis)</b>													<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>					
date	09-Jul-21	time	5.94	9.64	13.44	17.31	21.33	23.4	25.52	29.96	34.40			dnf	8 / --			
reaction time	0.225	interval		3.70	3.80	3.87	4.02		4.19	4.44	4.44					11.37	12.65	
		velocity	7.58	9.46	9.21	9.04	8.71	8.55	8.35	7.88	7.88					9.23	8.30	
H1 lead leg	L	strides	21	13	13	13	13		13	14	14			114				

**FINAL - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)**

<b>FINAL - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)</b>													<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>					
date	26-Jun-21	time	5.80	9.61	13.48	17.35	21.32		25.42	29.79	34.20	38.64	43.17	48.55	3 / 4			
reaction time	0.228	interval		3.81	3.87	3.87	3.97		4.10	4.37	4.41	4.44	4.53	5.38	<b>PB</b>	11.55	12.44	13.38
		velocity	7.76	9.19	9.04	9.04	8.82		8.54	8.01	7.94	7.88	7.73	7.43	8.24	9.09	8.44	7.85
H1 lead leg	L	strides		13	13	13	13			14	14	14	14	17.2	125.2			

**Semi-Final 2 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)**

<b>Semi-Final 2 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)</b>													<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>					
date	25-Jun-21	time	6.10	9.94	13.84	17.71	21.84		25.99	30.46	34.92	39.50	44.11	49.20	2 / 4			
reaction time	0.188	interval		3.84	3.90	3.87	4.13		4.15	4.47	4.46	4.58	4.61	5.09	<b>PB</b>	11.61	12.75	13.65
		velocity	7.38	9.11	8.97	9.04	8.47		8.43	7.83	7.85	7.64	7.59	7.86	8.13	9.04	8.24	7.69
H1 lead leg	L	strides		13	13	13	13			14	14	14	14	17	125			

**Bakketun, Andreas Haara (NOR) (200**

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL - 2024 Bislett Games (Oslo, NOR) (TV Analysis)</b>													<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>				
date	30-May-24	time	5.87	9.57	13.41	17.38		25.99		35.53	40.54		51.32	1 / 7			
reaction time	0.174	interval		3.70	3.84	3.97		8.61		9.54	5.01				11.51		
		velocity	7.67	9.46	9.11	8.82		8.13		7.34	6.99		7.79		9.12		
H1 lead leg	R	strides	21	14	14	14					15		78				

**FINAL - 2024 Trond Mohn Games (Bergen, NOR) (300m Hurdles) (TV Analysis)**

<b>FINAL - 2024 Trond Mohn Games (Bergen, NOR) (300m Hurdles) (TV Analysis)</b>													<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>				
date	22-May-24	time	6.42	10.10	14.00	18.03		26.43	30.70				35.42	6 / 2			
reaction time		interval		3.68	3.90	4.03		8.40	4.27			4.72	<b>PB</b>		11.61	12.67	
		velocity	7.01	9.51	8.97	8.68		8.33	8.20			8.47	8.47		9.04	8.29	
H1 lead leg	R	strides	24	13	14	14			15			17.7	97.7				

**Baluch, Matej (SVK) (2000)**

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<b>Heat 2 - 2024 European Athletics Championships (Roma, ITA)</b>													<i>European Athletics (2024) - 2024 european athletics championships - results book</i>					
date	09-Jun-24	time	5.91	9.69	13.56	17.59	21.73		25.96	30.38	35.07	40.80	46.01	52.17	6 / 8			
reaction time	0.216	interval		3.78	3.87	4.03	4.14		4.23	4.42	4.69	5.73	5.21	6.16		11.68	12.79	15.63
		velocity	7.61	9.26	9.04	8.68	8.45		8.27	7.92	7.46	6.11	6.72	6.49	7.67	8.99	8.21	6.72
H1 lead leg		strides												0				

**Semi-Final 1 - 2022 European Athletics Championships (Munich, GER)**

<b>Semi-Final 1 - 2022 European Athletics Championships (Munich, GER)</b>													<i>European Athletics (2022) - european athletics championships race analysis</i>					
date	18-Aug-22	time	5.95	9.76	13.87	17.95	22.09	23.90	26.23	30.63	35.25	40.19	45.18	50.93	2 / 7			
reaction time	0.268	interval		3.81	4.11	4.08	4.14		4.14	4.40	4.62	4.94	4.99	5.75		12.00	12.68	14.55
		velocity	7.56	9.19	8.52	8.58	8.45	8.37	8.45	7.95	7.58	7.09	7.01	6.96	7.85	8.75	8.28	7.22
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	16	16	20	180			

**Heat 2 - 2022 European Athletics Championships (Munich, GER)**

<b>Heat 2 - 2022 European Athletics Championships (Munich, GER)</b>													<i>European Athletics (2022) - european athletics championships race analysis</i>					
date	17-Aug-22	time	5.97	9.74	13.65	17.76	21.86	23.62	25.95	30.28	34.96	39.90	44.84	50.49	4 / 3			
reaction time	0.274	interval		3.77	3.91	4.11	4.10		4.09	4.33	4.68	4.94	4.94	5.65		11.79	12.52	14.56
		velocity	7.54	9.28	8.95	8.52	8.54	8.47	8.56	8.08	7.48	7.09	7.09	7.08	7.92	8.91	8.39	7.21

H1 lead leg	R	strides	23	15	15	15	15	16	16	20	135
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**FINAL - 2020 Golden Spike (Ostrava, CZE) (TV Analysis)***Henson (2020) - Athlete First: 2020 year end hurdle report*

date	08-Sep-20	time	6.00	9.78	17.55	21.55	30.26	35.13	40.07	45.14	50.74	4 / 4
reaction time	0.154	interval		3.78	7.77	4.00	8.71	4.87	4.94	5.07	5.60	=PB
		velocity	7.50	9.26	9.01	8.75	8.04	7.19	7.09	6.90	7.14	7.88
H1 lead leg	R	strides	23	15	15				17	17	87	

**Bánóczy, Árpád (HUN) (2002)**

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
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**Semi-Final 1 - 2024 European Athletics Championships (Roma, ITA)***European Athletics (2024) - 2024 european athletics championships - results book*

date	10-Jun-24	time	5.88	9.63	13.49	17.39	21.47	25.69	30.25	34.85	39.61	44.53	50.14	2 / 7			
reaction time	0.193	interval		3.75	3.86	3.90	4.08	4.22	4.56	4.60	4.76	4.92	5.61		11.51	12.86	14.28
		velocity	7.65	9.33	9.07	8.97	8.58	8.29	7.68	7.61	7.35	7.11	7.13	7.98	9.12	8.16	7.35
H1 lead leg	L	strides	21	14	14	14	14	14	15	15	19.5	140.5					

**Heat 3 - 2024 European Athletics Championships (Roma, ITA)***European Athletics (2024) - 2024 european athletics championships - results book*

date	09-Jun-24	time	5.94	9.69	13.63	17.67	21.77	25.99	30.41	34.87	39.63	44.38	49.95	6 / 3			
reaction time	0.217	interval		3.75	3.94	4.04	4.10	4.22	4.42	4.46	4.76	4.75	5.57		11.73	12.74	13.97
		velocity	7.58	9.33	8.88	8.66	8.54	8.29	7.92	7.85	7.35	7.37	7.18	8.01	8.95	8.24	7.52
H1 lead leg		strides											0				

**Barr, Thomas (IRL) (1992)**

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
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**Semi-Final 1 - 2024 European Athletics Championships (Roma, ITA)***European Athletics (2024) - 2024 european athletics championships - results book*

date	10-Jun-24	time	5.92	9.67	13.48	17.34	21.37	25.59	30.25	34.74	39.49	44.21	49.61	4 / 3			
reaction time	0.166	interval		3.75	3.81	3.86	4.03	4.22	4.66	4.49	4.75	4.72	5.40		11.42	12.91	13.96
		velocity	7.60	9.33	9.19	9.07	8.68	8.29	7.51	7.80	7.37	7.42	7.41	8.06	9.19	8.13	7.52
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	14	14	18.2	159.2			

**FINAL - 2023 FBK Games (Hengelo, NED)***Omega Timing (2023) - continental tour race analysis*

date	04-Jun-23	time	5.95	9.76	13.60	17.50	21.50	25.73	30.15	34.76	39.45	44.11	49.52	2 / 5			
reaction time	0.167	interval		3.81	3.84	3.90	4.00	4.23	4.42	4.61	4.69	4.66	5.41		11.55	12.65	13.96
		velocity	7.56	9.19	9.11	8.97	8.75	8.27	7.92	7.59	7.46	7.51	7.39	8.08	9.09	8.30	7.52
H1 lead leg	L	strides	20	13							14	14	17.7	78.7			

**FINAL - 2023 Doha Diamond League (Doha, QAT)***Omega Timing (2023) - diamond league race analysis*

date	05-May-23	time	5.95	9.79	13.71	17.77	21.92	26.26	30.76	35.30	39.89	44.53	49.88	8 / 7			
reaction time	0.159	interval		3.84	3.92	4.06	4.15	4.34	4.50	4.54	4.59	4.64	5.35		11.82	12.99	13.77
		velocity	7.56	9.11	8.93	8.62	8.43	8.06	7.78	7.71	7.63	7.54	7.48	8.02	8.88	8.08	7.63
H1 lead leg	L	strides	20	13	13	13	13	13	14		14	14	127				

**Semi-Final 1 - 2022 European Athletics Championships (Munich, GER)***European Athletics (2022) - european athletics championships race analysis*

date	18-Aug-22	time	6.03	9.84	13.67	17.56	21.52	23.31	25.67	30.09	34.64	39.20	43.90	49.30	8 / 3			
reaction time	0.208	interval		3.81	3.83	3.89	3.96	4.15	4.42	4.55	4.56	4.70	5.40		11.53	12.53	13.81	
		velocity	7.46	9.19	9.14	9.00	8.84	8.58	8.43	7.92	7.69	7.68	7.45	7.41	8.11	9.11	8.38	7.60
H1 lead leg	L	strides	20	13			13	13	14	14	14	14	18	133				

**Heat 2 - 2022 European Athletics Championships (Munich, GER)***European Athletics (2022) - european athletics championships race analysis*

date	17-Aug-22	time	5.95	9.77	13.63	17.58	21.56	23.35	25.68	30.06	34.79	39.42	44.13	49.49	2 / 1			
reaction time	0.214	interval		3.82	3.86	3.95	3.98	4.12	4.38	4.73	4.63	4.71	5.36		11.63	12.48	14.07	
		velocity	7.56	9.16	9.07	8.86	8.79	8.57	8.50	7.99	7.40	7.56	7.43	7.46	8.08	9.03	8.41	7.46
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	14	14	18	159				

**Semi-Final 1 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)***Henson (2022) - Athlete First: 2022 year end hurdle report*

date	17-Jul-22	time	5.96	9.77	13.62	17.57	21.67	23.53	25.93	30.30	34.80	39.57	44.40	50.08	5 / 3			
reaction time	0.157	interval		3.81	3.85	3.95	4.10	4.26	4.37	4.50	4.77	4.83	5.68		11.61	12.73	14.10	
		velocity	7.55	9.19	9.09	8.86	8.54	8.50	8.22	8.01	7.78	7.34	7.25	7.04	7.99	9.04	8.25	7.45
H1 lead leg	L	strides	20	13	13	13	13	14	14	14	15	15	18	162				

**Heat 4 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)***Henson (2022) - Athlete First: 2022 year end hurdle report*

date	16-Jul-22	time	6.23	10.16	14.10	17.96	21.96	23.65	26.17	30.53	34.93	39.46	44.06	49.15	8 / 2			
reaction time	0.160	interval		3.93	3.94	3.86	4.00	4.21	4.36	4.40	4.53	4.60	5.09		11.73	12.57	13.53	
		velocity	7.22	8.91	8.88	9.07	8.75	8.46	8.31	8.03	7.95	7.73	7.61	7.86	8.14	8.95	8.35	7.76
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	14	14	17.7	158.7				

**FINAL - 2022 Doha Diamond League (Doha, QAT) (TV Analysis)***Henson (2022) - Athlete First: 2022 year end hurdle report*

date	13-May-22	time	5.90	9.67	13.58	17.65	21.85	23.6	26.16	35.33	39.91	44.44	49.67	2 / 3			
reaction time	0.171	interval		3.77	3.91	4.07	4.20	4.31		9.17	4.58	4.53	5.23		11.75		
		velocity	7.63	9.28	8.95	8.60	8.33	8.47	8.12	7.63	7.64	7.73	7.65	8.05	8.94		
H1 lead leg	L	strides	20	13	13	13	13	13			14	14	113				

**Semi-Final 1 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)***Henson (2024) - Athlete First: 2021 year end hurdle report*

date	01-Aug-21	time	5.96	9.70	13.40	17.20	21.16	25.20	29.56	38.50	43.06	48.26	48.26	6 / 4			
reaction time	0.151	interval		3.74	3.70	3.80	3.96	4.04	4.36	8.94	4.56	5.20		11.24	12.36	13.50	
		velocity	7.55	9.36	9.46	9.21	8.84	8.66	8.03	7.83	7.68	7.69	8.29	8.29	9.34	8.50	7.78
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	14	18	159				

**Heat 3 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)***Henson (2024) - Athlete First: 2021 year end hurdle report*



date	30-Jul-21	time	6.10	9.82	13.63	17.63	21.64		25.85	30.27	34.76	39.30	43.82		49.02	7 / 2			
reaction time	0.147	interval		3.72	3.81	4.00	4.01		4.21	4.42	4.49	4.54	4.52	5.20			11.53	12.64	13.55
		velocity	7.38	9.41	9.19	8.75	8.73		8.31	7.92	7.80	7.71	7.74	7.69	8.16		9.11	8.31	7.75
H1 lead leg	L	strides	20	13	13	13	13		13	14	14	14	14	17.2	158.2				
<b>FINAL - 2021 Bislett Games (Oslo, NOR) (TV Analysis)</b>																	<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>		
date	01-Jul-21	time	5.98	9.78												dnf	4 / --		
reaction time	0.147	interval		3.80															
		velocity	7.53	9.21															
H1 lead leg	R	strides	21	14												35			
<b>FINAL - 2021 Doha Diamond League (Doha, QAT) (TV Analysis)</b>																	<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>		
date	28-May-21	time	6.07	9.94			23.9				35.50	40.09	44.68		49.91	1 / 7			
reaction time	0.204	interval		3.87							25.56	4.59	4.59	5.23					
		velocity	7.41	9.04			8.37				8.22	7.63	7.63	7.65	8.01				
H1 lead leg	L	strides	20	13								14	14		61				
<b>FINAL - 2020 ISTAF (Berlin, GER) (TV Analysis)</b>																	<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>		
date	13-Sep-20	time	6.08		13.76	17.72			26.12	30.64	35.20	40.04			50.41	3 / 4			
reaction time	0.179	interval			7.68	3.96			8.40	4.52	4.56	4.84					11.64	12.92	
		velocity	7.40		9.11	8.84			8.33	7.74	7.68	7.23			7.93		9.02	8.13	
H1 lead leg	L	strides	21			13					14	15			63				
<b>Semi-Final 3 - 2019 IAAF World Championships (Doha, QAT)</b>																	<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>		
date	28-Sep-19	time	5.87	9.62	13.44	17.31	21.34		25.47	29.85	34.28	38.83	43.51		49.02	7 / 4			
reaction time	0.131	interval		3.75	3.82	3.87	4.03		4.13	4.38	4.43	4.55	4.68	5.51			11.44	12.54	13.66
		velocity	7.67	9.33	9.16	9.04	8.68		8.47	7.99	7.90	7.69	7.48	7.26	8.16		9.18	8.37	7.69
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	14	14	18.2	160.2				
<b>FINAL - 2019 Weltklasse (Zürich, SUI) (TV Analysis)</b>																	<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>		
date	29-Aug-19	time	5.98	9.76		17.60	21.62	23.3	25.72	30.06		39.16	43.84		49.17	1 / 6			
reaction time	0.127	interval		3.78		7.84	4.02		4.10	4.34		9.10	4.68	5.33			11.62	12.46	13.78
		velocity	7.53	9.26		8.93	8.71	8.58	8.54	8.06		7.69	7.48	7.50	8.14		9.04	8.43	7.62
H1 lead leg	L	strides	21	13			13		13	14			14		88				
<b>FINAL - 2019 Meeting de Paris (Paris, FRA) (TV Analysis)</b>																	<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>		
date	24-Aug-19	time	5.92	9.68	13.52	17.42	21.40	23.1	25.58	30.04	34.58	39.34	44.04		49.32	1 / 7			
reaction time	0.148	interval		3.76	3.84	3.90	3.98		4.18	4.46	4.54	4.76	4.70	5.28			11.50	12.62	14.00
		velocity	7.60	9.31	9.11	8.97	8.79	8.66	8.37	7.85	7.71	7.35	7.45	7.58	8.11		9.13	8.32	7.50
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	15	15	18	162				
<b>FINAL - 2019 Müller Grand Prix (Birmingham, GBR) (TV Analysis)</b>																	<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>		
date	18-Aug-19	time	6.08	9.96	13.84	17.80	21.88	23.7	26.12	30.68	35.28	39.92			50.16	8 / 5			
reaction time	0.171	interval		3.88	3.88	3.96	4.08		4.24	4.56	4.60	4.64					11.72	12.88	
		velocity	7.40	9.02	9.02	8.84	8.58	8.44	8.25	7.68	7.61	7.54			7.97		8.96	8.15	
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	15			129				
<b>FINAL - 2019 Bislett Games (Oslo, NOR) (TV Analysis)</b>																	<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>		
date	13-Jun-19	time	5.98	9.71	13.53		21.45	23.2	25.68	29.99	34.43	39.00	43.73		49.11	3 / 2			
reaction time	0.175	interval		3.73	3.82		7.92		4.23	4.31	4.44	4.57	4.73	5.38				29.99	13.74
		velocity	7.53	9.38	9.16		8.84	8.62	8.27	8.12	7.88	7.66	7.40	7.43	8.14			3.50	7.64
H1 lead leg	L	strides	21	13	13				13	14	14	14	15	18	135				
<b>FINAL - 2019 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)</b>																	<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>		
date	06-Jun-19	time	5.93	9.70	13.63	17.68	21.78		25.98	30.28	34.75	39.48	44.28		49.65	5 / 4			
reaction time	0.194	interval		3.77	3.93	4.05	4.10		4.20	4.30	4.47	4.73	4.80	5.37			11.75	12.60	14.00
		velocity	7.59	9.28	8.91	8.64	8.54		8.33	8.14	7.83	7.40	7.29	7.45	8.06		8.94	8.33	7.50
H1 lead leg	L	strides	20	13	13	13	13		13	13	14	15	15	18	160				
<b>FINAL - 2019 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)</b>																	<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>		
date	30-May-19	time	6.06	9.85	13.96	18.00	22.00	23.7	26.36	30.76	35.33	40.26	44.93		50.28	5 / 3			
reaction time	0.196	interval		3.79	4.11	4.04	4.00		4.36	4.40	4.57	4.93	4.67	5.35			11.94	12.76	14.17
		velocity	7.43	9.23	8.52	8.66	8.75	8.44	8.03	7.95	7.66	7.10	7.49	7.48	7.96		8.79	8.23	7.41
H1 lead leg	L	strides	21	13	13	13	13		14	14	14	16	15	18	164				
<b>FINAL - 2018 Müller Anniversary Games (London, GBR) (TV Analysis)</b>																	<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>		
date	21-Jul-18	time	6.04	9.84	13.76	17.76	21.80		25.96	30.40	34.80	39.28	43.80		48.99	8 / 3			
reaction time	0.186	interval		3.80	3.92	4.00	4.04		4.16	4.44	4.40	4.48	4.52	5.19			11.72	12.64	13.40
		velocity	7.45	9.21	8.93	8.75	8.66		8.41	7.88	7.95	7.81	7.74	7.71	8.16		8.96	8.31	7.84
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	14	14	18	160				
<b>FINAL - 2018 Bislett Games (Oslo, NOR) (TV Analysis)</b>																	<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>		
date	07-Jun-18	time	5.96	9.72			21.52	23.4	25.84	30.24	34.80	39.48	44.16		49.53	1 / 8			
reaction time	0.197	interval		3.76			11.80		4.32	4.40	4.56	4.68	4.68	5.37					13.92
		velocity	7.55	9.31			8.90	8.55	8.10	7.95	7.68	7.48	7.48	7.45	8.08				7.54
H1 lead leg	L	strides	21	13					14	14	14	14	15	18	123				



H1 lead leg	R	strides	20	13	13	13	13			13	13	14	17	129						
<b>Semi-Final 3 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>															<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>					
date	21-Aug-23	time	5.87	9.71	13.41	17.08	20.92		24.87	29.00	33.28		42.37		47.38		9 / 3			
reaction time	0.187	interval		3.84	3.70	3.67	3.84		3.95	4.13	4.28		9.09	5.01	<b>PB</b>			11.21	11.92	13.37
		velocity	7.67	9.11	9.46	9.54	9.11		8.86	8.47	8.18		7.70	7.98	8.44			9.37	8.81	7.85
H1 lead leg	R	strides	20	13	13	13	13		13	13	13		17	128						
<b>Heat 2 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>															<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>					
date	20-Aug-23	time	5.97	9.73		17.23	21.13		25.23	29.47	33.90	38.60	43.43		48.73		8 / 3			
reaction time	0.164	interval		3.76		7.50	3.90		4.10	4.24	4.43	4.70	4.83	5.30				11.26	12.24	13.96
		velocity	7.54	9.31		9.33	8.97		8.54	8.25	7.90	7.45	7.25	7.55	8.21			9.33	8.58	7.52
H1 lead leg	R	strides	20	13		13	13		13	13	13	14	14	16.2	129.2					
<b>FINAL - 2023 USATF National Championships (Eugene, OR) (TV Analysis)</b>															<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>					
date	09-Jul-23	time	5.94	9.64	13.38	17.18	21.15		25.25	29.49	33.80	38.30	43.01		48.26		6 / 3			
reaction time		interval		3.70	3.74	3.80	3.97		4.10	4.24	4.31	4.50	4.71	5.25				11.24	12.31	13.52
		velocity	7.58	9.46	9.36	9.21	8.82		8.54	8.25	8.12	7.78	7.43	7.62	8.29			9.34	8.53	7.77
H1 lead leg	R	strides	20	13		13	12	12	13	13	13	14	14	17	154					
<b>FINAL - 2023 Bislett Games (Oslo, NOR)</b>															<i>Omega Timing (2023) - diamond league race analysis</i>					
date	15-Jun-23	time	5.72	9.40	13.20	17.04	21.00		25.07	29.27	33.60	38.31	43.05		48.63		4 / 5			
reaction time	0.185	interval		3.68	3.80	3.84	3.96		4.07	4.20	4.33	4.71	4.74	5.58				11.32	12.23	13.78
		velocity	7.87	9.51	9.21	9.11	8.84		8.60	8.33	8.08	7.43	7.38	7.17	8.23			9.28	8.59	7.62
H1 lead leg	R	strides	20			13	13		13			14	13		86					
<b>FINAL - 2023 Meeting de Paris (Paris, FRA)</b>															<i>Omega Timing (2023) - diamond league race analysis</i>					
date	09-Jun-23	time	5.69	9.35	13.18	17.09	21.13		25.19	29.34	33.69	38.22	42.87		48.28		4 / 3			
reaction time	0.164	interval		3.66	3.83	3.91	4.04		4.06	4.15	4.35	4.53	4.65	5.41				11.40	12.25	13.53
		velocity	7.91	9.56	9.14	8.95	8.66		8.62	8.43	8.05	7.73	7.53	7.39	8.29			9.21	8.57	7.76
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	14	17	155					
<b>FINAL - 2023 Doha Diamond League (Doha, QAT)</b>															<i>Omega Timing (2023) - diamond league race analysis</i>					
date	05-May-23	time	5.89	9.67	13.54	17.50	21.57		25.77	30.13	34.61	39.32	43.99		49.52		7 / 5			
reaction time	0.158	interval		3.78	3.87	3.96	4.07		4.20	4.36	4.48	4.71	4.67	5.53				11.61	12.63	13.86
		velocity	7.64	9.26	9.04	8.84	8.60		8.33	8.03	7.81	7.43	7.49	7.23	8.08			9.04	8.31	7.58
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	14	20	158					
<b>FINAL - 2022 World Athletics Championships (Eugene, OR)</b>															<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>					
date	19-Jul-22	time	5.86	9.54	13.21	16.90	20.69	22.28	24.72	28.98	33.30	37.77	42.33		47.39		8 / 3			
reaction time	0.147	interval		3.68	3.67	3.69	3.79		4.03	4.26	4.32	4.47	4.56	5.06	<b>PB</b>			11.04	12.08	13.35
		velocity	7.68	9.51	9.54	9.49	9.23	8.98	8.68	8.22	8.10	7.83	7.68	7.91	8.44			9.51	8.69	7.87
H1 lead leg	R	strides	20	13	13	12	12		13	13	13	13	13	16.2	151.2					
<b>Semi-Final 2 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)</b>															<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	17-Jul-22	time	5.83	9.63	13.37	17.13	21.10	22.80	25.17	29.43	33.83	38.30	42.83		48.17		7 / 2			
reaction time	0.144	interval		3.80	3.74	3.76	3.97		4.07	4.26	4.40	4.47	4.53	5.34				11.30	12.30	13.40
		velocity	7.72	9.21	9.36	9.31	8.82	8.77	8.60	8.22	7.95	7.83	7.73	7.49	8.30			9.29	8.54	7.84
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	13	16	153					
<b>Heat 4 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)</b>															<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	16-Jul-22	time	6.03	9.93	13.86	17.76	21.80	23.45		30.16	34.66	39.26	43.90		49.17		3 / 4			
reaction time	0.146	interval		3.90	3.93	3.90	4.04		8.36	4.50	4.60	4.64	5.27					11.73	12.40	13.74
		velocity	7.46	8.97	8.91	8.97	8.66	8.53		8.37	7.78	7.61	7.54	7.59	8.14			8.95	8.47	7.64
H1 lead leg	R	strides	20	13	13	13	13			13	13	13	16	127						
<b>FINAL - 2022 USATF National Championships (Eugene, OR) (TV Analysis)</b>															<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	26-Jun-22	time	5.97	9.67	13.44	17.25	21.19	22.78	25.22	29.43	33.70	38.10	42.54		47.47		5 / 2			
reaction time		interval		3.70	3.77	3.81	3.94		4.03	4.21	4.27	4.40	4.44	4.93	<b>PB</b>			11.28	12.18	13.11
		velocity	7.54	9.46	9.28	9.19	8.88	8.78	8.68	8.31	8.20	7.95	7.88	8.11	8.43			9.31	8.62	8.01
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	16	153						
<b>FINAL - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)</b>															<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>					
date	26-Jun-21	time	5.88	9.64	13.51	17.45	21.55		25.76	30.20	34.87	39.54	44.38		50.03		2 / 8			
reaction time	0.206	interval		3.76	3.87	3.94	4.10		4.21	4.44	4.67	4.67	4.84	5.65				11.57	12.75	14.18
		velocity	7.65	9.31	9.04	8.88	8.54		8.31	7.88	7.49	7.49	7.23	7.08	8.00			9.08	8.24	7.40
H1 lead leg	R	strides		13	13	13	13			14	14	14	14		108					
<b>Semi-Final 2 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)</b>															<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>					
date	25-Jun-21	time	6.00	9.81	13.68	17.62	21.82		26.09	30.56	35.10	39.60	44.21		49.37		3 / 5			
reaction time	0.176	interval		3.81	3.87	3.94	4.20		4.27	4.47	4.54	4.50	4.61	5.16				11.62	12.94	13.65
		velocity	7.50	9.19	9.04	8.88	8.33		8.20	7.83	7.71	7.78	7.59	7.75	8.10			9.04	8.11	7.69
H1 lead leg	R	strides		13	13	13	13			13	14	13	14	17	123					
<b>Beck, Volker (GDR) (1956)</b>															<i>Beizer (1982) - in the distance: volker beck</i>					
date	26-Jun-81	time	6.27	9.95	13.83	17.68	21.92		25.91	30.27	34.70	39.13	44.01		49.14		1 / 1			



reaction time	interval	3.68	3.88	3.85	4.24		3.99	4.36	4.43	4.43	4.88	5.13		11.41	12.59	13.74		
	velocity	7.18	9.51	9.02	9.09	8.25	8.77	8.03	7.90	7.90	7.17	7.80	8.14	9.20	8.34	7.64		
H1 lead leg	strides	20	13	13	13	13	13	13	14	14	14	18	158					
<b>FINAL - 1980 Olympic Games (Moscow, URS)</b>													<i>Lamare (1980) - resultats complets et commentaires- Moscow 1980</i>					
date	26-Jul-80	time	6.2	10.1	13.8	17.7	21.7	25.8	30.1	34.5	39.0	43.6	48.70	8 / 1				
reaction time	0.161	interval	3.90	3.70	3.90	4.00	4.10	4.30	4.40	4.50	4.60	5.10		11.50	12.40	13.50		
		velocity	7.26	8.97	9.46	8.97	8.75	8.54	8.14	7.95	7.78	7.61	7.84	8.21	9.13	8.47	7.78	
H1 lead leg		strides	13	13	13	13	13	13	13	15	15	15	123					
<b>Beckenham, Matt (AUS) (1976)</b>																		
<b>Heat 6 - 2000 Olympic Games (Sydney, AUS)</b>													<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>					
date	24-Sep-00	time	6.18	10.10	14.26	18.42	22.74	27.30	31.86	36.38			51.27	8 / 7				
reaction time	0.176	interval	3.92	4.16	4.16	4.32	4.56	4.56	4.52					12.24	13.44			
		velocity	7.28	8.93	8.41	8.41	8.10	7.68	7.68	7.74			7.80	8.58	7.81			
H1 lead leg		strides	21	14	14	14	14	15	15	15			122					
<b>Bédi, Tibor (HUN) (1974)</b>																		
<b>Heat 5 - 2000 Olympic Games (Sydney, AUS)</b>													<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>					
date	24-Sep-00	time	5.92	9.68	13.64	17.64	21.80	26.00	30.36	35.04	40.24	45.48	51.54	7 / 3				
reaction time	0.169	interval	3.76	3.96	4.00	4.16	4.20	4.36	4.68	5.20	5.24	6.06		11.72	12.72	15.12		
		velocity	7.60	9.31	8.84	8.75	8.41	8.33	8.03	7.48	6.73	6.68	6.60	7.76	8.96	8.25	6.94	
H1 lead leg		strides	21.00	13.00	14.00	14.00	14.00	14.00	15.00	15.00	17.00	17.00	20.90	174.90				
<b>Semi-Final 2 - 1999 IAAF World Championships (Sevilla, ESP)</b>													<i>Sanchez (1999) - Sevilla '99: análisis de la carreras con villas</i>					
date	25-Aug-99	time	5.65	9.53	13.57	17.62	21.72	25.93	30.16	34.50	38.85	43.28	49.00	8 / 6				
reaction time	0.215	interval	3.88	4.04	4.05	4.10	4.21	4.23	4.34	4.35	4.43	5.72	PB	11.97	12.54	13.12		
		velocity	7.96	9.02	8.66	8.64	8.54	8.31	8.27	8.06	8.05	7.90	6.99	8.16	8.77	8.37	8.00	
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	19.5	171.5				
<b>Bekrić, Emir (SRB) (1991)</b>																		
<b>FINAL - 2014 European Championships (Zurich, SUI)</b>													<i>Green (2015) - twitter.com/jackpgreen (from Behm?)</i>					
date	15-Aug-14	time	6.00	9.78	13.58	17.46	21.42	25.46	29.78	34.30	39.06	44.06	49.90	1 / 6				
reaction time	0.233	interval	3.78	3.80	3.88	3.96	4.04	4.32	4.52	4.76	5.00	5.84		11.46	12.32	14.28		
		velocity	7.50	9.26	9.21	9.02	8.84	8.66	8.10	7.74	7.35	7.00	6.85	8.02	9.16	8.52	7.35	
H1 lead leg	L	strides	13	13	13	13	13	13	14	14	14	14	121					
<b>FINAL - 2013 IAAF World Championships (Moscow, RUS) (TV Analysis)</b>													<i>Henson (2021) - Athlete First: major championships report</i>					
date	15-Aug-13	time	5.90	9.50	13.20	17.00	20.87	24.93	29.23	33.63	38.20	42.73	48.05	8 / 3				
reaction time	0.202	interval	3.60	3.70	3.80	3.87	4.06	4.30	4.40	4.57	4.53	5.32	NR PB	11.10	12.23	13.50		
		velocity	7.63	9.72	9.46	9.21	9.04	8.62	8.14	7.95	7.66	7.73	7.52	8.32	9.46	8.59	7.78	
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	16.7	158.7				
<b>Bellaabouss, Fadil (FRA) (1986)</b>																		
<b>FINAL - 2010 European Championships (Barcelona, ESP)</b>													<i>Behm (2010) - les haies bases</i>					
date	31-Jul-10	time	6.2	10.3	14.5								62.94	8 / 8				
reaction time	0.180	interval	4.10	4.20														
		velocity	7.26	8.54	8.33								6.36					
H1 lead leg	L	strides	21	14	14								49					
<b>Bencosme, José Reynaldo (ITA) (199)</b>																		
<b>Semi-Final 3 - 2022 European Athletics Championships (Munich, GER)</b>													<i>European Athletics (2022) - european athletics championships race analysis</i>					
date	18-Aug-22	time	5.95	9.73	13.59	17.50	21.50	23.24	25.56	29.92	34.40	38.99	43.80	49.50	4 / 3			
reaction time	0.216	interval	3.78	3.86	3.91	4.00	4.06	4.36	4.48	4.59	4.81	5.70		11.55	12.42	13.88		
		velocity	7.56	9.26	9.07	8.95	8.75	8.61	8.62	8.03	7.81	7.63	7.28	7.02	9.09	8.45	7.56	
H1 lead leg	L	strides	20			13			13	14	14	14	15	18.5	121.5			
<b>FINAL - 2019 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>					
date	06-Jun-19	time	5.97	9.75	13.71	17.71	21.78	25.95	30.40	34.86	39.63	44.52	50.36	2 / 7				
reaction time	0.165	interval	3.78	3.96	4.00	4.07	4.17	4.45	4.46	4.77	4.89	5.84		11.74	12.69	14.12		
		velocity	7.54	9.26	8.84	8.75	8.60	8.39	7.87	7.85	7.34	7.16	6.85	7.94	8.94	8.27	7.44	
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	15	15	18.5	161.5				
<b>FINAL - 2018 Weltklasse (Zürich, SUI) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>					
date	30-Aug-18	time	6.04	9.88	13.76		21.96	23.8	26.12	30.48		39.52	44.32	50.01	1 / 6			
reaction time	0.151	interval	3.84	3.88		8.20		4.16	4.36		9.04	4.80	5.69			13.84		
		velocity	7.45	9.11	9.02	8.54	8.40	8.41	8.03		7.74	7.29	7.03	8.00		7.59		
H1 lead leg	L	strides	20	13	13			13	14			15	88					
<b>FINAL - 2018 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>					
date	31-May-18	time	6.04	9.80	13.64	17.52	21.48	25.60	30.00	34.48	39.28	44.12	49.79	2 / 7				
reaction time	0.153	interval	3.76	3.84	3.88	3.96	4.12	4.40	4.48	4.80	4.84	5.67		11.48	12.48	14.12		
		velocity	7.45	9.31	9.11	9.02	8.84	8.50	7.95	7.81	7.29	7.23	7.05	8.03	9.15	8.41	7.44	
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	15	15	143					
<b>FINAL - 2012 Italian National Championships (Napoli, ITA)</b>													<i>FIDAL - Centro Studi &amp; Ricerche (2012) - www.youtube.com/watch?v=Jmz79eerlOos</i>					
date	08-Jul-12	time	6.20	10.00	13.93	17.93	21.97	26.05	30.36	34.75	39.24	43.91	49.33	6 / 1				

reaction time	interval	3.80	3.93	4.00	4.04		4.08	4.31	4.39	4.49	4.67	5.42	<b>PB</b>	11.73	12.43	13.55		
	velocity	7.26	9.21	8.91	8.75	8.66	8.58	8.12	7.97	7.80	7.49	7.38	8.11	8.95	8.45	7.75		
H1 lead leg	strides																	
<b>Bengtström, Carl (SWE) (2000)</b>																		
<b>Semi-Final 3 - 2024 Olympic Games (Paris, FRA)</b>													<i>Paris 2024 Olympc Games - Results Book (2024)</i>					
date	07-Aug-24	time	5.80	9.57	13.43	17.31	21.34		25.58	30.00	34.59	39.33	44.13	49.56	3 / 6			
reaction time	0.201	interval		3.77	3.86	3.88	4.03		4.24	4.42	4.59	4.74	4.80	5.43		11.51	12.69	14.13
		velocity	7.76	9.28	9.07	9.02	8.68		8.25	7.92	7.63	7.38	7.29	7.37	8.07	9.12	8.27	7.43
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	15	15	18.7	171.7			
<b>Repechage 2 - 2024 Olympic Games (Paris, FRA)</b>													<i>Paris 2024 Olympc Games - Results Book (2024)</i>					
date	07-Aug-24	time	5.78	9.53	13.38	17.31	21.37		25.54	29.80	34.11	38.66	43.32	48.63	8 / 1			
reaction time	0.171	interval		3.75	3.85	3.93	4.06		4.17	4.26	4.31	4.55	4.66	5.31		11.53	12.49	13.52
		velocity	7.79	9.33	9.09	8.91	8.62		8.39	8.22	8.12	7.69	7.51	7.53	8.23	9.11	8.41	7.77
H1 lead leg	L	strides	20	14	14	14	14		15	15	15	15	15	19	170			
<b>Heat 1 - 2024 Olympic Games (Paris, FRA)</b>													<i>Paris 2024 Olympc Games - Results Book (2024)</i>					
date	05-Aug-24	time	5.80	9.55	13.42	17.42	21.50		25.76	30.12	34.66	39.36	44.05	49.34	4 / 4			
reaction time	0.172	interval		3.75	3.87	4.00	4.08		4.26	4.36	4.54	4.70	4.69	5.29		11.62	12.70	13.93
		velocity	7.76	9.33	9.04	8.75	8.58		8.22	8.03	7.71	7.45	7.46	7.56	8.11	9.04	8.27	7.54
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	15	15	19	172			
<b>FINAL - 2024 Meeting de Paris (Paris, FRA)</b>													<i>Omega Timing (2024) - diamond league race analysis</i>					
date	07-Jul-24	time	5.71	9.46	13.40	17.32	21.23		25.35	29.64	34.03	38.63	43.31	48.68	4 / 6			
reaction time	0.179	interval		3.75	3.94	3.92	3.91		4.12	4.29	4.39	4.60	4.68	5.37		11.61	12.32	13.67
		velocity	7.88	9.33	8.88	8.93	8.95		8.50	8.16	7.97	7.61	7.48	7.45	8.22	9.04	8.52	7.68
H1 lead leg	L	strides	22	14	14	14	14					15	15	19	142			
<b>FINAL - 2024 European Athletics Championships (Roma, ITA)</b>													<i>European Athletics (2024) - 2024 european athletics championships - results book</i>					
date	11-Jun-24	time	5.78	9.49	13.20	16.96	20.86		24.78	28.91	33.23	37.78	42.21	47.50	7 / 2			
reaction time	0.174	interval		3.71	3.71	3.76	3.90		3.92	4.13	4.32	4.55	4.43	5.29	<b>NR PB</b>	11.18	11.95	13.30
		velocity	7.79	9.43	9.43	9.31	8.97		8.93	8.47	8.10	7.69	7.90	7.56	8.42	9.39	8.79	7.89
H1 lead leg	R	strides	21	13	13				13	14	14	15	15	18	136			
<b>Semi-Final 2 - 2024 European Athletics Championships (Roma, ITA)</b>													<i>European Athletics (2024) - 2024 european athletics championships - results book</i>					
date	10-Jun-24	time	5.80	9.50	13.40	17.35	21.47		25.65	29.91	34.16	38.74	43.36	48.51	8 / 2			
reaction time	0.182	interval		3.70	3.90	3.95	4.12		4.18	4.26	4.25	4.58	4.62	5.15		11.55	12.56	13.45
		velocity	7.76	9.46	8.97	8.86	8.50		8.37	8.22	8.24	7.64	7.58	7.77	8.25	9.09	8.36	7.81
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	15	15	18.5	171.5			
<b>FINAL - 2024 Bauhaus Galan (Stockholm, SWE) (TV Analysis)</b>													<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>					
date	02-Jun-24	time	5.96	9.77	13.53	17.30	21.26		25.47	29.76	34.19	38.76	43.47	48.72	6 / 4			
reaction time	0.182	interval		3.81	3.76	3.77	3.96		4.21	4.29	4.43	4.57	4.71	5.25		11.34	12.46	13.71
		velocity	7.55	9.19	9.31	9.28	8.84		8.31	8.16	7.90	7.66	7.43	7.62	8.21	9.26	8.43	7.66
H1 lead leg	L	strides	24	14	14	14	14		15	15	15	15	15	19	174			
<b>Semi-Final 3 - 2022 European Athletics Championships (Munich, GER)</b>													<i>European Athletics (2022) - european athletics championships race analysis</i>					
date	18-Aug-22	time	5.72	9.43	13.37	17.44	21.64	23.44	25.86	30.30	34.91	39.50	44.23	49.52	5 / 4			
reaction time	0.172	interval		3.71	3.94	4.07	4.20		4.22	4.44	4.61	4.59	4.73	5.29		11.72	12.86	13.93
		velocity	7.87	9.43	8.88	8.60	8.33	8.53	8.29	7.88	7.59	7.63	7.40	7.56	8.08	8.96	8.16	7.54
H1 lead leg	L	strides	22	14		14	14		14	14	15	15	15	19.2	156.2			
<b>Semi-Final 2 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)</b>													<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	17-Jul-22	time	5.83	9.67	13.63	17.63	21.68	23.48	25.93	30.23	34.63	39.10	43.70	48.75	8 / 4			
reaction time	0.161	interval		3.84	3.96	4.00	4.05		4.25	4.30	4.40	4.47	4.60	5.05		11.80	12.60	13.47
		velocity	7.72	9.11	8.84	8.75	8.64	8.52	8.24	8.14	7.95	7.83	7.61	7.92	8.21	8.90	8.33	7.80
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	15	15	18.2	171.2			
<b>Heat 5 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)</b>													<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	16-Jul-22	time	5.93	9.73	13.77	17.83	21.93	23.68		30.46	34.86	39.56	44.26	49.64	8 / 3			
reaction time	0.169	interval		3.80	4.04	4.06	4.10		8.53	4.40	4.70	4.70	5.38		11.90	12.63	13.80	
		velocity	7.59	9.21	8.66	8.62	8.54	8.45	8.21	7.95	7.45	7.45	7.43	8.06	8.82	8.31	7.61	
H1 lead leg	L	strides	22	14	14	14	14				15	15	15	18	141			
<b>FINAL - 2022 Bauhaus Galan (Stockholm, SWE) (TV Analysis)</b>													<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	30-Jun-22	time	5.82	9.58	13.38	17.32	21.36	23.06	25.58	29.90	34.32	38.92	43.70	48.97	7 / 5			
reaction time	0.178	interval		3.76	3.80	3.94	4.04		4.22	4.32	4.42	4.60	4.78	5.27		11.50	12.58	13.80
		velocity	7.73	9.31	9.21	8.88	8.66	8.67	8.29	8.10	7.92	7.61	7.32	7.59	8.17	9.13	8.35	7.61
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	15	15	19	172			
<b>FINAL - 2022 Bislett Games (Oslo, NOR) (TV Analysis)</b>													<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	16-Jun-22	time	5.76	9.44	13.28	17.16	21.16	22.93	25.44	29.80	34.20	38.88	43.72	49.31	5 / 4			
reaction time	0.172	interval		3.68	3.84	3.88	4.00		4.28	4.36	4.40	4.68	4.84	5.59		11.40	12.64	13.92
		velocity	7.81	9.51	9.11	9.02	8.75	8.72	8.18	8.03	7.95	7.48	7.23	7.16	8.11	9.21	8.31	7.54
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	15	15	19.2	172.2			

**FINAL - 2022 Prefontaine Classic (Eugene, OR) (TV Analysis)***Henson (2022) - Athlete First: 2022 year end hurdle report*

date	28-May-22	time	5.70	9.46	13.27	17.17	21.17	23.02	25.33	29.58	33.93	38.53	43.26	48.52	9 / 4			
reaction time	0.172	interval		3.76	3.81	3.90	4.00		4.16	4.25	4.35	4.60	4.73	5.26	<b>PB</b>	11.47	12.41	13.68
		velocity	7.89	9.31	9.19	8.97	8.75	8.69	8.41	8.24	8.05	7.61	7.40	7.60	8.24	9.15	8.46	7.68
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	15	15	153				

**FINAL - 2020 Bauhaus Galan (Stockholm, SWE) (TV Analysis)***Henson (2020) - Athlete First: 2020 year end hurdle report*

date	23-Aug-20	time	5.82		13.90	17.96	22.18	24.0	26.50	30.92	35.50	40.20	44.94	50.21	6 / 7			
reaction time	0.187	interval			8.08	4.06	4.22		4.32	4.42	4.58	4.70	4.74	5.27		12.14	12.96	14.02
		velocity	7.73		8.66	8.62	8.29	8.33	8.10	7.92	7.64	7.45	7.38	7.59	7.97	8.65	8.10	7.49
H1 lead leg	L	strides	21	14		14	14		15		15	15	15	123				

**FINAL - 2019 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)***Henson (2020) - Athlete First: 2019 year end hurdle report*

date	30-May-19	time	5.93	9.83	14.00	18.13	22.43	24.2	26.86		35.96	40.90	45.76	51.35	8 / 7			
reaction time	0.190	interval			3.90	4.17	4.13	4.30		4.43		9.10	4.94	4.86	5.59		12.20	
		velocity	7.59	8.97	8.39	8.47	8.14	8.26	7.90		7.69	7.09	7.20	7.16	7.79		8.61	
H1 lead leg	L	strides	22	14	14	14	14		15			15	15	123				

**Benjamin, Rai (USA) (1997)****FINAL - 2024 Olympic Games (Paris, FRA)** *Paris 2024 Olympc Games - Results Book (2024)*

date	09-Aug-24	time	5.62	9.21	12.82	16.50	20.32		24.15	28.02	32.02	36.39	40.96	46.46	8 / 1				
reaction time	0.171	interval			3.59	3.61	3.68	3.82		3.83	3.87	4.00	4.37	4.57	5.50		10.88	11.52	12.94
		velocity	8.01	9.75	9.70	9.51	9.16		9.14	9.04	8.75	8.01	7.66	7.27	8.61		9.65	9.11	8.11
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	14	17	155				

**Semi-Final 3 - 2024 Olympic Games (Paris, FRA)***Paris 2024 Olympc Games - Results Book (2024)*

date	07-Aug-24	time	5.68	9.31	12.97	16.64	20.48		24.42	28.46	32.67	37.23	42.08	47.85	5 / 1				
reaction time	0.155	interval			3.63	3.66	3.67	3.84		3.94	4.04	4.21	4.56	4.85	5.77		10.96	11.82	13.62
		velocity	7.92	9.64	9.56	9.54	9.11		8.88	8.66	8.31	7.68	7.22	6.93	8.36		9.58	8.88	7.71
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	14	17	155				

**Heat 1 - 2024 Olympic Games (Paris, FRA)***Paris 2024 Olympc Games - Results Book (2024)*

date	05-Aug-24	time	5.88	9.62	13.37	17.25	21.31		25.44	29.51	33.73	38.22	42.97	48.82	7 / 1				
reaction time	0.190	interval			3.74	3.75	3.88	4.06		4.13	4.07	4.22	4.49	4.75	5.85		11.37	12.26	13.46
		velocity	7.65	9.36	9.33	9.02	8.62		8.47	8.60	8.29	7.80	7.37	6.84	8.19		9.23	8.56	7.80
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	14	14	17	156				

**FINAL - 2024 Herculis Meeting International d'Athlétisme (Monaco, MON)***Omega Timing (2024) - diamond league race analysis*

date	12-Jul-24	time	5.68	9.25	12.88	16.55	20.33		24.40	28.55	32.71	37.00	41.45	46.67	5 / 1				
reaction time	0.188	interval			3.57	3.63	3.67	3.78		4.07	4.15	4.16	4.29	4.45	5.22		10.87	12.00	12.90
		velocity	7.92	9.80	9.64	9.54	9.26		8.60	8.43	8.41	8.16	7.87	7.66	8.57		9.66	8.75	8.14
H1 lead leg	R	strides	20	13	13	12	13		14	13	13	13	13	17	154				

**FINAL - 2024 USA Olympic Trials (Eugene, OR)***USATF and Karmarush (2024) - USA Olympic trials results and race analysis*

date	30-Jun-24	time	5.62	9.21	12.96	16.94	20.81	22.46	24.59	28.43	32.49	36.81	41.28	46.46	7 / 1				
reaction time		interval			3.59	3.75	3.98	3.87		3.78	3.84	4.06	4.32	4.47	5.18		11.32	11.49	12.85
		velocity	8.01	9.75	9.33	8.79	9.04	8.90	9.26	9.11	8.62	8.10	7.83	7.72	8.61		9.28	9.14	8.17
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	13	16.5	153.5				

**Semi-Final 3 - 2024 USA Olympic Trials (Eugene, OR)***USATF and Karmarush (2024) - USA Olympic trials results and race analysis*

date	28-Jun-24	time	5.74	9.26	12.90	16.79	20.74	22.56	24.76	28.86	33.15	37.62	42.24	47.97	7 / 1				
reaction time		interval			3.52	3.64	3.89	3.95		4.02	4.10	4.29	4.47	4.62	5.73		11.05	12.07	13.38
		velocity	7.84	9.94	9.62	9.00	8.86	8.87	8.71	8.54	8.16	7.83	7.58	6.98	8.34		9.50	8.70	7.85
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	13	17	154				

**Heat 1 - 2024 USA Olympic Trials (Eugene, OR)***USATF and Karmarush (2024) - USA Olympic trials results and race analysis*

date	27-Jun-24	time	5.86	9.62	13.48	17.56	21.57	23.40	25.64	29.71	34.03	38.57	43.38	49.56	7 / 1				
reaction time		interval			3.76	3.86	4.08	4.01		4.07	4.07	4.32	4.54	4.81	6.18		11.70	12.15	13.67
		velocity	7.68	9.31	9.07	8.58	8.73	8.55	8.60	8.60	8.10	7.71	7.28	6.47	8.07		8.97	8.64	7.68
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	14	17.5	155.5				

**FINAL - 2024 USATF LA Grand Prix (Los Angeles, CA) (TV Analysis)***Henson (2024) - Athlete First: 2024 year end hurdle report*

date	18-May-24	time	5.84	9.51	13.18	16.95	20.75		28.56	32.60	36.87	41.41		46.64	5 / 1			
reaction time	0.207	interval			3.67	3.67	3.77	3.80		7.81	4.04	4.27	4.54	5.23		11.11	11.61	12.85
		velocity	7.71	9.54	9.54	9.28	9.21		8.96	8.66	8.20	7.71	7.65	8.58		9.45	9.04	8.17
H1 lead leg	R	strides	20	13	13	13	13			13	13	13	17	128				

**FINAL - 2023 Prefontaine Classic (Eugene, OR)***Omega Timing (2023) - diamond league race analysis*

date	16-Sep-23	time	5.74	9.40	13.10	16.86	20.68		24.61	28.60	32.70	36.97	41.36	46.39	5 / 1				
reaction time	0.154	interval			3.66	3.70	3.76	3.82		3.93	3.99	4.10	4.27	4.39	5.03		11.12	11.74	12.76
		velocity	7.84	9.56	9.46	9.31	9.16		8.91	8.77	8.54	8.20	7.97	7.95	8.62		9.44	8.94	8.23
H1 lead leg	R	strides	20	13	13	12	12		13	13	13	13	13	17	152				

**FINAL - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)***Henson (2023) - Athlete First: 2023 year end hurdle report*

date	23-Aug-23	time	5.64	9.37	12.81	16.42	20.29		24.26	28.31	32.59	37.13	41.98	47.56	6 / 3				
reaction time	0.168	interval			3.73	3.44	3.61	3.87		3.97	4.05	4.28	4.54	4.85	5.58		10.78	11.89	13.67
		velocity	7.98	9.38	10.17	9.70	9.04		8.82	8.64	8.18	7.71	7.22	7.17	8.41		9.74	8.83	7.68



H1 lead leg	R	strides	20	13	12	12	12	13	13	13	13	14	17	152							
<b>Semi-Final 2 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>																<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>					
date	21-Aug-23	time	5.77	9.54	13.08	16.92	20.82	24.82	28.93	33.21	37.61	42.14	47.24	7 / 1							
reaction time	0.169	interval	3.77	3.54	3.84	3.90	4.00	4.11	4.28	4.40	4.53	5.10			11.15	12.01	13.21				
		velocity	7.80	9.28	9.89	9.11	8.97	8.75	8.52	8.18	7.95	7.73	7.84	8.47		9.42	8.74	7.95			
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	13	13	16.5	153.5							
<b>Heat 5 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>																<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>					
date	20-Aug-23	time	5.83	9.60	13.46	17.37	21.23	25.33	29.40	33.66	38.23	42.96	48.35	5 / 1							
reaction time	0.176	interval	3.77	3.86	3.91	3.86	4.10	4.07	4.26	4.57	4.73	5.39			11.54	12.03	13.56				
		velocity	7.72	9.28	9.07	8.95	9.07	8.54	8.60	8.22	7.66	7.40	7.42	8.27		9.10	8.73	7.74			
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	13	13	16.7	153.7							
<b>FINAL - 2023 USATF National Championships (Eugene, OR) (TV Analysis)</b>																<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>					
date	09-Jul-23	time	5.81	9.44	13.14	16.92	20.75	24.70	28.69	32.76	37.00	41.47	46.62	5 / 1							
reaction time		interval	3.63	3.70	3.78	3.83	3.95	3.99	4.07	4.24	4.47	5.15			11.11	11.77	12.78				
		velocity	7.75	9.64	9.46	9.26	9.14	8.86	8.77	8.60	8.25	7.83	7.77	8.58		9.45	8.92	8.22			
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	13	13	17	154							
<b>FINAL - 2023 Doha Diamond League (Doha, QAT)</b>																<i>Omega Timing (2023) - diamond league race analysis</i>					
date	05-May-23	time	5.63	9.27	12.97	16.86	20.80	24.81	28.99	33.29	37.80	42.42	47.78	6 / 1							
reaction time	0.169	interval	3.64	3.70	3.89	3.94	4.01	4.18	4.30	4.51	4.62	5.36			11.23	12.13	13.43				
		velocity	7.99	9.62	9.46	9.00	8.88	8.73	8.37	8.14	7.76	7.58	7.46	8.37		9.35	8.66	7.82			
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	13	13	17	154							
<b>FINAL - 2022 World Athletics Championships (Eugene, OR)</b>																<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>					
date	19-Jul-22	time	5.76	9.33	13.03	16.75	20.45	21.97	24.32	28.38	32.60	36.94	41.47	46.89	3 / 2						
reaction time	0.157	interval	3.57	3.70	3.72	3.70	3.87	4.06	4.22	4.34	4.53	5.42			10.99	11.63	13.09				
		velocity	7.81	9.80	9.46	9.41	9.46	9.10	9.04	8.62	8.29	8.06	7.73	7.38	8.53		9.55	9.03	8.02		
H1 lead leg	R	strides	20	13	13	13	12	12	13	13	13	13	13	16.5	151.5						
<b>Semi-Final 1 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)</b>																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	17-Jul-22	time	5.73	9.40	13.35	17.33	21.47	23.22	25.56	29.73	33.97	38.33	42.87	48.44	6 / 1						
reaction time	0.181	interval	3.67	3.95	3.98	4.14	4.09	4.17	4.24	4.36	4.54	5.57			11.60	12.40	13.14				
		velocity	7.85	9.54	8.86	8.79	8.45	8.61	8.56	8.39	8.25	8.03	7.71	7.18	8.26		9.05	8.47	7.99		
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	13	13	16	153							
<b>Heat 1 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)</b>																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	16-Jul-22	time	6.00	9.77	13.66	17.60	21.67	23.39	25.77	29.87	34.17	38.63	43.33	49.06	4 / 1						
reaction time	0.156	interval	3.77	3.89	3.94	4.07	4.10	4.10	4.30	4.46	4.70	5.73			11.60	12.27	13.46				
		velocity	7.50	9.28	9.00	8.88	8.60	8.55	8.54	8.54	8.14	7.85	7.45	6.98	8.15		9.05	8.56	7.80		
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	13	13	16.5	153.5							
<b>FINAL - 2022 USATF National Championships (Eugene, OR) (TV Analysis)</b>																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	26-Jun-22	time	5.84	9.51	13.34	17.34	21.35	22.97	25.36	29.43	33.60	37.80	42.14	47.04	7 / 1						
reaction time		interval	3.67	3.83	4.00	4.01	4.01	4.07	4.17	4.24	4.34	4.90			11.50	12.09	12.71				
		velocity	7.71	9.54	9.14	8.75	8.73	8.71	8.73	8.60	8.39	8.33	8.06	8.16	8.50		9.13	8.68	8.26		
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	13	13	16	153							
<b>FINAL - 2022 Doha Diamond League (Doha, QAT) (TV Analysis)</b>																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	13-May-22	time	5.60	9.18	13.01	16.98	21.12	22.8	25.24	29.30	33.56	37.87	42.27	47.49	6 / 2						
reaction time	0.206	interval	3.58	3.83	3.97	4.14	4.12	4.06	4.26	4.31	4.40	5.22			11.38	12.32	12.97				
		velocity	8.04	9.78	9.14	8.82	8.45	8.77	8.50	8.62	8.22	8.12	7.95	7.66	8.42		9.23	8.52	8.10		
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	13	13	13	137							
<b>FINAL - 2022 Seiko Golden Grand Prix (Tokyo, JPN)</b>																<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>					
date	08-May-22	time	5.89	9.56	13.25	17.02	20.89	24.91	29.08	33.63	38.39	43.23	48.60	6 / 1							
reaction time	0.219	interval	3.67	3.69	3.77	3.87	4.02	4.17	4.55	4.76	4.84	5.37			11.13	12.06	14.15				
		velocity	7.64	9.54	9.49	9.28	9.04	8.71	8.39	7.69	7.35	7.23	7.45	8.23		9.43	8.71	7.42			
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	14	14	17	156							
<b>FINAL - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>					
date	03-Aug-21	time	5.64	9.20	12.84	16.52	20.28	24.16	28.16	32.24	36.44	40.80	46.17	5 / 2							
reaction time	0.168	interval	3.56	3.64	3.68	3.76	3.88	4.00	4.08	4.20	4.36	5.37	AR		10.88	11.64	12.64				
		velocity	7.98	9.83	9.62	9.51	9.31	9.02	8.75	8.58	8.33	8.03	7.45	8.66		9.65	9.02	8.31			
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	13	13	17	154							
<b>Semi-Final 1 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>																<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>					
date	01-Aug-21	time	5.70	9.26	12.93	16.63	20.62	24.56	28.66	32.95	37.36	42.02	47.37	5 / 2							
reaction time	0.184	interval	3.56	3.67	3.70	3.99	3.94	4.10	4.29	4.41	4.66	5.35			10.93	12.03	13.36				
		velocity	7.89	9.83	9.54	9.46	8.77	8.88	8.54	8.16	7.94	7.51	7.48	8.44		9.61	8.73	7.86			
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	13	13	16.7	153.7							
<b>Heat 5 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>																<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>					
date	30-Jul-21	time	5.76	9.50	13.30	17.40	21.57	25.80	30.23	34.63	39.03	43.40	48.60	6 / 1							
reaction time	0.209	interval	3.74	3.80	4.10	4.17	4.23	4.43	4.40	4.40	4.40	4.37	5.20		11.64	12.83	13.17				

H1 lead leg	R	velocity	7.81	9.36	9.21	8.54	8.39		8.27	7.90	7.95	7.95	8.01	7.69	8.23		9.02	8.18	7.97	
		strides	20	13	13	13	13		13	13	13	13	13	16	153					
<b>FINAL - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)</b>																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>				
date	26-Jun-21	time	5.77	9.47	13.30	17.17	21.09		25.06	29.06	33.20	37.50	41.84		46.83		5 / 1			
reaction time	0.235	interval		3.70	3.83	3.87	3.92		3.97	4.00	4.14	4.30	4.34	4.99	<b>PB</b>			11.40	11.89	12.78
		velocity	7.80	9.46	9.14	9.04	8.93		8.82	8.75	8.45	8.14	8.06	8.02	8.54			9.21	8.83	8.22
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	13	16	153					
<b>Semi-Final 2 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)</b>																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>				
date	25-Jun-21	time	5.80	9.46	13.20	17.02	20.98		25.02	29.25	33.56	38.04	43.01		48.61		6 / 1			
reaction time	0.197	interval		3.66	3.74	3.82	3.96		4.04	4.23	4.31	4.48	4.97	5.60				11.22	12.23	13.76
		velocity	7.76	9.56	9.36	9.16	8.84		8.66	8.27	8.12	7.81	7.04	7.14	8.23			9.36	8.59	7.63
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	14	17	155					
<b>Heat 2 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)</b>																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>				
date	24-Jun-21	time	5.80	9.51	13.31	17.38	21.45		25.69	30.03	34.37	38.80	43.61		49.12		6 / 1			
reaction time	0.252	interval		3.71	3.80	4.07	4.07		4.24	4.34	4.34	4.43	4.81	5.51				11.58	12.65	13.58
		velocity	7.76	9.43	9.21	8.60	8.60		8.25	8.06	8.06	7.90	7.28	7.26	8.14			9.07	8.30	7.73
H1 lead leg	R	strides	20	13	12	14	13		13	13	13	13	14	17	155					
<b>FINAL - 2021 USATF Golden Games (Walnut, CA) (TV Analysis)</b>																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>				
date	09-May-21	time	5.84	9.44	13.21	17.08	21.02		24.99	29.09	33.37	37.67	42.11		47.13		5 / 1			
reaction time		interval		3.60	3.77	3.87	3.94		3.97	4.10	4.28	4.30	4.44	5.02				11.24	12.01	13.02
		velocity	7.71	9.72	9.28	9.04	8.88		8.82	8.54	8.18	8.14	7.88	7.97	8.49			9.34	8.74	8.06
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	13	16	153					
<b>FINAL - 2021 Doha Diamond League (Doha, QAT) (TV Analysis)</b>																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>				
date	28-May-21	time	5.80	9.54	13.38	17.38	21.39	23.0	25.44	29.53	33.73	37.97	42.24		47.38		5 / 1			
reaction time	0.203	interval		3.74	3.84	4.00	4.01		4.05	4.09	4.20	4.24	4.27	5.14				11.58	12.15	12.71
		velocity	7.76	9.36	9.11	8.75	8.73	8.70	8.64	8.56	8.33	8.25	8.20	7.78	8.44			9.07	8.64	8.26
H1 lead leg	R	strides	20	13	13	13			13	13	13	13	13	16.2	140.2					
<b>FINAL - 2019 IAAF World Championships (Doha, QAT)</b>																<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>				
date	30-Sep-19	time	5.78	9.35	13.03	16.83	20.80		24.84	29.01	33.24	37.57	42.15		47.66		7 / 2			
reaction time	0.205	interval		3.57	3.68	3.80	3.97		4.04	4.17	4.23	4.33	4.58	5.51				11.05	12.18	13.14
		velocity	7.79	9.80	9.51	9.21	8.82		8.66	8.39	8.27	8.08	7.64	7.26	8.39			9.50	8.62	7.99
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	13	17	154					
<b>Semi-Final 3 - 2019 IAAF World Championships (Doha, QAT)</b>																<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>				
date	28-Sep-19	time	5.82	9.47	13.24	17.17	21.24		25.38	29.56	33.88	38.32	42.93		48.52		6 / 1			
reaction time	0.215	interval		3.65	3.77	3.93	4.07		4.14	4.18	4.32	4.44	4.61	5.59				11.35	12.39	13.37
		velocity	7.73	9.59	9.28	8.91	8.60		8.45	8.37	8.10	7.88	7.59	7.16	8.24			9.25	8.47	7.85
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	13	16.7	153.7					
<b>Heat 4 - 2019 IAAF World Championships (Doha, QAT) (TV Analysis)</b>																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>				
date	27-Sep-19	time	5.92	9.64	13.40	17.40	21.40		25.56	29.92	34.48	39.32	44.28		49.62		4 / 1			
reaction time	0.217	interval		3.72	3.76	4.00	4.00		4.16	4.36	4.56	4.84	4.96	5.34				11.48	12.52	14.36
		velocity	7.60	9.41	9.31	8.75	8.75		8.41	8.03	7.68	7.23	7.06	7.49	8.06			9.15	8.39	7.31
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	15	14	16.5	157					
<b>FINAL - 2019 Weltklasse (Zürich, SUI) (TV Analysis)</b>																<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>				
date	29-Aug-19	time	5.74	9.34	12.98	16.74	20.62	22.2	24.54	28.61	32.80	37.18	41.84		46.98		5 / 2			
reaction time	0.173	interval		3.60	3.64	3.76	3.88		3.92	4.07	4.19	4.38	4.66	5.14	<b>PB</b>			11.00	11.87	13.23
		velocity	7.84	9.72	9.62	9.31	9.02	9.01	8.93	8.60	8.35	7.99	7.51	7.78	8.51			9.55	8.85	7.94
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	14	17	155					
<b>FINAL - 2019 Prefontaine Classic (Stanford, CA) (TV Analysis)</b>																<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>				
date	30-Jun-19	time	5.83	9.53	13.33	17.30	21.33		25.33	29.43	33.63	37.85	42.10		47.16		5 / 1			
reaction time	0.216	interval		3.70	3.80	3.97	4.03		4.00	4.10	4.20	4.22	4.25	5.06				11.47	12.13	12.67
		velocity	7.72	9.46	9.21	8.82	8.68		8.75	8.54	8.33	8.29	8.24	7.91	8.48			9.15	8.66	8.29
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	13	16.2	153.2					
<b>FINAL - 2019 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)</b>																<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>				
date	06-Jun-19	time	5.66	9.26	12.99	16.91	20.91		24.85	28.91	33.13	37.59	42.26		47.58		6 / 1			
reaction time	0.160	interval		3.60	3.73	3.92	4.00		3.94	4.06	4.22	4.46	4.67	5.32				11.25	12.00	13.35
		velocity	7.95	9.72	9.38	8.93	8.75		8.88	8.62	8.29	7.85	7.49	7.52	8.41			9.33	8.75	7.87
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	14	17	155					
<b>FINAL - 2019 Shanghai Diamond League (Shanghai, CHN)</b>																<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>				
date	18-May-19	time	5.73	9.36	13.16	17.03	21.16	23.0	25.26	29.40	33.50	37.73	42.33		47.80		5 / 2			
reaction time	0.155	interval		3.63	3.80	3.87	4.13		4.10	4.14	4.10	4.23	4.60	5.47				11.30	12.37	12.93
		velocity	7.85	9.64	9.21	9.04	8.47	8.70	8.54	8.45	8.54	8.27	7.61	7.31	8.37			9.29	8.49	8.12
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	14	17	155					
<i>Benjamin, Rai (ANT) (1997)</i>																<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>				
date	08-Jun-18	time	5.83	9.56	13.33	17.06	21.00		25.00	29.03	33.23	37.46	41.90		47.02		5 / 1			

reaction time	interval	3.73	3.77	3.73	3.94		4.00	4.03	4.20	4.23	4.44	5.12	<b>AR PB</b>	11.23	11.97	12.87		
	velocity	7.72	9.38	9.28	9.38	8.88	8.75	8.68	8.33	8.27	7.88	7.81	8.51	9.35	8.77	8.16		
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	13	16.2	153.2					
<b>Bennett, LaRon (USA) (1982)</b>		<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2008 USA Olympic Trials (Eugene, OR)</b>																		
<i>USATF Hurdle Development (2008)</i>																		
date	29-Jun-08	time	6.16	10.11	13.99	18.10	22.29	26.21	31.18	35.77	40.39	45.18		50.89	1 / 8			
reaction time		interval		3.95	3.88	4.11	4.19	3.92	4.97	4.59	4.62	4.79	5.71			11.94	13.08	14.00
		velocity	7.31	8.86	9.02	8.52	8.35	8.93	7.04	7.63	7.58	7.31	7.01	7.86		8.79	8.03	7.50
H1 lead leg	R	strides	22	14	14	14	14	15	15	15	15	15	15	153				
<b>Heat 4 - 2007 USATF National Championships (Indianapolis, IN)</b>		<i>USATF Men's Hurdle Development (2007)</i>																
date	21-Jun-07	time	6.25	10.23	14.11	18.20	22.31	26.59	30.89	35.25	39.76	44.23		49.46	7 / 3			
reaction time		interval		3.98	3.88	4.09	4.11	4.28	4.30	4.36	4.51	4.47	5.23			11.95	12.69	13.34
		velocity	7.20	8.79	9.02	8.56	8.52	8.18	8.14	8.03	7.76	7.83	7.65	8.09		8.79	8.27	7.87
H1 lead leg	R	strides	22	14	14	14	14	15	16	15	15	15	15	154				
<b>Bertoncelli, Giacomo (ITA) (1999)</b>		<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>Semi-Final 2 - 2024 European Athletics Championships (Roma, ITA)</b>																		
<i>European Athletics (2024) - 2024 european athletics championships - results book</i>																		
date	10-Jun-24	time	5.95	9.80	13.86	17.94	22.09	26.31	30.65	35.07	39.70	44.44		49.83	3 / 7			
reaction time	0.158	interval		3.85	4.06	4.08	4.15	4.22	4.34	4.42	4.63	4.74	5.39			11.99	12.71	13.79
		velocity	7.56	9.09	8.62	8.58	8.43	8.29	8.06	7.92	7.56	7.38	7.42	8.03		8.76	8.26	7.61
H1 lead leg	L	strides	21	14	14	14	14	14	15	15	15	15	18.5	169.5				
<b>Heat 1 - 2024 European Athletics Championships (Roma, ITA)</b>		<i>European Athletics (2024) - 2024 european athletics championships - results book</i>																
date	09-Jun-24	time	5.91	9.76	13.80	18.00	22.22	26.50	30.73	35.18	39.73	44.19		49.41	4 / 3			
reaction time	0.155	interval		3.85	4.04	4.20	4.22	4.28	4.23	4.45	4.55	4.46	5.22			12.09	12.73	13.46
		velocity	7.61	9.09	8.66	8.33	8.29	8.18	8.27	7.87	7.69	7.85	7.66	8.10		8.68	8.25	7.80
H1 lead leg		strides												0				
<b>Heat 1 - 2022 European Athletics Championships (Munich, GER)</b>		<i>European Athletics (2022) - european athletics championships race analysis</i>																
date	17-Aug-22	time	6.05	10.12	14.16	18.35	22.66	24.53	26.93	31.29	36.01	40.80	45.98		51.86	3 / 6		
reaction time	0.193	interval		4.07	4.04	4.19	4.31	4.27	4.36	4.72	4.79	5.18	5.88			12.30	12.94	14.69
		velocity	7.44	8.60	8.66	8.35	8.12	8.15	8.20	8.03	7.42	7.31	6.76	6.80	7.71	8.54	8.11	7.15
H1 lead leg	L	strides	22	14		14		14	14	15	15	16	19	143				
<b>Bett, Nicholas (KEN) (1990)</b>		<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2018 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)</b>																		
<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>																		
date	31-May-18	time	5.96	9.68	13.48	17.40	21.52	25.76	30.12	34.76	39.52	44.36		49.95	8 / 8			
reaction time	0.180	interval		3.72	3.80	3.92	4.12	4.24	4.36	4.64	4.76	4.84	5.59			11.44	12.72	14.24
		velocity	7.55	9.41	9.21	8.93	8.50	8.25	8.03	7.54	7.35	7.23	7.16	8.01		9.18	8.25	7.37
H1 lead leg	R	strides	22	13	13	13	13	13	13	15	15	15	15	145				
<b>FINAL - 2017 Shanghai Diamond League (Shanghai, CHN) (TV Analysis)</b>		<i>Henson (2021) - Athlete First: 2017 year end hurdle report</i>																
date	13-May-17	time	6.04	9.72	13.52	17.40	21.40	25.52	30.00	34.64	39.52			51.09	5 / 8			
reaction time	0.189	interval		3.68	3.80	3.88	4.00	4.12	4.48	4.64	4.88					11.36	12.60	
		velocity	7.45	9.51	9.21	9.02	8.75	8.50	7.81	7.54	7.17			7.83		9.24	8.33	
H1 lead leg	R	strides	21	13	13	13	13	13	13	13	15	15	15	142				
<b>FINAL - 2017 Doha Diamond League (Doha, QAT) (TV Analysis)</b>		<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>																
date	05-May-17	time	6.23	9.96	13.70	17.63	21.63	25.83	30.13	34.53	39.16	44.16		49.70	5 / 4			
reaction time	0.168	interval		3.73	3.74	3.93	4.00	4.20	4.30	4.40	4.63	5.00	5.54			11.40	12.50	14.03
		velocity	7.22	9.38	9.36	8.91	8.75	8.33	8.14	7.95	7.56	7.00	7.22	8.05		9.21	8.40	7.48
H1 lead leg	R	strides	21	13	13	13	13	13	13	13	13	15	17	157				
<b>FINAL - 2016 Meeting Paris (Saint-Denis, FRA) (TV Analysis)</b>		<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>																
date	27-Aug-16	time	6.04	9.72	13.48	17.32	21.24	25.24	29.28	33.52	37.96	42.72		48.01	7 / 1			
reaction time	0.167	interval		3.68	3.76	3.84	3.92	4.00	4.04	4.24	4.44	4.76	5.29			11.28	11.96	13.44
		velocity	7.45	9.51	9.31	9.11	8.93	8.75	8.66	8.25	7.88	7.35	7.56	8.33		9.31	8.78	7.81
H1 lead leg	R	strides	21	13	13	13	13	13	13	13	13	15	17	157				
<b>FINAL - 2016 Athletissima (Laussane, SUI) (TV Analysis)</b>		<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>																
date	25-Aug-16	time	5.90	9.56	13.36	17.30	21.33	25.36	29.50	33.93	38.46	43.20		48.68	6 / 2			
reaction time	0.162	interval		3.66	3.80	3.94	4.03	4.03	4.14	4.43	4.53	4.74	5.48			11.40	12.20	13.70
		velocity	7.63	9.56	9.21	8.88	8.68	8.68	8.45	7.90	7.73	7.38	7.30	8.22		9.21	8.61	7.66
H1 lead leg	R	strides	20	13	13	13	13	13	13	15	15	15	17	160				
<b>FINAL - 2016 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)</b>		<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>																
date	16-Jun-16	time	6.20	9.93		17.73	21.87	26.07	30.43	34.87	39.67	44.93		51.14	2 / 5			
reaction time	0.159	interval		3.73		7.80	4.14	4.20	4.36	4.44	4.80	5.26	6.21			11.53	12.70	14.50
		velocity	7.26	9.38		8.97	8.45	8.33	8.03	7.88	7.29	6.65	6.44	7.82		9.11	8.27	7.24
H1 lead leg	R	strides	21	13		13		13	13		15	15	17.5	120.5				
<b>FINAL - 2016 Bislett Games (Oslo, NOR) (TV Analysis)</b>		<i>Henson (2021) - Athlete First: 2016 year end hurdle report</i>																
date	09-Jun-16	time	6.08	9.72	13.48	17.40	21.52	25.72	30.00	34.44	39.04	44.00		49.85	4 / 6			
reaction time	0.177	interval		3.64	3.76	3.92	4.12	4.20	4.28	4.44	4.60	4.96	5.85			11.32	12.60	14.00
		velocity	7.40	9.62	9.31	8.93	8.50	8.33	8.18	7.88	7.61	7.06	6.84	8.02		9.28	8.33	7.50



H1 lead leg	R	strides	21	13	13	13	13	13	13	13	15	15	17.2	146.2				
<b>FINAL - 2016 Prefontaine Classic (Eugene, OR) (TV Analysis)</b>																		
<i>(H8 5m short)</i>																		
<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>																		
date	28-May-16	time	6.24	10.04	13.88	17.96	22.20	26.52	31.00	35.08	40.48	45.44		51.33	5 / 8			
reaction time		interval	3.80	3.84	4.08	4.24		4.32	4.48	4.08	5.40	4.96	5.89			11.72	13.04	14.44
		velocity	7.21	9.21	9.11	8.58	8.25	8.10	7.81	7.35	7.41	7.06	6.79	7.79		8.96	8.05	7.27
H1 lead leg	R	strides	21	13	13	13	13	13	13	13	17	15		131				
<b>FINAL - 2016 Shanghai Golden Grand Prix (Shanghai, CHN)</b>																		
<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>																		
date	14-May-16	time	5.96	9.76	13.56	17.56	21.68	25.88	30.12	34.40	39.00	43.64		49.31	5 / 6			
reaction time	0.150	interval	3.80	3.80	4.00	4.12		4.20	4.24	4.28	4.60	4.64	5.67			11.60	12.56	13.52
		velocity	7.55	9.21	9.21	8.75	8.50	8.33	8.25	8.18	7.61	7.54	7.05	8.11		9.05	8.36	7.77
H1 lead leg	R	strides	21	13	13	13	13	13	13	13	15	13	17.2	157.2				
<b>FINAL - 2015 IAAF World Championships (Beijing, CHN) (TV Analysis)</b>																		
<i>Henson (2021) - Athlete First: major championships report</i>																		
date	25-Aug-15	time	6.04	9.76	13.48	17.24	21.24	25.28	29.40	33.60	37.96	42.56		47.79	9 / 1			
reaction time	0.162	interval	3.72	3.72	3.76	4.00		4.04	4.12	4.20	4.36	4.60	5.23	<b>NR PB</b>		11.20	12.16	13.16
		velocity	7.45	9.41	9.41	9.31	8.75	8.66	8.50	8.33	8.03	7.61	7.65	8.37		9.38	8.63	7.98
H1 lead leg	R	strides		13	13	13	13	13	13	13	13	15	17	136				
<b>Birchman, Jonathan (USA) (2001)</b>																		
<b>Semi-Final 2 - 2024 USA Olympic Trials (Eugene, OR)</b>																		
<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>																		
date	28-Jun-24	time	5.98	9.89	13.98	18.07	22.34	24.24	26.45	31.13	35.84	40.75	45.82		51.86	9 / 7		
reaction time		interval	3.91	4.09	4.09	4.27		4.11	4.68	4.71	4.91	5.07	6.04			12.09	13.06	14.69
		velocity	7.53	8.95	8.56	8.56	8.20	8.25	8.52	7.48	7.43	7.13	6.90	6.62	7.71	8.68	8.04	7.15
H1 lead leg	L	strides	21	14	14	14	14	14	15	15	15	15	18	169				
<b>Heat 4 - 2024 USA Olympic Trials (Eugene, OR)</b>																		
<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>																		
date	27-Jun-24	time	6.12	10.09	14.20	18.47	22.66	24.48	26.85	31.25	35.88	40.63	45.30		50.68	6 / 3		
reaction time		interval	3.97	4.11	4.27	4.19		4.19	4.40	4.63	4.75	4.67	5.38			12.35	12.78	14.05
		velocity	7.35	8.82	8.52	8.20	8.35	8.17	8.35	7.95	7.56	7.37	7.49	7.43	7.89	8.50	8.22	7.47
H1 lead leg	L	strides	21	14	14	14	14	14	15	15	15	15	18	169				
<b>Blondel, Alain (FRA) (1962)</b>																		
<b>FINAL - 1987 French National Championships (Annecy, FRA)</b>																		
<i>Veney - split times from PJ</i>																		
date	09-Aug-87	time	6.00	10.20	14.50	18.70	22.90	27.20	31.50	36.05	40.70	45.40		51.16	4			
reaction time		interval	4.20	4.30	4.20	4.20		4.30	4.30	4.55	4.65	4.70	5.76			12.70	12.80	13.90
		velocity	7.50	8.33	8.14	8.33	8.33	8.14	8.14	7.69	7.53	7.45	6.94	7.82		8.27	8.20	7.55
H1 lead leg		strides	15	15	15	15	15	15	15	15	15	15	15	135				
<b>Boino, Mowen (PNG) (1979)</b>																		
<b>FINAL - 2002 IAAF World Cup (Madrid, ESP)</b>																		
<i>Sanchez (2002) - copa del mundo de Madrid '02: análisis de la carreras con villas</i>																		
date	20-Sep-02	time	6.14	10.18	14.34	18.47	22.65	27.01	31.43	36.00	40.70	45.57		51.66	9 / 9			
reaction time	0.058	interval	4.04	4.16	4.13	4.18		4.36	4.42	4.57	4.70	4.87	6.09			12.33	12.96	14.14
		velocity	7.33	8.66	8.41	8.47	8.37	8.03	7.92	7.66	7.45	7.19	6.57	7.74		8.52	8.10	7.43
H1 lead leg	R	strides	21	15	15	15	15	15	15	15	15	15	18	174				
<b>Heat 7 - 2000 Olympic Games (Sydney, AUS)</b>																		
<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																		
date	24-Sep-00	time	6.16	10.28	14.52	18.76	23.04	27.52	32.08	36.48				51.38	4 / 8			
reaction time	0.406	interval	4.12	4.24	4.24	4.28		4.48	4.56	4.40				<b>NR</b>		12.60	13.32	
		velocity	7.31	8.50	8.25	8.18		7.81	7.68	7.95				7.79		8.33	7.88	
H1 lead leg		strides	22	15	15	15	15	15	15	15				127				
<b>Bonvin, Julien (SUI) (1999)</b>																		
<b>FINAL - 2024 Weltklasse (Zürich, SUI)</b>																		
<i>Omega Timing (2023) - diamond league race analysis</i>																		
date	05-Sep-24	time	5.84	9.51	13.24	17.11	21.10	25.27	29.69	34.33	39.19	44.17		50.04	1 / 7			
reaction time	0.176	interval	3.67	3.73	3.87	3.99		4.17	4.42	4.64	4.86	4.98	5.87			11.59	12.58	14.48
		velocity	7.71	9.54	9.38	9.04	8.77	8.39	7.92	7.54	7.20	7.03	6.81	7.99		9.06	8.35	7.25
H1 lead leg	L	strides	21	13		13		13	14	14	15	15		118				
<b>Repechage 3 - 2024 Olympic Games (Paris, FRA)</b>																		
<i>Paris 2024 Olympc Games - Results Book (2024)</i>																		
date	06-Aug-24	time	5.76	9.43	13.20	17.07	21.01	25.15	29.50	34.01	38.69	43.45		49.08	3 / 3			
reaction time	0.165	interval	3.67	3.77	3.87	3.94		4.14	4.35	4.51	4.68	4.76	5.63			11.31	12.43	13.95
		velocity	7.81	9.54	9.28	9.04	8.88	8.45	8.05	7.76	7.48	7.35	7.10	8.15		9.28	8.45	7.53
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	15	15	18.5	162.5				
<b>Heat 3 - 2024 Olympic Games (Paris, FRA)</b>																		
<i>Paris 2024 Olympc Games - Results Book (2024)</i>																		
date	05-Aug-24	time	5.80	9.53	13.25	17.08	21.08	25.33	29.79	34.43	39.22	44.12		49.82	8 / 6			
reaction time	0.167	interval	3.73	3.72	3.83	4.00		4.25	4.46	4.64	4.79	4.90	5.70			11.28	12.71	14.33
		velocity	7.76	9.38	9.41	9.14	8.75	8.24	7.85	7.54	7.31	7.14	7.02	8.03		9.31	8.26	7.33
H1 lead leg	L	strides	21	13	13	13	13	14	14			15	18	134				
<b>Semi-Final 1 - 2024 European Athletics Championships (Roma, ITA)</b>																		
<i>European Athletics (2024) - 2024 european athletics championships - results book</i>																		
date	10-Jun-24	time	5.75	9.38	13.12	16.92	20.91	25.17	29.85	34.56	39.47	44.29		49.95	3 / 5			
reaction time	0.170	interval	3.63	3.74	3.80	3.99		4.26	4.68	4.71	4.91	4.82	5.66			11.17	12.93	14.44
		velocity	7.83	9.64	9.36	9.21	8.77	8.22	7.48	7.43	7.13	7.26	7.07	8.01		9.40	8.12	7.27
H1 lead leg	L	strides	21	13	13	13	13	14	15	15	15	15	18.2	165.2				

**Heat 2 - 2024 European Athletics Championships (Roma, ITA)**

													<i>European Athletics (2024) - 2024 european athletics championships - results book</i>				
date	09-Jun-24	time	5.78	9.44	13.15	17.01	21.04	25.29	29.82	34.37	39.11	43.91	49.41	3 / 2			
reaction time	0.188	interval		3.66	3.71	3.86	4.03	4.25	4.53	4.55	4.74	4.80	5.50		11.23	12.81	14.09
		velocity	7.79	9.56	9.43	9.07	8.68	8.24	7.73	7.69	7.38	7.29	7.27	8.10	9.35	8.20	7.45
H1 lead leg		strides												0			

**FINAL - 2023 Weltklasse (Zürich, SUI)**

													<i>Omega Timing (2023) - diamond league race analysis</i>				
date	31-Aug-23	time	5.76	9.44	13.22	17.10	21.12	25.37	29.85	34.53	39.50	44.57	50.34	1 / 7			
reaction time	0.149	interval		3.68	3.78	3.88	4.02	4.25	4.48	4.68	4.97	5.07	5.77		11.34	12.75	14.72
		velocity	7.81	9.51	9.26	9.02	8.71	8.24	7.81	7.48	7.04	6.90	6.93	7.95	9.26	8.24	7.13
H1 lead leg	L	strides	21	13		13		14	14				75				

**Semi-Final 2 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)**

													<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>				
date	21-Aug-23	time	5.90	9.67	13.38	17.05	20.99	25.29	29.66	34.30	39.11	44.08	49.75	4 / 8			
reaction time	0.175	interval		3.77	3.71	3.67	3.94	4.30	4.37	4.64	4.81	4.97	5.67		11.15	12.61	14.42
		velocity	7.63	9.28	9.43	9.54	8.88	8.14	8.01	7.54	7.28	7.04	7.05	8.04	9.42	8.33	7.28
H1 lead leg	L	strides	20	13	13	13		14	14	15	15	18	148				

**Heat 1 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)**

													<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>				
date	20-Aug-23	time	5.96	9.73	13.46	17.13	21.13	25.40	29.73	34.23	38.97		49.19	5 / 3			
reaction time	0.188	interval		3.77	3.73	3.67	4.00	4.27	4.33	4.50	4.74		10.22		11.17	12.60	
		velocity	7.55	9.28	9.38	9.54	8.75	8.20	8.08	7.78	7.38		7.34	8.13	9.40	8.33	
H1 lead leg	L	strides	21	13	13	13		14	14	15	15		131				

**FINAL - 2022 Weltklasse (Zürich, SUI) (TV Analysis)**

													<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	08-Sep-22	time	5.77	9.34	16.95	20.89	22.46	24.99	29.43	34.04	38.80	43.84	49.63	2 / 7			
reaction time	0.154	interval		3.57	7.61	3.94		4.10	4.44	4.61	4.76	5.04	5.79		11.18	12.48	14.41
		velocity	7.80	9.80	9.20	8.88	8.90	8.54	7.88	7.59	7.35	6.94	6.91	8.06	9.39	8.41	7.29
H1 lead leg	L	strides	20	13		13		13	14	14	15	15	18.2	135.2			

**FINAL - 2022 European Athletics Championships (Munich, GER)**

													<i>European Athletics (2022) - european athletics championships race analysis</i>					
date	19-Aug-22	time	5.59	9.21	13.00	16.89	20.93	22.74	25.08	29.80	34.46	39.33	44.41	50.24	1 / 7			
reaction time	0.216	interval		3.62	3.79	3.89	4.04	4.15	4.72	4.66	4.87	5.08	5.83		11.30	12.91	14.61	
		velocity	8.05	9.67	9.23	9.00	8.66	8.80	8.43	7.42	7.51	7.19	6.89	6.86	7.96	9.29	8.13	7.19
H1 lead leg	L	strides	21	13		13		14	14	15	15	15	18	138				

**Semi-Final 2 - 2022 European Athletics Championships (Munich, GER)**

													<i>European Athletics (2022) - european athletics championships race analysis</i>					
date	18-Aug-22	time	5.67	9.41	13.22	17.09	21.10	22.85	25.18	29.44	33.97	38.52	43.43	49.10	7 / 4			
reaction time	0.198	interval		3.74	3.81	3.87	4.01	4.08	4.26	4.53	4.55	4.91	5.67		11.42	12.35	13.99	
		velocity	7.94	9.36	9.19	9.04	8.73	8.75	8.58	8.22	7.73	7.69	7.13	7.05	8.15	9.19	8.50	7.51
H1 lead leg	L	strides	21	13		13		13	14	14	15	15	18	136				

**Heat 1 - 2022 European Athletics Championships (Munich, GER)**

													<i>European Athletics (2022) - european athletics championships race analysis</i>					
date	17-Aug-22	time	5.74	9.39	13.21	17.05	21.09	22.84	25.21	29.59	34.24	38.92	43.81	49.41	5 / 3			
reaction time	0.198	interval		3.65	3.82	3.84	4.04	4.12	4.38	4.65	4.68	4.89	5.60		11.31	12.54	14.22	
		velocity	7.84	9.59	9.16	9.11	8.66	8.76	8.50	7.99	7.53	7.48	7.16	7.14	8.10	9.28	8.37	7.38
H1 lead leg	L	strides	21	13	13	13		13	14	14	15	15	17.5	161.5				

**Borsumato, Anthony (GBR) (1973)**

													<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>				
<b>Heat 2 - 2002 European Championships (Munich, GER)</b>																	
date	07-Aug-02	time	6.09	9.87	13.73	17.69	21.69	25.81	30.13	34.65	39.46	44.32	49.93	/ 2			
reaction time		interval		3.78	3.86	3.96	4.00	4.12	4.32	4.52	4.81	4.86	5.61		11.60	12.44	14.19
		velocity	7.39	9.26	9.07	8.84	8.75	8.50	8.10	7.74	7.28	7.20	7.13	8.01	9.05	8.44	7.40
H1 lead leg		strides															

**Heat 6 - 2000 Olympic Games (Sydney, AUS)**

													<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>				
date	24-Sep-00	time	6.10	9.86	13.74	17.70	21.70	25.90	30.50	35.02	39.90		50.73	4 / 5			
reaction time	0.155	interval		3.76	3.88	3.96	4.00	4.20	4.60	4.52	4.88				11.60	12.80	
		velocity	7.38	9.31	9.02	8.84	8.75	8.33	7.61	7.74	7.17		7.88		9.05	8.20	
H1 lead leg		strides	21	13	13	13		14	15	15	16		133				

**Brand, Dany (SUI) (1996)**

													<i>European Athletics (2024) - 2024 european athletics championships - results book</i>				
<b>Heat 3 - 2024 European Athletics Championships (Roma, ITA)</b>																	
date	09-Jun-24	time	6.05	9.84	13.70	17.72	21.82	26.09	30.45	34.96	39.81	44.63	49.99	3 / 5			
reaction time	0.214	interval		3.79	3.86	4.02	4.10	4.27	4.36	4.51	4.85	4.82	5.36		11.67	12.73	14.18
		velocity	7.44	9.23	9.07	8.71	8.54	8.20	8.03	7.76	7.22	7.26	7.46	8.00	9.00	8.25	7.40
H1 lead leg		strides											0				

**Heat 4 - 2022 European Athletics Championships (Munich, GER)**

													<i>European Athletics (2022) - european athletics championships race analysis</i>					
date	17-Aug-22	time	5.83	9.54	13.33	17.18	21.25	23.08	25.47	29.90	34.48	39.25	44.25	50.30	4 / 6			
reaction time	0.186	interval		3.71	3.79	3.85	4.07	4.22	4.43	4.58	4.77	5.00	6.05		11.35	12.72	14.35	
		velocity	7.72	9.43	9.23	9.09	8.60	8.67	8.29	7.90	7.64	7.34	7.00	6.61	7.95	9.25	8.25	7.32
H1 lead leg	L	strides	22	14	14	14		15	15	15	16	16	20.5	175.5				

**Branker, Xavier (USA) (2005)**

													<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>				
<b>Heat 5 - 2024 USA Olympic Trials (Eugene, OR)</b>																	

date	27-Jun-24	time	6.14	10.16	14.23	18.28	22.83	24.91	27.41	31.93	36.58	41.42	46.13		51.77	9 / 7			
reaction time		interval		4.02	4.07	4.05	4.55		4.58	4.52	4.65	4.84	4.71	5.64			12.14	13.65	14.20
		velocity	7.33	8.71	8.60	8.64	7.69	8.03	7.64	7.74	7.53	7.23	7.43	7.09	7.73		8.65	7.69	7.39
H1 lead leg	L	strides		13	13	13	15		15	15	15	15	15	17.2	146.2				
<b>Brzell, Bennie (USA) (1982)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2005 NCAA Championships (Sacramento, CA)</b>																<i>Shaver (2008) - hurdle training</i>			
date	11-Jun-05	time	6.06	9.76	13.60	17.45	21.34		25.37	29.59	33.85	38.23	42.64		47.67	5 / 2			
reaction time		interval		3.70	3.84	3.85	3.89		4.03	4.22	4.26	4.38	4.41	5.03	<b>PB</b>		11.39	12.14	13.05
		velocity	7.43	9.46	9.11	9.09	9.00		8.68	8.29	8.22	7.99	7.94	7.95	8.39		9.22	8.65	8.05
H1 lead leg	L	strides	22	13	13	13	13		13	15	15	15	16	19	167				
<b>FINAL - 2004 Olympic Games (Athina, GRE)</b>																<i>Behm (2005) - Athènes 2004: Les Haies Basses</i>			
date	26-Aug-04	time	6.0	9.6	13.3	17.1	21.1		25.2	29.4	33.7	38.3	43.1		49.51	8 / 8			
reaction time	0.390	interval		3.60	3.70	3.80	4.00		4.10	4.20	4.30	4.60	4.80	6.41			11.10	12.30	13.70
		velocity	7.50	9.72	9.46	9.21	8.75		8.54	8.33	8.14	7.61	7.29	6.24	8.08		9.46	8.54	7.66
H1 lead leg	L	strides	22	13	13	13	14		14	14	15	15	16	149					
<b>Brinkley, Chris (USA) (2003)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>Semi-Final 1 - 2024 USA Olympic Trials (Eugene, OR)</b>																<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>			
date	28-Jun-24	time	5.93	9.74	13.62	17.65	21.91	23.73	26.12	30.67	35.40	40.37	45.12		51.20	9 / 7			
reaction time		interval		3.81	3.88	4.03	4.26		4.21	4.55	4.73	4.97	4.75	6.08			11.72	13.02	14.45
		velocity	7.59	9.19	9.02	8.68	8.22	8.43	8.31	7.69	7.40	7.04	7.37	6.58	7.81		8.96	8.06	7.27
H1 lead leg	L	strides		13	13	14	14		15	15	15	15	15	19	148				
<b>Heat 2 - 2024 USA Olympic Trials (Eugene, OR)</b>																<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>			
date	27-Jun-24	time	6.13	9.92	13.87	17.84	21.90	23.83	26.15	30.59	35.40	40.14	44.96		50.71	4 / 4			
reaction time		interval		3.79	3.95	3.97	4.06		4.25	4.44	4.81	4.74	4.82	5.75			11.71	12.75	14.37
		velocity	7.34	9.23	8.86	8.82	8.62	8.39	8.24	7.88	7.28	7.38	7.26	6.96	7.89		8.97	8.24	7.31
H1 lead leg	L	strides	22	13	13	13	14				15	15	15	19	139				
<b>Brockman, Charles (USA) (1999)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>Semi-Final 2 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)</b>																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	25-Jun-21	time	6.14	10.01	14.01	18.05	22.22		26.56	31.03	35.50	40.00	44.47		49.54	9 / 7			
reaction time	0.241	interval		3.87	4.00	4.04	4.17		4.34	4.47	4.47	4.50	4.47	5.07			11.91	12.98	13.44
		velocity	7.33	9.04	8.75	8.66	8.39		8.06	7.83	7.83	7.78	7.83	7.89	8.07		8.82	8.09	7.81
H1 lead leg	R	strides		14	14	14	14		15	15	15	15	15	18.7	149.7				
<b>FINAL - 2021 NCAA Championships (Eugene, OR) (TV Analysis)</b>																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	11-Jun-21	time	6.03	9.77	13.60	17.50	21.53		25.77	30.27	34.83	39.50	44.33		49.92	5 / 8			
reaction time	0.190	interval		3.74	3.83	3.90	4.03		4.24	4.50	4.56	4.67	4.83	5.59			11.47	12.77	14.06
		velocity	7.46	9.36	9.14	8.97	8.68		8.25	7.78	7.68	7.49	7.25	7.16	8.01		9.15	8.22	7.47
H1 lead leg	R	strides	22	14	14	13	14		15	15	15	15	15	152					
<b>Bronson, Bryan (USA) (1972)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 1997 IAAF World Championships (Athens, GRE)</b>																<i>Hommel (1999) - biomechanical research project, athens 1997: final report</i>			
date	04-Aug-97	time	6.03	9.66	13.32	17.08	20.95		25.08	29.28	33.62	38.08	42.62		47.88	3 / 3			
reaction time	0.247	interval		3.63	3.66	3.76	3.87		4.13	4.20	4.34	4.46	4.54	5.26			11.05	12.20	13.34
		velocity	7.46	9.64	9.56	9.31	9.04		8.47	8.33	8.06	7.85	7.71	7.60	8.35		9.50	8.61	7.87
H1 lead leg		strides																	
<b>FINAL - 1996 USA Olympic Trials (Atlanta, GA)</b>																<i>McNichols - Hurdle technique study through video analysis</i>			
date	16-Jun-96	time	6.01	9.69	13.37	17.03	20.97	22.78	25.23	29.39	33.67	38.11	42.67		47.98	8 / 1			
reaction time		interval		3.68	3.68	3.66	3.94		4.26	4.16	4.28	4.44	4.56	5.31	<b>PB</b>		11.02	12.36	13.28
		velocity	7.49	9.51	9.51	9.56	8.88	8.78	8.22	8.41	8.18	7.88	7.68	7.53	8.34		9.53	8.50	7.91
H1 lead leg	R	strides	21	13	13	13	13		15	15	15	15	15	148					
<b>Buckley, Markino (JAM) (1986)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2008 IAAF World Athletics Final (Stuttgart, GER)</b>																<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>			
date	13-Sep-08	time	6.29	10.11	13.99	17.87	21.90		26.09	30.49	34.94	39.48	44.11		49.52	1 / 4			
reaction time	0.276	interval		3.82	3.88	3.88	4.03		4.19	4.40	4.45	4.54	4.63	5.41			11.58	12.62	13.62
		velocity	7.15	9.16	9.02	9.02	8.68		8.35	7.95	7.87	7.71	7.56	7.39	8.08		9.07	8.32	7.71
H1 lead leg		strides																	
<b>FINAL - 2008 Olympic Games (Beijing, CHN)</b>																<i>Behm (2008) - Pekin 2008: Le quatrache masculin - féminin</i>			
date	18-Aug-08	time	5.9	9.9	13.9	17.8	21.7		25.9	30.2	34.5	39.0	43.5		48.60	9 / 7			
reaction time	0.264	interval		4.00	4.00	3.90	3.90		4.20	4.30	4.30	4.50	4.50	5.10			11.90	12.40	13.30
		velocity	7.63	8.75	8.75	8.97	8.97		8.33	8.14	8.14	7.78	7.78	7.84	8.23		8.82	8.47	7.89
H1 lead leg	R	strides	21	13	13	13	13		14	14	14	14	14	17	160				
<b>Budko, Vladimir (RUS) (1965)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 1991 European Cup (Frankfurt, GER)</b>																<i>Federle (2003) - http://www.fgs.uni-halle.de</i>			
date	29-Jun-91	time	6.31	10.15	14.07	18.03	22.05		26.17	30.49	34.89	39.51	44.35		49.96	1 / 4			
reaction time		interval		3.84	3.92	3.96	4.02		4.12	4.32	4.40	4.62	4.84	5.61			11.72	12.46	13.86
		velocity	7.13	9.11	8.93	8.84	8.71		8.50	8.10	7.95	7.58	7.23	7.13	8.01		8.96	8.43	7.58
H1 lead leg		strides																	



															27 of 212	M400H athlete																
<b>Bultheel, Michaël (BEL) (1986)</b>																																
<b>FINAL - 2007 European Cup (Munich, GER)</b>															USATF and Karmarush (2024) - USA Olympic trials results and race analysis		Lane / Place		H1-H4	H4-H7	H7-H10											
date 23-Jun-07															time	6.16	10.03	13.99	17.99	22.10		26.42	30.92	35.61	40.40	45.30	50.87	1 / 7				
reaction time 0.149															interval		3.87	3.96	4.00	4.11		4.32	4.50	4.69	4.79	4.90	5.57		11.83	12.93	14.38	
															velocity	7.31	9.04	8.84	8.75	8.52		8.10	7.78	7.46	7.31	7.14	7.18	7.86		8.88	8.12	7.30
H1 lead leg															strides																	
<b>Burrell, Sean (USA) (2002)</b>																																
<b>Semi-Final 3 - 2024 USA Olympic Trials (Eugene, OR)</b>															USATF and Karmarush (2024) - USA Olympic trials results and race analysis		Lane / Place		H1-H4	H4-H7	H7-H10											
date 28-Jun-24															time	5.97	9.81	13.78	17.84	21.87	23.77	26.11	30.55	35.16	39.80	44.44	50.26	4 / 6				
reaction time															interval		3.84	3.97	4.06	4.03		4.24	4.44	4.61	4.64	4.64	5.82		11.87	12.71	13.89	
															velocity	7.54	9.11	8.82	8.62	8.68	8.41	8.25	7.88	7.59	7.54	7.54	6.87	7.96		8.85	8.26	7.56
H1 lead leg L															strides	22	14	14	14	14		15	15	15	15	15	18	171				
<b>Heat 3 - 2024 USA Olympic Trials (Eugene, OR)</b>															USATF and Karmarush (2024) - USA Olympic trials results and race analysis		Lane / Place		H1-H4	H4-H7	H7-H10											
date 27-Jun-24															time	6.18	10.05	14.02	18.22	22.54	24.51	27.01	31.50	36.29	41.06	45.63	50.90	5 / 4				
reaction time															interval		3.87	3.97	4.20	4.32		4.47	4.49	4.79	4.77	4.57	5.27		12.04	13.28	14.13	
															velocity	7.28	9.04	8.82	8.33	8.10	8.16	7.83	7.80	7.31	7.34	7.66	7.59	7.86		8.72	7.91	7.43
H1 lead leg L															strides	22	14	14	14	14		15	15	15	15	15	18	171				
<b>FINAL - 2024 NCAA Championships (Eugene, OR) (TV Analysis)</b>															Henson (2024) - Athlete First: 2024 year end hurdle report		Lane / Place		H1-H4	H4-H7	H7-H10											
date 07-Jun-24															time	6.00	9.66	13.45	17.40	21.40		25.64	30.11	34.71	39.61	44.76	51.17	4 / 8				
reaction time															interval		3.66	3.79	3.95	4.00		4.24	4.47	4.60	4.90	5.15	6.41		11.40	12.71	14.65	
															velocity	7.50	9.56	9.23	8.86	8.75		8.25	7.83	7.61	7.14	6.80	6.24	7.82		9.21	8.26	7.17
H1 lead leg R															strides	22	13	14	14	14		15	15	15	15	16	153					
<b>FINAL - 2021 NCAA Championships (Eugene, OR) (TV Analysis)</b>															Henson (2021) - Athlete First: 2021 year end hurdle report		Lane / Place		H1-H4	H4-H7	H7-H10											
date 11-Jun-21															time	5.87	9.70	17.43	21.33			29.56	33.97	38.40	42.83	47.85	8 / 1					
reaction time 0.194															interval		3.83	7.73	3.90			8.23	4.41	4.43	4.43	5.02	WJR		11.56	12.13	13.27	
															velocity	7.67	9.14	9.06	8.97			8.51	7.94	7.90	7.90	7.97	8.36		9.08	8.66	7.91	
H1 lead leg L															strides	22	14		14					15	15	15	18.2	113.2				
<b>Burton, Jereme (USA) (1984)</b>																																
<b>FINAL - 2003 USATF National Junior Championships (Palo Alto, CA)</b>															USATF Women's Sprint Development (2003)		Lane / Place		H1-H4	H4-H7	H7-H10											
date 22-Jun-03															time	6.16	10.04	14.01	18.00	22.21		26.56	31.08	35.80	40.79	45.91	51.92	5 / 4				
reaction time															interval		3.88	3.97	3.99	4.21		4.35	4.52	4.72	4.99	5.12	6.01	PB		11.84	13.08	14.83
															velocity	7.31	9.02	8.82	8.77	8.31		8.05	7.74	7.42	7.01	6.84	6.66	7.70		8.87	8.03	7.08
H1 lead leg															strides																	
<b>Büttner, Dieter (FRG) (1949)</b>																																
<b>Semi-Final 2 - 1972 Olympic Games (Munich, FRG)</b>															Schmidt (1973) - vorolympisches training von john akii-bua über 400 hürden		Lane / Place		H1-H4	H4-H7	H7-H10											
date 02-Sep-72															time				21.4			30.2			44.7	dnf	2 / --					
reaction time															interval							8.80			14.50						14.50	
															velocity				8.64			7.95			7.24						7.24	
H1 lead leg															strides																	
<b>Heat 1 - 1972 Olympic Games (Munich, FRG)</b>															Schmidt (1973) - vorolympisches training von john akii-bua über 400 hürden		Lane / Place		H1-H4	H4-H7	H7-H10											
date 01-Sep-72															time				21.5			30.4			49.78	1 / 1						
reaction time															interval							8.90										
															velocity				8.60			7.87					8.04					
H1 lead leg															strides																	
<b>Cai Jungi (CHN) (1996)</b>																																
<b>Heat 4 - 2021 Chinese National Championships (Chongqing, CHN)</b>															CAA Hurdle Development (2021)		Lane / Place		H1-H4	H4-H7	H7-H10											
date 26-Jun-21															time	6.32	10.31	14.38	18.59	22.94		27.39	31.85	36.37	40.99	45.73	51.60	3 / 3				
reaction time 0.229															interval		3.99	4.07	4.21	4.35		4.45	4.46	4.52	4.62	4.74	5.87		12.27	13.26	13.88	
															velocity	7.12	8.77	8.60	8.31	8.05		7.87	7.85	7.74	7.58	7.38	6.81	7.75		8.56	7.92	7.56
H1 lead leg L															strides	22	15	15	15	15		15	15	15	15	15	18.5	175.5				
<b>FINAL - 2021 East China District Meeting (Zhaoqing, CHN)</b>															CAA Hurdle Development (2021)		Lane / Place		H1-H4	H4-H7	H7-H10											
date 25-Apr-21															time	6.26	10.34	14.50	18.70	23.03		27.38	31.80	36.27	40.80	45.33	50.64	7 / 1				
reaction time 0.178															interval		4.08	4.16	4.20	4.33		4.35	4.42	4.47	4.53	4.53	5.31		12.44	13.10	13.53	
															velocity	7.19	8.58	8.41	8.33	8.08		8.05	7.92	7.83	7.73	7.73	7.53	7.90		8.44	8.02	7.76
H1 lead leg L															strides	22	15	15	15	15		15	15	15	15	15	18.5	175.5				
<b>Heat 2 - 2021 East China District Meeting (Zhaoqing, CHN)</b>															CAA Hurdle Development (2021)		Lane / Place		H1-H4	H4-H7	H7-H10											
date 25-Apr-21															time	6.38	10.52	14.84	19.20	23.62		28.06	32.54	36.98	41.50	46.08	51.88	6 / 1				
reaction time 0.204															interval		4.14	4.32	4.36	4.42		4.44	4.48	4.44	4.52	4.58	5.80		12.82	13.34	13.54	
															velocity	7.05	8.45	8.10	8.03	7.92		7.88	7.81	7.88	7.74	7.64	6.90	7.71		8.19	7.87	7.75
H1 lead leg L															strides	22	15	15	15	15		15	15	15	15	15	19	176				
<b>FINAL - 2019 Chinese National Grand Prix Final (Daqing, CHN)</b>															CAA Hurdle Development (2019)		Lane / Place		H1-H4	H4-H7	H7-H10											
date 23-Aug-19															time	6.34	10.31	14.30	18.40	22.66		26.98	31.42	36.02	40.76	45.70	51.69	3 / 6				
reaction time 0.201															interval		3.97	3.99	4.10	4.26		4.32	4.44	4.60	4.74	4.94	5.99		12.06	13.02	14.28	
															velocity	7.10	8.82	8.77	8.54	8.22		8.10	7.88	7.61	7.38	7.09	6.68	7.74		8.71	8.06	7.35
H1 lead leg L															strides	22	15	15	15	15		15	15	15	15	15	19.5	176.5				

**Heat 1 - 2019 Chinese National Grand Prix Final (Daqing, CHN)**

														CAA Hurdle Development (2019)			
date	22-Aug-19	time	6.39	10.53	14.80	19.17	23.54	27.99	32.57	37.17	41.91	46.76	52.42	6 / 3	12.78	13.40	14.19
reaction time	0.199	interval		4.14	4.27	4.37	4.37	4.45	4.58	4.60	4.74	4.85	5.66		8.22	7.84	7.40
		velocity	7.04	8.45	8.20	8.01	8.01	7.87	7.64	7.61	7.38	7.22	7.07				
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	19				

**FINAL - 2019 Chinese National Championships (Shenyang, CHN)**

														CAA Hurdle Development (2019)			
date	10-Jul-19	time	6.24	10.21	14.36	18.40	22.50	26.74	31.05	35.47	40.03	44.86	50.46	3 / <del>3</del> 2	12.16	12.65	13.81
reaction time	0.196	interval		3.97	4.15	4.04	4.10	4.24	4.31	4.42	4.56	4.83	5.60		8.63	8.30	7.60
		velocity	7.21	8.82	8.43	8.66	8.54	8.25	8.12	7.92	7.68	7.25	7.14				
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	19.5				

**Heat 2 - 2019 Chinese National Championships (Shenyang, CHN)**

														CAA Hurdle Development (2019)			
date	09-Jul-19	time	6.35	10.41	14.49	18.69	22.90	27.21	31.60	36.06	40.62	45.36	51.22	6 / <del>3</del> 2	12.34	12.91	13.76
reaction time	0.189	interval		4.06	4.08	4.20	4.21	4.31	4.39	4.46	4.56	4.74	5.86		8.51	8.13	7.63
		velocity	7.09	8.62	8.58	8.33	8.31	8.12	7.97	7.85	7.68	7.38	6.83				
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	19.5				

**FINAL - 2019 Chinese National Grand Prix 1 (Zhaoqing, CHN)**

														CAA Hurdle Development (2019)			
date	08-Apr-19	time	6.22	10.30	14.50	18.68	22.94	27.20	31.56	36.04	40.56	45.18	50.56	5 / 1	12.46	12.88	13.62
reaction time	0.179	interval		4.08	4.20	4.18	4.26	4.26	4.36	4.48	4.52	4.62	5.38		8.43	8.15	7.71
		velocity	7.23	8.58	8.33	8.37	8.22	8.22	8.03	7.81	7.74	7.58	7.43				
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	19				

**FINAL - 2017 Chinese National Games (Tianjin, CHN)**

														CAA Hurdle Development (2019)			
date	04-Sep-17	time	5.91	9.96	14.13	18.38	22.64	27.04	31.43	35.93	40.38	44.83	50.08	1 / 4	12.47	13.05	13.40
reaction time		interval		4.05	4.17	4.25	4.26	4.40	4.39	4.50	4.45	4.45	5.25		8.42	8.05	7.84
		velocity	7.61	8.64	8.39	8.24	8.22	7.95	7.97	7.78	7.87	7.87	7.62				
H1 lead leg		strides	22	15	15	15	15	15	15	15	15	15	20				

Wang (2020) - comparative analysis of pre-competitoin training of finalist in 400m hurdlers at 13th national games

**Campbell, Basil (USA) (1985)**

														USATF Women's Sprint Development (2003)			
date	22-Jun-03	time	6.12	10.23	14.41	18.48	22.86	27.51	32.06	36.72	41.65	46.88	53.41	6 / 6	12.36	13.58	14.82
reaction time		interval		4.11	4.18	4.07	4.38	4.65	4.55	4.66	4.93	5.23	6.53		8.50	7.73	7.09
		velocity	7.35	8.52	8.37	8.60	7.99	7.53	7.69	7.51	7.10	6.69	6.13				
H1 lead leg		strides															

**Campbell, Luke (GER) (1994)**

														Henson (2024) - Athlete First: 2021 year end hurdle report			
date	01-Aug-21	time	5.76	9.38	13.10	16.83	20.70	24.92	29.13	33.50	38.12	42.93	48.62	8 / 5	11.07	12.30	13.80
reaction time	0.153	interval		3.62	3.72	3.73	3.87	4.22	4.21	4.37	4.62	4.81	5.69	PB	9.49	8.54	7.61
		velocity	7.81	9.67	9.41	9.38	9.04	8.29	8.31	8.01	7.58	7.28	7.03				
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	18.7				

**Heat 3 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)**

														Henson (2024) - Athlete First: 2021 year end hurdle report			
date	30-Jul-21	time	5.77	9.50	13.30	17.26	21.13	25.35	29.67	34.12	38.77	43.56	49.19	4 / 4	11.49	12.41	13.89
reaction time	0.145	interval		3.73	3.80	3.96	3.87	4.22	4.32	4.45	4.65	4.79	5.63		9.14	8.46	7.56
		velocity	7.80	9.38	9.21	8.84	9.04	8.29	8.10	7.87	7.53	7.31	7.10				
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	18				

**Semi-Final 2 - 2019 IAAF World Championships (Doha, QAT)**

														Kakehata (2019) - race analysis of men's 400m hurdlers 2019 World Championships			
date	28-Sep-19	time	5.82	9.47	13.17	17.00	21.02	25.25	29.66	34.27	39.00	44.01	50.00	3 / 6	11.18	12.66	14.35
reaction time	0.146	interval		3.65	3.70	3.83	4.02	4.23	4.41	4.61	4.73	5.01	5.99		9.39	8.29	7.32
		velocity	7.73	9.59	9.46	9.14	8.71	8.27	7.94	7.59	7.40	6.99	6.68				
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	19				

**Cao Xiong (CHN) (2001)**

														CAA Hurdle Development (2020)			
date	17-Sep-20	time	6.05	10.17	14.37	18.66	23.12	27.79	32.62	37.62		48.08	53.96	8 / 8	12.61	13.96	15.46
reaction time		interval		4.12	4.20	4.29	4.46	4.67	4.83	5.00		10.46	5.88		8.33	7.52	6.79
		velocity	7.44	8.50	8.33	8.16	7.85	7.49	7.25	7.00		6.69	6.80				
H1 lead leg	L	strides		15	15	15	15	15	15	16		18.5	125				

**U20 FINAL - 2019 Chinese National Youth Games (Taiyuan, CHN)**

														CAA Hurdle Development (2019)			
date	17-Aug-19	time	6.28	10.46	14.54	18.68	22.96	27.52	32.14	36.87	41.79	46.88	52.31	8 / 6	12.40	13.46	14.74
reaction time	0.203	interval		4.18	4.08	4.14	4.28	4.56	4.62	4.73	4.92	5.09	5.43	PB	8.47	7.80	7.12
		velocity	7.17	8.37	8.58	8.45	8.18	7.68	7.58	7.40	7.11	6.88	7.37				
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	16	19				

**U20 Heat 2 - 2019 Chinese National Youth Games (Taiyuan, CHN)**

														CAA Hurdle Development (2019)			
date	17-Aug-19	time	6.46	10.73	15.00	19.32	23.70	28.37	33.07	37.84	42.86	48.06	54.20	7 / 2	12.86	13.75	14.99
reaction time	0.197	interval		4.27	4.27	4.32	4.38	4.67	4.70	4.77	5.02	5.20	6.14		8.16	7.64	7.00
		velocity	6.97	8.20	8.20	8.10	7.99	7.49	7.45	7.34	6.97	6.73	6.51				
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	16	19				

**Carabelli, Gianni (ITA) (1979)**

														Behm (2006) - Göteborg 2006: Le quatrache			
date		time															

date	10-Aug-06	time	5.9	9.7	13.5	17.3	21.3	25.4	29.7	34.3	38.8	43.6	49.60	/ 6					
reaction time		interval		3.80	3.80	3.80	4.00	4.10	4.30	4.60	4.50	4.80	6.00		11.40	12.40	13.90		
		velocity	7.63	9.21	9.21	9.21	8.75	8.54	8.14	7.61	7.78	7.29	6.67		8.06	9.21	8.47	7.55	
H1 lead leg	R	strides	20	13	13	13	13	13	14	14	14	15	18.5		160.5				
<b>Carbe, Jonathan (SWE) (1990)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2011 Peks Memorial (Hässleholm, SWE)</b>														<i>Blomkvist (2011) - www.elitlandslag.se/SprintHäck/LängSprintHäck.aspx</i>					
date	12-Jun-11	time	6.44	10.58	14.84	19.26	23.70	28.42	33.16	37.94	42.94	47.94	53.59	/ 1					
reaction time		interval		4.14	4.26	4.42	4.44	4.72	4.74	4.78	5.00	5.00	5.65			12.82	13.90	14.78	
		velocity	6.99	8.45	8.22	7.92	7.88	7.42	7.38	7.32	7.00	7.00	7.08		7.46	8.19	7.55	7.10	
H1 lead leg	L	strides		14	14	14	14	15	15	15	15	15	19		150				
<b>Caristan, Stéphane (FRA) (1964)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 1992 Olympic Games (Barcelona, ESP)</b>														<i>Bello (1992) - Diagona: 45.18 / 48.13 : 3" d'ecart; incompressibles?</i>					
date	06-Aug-92	time	5.90	9.75	13.60	17.50	21.45	25.75	30.00	34.40	38.95	43.50	48.86	1 / 7					
reaction time		interval		3.85	3.85	3.90	3.95	4.30	4.25	4.40	4.55	4.55	5.36		<b>PB</b>	11.60	12.50	13.50	
		velocity	7.63	9.09	9.09	8.97	8.86	8.14	8.24	7.95	7.69	7.69	7.46		8.19	9.05	8.40	7.78	
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	18.1		164.1				
<b>FINAL - 1991 European Cup (Frankfurt, GER)</b>														<i>Federle (2003) - http://www.fgs.uni-halle.de</i>					
date	29-Jun-91	time	6.06	9.84	13.70	17.58	21.52	25.62	30.07	34.54	39.17	43.95	49.43	/ 2					
reaction time		interval		3.78	3.86	3.88	3.94	4.10	4.45	4.47	4.63	4.78	5.48			11.52	12.49	13.88	
		velocity	7.43	9.26	9.07	9.02	8.88	8.54	7.87	7.83	7.56	7.32	7.30		8.09	9.11	8.41	7.56	
H1 lead leg		strides																	
<b>Carne, Ben (GBR) (1986)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2007 European Cup (Munich, GER)</b>														<i>Graubner (2007) - http://www.fgs.uni-halle.de</i>					
date	23-Jun-07	time	6.15	10.13	14.06	18.10	22.30	26.56	30.93	35.50	40.17	45.06	50.74	/ 6					
reaction time	0.212	interval		3.98	3.93	4.04	4.20	4.26	4.37	4.57	4.67	4.89	5.68			11.95	12.83	14.13	
		velocity	7.32	8.79	8.91	8.66	8.33	8.22	8.01	7.66	7.49	7.16	7.04		7.88	8.79	8.18	7.43	
H1 lead leg		strides																	
<b>Carter, James (USA) (1978)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2007 IAAF World Athletics Final (Stuttgart, GER)</b>														<i>Graubner (2007) - http://www.fgs.uni-halle.de</i>					
date	22-Sep-07	time	6.00	9.52	13.35	17.14	21.18	25.30	29.54	33.92	38.52	43.16	48.36	5 / 3					
reaction time	0.132	interval		3.52	3.83	3.79	4.04	4.12	4.24	4.38	4.60	4.64	5.20			11.14	12.40	13.62	
		velocity	7.50	9.94	9.14	9.23	8.66	8.50	8.25	7.99	7.61	7.54	7.69		8.27	9.43	8.47	7.71	
H1 lead leg		strides																	
<b>FINAL - 2007 IAAF World Championships (Osaka, JPN)</b>														<i>Yasunori (2008) - race pattern analysis of the world and Japanese top 400m hurdlers</i>					
date	28-Aug-07	time	5.76	9.45	13.19	17.04	21.04	25.18	29.40	33.65	38.14	42.84	48.40	6 / 4					
reaction time	0.152	interval		3.69	3.74	3.85	4.00	4.14	4.22	4.25	4.49	4.70	5.56			11.28	12.36	13.44	
		velocity	7.81	9.49	9.36	9.09	8.75	8.45	8.29	8.24	7.80	7.45	7.19		8.26	9.31	8.50	7.81	
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	17.7		160				
<b>Heat 2 - 2007 USATF National Championships (Indianapolis, IN)</b>														<i>USATF Men's Hurdle Development (2007)</i>					
date	21-Jun-07	time	5.97	9.68	13.56	17.58	21.65	25.86	30.24	34.65	39.22	43.91	49.07	8 / 1					
reaction time		interval		3.71	3.88	4.02	4.07	4.21	4.38	4.41	4.57	4.69	5.16			11.61	12.66	13.67	
		velocity	7.54	9.43	9.02	8.71	8.60	8.31	7.99	7.94	7.66	7.46	7.75		8.15	9.04	8.29	7.68	
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	14		142				
<b>FINAL - 2007 Osaka Grand Prix (Osaka, JPN)</b>														<i>Yasunori (2008) - race pattern analysis of the world and Japanese top 400m hurdlers</i>					
date	05-May-07	time	5.79	9.49	13.24	17.21	21.28	25.40	29.62	33.94	38.36	42.95	48.22	/ 2					
reaction time		interval		3.70	3.75	3.97	4.07	4.12	4.22	4.32	4.42	4.59	5.27			11.42	12.41	13.33	
		velocity	7.77	9.46	9.33	8.82	8.60	8.50	8.29	8.10	7.92	7.63	7.59		8.30	9.19	8.46	7.88	
H1 lead leg		strides		13	13	13	13	13	14	14	14	14	14		121				
<b>FINAL - 2006 USATF National Championships (Indianapolis, IN)</b>														<i>USATF Men's Hurdle Development (2006)</i>					
date	24-Jun-06	time	5.99	9.76	13.58	17.45	21.46	25.53	29.76	34.07	38.52	43.11	48.44	3 / 3					
reaction time		interval		3.77	3.82	3.87	4.01	4.07	4.23	4.31	4.45	4.59	5.33			11.46	12.31	13.35	
		velocity	7.51	9.28	9.16	9.04	8.73	8.60	8.27	8.12	7.87	7.63	7.50		8.26	9.16	8.53	7.87	
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	17		159				
<b>FINAL - 2005 Osaka Grand Prix (Osaka, JPN)</b>														<i>Yasunori (2006) - race pattern analysis of top Japanese 400m hurdlers</i>					
date	07-May-05	time	5.77	9.47	13.21	17.13	21.23	25.48	29.82	34.26	38.71	43.25	48.42	/ 1					
reaction time		interval		3.70	3.74	3.92	4.10	4.25	4.34	4.44	4.45	4.54	5.17			11.36	12.69	13.43	
		velocity	7.80	9.46	9.36	8.93	8.54	8.24	8.06	7.88	7.87	7.71	7.74		8.26	9.24	8.27	7.82	
H1 lead leg		strides		13	13	13	13	14	14	14	14	14	14		122				
<b>FINAL - 2004 Olympic Games (Athina, GRE)</b>														<i>Ruiz (2004) - las carreras con vallas de juegos olimpicos de atenas '04</i>					
date	26-Aug-04	time	5.78	9.29	13.10	16.76	20.70	24.69	28.96	33.29	37.80	42.71	48.58	4 / 4					
reaction time	0.223	interval		3.51	3.81	3.66	3.94	3.99	4.27	4.33	4.51	4.91	5.87			10.98	12.20	13.75	
		velocity	7.79	9.97	9.19	9.56	8.88	8.77	8.20	8.08	7.76	7.13	6.81		8.23	9.56	8.61	7.64	
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	15	18		161				
<b>FINAL - 2003 USATF National Championships (Palo Alto, CA)</b>														<i>USATF Women's Sprint Development (2003)</i>					
date	22-Jun-03	time	5.82	9.64	13.61	17.68	22.01	26.39	30.70	35.10	39.52	44.03	49.23	6 / 4-3					



reaction time	interval	3.82	3.97	4.07	4.33		4.38	4.31	4.40	4.42	4.51	5.20		11.86	13.02	13.33		
	velocity	7.73	9.16	8.82	8.60	8.08	7.99	8.12	7.95	7.92	7.76	7.69	8.13	8.85	8.06	7.88		
H1 lead leg	strides																	
<b>FINAL - 2002 IAAF World Cup (Madrid, ESP)</b>													<i>Sanchez (2002) - copa del mundo de Madrid '02: análisis de la carreras con villas</i>					
date	20-Sep-02	time	5.65	9.42	13.23	17.04	21.00	25.09	29.36	33.68	38.27	42.89	48.27	6 / 1				
reaction time	0.131	interval	3.77	3.81	3.81	3.96	4.09	4.27	4.32	4.59	4.62	5.38		11.39	12.32	13.53		
		velocity	7.96	9.28	9.19	9.19	8.84	8.56	8.20	8.10	7.63	7.58	7.43	8.29	9.22	8.52	7.76	
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	17.5	159.5				
<b>FINAL - 2000 Olympic Games (Sydney, AUS)</b>													<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>					
date	27-Sep-00	time	5.78	9.50	13.26	17.10	21.06	22.58	25.14	29.26	33.62	38.02	42.62	48.04	5 / 4			
reaction time	0.421	interval	3.72	3.76	3.84	3.96	4.08	4.12	4.36	4.40	4.60	5.42	PB	11.32	12.16	13.36		
		velocity	7.79	9.41	9.31	9.11	8.84	8.86	8.58	8.50	8.03	7.95	7.61	7.38	8.33	9.28	8.63	7.86
H1 lead leg		strides	21	13	13	13	13	13	14	14	14	14	17	159				
<b>Semi-Final 3 - 2000 Olympic Games (Sydney, AUS)</b>													<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>					
date	25-Sep-00	time	5.70	9.46	13.14	16.90	20.86	22.38	24.90	29.14	33.54	38.10	42.96	48.48	3 / 1			
reaction time	0.202	interval	3.76	3.68	3.76	3.96	4.04	4.24	4.40	4.56	4.86	5.52		11.20	12.24	13.82		
		velocity	7.89	9.31	9.51	9.31	8.84	8.94	8.66	8.25	7.95	7.68	7.20	7.25	8.25	9.38	8.58	7.60
H1 lead leg		strides	21	13	13	13	13	13	14	14	14	15	18	161				
<b>Heat 6 - 2000 Olympic Games (Sydney, AUS)</b>													<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>					
date	24-Sep-00	time	5.74	9.50	13.46	17.38	21.46	25.70	30.26	34.78	39.30	43.94	49.41	7 / 2				
reaction time	0.174	interval	3.76	3.96	3.92	4.08	4.24	4.56	4.52	4.52	4.64	5.47		11.64	12.88	13.68		
		velocity	7.84	9.31	8.84	8.93	8.58	8.25	7.68	7.74	7.74	7.54	7.31	8.10	9.02	8.15	7.68	
H1 lead leg		strides	21	13	13	13	13	13	14	14	14	14	17.9	159.9				
<b>Cato, Roxroy (JAM) (1988)</b>																		
<b>FINAL - 2016 Racers Grand Prix (Kingston, JAM) (TV Analysis)</b>																		
date	11-Jun-16	time	5.73	9.57	17.60	21.93	26.23	30.47	34.72	39.07			48.98	7 / 2				
reaction time		interval	3.84	3.84	8.03	4.33	4.30	4.24	4.25	4.35			8.17		11.87	12.87		
		velocity	7.85	9.11	8.72	8.08	8.14	8.25	8.24	8.05			110		8.85	8.16		
H1 lead leg	L	strides	22	14		14	15	15	15	15								
<b>Cavanaugh, Caleb (USA) (2001)</b>																		
<b>Semi-Final 1 - 2024 USA Olympic Trials (Eugene, OR)</b>																		
date	28-Jun-24	time	5.87	9.67	13.62	17.68	21.75	23.85	26.14	30.87	35.78	41.12	46.38	53.06	2 / 9			
reaction time		interval	3.80	3.95	4.06	4.07	4.39	4.73	4.91	5.34	5.26	6.68			11.81	13.19	15.51	
		velocity	7.67	9.21	8.86	8.62	8.60	8.39	7.97	7.40	7.13	6.55	6.65	5.99	7.54	8.89	7.96	6.77
H1 lead leg	R	strides	22	13	14	14	14	15	15	15	16	16	19	173				
<b>Heat 3 - 2024 USA Olympic Trials (Eugene, OR)</b>																		
date	27-Jun-24	time	6.02	9.87	13.92	18.01	22.15	24.04	26.56	31.07	35.84	40.76	45.65	51.50	3 / 5			
reaction time		interval	3.85	4.05	4.09	4.14	4.41	4.51	4.77	4.92	4.89	5.85			11.99	13.06	14.58	
		velocity	7.48	9.09	8.64	8.56	8.45	8.32	7.94	7.76	7.34	7.11	7.16	6.84	7.77	8.76	8.04	7.20
H1 lead leg	R	strides	22	14	14	14	14	15	15	15	15	15	18	171				
<b>FINAL - 2023 NCAA Championships (Austin, TX) (TV Analysis)</b>																		
date	09-Jun-23	time	5.85	9.50	13.30	17.18	21.17	25.39	29.86	34.47	39.10	43.84		49.20	9 / 6			
reaction time		interval	3.65	3.80	3.88	3.99	4.22	4.47	4.61	4.63	4.74	5.36			11.33	12.68	13.98	
		velocity	7.69	9.59	9.21	9.02	8.77	8.29	7.83	7.59	7.56	7.38	7.46	8.13	9.27	8.28	7.51	
H1 lead leg	R	strides	20	13	13	13	13	13	15	15	15	15	17.7	162.7				
<b>Cawley, Rex (USA) (1940)</b>																		
<b>FINAL - 1964 Olympic Games (Tokyo, JPN)</b>																		
date	16-Oct-64	time	5.9		13.8		21.8		30.3		38.9		49.6	6 / 1				
reaction time		interval			7.90		8.00		8.50		8.60		10.70					
		velocity	7.63		8.86		8.75		8.24		8.14		7.01	8.06				
H1 lead leg		strides																
<b>Chalmers, Alastair (GBR) (2000)</b>																		
<b>Semi-Final 3 - 2024 Olympic Games (Paris, FRA)</b>																		
date	07-Aug-24	time	5.78	9.48	13.19	16.97	20.92	25.11	29.53	38.22	43.80	49.43		56.52	9 / 7			
reaction time	0.149	interval	3.70	3.71	3.78	3.95	4.19	4.42	4.69	5.58	5.63	7.09			11.19	12.56	19.90	
		velocity	7.79	9.46	9.43	9.26	8.86	8.35	7.92	4.03	6.27	6.22	5.64	7.08	9.38	8.36	5.28	
H1 lead leg	L	strides	20	13	13	13	13	14	15				101					
<b>Heat 5 - 2024 Olympic Games (Paris, FRA)</b>																		
date	05-Aug-24	time	5.87	9.57	13.30	17.12	21.12	25.29	29.67	34.19	38.88	43.57		48.98	9 / 3			
reaction time	0.179	interval	3.70	3.73	3.82	4.00	4.17	4.38	4.52	4.69	4.69	5.41			11.25	12.55	13.90	
		velocity	7.67	9.46	9.38	9.16	8.75	8.39	7.99	7.74	7.46	7.46	7.39	8.17	9.33	8.37	7.55	
H1 lead leg	L	strides	20	13	13	13	13	14	14	15	15	15	18	163				
<b>FINAL - 2024 London Athletics Meet (London, GBR)</b>																		
date	20-Jul-24	time	5.86	9.61	13.44	17.33	21.30	25.51	29.86	34.46	39.16	43.88		49.52	2 / 8			
reaction time	0.153	interval	3.75	3.83	3.89	3.97	4.21	4.35	4.60	4.70	4.72	5.64			11.47	12.53	14.02	

H1 lead leg	L	velocity	7.68	9.33	9.14	9.00	8.82		8.31	8.05	7.61	7.45	7.42	7.09	8.08		9.15	8.38	7.49
		strides	20	13	13	13	13				15			18	105				
<b>Semi-Final 2 - 2024 European Athletics Championships (Roma, ITA)</b>																			
<i>European Athletics (2024) - 2024 european athletics championships - results book</i>																			
date	10-Jun-24	time	5.76	9.43	13.22	16.97	21.00		25.13	29.47	33.87	38.60	43.28		48.76		9 / 3		
reaction time	0.162	interval		3.67	3.79	3.75	4.03		4.13	4.34	4.40	4.73	4.68	5.48	<b>PB</b>		11.21	12.50	13.81
		velocity	7.81	9.54	9.23	9.33	8.68		8.47	8.06	7.95	7.40	7.48	7.30	8.20		9.37	8.40	7.60
H1 lead leg	L	strides	20	13	13	13	13		14	14	15	15	15	18	163				
<b>Heat 2 - 2024 European Athletics Championships (Roma, ITA)</b>																			
<i>European Athletics (2024) - 2024 european athletics championships - results book</i>																			
date	09-Jun-24	time	5.76	9.46	13.23	17.10	21.22		25.62	30.10	34.76	39.53	44.28		49.71		7 / 3		
reaction time	0.146	interval		3.70	3.77	3.87	4.12		4.40	4.48	4.66	4.77	4.75	5.43			11.34	13.00	14.18
		velocity	7.81	9.46	9.28	9.04	8.50		7.95	7.81	7.51	7.34	7.37	7.37	8.05		9.26	8.08	7.40
H1 lead leg		strides												0					
<b>Semi-Final 1 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)</b>																			
<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>																			
date	17-Jul-22	time	5.77	9.57	13.60	17.60	21.87	23.76	26.20	30.67	35.20	40.07	44.90		50.54		1 / 6		
reaction time	0.157	interval		3.80	4.03	4.00	4.27		4.33	4.47	4.53	4.87	4.83	5.64			11.83	13.07	14.23
		velocity	7.80	9.21	8.68	8.75	8.20	8.42	8.08	7.83	7.73	7.19	7.25	7.09	7.91		8.88	8.03	7.38
H1 lead leg	L	strides	20	13	13	13	13		14	14	15	15	15	18	163				
<b>Chaly, Timofey (RUS) (1994)</b>																			
<b>FINAL - 2014 European Championships (Zurich, SUI)</b>																			
<i>Green (2015) - twitter.com/jackpgreen (from Behm?)</i>																			
date	15-Aug-14	time	6.08	9.88	13.84	17.84	21.92		26.08	30.56	35.12	39.80	44.52		49.56		/ 4		
reaction time	0.159	interval		3.80	3.96	4.00	4.08		4.16	4.48	4.56	4.68	4.72	5.04			11.76	12.72	13.96
		velocity	7.40	9.21	8.84	8.75	8.58		8.41	7.81	7.68	7.48	7.42	7.94	8.07		8.93	8.25	7.52
H1 lead leg	L	strides		13	13	13	13		13	14	14	14	14	14	121				
<b>Chen Chieh (TPE) (1992)</b>																			
<b>FINAL - 2023 Seiko Golden Grand Prix (Yokohama, JPN)</b>																			
<i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>																			
date	21-May-23	time	6.01	9.76	13.61	17.62	21.72		26.09	30.53	35.04	39.79	44.63		50.13		7 / 7		
reaction time	0.163	interval		3.75	3.85	4.01	4.10		4.37	4.44	4.51	4.75	4.84	5.50			11.61	12.91	14.10
		velocity	7.49	9.33	9.09	8.73	8.54		8.01	7.88	7.76	7.37	7.23	7.27	7.98		9.04	8.13	7.45
H1 lead leg	L	strides	21	13	13	13	13		14	14	15	15	15	18	164				
<b>FINAL - 2022 Seiko Golden Grand Prix (Tokyo, JPN)</b>																			
<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>																			
date	08-May-22	time	5.96	9.61	13.35	17.15	21.15		25.43	29.88	34.38	39.08	43.94		49.39		9 / 3		
reaction time	0.178	interval		3.65	3.74	3.80	4.00		4.28	4.45	4.50	4.70	4.86	5.45			11.19	12.73	14.06
		velocity	7.55	9.59	9.36	9.21	8.75		8.18	7.87	7.78	7.45	7.20	7.34	8.10		9.38	8.25	7.47
H1 lead leg	L	strides	21	13	13	13	13		14	14	15	15	15	15	164				
<b>FINAL - 2022 Michitaka Kinami Memorial (Osaka, JPN)</b>																			
<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>																			
date	01-May-22	time	5.97	9.64	13.41	17.27	21.22		25.51	29.93	34.47	39.16	43.96		49.31		7 / 2		
reaction time	0.171	interval		3.67	3.77	3.86	3.95		4.29	4.42	4.54	4.69	4.80	5.35			11.30	12.66	14.03
		velocity	7.54	9.54	9.28	9.07	8.86		8.16	7.92	7.71	7.46	7.29	7.48	8.11		9.29	8.29	7.48
H1 lead leg		strides		13	13	13	13		14	14	15	15	15	125					
<b>Heat 1 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>																			
<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>																			
date	30-Jul-21	time	6.07	9.90	13.94	18.06	22.20		26.60	31.20	35.87	40.63	45.50		50.96		3 / 7		
reaction time	0.158	interval		3.83	4.04	4.12	4.14		4.40	4.60	4.67	4.76	4.87	5.46			11.99	13.14	14.30
		velocity	7.41	9.14	8.66	8.50	8.45		7.95	7.61	7.49	7.35	7.19	7.33	7.85		8.76	7.99	7.34
H1 lead leg	L	strides	21	13	13	13	13		14	14	15	15	15	146					
<b>FINAL - 2021 Ready Steady Tokyo (Tokyo, JPN)</b>																			
<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>																			
date	09-May-21	time	6.17	10.16	14.18	18.34	22.62		27.14	31.78	36.57	41.44	46.43		52.08		1 / 9		
reaction time	0.177	interval		3.99	4.02	4.16	4.28		4.52	4.64	4.79	4.87	4.99	5.65			12.17	13.44	14.65
		velocity	7.29	8.77	8.71	8.41	8.18		7.74	7.54	7.31	7.19	7.01	7.08	7.68		8.63	7.81	7.17
H1 lead leg		strides		13	13	13	13		14	14	15	15	15	125					
<b>FINAL - 2019 Seiko Golden Grand Prix (Osaka, JPN)</b>																			
<i>Hirokawa (2019) - research on athlete performance and technique- 2019 data book</i>																			
date	19-May-19	time	5.92	9.58	13.37	17.18	21.20		25.41	30.03	35.00	40.09	45.20		51.05		8 / 5		
reaction time	0.190	interval		3.66	3.79	3.81	4.02		4.21	4.62	4.97	5.09	5.11	5.85			11.26	12.85	15.17
		velocity	7.60	9.56	9.23	9.19	8.71		8.31	7.58	7.04	6.88	6.85	6.84	7.84		9.33	8.17	6.92
H1 lead leg	L	strides	21	13	13	13	13		13	14	15	16	15	19	165				
<b>A FINAL - 2019 Kinami Memorial (Osaka, JPN)</b>																			
<i>Matsubayashi (2019) - research on athlete performance and technique- 2019 data book</i>																			
date	06-May-19	time	5.99	9.76	13.60	17.52	21.62		25.86	30.35	34.92	39.61	44.44		49.86		7 / 3		
reaction time		interval		3.77	3.84	3.92	4.10		4.24	4.49	4.57	4.69	4.83	5.42			11.53	12.83	14.09
		velocity	7.51	9.28	9.11	8.93	8.54		8.25	7.80	7.66	7.46	7.25	7.38	8.02		9.11	8.18	7.45
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	15	15	18.2	162.2				
<b>A FINAL - 2019 Shizuoka International Athletics Meeting (Fukuroi, JPN)</b>																			
<i>Kobayashi (2019) - research on athlete performance and technique- 2019 data book</i>																			
date	03-May-19	time	5.96	9.58	13.28	17.13	21.10		25.26	29.76	34.35	39.24	44.33		50.05		7 / 2		
reaction time		interval		3.62	3.70	3.85	3.97		4.16	4.50	4.59	4.89	5.09	5.72			11.17	12.63	14.57
		velocity	7.55	9.67	9.46	9.09	8.82		8.41	7.78	7.63	7.16	6.88	6.99	7.99		9.40	8.31	7.21
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	15	15	18.5	162.5				

**FINAL - 2019 Asian Athletics Championships (Doha, QAT)**

CAA Hurdle Development (2019)

date	22-Apr-19	time	5.84	9.49	13.19	16.98	20.92	25.00	29.41	33.92	38.57	43.37	48.92	6 / 2				
reaction time	0.195	interval		3.65	3.70	3.79	3.94	4.08	4.41	4.51	4.65	4.80	5.55		PB	11.14	12.43	13.96
		velocity	7.71	9.59	9.46	9.23	8.88	8.58	7.94	7.76	7.53	7.29	7.21			9.43	8.45	7.52
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	15	15	17.5					

**Chen Ke (CHN) (1989)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**FINAL - 2017 Chinese National Games (Tianjin, CHN)**

Wang (2020) - comparative analysis of pre-competitoin training of finalist in 400m hurdlers at 13th national games

date	04-Sep-17	time	6.00	10.50	15.03	19.39	23.78	28.36	32.95	37.64	42.64	48.14	54.28	8				
reaction time		interval		4.50	4.53	4.36	4.39	4.58	4.59	4.69	5.00	5.50	6.14			13.39	13.56	15.19
		velocity	7.50	7.78	7.73	8.03	7.97	7.64	7.63	7.46	7.00	6.36	6.51	7.37		7.84	7.74	6.91
H1 lead leg		strides	21	15	15	14	14	14	14	15	15	15	152					

**Chen Tien-Wen (TPE) (1978)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**Semi-Final 1 - 2000 Olympic Games (Sydney, AUS)**

Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games

date	25-Sep-00	time	5.98	9.82	13.82	17.82	21.86	23.42	25.98	30.38	34.86	39.46	50.52	8 / 8				
reaction time	0.182	interval		3.84	4.00	4.00	4.04	4.12	4.40	4.48	4.60					11.84	12.56	
		velocity	7.53	9.11	8.75	8.75	8.66	8.54	8.50	7.95	7.81	7.61	7.92			8.87	8.36	
H1 lead leg		strides	22	14	14	14	14	14	14	14	15	15	136					

**Heat 2 - 2000 Olympic Games (Sydney, AUS)**

Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games

date	24-Sep-00	time	6.10	9.90	13.82	17.86	21.94	26.26	34.98	39.54	44.34	49.93	2 / 5					
reaction time	0.180	interval		3.80	3.92	4.04	4.08	4.32	4.72	4.56	4.80	5.59				11.76		
		velocity	7.38	9.21	8.93	8.66	8.58	8.10	8.03	7.68	7.29	7.16	8.01			8.93		
H1 lead leg		strides	21	14	14	14	14	14	14	15	15	15	19.1		169.1			

**Chevychalov, Georgiy (URS) (1935)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**FINAL - 1961 Universiade (Sofia, BUL)**

Bartusek (1969) - 400-meter training and technique

date	01-Sep-61	time	5.8	10.1	14.1	18.1	22.4	26.9	31.5	36.0	40.6	45.8	51.7	2				
reaction time		interval		4.30	4.00	4.00	4.30	4.50	4.60	4.50	4.60	5.20	5.90			12.30	13.40	14.30
		velocity	7.76	8.14	8.75	8.75	8.14	7.78	7.61	7.78	7.61	6.73	6.78	7.74		8.54	7.84	7.34
H1 lead leg		strides																

**Chiba, Yoshihiro (JPN) (1979)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**FINAL - 2006 Seiko Super Grand Prix (Yokohama, JPN)**

Yasunori (2007) - race pattern analysis of top Japanese 400m hurdlers

date	24-Sep-06	time	5.99	9.76	13.61	17.65	21.79	26.06	30.48	34.95	39.45	44.09	49.65	5				
reaction time		interval		3.77	3.85	4.04	4.14	4.27	4.42	4.47	4.50	4.64	5.56			11.66	12.83	13.61
		velocity	7.51	9.28	9.09	8.66	8.45	8.20	7.92	7.83	7.78	7.54	7.19	8.06		9.01	8.18	7.71
H1 lead leg		strides		14	14	14	14	14	15	15	15	15	130					

**FINAL - 2006 Osaka Grand Prix (Osaka, JPN)**

Yasunori (2007) - race pattern analysis of top Japanese 400m hurdlers

date	06-May-06	time	6.04	9.79	13.56	17.45	21.40	25.46	29.61	33.95	38.47	43.22	48.83	5				
reaction time		interval		3.75	3.77	3.89	3.95	4.06	4.15	4.34	4.52	4.75	5.61			11.41	12.16	13.61
		velocity	7.45	9.33	9.28	9.00	8.86	8.62	8.43	8.06	7.74	7.37	7.13	8.19		9.20	8.63	7.71
H1 lead leg		strides		14	14	14	14	14	15	15	15	15	130					

**FINAL - 2004 Osaka Grand Prix (Osaka, JPN)**

Yasunori (2005) - race pattern analysis of top Japanese 400m hurdlers

date	08-May-04	time	6.02	9.92	13.96	18.08	22.28	26.60	30.99	35.58	40.28	45.12	50.86	9				
reaction time		interval		3.90	4.04	4.12	4.20	4.32	4.39	4.59	4.70	4.84	5.74			12.06	12.91	14.13
		velocity	7.48	8.97	8.66	8.50	8.33	8.10	7.97	7.63	7.45	7.23	6.97	7.86		8.71	8.13	7.43
H1 lead leg		strides		14	14	14	14	15	15	15	15	15	131					

**Chiba, Yuto (JPN) (1992)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**FINAL - 2010 Japanese National High School Championships (Okinawa, JPN)**

Matsuo (2010) - 63rd high school championships: JAF scientific committee- biomechanics data

date	31-Jul-10	time	6.37	10.37	14.46	18.61	22.86	27.25	31.82	36.61	41.70	46.87	52.47	3				
reaction time		interval		4.00	4.09	4.15	4.25	4.39	4.57	4.79	5.09	5.17	5.60			12.24	13.21	15.05
		velocity	7.06	8.75	8.56	8.43	8.24	7.97	7.66	7.31	6.88	6.77	7.14	7.62		8.58	7.95	6.98
H1 lead leg		strides		15	15	15	15	15	15	15	16	16	137					

**Christensson, Jim (SWE) (1989)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**FINAL - 2011 Poks Memorial (Hässleholm, SWE)**

Blomkvist (2011) - www.elitandslag.se/SprintHäck/LängSprintHäck.aspx

date	12-Jun-11	time	6.60	10.90	15.36	19.80	24.28	28.84	33.44	38.16	43.16	48.16	53.73	2				
reaction time		interval		4.30	4.46	4.44	4.48	4.56	4.60	4.72	5.00	5.00	5.57			13.20	13.64	14.72
		velocity	6.82	8.14	7.85	7.88	7.81	7.68	7.61	7.42	7.00	7.00	7.18	7.44		7.95	7.70	7.13
H1 lead leg	L	strides		15	15	15	15	15	15	15	16	16	19		156			

**Cisneros, Omar (CUB) (1989)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**FINAL - 2013 IAAF World Championships (Moscow, RUS) (TV Analysis)**

Henson (2021) - Athlete First: major championships report

date	15-Aug-13	time	5.80	9.33	13.03	16.87	20.77	24.83	29.07	33.43	38.00	42.63	48.12	5 / 4				
reaction time	0.219	interval		3.53	3.70	3.84	3.90	4.06	4.24	4.36	4.57	4.63	5.49			11.07	12.20	13.56
		velocity	7.76	9.92	9.46	9.11	8.97	8.62	8.25	8.03	7.66	7.56	7.29	8.31		9.49	8.61	7.74
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	17.5		159.5			

**Clarke, Roshawn (JAM) (2004)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**FINAL - 2024 Memorial van damme (Brussels, BEL)**

Omega Timing (2023) - diamond league race analysis

date	14-Sep-24	time	5.59	9.20	12.96	16.75	20.67	24.78	29.03	33.39	38.25	43.07	49.08	5 / 5				
reaction time	0.176	interval		3.61	3.76	3.79	3.92	4.11	4.25	4.36	4.86	4.82	6.01			11.47	12.28	14.04



H1 lead leg	R	velocity	8.05	9.70	9.31	9.23	8.93	8.52	8.24	8.03	7.20	7.26	6.66	8.15	9.15	8.55	7.48		
		strides	21	13	13	13	13	14	14	15	16	15	18.7	165.7					
<b>FINAL - 2024 Weltklasse (Zürich, SUI)</b>																			
date	05-Sep-24	time	5.67	9.31	12.99	16.73	20.55	24.53	28.65	32.92	37.39	42.02	Omega Timing (2023) - diamond league race analysis						
reaction time	0.177	interval		3.64	3.68	3.74	3.82	3.98	4.12	4.27	4.47	4.63	5.47	47.49	3 / 1				
		velocity	7.94	9.62	9.51	9.36	9.16	8.79	8.50	8.20	7.83	7.56	7.31	8.42	9.34	8.81	7.85		
H1 lead leg	R	strides	21	13			14	14	14	14	15	15	19	139					
<b>FINAL - 2024 Kamila Skolimowska Memorial (Silesia, POL)</b>																			
date	25-Aug-24	time	5.64	9.31	13.04	16.77	20.84				33.52	37.92	42.43	47.74	6 / 4				
reaction time	0.188	interval		3.67	3.73	3.73	4.07				12.68	4.40	4.51	5.31		11.53			
		velocity	7.98	9.54	9.38	9.38	8.60				8.28	7.95	7.76	7.53	8.38	9.11			
H1 lead leg	R	strides	21	13	13	13	13	14	14	14	14	15	18	162					
<b>FINAL - 2024 Olympic Games (Paris, FRA)</b>																			
date	09-Aug-24	time	5.54	9.13	12.77	16.46	20.30	24.31	28.42	32.73	37.25	42.03	Paris 2024 Olympc Games - Results Book (2024)						
reaction time	0.195	interval		3.59	3.64	3.69	3.84	4.01	4.11	4.31	4.52	4.78	dnf	9 / --					
		velocity	8.12	9.75	9.62	9.49	9.11	8.73	8.52	8.12	7.74	7.32			10.92	11.96	13.61		
H1 lead leg	R	strides	21	14	13	13	13	14	14	15	15	15		147					
<b>Semi-Final 3 - 2024 Olympic Games (Paris, FRA)</b>																			
date	07-Aug-24	time	5.71	9.48	13.18	16.88	20.74	24.84	29.01	33.40	38.06	42.78	Paris 2024 Olympc Games - Results Book (2024)						
reaction time	0.184	interval		3.77	3.70	3.70	3.86	4.10	4.17	4.39	4.66	4.72	5.56	48.34	8 / 2				
		velocity	7.88	9.28	9.46	9.46	9.07	8.54	8.39	7.97	7.51	7.42	7.19	8.27	9.40	8.66	7.63		
H1 lead leg	L	strides	22	13	13	13	13	14	14	15	15	15	18	165					
<b>Heat 4 - 2024 Olympic Games (Paris, FRA)</b>																			
date	05-Aug-24	time	5.66	9.30	13.04	16.87	20.79	24.95	29.12	33.53	38.18	42.81	Paris 2024 Olympc Games - Results Book (2024)						
reaction time	0.191	interval		3.64	3.74	3.83	3.92	4.16	4.17	4.41	4.65	4.63	5.36	48.17	8 / 1				
		velocity	7.95	9.62	9.36	9.14	8.93	8.41	8.39	7.94	7.53	7.56	7.46	8.30	9.37	8.57	7.67		
H1 lead leg	R	strides	21	13	14	13	13	14	14	15	15	15	18	165					
<b>FINAL - 2024 London Athletics Meet (London, GBR)</b>																			
date	20-Jul-24	time	5.64	9.30	13.10	16.91	20.79	24.84	29.08	33.34	37.81	42.35	Omega Timing (2024) - diamond league race analysis						
reaction time	0.187	interval		3.66	3.80	3.81	3.88	4.05	4.24	4.26	4.47	4.54	5.28	47.63	3 / 2				
		velocity	7.98	9.56	9.21	9.19	9.02	8.64	8.25	8.22	7.83	7.71	7.58	8.40	9.32	8.63	7.91		
H1 lead leg	R	strides	21	13	13	13	13	14	14	14	15	15	18	163					
<b>FINAL - 2024 Prefontaine Classic (Eugene, OR)</b>																			
date	25-May-24	time	5.63	9.33	13.19	16.99	20.96	24.99	29.13	33.54	38.28	43.16	Omega Timing (2024) - diamond league race analysis						
reaction time	0.186	interval		3.70	3.86	3.80	3.97	4.03	4.14	4.41	4.74	4.88	5.91	49.07	5 / 4				
		velocity	7.99	9.46	9.07	9.21	8.82	8.68	8.45	7.94	7.38	7.17	6.77	8.15	9.24	8.65	7.48		
H1 lead leg		strides			14	14	14	14	14	15	16	15	15	116					
<b>FINAL - 2024 USATF LA Grand Prix (Los Angeles, CA) (TV Analysis)</b>																			
date	18-May-24	time	5.84	9.51	13.18	16.98	20.98			29.29	33.60	38.10	42.74	Henson (2024) - Athlete First: 2024 year end hurdle report					
reaction time	0.245	interval		3.67	3.67	3.80	4.00			8.31	4.31	4.50	4.64	5.37	48.11	6 / 2			
		velocity	7.71	9.54	9.54	9.21	8.75			8.42	8.12	7.78	7.54	7.45	8.31	9.43	8.53	7.81	
H1 lead leg	R	strides	21	13	13	13	14				14	15	15	18.2	136.2				
<b>FINAL - 2023 Weltklasse (Zürich, SUI)</b>																			
date	31-Aug-23	time	5.70	9.48	13.31	17.18	21.21	26.79	Omega Timing (2023) - diamond league race analysis										
reaction time	0.175	interval		3.78	3.83	3.87	4.03	5.58	dnf										
		velocity	7.89	9.26	9.14	9.04	8.68	6.27	4 / --										
H1 lead leg	L	strides	22	14			14		50										
<b>FINAL - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>																			
date	23-Aug-23	time	5.71	9.46	12.97	16.65	20.52			28.96	33.40	37.97	42.68	Henson (2023) - Athlete First: 2023 year end hurdle report					
reaction time	0.164	interval		3.75	3.51	3.68	3.87			8.44	4.44	4.57	4.71	5.39	48.07	5 / 4			
		velocity	7.88	9.33	9.97	9.51	9.04			8.29	7.88	7.66	7.43	7.42	8.32	9.60	8.53	7.65	
H1 lead leg	R	strides	21	13	13	13	13	14			15	15	15	18.2	150.2				
<b>Semi-Final 3 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>																			
date	21-Aug-23	time	5.77	9.48	13.08	16.61	20.42	24.49	28.66	33.01	37.54	42.14	Henson (2023) - Athlete First: 2023 year end hurdle report						
reaction time	0.198	interval		3.71	3.60	3.53	3.81	4.07	4.17	4.35	4.53	4.60	5.20	47.34	7 / 2				
		velocity	7.80	9.43	9.72	9.92	9.19	8.60	8.39	8.05	7.73	7.61	7.69	8.45	9.69	8.71	7.79		
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	18.5	164.5					
<b>Heat 4 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>																			
date	20-Aug-23	time	5.83	9.70	13.53	17.53	21.43	25.46	29.67	33.90	38.36	43.06	Henson (2023) - Athlete First: 2023 year end hurdle report						
reaction time	0.183	interval		3.87	3.83	4.00	3.90	4.03	4.21	4.23	4.46	4.70	5.33	48.39	3 / 3				
		velocity	7.72	9.04	9.14	8.75	8.97	8.68	8.31	8.27	7.85	7.45	7.50	8.27	9.70	8.65	7.84		
H1 lead leg	L	strides	22	14	14	13	14	14	14	14	15	15	18.2	167.2					
<b>Clement, Kerron (USA) (1985)</b>																			
<b>FINAL - 2018 Müller Anniversary Games (London, GBR) (TV Analysis)</b>			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Henson (2020) - Athlete First: 2018 year end hurdle report																			

date	21-Jul-18	time	5.88	9.68			21.40	25.60	29.96	34.56	39.24	44.00		49.43	6 / 6				
reaction time	0.205	interval		3.80			11.72	4.20	4.36	4.60	4.68	4.76	5.43					14.04	
		velocity	7.65	9.21			8.96	8.33	8.03	7.61	7.48	7.35	7.37	8.09				7.48	
H1 lead leg	R	strides	20	13				13	13	14	14	14	16.5	117.5					
<b>FINAL - 2018 Meeting de Paris (Paris, FRA) (TV Analysis)</b>															<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>				
date	30-Jun-18	time	5.92	9.64	13.32	17.16	21.16	22.9	25.44	29.80	34.28	38.80	43.48	48.83	8 / 5				
reaction time	0.233	interval		3.72	3.68	3.84	4.00		4.28	4.36	4.48	4.52	4.68	5.35			11.24	12.64	13.68
		velocity	7.60	9.41	9.51	9.11	8.75	8.73	8.18	8.03	7.81	7.74	7.48	7.48	8.19		9.34	8.31	7.68
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	13	16	153				
<b>FINAL - 2018 Bislett Games (Oslo, NOR) (TV Analysis)</b>															<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>				
date	07-Jun-18	time	5.84	9.56	13.32	17.20	21.32	23.1	25.64	30.04	34.56	39.20	43.84	49.30	6 / 5				
reaction time	0.159	interval		3.72	3.76	3.88	4.12		4.32	4.40	4.52	4.64	4.64	5.46			11.36	12.84	13.80
		velocity	7.71	9.41	9.31	9.02	8.50	8.66	8.10	7.95	7.74	7.54	7.54	7.33	8.11		9.24	8.18	7.61
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	13	16	153				
<b>FINAL - 2018 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)</b>															<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>				
date	31-May-18	time	5.88	9.64	13.44	17.40	21.44		25.68	30.04	34.52	39.08	43.96	49.48	6 / 6				
reaction time	0.159	interval		3.76	3.80	3.96	4.04		4.24	4.36	4.48	4.56	4.88	5.52			11.52	12.64	13.92
		velocity	7.65	9.31	9.21	8.84	8.66		8.25	8.03	7.81	7.68	7.17	7.25	8.08		9.11	8.31	7.54
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	14	16.5	154.5				
<b>FINAL - 2018 Doha Diamond League (Doha, QAT) (TV Analysis)</b>															<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>				
date	04-May-18	time	6.16	10.00	13.88	17.88	22.08		26.40	30.76	35.24	39.96	44.76	50.19	6 / 6				
reaction time	0.276	interval		3.84	3.88	4.00	4.20		4.32	4.36	4.48	4.72	4.80	5.43			11.72	12.88	14.00
		velocity	7.31	9.11	9.02	8.75	8.33		8.10	8.03	7.81	7.42	7.29	7.37	7.97		8.96	8.15	7.50
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	14	14	139					
<b>FINAL - 2017 Weltklasse (Zürich, SUI) (TV Analysis)</b>															<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>				
date	24-Aug-17	time	5.96	9.68	13.44	17.28	21.32		25.52	29.80	34.16	38.72	43.56	49.20	7 / 4				
reaction time	0.167	interval		3.72	3.76	3.84	4.04		4.20	4.28	4.36	4.56	4.84	5.64			11.32	12.52	13.76
		velocity	7.55	9.41	9.31	9.11	8.66		8.33	8.18	8.03	7.68	7.23	7.09	8.13		9.28	8.39	7.63
H1 lead leg	R	strides	20	13	13	13	13		13	13	13		15	17	143				
<b>FINAL - 2017 IAAF World Championships (London, GBR) (TV Analysis)</b>															<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>				
date	09-Aug-17	time	5.92	9.72	13.52	17.28	21.20		25.32	29.52	33.84	38.32	43.12	48.52	4 / 3				
reaction time	0.153	interval		3.80	3.80	3.76	3.92		4.12	4.20	4.32	4.48	4.80	5.40			11.36	12.24	13.60
		velocity	7.60	9.21	9.21	9.31	8.93		8.50	8.33	8.10	7.81	7.29	7.41	8.24		9.24	8.58	7.72
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	14	17	155				
<b>FINAL - 2017 Müller's Anniversary Games (London, GBR) (TV Analysis)</b>															<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>				
date	09-Jul-17	time	6.00	9.72	13.44	17.24	21.24		25.48	29.80	34.16	38.60	43.08	48.02	7 / 1				
reaction time	0.157	interval		3.72	3.72	3.80	4.00		4.24	4.32	4.36	4.44	4.48	4.94			11.24	12.56	13.28
		velocity	7.50	9.41	9.41	9.21	8.75		8.25	8.10	8.03	7.88	7.81	8.10	8.33		9.34	8.36	7.91
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	13	16	153				
<b>FINAL - 2017 USATF Championships (Sacramento, CA) (TV Analysis)</b>															<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>				
date	25-Jun-17	time	6.07	9.90	13.69	17.48	21.41		25.55	29.86	34.21	38.79	43.45	48.91	5 / 7				
reaction time		interval		3.83	3.79	3.79	3.93		4.14	4.31	4.35	4.58	4.66	5.46			11.41	12.38	13.59
		velocity	7.41	9.14	9.23	9.23	8.91		8.45	8.12	8.05	7.64	7.51	7.33	8.18		9.20	8.48	7.73
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	13	16.5	153.5				
<b>FINAL - 2017 Bislett Games (Oslo, NOR) (TV Analysis)</b>															<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>				
date	15-Jun-17	time	5.90	9.53	13.16	16.93	20.83		25.03	29.53	34.36	39.20	44.46	50.52	6 / 8				
reaction time	0.164	interval		3.63	3.63	3.77	3.90		4.20	4.50	4.83	4.84	5.26	6.06			11.03	12.60	14.93
		velocity	7.63	9.64	9.64	9.28	8.97		8.33	7.78	7.25	7.23	6.65	6.60	7.92		9.52	8.33	7.03
H1 lead leg	R	strides	20	13	13	13	13		13	15	15	14	16	145					
<b>FINAL - 2017 Shanghai Diamond League (Shanghai, CHN) (TV Analysis)</b>															<i>Henson (2021) - Athlete First: 2017 year end hurdle report</i>				
date	13-May-17	time	5.96	9.72	13.48	17.36	21.40		25.60	29.96	34.48	39.24	44.04	49.43	6 / 4				
reaction time	0.155	interval		3.76	3.76	3.88	4.04		4.20	4.36	4.52	4.76	4.80	5.39			11.40	12.60	14.08
		velocity	7.55	9.31	9.31	9.02	8.66		8.33	8.03	7.74	7.35	7.29	7.42	8.09		9.21	8.33	7.46
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	14	14	16.5	155.5				
<b>FINAL - 2017 Doha Diamond League (Doha, QAT) (TV Analysis)</b>															<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>				
date	05-May-17	time	6.06	9.86	13.60	17.40	21.40		25.60	29.90	34.36	39.20	44.06	49.40	6 / 2				
reaction time	0.176	interval		3.80	3.74	3.80	4.00		4.20	4.30	4.46	4.84	4.86	5.34			11.34	12.50	14.16
		velocity	7.43	9.21	9.36	9.21	8.75		8.33	8.14	7.85	7.23	7.20	7.49	8.10		9.26	8.40	7.42
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	14	14	16	155				
<b>FINAL - 2016 Weltklasse (Zürich, SUI) (TV Analysis)</b>															<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>				
date	01-Sep-16	time	5.88	9.56	13.32	17.04	21.04		25.20	29.52	33.96	38.80	43.64	48.72	6 / 1				
reaction time	0.132	interval		3.68	3.76	3.72	4.00		4.16	4.32	4.44	4.84	4.84	5.08			11.16	12.48	14.12
		velocity	7.65	9.51	9.31	9.41	8.75		8.41	8.10	7.88	7.23	7.23	7.87	8.21		9.41	8.41	7.44
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	14	14	16.2	155.2				

**FINAL - 2016 Meeting Paris (Saint-Denis, FRA) (TV Analysis)**

date	27-Aug-16	time	5.88	9.60	13.32	17.08	21.00	25.08	29.24	33.56	38.04	42.92	48.19	6 / 2			
reaction time	0.137	interval		3.72	3.72	3.76	3.92	4.08	4.16	4.32	4.48	4.88	5.27		11.20	12.16	13.68
		velocity	7.65	9.41	9.41	9.31	8.93	8.58	8.41	8.10	7.81	7.17	7.59	8.30	9.38	8.63	7.68
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	13	14	16.7	154.7			

Henson (2020) - Athlete First: 2016 year end hurdle report

**FINAL - 2016 Olympic Games (Rio de Janeiro, BRA)**

date	18-Aug-16	time	5.6	9.2	12.8	16.6	20.5	24.4	28.7	32.9	37.4	41.9	47.73	5 / 1			
reaction time	0.227	interval		3.60	3.60	3.80	3.90	3.90	4.30	4.20	4.50	4.50	5.83		11.00	12.10	13.20
		velocity	8.04	9.72	9.72	9.21	8.97	8.97	8.14	8.33	7.78	7.78	6.86	8.38	9.55	8.68	7.95
H1 lead leg		strides	21	13	13	13	13	14	15	15	15	15	18	165			

Zhou (2020) - analysis of competitive performance characteristics of outstanding men's 400m hurdlers

**FINAL - 2016 London Anniversary Games (London, GBR) (TV Analysis)**

date	23-Jul-16	time	5.92	9.68	13.44	17.28	21.36	25.64	29.96	34.36	38.76	43.28	48.40	7 / 1			
reaction time	0.164	interval		3.76	3.76	3.84	4.08	4.28	4.32	4.40	4.40	4.52	5.12		11.36	12.68	13.32
		velocity	7.60	9.31	9.31	9.11	8.58	8.18	8.10	7.95	7.95	7.74	7.81	8.26	9.24	8.28	7.88
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	13	13	16	153			

Henson (2020) - Athlete First: 2016 year end hurdle report

**FINAL - 2016 USA Olympic Trials (Eugene, OR) (TV Analysis)**

date	10-Jul-16	time	6.00	9.71	13.34	17.18	21.15	25.26	29.53	33.93	38.50	43.24	48.50	7 / 1			
reaction time	0.180	interval		3.71	3.63	3.84	3.97	4.11	4.27	4.40	4.57	4.74	5.26		11.18	12.35	13.71
		velocity	7.50	9.43	9.64	9.11	8.82	8.52	8.20	7.95	7.66	7.38	7.60	8.25	9.39	8.50	7.66
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	13	13	16.5	153.5			

Henson (2020) - Athlete First: 2016 year end hurdle report

**FINAL - 2016 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)**

date	16-Jun-16	time	5.97	9.73	13.53	17.37	21.47	25.73	30.17	34.70	39.37	44.37	49.87	6 / 2			
reaction time	0.150	interval		3.76	3.80	3.84	4.10	4.26	4.44	4.53	4.67	5.00	5.50		11.40	12.80	14.20
		velocity	7.54	9.31	9.21	9.11	8.54	8.22	7.88	7.73	7.49	7.00	7.27	8.02	9.21	8.20	7.39
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	13	14	17.2	155.2			

Henson (2020) - Athlete First: 2016 year end hurdle report

**FINAL - 2016 Bislett Games (Oslo, NOR) (TV Analysis)**

date	09-Jun-16	time	5.96	9.72	13.56	17.48	21.68	25.92	30.28	34.72	39.28	44.08	49.61	6 / 4			
reaction time	0.194	interval		3.76	3.84	3.92	4.20	4.24	4.36	4.44	4.56	4.80	5.53		11.52	12.80	13.80
		velocity	7.55	9.31	9.11	8.93	8.33	8.25	8.03	7.88	7.68	7.29	7.23	8.06	9.11	8.20	7.61
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	13	13	16.5	153.5			

Henson (2021) - Athlete First: 2016 year end hurdle report

**FINAL - 2016 Prefontaine Classic (Eugene, OR) (TV Analysis)**

date	28-May-16	time	6.08	9.92	13.72	17.72	26.00	30.28	34.04	39.08	43.68	48.87	7 / 2				
reaction time		interval		3.84	3.80	4.00	8.28	4.28	3.76	5.04	4.60	5.19		11.64	12.56	13.40	
		velocity	7.40	9.11	9.21	8.75	8.45	8.18	7.98	7.94	7.61	7.71	8.18	9.02	8.36	7.84	
H1 lead leg	R	strides	20	13	13	13		13	13		15	17	117				

(H8 5m short)

Henson (2020) - Athlete First: 2016 year end hurdle report

**FINAL - 2016 Shanghai Golden Grand Prix (Shanghai, CHN)**

date	14-May-16	time	6.00	9.76	13.64	17.48	21.48	25.72	30.08	34.60	39.28	44.08	49.56	3 / 7			
reaction time	0.180	interval		3.76	3.88	3.84	4.00	4.24	4.36	4.52	4.68	4.80	5.48		11.48	12.60	14.00
		velocity	7.50	9.31	9.02	9.11	8.75	8.25	8.03	7.74	7.48	7.29	7.30	8.07	9.15	8.33	7.50
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	13	13	16.5	153.5			

Henson (2020) - Athlete First: 2016 year end hurdle report

**FINAL - 2015 IAAF World Championships (Beijing, CHN) (TV Analysis)**

date	25-Aug-15	time	5.96	9.68	13.40	17.16	21.12	25.20	29.32	33.60	38.16	42.96	48.18	8 / 4			
reaction time	0.174	interval		3.72	3.72	3.76	3.96	4.08	4.12	4.28	4.56	4.80	5.22		11.20	12.16	13.64
		velocity	7.55	9.41	9.41	9.31	8.84	8.58	8.50	8.18	7.68	7.29	7.66	8.30	9.38	8.63	7.70
H1 lead leg	R	strides		13	13	13	13	13	13	13	15	15	17	138			

Henson (2021) - Athlete First: major championships report

**FINAL - 2013 IAAF World Championships (Moscow, RUS) (TV Analysis)**

date	15-Aug-13	time	5.93	9.70	13.53	17.33	21.27	25.37	29.50	34.03	38.70	43.50	49.08	1 / 8			
reaction time	0.165	interval		3.77	3.83	3.80	3.94	4.10	4.13	4.53	4.67	4.80	5.58		11.40	12.17	14.00
		velocity	7.59	9.28	9.14	9.21	8.88	8.54	8.47	7.73	7.49	7.29	7.17	8.15	9.21	8.63	7.50
H1 lead leg	R	strides	20	13	13	13	13	13	13		15	15	16.7	144.7			

Henson (2021) - Athlete First: major championships report

**FINAL - 2012 Olympic Games (London, GBR)**

date	06-Aug-12	time	5.87	9.54	13.10	16.86	20.78	22.58	24.89	29.20	33.78	38.56	43.44	49.15	2 / 8		
reaction time	0.148	interval		3.67	3.56	3.76	3.92	4.11	4.31	4.58	4.78	4.88	5.71		10.99	12.34	14.24
		velocity	7.67	9.54	9.83	9.31	8.93	8.86	8.52	8.12	7.64	7.32	7.17	7.01	8.14	9.55	8.51
H1 lead leg	R	strides	21	13	13	13	13	13	13	13	15	15	15	144			

Hillier (2012) - uka 2012 olympic games report: 400m hurdles

**FINAL - 2009 IAAF World Championships (Berlin, GER)**

date	18-Aug-09	time	5.92	9.60	13.32	17.15	21.09	25.26	29.49	33.85	38.35	42.90	47.91	3 / 1			
reaction time	0.176	interval		3.68	3.72	3.83	3.94	4.17	4.23	4.36	4.50	4.55	5.01		11.23	12.34	13.41
		velocity	7.60	9.51	9.41	9.14	8.88	8.39	8.27	8.03	7.78	7.69	7.98	8.35	9.35	8.51	7.83
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	13	13	16.2	153.2			

Graubner (2009) - biomechanical analyses at the 12th IAAF world championships

**Semi-Final 1 - 2009 IAAF World Championships (Berlin, GER)**

date	16-Aug-09	time	5.97	9.72	13.44	17.22	21.12	25.24	29.48	33.82	38.28	42.89	48.00	3 / 1			
reaction time	0.158	interval		3.75	3.72	3.78	3.90	4.12	4.24	4.34	4.46	4.61	5.11		11.25	12.26	13.41
		velocity	7.54	9.33	9.41	9.26	8.97	8.50	8.25	8.06	7.85	7.59	7.83	8.33	9.33	8.56	7.83
H1 lead leg		strides						13	13	13	13	13	16	81			

Graubner (2009) - biomechanical analyses at the 12th IAAF world championships



**Heat 3 - 2009 IAAF World Championships (Berlin, GER)**

date	15-Aug-09	time	6.07	9.83	13.64	17.49	21.47	25.63	29.89	34.17	38.71	43.33	48.39	5 / 1				
reaction time	0.169	interval		3.76	3.81	3.85	3.98	4.16	4.26	4.28	4.54	4.62	5.06		11.42	12.40	13.44	
H1 lead leg		velocity	7.41	9.31	9.19	9.09	8.79	8.41	8.22	8.18	7.71	7.58	7.91	8.27		9.19	8.47	7.81

*Graubner (2009) - biomechanical analyses at the 12th IAAF world championships***FINAL - 2008 IAAF World Athletics Final (Stuttgart, GER)**

date	13-Sep-08	time	6.09	9.88	13.72	17.62	21.68	25.82	30.14	34.56	39.06	43.86	48.96	4 / 1				
reaction time	0.175	interval		3.79	3.84	3.90	4.06	4.14	4.32	4.42	4.50	4.80	5.10		11.53	12.52	13.72	
H1 lead leg		velocity	7.39	9.23	9.11	8.97	8.62	8.45	8.10	7.92	7.78	7.29	7.84	8.17		9.11	8.39	7.65

*Graubner (2009) - http://www.fgs.uni-halle.de***FINAL - 2008 Olympic Games (Beijing, CHN)**

date	18-Aug-08	time	5.9	9.5	13.1	16.9	20.7	24.7	28.9	33.2	37.7	42.5	47.98	4 / 2				
reaction time	0.265	interval		3.60	3.60	3.80	3.80	4.00	4.20	4.30	4.50	4.80	5.48		11.00	12.00	13.60	
H1 lead leg	L	velocity	7.63	9.72	9.72	9.21	9.21	8.75	8.33	8.14	7.78	7.29	7.30	8.34		9.55	8.75	7.72

*Behm (2008) - Pekin 2008: Le quatrache masculin - féminin***FINAL - 2008 USA Olympic Trials (Eugene, OR)**

date	29-Jun-08	time	6.04	9.78	13.55	17.50	21.60	25.74	30.03	34.45	38.87	43.43	48.36	5 / 2				
reaction time		interval		3.74	3.77	3.95	4.10	4.14	4.29	4.42	4.42	4.56	4.93		11.46	12.53	13.40	
H1 lead leg	R	velocity	7.45	9.36	9.28	8.86	8.54	8.45	8.16	7.92	7.92	7.68	8.11	8.27		9.16	8.38	7.84

*USATF Hurdle Development (2008)***FINAL - 2007 IAAF World Athletics Final (Stuttgart, GER)**

date	22-Sep-07	time	6.26	9.80	13.54	17.36	21.32	25.44	29.85	34.43	38.96	43.57	48.35	6 / 2				
reaction time	0.178	interval		3.54	3.74	3.82	3.96	4.12	4.41	4.58	4.53	4.61	4.78		11.10	12.49	13.72	
H1 lead leg		velocity	7.19	9.89	9.36	9.16	8.84	8.50	7.94	7.64	7.73	7.59	8.37	8.27		9.46	8.41	7.65

*Graubner (2007) - http://www.fgs.uni-halle.de***FINAL - 2007 IAAF World Championships (Osaka, JPN)**

date	28-Aug-07	time	5.92	9.60	13.30	16.98	20.80	24.82	28.98	33.28	37.86	42.52	47.61	4 / 1				
reaction time	0.169	interval		3.68	3.70	3.68	3.82	4.02	4.16	4.30	4.58	4.66	5.09		11.06	12.00	13.54	
H1 lead leg	R	velocity	7.60	9.51	9.46	9.51	9.16	8.71	8.41	8.14	7.64	7.51	7.86	8.40		9.49	8.75	7.75

*Ae (2008) - IAAF biomechanics team - a booklet of biomechanics data***Heat 1 - 2007 USATF National Championships (Indianapolis, IN)**

date	21-Jun-07	time	5.99	9.78	13.65	17.60	21.79	26.04	30.41	34.87	39.57	44.38	49.72	6 / 1				
reaction time		interval		3.79	3.87	3.95	4.19	4.25	4.37	4.46	4.70	4.81	5.34		11.61	12.81	13.97	
H1 lead leg	R	velocity	7.51	9.23	9.04	8.86	8.35	8.24	8.01	7.85	7.45	7.28	7.49	8.05		9.04	8.20	7.52

*USATF Men's Hurdle Development (2007)***FINAL - 2006 Seiko Super Grand Prix (Yokohama, JPN)**

date	24-Sep-06	time	6.01	9.83	13.67	17.51	21.55	25.70	29.94	34.26	38.68	43.24	48.36	/ 1				
reaction time		interval		3.82	3.84	3.84	4.04	4.15	4.24	4.32	4.42	4.56	5.12		11.50	12.43	13.30	
H1 lead leg		velocity	7.49	9.16	9.11	9.11	8.66	8.43	8.25	8.10	7.92	7.68	7.81	8.27		9.13	8.45	7.89

*Yasunori (2007) - race pattern analysis of top Japanese 400m hurdlers***FINAL - 2006 USATF National Championships (Indianapolis, IN)**

date	24-Jun-06	time	5.97	9.65	13.38	17.15	21.05	25.06	29.19	33.40	37.80	42.41	47.39	4 / 1				
reaction time		interval		3.68	3.73	3.77	3.90	4.01	4.13	4.21	4.40	4.61	4.98		11.18	12.04	13.22	
H1 lead leg	R	velocity	7.54	9.51	9.38	9.28	8.97	8.73	8.47	8.31	7.95	7.59	8.03	8.44		9.39	8.72	7.94

*USATF Men's Hurdle Development (2006)***FINAL - 2005 NCAA National Championships (Sacramento, CA)**

date	11-Jun-05	time	5.9	9.5	13.2	17.1	21.0	25.0	29.2	33.6	38.2	42.8	47.56	6 / 1				
reaction time		interval		3.60	3.70	3.90	3.90	4.00	4.20	4.40	4.60	4.60	4.76		11.20	12.10	13.60	
H1 lead leg	R	velocity	7.63	9.72	9.46	8.97	8.97	8.75	8.33	7.95	7.61	7.61	8.40	8.41		9.38	8.68	7.72

*gh (2005) - trackandfieldnews.com forum***Cooper, John (GBR) (1940)**

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
date	16-Oct-64	time	5.8		13.8		22.0		30.8		40.0		50.1	4 / 2				
reaction time		interval			8.00		8.20		8.80		9.20		10.10					
H1 lead leg		velocity	7.76		8.75		8.54		7.95		7.61		7.43	7.98				

*Breitschaft (1965) - die leichtathletik wettkaempfe der 1964 olympischen sommerspielen - 400m hürdenlauf***Copello, Yasmani (TUR) (1987)**

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
date	05-Aug-24	time	5.98	9.73	13.50	17.34	21.36	25.58	30.08	34.80	39.76	44.86	50.72	4 / 8				
reaction time	0.224	interval		3.75	3.77	3.84	4.02	4.22	4.50	4.72	4.96	5.10	5.86		11.36	12.74	14.78	
H1 lead leg	R	velocity	7.53	9.33	9.28	9.11	8.71	8.29	7.78	7.42	7.06	6.86	6.83	7.89		9.24	8.24	7.10

*Paris 2024 Olympic Games - Results Book (2024)***Semi-Final 2 - 2024 European Athletics Championships (Roma, ITA)**

date	10-Jun-24	time	6.00	9.71	13.61	17.54	21.61	25.91	30.44	34.94	39.88	44.83	50.57	6 / 8				
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*European Athletics (2024) - 2024 european athletics championships - results book*

reaction time	0.244	interval	3.71	3.90	3.93	4.07	4.30	4.53	4.50	4.94	4.95	5.74		11.54	12.90	14.39		
		velocity	7.50	9.43	8.97	8.91	8.60	8.14	7.73	7.78	7.09	7.07	6.97	7.91	9.10	8.14	7.30	
H1 lead leg	R	strides	20	13	13	13	13	13	14	14		15	18.2	146.2				
<b>FINAL - 2024 Seashore Doha Meeting (Doha, QAT)</b>													<i>Omega Timing (2024) - diamond league race analysis</i>					
date	10-May-24	time	5.98	9.82	13.80	17.81	22.01	26.40	30.92	35.93	40.47	45.26	50.97	2 / 8				
reaction time	0.222	interval		3.84	3.98	4.01	4.20	4.39	4.52	5.01	4.54	4.79	5.71		11.83	13.11	14.34	
		velocity	7.53	9.11	8.79	8.73	8.33	7.97	7.74	6.99	7.71	7.31	7.01	7.85	8.88	8.01	7.32	
H1 lead leg	R	strides	20	13	13	13	13	13			15	15	18	133				
<b>Semi-Final 3 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>													<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>					
date	21-Aug-23	time	5.97	9.77		17.23	21.12	29.57	34.03	38.64	43.25	48.66	3 / 6					
reaction time	0.220	interval		3.80		7.46	3.89	8.45	4.46	4.61	4.61	5.41		11.26	12.34	13.68		
		velocity	7.54	9.21		9.38	9.00	8.29	7.84	7.59	7.59	7.39	8.22	9.33	8.51	7.67		
H1 lead leg	R	strides	20	13		13			14	14	14	17.5	105.5					
<b>Heat 5 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>													<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>					
date	20-Aug-23	time	6.00	9.83	13.66	17.56	21.50	25.63	29.96	34.40	38.93	43.56	48.92	6 / 5				
reaction time	0.244	interval		3.83	3.83	3.90	3.94	4.13	4.33	4.44	4.53	4.63	5.36		11.56	12.40	13.60	
		velocity	7.50	9.14	9.14	8.97	8.88	8.47	8.08	7.88	7.73	7.56	7.46	8.18	9.08	8.47	7.72	
H1 lead leg	R	strides	20	13	13	13	13	13	14	14	14	14	17.5	158.5				
<b>FINAL - 2023 Bauhaus Galan (Stockholm, SWE)</b>													<i>Omega Timing (2023) - diamond league race analysis</i>					
date	02-Jul-23	time	5.97	9.76	13.61	17.44	21.42	25.58	30.00	34.66	39.61	44.61	50.59	2 / 8				
reaction time	0.186	interval		3.79	3.85	3.83	3.98	4.16	4.42	4.66	4.95	5.00	5.98		11.47	12.56	14.61	
		velocity	7.54	9.23	9.09	9.14	8.79	8.41	7.92	7.51	7.07	7.00	6.69	7.91	9.15	8.36	7.19	
H1 lead leg	R	strides	20	13		13	13	13	14		15	15	116					
<b>FINAL - 2022 Weltklasse (Zürich, SUI) (TV Analysis)</b>													<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	08-Sep-22	time	5.90	9.54		17.28	21.29	22.88	25.42	29.86	34.29	38.94	43.61	49.10	4 / 6			
reaction time	0.172	interval		3.64		7.74	4.01	4.13	4.44	4.43	4.65	4.67	5.49		11.38	12.58	13.75	
		velocity	7.63	9.62		9.04	8.73	8.74	8.47	7.88	7.90	7.53	7.49	7.29	8.15	9.23	8.35	7.64
H1 lead leg	R	strides	20	13		13		13	14	14	14	14	17.5	132.5				
<b>FINAL - 2022 Memorial van Damme (Brussels, BEL) (TV Analysis)</b>													<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	02-Sep-22	time	5.90	9.64	13.38		21.22	22.93	25.29	29.66	34.13	38.70	43.37	48.83	3 / 6			
reaction time	0.190	interval		3.74	3.74		7.84	4.07	4.37	4.47	4.57	4.67	5.46			13.71		
		velocity	7.63	9.36	9.36		8.93	8.72	8.60	8.01	7.83	7.66	7.49	7.33	8.19		7.66	
H1 lead leg	R	strides	20	13	13		13	14	14	14	14	14	17.2	132.2				
<b>FINAL - 2022 European Athletics Championships (Munich, GER)</b>													<i>European Athletics (2022) - european athletics championships race analysis</i>					
date	19-Aug-22	time	5.85	9.59	13.44	17.33	21.35	23.11	25.43	29.78	34.22	38.69	43.34	48.78	6 / 3			
reaction time	0.240	interval		3.74	3.85	3.89	4.02	4.08	4.35	4.44	4.47	4.65	5.44		11.48	12.45	13.56	
		velocity	7.69	9.36	9.09	9.00	8.71	8.65	8.58	8.05	7.88	7.83	7.53	7.35	8.20	9.15	8.43	7.74
H1 lead leg	R	strides	20	13	13	13	13	13	14	14	14	14	17.2	158.2				
<b>Semi-Final 3 - 2022 European Athletics Championships (Munich, GER)</b>													<i>European Athletics (2022) - european athletics championships race analysis</i>					
date	18-Aug-22	time	5.99	9.77	13.64	17.52	21.57	23.34	25.67	30.03	34.70	39.26	43.90	49.34	6 / 1			
reaction time	0.249	interval		3.78	3.87	3.88	4.05	4.10	4.36	4.67	4.56	4.64	5.44		11.53	12.51	13.87	
		velocity	7.51	9.26	9.04	9.02	8.64	8.57	8.54	8.03	7.49	7.68	7.54	7.35	8.11	9.11	8.39	7.57
H1 lead leg	R	strides	21			13	13	13	14	14	14	14	17	133				
<b>Semi-Final 1 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)</b>													<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	17-Jul-22	time	5.93	9.80	13.80	17.77	22.00	23.97	26.40	30.97	35.56	40.48	45.46	51.49	2 / 7			
reaction time	0.166	interval		3.87	4.00	3.97	4.23	4.40	4.57	4.59	4.92	4.98	6.03		11.84	13.20	14.49	
		velocity	7.59	9.04	8.75	8.82	8.27	8.34	7.95	7.66	7.63	7.11	7.03	6.63	7.77	8.87	7.95	7.25
H1 lead leg	L	strides	20	13	13	13	13	14	14	14	15	14	18	161				
<b>FINAL - 2022 Bislett Games (Oslo, NOR) (TV Analysis)</b>													<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	16-Jun-22	time	5.86	9.56	13.40	17.28	21.20	22.94	25.40	29.72	34.12	38.76	43.64	49.36	4 / 5			
reaction time	0.177	interval		3.70	3.84	3.88	3.92	4.20	4.32	4.40	4.40	4.64	4.88	5.72		11.42	12.44	13.92
		velocity	7.68	9.46	9.11	9.02	8.93	8.72	8.33	8.10	7.95	7.54	7.17	6.99	8.10	9.19	8.44	7.54
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	14	14	15	18	159			
<b>FINAL - FINAL - 2022 Prefontaine Classic (Eugene, OR) (TV Analysis)</b>													<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	05-Jun-22	time	5.87	9.60	13.30	17.20	21.17	22.89	25.27	29.67	34.17	38.87	43.67	49.29	5 / 4			
reaction time	0.177	interval		3.73	3.70	3.90	3.97	4.10	4.40	4.50	4.70	4.80	5.62		11.33	12.47	14.00	
		velocity	7.67	9.38	9.46	8.97	8.82	8.74	8.54	7.95	7.78	7.45	7.29	7.12	8.12	9.27	8.42	7.50
H1 lead leg	R	strides	20	13	13	13	13	13	14	14	14	14	14	141				
<b>FINAL - 2022 Doha Diamond League (Doha, QAT) (TV Analysis)</b>													<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	13-May-22	time	5.97	9.84	13.91	18.15	22.35	24.2	26.73		35.87	40.51	50.30	5 / 6				
reaction time	0.191	interval		3.87	4.07	4.24	4.20	4.38		9.14	4.64				12.18			
		velocity	7.54	9.04	8.60	8.25	8.33	8.26	7.99	7.66	7.54		7.95		8.62			
H1 lead leg	R	strides	20	13	13	13	13	13			14		99					
<b>FINAL - 2021 Memorial van Damme (Brussels, BEL) (TV Analysis)</b>													<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>					

date	03-Sep-21	time	5.84	9.56	13.32	17.24	21.20		25.32	29.72	34.12	38.60	43.16		48.45	4 / 3			
reaction time	0.149	interval		3.72	3.76	3.92	3.96		4.12	4.40	4.40	4.48	4.56	5.29			11.40	12.48	13.44
		velocity	7.71	9.41	9.31	8.93	8.84		8.50	7.95	7.95	7.81	7.68	7.56	8.26		9.21	8.41	7.81
H1 lead leg	R	strides	20	13	13	13	13		13	14	14	14	14	17.7	158.7				
<b>FINAL - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	03-Aug-21	time	5.72	9.36	13.04	16.80	20.68		24.72	29.08	33.44	37.96	42.48		47.81	3 / 6			
reaction time	0.166	interval		3.64	3.68	3.76	3.88		4.04	4.36	4.36	4.52	4.52	5.33	<b>=NR =PB</b>		11.08	12.28	13.40
		velocity	7.87	9.62	9.51	9.31	9.02		8.66	8.03	8.03	7.74	7.74	7.50	8.37		9.48	8.55	7.84
H1 lead leg	R	strides	20	13	13	13	13		13	14	14	14	14	17.2	158.2				
<b>Semi-Final 1 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>																<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>			
date	01-Aug-21	time	5.86	9.53	13.30	17.03	21.03		25.03	29.40	33.67	38.18	42.63		47.88	4 / 3			
reaction time	0.183	interval		3.67	3.77	3.73	4.00		4.00	4.37	4.27	4.51	4.45	5.25			11.17	12.37	13.23
		velocity	7.68	9.54	9.28	9.38	8.75		8.75	8.01	8.20	7.76	7.87	7.62	8.35		9.40	8.49	7.94
H1 lead leg	R	strides	20	13	13	13	13		13	14	14	14	14	17.2	144.2				
<b>Heat 4 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>																<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>			
date	30-Jul-21	time	6.00	9.70	13.50	17.33	21.46		25.53	29.93	34.38	38.92	43.43		49.00	5 / 2			
reaction time	0.188	interval		3.70	3.80	3.83	4.13		4.07	4.40	4.45	4.54	4.51	5.57			11.33	12.60	13.50
		velocity	7.50	9.46	9.21	9.14	8.47		8.60	7.95	7.87	7.71	7.76	7.18	8.16		9.27	8.33	7.78
H1 lead leg	R	strides	20	13	13	13	13		13	14	14	14	15	17.5	159.5				
<b>FINAL - 2021 Bauhaus Galan (Stockholm, SWE) (TV Analysis)</b>																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	04-Jul-21	time	5.76	9.48	13.36	17.24	21.20	22.9	25.20	29.52	33.88	38.36	42.88		48.19	4 / 2			
reaction time	0.167	interval		3.72	3.88	3.88	3.96		4.00	4.32	4.36	4.48	4.52	5.31			11.48	12.28	13.36
		velocity	7.81	9.41	9.02	9.02	8.84	8.73	8.75	8.10	8.03	7.81	7.74	7.53	8.30		9.15	8.55	7.86
H1 lead leg	R	strides	20	13	13	13	13		13	14	14	14	14	17.7	158.7				
<b>FINAL - 2021 Bislett Games (Oslo, NOR) (TV Analysis)</b>																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	01-Jul-21	time	5.82	9.50	13.26	17.14	21.06		25.14		33.56	38.46	43.26		48.86	5 / 3			
reaction time	0.198	interval		3.68	3.76	3.88	3.92		4.08		8.42	4.90	4.80	5.60			11.32		
		velocity	7.73	9.51	9.31	9.02	8.93		8.58		8.31	7.14	7.29	7.14	8.19		9.28		
H1 lead leg	R	strides	20	13	13	13	13		13	13		14	15		114				
<b>FINAL - 2021 Doha Diamond League (Doha, QAT) (TV Analysis)</b>																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	28-May-21	time	5.84	9.54	13.45	17.52	21.69	23.4			34.77	39.30	43.81		49.11	2 / 6			
reaction time	0.203	interval		3.70	3.91	4.07	4.17				13.08	4.53	4.51	5.30			11.68		
		velocity	7.71	9.46	8.95	8.60	8.39	8.55			8.03	7.73	7.76	7.55	8.14		8.99		
H1 lead leg	R	strides	20	13	13	13	13					14	14	17.5	104.5				
<b>FINAL - 2020 Herculis Meeting International d'Athletisme (Monaco, MON) (TV Analysis)</b>																<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>			
date	14-Aug-20	time	5.81	9.44	13.25	17.15	21.12		25.25	29.63	34.07	38.67	43.44		49.04	5 / 2			
reaction time	0.192	interval		3.63	3.81	3.90	3.97		4.13	4.38	4.44	4.60	4.77	5.60			11.34	12.48	13.81
		velocity	7.75	9.64	9.19	8.97	8.82		8.47	7.99	7.88	7.61	7.34	7.14	8.16		9.26	8.41	7.60
H1 lead leg	R	strides	20	13	13	13	13		13	14	14	14	14	18	159				
<b>FINAL - 2019 IAAF World Championships (Doha, QAT)</b>																<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>			
date	30-Sep-19	time	5.87	9.50	13.17	16.94	20.82		24.84	29.08	33.50	37.98	42.75		48.25	6 / 6			
reaction time	0.177	interval		3.63	3.67	3.77	3.88		4.02	4.24	4.42	4.48	4.77	5.50			11.07	12.14	13.67
		velocity	7.67	9.64	9.54	9.28	9.02		8.71	8.25	7.92	7.81	7.34	7.27	8.29		9.49	8.65	7.68
H1 lead leg	R	strides	20	13	13	13	13		13	13	14	14	15	18	159				
<b>Semi-Final 1 - 2019 IAAF World Championships (Doha, QAT)</b>																<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>			
date	28-Sep-19	time	5.97	9.66	13.46	17.32	21.29		25.41	29.61	34.03	38.41	43.08		48.39	3 / 2			
reaction time	0.232	interval		3.69	3.80	3.86	3.97		4.12	4.20	4.42	4.38	4.67	5.31			11.35	12.29	13.47
		velocity	7.54	9.49	9.21	9.07	8.82		8.50	8.33	7.92	7.99	7.49	7.53	8.27		9.25	8.54	7.80
H1 lead leg	R	strides	20	13	13	13	13		13	14	14	15	15	18	161				
<b>FINAL - 2019 Weltklasse (Zürich, SUI) (TV Analysis)</b>																<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>			
date	29-Aug-19	time	5.80	9.46		17.10	21.08	22.7	25.16	29.38		38.42	43.20		48.58	4 / 4			
reaction time	0.167	interval		3.66		7.64	3.98		4.08	4.22		9.04	4.78	5.38			11.30	12.28	13.82
		velocity	7.76	9.56		9.16	8.79	8.81	8.58	8.29		7.74	7.32	7.43	8.23		9.29	8.55	7.60
H1 lead leg	R	strides	20	13		13	13		13	13		14		86					
<b>FINAL - 2019 Müller Grand Prix (Birmingham, GBR) (TV Analysis)</b>																<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>			
date	18-Aug-19	time	5.88	9.68	13.52	17.40	21.40	23.2	25.60	30.08	34.56	39.12	43.68		49.08	6 / 1			
reaction time	0.173	interval		3.80	3.84	3.88	4.00		4.20	4.48	4.48	4.56	4.56	5.40			11.52	12.68	13.60
		velocity	7.65	9.21	9.11	9.02	8.75	8.6207	8.33	7.81	7.81	7.68	7.68	7.41	8.15		9.11	8.28	7.72
H1 lead leg	R	strides	20	13	13	13	13		13	14	14	14	14	18	159				
<b>FINAL - 2019 Meeting de Paris (Paris, FRA) (TV Analysis)</b>																<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>			
date	24-Aug-19	time	5.78	9.42	13.18	17.04	21.00	22.7	25.08	29.32	33.74	38.28	43.00		48.47	4 / 4			
reaction time	0.192	interval		3.64	3.76	3.86	3.96		4.08	4.24	4.42	4.54	4.72	5.47			11.26	12.28	13.68
		velocity	7.79	9.62	9.31	9.07	8.84	8.81	8.58	8.25	7.92	7.71	7.42	7.31	8.25		9.33	8.55	7.68
H1 lead leg	R	strides	20	13	13	13	13		13	13	14	14	14	17.7	157.7				



**FINAL - 2019 Müller Anniversary Games (London, GBR) (TV Analysis)**

date	20-Jul-19	time	5.96	9.72	13.52	17.44	21.48	23.1	25.60	34.40	38.96	43.64	48.93	4 / 2			
reaction time	0.183	interval		3.76	3.80	3.92	4.04		4.12	8.80	4.56	4.68	5.29		11.48		
		velocity	7.55	9.31	9.21	8.93	8.66	8.66	8.50	7.95	7.68	7.48	7.56	8.17		9.15	
H1 lead leg	R	strides	20	13	13	13	13		13		14	14	17.7	130.7			

Henson (2020) - Athlete First: 2019 year end hurdle report

**FINAL - 2019 Prefontaine Classic (Stanford, CA) (TV Analysis)**

date	30-Jun-19	time	5.90	9.73	13.63	17.63	21.70		25.86	30.36	34.90	39.46	44.00	49.37	3 / 3			
reaction time	0.201	interval		3.83	3.90	4.00	4.07		4.16	4.50	4.54	4.56	4.54	5.37		11.73	12.73	13.64
		velocity	7.63	9.14	8.97	8.75	8.60		8.41	7.78	7.71	7.68	7.71	7.45	8.10	8.95	8.25	7.70
H1 lead leg	R	strides	20	14	13	13	13		13	14	14		14	17.5	145.5			

Henson (2020) - Athlete First: 2019 year end hurdle report

**FINAL - 2018 IAAF Continental Cup (Ostrava, CZE) (TV Analysis)**

date	08-Sep-18	time	5.76	9.52	13.28	17.20	21.24		25.32	29.56	34.00	38.68	43.32	48.65	8 / 4			
reaction time	0.184	interval		3.76	3.76	3.92	4.04		4.08	4.24	4.44	4.68	4.64	5.33		11.44	12.36	13.76
		velocity	7.81	9.31	9.31	8.93	8.66		8.58	8.25	7.88	7.48	7.54	7.50	8.22	9.18	8.50	7.63
H1 lead leg	R	strides	20	13	13	13	13		13	13	14	14	17.5	143.5				

Henson (2021) - Athlete First: 2018 year end hurdle report

**FINAL - 2018 Weltklasse (Zürich, SUI) (TV Analysis)**

date	30-Aug-18	time	5.72	9.44	13.20		21.04	22.9	25.16	29.40	33.80	38.48	43.16	48.73	4 / 3				
reaction time	0.158	interval		3.72	3.76		7.84		4.12	4.24	4.40	4.68	4.68	5.57				13.76	
		velocity	7.87	9.41	9.31		8.93	8.73	8.50	8.25	7.95	7.48	7.48	7.18	8.21				7.63
H1 lead leg	R	strides	20	13	13				13	13	13		14	18	117				

Henson (2020) - Athlete First: 2018 year end hurdle report

**FINAL - 2018 Müller Anniversary Games (London, GBR) (TV Analysis)**

date	21-Jul-18	time	5.88	9.60			21.28		25.36	29.56	33.96	38.48	43.12	48.44	5 / 2				
reaction time	0.151	interval		3.72			11.68		4.08	4.20	4.40	4.52	4.64	5.32				13.56	
		velocity	7.65	9.41			8.99		8.58	8.33	7.95	7.74	7.54	7.52	8.26				7.74
H1 lead leg	R	strides	20	13					13	13	14	14	14	17.5	118.5				

Henson (2020) - Athlete First: 2018 year end hurdle report

**FINAL - 2018 Athletissima (Lausanne, SUI) (TV Analysis)**

date	05-Jul-18	time	5.80	9.56	13.36		21.12		25.20	29.54	33.92	38.52	43.20	48.85	3 / 3				
reaction time	0.183	interval		3.76	3.80		7.76		4.08	4.34	4.38	4.60	4.68	5.65				13.66	
		velocity	7.76	9.31	9.21		9.02		8.58	8.06	7.99	7.61	7.48	7.08	8.19				7.69
H1 lead leg	R	strides	20	13	13				13	14	14	14	14	18	133				

Henson (2020) - Athlete First: 2018 year end hurdle report

**FINAL - 2018 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)**

date	10-Jun-18	time	5.80	9.60	13.48	17.44	21.52		25.68	30.00	34.40	38.92	43.48	48.91	6 / 3			
reaction time	0.202	interval		3.80	3.88	3.96	4.08		4.16	4.32	4.40	4.52	4.56	5.43		11.64	12.56	13.48
		velocity	7.76	9.21	9.02	8.84	8.58		8.41	8.10	7.95	7.74	7.68	7.37	8.18	9.02	8.36	7.79
H1 lead leg	R	strides	20	13	13	13	13		13	14	14	14	14	17.5	158.5			

Henson (2020) - Athlete First: 2018 year end hurdle report

**FINAL - 2018 Bislett Games (Oslo, NOR) (TV Analysis)**

date	07-Jun-18	time	5.84	9.48			21.16	23.0	25.20	29.44	33.84	38.28	43.00	48.54	4 / 3				
reaction time	0.210	interval		3.64			11.68		4.04	4.24	4.40	4.44	4.72	5.54				13.56	
		velocity	7.71	9.62			8.99	8.70	8.66	8.25	7.95	7.88	7.42	7.22	8.24				7.74
H1 lead leg	R	strides	20	13	13				13	13	14	14	14	18	132				

Henson (2020) - Athlete First: 2018 year end hurdle report

**FINAL - 2018 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)**

date	31-May-18	time	5.84	9.56	13.32	17.16	21.12		25.20	29.40	33.84	38.36	43.12	48.63	5 / 3			
reaction time	0.205	interval		3.72	3.76	3.84	3.96		4.08	4.20	4.44	4.52	4.76	5.51		11.32	12.24	13.72
		velocity	7.71	9.41	9.31	9.11	8.84		8.58	8.33	7.88	7.74	7.35	7.26	8.23	9.28	8.58	7.65
H1 lead leg	R	strides	20	13	13	13	13		13	13	14	14	14	18	158			

Henson (2020) - Athlete First: 2018 year end hurdle report

**FINAL - 2018 Doha Diamond League (Doha, QAT) (TV Analysis)**

date	04-May-18	time	6.04	9.80	13.72	17.68	21.76		25.92	30.32	34.80	39.48	44.28	49.95	3 / 4			
reaction time	0.224	interval		3.76	3.92	3.96	4.08		4.16	4.40	4.48	4.68	4.80	5.67		11.64	12.64	13.96
		velocity	7.45	9.31	8.93	8.84	8.58		8.41	7.95	7.81	7.48	7.29	7.05	8.01	9.02	8.31	7.52
H1 lead leg	R	strides	20	13	13	13	13		13	14	14		14	18.2	145.2			

Henson (2020) - Athlete First: 2018 year end hurdle report

**FINAL - 2017 Weltklasse (Zürich, SUI) (TV Analysis)**

date	24-Aug-17	time	5.84	9.56	13.36		21.28		25.48	29.88	34.40	39.08	43.80	49.23	5 / 5				
reaction time	0.181	interval		3.72	3.80		7.92		4.20	4.40	4.52	4.68	4.72	5.43				13.92	
		velocity	7.71	9.41	9.21		8.84		8.33	7.95	7.74	7.48	7.42	7.37	8.13				7.54
H1 lead leg	R	strides	20	13	13				13	14	14		14	17.5	118.5				

Henson (2020) - Athlete First: 2017 year end hurdle report

**FINAL - 2017 IAAF World Championships (London, GBR) (TV Analysis)**

date	09-Aug-17	time	5.92	9.60	13.36	17.24	21.24		25.44	29.72	34.16	38.64	43.16	48.49	8 / 2			
reaction time	0.211	interval		3.68	3.76	3.88	4.00		4.20	4.28	4.44	4.48	4.52	5.33		11.32	12.48	13.44
		velocity	7.60	9.51	9.31	9.02	8.75		8.33	8.18	7.88	7.81	7.74	7.50	8.25	9.28	8.41	7.81
H1 lead leg	R	strides	20	13	13	13	13		13	14	14	14	14	18	159			

Henson (2020) - Athlete First: 2017 year end hurdle report

**FINAL - 2017 Müller's Anniversary Games (London, GBR) (TV Analysis)**

date	09-Jul-17	time	6.00	9.68	13.52	17.40	21.40		25.52	29.88	34.32	38.76	43.16	48.24	8 / 3			
reaction time	0.187	interval		3.68	3.84	3.88	4.00		4.12	4.36	4.44	4.44	4.40	5.08		11.40	12.48	13.28
		velocity	7.50	9.51	9.11	9.02	8.75		8.50	8.03	7.88	7.88	7.95	7.87	8.29	9.21	8.41	7.91
H1 lead leg	R	strides	20	13	13	13	13		13	14	14	14	14	17.2	158.2			

Henson (2020) - Athlete First: 2017 year end hurdle report

**FINAL - 2017 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)**

date	18-Jun-17	time	6.00	9.72	17.48	21.56	25.72	30.12	34.60	39.20	43.84	49.18	6 / 3				
reaction time	0.178	interval		3.72	7.76	4.08	4.16	4.40	4.48	4.60	4.64	5.34		11.48	12.64	13.72	
		velocity	7.50	9.41	9.02	8.58	8.41	7.95	7.81	7.61	7.54	7.49	8.13	9.15	8.31	7.65	
H1 lead leg	R	strides	20	13		13	13	14	14	14	14	17.7	132.7				

Henson (2020) - Athlete First: 2017 year end hurdle report

**FINAL - 2017 Bislett Games (Oslo, NOR) (TV Analysis)**

date	15-Jun-17	time	5.96	9.70	13.53	17.46	21.50	25.60	30.00	34.30	38.76	43.20	48.44	4 / 2			
reaction time	0.188	interval		3.74	3.83	3.93	4.04	4.10	4.40	4.30	4.46	4.44	5.24		11.50	12.54	13.20
		velocity	7.55	9.36	9.14	8.91	8.66	8.54	7.95	8.14	7.85	7.88	7.63	8.26	9.13	8.37	7.95
H1 lead leg	R	strides	20	13	13	13	13	13	14	14	14	14	17.5	158.5			

Henson (2020) - Athlete First: 2017 year end hurdle report

**FINAL - 2016 Meeting Paris (Saint-Denis, FRA) (TV Analysis)**

date	27-Aug-16	time	5.88	9.52	17.24	21.24	25.28	33.92	38.40	43.00	48.24	4 / 3				
reaction time	0.186	interval		3.64	7.72	4.00	4.04	8.64	4.48	4.60	5.24		11.36			
		velocity	7.65	9.62	9.07	8.75	8.66	8.10	7.81	7.61	7.63	8.29	9.24			
H1 lead leg	R	strides	20	13		13	13		14	14	17.5	104.5				

Henson (2020) - Athlete First: 2016 year end hurdle report

**FINAL - 2016 London Anniversary Games (London, GBR) (TV Analysis)**

date	23-Jul-16	time	5.84	9.56	13.40	17.28	21.28	25.48	29.80	34.24	38.80	43.36	48.70	6 / 3			
reaction time	0.189	interval		3.72	3.84	3.88	4.00	4.20	4.32	4.44	4.56	4.56	5.34		11.44	12.52	13.56
		velocity	7.71	9.41	9.11	9.02	8.75	8.33	8.10	7.88	7.68	7.68	7.49	8.21	9.18	8.39	7.74
H1 lead leg	R	strides	20	13	13	13	13	13	14	14	14	14	17.2	158.2			

Henson (2020) - Athlete First: 2016 year end hurdle report

**FINAL - 2016 European Championships (Amsterdam, NED) (TV Analysis)**

date	08-Jul-16	time	5.88	9.56	13.44	17.44	21.48	25.60	29.80	34.24	39.80	43.52	48.98	6 / 1			
reaction time	0.175	interval		3.68	3.88	4.00	4.04	4.12	4.20	4.44	5.56	3.72	5.46		11.56	12.36	13.72
		velocity	7.65	9.51	9.02	8.75	8.66	8.50	8.33	7.88	6.29	9.41	7.33	8.17	9.08	8.50	7.65
H1 lead leg	R	strides	20	13	13	13	13	13		14	14	14	18	145			

Henson (2020) - Athlete First: 2016 year end hurdle report

**Heat 2 - 2016 European Championships (Amsterdam, NED) (TV Analysis)**

date	07-Jul-16	time	5.84	9.48	13.28	17.28	21.20	25.08	29.28	33.64	38.16	42.80	48.42	5 / 1			
reaction time	0.173	interval		3.64	3.80	4.00	3.92	3.88	4.20	4.36	4.52	4.64	5.62	NR PB	11.44	12.00	13.52
		velocity	7.71	9.62	9.21	8.75	8.93	9.02	8.33	8.03	7.74	7.54	7.12	8.26	9.18	8.75	7.77
H1 lead leg	R	strides	20	13	13	13	13	13	14	14	14	14	18	159			

Henson (2020) - Athlete First: 2016 year end hurdle report

**FINAL - 2016 Bislett Games (Oslo, NOR) (TV Analysis)**

date	09-Jun-16	time	5.88	9.56	13.40	17.26	21.48	25.64	30.04	34.40	38.88	43.44	48.79	1 / 1			
reaction time	0.164	interval		3.68	3.84	3.86	4.22	4.16	4.40	4.36	4.48	4.56	5.35		11.38	12.78	13.40
		velocity	7.65	9.51	9.11	9.07	8.29	8.41	7.95	8.03	7.81	7.68	7.48	8.20	9.23	8.22	7.84
H1 lead leg	R	strides	20	13		13	13	13	14	14	14	14	17.7	145.7			

Henson (2021) - Athlete First: 2016 year end hurdle report

**FINAL - 2016 Prefontaine Classic (Eugene, OR) (TV Analysis)**

date	28-May-16	time	6.00	9.84	13.72	17.76	26.16	30.40	34.32	39.52	44.20	49.43	1 / 5				
reaction time		interval		3.84	3.88	4.04	8.40	4.24	3.92	5.20	4.68	5.23		11.76	12.64	13.80	
		velocity	7.50	9.11	9.02	8.66	8.33	8.25	7.65	7.69	7.48	7.65	8.09	8.93	8.31	7.61	
H1 lead leg	R	strides	20	13	13	13		13	12	16	14	17.5	131.5				

(H8 5m short)

Henson (2020) - Athlete First: 2016 year end hurdle report

**FINAL - 2016 Shanghai Golden Grand Prix (Shanghai, CHN)**

date	14-May-16	time	5.76	9.44	13.28	17.16	21.12	25.24	29.64	34.08	38.80	43.52	49.14	2 / 5			
reaction time	0.162	interval		3.68	3.84	3.88	3.96	4.12	4.40	4.44	4.72	4.72	5.62		11.40	12.48	13.88
		velocity	7.81	9.51	9.11	9.02	8.84	8.50	7.95	7.88	7.42	7.42	7.12	8.14	9.21	8.41	7.56
H1 lead leg	R	strides	20	13	13	13	13	13	14	14	15	15	18	161			

Henson (2020) - Athlete First: 2016 year end hurdle report

**FINAL - 2015 IAAF World Championships (Beijing, CHN) (TV Analysis)**

date	25-Aug-15	time	6.00		13.52	17.40	21.40	29.88	34.28	38.84	43.84	48.96	2 / 6				
reaction time	0.204	interval			7.52	3.88	4.00	8.48	4.40	4.56	5.00	5.12		11.40	12.48	13.96	
		velocity	7.50		9.31	9.02	8.75	8.25	7.95	7.68	7.00	7.81	8.17	9.21	8.41	7.52	
H1 lead leg	R	strides		13		13	13			14	14	14	17.5	98.5			

Henson (2021) - Athlete First: major championships report

**Coroller, Victor (FRA) (1997)**

date	19-Aug-22	time	5.80	9.65	13.51	17.34	21.36	23.21	25.60	30.11	34.70	39.48	44.65	50.46	8 / 8			
reaction time	0.201	interval		3.85	3.86	3.83	4.02	4.24	4.51	4.59	4.78	5.17	5.81		11.54	12.77	14.54	
		velocity	7.76	9.09	9.07	9.14	8.71	8.62	8.25	7.76	7.63	7.32	6.77	6.88	7.93	9.10	8.22	7.22
H1 lead leg	R	strides	21	14		14		14	15	16	16	16	19	145				

European Athletics (2022) - european athletics championships race analysis

**Semi-Final 3 - 2022 European Athletics Championships (Munich, GER)**

date	18-Aug-22	time	5.84	9.59	13.45	17.43	21.54	23.38	25.74	30.10	34.57	39.21	43.94	49.46	7 / 2			
reaction time	0.184	interval		3.75	3.86	3.98	4.11	4.20	4.36	4.47	4.64	4.73	5.52		11.59	12.67	13.84	
		velocity	7.71	9.33	9.07	8.79	8.52	8.55	8.33	8.03	7.83	7.54	7.40	7.25	8.09	9.06	8.29	7.59
H1 lead leg	R	strides	21			14		14	14	15	15	15	19	127				

European Athletics (2022) - european athletics championships race analysis

**Heat 1 - 2022 European Athletics Championships (Munich, GER)**

date	17-Aug-22	time	5.82	9.60	13.40	17.21	21.17	22.98	25.32	29.59	34.20	38.95	43.74	49.35	7 / 1			
reaction time	0.174	interval		3.78	3.80	3.81	3.96	4.15	4.27	4.61	4.75	4.79	5.61		11.39	12.38	14.15	

European Athletics (2022) - european athletics championships race analysis

H1 lead leg	R	velocity	7.73	9.26	9.21	9.19	8.84	8.70	8.43	8.20	7.59	7.37	7.31	7.13	8.11	9.22	8.48	7.42
		strides	21	14			14		14	14	14	15	15	19	140			

**FINAL - 2018 Meeting de Paris (Paris, FRA) (TV Analysis)***Henson (2020) - Athlete First: 2018 year end hurdle report*

date	05-Jul-18	time	5.96	9.72	13.64	17.64	21.72	23.5	25.92	30.36	35.04	39.76	44.56	50.03	3 / 7			
reaction time	0.165	interval		3.76	3.92	4.00	4.08		4.20	4.44	4.68	4.72	4.80	5.47		11.68	12.72	14.20
		velocity	7.55	9.31	8.93	8.75	8.58	8.51	8.33	7.88	7.48	7.42	7.29	7.31	8.00	8.99	8.25	7.39
H1 lead leg	R	strides	21	14	14	14	14		14	14	15	15	15	18.5	168.5			

**Cray, Eric Shauwn (PHI) (1988)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2016 Athletissime (Laussane, SUI) (TV Analysis)***Henson (2020) - Athlete First: 2016 year end hurdle report*

date	25-Aug-16	time	5.60	9.36	13.33	17.46	21.76		26.10	30.30	34.73	39.30	44.13	49.88	7 / 5			
reaction time	0.132	interval		3.76	3.97	4.13	4.30		4.34	4.20	4.43	4.57	4.83	5.75		11.86	12.84	13.83
		velocity	8.04	9.31	8.82	8.47	8.14		8.06	8.33	7.90	7.66	7.25	6.96	8.02	8.85	8.18	7.59
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	16	154				

**Cui Caizhuang (CHN) (1995)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****Heat 3 - 2021 Chinese National Championships (Chongqing, CHN)***CAA Hurdle Development (2021)*

date	26-Jun-21	time	6.38	10.49	14.65	19.00	23.39		27.91	32.51	37.29	42.16	47.11	52.73	5 / 5			
reaction time	0.171	interval		4.11	4.16	4.35	4.39		4.52	4.60	4.78	4.87	4.95	5.62		12.62	13.51	14.60
		velocity	7.05	8.52	8.41	8.05	7.97		7.74	7.61	7.32	7.19	7.07	7.12	7.59	8.32	7.77	7.19
H1 lead leg	R	strides	22	14	14	14	14		14	15	15	15	15	18	170			

**FINAL - 2020 Chinese Olympic Trials (Shaoxing, CHN)***CAA Hurdle Development (2021)*

date	13-Jun-21	time	6.11	10.09	14.13	18.26	22.47		26.88	31.41	36.02	40.66	45.30	50.59	4 / 3			
reaction time	0.167	interval		3.98	4.04	4.13	4.21		4.41	4.53	4.61	4.64	4.64	5.29	<b>PB</b>	12.15	13.15	13.89
		velocity	7.36	8.79	8.66	8.47	8.31		7.94	7.73	7.59	7.54	7.54	7.56	7.91	8.64	7.98	7.56
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	15	18.2	171.2			

**FINAL - 2021 National Grand Prix (Chengdu, CHN)***CAA Hurdle Development (2021)*

date	02-Apr-21	time	6.16	10.16	14.26	18.41	22.61		26.94	31.42	36.02	40.75	45.52	50.85	3 / 1			
reaction time	0.193	interval		4.00	4.10	4.15	4.20		4.33	4.48	4.60	4.73	4.77	5.33	<b>PB</b>	12.25	13.01	14.10
		velocity	7.31	8.75	8.54	8.43	8.33		8.08	7.81	7.61	7.40	7.34	7.50	7.87	8.57	8.07	7.45
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	15	19	172			

**Heat 1 - 2021 National Grand Prix (Chengdu, CHN)***CAA Hurdle Development (2021)*

date	01-Apr-21	time	6.22	10.22	14.32	18.54	22.82		27.26	31.90	36.66	41.52	46.42	51.93	4 / 1			
reaction time	0.194	interval		4.00	4.10	4.22	4.28		4.44	4.64	4.76	4.86	4.90	5.51		12.32	13.36	14.52
		velocity	7.23	8.75	8.54	8.29	8.18		7.88	7.54	7.35	7.20	7.14	7.26	7.70	8.52	7.86	7.23
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	15	18.5	171.5			

**FINAL - 2019 Chinese National Grand Prix Final (Daqing, CHN)***CAA Hurdle Development (2019)*

date	23-Aug-19	time	6.22	10.22	14.31	18.55	22.90		27.39	32.02	36.81	41.66	46.59	52.25	9 / 7			
reaction time	0.216	interval		4.00	4.09	4.24	4.35		4.49	4.63	4.79	4.85	4.93	5.66		12.33	13.47	14.57
		velocity	7.23	8.75	8.56	8.25	8.05		7.80	7.56	7.31	7.22	7.10	7.07	7.66	8.52	7.80	7.21
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	15	18.5	171.5			

**Heat 1 - 2019 Chinese National Grand Prix Final (Daqing, CHN)***CAA Hurdle Development (2019)*

date	22-Aug-19	time	6.38	10.48	14.64	18.93	23.25		27.82	32.47	37.24	42.08	46.91	52.30	8 / 2			
reaction time	0.223	interval		4.10	4.16	4.29	4.32		4.57	4.65	4.77	4.84	4.83	5.39		12.55	13.54	14.44
		velocity	7.05	8.54	8.41	8.16	8.10		7.66	7.53	7.34	7.23	7.25	7.42	7.65	8.37	7.75	7.27
H1 lead leg	R	strides	24	14	14	14	14		15	15	15	15	15	18.3	173.3			

**FINAL - 2019 Chinese World Championship Trials (Shenyang, CHN)***CAA Hurdle Development (2019)*

date	03-Aug-19	time	6.21	10.18	14.20	18.35	22.56		27.01	31.70	36.48	41.31	46.28	51.89	1 / <del>5</del> 5			
reaction time	0.194	interval		3.97	4.02	4.15	4.21		4.45	4.69	4.78	4.83	4.97	5.61		12.14	13.35	14.58
		velocity	7.25	8.82	8.71	8.43	8.31		7.87	7.46	7.32	7.25	7.04	7.13	7.71	8.65	7.87	7.20
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	15	18.8	171.8			

**Heat 2 - 2019 Chinese World Championship Trials (Shenyang, CHN)***CAA Hurdle Development (2019)*

date	03-Aug-19	time	6.52	10.78	15.12	19.56	24.08		28.84	33.68	38.55	43.46	48.46	54.03	8 / 5			
reaction time	0.228	interval		4.26	4.34	4.44	4.52		4.76	4.84	4.87	4.91	5.00	5.57		13.04	14.12	14.78
		velocity	6.90	8.22	8.06	7.88	7.74		7.35	7.23	7.19	7.13	7.00	7.18	7.40	8.05	7.44	7.10
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	15	15	20	177			

**FINAL - 2019 Chinese National Grand Prix 4 (Luoyang, CHN)***CAA Hurdle Development (2019)*

date	29-May-19	time	6.22	10.24	14.36	18.55	22.89		27.44	32.13	36.83	41.77	46.84	52.55	5 / 4			
reaction time	0.195	interval		4.02	4.12	4.19	4.34		4.55	4.69	4.70	4.94	5.07	5.71		12.33	13.58	14.71
		velocity	7.23	8.71	8.50	8.35	8.06		7.69	7.46	7.45	7.09	6.90	7.01	7.61	8.52	7.73	7.14
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	15	15	18.5	171.5			

**Čukman, Hrvoje (CRO) (1998)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2017 European U20 Championships (Grosseto, ITA) (TV Analysis)***Henson (2020) - Athlete First: 2017 year end hurdle report*

date	23-Jul-17	time	5.88	9.72	13.60	17.60	21.72		26.08	30.72	35.52	40.32	45.16	50.92	1 / 5			
reaction time	0.226	interval		3.84	3.88	4.00	4.12		4.36	4.64	4.80	4.80	4.84	5.76	<b>PB</b>	11.72	13.12	14.44
		velocity	7.65	9.11	9.02	8.75	8.50		8.03	7.54	7.29	7.29	7.23	6.94	7.86	8.96	8.00	7.27
H1 lead leg	R	strides		13	13	13	13		13	15	15	15	15	18	143			



Culson, Javier (PUR) (1984)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<b>FINAL - 2017 Jamaica International Invitational (Kingston, JAM) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>						
date	20-May-17	time	9.61	13.28	17.08	21.05		25.19	29.46	33.86	38.47	43.27		48.76	6 / 4				
reaction time		interval		3.67	3.80	3.97		4.14	4.27	4.40	4.61	4.80	5.49				12.38	13.81	
		velocity	8.32	9.54	9.21	8.82		8.45	8.20	7.95	7.59	7.29	7.29	8.20			8.48	7.60	
H1 lead leg		strides		13	13	13		13	13	13	14	14	17.2	123.2					
<b>FINAL - 2017 Shanghai Diamond League (Shanghai, CHN) (TV Analysis)</b>													<i>Henson (2021) - Athlete First: 2017 year end hurdle report</i>						
date	13-May-17	time	5.84	9.48	13.24	17.12	21.16	25.40	29.76	34.36	39.08	44.08		49.90	2 / 5				
reaction time	0.194	interval		3.64	3.76	3.88	4.04	4.24	4.36	4.60	4.72	5.00	5.82			11.28	12.64	14.32	
		velocity	7.71	9.62	9.31	9.02	8.66	8.25	8.03	7.61	7.42	7.00	6.87	8.02		9.31	8.31	7.33	
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	14	15	17.5	158.5					
<b>FINAL - 2016 Weltklasse (Zürich, SUI) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>						
date	01-Sep-16	time	5.72	9.44	13.16	16.96	20.88	25.00	29.24	33.80	38.52	43.32		48.79	3 / 2				
reaction time	0.175	interval		3.72	3.72	3.80	3.92	4.12	4.24	4.56	4.72	4.80	5.47			11.24	12.28	14.08	
		velocity	7.87	9.41	9.41	9.21	8.93	8.50	8.25	7.68	7.42	7.29	7.31	8.20		9.34	8.55	7.46	
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	14	14	17	157					
<b>FINAL - 2016 Meeting Paris (Saint-Denis, FRA) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>						
date	27-Aug-16	time	5.76	9.36	16.92	20.84	24.96			33.52	38.12	42.92		48.55	5 / 4				
reaction time	0.207	interval		3.60		7.56	3.92	4.12		8.56	4.60	4.80	5.63			11.16			
		velocity	7.81	9.72		9.26	8.93	8.50		8.18	7.61	7.29	7.10	8.24		9.41			
H1 lead leg	L	strides	20	13		13		13			14	14	17.2	104.2					
<b>FINAL - 2016 London Anniversary Games (London, GBR) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>						
date	23-Jul-16	time	5.80	9.48	13.20	17.08	21.08	25.24	29.56	33.88	38.40	43.08		48.63	3 / 2				
reaction time	0.173	interval		3.68	3.72	3.88	4.00	4.16	4.32	4.32	4.52	4.68	5.55			11.28	12.48	13.52	
		velocity	7.76	9.51	9.41	9.02	8.75	8.41	8.10	8.10	7.74	7.48	7.21	8.23		9.31	8.41	7.77	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	14	14	17	156					
<b>FINAL - 2016 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>						
date	16-Jun-16	time	5.80	9.53	13.20	17.07	21.16	25.43	29.77	34.17	38.83	43.70		49.43	5 / 1				
reaction time	0.184	interval		3.73	3.67	3.87	4.09	4.27	4.34	4.40	4.66	4.87	5.73			11.27	12.70	13.93	
		velocity	7.76	9.38	9.54	9.04	8.56	8.20	8.06	7.95	7.51	7.19	6.98	8.09		9.32	8.27	7.54	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	14	14	17.2	156.2					
<b>FINAL - 2016 Bislett Games (Oslo, NOR) (TV Analysis)</b>													<i>Henson (2021) - Athlete First: 2016 year end hurdle report</i>						
date	09-Jun-16	time	5.76	9.40	13.08	17.00	21.04	25.28	29.48	33.84	38.36	43.24		48.99	8 / 2				
reaction time	0.175	interval		3.64	3.68	3.92	4.04	4.24	4.20	4.36	4.52	4.88	5.75			11.24	12.48	13.76	
		velocity	7.81	9.62	9.51	9.33	8.66	8.25	8.33	8.03	7.74	7.17	6.96	8.16		9.34	8.41	7.63	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	14	14	17.5	156.5					
<b>FINAL - 2016 Prefontaine Classic (Eugene, OR) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>						
date	28-May-16	time	5.88	9.60	13.40	17.40	21.56	25.80	30.16	33.96	39.28	44.08		49.51	2 / 7				
reaction time		interval		3.72	3.80	4.00	4.16	4.24	4.36	3.80	5.32	4.80	5.43			11.52	12.76	13.92	
		velocity	7.65	9.41	9.21	8.75	8.41	8.25	8.03	7.89	7.52	7.29	7.37	8.08		9.11	8.23	7.54	
H1 lead leg	L	strides	20	13	13	13	13	13		11	16	14	17	143					
<b>FINAL - 2016 Shanghai Golden Grand Prix (Shanghai, CHN)</b>													<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>						
date	14-May-16	time	5.76	9.40	13.12	17.12	21.24	25.48	29.88	34.32	39.00	43.88		49.58	7 / 8				
reaction time	0.211	interval		3.64	3.72	4.00	4.12	4.24	4.40	4.44	4.68	4.88	5.70			11.36	12.76	14.00	
		velocity	7.81	9.62	9.41	8.75	8.50	8.25	7.95	7.88	7.48	7.17	7.02	8.07		9.24	8.23	7.50	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	14	14	17.2	156.2					
<b>FINAL - 2013 IAAF World Championships (Moscow, RUS) (TV Analysis)</b>													<i>Henson (2021) - Athlete First: major championships report</i>						
date	15-Aug-13	time	5.70	9.33	13.00	16.70	20.60	24.63	28.87	33.27	37.87	42.60		48.38	7 / 6				
reaction time	0.189	interval		3.63	3.67	3.70	3.90	4.03	4.24	4.40	4.60	4.73	5.78			11.00	12.17	13.73	
		velocity	7.89	9.64	9.54	9.46	8.97	8.68	8.25	7.95	7.61	7.40	6.92	8.27		9.55	8.63	7.65	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	14	14	17.2	156.2					
<b>FINAL - 2012 Olympic Games (London, GBR)</b>													<i>Hillier (2012) - uka 2012 olympic games report: 400m hurdles</i>						
date	06-Aug-12	time	5.68	9.19	12.84	16.56	20.47	22.27	24.46	28.72	33.20	37.69	42.40	48.10	5 / 3				
reaction time	0.196	interval		3.51	3.65	3.72	3.91	3.99	4.26	4.48	4.49	4.71	5.70			10.88	12.16	13.68	
		velocity	7.92	9.97	9.59	9.41	8.95	8.98	8.77	8.22	7.81	7.80	7.43	7.02	8.32		9.65	8.63	7.68
H1 lead leg	L	strides	21	13	13	13	13	13	13	13	14	14	14	17.5	159				
<b>FINAL - 2011 IAAF World Championships (Daegu, KOR)</b>													<i>Behm (2011) - Le quatrache: Démus enfin!</i>						
date	01-Sep-11	time	5.8	9.4	13.1	16.9	20.9	24.9	29.2	33.5	38.1	42.8		48.44	3 / 2				
reaction time	0.190	interval		3.60	3.70	3.80	4.00	4.00	4.30	4.30	4.60	4.70	5.64			11.10	12.30	13.60	
		velocity	7.76	9.72	9.46	9.21	8.75	8.75	8.14	8.14	7.61	7.45	7.09	8.26		9.46	8.54	7.72	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	14	14	18	157					
<b>FINAL - 2009 IAAF World Championships (Berlin, GER)</b>													<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>						
date	18-Aug-09	time	5.97	9.67	13.45	17.37	21.49	25.60	29.87	34.17	38.56	43.03		48.09	8 / 2				
reaction time	0.187	interval		3.70	3.78	3.92	4.12	4.11	4.27	4.30	4.39	4.47	5.06	NR		11.40	12.50	13.16	

H1 lead leg	L	velocity	7.54	9.46	9.26	8.93	8.50	8.52	8.20	8.14	7.97	7.83	7.91	8.32	9.21	8.40	7.98
		strides	20	13	13	13	13	13	13	13	14	14	16.7	155.7			

**Semi-Final 1 - 2009 IAAF World Championships (Berlin, GER)***Graubner (2009) - biomechanical analyses at the 12th IAAF world championships*

date	16-Aug-09	time	5.91	9.55	13.32	17.22	21.25	25.35	29.56	33.88	38.38	43.06	48.43	5 / 3			
reaction time	0.176	interval		3.64	3.77	3.90	4.03	4.10	4.21	4.32	4.50	4.68	5.37		11.31	12.34	13.50
		velocity	7.61	9.62	9.28	8.97	8.68	8.54	8.31	8.10	7.78	7.48	7.45	8.26	9.28	8.51	7.78
H1 lead leg	L	strides		13	13	13	13	13	13	13	14	14	17	136			

**Heat 2 - 2009 IAAF World Championships (Berlin, GER)***Graubner (2009) - biomechanical analyses at the 12th IAAF world championships*

date	15-Aug-09	time	6.02	9.79	13.60	17.66	21.86	26.13	30.49	34.97	39.47	44.11	49.27	1 / 1			
reaction time	0.212	interval		3.77	3.81	4.06	4.20	4.27	4.36	4.48	4.50	4.64	5.16		11.64	12.83	13.62
		velocity	7.48	9.28	9.19	8.62	8.33	8.20	8.03	7.81	7.78	7.54	7.75	8.12	9.02	8.18	7.71
H1 lead leg		strides															

**Cuypers, Alain (BEL) (1967)**

H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
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**Semi-Final 2 - 1988 Olympic Games (Seoul, KOR)***Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988*

date	24-Sep-88	time	6.20	10.13	14.07	18.06	22.14	26.45	30.79	35.22	39.76	44.40	49.75	7 / 7				
reaction time		interval		3.93	3.94	3.99	4.08	4.31	4.34	4.43	4.54	4.64	5.35		PB	11.86	12.73	13.61
		velocity	7.26	8.91	8.88	8.77	8.58	8.12	8.06	7.90	7.71	7.54	7.48	8.04	8.85	8.25	7.71	
H1 lead leg		strides	21	14	14	14	14	14	14	15	15	15	18.5	168.5				

**Davis, Calvin (USA) (1972)**

H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
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**FINAL - 1996 Olympic Games (Atlanta, GA)***McFarlane (2000) - the science of hurdling and speed*

date	01-Aug-96	time	6.02	9.85	13.62	17.38	21.34	25.48	29.70	33.90	38.35	42.82	47.96	5 / 3			
reaction time	0.267	interval		3.83	3.77	3.76	3.96	4.14	4.22	4.20	4.45	4.47	5.14		11.36	12.32	13.12
		velocity	7.48	9.14	9.28	9.31	8.84	8.45	8.29	8.33	7.87	7.83	7.78	8.34	9.24	8.52	8.00
H1 lead leg		strides	23	15	15	15	15	15	15	15	15	15	158				

**FINAL - 1996 USA Olympic Trials (Atlanta, GA)***McNichols - Hurdle technique study through video analysis*

date	16-Jun-96	time	6.03	9.88	13.71	17.65	21.60	22.28	25.67	29.98	34.23	38.68	43.21	48.32	3 / 3			
reaction time		interval		3.85	3.83	3.94	3.95	4.07	4.31	4.25	4.45	4.53	5.11		PB	11.62	12.33	13.23
		velocity	7.46	9.09	9.14	8.88	8.86	8.98	8.60	8.12	8.24	7.87	7.73	7.83	8.28	9.04	8.52	7.94
H1 lead leg	R	strides	23	13	14	14	14	14	14	15	15	15	151					

**Davis, Glenn (USA) (1934)**

H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
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**FINAL - 1960 Olympic Games (Rome, ITA)***Nett (1964) - Training des leichtathleten: Hürdenlauf, sprung, wurf, mehrkampf*

date	02-Sep-60	time	5.9	9.9	14.0	18.2	22.4	24.0	26.7	31.1	35.6	40.0	44.5	49.3	6 / 1				
reaction time		interval		4.0	4.1	4.2	4.2	4.3	4.4	4.5	4.4	4.5	4.8		OR	12.30	12.90	13.40	
		velocity	7.63	8.75	8.54	8.33	8.33	8.33	8.14	7.95	7.78	7.95	7.78	8.33	8.11	(49.51)	8.54	8.14	7.84
H1 lead leg		strides																	

**FINAL - 1956 Olympic Games (Melbourne, AUS)***Quercentani (2000). Athletics: A history of modern track and field athletics (1860-2000)*

date	24-Nov-56	time					22.7						50.1	4 / 1			
reaction time		interval											=OR				
		velocity					8.15						7.98	(50.29)			
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	19	176			

**de Araújo, Eronilde (BRA) (1970)**

H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
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**FINAL - 2000 Olympic Games (Sydney, AUS)***Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games*

date	27-Sep-00	time	5.98	9.66	13.38	17.14	21.06	22.62	25.10	29.38	33.78	38.26	43.94	48.34	8 / 5			
reaction time	0.190	interval		3.68	3.72	3.76	3.92	4.04	4.28	4.40	4.48	5.68	4.40		11.16	12.24	14.56	
		velocity	7.53	9.51	9.41	9.31	8.93	8.84	8.66	8.18	7.95	7.81	6.16	9.09	8.27	9.41	8.58	7.21
H1 lead leg		strides	21	13	13	13	13	13	13	14	14	14	14	17.3	159.3			

**Semi-Final 3 - 2000 Olympic Games (Sydney, AUS)***Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games*

date	25-Sep-00	time	5.94	9.62	13.34	17.18	21.18	22.70	25.26	29.46	33.98	38.58	43.34	48.76	4 / 2			
reaction time	0.181	interval		3.68	3.72	3.84	4.00	4.08	4.20	4.52	4.60	4.76	5.42		11.24	12.28	13.88	
		velocity	7.58	9.51	9.41	9.11	8.75	8.81	8.58	8.33	7.74	7.61	7.35	7.38	8.20	9.34	8.55	7.56
H1 lead leg		strides	21	13	13	13	13	13	14	14	14	14	17.8	159.8				

**Heat 8 - 2000 Olympic Games (Sydney, AUS)***Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games*

date	24-Sep-00	time	6.06	9.86	13.62	17.58	21.62	25.86	30.18	34.82	39.62	44.42	50.06	8 / 1			
reaction time	0.179	interval		3.80	3.76	3.96	4.04	4.24	4.32	4.64	4.80	4.80	5.64		11.52	12.60	14.24
		velocity	7.43	9.21	9.31	8.84	8.66	8.25	8.10	7.54	7.29	7.29	7.09	7.99	9.11	8.33	7.37
H1 lead leg		strides	21	13	13	13	13	14	14	15	15	15	17.9	163.9			

**FINAL - 1999 IAAF World Championships (Sevilla, ESP)***Sanchez (1999) - Sevilla '99: análisis de la carreras con villas*

date	27-Aug-99	time	5.72	9.39	13.13	16.93	20.85	24.84	29.06	33.37	37.85	42.46	48.13	8 / 4			
reaction time	0.205	interval		3.67	3.74	3.80	3.92	3.99	4.22	4.31	4.48	4.61	5.67		11.21	12.13	13.40
		velocity	7.87	9.54	9.36	9.21	8.93	8.77	8.29	8.12	7.81	7.59	7.05	8.31	9.37	8.66	7.84
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	15	17.5	161			

**Semi-Final 2 - 1999 IAAF World Championships (Sevilla, ESP)***Sanchez (1999) - Sevilla '99: análisis de la carreras con villas*

date	25-Aug-99	time	5.70	9.47	13.28	17.09	21.07	25.09	29.28	33.57	38.04	42.68	48.41	6 / 3			
reaction time	0.174	interval		3.77	3.81	3.81	3.98	4.02	4.19	4.29	4.47	4.64	5.73		11.39	12.19	13.40
		velocity	7.89	9.28	9.19	9.19	8.79	8.71	8.35	8.16	7.83	7.54	6.98	8.26	9.22	8.61	7.84

H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	14	17.5	159.5
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**FINAL - 1996 Olympic Games (Atlanta, GA)**

date	01-Aug-96	time	6.0	9.9	13.7	17.5	21.4	25.5	29.7	34.0	38.4	43.0	48.78	2 / 8	<i>Behm (1996) - 400m haies</i>		
reaction time	0.199	interval		3.90	3.80	3.80	3.90	4.10	4.20	4.30	4.40	4.60	5.78		11.50	12.20	13.30
		velocity	7.50	8.97	9.21	9.21	8.97	8.54	8.33	8.14	7.95	7.61	6.92	8.20	9.13	8.61	7.89
H1 lead leg		strides	21	13	13	13	13	13	14	14	14	14	142				

**de Jesús, Mikael Antonio (POR) (199**

<b>Semi-Final 2 - 2024 European Athletics Championships (Roma, ITA)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
date	10-Jun-24	time	5.96	9.67	13.50	17.52	21.63		25.97	30.46	34.90	39.58	44.33		49.72	2 / 6			
reaction time	0.164	interval		3.71	3.83	4.02	4.11		4.34	4.49	4.44	4.68	4.75	5.39			11.56	12.94	13.87
		velocity	7.55	9.43	9.14	8.71	8.52		8.06	7.80	7.88	7.48	7.37	7.42	8.05		9.08	8.11	7.57
H1 lead leg	L	strides	21	13	13	13	13		14	14	15	15	15	18	164				

**Heat 1 - 2024 European Athletics Championships (Roma, ITA)**

date	09-Jun-24	time	6.01	9.73	13.53	17.45	21.54		25.82	30.11	34.54	39.11	43.81		49.41	9 / 4			
reaction time	0.201	interval		3.72	3.80	3.92	4.09		4.28	4.29	4.43	4.57	4.70	5.60			11.44	12.66	13.70
		velocity	7.49	9.41	9.21	8.93	8.56		8.18	8.16	7.90	7.66	7.45	7.14	8.10		9.18	8.29	7.66
H1 lead leg		strides												0					

**Dean, Caleb (USA) (2001)**

<b>FINAL - 2024 Herculis Meeting International d'Athlétisme (Monaco, MON)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
date	12-Jul-24	time	5.82	9.52	13.24	16.96	20.80		24.86	29.17	33.67	38.25	42.94		48.46	4 / 8			
reaction time	0.174	interval		3.70	3.72	3.72	3.84		4.06	4.31	4.50	4.58	4.69	5.52			11.14	12.21	13.77
		velocity	7.73	9.46	9.41	9.41	9.11		8.62	8.12	7.78	7.64	7.46	7.25	8.25		9.43	8.60	7.63
H1 lead leg	R	strides	21	13	13	13	13		13	14	14	15	15	17.7	161.7				

**FINAL - 2024 USA Olympic Trials (Eugene, OR)**

date	30-Jun-24	time	5.63	9.26	12.97	16.74	20.55	22.35	24.59	28.85	33.38				dnf	5 / --			
reaction time		interval		3.63	3.71	3.77	3.81		4.04	4.26	4.53						11.11	12.11	
		velocity	7.99	9.64	9.43	9.28	9.19	8.95	8.66	8.22	7.73						9.45	8.67	
H1 lead leg	R	strides	20	13	13	13	13		13	14	14				113				

**Semi-Final 2 - 2024 USA Olympic Trials (Eugene, OR)**

date	28-Jun-24	time	5.81	9.50	13.25	17.04	20.94	22.61	24.83	29.27	33.84	38.56	43.44		48.92	7 / 1			
reaction time		interval		3.69	3.75	3.79	3.90		3.89	4.44	4.57	4.72	4.88	5.48			11.23	12.23	14.17
		velocity	7.75	9.49	9.33	9.23	8.97	8.85	9.00	7.88	7.66	7.42	7.17	7.30	8.18		9.35	8.59	7.41
H1 lead leg	R	strides	21	13	13	13	13		14	14	15	15	15	17.7	163.7				

**Heat 3 - 2024 USA Olympic Trials (Eugene, OR)**

date	27-Jun-24	time	5.82	9.42	13.09	16.88	20.68	22.45	24.77	29.17	33.85	38.79	43.61		49.45	8 / 1			
reaction time		interval		3.60	3.67	3.79	3.80		4.09	4.40	4.68	4.94	4.82	5.84			11.06	12.29	14.44
		velocity	7.73	9.72	9.54	9.23	9.21	8.91	8.56	7.95	7.48	7.09	7.26	6.85	8.09		9.49	8.54	7.27
H1 lead leg	R	strides	21	13	13	13	13		14	14	14	16	15	18	164				

**FINAL - 2024 NCAA Championships (Eugene, OR) (TV Analysis)**

date	07-Jun-24	time	5.79	9.42	13.13	16.84	20.67		24.66	28.85	33.13	37.60	42.11		47.23	6 / 1			
reaction time		interval		3.63	3.71	3.71	3.83		3.99	4.19	4.28	4.47	4.51	5.12	<b>PB</b>		11.05	12.01	13.26
		velocity	7.77	9.64	9.43	9.43	9.14		8.77	8.35	8.18	7.83	7.76	7.81	8.47		9.50	8.74	7.92
H1 lead leg	R	strides	20	13	13	13	13		13	14	14	14	14	18	159				

**FINAL - 2023 NCAA Championships (Austin, TX) (TV Analysis)**

date	09-Jun-23	time	5.76	9.47	13.28	17.17	21.17		25.39	29.80	34.30	38.80	43.26		48.56	7 / 4			
reaction time		interval		3.71	3.81	3.89	4.00		4.22	4.41	4.50	4.50	4.46	5.30			11.41	12.63	13.46
		velocity	7.81	9.43	9.19	9.00	8.75		8.29	7.94	7.78	7.78	7.85	7.55	8.24		9.20	8.31	7.80
H1 lead leg	R	strides	21	13	13	13	13		13	14	14	15	14	18.2	161.2				

**Semi-Final 1 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)**

date	25-Jun-21	time	5.93	9.77	13.67	17.60	21.77		26.07	30.53	35.03	39.77	44.53		49.78	7 / 5			
reaction time	0.178	interval		3.84	3.90	3.93	4.17		4.30	4.46	4.50	4.74	4.76	5.25			11.67	12.93	14.00
		velocity	7.59	9.11	8.97	8.91	8.39		8.14	7.85	7.78	7.38	7.35	7.62	8.04		9.00	8.12	7.50
H1 lead leg	R	strides		13	13	13	13		15	15	15	15	15	18	145				

**Deguchi, Haruto (JPN) (2001)**

<b>FINAL - 2023 Japanese National Championships (Osaka, JPN)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
date	03-Jun-23	time	6.14	10.01	13.93	17.93	22.16		26.39	30.81	35.40	40.06	44.88		50.35	2 / 6			
reaction time	0.216	interval		3.87	3.92	4.00	4.23		4.23	4.42	4.59	4.66	4.82	5.47			11.79	12.88	14.07
		velocity	7.33	9.04	8.93	8.75	8.27		8.27	7.92	7.63	7.51	7.26	7.31	7.94		8.91	8.15	7.46
H1 lead leg	L	strides	21	13	13	13	14		14	15	15	15	15	18	166				

**C FINAL - 2023 Shizuoka International Meeting (Fukuroi, JPN)**

date	03-May-23	time	6.15	10.04	14.05	18.17	22.51		26.75	31.15	35.58	40.11	44.71		50.00	6 / 1			
reaction time	0.205	interval		3.89	4.01	4.12	4.34		4.24	4.40	4.43	4.53	4.60	5.29			12.02	12.98	13.56
		velocity	7.32	9.00	8.73	8.50	8.06		8.25	7.95	7.90	7.73	7.61	7.56	8.00		8.74	8.09	7.74
H1 lead leg	L	strides	21	13	13	13	14		14	15	15	15	15	18	166				



**FINAL - 2020 Japanese U20 National Championships (Hiroshima, JPN)***Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season*

date	25-Oct-20	time	6.41	10.49	14.70	19.00	23.51	28.06	32.60	37.22	41.89	46.68	52.17	4 / 1				
reaction time	0.195	interval		4.08	4.21	4.30	4.51	4.55	4.54	4.62	4.67	4.79	5.49		12.59	13.60	14.08	
		velocity	7.02	8.58	8.31	8.14	7.76	7.69	7.71	7.58	7.49	7.31	7.29	7.67		8.34	7.72	7.46
		strides	21	13	13	13	14	14	15	15	15	15	15	17.7		165.7		

**FINAL - 2019 Japanese National High School Championships (Okinawa, JPN)***Kota (2019) - 72nd high school championships: JAF scientific committee - biomechanics data collection*

date	06-Aug-19	time	6.25	10.21	14.25	18.39	22.76	27.24	31.65	36.05	40.62	45.28	50.57	4 / 1				
reaction time		interval		3.96	4.04	4.14	4.37	4.48	4.41	4.40	4.57	4.66	5.29		12.14	13.26	13.63	
		velocity	7.20	8.84	8.66	8.45	8.01	7.81	7.94	7.95	7.66	7.51	7.56	7.91		8.65	7.92	7.70
		strides		13	13	13	14	14	15	15	15	15	15	127				

**FINAL - 2018 Japanese National High School Championships (Nagoya, JPN)***Kota (2018) - 71st high school championships: JAF scientific committee - biomechanics data collection*

date	04-Aug-18	time	6.26	10.36	14.66	19.04	23.52	27.98	32.47	36.95	41.45	46.01	51.17	4 / 1				
reaction time		interval		4.10	4.30	4.38	4.48	4.46	4.49	4.48	4.50	4.56	5.16		12.78	13.43	13.54	
		velocity	7.19	8.54	8.14	7.99	7.81	7.85	7.80	7.81	7.78	7.68	7.75	7.82		8.22	7.82	7.75
		strides		15	15	15	15	15	15	15	15	15	15	135				

**Delgado, Jesús David (ESP) (1999)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****Semi-Final 3 - 2024 European Athletics Championships (Roma, ITA)***European Athletics (2024) - 2024 european athletics championships - results book*

date	10-Jun-24	time	6.03	9.81	13.71	17.70	21.72	25.85	30.19	34.64	39.29	43.88	49.38	3 / 7				
reaction time	0.271	interval		3.78	3.90	3.99	4.02	4.13	4.34	4.45	4.65	4.59	5.50		11.67	12.49	13.69	
		velocity	7.46	9.26	8.97	8.77	8.71	8.47	8.06	7.87	7.53	7.63	7.27	8.10		9.00	8.41	7.67
		strides	21	13	13	13	13	13	14	14	14	14	17.7	145.7				

**Semi-Final 2 - 2022 European Athletics Championships (Munich, GER)***European Athletics (2022) - european athletics championships race analysis*

date	18-Aug-22	time	6.12	10.09	14.17	18.28	22.46	24.34	26.79	31.38	35.98	40.60	45.08	50.32	1 / 8				
reaction time	0.270	interval		3.97	4.08	4.11	4.18	4.33	4.59	4.60	4.62	4.48	5.24		12.16	13.10	13.70		
		velocity	7.35	8.82	8.58	8.52	8.37	8.22	8.08	7.63	7.61	7.58	7.81	7.63	7.95		8.63	8.02	7.66
		strides	21	13			13	13	14	14	14	14	14	17	133				

**Heat 3 - 2022 European Athletics Championships (Munich, GER)***European Athletics (2022) - european athletics championships race analysis*

date	17-Aug-22	time	6.12	10.00	14.00	18.05	22.24	24.01	26.43	30.74	35.31	40.01	44.82	50.61	7 / 2				
reaction time	0.224	interval		3.88	4.00	4.05	4.19	4.19	4.31	4.57	4.70	4.81	5.79		11.93	12.69	14.08		
		velocity	7.35	9.02	8.75	8.64	8.35	8.33	8.35	8.12	7.66	7.45	7.28	6.91	7.90		8.80	8.27	7.46
		strides	21	13			13	13	13	13	14	14	15	17.5	133.5				

**Derby, Brian (USA) (1981)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****Heat 1 - 2007 USATF National Championships (Indianapolis, IN)***USATF Men's Hurdle Development (2007)*

date	21-Jun-07	time	6.09	10.03	13.98	18.03	22.17	26.61	31.09	35.67	40.27	44.91	50.26	5 / 3				
reaction time		interval		3.94	3.95	4.05	4.14	4.44	4.48	4.58	4.60	4.64	5.35		11.94	13.06	13.82	
		velocity	7.39	8.88	8.86	8.64	8.45	7.88	7.81	7.64	7.61	7.54	7.48	7.96		8.79	8.04	7.60
		strides	21	14	13	13	13	14	14	14	14	14	14	144				

**Derbyshire, Seamus (GBR) (2000)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****Semi-Final 1 - 2022 European Athletics Championships (Munich, GER)***European Athletics (2022) - european athletics championships race analysis*

date	18-Aug-22	time	5.87	9.74	13.66	17.67	21.70	23.50	25.94	30.40	34.93	39.52	44.21	49.63	7 / 4				
reaction time	0.155	interval		3.87	3.92	4.01	4.03	4.24	4.46	4.53	4.59	4.69	5.42		11.80	12.73	13.81		
		velocity	7.67	9.04	8.93	8.73	8.68	8.51	8.25	7.85	7.73	7.63	7.46	7.38	8.06		8.90	8.25	7.60
		strides	22	14			14	14	15	15	15	15	15	19	144				

**Heat 4 - 2022 European Athletics Championships (Munich, GER)***European Athletics (2022) - european athletics championships race analysis*

date	17-Aug-22	time	5.93	9.85	13.80	17.80	21.85	23.66	26.11	30.63	35.22	39.95	44.59	50.08	2 / 3				
reaction time	0.184	interval		3.92	3.95	4.00	4.05	4.26	4.52	4.59	4.73	4.64	5.49		11.87	12.83	13.96		
		velocity	7.59	8.93	8.86	8.75	8.64	8.45	8.22	7.74	7.63	7.40	7.54	7.29	7.99		8.85	8.18	7.52
		strides	22	14			14	14	15	15	15	15	15	19.5	144.5				

**Derevyagin, Aleksandr (RUS) (1979)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2011 IAAF World Championships (Daegu, KOR)***Behm (2011) - Le quatrache: D'émus enfin!*

date	01-Sep-11	time	6.0	9.7	13.7	17.6	21.6	25.8	30.2	34.6	39.0	43.7	49.32	2 / 8				
reaction time	0.187	interval		3.70	4.00	3.90	4.00	4.20	4.40	4.40	4.40	4.70	5.62		11.60	12.60	13.50	
		velocity	7.50	9.46	8.75	8.97	8.75	8.33	7.95	7.95	7.95	7.45	7.12	8.11		9.05	8.33	7.78
		strides	22	15	15	16	15	15	15	15	15	15	18	176				

**FINAL - 2007 European Cup (Munich, GER)***Graubner (2007) - <http://www.fgs.uni-halle.de>*

date	23-Jun-07	time	6.17	10.12	14.14	18.12	22.21	26.30	30.52	34.80	39.20	43.74	49.12	1 / 4				
reaction time	0.162	interval		3.95	4.02	3.98	4.09	4.09	4.22	4.28	4.40	4.54	5.38		11.95	12.40	13.22	
		velocity	7.29	8.86	8.71	8.79	8.56	8.56	8.29	8.18	7.95	7.71	7.43	8.14		8.79	8.47	7.94
		strides																

**FINAL - 2006 European Championships (Göteborg, SWE)***Behm (2006) - Göteborg 2006: Le quatrache*

date	10-Aug-06	time	5.9	9.7	13.6	17.6	21.7	26.0	30.4	34.7	39.4	44.2	50.31	1 / 8				
reaction time		interval		3.80	3.90	4.00	4.10	4.30	4.40	4.30	4.70	4.80	6.11		11.70	12.80	13.80	
		velocity	7.63	9.21	8.97	8.75	8.54	8.14	7.95	8.14	7.45	7.29	6.55	7.95		8.97	8.20	7.61
		strides	21	14	14	14	14	15	15	15	15	15	18.5	170.5				

**Dia Bâ, Amadou (SEN) (1958)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**

**FINAL - 1988 Olympic Games (Seoul, KOR)**

date	25-Sep-88	time	5.96	9.60	13.33	17.13	21.01	25.06	29.26	33.44	37.83	42.27	47.23	5 / 2			
reaction time	0.220	interval		3.64	3.73	3.80	3.88	4.05	4.20	4.18	4.39	4.44	4.96	NR	11.17	12.13	13.01
		velocity	7.55	9.62	9.38	9.21	9.02	8.64	8.33	8.37	7.97	7.88	8.06	8.47	9.40	8.66	8.07
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	14	14	18	159			

*Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988***Semi-Final 2 - 1988 Olympic Games (Seoul, KOR)**

date	24-Sep-88	time	6.16	10.00	13.91	17.73	21.78	25.89	30.18	34.49	38.99	43.48	48.48	4 / 3			
reaction time		interval		3.84	3.91	3.82	4.05	4.11	4.29	4.31	4.50	4.49	5.00		11.57	12.45	13.30
		velocity	7.31	9.11	8.95	9.16	8.64	8.52	8.16	8.12	7.78	7.80	8.00	8.25	9.08	8.43	7.89
H1 lead leg		strides	20	13	13	13	13	13	14	14	14	14	17	158			

*Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988***FINAL - 1987 Meeting BNP D'Athlétisme (Paris, FRA)**

date	16-Jul-87	time	5.7	9.5	13.3	17.2	21.2	25.3	29.5	34.1	38.7	43.3	48.89	/ 1			
reaction time		interval		3.84	3.78	3.83	4.08	4.02	4.26	4.59	4.92	5.59	8.18		11.45	12.36	13.79
		velocity	7.89	9.11	9.26	9.14	8.58	8.71	8.22	7.63	7.61	7.16	8.18	8.18	9.17	8.50	7.61
H1 lead leg		strides															

*Behm (1988) - 45-39***Diagana, Stéphane (FRA) (1969)**

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>Semi-Final 1 - 2003 IAAF World Championships (Paris, FRA)</b>																	
date	27-Aug-03	time	5.8	9.5	13.3	17.2	21.2	25.3	29.5	33.9	38.5	43.1	48.64	2 / 5			
reaction time	0.163	interval		3.70	3.80	3.90	4.00	4.10	4.20	4.40	4.60	4.60	5.54		11.40	12.30	13.60
		velocity	7.76	9.46	9.21	8.97	8.75	8.54	8.33	7.95	7.61	7.61	7.22	8.22	9.21	8.54	7.72
H1 lead leg		strides	21	13	13	13	13	13	14	14	15	15	18	162			

*Behm (2003) - Paris 2003:Le quatrache masculin - féminin***Heat 1 - 2003 IAAF World Championships (Paris, FRA)**

date	26-Aug-03	time	5.8	9.5	13.3	17.1	20.9	25.1	29.4	34.1	38.7	43.5	49.00	7 / 3			
reaction time	0.186	interval		3.70	3.80	3.80	3.80	4.20	4.30	4.70	4.60	4.80	5.50		11.30	12.30	14.10
		velocity	7.76	9.46	9.21	9.21	9.21	8.33	8.14	7.45	7.61	7.29	7.27	8.16	9.29	8.54	7.45
H1 lead leg		strides	21	13	13	13	13	13	14	14	15	15	18	162			

*Behm (2003) - Paris 2003:Le quatrache masculin - féminin***FINAL - 2002 European Championships (Munich, GER)**

date	09-Aug-02	time	5.95	9.65	13.35	17.13	21.03	25.11	29.41	33.62	38.01	42.50	47.58	/ 1			
reaction time	0.141	interval		3.70	3.70	3.78	3.90	4.08	4.30	4.21	4.39	4.49	5.08		11.18	12.28	13.09
		velocity	7.56	9.46	9.46	9.26	8.97	8.58	8.14	8.31	7.97	7.80	7.87	8.41	9.39	8.55	8.02
H1 lead leg		strides		13	13	13	13	13	14	14	15	15	123				

*Graubner (2009) - http://www.fgs.uni-halle.de***Semi-Final 2 - 2002 European Championships (Munich, GER)**

date	08-Aug-02	time	5.97	9.66	13.44	17.26	21.20	25.32	29.69	34.14	38.82	43.53	49.01	/ 1			
reaction time		interval		3.69	3.78	3.82	3.94	4.12	4.37	4.45	4.68	4.71	5.48		11.29	12.43	13.84
		velocity	7.54	9.49	9.26	9.16	8.88	8.50	8.01	7.87	7.48	7.43	7.30	8.16	9.30	8.45	7.59
H1 lead leg		strides															

*Graubner (2009) - http://www.fgs.uni-halle.de***Heat 3 - 2002 European Championships (Munich, GER)**

date	07-Aug-02	time	6.06	9.86	13.71	17.60	21.50	25.75	30.24	34.88	39.15	44.35	49.52	/ 1			
reaction time		interval		3.80	3.85	3.89	3.90	4.25	4.49	4.64	4.27	5.20	5.17		11.54	12.64	14.11
		velocity	7.43	9.21	9.09	9.00	8.97	8.24	7.80	7.54	8.20	6.73	7.74	8.08	9.10	8.31	7.44
H1 lead leg		strides															

*Graubner (2009) - http://www.fgs.uni-halle.de***FINAL - 2001 European Cup (Bremen, GER)**

date	23-Jun-01	time	6.03	9.78	13.62	17.52	21.41	25.46	29.60	34.16	38.90	43.73	49.07	/ 3			
reaction time		interval		3.75	3.84	3.90	3.89	4.05	4.14	4.56	4.74	4.83	5.34		11.49	12.08	14.13
		velocity	7.46	9.33	9.11	8.97	9.00	8.64	8.45	7.68	7.38	7.25	7.49	8.15	9.14	8.69	7.43
H1 lead leg		strides															

*Graubner (2007) - http://www.fgs.uni-halle.de***FINAL - 1999 IAAF World Championships (Sevilla, ESP)**

date	27-Aug-99	time	5.44	9.09	12.77	16.54	20.39	24.41	28.77	33.08	37.59	42.19	48.12	5 / 2			
reaction time	0.139	interval		3.65	3.68	3.77	3.85	4.02	4.36	4.31	4.51	4.60	5.93		11.10	12.23	13.42
		velocity	8.27	9.59	9.51	9.28	9.09	8.71	8.03	8.12	7.76	7.61	6.75	8.31	9.46	8.59	7.82
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	15	15	19	163			

*Sanchez (1999) - Sevilla '99: análisis de la carreras con villas***Semi-Final 2 - 1999 IAAF World Championships (Sevilla, ESP)**

date	25-Aug-99	time	5.57	9.24	13.03	16.81	20.72	24.73	28.98	33.39	37.91	42.46	48.18	4 / 1			
reaction time	0.161	interval		3.67	3.79	3.78	3.91	4.01	4.25	4.41	4.52	4.55	5.72		11.24	12.17	13.48
		velocity	8.08	9.54	9.23	9.26	8.95	8.73	8.24	7.94	7.74	7.69	6.99	8.30	9.34	8.63	7.79
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	15	15	18	162			

*Sanchez (1999) - Sevilla '99: análisis de la carreras con villas***Heat 5 - 1999 IAAF World Championships (Sevilla, ESP)**

date	24-Aug-99	time	5.59	9.30	13.12	16.99	20.93	24.99	29.38	33.82	38.45	43.02	48.55	5 / 1			
reaction time	0.155	interval		3.71	3.82	3.87	3.94	4.06	4.39	4.44	4.63	4.57	5.53		11.40	12.39	13.64
		velocity	8.05	9.43	9.16	9.04	8.88	8.62	7.97	7.88	7.56	7.66	7.23	8.24	9.21	8.47	7.70
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	15	15	18	162			

*Sanchez (1999) - Sevilla '99: análisis de la carreras con villas***FINAL - 1997 IAAF World Championships (Athens, GRE)**

date	04-Aug-97	time	5.87	9.50	13.14	16.85	20.60	24.68	28.68	32.98	37.56	42.27	47.70	6 / 1			
reaction time	0.157	interval		3.63	3.64	3.71	3.75	4.08	4.00	4.30	4.58	4.71	5.43		10.98	11.83	13.59
		velocity	7.67	9.64	9.62	9.43	9.33	8.58	8.75	8.14	7.64	7.43	7.37	8.39	9.56	8.88	7.73

*Hommel (1999) - biomechanical research project, athens 1997: final report*

H1 lead leg	L	strides	21	13	13	13	13	13	14	14	15	15	19	163							
<b>FINAL - 1997 European Cup (Munich, GER)</b>																			<i>Jung (2003) - <a href="http://www.fgs.uni-halle.de">http://www.fgs.uni-halle.de</a></i>		
date	21-Jun-97	time	6.0	9.8	13.7	17.6	21.6	25.7	30.2	34.7	39.3	43.9	49.19	1/2							
reaction time		interval		3.77	3.92	3.88	4.00	4.10	4.49	4.55	4.54	4.64	5.27		11.57	12.59	13.73				
		velocity	7.46	9.28	8.93	9.02	8.75	8.54	7.80	7.69	7.71	7.54	7.59	8.13	9.08	8.34	7.65				
H1 lead leg		strides																			
<b>FINAL - 1995 IAAF World Championships (Göteborg, SWE)</b>																			<i>Behm (1999) - Les chiffres: Les podiums de tous le championnats</i>		
date	10-Aug-95	time					21.1							48.14	6/3						
reaction time		interval																			
		velocity					8.77							8.31							
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	15	15	19.2	162							
<b>FINAL - 1995 Athletissima (Luasanne, SUI)</b>																			<i>Behm (1999) - Les deux recordmen de France: Stéphane Diagana (Vazel)</i>		
date	05-Jul-95	time	5.86	9.54	13.30	17.10	20.97	24.94	29.09	33.25	37.67	42.16	47.37	1/1							
reaction time		interval		3.68	3.76	3.80	3.87	3.97	4.15	4.16	4.42	4.49	5.21	AR	11.24	11.99	13.07				
		velocity	7.68	9.51	9.31	9.21	9.04	8.82	8.43	8.41	7.92	7.80	7.68	8.44	9.34	8.76	8.03				
H1 lead leg		strides		13	13	13	13	13	14	14	15	15	123								
<b>FINAL - 1994 European Championships (Helsinki, FIN)</b>																			<i>Behm (1995) - la tactique du 400 haies</i>		
date	10-Aug-94	time	5.9	9.5	13.2	16.9	20.8	24.7	29.0	33.3	37.9	42.6	48.23	1/3							
reaction time		interval		3.60	3.70	3.70	3.90	3.90	4.30	4.30	4.60	4.70	5.63		11.00	12.10	13.60				
		velocity	7.63	9.72	9.46	9.46	8.97	8.97	8.14	8.14	7.61	7.45	7.10	8.29	9.55	8.68	7.72				
H1 lead leg		strides	20	13	13	13	13	13	14	14	15	15	143								
<b>FINAL - 1993 IAAF World Championships (Stuttgart, GER)</b>																			<i>Graubner (2008) - <a href="http://www.fgs.uni-halle.de">http://www.fgs.uni-halle.de</a></i>		
date	19-Aug-93	time	5.87	9.42	13.10	16.89	20.74	24.74	28.91	33.18	37.66	42.26	47.64	7/4							
reaction time	0.206	interval		3.55	3.68	3.79	3.85	4.00	4.17	4.27	4.48	4.60	5.38	PB	11.02	12.02	13.35				
		velocity	7.67	9.86	9.51	9.23	9.09	8.75	8.39	8.20	7.81	7.61	7.43	8.40	9.53	8.74	7.87				
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	15	15	19	149							
<b>FINAL - 1992 Olympic Games (Barcelona, ESP)</b>																			<i>Belloc (1992) - Diagana: 45.18/48.13: 3" d'ecart; incompressibles?</i>		
date	06-Aug-92	time	5.90	9.60	13.35	17.15	21.00	25.20	29.40	33.65	38.05	42.70	48.13	6/4							
reaction time		interval		3.70	3.75	3.80	3.85	4.20	4.20	4.25	4.40	4.65	5.43	PB	11.25	12.25	13.30				
		velocity	7.63	9.46	9.33	9.21	9.09	8.33	8.33	8.24	7.95	7.53	7.37	8.31	9.33	8.57	7.89				
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	18.3	164.3							
<b>Dlouhy, Manfred (FRG) (1952)</b>																					
<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>					
<b>FINAL - 1975 West German National Championships (Gelsenkirchen, FRG)</b>																			<i>Helbig (1975) - 400-m-hürdenlauf</i>		
date	28-Jun-75	time	6.3	10.3	14.4	18.7	23.0	25.0	27.1	31.6	36.7	41.4	46.4	52.14	2/6						
reaction time		interval		4.04	4.09	4.25	4.33	4.07	4.57	5.07	4.69	5.00	5.75		12.38	12.97	14.76				
		velocity	7.17	8.66	8.56	8.24	8.08	8.00	8.60	7.66	6.90	7.46	7.00	6.96	7.67	8.48	8.10	7.11			
H1 lead leg		strides																			
<b>Dobek, Patryk (POL) (1994)</b>																					
<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>					
<b>Semi-Final 2 - 2019 IAAF World Championships (Doha, QAT)</b>																			<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>		
date	28-Sep-19	time	6.08	9.84	13.67	17.59	21.74	26.00	30.33	34.81	39.44	44.39	50.18	8/7							
reaction time	0.174	interval		3.76	3.83	3.92	4.15	4.26	4.33	4.48	4.63	4.95	5.79		11.51	12.74	14.06				
		velocity	7.40	9.31	9.14	8.93	8.43	8.22	8.08	7.81	7.56	7.07	6.91	7.97	9.12	8.24	7.47				
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	14	17	17.7	160.7							
<b>FINAL - 2019 Bislett Games (Oslo, NOR) (TV Analysis)</b>																			<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>		
date	13-Jun-19	time	5.92	9.62	13.45	17.42	21.42	23.1	25.55	29.99	34.46	39.30	44.21	49.80	2/6						
reaction time	0.155	interval		3.70	3.83	3.92	4.15	4.13	4.44	4.47	4.84	4.91	5.59						14.22		
		velocity	7.60	9.46	9.14	8.78	8.66	8.47	7.88	7.83	7.23	7.13	7.16	8.03	9.08	8.22	7.25				
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	15	15	18	135							
<b>FINAL - 2019 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)</b>																			<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>		
date	06-Jun-19	time	5.90	9.66	13.50	17.46	21.56	25.76	30.23	34.88	39.73	44.71	50.38	3/8							
reaction time	0.153	interval		3.76	3.84	3.96	4.10	4.20	4.47	4.65	4.85	4.98	5.67		11.56	12.77	14.48				
		velocity	7.63	9.31	9.11	8.84	8.54	8.33	7.83	7.53	7.22	7.03	7.05	7.94	9.08	8.22	7.25				
H1 lead leg	L	strides	20	13	13	13	13	14	14	15	15	15	17.7	162.7							
<b>FINAL - 2016 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)</b>																			<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>		
date	16-Jun-16	time	5.97	9.73	13.53	17.37	21.37	25.63	30.03	34.60	39.30	44.23	49.89	7/3							
reaction time	0.163	interval		3.76	3.80	3.84	4.00	4.26	4.40	4.57	4.70	4.93	5.66		11.40	12.66	14.20				
		velocity	7.54	9.31	9.21	9.11	8.75	8.22	7.95	7.66	7.45	7.10	7.07	8.02	9.21	8.29	7.39				
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	14	15	18	160							
<b>FINAL - 2016 Bislett Games (Oslo, NOR) (TV Analysis)</b>																			<i>Henson (2021) - Athlete First: 2016 year end hurdle report</i>		
date	09-Jun-16	time	6.00	9.80	13.64	17.56	21.76	26.00	30.48	35.00	39.68	44.52	50.27	3/7							
reaction time	0.174	interval		3.80	3.84	3.92	4.20	4.24	4.48	4.52	4.68	4.84	5.75		11.56	12.92	14.04				
		velocity	7.50	9.21	9.11	8.93	8.33	8.25	7.81	7.74	7.48	7.23	6.96	7.96	9.08	8.13	7.48				
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	14	14	17.2	145.2							
<b>FINAL - 2016 Shanghai Golden Grand Prix (Shanghai, CHN)</b>																			<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>		



date	14-May-16	time	5.92	9.68	13.52	17.52	21.56	25.72	30.08	34.48	39.08	43.68	49.01	1 / 2				
reaction time	0.178	interval		3.76	3.84	4.00	4.04	4.16	4.36	4.40	4.60	4.60	5.33		11.60	12.56	13.60	
		velocity	7.60	9.31	9.11	8.75	8.66	8.41	8.03	7.95	7.61	7.61	7.50	8.16	9.05	8.36	7.72	
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	17.5	159.5				

**FINAL - 2015 IAAF World Championships (Beijing, CHN) (TV Analysis)***Henson (2021) - Athlete First: major championships report*

date	25-Aug-15	time	6.00	13.64	17.48	21.52	25.68	30.04	34.52	39.16	43.84	49.14	3 / 7				
reaction time	0.176	interval		7.64	3.84	4.04	4.16	4.36	4.48	4.64	4.68	5.30		11.48	12.56	13.80	
		velocity	7.50	9.16	9.11	8.66	8.41	8.03	7.81	7.54	7.48	7.55	8.14	9.15	8.36	7.61	
H1 lead leg	L	strides		13	13	13	14	14	14	14	14	95					

**Dobrovolskiy, Sergey (URS) (1966)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 1985 European Junior Championships (Cottbus, GDR)***Warburton (1985) - 1985 european junior championships - hurdles*

date	25-Aug-85	time	9.90	13.82	18.20	22.39	26.83	31.28	35.94	40.57	45.20	51.31	1 / 4				
reaction time		interval		3.92	4.38	4.19	4.44	4.45	4.66	4.63	4.63	6.11		13.08	13.92		
		velocity	8.08	8.93	7.99	8.35	7.88	7.87	7.51	7.56	7.56	6.55	7.80	8.03	7.54		
H1 lead leg		strides															

**Dömötör, Patrik (SVK) (2000)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****Heat 1 - 2024 European Athletics Championships (Roma, ITA)***European Athletics (2024) - 2024 european athletics championships - results book*

date	09-Jun-24	time	6.09	10.10	14.22	18.41	22.59	26.97	31.47	35.92	40.92	45.73	51.16	7 / 7			
reaction time	0.184	interval		4.01	4.12	4.19	4.18	4.38	4.50	4.45	5.00	4.81	5.43		12.32	13.06	14.26
		velocity	7.39	8.73	8.50	8.35	8.37	7.99	7.78	7.87	7.00	7.28	7.37	7.82	8.52	8.04	7.36
H1 lead leg		strides											0				

**dos Santos, Alison Brendon (BRA) (****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2024 Memorial van damme (Brussels, BEL)***Omega Timing (2023) - diamond league race analysis*

date	14-Sep-24	time	5.72	9.38	13.14	16.86	20.84	24.92	29.14	33.42	37.83	42.44	47.93	6 / 1			
reaction time	0.151	interval		3.66	3.76	3.72	3.98	4.08	4.22	4.28	4.41	4.61	5.49		11.46	12.28	13.30
		velocity	7.87	9.56	9.31	9.41	8.79	8.58	8.29	8.18	7.94	7.59	7.29	8.35	9.16	8.55	7.89
H1 lead leg	L	strides	20	13	12	12	12	12	13	13	13	13	16	149			

**FINAL - 2024 Weltklasse (Zürich, SUI)***Omega Timing (2023) - diamond league race analysis*

date	05-Sep-24	time	5.77	9.39	13.07	16.80	20.73						dnf	6 / --			
reaction time	0.153	interval		3.62	3.68	3.73	3.93								11.34		
		velocity	7.80	9.67	9.51	9.38	8.91								9.26		
H1 lead leg	L	strides	20	13	12	12	12						69				

**FINAL - 2024 Olympic Games (Paris, FRA)***Paris 2024 Olympc Games - Results Book (2024)*

date	09-Aug-24	time	5.72	9.30	12.96	16.66	20.44	24.35	28.42	32.65	37.09	41.68	47.26	3 / 3			
reaction time	0.167	interval		3.58	3.66	3.70	3.78	3.91	4.07	4.23	4.44	4.59	5.58		10.94	11.76	13.26
		velocity	7.87	9.78	9.56	9.46	9.26	8.95	8.60	8.27	7.88	7.63	7.17	8.46	9.60	8.93	7.92
H1 lead leg	L	strides	20	13	12	12	12	12	13	13	13	13	16.5	137.5			

**Semi-Final 1 - 2024 Olympic Games (Paris, FRA)***Paris 2024 Olympc Games - Results Book (2024)*

date	07-Aug-24	time	5.76	9.37	12.98	16.69	20.61	24.66	28.81	33.11	37.61	42.30	47.95	9 / 3			
reaction time	0.210	interval		3.61	3.61	3.71	3.92	4.05	4.15	4.30	4.50	4.69	5.65		10.93	12.12	13.49
		velocity	7.81	9.70	9.70	9.43	8.93	8.64	8.43	8.14	7.78	7.46	7.08	8.34	9.61	8.66	7.78
H1 lead leg	L	strides	20	13	12	12	12	12	13	13	13	13	17	150			

**Heat 3 - 2024 Olympic Games (Paris, FRA)***Paris 2024 Olympc Games - Results Book (2024)*

date	05-Aug-24	time	5.82	9.54	13.27	17.04	20.96	25.03	29.27	33.65	38.23	42.97	48.75	2 / 3			
reaction time	0.165	interval		3.72	3.73	3.77	3.92	4.07	4.24	4.38	4.58	4.74	5.78		11.22	12.23	13.70
		velocity	7.73	9.41	9.38	9.28	8.93	8.60	8.25	7.99	7.64	7.38	6.92	8.21	9.36	8.59	7.66
H1 lead leg	L	strides	20	13	12	12	12	12	13	13	13	13	16.7	149.7			

**FINAL - 2024 London Athletics Meet (London, GBR)***Omega Timing (2024) - diamond league race analysis*

date	20-Jul-24	time	5.82	9.42	13.04	16.69	20.50	24.51	28.68	32.92	37.30	41.80	47.18	6 / 1			
reaction time	0.178	interval		3.60	3.62	3.65	3.81	4.01	4.17	4.24	4.38	4.50	5.38		10.87	11.99	13.12
		velocity	7.73	9.72	9.67	9.59	9.19	8.73	8.39	8.25	7.99	7.78	7.43	8.48	9.66	8.76	8.00
H1 lead leg	L	strides	20	13	12	12	12				13	13	16.2	124.2			

**FINAL - 2024 Herculis Meeting International d'Athlétisme (Monaco, MON)***Omega Timing (2024) - diamond league race analysis*

date	12-Jul-24	time	5.72	9.23	12.78	16.44	20.22	24.25	28.41	32.69	37.08	41.63	47.18	6 / 3			
reaction time	0.161	interval		3.51	3.55	3.66	3.78	4.03	4.16	4.28	4.39	4.55	5.55		10.72	11.97	13.22
		velocity	7.87	9.97	9.86	9.56	9.26	8.68	8.41	8.18	7.97	7.69	7.21	8.48	9.79	8.77	7.94
H1 lead leg	L	strides	20	13	12	12	12	13	13	13	13	13	17	151			

**FINAL - 2024 Meeting de Paris (Paris, FRA)***Omega Timing (2024) - diamond league race analysis*

date	07-Jul-24	time	5.70	9.33	12.99	16.75	20.63	24.63	28.78	33.07	37.53	42.22	47.78	6 / 1			
reaction time	0.168	interval		3.63	3.66	3.76	3.88	4.00	4.15	4.29	4.46	4.69	5.56		11.05	12.03	13.44
		velocity	7.89	9.64	9.56	9.31	9.02	8.75	8.43	8.16	7.85	7.46	7.19	8.37	9.50	8.73	7.81
H1 lead leg	L	strides	20	13	12	12	12	12	13	13	13	13	16.7	149.7			

**FINAL - 2024 Bauhaus Galan (Stockholm, SWE) (TV Analysis)***Henson (2024) - Athlete First: 2024 year end hurdle report*

date	02-Jun-24	time	5.80	9.50	13.06	16.70	20.53	24.47	28.60	32.87	37.27	41.80	47.01	5 / 1			
reaction time	0.164	interval		3.70	3.56	3.64	3.83	3.94	4.13	4.27	4.40	4.53	5.21		10.90	11.90	13.20

H1 lead leg	L	velocity	7.76	9.46	9.83	9.62	9.14		8.88	8.47	8.20	7.95	7.73	7.68	8.51		9.63	8.82	7.95	
		strides	20	13	12	12	12		12	13	13	13	13	16.2	149.2					
<b>FINAL - 2024 Bislett Games (Oslo, NOR) (TV Analysis)</b>																<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>				
date	30-May-24	time	5.77	9.37	12.98	16.58	20.38		24.39	28.42	32.63	36.90	41.37		46.63		5 / 1			
reaction time	0.182	interval		3.60	3.61	3.60	3.80		4.01	4.03	4.21	4.27	4.47	5.26				10.81	11.84	12.95
		velocity	7.80	9.72	9.70	9.72	9.21		8.73	8.68	8.31	8.20	7.83	7.60	8.58			9.71	8.87	8.11
H1 lead leg	L	strides	20	13	12	12	12		12	13	13	13	13	16.5	149.5					
<b>FINAL - 2024 Seashore Doha Meeting (Doha, QAT)</b>																<i>Omega Timing (2024) - diamond league race analysis</i>				
date	10-May-24	time	5.67	9.24	12.89	16.61	20.53		24.58	28.66	32.88	37.18	41.61		46.86		5 / 1			
reaction time	0.148	interval		3.57	3.65	3.72	3.92		4.05	4.08	4.22	4.30	4.43	5.25				10.94	12.05	12.95
		velocity	7.94	9.80	9.59	9.41	8.93		8.64	8.58	8.29	8.14	7.90	7.62	8.54			9.60	8.71	8.11
H1 lead leg	L	strides	20	13	12	12	13		13	13	13	13	13	16.2	151.2					
<b>FINAL - 2023 Prefontaine Classic (Eugene, OR)</b>																<i>Omega Timing (2023) - diamond league race analysis</i>				
date	16-Sep-23	time	5.79	9.49	13.20	16.94	20.84		24.85	28.98	33.26	37.65	42.12		47.44		4 / 4			
reaction time	0.172	interval		3.70	3.71	3.74	3.90		4.01	4.13	4.28	4.39	4.47	5.32				11.15	12.04	13.14
		velocity	7.77	9.46	9.43	9.36	8.97		8.73	8.47	8.18	7.97	7.83	7.52	8.43			9.42	8.72	7.99
H1 lead leg	L	strides	20	13	12	12	12		12	13	13	13	13	16	124					
<b>FINAL - 2023 Weltklasse (Zürich, SUI)</b>																<i>Omega Timing (2023) - diamond league race analysis</i>				
date	31-Aug-23	time	5.80	9.39	13.04	16.77	20.66		24.66	28.84	33.18	37.66	42.22		47.62		5 / 3			
reaction time	0.162	interval		3.59	3.65	3.73	3.89		4.00	4.18	4.34	4.48	4.56	5.40				10.97	12.07	13.38
		velocity	7.76	9.75	9.59	9.38	9.00		8.75	8.37	8.06	7.81	7.68	7.41	8.40			9.57	8.70	7.85
H1 lead leg	L	strides	20	13	12	12	12		12	13	13	13	13	16.2	99.2					
<b>FINAL - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>																<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>				
date	23-Aug-23	time	5.81	9.56	12.96	16.62	20.49		24.48	28.60	32.90	37.55	42.21		48.10		9 / 5			
reaction time	0.164	interval		3.75	3.40	3.66	3.87		3.99	4.12	4.30	4.65	4.66	5.89				10.81	11.98	13.61
		velocity	7.75	9.33	10.29	9.56	9.04		8.77	8.50	8.14	7.53	7.51	6.79	8.32			9.71	8.76	7.71
H1 lead leg	L	strides	20	13	12	12	12		12	13	13	14	14	17.2	152.2					
<b>Semi-Final 2 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>																<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>				
date	21-Aug-23	time	5.87	9.61	13.24	16.78	20.65		24.76	29.00	33.28	37.65	42.17		47.38		8 / 2			
reaction time	0.182	interval		3.74	3.63	3.54	3.87		4.11	4.24	4.28	4.37	4.52	5.21				10.91	12.22	13.17
		velocity	7.67	9.36	9.64	9.89	9.04		8.52	8.25	8.18	8.01	7.74	7.68	8.44			9.62	8.59	7.97
H1 lead leg	L	strides	20	13	12	12	12		13	13	13	13	13	16.2	150.2					
<b>Heat 1 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>																<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>				
date	20-Aug-23	time	5.93	9.77	13.47	20.93		24.93	29.16	33.53	38.03	42.86		48.12		2 / 1				
reaction time	0.167	interval		3.84	3.70	7.46		4.00	4.23	4.37	4.50	4.83	5.26						13.70	
		velocity	7.59	9.11	9.46	9.38		8.75	8.27	8.01	7.78	7.25	7.60	8.31					7.66	
H1 lead leg	L	strides	20	13	12	12		12	13	13	13	14	16.2	113.2						
<b>FINAL - 2023 Herculis Meeting International d'Athlétisme (Monaco, MON)</b>																<i>Omega Timing (2023) - diamond league race analysis</i>				
date	21-Jul-23	time	5.71	9.26	12.88	16.52	20.34		24.30	28.43	32.71	37.15	41.99		47.66		6 / 2			
reaction time	0.169	interval		3.55	3.62	3.64	3.82		3.96	4.13	4.28	4.44	4.84	5.67				10.81	11.91	13.56
		velocity	7.88	9.86	9.67	9.62	9.16		8.84	8.47	8.18	7.88	7.23	7.05	8.39			9.71	8.82	7.74
H1 lead leg	L	strides	20	13	12	12	12		12	13	13	13	14	17	151					
<b>FINAL - 2022 Weltklasse (Zürich, SUI) (TV Analysis)</b>																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	08-Sep-22	time	5.70	9.27	12.91	16.58	20.45	21.96	24.36	28.50	32.70	37.10	41.67		46.98		6 / 1			
reaction time	0.155	interval		3.57	3.64	3.67	3.87		3.91	4.14	4.20	4.40	4.57	5.31				10.88	11.92	13.17
		velocity	7.89	9.80	9.62	9.54	9.04	9.11	8.95	8.45	8.33	7.95	7.66	7.53	8.51			9.65	8.81	7.97
H1 lead leg	L	strides	20	13	12	12	12		12	13	13	13	13	16	149					
<b>FINAL - 2022 Memorial van Damme (Brussels, BEL) (TV Analysis)</b>																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	02-Sep-22	time	5.80	9.41	13.11	16.88	20.79	22.45	24.79	29.03	33.40	37.87	42.34		47.54		6 / 1			
reaction time	0.210	interval		3.61	3.70	3.77	3.91		4.00	4.24	4.37	4.47	4.47	5.20				11.08	12.15	13.31
		velocity	7.76	9.70	9.46	9.28	8.95	8.91	8.75	8.25	8.01	7.83	7.83	7.69	8.41			9.48	8.64	7.89
H1 lead leg	L	strides	20	13	12	12	12		12	13	13	13	13	16	149					
<b>FINAL - 2022 Silesia Kamila Skolimowska Memorial (Chorzów, POL) (TV Analysis)</b>																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	06-Aug-22	time	5.83	9.50	13.26	17.10	21.03	22.69	25.17	29.50	33.90	38.23	42.63		47.80		6 / 1			
reaction time	0.179	interval		3.67	3.76	3.84	3.93		4.14	4.33	4.40	4.33	4.40	5.17				11.27	12.40	13.13
		velocity	7.72	9.54	9.31	9.11	8.91	8.81	8.45	8.08	7.95	8.08	7.95	7.74	8.37			9.32	8.47	8.00
H1 lead leg	L	strides	20	13	12	12	12		12	13	13	13	13	16	149					
<b>FINAL - 2022 World Athletics Championships (Eugene, OR)</b>																<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>				
date	19-Jul-22	time	5.71	9.26	12.81	16.38	20.12	21.67	24.01	28.11	32.33	36.69	41.07		46.29		6 / 1			
reaction time	0.141	interval		3.55	3.55	3.57	3.74		3.89	4.10	4.22	4.36	4.38	5.22	<b>CR NR</b>			10.67	11.73	12.96
		velocity	7.88	9.86	9.86	9.80	9.36	9.23	9.00	8.54	8.29	8.03	7.99	7.66	8.64			9.84	8.95	8.10
H1 lead leg	L	strides	20	13	12	12	12		12	13	13	13	13	16.2	149.2					
<b>Semi-Final 2 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)</b>																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	17-Jul-22	time	5.73	9.43	13.14	16.86	20.76	22.49	24.86	29.16	33.53	38.03	42.56		47.85		5 / 1			

reaction time	0.166	interval	3.70	3.71	3.72	3.90		4.10	4.30	4.37	4.50	4.53	5.29		11.13	12.30	13.40	
		velocity	7.85	9.46	9.43	9.41	8.97	8.89	8.54	8.14	8.01	7.78	7.73	7.56	8.36	9.43	8.54	7.84
H1 lead leg	L	strides	20	13	12	12	12		12	13	13	13	13	16	149			
<b>Heat 2 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)</b>														<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	16-Jul-22	time	5.70	9.37	13.13	16.93	20.96	22.65	25.07	29.50	34.10	38.93	43.90	49.41	5 / 1			
reaction time	0.157	interval		3.67	3.76	3.80	4.03		4.11	4.43	4.60	4.83	4.97	5.51		11.23	12.57	14.40
		velocity	7.89	9.54	9.31	9.21	8.68	8.83	8.52	7.90	7.61	7.25	7.04	7.26	8.10	9.35	8.35	7.29
H1 lead leg	L	strides	20	13	12	12	12		12	13	13	14	14	16	151			
<b>FINAL - 2022 Bauhaus Galan (Stockholm, SWE) (TV Analysis)</b>														<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	30-Jun-22	time	5.66	9.24	12.80	16.42	20.18	21.78	24.08	28.22	32.48	36.84	41.40	46.80	6 / 1			
reaction time	0.147	interval		3.58	3.56	3.62	3.76		3.90	4.14	4.26	4.36	4.56	5.40		10.76	11.80	13.18
		velocity	7.95	9.78	9.83	9.67	9.31	9.18	8.97	8.45	8.22	8.03	7.68	7.41	8.55	9.76	8.90	7.97
H1 lead leg	L	strides	20	13	12	12	12		12	13	13	13	13	16.7	149.7			
<b>FINAL - 2022 Bislett Games (Oslo, NOR) (TV Analysis)</b>														<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	16-Jun-22	time	5.74	9.42	13.16	16.92	20.82	22.56	24.96	29.20	33.42	37.76	42.16	47.26	7 / 1			
reaction time	0.184	interval		3.68	3.74	3.76	3.90		4.14	4.24	4.22	4.34	4.40	5.10		11.18	12.28	12.96
		velocity	7.84	9.51	9.36	9.31	8.97	8.87	8.45	8.25	8.29	8.06	7.95	7.84	8.46	9.39	8.55	8.10
H1 lead leg	L	strides	20	13	12	12	12		12	13	13	13	13	16	149			
<b>FINAL - 2022 Prefontaine Classic (Eugene, OR) (TV Analysis)</b>														<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	28-May-22	time	5.75	9.36	13.00	16.73	20.56	22.33	24.54	28.70	32.93	37.53	42.00	47.23	7 / 1			
reaction time	0.194	interval		3.61	3.64	3.73	3.83		3.98	4.16	4.23	4.60	4.47	5.23		10.98	11.97	13.30
		velocity	7.83	9.70	9.62	9.38	9.14	8.96	8.79	8.41	8.27	7.61	7.83	7.65	8.47	9.56	8.77	7.89
H1 lead leg	L	strides	20	13	12	12	12		12	13	13	14	13	16	150			
<b>FINAL - 2022 Doha Diamond League (Doha, QAT) (TV Analysis)</b>														<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	13-May-22	time	5.70	9.37	13.11	17.12	21.20	22.9	25.36	29.44	33.63	37.83	42.14	47.24	7 / 1			
reaction time	0.172	interval		3.67	3.74	4.01	4.08		4.16	4.08	4.19	4.20	4.31	5.10		11.42	12.32	12.70
		velocity	7.89	9.54	9.36	8.73	8.58	8.73	8.41	8.58	8.35	8.33	8.12	7.84	8.47	9.19	8.52	8.27
H1 lead leg	L	strides	20	13	12	13	13		13	13	13	13	13	136				
<b>FINAL - 2021 Weltklasse (Zürich, SU) (TV Analysis)</b>														<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>				
date	09-Sep-21	time	5.80		13.24	17.04	20.92	22.6	25.00	29.12	33.36	37.80	42.44	47.81	6 / 2			
reaction time	0.181	interval			7.44	3.80	3.88		4.08	4.12	4.24	4.44	4.64	5.37		11.24	12.08	13.32
		velocity	7.76		9.41	9.21	9.02	8.85	8.58	8.50	8.25	7.88	7.54	7.45	8.37	9.34	8.69	7.88
H1 lead leg	L	strides	20			12	12		13	13	13	13	14	16.5	126.5			
<b>FINAL - 2021 Memorial van Damme (Brussels, BEL) (TV Analysis)</b>														<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>				
date	03-Sep-21	time	5.84	9.52	13.32	17.16	21.24	23.0	25.44	29.60	33.80	38.28	42.92	48.23	6 / 1			
reaction time	0.181	interval		3.68	3.80	3.84	4.08		4.20	4.16	4.20	4.48	4.64	5.31		11.32	12.44	13.32
		velocity	7.71	9.51	9.21	9.11	8.58	8.70	8.33	8.41	8.33	7.81	7.54	7.53	8.29	9.28	8.44	7.88
H1 lead leg	L	strides	20	13	13	12	12		13	13	13	13	13	16.5	151.5			
<b>FINAL - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>														<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>				
date	03-Aug-21	time	5.76	9.36	13.08	16.76	20.60		24.64	28.80	33.00	37.26	41.58	46.72	7 / 3			
reaction time	0.156	interval		3.60	3.72	3.68	3.84		4.04	4.16	4.20	4.26	4.32	5.14	AR	11.00	12.04	12.78
		velocity	7.81	9.72	9.41	9.51	9.11		8.66	8.41	8.33	8.22	8.10	7.78	8.56	9.55	8.72	8.22
H1 lead leg	L	strides	20	13	13	12	12		13	13	13	14	13	16.2	152.2			
<b>Semi-Final 2 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>														<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>				
date	01-Aug-21	time	5.80	9.43	13.13	16.93	20.76		24.90	29.00	33.28	37.70	42.20	47.31	7 / 1			
reaction time	0.171	interval		3.63	3.70	3.80	3.83		4.14	4.10	4.28	4.42	4.50	5.11	AR PB	11.13	12.07	13.20
		velocity	7.76	9.64	9.46	9.21	9.14		8.45	8.54	8.18	7.92	7.78	7.83	8.45	9.43	8.70	7.95
H1 lead leg	L	strides	20	13	13	12	12		13	13	13	13	13	16	151			
<b>Heat 1 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>														<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>				
date	30-Jul-21	time	5.82	9.50	13.40	17.38	21.42		25.60	29.90	34.26	38.75	43.26	48.42	6 / 2			
reaction time	0.152	interval		3.68	3.90	3.98	4.04		4.18	4.30	4.36	4.49	4.51	5.16		11.56	12.52	13.36
		velocity	7.73	9.51	8.97	8.79	8.66		8.37	8.14	8.03	7.80	7.76	7.75	8.26	9.08	8.39	7.86
H1 lead leg	L	strides	20	13	13	12	12		13	13	13	13	13	16	151			
<b>FINAL - 2021 Herculis Meeting International d'Athletisme (Monaco, MON) (TV Analysis)</b>														<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>				
date	09-Jul-21	time	5.70	9.31		16.76	20.64	22.4	24.74	28.93	33.16	37.60	42.31	47.51	6 / 2			
reaction time	0.177	interval		3.61		7.45	3.88		4.10	4.19	4.23	4.44	4.71	5.20		11.06	12.17	13.38
		velocity	7.89	9.70		9.40	9.02	8.93	8.54	8.35	8.27	7.88	7.43	7.69	8.42	9.49	8.63	7.85
H1 lead leg	L	strides	20	13	13		12		13	14		15	15	16.5	131.5			
<b>FINAL - 2021 Bauhaus Galan (Stockholm, SWE) (TV Analysis)</b>														<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>				
date	04-Jul-21	time	5.74	9.40	13.16	16.86	20.70	22.5	24.76	28.80	32.94	37.30	41.92	47.34	7 / 1			
reaction time	0.160	interval		3.66	3.76	3.70	3.84		4.06	4.04	4.14	4.36	4.62	5.42	AR PB	11.12	11.94	13.12
		velocity	7.84	9.56	9.31	9.46	9.11	8.89	8.62	8.66	8.45	8.03	7.58	7.38	8.45	9.44	8.79	8.00
H1 lead leg	L	strides		13	13	12	12		13	13	13	13	13	17	132			
<b>FINAL - 2021 Bislett Games (Oslo, NOR) (TV Analysis)</b>														<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>				



date	01-Jul-21	time	5.74	9.36	13.12	16.92	20.78		24.86	28.98	33.20	37.56	42.06		47.38	6 / 2			
reaction time	0.179	interval		3.62	3.76	3.80	3.86		4.08	4.12	4.22	4.36	4.50	5.32	AR PB		11.18	12.06	13.08
		velocity	7.84	9.67	9.31	9.21	9.07		8.58	8.50	8.29	8.03	7.78	7.52	8.44		9.39	8.71	8.03
H1 lead leg	L	strides	20	13	13	12	12		13	13		13	13	16.5	138.5				

**FINAL - 2021 Doha Diamond League (Doha, QAT) (TV Analysis)***Henson (2021) - Athlete First: 2021 year end hurdle report*

date	28-May-21	time	5.70	9.37	13.18	17.05	20.95	22.7	25.12	29.33	33.60	37.94	42.34		47.57	6 / 2			
reaction time	0.187	interval		3.67	3.81	3.87	3.90		4.17	4.21	4.27	4.34	4.40	5.23	AR PB		11.35	12.28	13.01
		velocity	7.89	9.54	9.19	9.04	8.97	8.81	8.39	8.31	8.20	8.06	7.95	7.65	8.41		9.25	8.55	8.07
H1 lead leg	L	strides	20	13	13	12	12		13	13	13	13	13	16.2	151.2				

**FINAL - 2021 USATF Golden Games (Walnut, CA) (TV Analysis)***Henson (2021) - Athlete First: 2021 year end hurdle report*

date	09-May-21	time	6.04	9.71	13.51	17.45	21.42		25.56	29.73	34.03	38.40	42.77		47.68	4 / 3			
reaction time		interval		3.67	3.80	3.94	3.97		4.14	4.17	4.30	4.37	4.37	4.91	AR PB		11.41	12.28	13.04
		velocity	7.45	9.54	9.21	8.88	8.82		8.45	8.39	8.14	8.01	8.01	8.15	8.39		9.20	8.55	8.05
H1 lead leg	L	strides	20	13	13	12	12		13	13	13	13	13	16.2	151.2				

**FINAL - 2019 IAAF World Championships (Doha, QAT)***Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships*

date	30-Sep-19	time	6.07	9.89	13.77	17.60	21.54		25.55	29.73	33.96	38.39	42.99		48.28	5 / 7			
reaction time	0.208	interval		3.82	3.88	3.83	3.94		4.01	4.18	4.23	4.43	4.60	5.29	AJR PB		11.53	12.13	13.26
		velocity	7.41	9.16	9.02	9.14	8.88		8.73	8.37	8.27	7.90	7.61	7.56	8.29		9.11	8.66	7.92
H1 lead leg	L	strides	20	13	13	12	12		13	13	13	14	14	16	153				

**Semi-Final 1 - 2019 IAAF World Championships (Doha, QAT)***Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships*

date	28-Sep-19	time	6.12	9.84	13.68	17.51	21.49		25.56	29.76	34.13	38.65	43.25		48.35	6 / 1			
reaction time	0.211	interval		3.72	3.84	3.83	3.98		4.07	4.20	4.37	4.52	4.60	5.10	AJR PB		11.39	12.25	13.49
		velocity	7.35	9.41	9.11	9.14	8.79		8.60	8.33	8.01	7.74	7.61	7.84	8.27		9.22	8.57	7.78
H1 lead leg	L	strides	20	13	13	13	12		12	13	13	14	14	16.5	153.5				

**FINAL - 2019 Müller Grand Prix (Birmingham, GBR) (TV Analysis)***Henson (2020) - Athlete First: 2019 year end hurdle report*

date	18-Aug-19	time	5.96	9.92	13.80	17.80	21.80	23.6	25.92	30.24	34.72	39.36	43.88		49.20	4 / 2			
reaction time	0.152	interval		3.96	3.88	4.00	4.00		4.12	4.32	4.48	4.64	4.52	5.32			11.84	12.44	13.64
		velocity	7.55	8.84	9.02	8.75	8.75	8.47	8.50	8.10	7.81	7.54	7.74	7.52	8.13		8.87	8.44	7.70
H1 lead leg	L	strides	20	13	13	13	13		13	13	14	14	14	17	157				

**FINAL - 2019 Pan American Games (Lima, PER) (TV Analysis)***Henson (2020) - Athlete First: 2019 year end hurdle report*

date	08-Aug-19	time	5.90	9.67	13.51	17.45		25.36	29.52	33.82	38.23	42.97		48.45	5 / 1				
reaction time	0.160	interval		3.77	3.84	3.94		7.91	4.16	4.30	4.41	4.74	5.48	AJR PB		11.55	12.07	13.45	
		velocity	7.63	9.28	9.11	8.88		8.85	8.41	8.14	7.94	7.38	7.30	8.26		9.09	8.70	7.81	
H1 lead leg	L	strides	20	13	13	13			13	13	13	14	17	129					

**Douglas, Matthew (GBR) (1976)***Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games*

date	15-Sep-00	time	5.86	9.50	13.22	16.98	20.90	22.50	24.98	29.34	33.86	38.62	43.20		49.53	8 / 6			
reaction time	0.177	interval		3.64	3.72	3.76	3.92		4.08	4.36	4.52	4.76	4.58	6.33			11.12	12.36	13.86
		velocity	7.68	9.62	9.41	9.31	8.93	8.89	8.58	8.03	7.74	7.35	7.64	6.32	8.08		9.44	8.50	7.58
H1 lead leg		strides	21	13	13	13	13		14	14	15	15	15	19.5	165.5				

**Heat 7 - 2000 Olympic Games (Sydney, AUS)***Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games*

date	24-Sep-00	time	5.96	9.64	13.56	17.48	21.52		25.80	30.20	34.60	39.28	44.04		49.62	8 / 3			
reaction time	0.163	interval		3.68	3.92	3.92	4.04		4.28	4.40	4.40	4.68	4.76	5.58			11.52	12.72	13.84
		velocity	7.55	9.51	8.93	8.93	8.66		8.18	7.95	7.95	7.48	7.35	7.17	8.06		9.11	8.25	7.59
H1 lead leg		strides	21	13	13	13	13		14	14	15	15	15	18.8	164.8				

**Downing, Quincy (USA) (1993)***Henson (2022) - Athlete First: 2022 year end hurdle report*

date	26-Jun-22	time	5.97	9.61	13.25	17.05	20.95	22.61	25.05	29.53	34.13	39.04	44.04		50.09	3 / 8			
reaction time		interval		3.64	3.64	3.80	3.90		4.10	4.48	4.60	4.91	5.00	6.05			11.08	12.48	14.51
		velocity	7.54	9.62	9.62	9.21	8.97	8.85	8.54	7.81	7.61	7.13	7.00	6.61	7.99		9.48	8.41	7.24
H1 lead leg	R	strides	21	13	13	13	13		13	14	14	15	15		144				

**FINAL - 2017 Müller's Anniversary Games (London, GBR) (TV Analysis)***Henson (2020) - Athlete First: 2017 year end hurdle report*

date	09-Jul-17	time	5.96	9.76	13.48	17.28	21.16		25.16	29.52	34.04	38.64	43.40		48.81	2 / 7			
reaction time	0.144	interval		3.80	3.72	3.80	3.88		4.00	4.36	4.52	4.60	4.76	5.41			11.32	12.24	13.88
		velocity	7.55	9.21	9.41	9.21	9.02		8.75	8.03	7.74	7.61	7.35	7.39	8.20		9.28	8.58	7.56
H1 lead leg	R	strides	21	13	13	13	13		13	14	14	14	15	17.5	160.5				

**FINAL - 2017 USATF Championships (Sacramento, CA) (TV Analysis)***Henson (2020) - Athlete First: 2017 year end hurdle report*

date	25-Jun-17	time	5.89	9.55	13.20	16.93	20.82		29.17	33.62	38.24	43.07		48.70	7 / 6				
reaction time		interval		3.66	3.65	3.73	3.89		8.35	4.45	4.62	4.83	5.63				11.04	12.24	13.90
		velocity	7.64	9.56	9.59	9.38	9.00		8.38	7.87	7.58	7.25	7.10	8.21		9.51	8.58	7.55	
H1 lead leg	R	strides	21	13	13	13	13			14	14	15	17.7	133.7					

**FINAL - 2016 USA Olympic Trials (Eugene, OR) (TV Analysis)***Henson (2020) - Athlete First: 2016 year end hurdle report*

date	10-Jul-16	time	5.97	9.74	13.61	17.42	21.39		25.49	29.86	34.33	39.10	43.91		49.60	3 / 6			
reaction time	0.196	interval		3.77	3.87	3.81	3.97		4.10	4.37	4.47	4.77	4.81	5.69			11.45	12.44	14.05
		velocity	7.54	9.28	9.04	9.19	8.82		8.54	8.01	7.83	7.34	7.28	7.03	8.06		9.17	8.44	7.47

H1 lead leg	R	strides	21	13	13	13	13	13	14	14	15	15	18	162							
<b>Drummond, Gerald (CRC) (1994)</b>																					
<b>FINAL - 2024 Memorial van damme (Brussels, BEL)</b>															<i>Omega Timing (2023) - diamond league race analysis</i>						
date	14-Sep-24	time	5.79	9.54	13.35	17.23	21.36		25.65	30.08	34.64	39.26	44.03	49.63	1 / 7						
reaction time	0.221	interval	3.75	3.81	3.88	4.13		4.29	4.43	4.56	4.62	4.77	5.60			11.82	12.85	13.95			
		velocity	7.77	9.33	9.19	9.02	8.47		8.16	7.90	7.68	7.58	7.34	7.14	8.06		8.88	8.17	7.53		
H1 lead leg	R	strides	21	14	14	14	14		14	14	15	15	15	18	168						
<b>FINAL - 2024 Weltklasse (Zürich, SUI)</b>															<i>Omega Timing (2023) - diamond league race analysis</i>						
date	05-Sep-24	time	5.74	9.44	13.17	16.97	21.00		25.22	29.64	34.32	39.14	44.01	49.59	7 / 6						
reaction time	0.168	interval	3.70	3.73	3.80	4.03		4.22	4.42	4.68	4.82	4.87	5.58			11.56	12.67	14.37			
		velocity	7.84	9.46	9.38	9.21	8.68		8.29	7.92	7.48	7.26	7.19	7.17	8.07		9.08	8.29	7.31		
H1 lead leg	R	strides	20	13			14		14	14	15	15		105							
<b>Semi-Final 3 - 2024 Olympic Games (Paris, FRA)</b>															<i>Paris 2024 Olympc Games - Results Book (2024)</i>						
date	07-Aug-24	time	5.81	9.55	13.42	17.35	21.43		25.71	30.02	34.61	39.35	44.21	49.68	2 / 7						
reaction time	0.219	interval	3.74	3.87	3.93	4.08		4.28	4.31	4.59	4.74	4.86	5.47			11.54	12.67	14.19			
		velocity	7.75	9.36	9.04	8.91	8.58		8.18	8.12	7.63	7.38	7.20	7.31	8.05		9.10	8.29	7.40		
H1 lead leg	L	strides	21	14	14	14	14		14	14	15	15	15	18	168						
<b>Repechage 2 - 2024 Olympic Games (Paris, FRA)</b>															<i>Paris 2024 Olympc Games - Results Book (2024)</i>						
date	07-Aug-24	time	5.78	9.54	13.44	17.38	21.45		25.66	29.91	34.37	38.97	43.62	48.78	4 / 2						
reaction time	0.216	interval	3.76	3.90	3.94	4.07		4.21	4.25	4.46	4.60	4.65	5.16			11.60	12.53	13.71			
		velocity	7.79	9.31	8.97	8.88	8.60		8.31	8.24	7.85	7.61	7.53	7.75	8.20		9.05	8.38	7.66		
H1 lead leg	L	strides	21	14	14	14	14		14	14	15	15	15	18	168						
<b>Heat 4 - 2024 Olympic Games (Paris, FRA)</b>															<i>Paris 2024 Olympc Games - Results Book (2024)</i>						
date	05-Aug-24	time	5.70	9.36	13.13	17.04	21.07		25.24	29.52	34.07	38.70	43.44	48.80	6 / 7						
reaction time	0.213	interval	3.66	3.77	3.91	4.03		4.17	4.28	4.55	4.63	4.74	5.36			11.34	12.48	13.92			
		velocity	7.89	9.56	9.28	8.95	8.68		8.39	8.18	7.69	7.56	7.38	7.46	8.20		9.26	8.41	7.54		
H1 lead leg	L	strides	20	14	14	14	14		14	14	15	15	15	18	167						
<b>FINAL - 2024 London Athletics Meet (London, GBR)</b>															<i>Omega Timing (2024) - diamond league race analysis</i>						
date	20-Jul-24	time	5.77	9.53	13.37	17.31	21.38		25.62	29.94	34.39	38.97	43.60	48.89	1 / 7						
reaction time	0.205	interval	3.76	3.84	3.94	4.07		4.24	4.32	4.45	4.58	4.63	5.29			11.54	12.63	13.66			
		velocity	7.80	9.31	9.11	8.88	8.60		8.25	8.10	7.87	7.64	7.56	7.56	8.18		9.10	8.31	7.69		
H1 lead leg	L	strides	21	14	14	14	14				15	15	15	18	140						
<b>FINAL - 2024 Meeting de Paris (Paris, FRA)</b>															<i>Omega Timing (2024) - diamond league race analysis</i>						
date	07-Jul-24	time	5.62	9.29	13.08	16.96	20.94		25.08	29.27	33.76	38.33	43.05	48.68	2 / 5						
reaction time	0.217	interval	3.67	3.79	3.88	3.98		4.14	4.19	4.49	4.57	4.72	5.63			11.34	12.31	13.78			
		velocity	8.01	9.54	9.23	9.02	8.79		8.45	8.35	7.80	7.66	7.42	7.10	8.22		9.26	8.53	7.62		
H1 lead leg	L	strides	21	14	14	14	14				15	15	15	18	140						
<b>FINAL - 2024 Prefontaine Classic (Eugene, OR)</b>															<i>Omega Timing (2024) - diamond league race analysis</i>						
date	25-May-24	time	5.79	9.57	13.44	17.28	21.19		25.30	29.46	33.85	38.46	43.16	48.56	8 / 1						
reaction time	0.211	interval	3.78	3.87	3.84	3.91		4.11	4.16	4.39	4.61	4.70	5.40			11.49	12.18	13.70			
		velocity	7.77	9.26	9.04	9.11	8.95		8.52	8.41	7.97	7.59	7.45	7.41	8.24		9.14	8.62	7.66		
H1 lead leg		strides			14	14	14		14	14	15	15	15	115							
<b>FINAL - 2024 USATF LA Grand Prix (Los Angeles, CA) (TV Analysis)</b>															<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>						
date	18-May-24	time	5.97	9.74	13.61	17.50	21.52		25.66	29.93	34.33	38.93	43.71	48.97	1 / 4						
reaction time	0.245	interval	3.77	3.87	3.89	4.02		4.14	4.27	4.40	4.60	4.78	5.26			11.53	12.43	13.78			
		velocity	7.54	9.28	9.04	9.00	8.71		8.45	8.20	7.95	7.61	7.32	7.60	8.17		9.11	8.45	7.62		
H1 lead leg	L	strides	21	14	14	14	14		14	14	15	15	15	18	168						
<b>Semi-Final 3 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>															<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>						
date	21-Aug-23	time	5.93	9.81		17.48	21.59			30.39	34.86		44.24	49.31	4 / 8						
reaction time	0.169	interval		3.88		7.67	4.11		8.80	4.47		9.38	5.07			11.55	12.91	13.85			
		velocity		7.59		9.13	8.52		7.95	7.83		7.46	7.89	8.11		9.09	8.13	7.58			
H1 lead leg	L	strides	21	14		14				16			18	83							
<b>Heat 5 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>															<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>						
date	20-Aug-23	time	5.86	9.76	13.63	17.60	21.58		25.74	30.03	34.46		43.60	48.73	8 / 4						
reaction time	0.220	interval		3.90		3.87	3.97	3.98		4.16	4.29	4.43		9.14	5.13		11.74	12.43	13.57		
		velocity		7.68		8.97	9.04	8.82	8.79		8.41	8.16	7.90		7.66	7.80	8.21		8.94	8.45	7.74
H1 lead leg	L	strides	21	14	14	14	14		14	14	15		18	138							
<b>Semi-Final 2 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)</b>															<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>						
date	17-Jul-22	time	5.90	9.70	13.66	17.63	21.83	23.64	26.23	30.67	35.10	39.67	44.30	49.37	6 / 7						
reaction time	0.188	interval		3.80	3.96	3.97	4.20		4.40	4.44	4.43	4.57	4.63	5.07		11.73	13.04	13.63			
		velocity		7.63	9.21	8.84	8.82	8.33	8.46	7.95	7.88	7.90	7.66	7.56	7.89	8.10	8.95	8.05	7.70		
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	15	15	18	171						
<b>Heat 4 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)</b>															<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>						
date	16-Jul-22	time	6.07	9.95	13.90	17.90	22.13	23.84		30.77		39.70	44.27	49.16	2 / 3						

reaction time	0.195	interval	3.88	3.95	4.00	4.23		8.64	8.93	4.57	4.89	<b>NR</b>	11.83	12.87	13.50	
		velocity	7.41	9.02	8.86	8.75	8.27	8.39	8.10	7.84	7.66	8.18	8.14	8.88	8.16	7.78
H1 lead leg	L	strides	22	14	14	14	14			15	15	17.5	125.5			
<b>Heat 3 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>													<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>			
date	30-Jul-21	time	6.00	9.83	13.83	17.96		26.60	35.47	40.00	44.70		49.92	2 / 7		
reaction time	0.183	interval		3.83	4.00	4.13		8.64	8.87	4.53	4.70	5.22			11.96	
		velocity	7.50	9.14	8.75	8.47		8.10	7.89	7.73	7.45	7.66	8.01		8.78	
H1 lead leg	L	strides	21	13	14	14	14	14	14	15	15	15	18	167		
<b>Du Yuanpeng (CHN) (2000)</b>													<i>CAA Hurdle Development (2021)</i>			
<b>Heat 3 - 2021 East China District Meeting (Zhaoqing, CHN)</b>																
date	25-Apr-21	time	6.61	10.76	15.03	19.42	24.02		28.74	33.72	38.75	44.08	49.72	55.53	4 / 4	
reaction time	0.225	interval		4.15	4.27	4.39	4.60		4.72	4.98	5.03	5.33	5.64	5.81		12.81
		velocity	6.81	8.43	8.20	7.97	7.61		7.42	7.03	6.96	6.57	6.21	6.88	7.20	8.20
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	16	17	18.5	174.5	6.56
<b>Ducos, Clement (FRA) (2001)</b>													<i>Omega Timing (2023) - diamond league race analysis</i>			
<b>FINAL - 2024 Weltklasse (Zürich, SUI)</b>																
date	05-Sep-24	time	5.72	9.28	12.91	16.65	20.54		24.54	28.78	33.14	37.57	42.30	48.02	5 / 4	
reaction time	0.162	interval		3.56	3.63	3.74	3.89		4.00	4.24	4.36	4.43	4.73	5.72		11.26
		velocity	7.87	9.83	9.64	9.36	9.00		8.75	8.25	8.03	7.90	7.40	6.99	8.33	9.33
H1 lead leg	L	strides	20	13	13	13	13		13	14	14	15	15	18	161	8.66
<b>FINAL - 2024 Kamila Skolimowska Memorial (Silesia, POL)</b>													<i>Omega Timing (2023) - diamond league race analysis</i>			
date	25-Aug-24	time	5.78	9.37	13.01	16.76	20.60		24.54	28.71	33.03	37.40	41.95	47.42	5 / 2	
reaction time	0.179	interval		3.59	3.64	3.75	3.84		3.94	4.17	4.32	4.37	4.55	5.47		10.98
		velocity	7.79	9.75	9.62	9.33	9.11		8.88	8.39	8.10	8.01	7.69	7.31	8.44	9.56
H1 lead leg	L	strides	20	13	13	13	13		13	14	14	15	15	18	161	8.79
<b>FINAL - 2024 Olympic Games (Paris, FRA)</b>													<i>Paris 2024 Olympc Games - Results Book (2024)</i>			
date	09-Aug-24	time	5.69	9.25	12.91	16.62	20.47		24.49	28.68	32.99	37.60	42.29	47.76	5 / 4	
reaction time	0.162	interval		3.56	3.66	3.71	3.85		4.02	4.19	4.31	4.61	4.69	5.47		10.93
		velocity	7.91	9.83	9.56	9.43	9.09		8.71	8.35	8.12	7.59	7.46	7.31	8.38	9.61
H1 lead leg	L	strides	20	13	13	13	13		14	14	15	15	15	18	150	8.71
<b>Semi-Final 1 - 2024 Olympic Games (Paris, FRA)</b>													<i>Paris 2024 Olympc Games - Results Book (2024)</i>			
date	07-Aug-24	time	5.71	9.28	12.90	16.61	20.46		24.51	28.75	33.08	37.61	42.27	47.85	6 / 2	
reaction time	0.173	interval		3.57	3.62	3.71	3.85		4.05	4.24	4.33	4.53	4.66	5.58		10.90
		velocity	7.88	9.80	9.67	9.43	9.09		8.64	8.25	8.08	7.73	7.51	7.17	8.36	9.63
H1 lead leg	L	strides	20	13	13	13	13		14	14	15	15	15	18	163	8.65
<b>Heat 2 - 2024 Olympic Games (Paris, FRA)</b>													<i>Paris 2024 Olympc Games - Results Book (2024)</i>			
date	05-Aug-24	time	5.70	9.20	12.77	16.45	20.29		24.34	28.61	33.01	37.55	42.20	47.69	9 / 2	
reaction time	0.157	interval		3.50	3.57	3.68	3.84		4.05	4.27	4.40	4.54	4.65	5.49		10.75
		velocity	7.89	10.00	9.80	9.51	9.11		8.64	8.20	7.95	7.71	7.53	7.29	8.39	9.77
H1 lead leg	L	strides	20	13	13	13	13		14	14	15	15	15	18	163	8.63
<b>FINAL - 2024 NCAA Championships (Eugene, OR) (TV Analysis)</b>													<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>			
date	07-Jun-24	time	5.89	9.64										dnf	7 / --	
reaction time		interval		3.75												
		velocity	7.64	9.33												
H1 lead leg	L	strides	20	13										33		
<b>Dudley, Eric (USA) (1980)</b>													<i>USATF Men's Hurdle Development (2007)</i>			
<b>Heat 2 - 2007 USATF National Championships (Indianapolis, IN)</b>																
date	21-Jun-07	time	6.11	9.91	13.89	17.92	22.05		26.36	30.74	35.22	39.91	44.43	49.58	7 / 4	
reaction time		interval		3.80	3.98	4.03	4.13		4.31	4.38	4.48	4.69	4.52	5.15		11.81
		velocity	7.36	9.21	8.79	8.68	8.47		8.12	7.99	7.81	7.46	7.74	7.77	8.07	8.89
H1 lead leg	R	strides	21	13	13	13	13		13	14	14	14	14	142	8.19	7.67
<b>Duma, Christian (GER) (1982)</b>													<i>Sanchez (2002) - copa del mundo de Madrid '02: análisis de la carreras con villas</i>			
<b>FINAL - 2002 IAAF World Cup (Madrid, ESP)</b>																
date	20-Sep-02	time	5.91	9.73	13.65	17.65	21.83		26.18	30.69	35.33	40.06	44.99	50.57	5 / 8	
reaction time	0.148	interval		3.82	3.92	4.00	4.18		4.35	4.51	4.64	4.73	4.93	5.58		11.74
		velocity	7.61	9.16	8.93	8.75	8.37		8.05	7.76	7.54	7.40	7.10	7.17	7.91	8.94
H1 lead leg	L	strides	22	14	14	14	14		14	15	15	15	16	19.5	172.5	7.34
<b>Heat 3 - 2002 European Championships (Munich, GER)</b>													<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>			
date	07-Aug-02	time	6.03	9.97	13.90	17.86	21.98		26.21	30.64	36.34	40.16	45.02	50.50	6 / 6	
reaction time		interval		3.94	3.93	3.96	4.12		4.23	4.43	5.70	3.82	4.86	5.48		11.83
		velocity	7.46	8.88	8.91	8.84	8.50		8.27	7.90	6.14	9.16	7.20	7.30	7.92	8.88
H1 lead leg		strides													8.22	7.30
<b>Dutch, Johnny (USA) (1989)</b>													<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>			
<b>FINAL - 2017 USATF Championships (Sacramento, CA) (TV Analysis)</b>																
date	25-Jun-17	time	5.96	9.62	13.41	17.20	21.20		25.31	29.51	33.79	38.27	43.00	48.60	3 / 5	



reaction time	interval	3.66	3.79	3.79	4.00		4.11	4.20	4.28	4.48	4.73	5.60		11.24	12.31	13.49		
	velocity	7.55	9.56	9.23	9.23	8.75	8.52	8.33	8.18	7.81	7.40	7.14	8.23	9.34	8.53	7.78		
H1 lead leg	R	strides	22	13	13	13	14	14	15	15	15	19	166					
<b>FINAL - 2016 London Anniversary Games (London, GBR) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>					
date	23-Jul-16	time	5.84	9.60	13.56	17.60	21.80	26.08	30.40	34.80	39.24	43.92	49.60	5 / 7				
reaction time	0.193	interval		3.76	3.96	4.04	4.20	4.28	4.32	4.40	4.44	4.68	5.68		11.76	12.80	13.52	
		velocity	7.71	9.31	8.84	8.66	8.33	8.18	8.10	7.95	7.88	7.48	7.04	8.06	8.93	8.20	7.77	
H1 lead leg	R	strides	22	13	13	13	13	14	14	15	15	15	18.5	165.5				
<b>FINAL - 2016 USA Olympic Trials (Eugene, OR) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>					
date	10-Jul-16	time	5.90	9.51	13.24	17.08	20.99	24.99	29.13	33.47	38.04	42.87	48.92	5 / 5				
reaction time	0.227	interval		3.61	3.73	3.84	3.91	4.00	4.14	4.34	4.57	4.83	6.05		11.18	12.05	13.74	
		velocity	7.63	9.70	9.38	9.11	8.95	8.75	8.45	8.06	7.66	7.25	6.61	8.18	9.39	8.71	7.64	
H1 lead leg	R	strides	22	13	13	13	13	14	14	15	15	15	19.7	166.7				
<b>FINAL - 2016 Racers Grand Prix (Kingston, JAM) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>					
date	11-Jun-16	time	5.67	9.33	13.13	17.03	21.10	25.27	29.43	33.77	38.17	42.70	48.10	5 / 1				
reaction time		interval		3.66	3.80	3.90	4.07	4.17	4.16	4.34	4.40	4.53	5.40		11.36	12.40	13.27	
		velocity	7.94	9.56	9.21	8.97	8.60	8.39	8.41	8.06	7.95	7.73	7.41	8.32	9.24	8.47	7.91	
H1 lead leg	R	strides	22	13	13	13	13	14	14	15	15	15	18.2	165.2				
<b>Heat 1 - 2009 IAAF World Championships (Berlin, GER)</b>													<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>					
date	15-Aug-09	time	5.95	9.65	13.50	17.39	21.43	25.66	29.93	34.35	38.91	43.67	49.38	6 / 3				
reaction time	0.165	interval		3.70	3.85	3.89	4.04	4.23	4.27	4.42	4.56	4.76	5.71		11.44	12.54	13.74	
		velocity	7.56	9.46	9.09	9.00	8.66	8.27	8.20	7.92	7.68	7.35	7.01	8.10	9.18	8.37	7.64	
H1 lead leg		strides																
<b>FINAL - 2008 USA Olympic Trials (Eugene, OR)</b>													<i>USATF Hurdle Development (2008)</i>					
date	29-Jun-08	time	6.03	9.82	13.66	17.71	21.85	26.10	30.34	34.66	38.97	43.37	48.52	7 / 5				
reaction time		interval		3.79	3.84	4.05	4.14	4.25	4.24	4.32	4.31	4.40	5.15	<b>PB</b>	11.68	12.63	13.03	
		velocity	7.46	9.23	9.11	8.64	8.45	8.24	8.25	8.10	8.12	7.95	7.77	8.24	8.99	8.31	8.06	
H1 lead leg	R	strides	22	13	13	13	13	14	14	15	15	15	147					
<b>Duvigneau, Dominique (FRA) (1960)</b>																		
<b>FINAL - 1987 French National Championships (Annecy, FRA)</b>																		
date	09-Aug-87	time	6.09	10.11	14.19	18.38	22.55	26.92	31.37	36.03	40.70	45.42	50.92	3 / 3				
reaction time		interval		4.02	4.08	4.19	4.17	4.37	4.45	4.66	4.67	4.72	5.50		12.29	12.99	14.05	
		velocity	7.39	8.71	8.58	8.35	8.39	8.01	7.87	7.51	7.49	7.42	7.27	7.86	8.54	8.08	7.47	
H1 lead leg		strides	21	14	14	14	14	14	15	15	15	15	151					
<b>Dyrzka, Juan Carlos (ARG) (1941)</b>																		
<b>Heat 2 - 1968 Olympic Games (Mexico City, MEX) (Altitude)</b>																		
date	13-Oct-68	time	6.1	10.0	14.0	17.9	21.9	23.6	26.1	30.5	35.0	39.5	44.2	49.8	1 / 1			
reaction time		interval		3.90	4.00	3.90	4.00	4.20	4.40	4.50	4.50	4.70	5.60	<b>NR</b>	11.80	12.60	13.70	
		velocity	7.38	8.97	8.75	8.97	8.75	8.47	8.33	7.95	7.78	7.78	7.45	7.14	8.03	(49.82)	8.90	8.33
H1 lead leg		strides																
<b>Dzhivondov, Ilya (BUL) (1978)</b>																		
<b>Heat 5 - 2000 Olympic Games (Sydney, AUS)</b>																		
date	24-Sep-00	time	6.08	9.88	13.80	17.80	22.00	26.36	30.92	35.88			54.36	8 / 8				
reaction time	0.279	interval		3.80	3.92	4.00	4.20	4.36	4.56	4.96					11.72	13.12		
		velocity	7.40	9.21	8.93	8.75	8.33	8.03	7.68	7.06			7.36		8.96	8.00		
H1 lead leg		strides	22	13	13	13	14	14	15	15			119					
<b>Edlund, Oskar (SWE) (2002)</b>																		
<b>Repechage 1 - 2024 Olympic Games (Paris, FRA)</b>																		
date	07-Aug-24	time	5.83	9.49	13.29	17.13	21.09	25.23	29.58	34.23	38.87	43.51	48.99	8 / 4				
reaction time	0.168	interval		3.66	3.80	3.84	3.96	4.14	4.35	4.65	4.64	4.64	5.48		11.30	12.45	13.93	
		velocity	7.72	9.56	9.21	9.11	8.84	8.45	8.05	7.53	7.54	7.54	7.30	8.16	9.29	8.43	7.54	
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	15	15	18	162				
<b>Heat 2 - 2024 Olympic Games (Paris, FRA)</b>																		
date	05-Aug-24	time	5.81	9.40	13.11	16.90	20.88	25.06	29.49	34.14	38.98	43.88	49.74	6 / 7				
reaction time	0.188	interval		3.59	3.71	3.79	3.98	4.18	4.43	4.65	4.84	4.90	5.86		11.09	12.59	14.39	
		velocity	7.75	9.75	9.43	9.23	8.79	8.37	7.90	7.53	7.23	7.14	6.83	8.04	9.47	8.34	7.30	
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	15	15	18	162				
<b>FINAL - 2024 NCAA Championships (Eugene, OR) (TV Analysis)</b>													<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>					
date	07-Jun-24	time	5.95	9.61	13.35	17.16	21.09	25.27	29.66	34.16	38.80	43.64	49.23	9 / 5				
reaction time		interval		3.66	3.74	3.81	3.93	4.18	4.39	4.50	4.64	4.84	5.59		11.21	12.50	13.98	
		velocity	7.56	9.56	9.36	9.19	8.91	8.37	7.97	7.78	7.54	7.23	7.16	8.13	9.37	8.40	7.51	
H1 lead leg	L	strides		13	13	13	13	14	14	15	15	15	18.5	143.5				
<b>FINAL - 2023 Bauhaus Galan (Stockholm, SWE)</b>													<i>Omega Timing (2023) - diamond league race analysis</i>					
date	02-Jul-23	time	5.97	9.80	13.73	17.69	21.72	25.95	30.42	35.04	39.80	44.57	50.35	1 / 7				
reaction time	0.177	interval		3.83	3.93	3.96	4.03	4.23	4.47	4.62	4.76	4.77	5.78		11.72	12.73	14.15	

H1 lead leg	L	velocity	7.54	9.14	8.91	8.84	8.68		8.27	7.83	7.58	7.35	7.34	6.92	7.94		8.96	8.25	7.42	
		strides	21	13		13	13		13			15	15		103					
<b>Ehrle, Klaus (AUT) (1966)</b>																				
<b>Semi-Final 1 - 1988 Olympic Games (Seoul, KOR)</b>																				
										<i>Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988</i>										
date	24-Sep-88	time	6.16	10.00	13.92	17.93	22.01		26.25	30.74	35.46	40.44	45.52		51.04		2 / 7			
reaction time		interval		3.84	3.92	4.01	4.08		4.24	4.49	4.72	4.98	5.08	5.52				11.77	12.81	14.78
		velocity	7.31	9.11	8.93	8.73	8.58		8.25	7.80	7.42	7.03	6.89	7.25	7.84			8.92	8.20	7.10
H1 lead leg		strides	21	13	13	13	13		14	14	15	15	15	18	164					
<b>Ehrmsprenger, Klaus (GER) (1973)</b>																				
<b>FINAL - 1997 European Cup (Munich, GER)</b>																				
										<i>Jung (2003) - http://www.fgs.uni-halle.de</i>										
date	21-Jun-97	time	6.56	10.77	15.15	19.62	24.23		28.92	33.77	38.71	43.99	49.46		55.13		/ 8			
reaction time		interval		4.21	4.38	4.47	4.61		4.69	4.85	4.94	5.28	5.47	5.67				13.06	14.15	15.69
		velocity	6.86	8.31	7.99	7.83	7.59		7.46	7.22	7.09	6.63	6.40	7.05	7.26			8.04	7.42	6.69
H1 lead leg		strides																		
<b>Elder, Clayton (USA) (2001)</b>																				
<b>Semi-Final 2 - 2024 USA Olympic Trials (Eugene, OR)</b>																				
										<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>										
date	28-Jun-24	time	6.14	10.15	14.16	18.20	22.26	24.15	26.64	31.09	35.89	40.79	45.75		51.72		1 / 6			
reaction time		interval		4.01	4.01	4.04	4.06		4.38	4.45	4.80	4.90	4.96	5.97				12.06	12.89	14.66
		velocity	7.33	8.73	8.73	8.66	8.62	8.28	7.99	7.87	7.29	7.14	7.06	6.70	7.73			8.71	8.15	7.16
H1 lead leg	L	strides	24	16	15	15	15		16	16	17	17	17	20.2	188.2					
<b>Heat 1 - 2024 USA Olympic Trials (Eugene, OR)</b>																				
										<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>										
date	27-Jun-24	time	6.03	9.86	13.72	17.60	21.71	23.61	25.99	30.51	35.37	40.38	45.65		51.98		9 / 5			
reaction time		interval		3.83	3.86	3.88	4.11		4.28	4.52	4.86	5.01	5.27	6.33				11.57	12.91	15.14
		velocity	7.46	9.14	9.07	9.02	8.52	8.47	8.18	7.74	7.20	6.99	6.64	6.32	7.70			9.08	8.13	6.94
H1 lead leg	R	strides	23	15	15	15	16		16	16	17	17	18	21	189					
<b>Elliott, Cass (USA) (2000)</b>																				
<b>FINAL - 2023 NCAA Championships (Austin, TX) (TV Analysis)</b>																				
										<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>										
date	09-Jun-23	time	6.14	9.89	13.80	17.76	21.89			30.43	34.88	39.39	44.01		49.21		2 / 7			
reaction time		interval		3.75	3.91	3.96	4.13			8.54	4.45	4.51	4.62	5.20				11.62	12.67	13.58
		velocity	7.33	9.33	8.95	8.84	8.47			8.20	7.87	7.76	7.58	7.69	8.13			9.04	8.29	7.73
H1 lead leg	L	strides	21	14	14	14	14				15	15	16	18.5	141.5					
<b>Ercolani Volta, Andrea (SMR) (1995)</b>																				
<b>Heat 4 - 2022 European Athletics Championships (Munich, GER)</b>																				
										<i>European Athletics (2022) - european athletics championships race analysis</i>										
date	17-Aug-22	time	6.38	10.50	14.66	18.82	23.16	25.08	27.58	32.18	36.92	41.77	46.75		52.59		5 / 7			
reaction time	0.216	interval		4.12	4.16	4.16	4.34		4.42	4.60	4.74	4.85	4.98	5.84				12.44	13.36	14.57
		velocity	7.05	8.50	8.41	8.41	8.06	7.97	7.92	7.61	7.38	7.22	7.03	6.85	7.61			8.44	7.86	7.21
H1 lead leg	L	strides	22	15		15			15	15	15	15	15		127					
<b>Ezekiel, Nathaniel (NGR) (2003)</b>																				
<b>FINAL - 2024 NCAA Championships (Eugene, OR) (TV Analysis)</b>																				
										<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>										
date	07-Jun-24	time	6.00	9.67	13.45	17.26	21.14		25.21	29.48	33.97	38.65	43.34		48.88		5 / 3			
reaction time		interval		3.67	3.78	3.81	3.88		4.07	4.27	4.49	4.68	4.69	5.54				11.26	12.22	13.86
		velocity	7.50	9.54	9.26	9.19	9.02		8.60	8.20	7.80	7.48	7.46	7.22	8.18			9.33	8.59	7.58
H1 lead leg	R	strides	21	13	13	13	13		13	13	14	14	14	17	158					
<b>Faulds, Joshua (GBR) (2000)</b>																				
<b>Heat 3 - 2022 European Athletics Championships (Munich, GER)</b>																				
										<i>European Athletics (2022) - european athletics championships race analysis</i>										
date	17-Aug-22	time	6.06	10.05	14.05	18.10	22.31	24.18	26.62	31.15	35.83	40.63	45.54		51.21		6 / 5			
reaction time	0.213	interval		3.99	4.00	4.05	4.21		4.31	4.53	4.68	4.80	4.91	5.67				12.04	13.05	14.39
		velocity	7.43	8.77	8.75	8.64	8.31	8.27	8.12	7.73	7.48	7.29	7.13	7.05	7.81			8.72	8.05	7.30
H1 lead leg	R	strides	23	15		15			15	15	16	16	16	20	151					
<b>Faye, Ibou (SEN) (1969)</b>																				
<b>Heat 3 - 2000 Olympic Games (Sydney, AUS)</b>																				
										<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>										
date	24-Sep-00	time	6.02	9.74	13.62	17.58	21.66		25.90	30.38	34.90	39.62	44.46		50.09		4 / 3			
reaction time	0.188	interval		3.72	3.88	3.96	4.08		4.24	4.48	4.52	4.72	4.84	5.63				11.56	12.80	14.08
		velocity	7.48	9.41	9.02	8.84	8.58		8.25	7.81	7.74	7.42	7.23	7.10	7.99			9.08	8.20	7.46
H1 lead leg		strides	22	13	13	13	13		13	14	14	15	15	18	163					
<b>Feng Zhiqiang (CHN) (1998)</b>																				
<b>Heat 2 - 2021 Chinese National Championships (Chongqing, CHN)</b>																				
										<i>CAA Hurdle Development (2021)</i>										
date	26-Jun-21	time	6.29	10.22	14.23	18.38	22.72		27.21	32.05	36.80	41.62	46.48		52.24		3 / 3			
reaction time	0.268	interval		3.93	4.01	4.15	4.34		4.49	4.84	4.75	4.82	4.86	5.76				12.09	13.67	14.43
		velocity	7.15	8.91	8.73	8.43	8.06		7.80	7.23	7.37	7.26	7.20	6.94	7.66			8.68	7.68	7.28
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	15	15	18	162					
<b>FINAL - 2020 Chinese National Championships (Shaoxing, CHN)</b>																				
										<i>CAA Hurdle Development (2020)</i>										
date	17-Sep-20	time	5.92	9.64	13.58	17.62	21.79		26.16	30.50	35.17	39.96	44.87		50.43		6 / 1			
reaction time		interval		3.72	3.94	4.04	4.17		4.37	4.34	4.67	4.79	4.91	5.56				11.70	12.88	14.37
		velocity	7.60	9.41	8.88	8.66	8.39		8.01	8.06	7.49	7.31	7.13	7.19	7.93			8.97	8.15	7.31
H1 lead leg	L	strides	20	13	13	13	13		13	13	14	14	15	17	158					

**FINAL - 2019 Nanjing World Challenge (Nanjing, CHN)**

date	21-May-19	time	6.20	10.06	13.96	17.93	22.10	26.46	31.10	40.56	45.40	50.72	CAA Hurdle Development (2019)				
reaction time		interval		3.86	3.90	3.97	4.17	4.36	4.64	9.46	4.84	5.32	2 / 7	11.73	13.17	14.30	
		velocity	7.26	9.07	8.97	8.82	8.39	8.03	7.54	7.40	7.23	7.52		8.95	7.97	7.34	
H1 lead leg	L	strides		13	13	13	13	13	14			17.2		96.2			

**FINAL - 2019 Shanghai Diamond League (Shanghai, CHN)**

date	18-May-19	time	6.20	10.12	14.19	18.29	22.63	24.4	27.19	31.93	36.70	41.70	46.63	CAA Hurdle Development (2019)			
reaction time	0.195	interval		3.92	4.07	4.10	4.34	4.56	4.74	4.77	5.00	4.93	5.48	2 / 8	12.09	13.64	14.70
		velocity	7.26	8.93	8.60	8.54	8.06	8.20	7.68	7.38	7.34	7.00	7.10		8.68	7.70	7.14
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	15	15		17	161	

**Heat 2 - 2019 Asian Athletics Championships (Doha, QAT)**

date	21-Apr-19	time	5.99	9.91	13.83	17.88	22.10	26.51	31.09	35.68	40.36	45.15	50.71	CAA Hurdle Development (2019)			
reaction time	0.199	interval		3.92	3.92	4.05	4.22	4.41	4.58	4.59	4.68	4.79	5.56	7 / 6	11.89	13.21	14.06
		velocity	7.51	8.93	8.93	8.64	8.29	7.94	7.64	7.63	7.48	7.31	7.19		8.83	7.95	7.47
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	15	15	17.5		160.5		

**FINAL - 2017 Chinese National Games (Tianjin, CHN)**

date	04-Sep-17	time	5.91	9.92	14.07	18.30	22.55	27.00	31.50	36.10	40.40	44.86	49.66	Wang (2020) - comparative analysis of pre-competitoin training of finalist in 400m hurdlers at 13th national games				
reaction time		interval		4.01	4.15	4.23	4.25	4.45	4.50	4.60	4.30	4.46	4.80	/ 1	PB	12.39	13.20	13.36
		velocity	7.61	8.73	8.43	8.27	8.24	7.87	7.78	7.61	8.14	7.85	8.33		8.05	8.47	7.95	7.86
H1 lead leg		strides	21	13	13	13	13	14	14	15	15	15	18		164			

**Ferguson, Kenneth (USA) (1984)**

			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
date	22-Sep-07	time	6.14	9.62	13.42	17.39	21.58	25.93	30.36	34.86	39.39	44.04	49.45	Graubner (2007) - <a href="http://www.fgs.uni-halle.de">http://www.fgs.uni-halle.de</a>	7 / 6				
reaction time	0.153	interval		3.48	3.80	3.97	4.19	4.35	4.43	4.50	4.53	4.65	5.41				11.25	12.97	13.68
		velocity	7.33	10.06	9.21	8.82	8.35	8.05	7.90	7.78	7.73	7.53	7.39	8.09			9.33	8.10	7.68
H1 lead leg		strides																	

**Heat 4 - 2007 USATF National Championships (Indianapolis, IN)**

date	21-Jun-07	time	6.11	9.79	13.60	17.57	21.72	26.21	30.85	35.45	39.84	44.29	49.31	USATF Men's Hurdle Development (2007)				
reaction time		interval		3.68	3.81	3.97	4.15	4.49	4.64	4.60	4.39	4.45	5.02	5 / 1	11.46	13.28	13.44	
		velocity	7.36	9.51	9.19	8.82	8.43	7.80	7.54	7.61	7.97	7.87	7.97		8.11	9.16	7.91	7.81
H1 lead leg	L	strides	22	13	13	13	13	15	15	15	15	15	15		149			

**FINAL - 2006 USATF National Championships (Indianapolis, IN)**

date	24-Jun-06	time	5.86	9.61	13.46	17.35	21.41	25.66	30.03	34.60	39.34	44.56	50.76	USATF Men's Hurdle Development (2006)				
reaction time		interval		3.75	3.85	3.89	4.06	4.25	4.37	4.57	4.74	5.22	6.20	1 / 7	11.49	12.68	14.53	
		velocity	7.68	9.33	9.09	9.00	8.62	8.24	8.01	7.66	7.38	6.70	6.45		7.88	9.14	8.28	7.23
H1 lead leg	L	strides	22	13	15	13	13	15	15	15	15	15	15		151			

**FINAL - 2003 USATF National Junior Championships (Palo Alto, CA)**

date	22-Jun-03	time	6.34	10.39	14.51	18.73	23.14	27.36	31.39	35.60	39.96	44.68	50.70	USATF Women's Sprint Development (2003)				
reaction time		interval		4.05	4.12	4.22	4.41	4.22	4.03	4.21	4.36	4.72	6.02	7 / 1	12.39	12.66	13.29	
		velocity	7.10	8.64	8.50	8.29	7.94	8.29	8.68	8.31	8.03	7.42	6.64		7.89	8.47	8.29	7.90
H1 lead leg		strides																

**Fernández, Sérgio (ESP) (1993)**

			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
date	10-Jun-24	time	5.84	9.53	13.42	17.33	21.38	25.54	29.86	34.37	39.06	43.82	49.34	European Athletics (2024) - 2024 european athletics championships - results book	4 / 5				
reaction time	0.163	interval		3.69	3.89	3.91	4.05	4.16	4.32	4.51	4.69	4.76	5.52				11.49	12.53	13.96
		velocity	7.71	9.49	9.00	8.95	8.64	8.41	8.10	7.76	7.46	7.35	7.25	8.11			9.14	8.38	7.52
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	14	14	17		158				

**Heat 3 - 2024 European Athletics Championships (Roma, ITA)**

date	09-Jun-24	time	5.90	9.69	13.58	17.61	21.62	25.81	30.20	34.78	39.77	44.58	49.98	European Athletics (2024) - 2024 european athletics championships - results book				
reaction time	0.176	interval		3.79	3.89	4.03	4.01	4.19	4.39	4.58	4.99	4.81	5.40	2 / 4	11.71	12.59	14.38	
		velocity	7.63	9.23	9.00	8.68	8.73	8.35	7.97	7.64	7.01	7.28	7.41		8.00	8.97	8.34	7.30
H1 lead leg		strides													0			

**Heat 2 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)**

date	30-Jul-21	time	6.10	9.93	13.83	17.84	22.03	26.53	31.10	35.86	40.76	51.51	Henson (2024) - Athlete First: 2021 year end hurdle report				
reaction time	0.152	interval		3.83	3.90	4.01	4.19	4.50	4.57	4.76	4.90		5 / 7	11.74	13.26		
		velocity	7.38	9.14	8.97	8.73	8.35	7.78	7.66	7.35	7.14	7.77			8.94	7.92	
H1 lead leg	L	strides	20	13	13	13	13	14	14	14	14	114					

**FINAL - 2016 Athletissima (Laussane, SUI) (TV Analysis)**

date	25-Aug-16	time	5.96	9.80	13.73	17.70	21.76	25.93	30.26	34.73	39.26	43.80	49.22	Henson (2020) - Athlete First: 2016 year end hurdle report				
reaction time	0.146	interval		3.84	3.93	3.97	4.06	4.17	4.33	4.47	4.53	4.54	5.42	3 / 3	11.74	12.56	13.54	
		velocity	7.55	9.11	8.91	8.82	8.62	8.39	8.08	7.83	7.73	7.71	7.38		8.13	8.94	8.36	7.75
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	14	14	17		158			

**FINAL - 2016 European Championships (Amsterdam, NED) (TV Analysis)**

date	08-Jul-16	time	6.04	9.88	13.84	17.96	22.04	26.16	30.28	34.68	39.20	43.84	49.06	Henson (2020) - Athlete First: 2016 year end hurdle report			
														5 / 2			



reaction time	0.138	interval	3.84	3.96	4.12	4.08		4.12	4.12	4.40	4.52	4.64	5.22		11.92	12.32	13.56		
		velocity	7.45	9.11	8.84	8.50	8.58		8.50	8.50	7.95	7.74	7.54	7.66	8.15	8.81	8.52	7.74	
H1 lead leg	L	strides	20	13	13	13	13		13	14	14	14	17.5	144.5					
<b>Fields, Ryan (USA) (2000)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>Semi-Final 2 - 2024 USA Olympic Trials (Eugene, OR)</b>																			
<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>																			
date	28-Jun-24	time	6.02	9.91	13.86	17.86	22.15	24.05	26.42	30.90	35.62	40.44	45.22		50.78	5 / 4			
reaction time		interval		3.89	3.95	4.00	4.29		4.27	4.48	4.72	4.82	4.78	5.56			11.84	13.04	14.32
		velocity	7.48	9.00	8.86	8.75	8.16	8.32	8.20	7.81	7.42	7.26	7.32	7.19	7.88		8.87	8.05	7.33
H1 lead leg	R	strides	21	14	14	15	15		15	15	15	15	15	18	172				
<b>Heat 2 - 2024 USA Olympic Trials (Eugene, OR)</b>			<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>																
date	27-Jun-24	time	6.10	10.05	14.07	17.95	22.12	24.05	26.42	30.83	35.44	40.11	44.90		50.50	9 / 3			
reaction time		interval		3.95	4.02	3.88	4.17		4.30	4.41	4.61	4.67	4.79	5.60			11.85	12.88	14.07
		velocity	7.38	8.86	8.71	9.02	8.39	8.32	8.14	7.94	7.59	7.49	7.31	7.14	7.92		8.86	8.15	7.46
H1 lead leg	R	strides		14	14	13	14		14	15	15			18	117				
<b>Fleischhauer, Georg (GER) (1988)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>Heat 1 - 2011 IAAF World Championships (Daegu, KOR)</b>																			
<i>Beck (2011) - 400-meter-hürdensprinter im aufschwung</i>																			
date	29-Aug-11	time	6.16	9.96	13.84	17.78	21.77		25.85	30.08	34.48	38.96	43.52		48.72	4 / 3			
reaction time	0.176	interval		3.80	3.88	3.94	3.99		4.08	4.23	4.40	4.48	4.56	5.20	<b>PB</b>		11.62	12.30	13.44
		velocity	7.31	9.21	9.02	8.88	8.77		8.58	8.27	7.95	7.81	7.68	7.69	8.21		9.04	8.54	7.81
H1 lead leg		strides	21	13	13	13	13		13	13	14	14	14	141					
<b>FINAL - 2011 Weltklasse in Biberach (Biberach, GER)</b>			<i>Beck (2011) - 400-meter-hürdensprinter im aufschwung</i>																
date	28-Jun-11	time	6.30	10.16	14.06	18.02	22.04		26.26	30.58	35.00	39.64	44.26		49.50	1 / 2			
reaction time		interval		3.86	3.90	3.96	4.02		4.22	4.32	4.42	4.64	4.62	5.24			11.72	12.56	13.68
		velocity	7.14	9.07	8.97	8.84	8.71		8.29	8.10	7.92	7.54	7.58	7.63	8.08		8.96	8.36	7.68
H1 lead leg		strides	20	13	13	13	13		13	13	13	14	14	139					
<b>Flenoy, Stefan (USA) (1968)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 1996 USA Olympic Trials (Atlanta, GA)</b>																			
<i>McNichols - Hurdle technique study through video analysis</i>																			
date	16-Jun-96	time	5.86	9.61	13.38	17.21	21.08	21.75	25.17	29.43	33.96	38.51	43.18		48.74	6 / 6			
reaction time		interval		3.75	3.77	3.83	3.87		4.09	4.26	4.53	4.55	4.67	5.56			11.35	12.22	13.75
		velocity	7.68	9.33	9.28	9.14	9.04	9.20	8.56	8.22	7.73	7.69	7.49	7.19	8.21		9.25	8.59	7.64
H1 lead leg	L	strides	21	13	13	13	13		13	13	14	14	14	141					
<b>Forsberg, Anton (SWE) (1991)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2011 Poks Memorial (Hässelholm, SWE)</b>																			
<i>Blomkvist (2011) - www.elitlandslag.se/SprintHäck/LängSprintHäck.aspx</i>																			
date	12-Jun-11	time		10.76	15.06	19.36	23.78			33.10	37.88	42.84	48.08		54.40	1 / 4			
reaction time		interval			4.30	4.30	4.42			9.32	4.78	4.96	5.24	6.32	<b>PB</b>			13.74	14.98
		velocity		7.43	8.14	8.14	7.92			7.51	7.32	7.06	6.68	6.33	7.35			7.64	7.01
H1 lead leg	R	strides		14	14	14	14		15	15	15	15	15	19	150				
<b>Franca, Matteo (ITA)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 1993 Pesaro, ITA</b>																			
<i>Partipilo (1994) - la distribuzione dello sforzo nei 400m ad ostacoli</i>																			
date	10-Oct-93	time	6.80	11.19	15.49	20.08	24.85	26.90	29.77	34.58	39.63	44.83	50.17		56.10	???			
reaction time		interval		4.39	4.30	4.59	4.77		4.92	4.81	5.05	5.20	5.34	5.93	<b>PB</b>		13.28	14.50	15.59
		velocity	6.62	7.97	8.14	7.63	7.34	7.43	7.11	7.28	6.93	6.73	6.55	6.75	7.13		7.91	7.24	6.74
H1 lead leg		strides	23	15	15	15	17		17	17	17	17	17	170					
<b>FINAL - 1993 Bologna, ITA</b>			<i>Partipilo (1994) - la distribuzione dello sforzo nei 400m ad ostacoli</i>																
date	09-Sep-93	time	6.87	11.55	16.16	20.91	25.96	28.10	31.07	36.30	41.43	46.53	51.83		57.40	???			
reaction time		interval		4.68	4.61	4.75	5.05		5.11	5.23	5.13	5.10	5.30	5.57			14.04	15.39	15.53
		velocity	6.55	7.48	7.59	7.37	6.93	7.12	6.85	6.69	6.82	6.86	6.60	7.18	6.97		7.48	6.82	6.76
H1 lead leg		strides	23	15	15	15	15		16	16	17	17	17	166					
<b>FINAL - 1993 Bologna, ITA</b>			<i>Partipilo (1994) - la distribuzione dello sforzo nei 400m ad ostacoli</i>																
date	01-Jul-93	time	6.79	11.17	15.71	20.31	25.36	27.50	30.34	35.41	40.57	46.09	51.40		57.40	???			
reaction time		interval		4.38	4.54	4.60	5.05		4.98	5.07	5.16	5.52	5.31	6.00			13.52	15.10	15.99
		velocity	6.63	7.99	7.71	7.61	6.93	7.27	7.03	6.90	6.78	6.34	6.59	6.67	6.97		7.77	6.95	6.57
H1 lead leg		strides	23	15	15	15	15		17	17	17	17	17	168					
<b>Franz, Felix (GER) (1993)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2014 European Championships (Zurich, SUI)</b>																			
<i>Green (2015) - twitter.com/jackpgreen (from Behm?)</i>																			
date	15-Aug-14	time	6.03	9.91	13.75	17.83	21.91		26.11	30.55	35.07	39.79	44.51		49.83	1 / 5			
reaction time	0.174	interval		3.88	3.84	4.08	4.08		4.20	4.44	4.52	4.72	4.72	5.32			11.80	12.72	13.96
		velocity	7.46	9.02	9.11	8.58	8.58		8.33	7.88	7.74	7.42	7.42	7.52	8.03		8.90	8.25	7.52
H1 lead leg	L	strides		13	13	13	13		13	14	14	14	14	121					
<b>Fredericks, Cornel (RSA) (1990)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2018 IAAF Continental Cup (Ostrava, CZE) (TV Analysis)</b>																			
<i>Henson (2021) - Athlete First: 2018 year end hurdle report</i>																			
date	08-Sep-18	time	5.96	9.84	13.64	17.52	21.60		25.80	30.24	34.84	39.64	44.60		50.54	2 / 7			
reaction time	0.139	interval		3.88	3.80	3.88	4.08		4.20	4.44	4.60	4.80	4.96	5.94			11.56	12.72	14.36
		velocity	7.55	9.02	9.21	9.02	8.58		8.33	7.88	7.61	7.29	7.06	6.73	7.91		9.08	8.25	7.31
H1 lead leg	R	strides	22	14	14	14	14			15	15	15	15	19.2	157.2				

**FINAL - 2018 Weltklasse (Zürich, SUI) (TV Analysis)**

date	30-Aug-18	time	5.92	9.68	13.48	17.44	21.52	23.4	25.76	30.24	39.44
reaction time	0.144	interval		3.76	3.80	3.96	4.08		4.24	4.48	9.20
		velocity	7.60	9.31	9.21	8.84	8.58	8.55	8.25	7.81	7.61
H1 lead leg	R	strides	21	14	14		14		14	15	15

Henson (2020) - Athlete First: 2018 year end hurdle report

49.96	8 / 5	11.52	12.80
8.01		9.11	8.20
107			

**FINAL - 2018 Doha Diamond League (Doha, QAT) (TV Analysis)**

date	04-May-18	time	5.96	9.72	13.60	17.52	21.64	25.88	30.32	34.88	39.64	44.40
reaction time	0.164	interval		3.76	3.88	3.92	4.12		4.24	4.44	4.56	4.76
		velocity	7.55	9.31	9.02	8.93	8.50		8.25	7.88	7.68	7.35
H1 lead leg	R	strides	22	14	14	14	14		14	15	15	15

Henson (2020) - Athlete First: 2018 year end hurdle report

50.03	1 / 5	11.56	12.80	14.08
8.00		9.08	8.20	7.46
156				

**FINAL - 2017 Athletissima (Lausanne, SUI) (TV Analysis)**

date	06-Jul-17	time	6.00	9.76	13.60	17.48	21.48	25.56	29.80	34.20	38.80	43.52
reaction time	0.137	interval		3.76	3.84	3.88	4.00		4.08	4.24	4.40	4.60
		velocity	7.50	9.31	9.11	9.02	8.75		8.58	8.25	7.95	7.61
H1 lead leg	R	strides	22	14	14	14	14		14	15	15	15

Henson (2020) - Athlete First: 2017 year end hurdle report

49.32	8 / 5	11.48	12.32	13.72
8.11		9.15	8.52	7.65
172				

**FINAL - 2017 Doha Diamond League (Doha, QAT) (TV Analysis)**

date	05-May-17	time	6.00	9.76	13.63	17.53	21.56	25.70	30.06	34.53	39.26	44.20
reaction time	0.147	interval		3.76	3.87	3.90	4.03		4.14	4.36	4.47	4.73
		velocity	7.50	9.31	9.04	8.97	8.68		8.45	8.03	7.83	7.40
H1 lead leg	R	strides	22	14	14	14	14		14	15	15	16

Henson (2020) - Athlete First: 2017 year end hurdle report

49.96	1 / 5	11.53	12.53	14.14
8.01		9.11	8.38	7.43
172.5				

**FINAL - 2011 IAAF World Championships (Daegu, KOR)**

date	01-Sep-11	time	5.8	9.5	13.3	17.2	21.3	25.3	29.5	34.0	38.6	43.4
reaction time	0.170	interval		3.70	3.80	3.90	4.10		4.00	4.20	4.50	4.60
		velocity	7.76	9.46	9.21	8.97	8.54		8.75	8.33	7.78	7.61
H1 lead leg	L	strides	21	14	14	14	14		15	15	15	16

Behm (2011) - Le quatrache: Démus enfin!

49.12	4 / 5	11.40	12.30	13.90
8.14		9.21	8.54	7.55
174				

**Friedrich, Dieter (FRG) (1947)****FINAL - 1975 West German National Championships (Gelsenkirchen, FRG)**

date	28-Jun-75	time	6.0	10.0	14.1	18.3	22.6	24.6	27.0	31.4	36.2	40.6	45.3
reaction time		interval		4.00	4.04	4.20	4.32		4.39	4.42	4.77	4.45	4.71
		velocity	7.46	8.75	8.66	8.33	8.10	8.13	7.97	7.92	7.34	7.87	7.43
H1 lead leg		strides											

Helbig (1975) - 400-m-hürdenlauf

51.29	5 / 2	12.24	13.13	13.93
7.80		8.58	8.00	7.54

**Frinolli, Giorgio (ITA) (1970)****Semi-Final 2 - 2000 Olympic Games (Sydney, AUS)**

date	25-Sep-00	time	6.08	9.88	13.84	17.84	21.92	26.08	30.52	35.04	39.72	44.48
reaction time	0.342	interval		3.80	3.96	4.00	4.08		4.16	4.44	4.52	4.68
		velocity	7.40	9.21	8.84	8.75	8.58		8.41	7.88	7.74	7.48
H1 lead leg		strides		14	14	14	14		14	15	15	15

Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games

50.10	2 / 8	11.76	12.68	13.96
7.98		8.93	8.28	7.52
131				

**Heat 8 - 2000 Olympic Games (Sydney, AUS)**

date	24-Sep-00	time	6.06	9.82	13.78	17.70	21.78	25.94	30.26	34.86	39.78	44.66
reaction time	0.179	interval		3.76	3.96	3.92	4.08		4.16	4.32	4.60	4.92
		velocity	7.43	9.31	8.84	8.93	8.58		8.41	8.10	7.61	7.11
H1 lead leg		strides	21	14	14	14	14		14	14	15	16

Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games

50.27	6 / 2	11.64	12.56	14.40
7.96		9.02	8.36	7.29
171.2				

**Frinolli, Roberto (ITA) (1940)****FINAL - 1968 Olympic Games (Mexico City, MEX) (Altitude)**

date	15-Oct-68	time	5.8	9.7	13.6	17.5	21.5	23.4	25.6	29.9	34.3	38.9	43.9
reaction time		interval		3.90	3.90	3.90	4.00		4.10	4.30	4.40	4.60	5.00
		velocity	7.76	8.97	8.97	8.97	8.75	8.55	8.54	8.14	7.95	7.61	7.00
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	15	15

Dessons (1982) - traite d'athletisme - volume 1: les courses

50.1	4 / 8	11.70	12.40	14.00
(50.13)		8.97	8.47	7.50
157				

**Heat 4 - 1968 Olympic Games (Mexico City, MEX) (Altitude)**

date	13-Oct-68	time	6.0	10.0	14.2	18.2	22.2	23.8	26.6	30.7	35.1	39.4	44.0
reaction time		interval		4.00	4.20	4.00	4.00		4.40	4.10	4.40	4.30	4.60
		velocity	7.50	8.75	8.33	8.75	8.75	8.40	7.95	8.54	7.95	8.14	7.61
H1 lead leg		strides											

Jonath (1969) - wie gerhard hennige trainiert

49.9	1 / 1	12.20	12.50	13.30
(49.95)		8.61	8.40	7.89
8.02				

**FINAL - 1964 Olympic Games (Tokyo, JPN)**

date	16-Oct-64	time	5.8		13.4	21.0			29.8	39.0		
reaction time		interval			7.60	7.60			8.80	9.20	11.70	
		velocity	7.76		9.21	9.21			7.95	7.61	6.41	7.89
H1 lead leg		strides										

Breitschaft (1965) - die leichtathletik wettkämpfe der 1964 olympischen sommerspielen - 400m hürdenlauf

50.7	7 / 6			

**Fu Jiaho (CHN) (1999)****FINAL - 2019 Chinese World Championship Trials (Shenyang, CHN)**

date	03-Aug-19	time	6.30	10.36	14.56	18.79	23.16	27.70	32.38	37.10	41.90	46.91
reaction time	0.193	interval		4.06	4.20	4.23	4.37		4.54	4.68	4.72	4.80
		velocity	7.14	8.62	8.33	8.27	8.01		7.71	7.48	7.42	7.29
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	16

CAA Hurdle Development (2019)

52.81	5 / 6	12.49	13.59	14.53
7.57		8.41	7.73	7.23
174				

**Heat 1 - 2019 Chinese World Championship Trials (Shenyang, CHN)**

CAA Hurdle Development (2019)

date	03-Aug-19	time	6.35	10.54	14.85	19.14	23.46	28.09	32.82	37.52	42.32	47.33	52.83	3 / 2			
reaction time	0.183	interval		4.19	4.31	4.29	4.32	4.63	4.73	4.70	4.80	5.01	5.50		12.79	13.68	14.51
		velocity	7.09	8.35	8.12	8.16	8.10	7.56	7.40	7.45	7.29	6.99	7.27		8.21	7.68	7.24
H1 lead leg	L	strides	22	14	14	14	15	15	16	15	16	16	18.5				

**Heat 2 - 2019 Chinese National Championships (Shenyang, CHN)**

CAA Hurdle Development (2019)

date	09-Jul-19	time	6.37	10.43	14.64	18.88	23.22	27.69	32.32	37.05	41.79	46.65	52.29	5 / <del>7</del> 6			
reaction time	0.232	interval		4.06	4.21	4.24	4.34	4.47	4.63	4.73	4.74	4.86	5.64		12.51	13.44	14.33
		velocity	7.06	8.62	8.31	8.25	8.06	7.83	7.56	7.40	7.38	7.20	7.09		8.39	7.81	7.33
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	15	16	20				

**FINAL - 2019 Chinese National Grand Prix 4 (Luoyang, CHN)**

CAA Hurdle Development (2019)

date	29-May-19	time	6.67	11.05	15.45	19.80	24.34	29.01	33.76	38.52	43.47	48.88	54.71	1 / 6			
reaction time	0.208	interval		4.38	4.40	4.35	4.54	4.67	4.75	4.76	4.95	5.41	5.83		13.13	13.96	15.12
		velocity	6.75	7.99	7.95	8.05	7.71	7.49	7.37	7.35	7.07	6.47	6.86		8.00	7.52	6.94
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	15	17	19.5				

**FINAL - 2019 Chinese National Grand Prix 2 (Huangshi, CHN)**

CAA Hurdle Development (2019)

date	12-Apr-19	time	6.60	10.84	15.16	19.62	24.20	28.90	33.78	38.58	43.36	48.62	54.39	3 / 7			
reaction time	0.200	interval		4.24	4.32	4.46	4.58	4.70	4.88	4.80	4.78	5.26	5.77		13.02	14.16	14.84
		velocity	6.82	8.25	8.10	7.85	7.64	7.45	7.17	7.29	7.32	6.65	6.93		8.06	7.42	7.08
H1 lead leg	L	strides	21	16	16	16	16	15	15	15	15	15	19.2				

**FINAL - 2019 Chinese National Grand Prix 1 (Zhaoqing, CHN)**

CAA Hurdle Development (2019)

date	08-Apr-19	time	6.44	10.51	14.73	18.88	23.19	27.64	32.26	36.93	41.79	46.86	52.33	6 / 6			
reaction time	0.218	interval		4.07	4.22	4.15	4.31	4.45	4.62	4.67	4.86	5.07	5.47		12.44	13.38	14.6
		velocity	6.99	8.60	8.29	8.43	8.12	7.87	7.58	7.49	7.20	6.90	7.31		8.44	7.85	7.19
H1 lead leg	L	strides	22	16	16	16	16	16	17	17	17	17	19.5				

**Fuchiqami, Syota (JPN) (2005)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**FINAL - 2023 Japanese National High School Championships (Sapporo, JPN)**

Takashima (2023) - national high school sports festival - biomechanics data

date	04-Aug-23	time	6.02	9.81	13.65	17.62	21.62	25.84	30.21	34.73	39.49	44.54	50.64	6 / 2			
reaction time	0.221	interval		3.79	3.84	3.97	4.00	4.22	4.37	4.52	4.76	5.05	6.10		11.60	12.59	14.33
		velocity	7.48	9.23	9.11	8.82	8.75	8.29	8.01	7.74	7.35	6.93	6.56		9.05	8.34	7.33
H1 lead leg		strides	21	14	14	14	14	15	15	15	15	15	21				

**FINAL - 2022 Japanese National High School Championships (Naruto, JPN)**

Kishima (2022) - national high school championships biomechanics data collection

date	05-Aug-22	time	6.08	9.98	13.93	18.10	22.42	26.88	31.38	36.02	40.73	45.53	51.03	6 / 3			
reaction time	0.186	interval		3.90	3.95	4.17	4.32	4.46	4.50	4.64	4.71	4.80	5.50		12.02	13.28	14.15
		velocity	7.40	8.97	8.86	8.39	8.10	7.85	7.78	7.54	7.43	7.29	7.27		8.74	7.91	7.42
H1 lead leg	R	strides	22	14	14	14	14	15	15	15	15	15	19.5				

**FINAL - 2022 Japanese National High School Championships (Naruto, JPN)**

Kishima (2022) - national high school championships biomechanics data collection

date	05-Aug-22	time	6.16	10.09	14.11	18.31	22.69	27.16	31.70	36.49	41.36	46.25	51.86	2 / 7			
reaction time	0.187	interval		3.93	4.02	4.20	4.38	4.47	4.54	4.79	4.87	4.89	5.61		12.15	13.39	14.55
		velocity	7.31	8.91	8.71	8.33	7.99	7.83	7.71	7.31	7.19	7.16	7.13		8.64	7.84	7.22
H1 lead leg	R	strides	22	14	14	14	14	15	15	15	15	15	19.2				

**Fueki, Yasuhiro (JPN) (1985)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**FINAL - 2014 Seiko Golden Grand Prix (Tokyo, JPN)**

Yasunori (2014) - race pattern analysis of Japanese top 400m hurdlers for major domestic competitions

date	11-May-14	time	6.01	9.90	13.80	17.72	21.77	25.92	30.39	35.04	39.98	45.25	51.68	1 / 8			
reaction time		interval		3.89	3.90	3.92	4.05	4.15	4.47	4.65	4.94	5.27	6.43		11.71	12.67	14.86
		velocity	7.49	9.00	8.97	8.93	8.64	8.43	7.83	7.53	7.09	6.64	6.22		8.97	8.29	7.07
H1 lead leg		strides		14	14	14	14	14	14	15	15	16	130				

**Fujii, Ryusei (JPN) (1998)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**FINAL - 2015 Japanese National High School Championships (Wakayama, JPN)**

Enomoto (2015) - 68th high school championships: JAF scientific committee - biomechanics data

date	31-Jul-15	time	6.19	10.24	14.55	18.97	23.37	27.78	32.23	36.69	41.27	45.96	51.34	4 / 4			
reaction time		interval		4.05	4.31	4.42	4.40	4.41	4.45	4.46	4.58	4.69	5.38		12.78	13.26	13.73
		velocity	7.27	8.64	8.12	7.92	7.95	7.94	7.87	7.85	7.64	7.46	7.43		8.22	7.92	7.65
H1 lead leg		strides		14	15	15	15	15	15	15	15	15	134				

**Fujioka, Tetsuya (JPN) (2000)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**FINAL - 2018 Shimane High School Championships (Izumo, JPN)**

Shimizu (2018) - shimane high school championships 2018 - biomechanics data analysis

date	26-May-18	time	6.53	10.88	15.32	19.72	24.27	28.90	33.73	38.82	44.03	49.30	55.32	3 / 2			
reaction time		interval		4.35	4.44	4.40	4.55	4.63	4.83	5.09	5.21	5.27	6.02		13.19	14.01	15.57
		velocity	6.89	8.05	7.88	7.95	7.69	7.56	7.25	6.88	6.72	6.64	6.64		7.96	7.49	6.74
H1 lead leg		strides	23	15	15	15	15	15	16	16	16	16	20				

**Fukamachi, Hidai (JPN) (2001)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**FINAL - 2021 Japanese U20 National Championships (Osaka, JPN)**

Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season

date	26-Jun-21	time	6.22	10.19	14.10	18.10	22.19	26.43	30.81	35.39	40.14	45.03	50.73	4 / 3			
reaction time	0.220	interval		3.97	3.91	4.00	4.09	4.24	4.38	4.58	4.75	4.89	5.70		11.88	12.71	14.22
		velocity	7.23	8.82	8.95	8.75	8.56	8.25	7.99	7.64	7.37	7.16	7.02		8.84	8.26	7.38
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	16	16	19.5				

**FINAL - 2019 Japanese National High School Championships (Okinawa, JPN)**

Kota (2019) - 72nd high school championships: JAF scientific committee - biomechanics data



date	06-Aug-19	time	6.31	10.39	14.51	18.74	23.13		27.79	32.52	37.37	42.60	47.96		54.32	8 / 6			
reaction time		interval		4.08	4.12	4.23	4.39		4.66	4.73	4.85	5.23	5.36	6.36			12.43	13.78	15.44
		velocity	7.13	8.58	8.50	8.27	7.97		7.51	7.40	7.22	6.69	6.53	6.29	7.36		8.45	7.62	6.80
H1 lead leg		strides		15	15	15	15		16	16	16	17	17	142					
<b>Futch, Eric (USA) (1993)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2016 Müller's Anniversary Games (London, GBR) (TV Analysis)</b>															<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>				
date	09-Jul-17	time	5.96	9.72	13.56	17.48	21.60		25.80	30.04	34.40	38.84	43.40		48.68	5 / 5			
reaction time	0.189	interval		3.76	3.84	3.92	4.12		4.20	4.24	4.36	4.44	4.56	5.28			11.52	12.56	13.36
		velocity	7.55	9.31	9.11	8.93	8.50		8.33	8.25	8.03	7.88	7.68	7.58	8.22		9.11	8.36	7.86
H1 lead leg	R	strides	22	14	14	13	14		15	14	15	15	15	18	169				
<b>FINAL - 2017 USATF Championships (Sacramento, CA) (TV Analysis)</b>																			
<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>																			
date	25-Jun-17	time	5.96	9.79	13.65	17.58	21.65		25.65	29.82	34.03	38.34	42.79		48.18	4 / 1			
reaction time		interval		3.83	3.86	3.93	4.07		4.00	4.17	4.21	4.31	4.45	5.39	<b>PB</b>		11.62	12.24	12.97
		velocity	7.55	9.14	9.07	8.91	8.60		8.75	8.39	8.31	8.12	7.87	7.42	8.30		9.04	8.58	8.10
H1 lead leg	R	strides	22	14	14	13	13			14	15	15	15	18	153				
<b>Garnier, Philippe (FRA) (1963)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 1987 French National Championships (Annecy, FRA)</b>															<i>Veney - split times from PJ</i>				
date	09-Aug-87	time	6.07	10.18	14.43	18.59	22.64		26.96	31.33	35.85	40.59	45.67		51.80	/ 6			
reaction time		interval		4.11	4.25	4.16	4.05		4.32	4.37	4.52	4.74	5.08	6.13			12.52	12.74	14.34
		velocity	7.41	8.52	8.24	8.41	8.64		8.10	8.01	7.74	7.38	6.89	6.53	7.72		8.39	8.24	7.32
H1 lead leg		strides																	
<b>Garrett, LaBronze (USA) (1976)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2006 USATF National Championships (Indianapolis, IN)</b>															<i>USATF Men's Hurdle Development (2006)</i>				
date	24-Jun-06	time	5.94	9.83	13.73	17.67	21.67		25.87	30.10	34.54	39.14	43.74		49.47	2 / 5			
reaction time		interval		3.89	3.90	3.94	4.00		4.20	4.23	4.44	4.60	4.60	5.73			11.73	12.43	13.64
		velocity	7.58	9.00	8.97	8.88	8.75		8.33	8.27	7.88	7.61	7.61	6.98	8.09		8.95	8.45	7.70
H1 lead leg	L	strides	21	13	13	13	13		14	14	15	15	15	146					
<b>FINAL - 2003 USATF National Championships (Palo Alto, CA)</b>																			
<i>USATF Women's Sprint Development (2003)</i>																			
date	22-Jun-03	time	6.04	9.89	13.90	18.07	22.36		26.69	31.20	35.79	40.41	45.08		50.45	1 / <del>5</del> 7			
reaction time		interval		3.85	4.01	4.17	4.29		4.33	4.51	4.59	4.62	4.67	5.37			12.03	13.13	13.88
		velocity	7.45	9.09	8.73	8.39	8.16		8.08	7.76	7.63	7.58	7.49	7.45	7.93		8.73	8.00	7.56
H1 lead leg		strides																	
<b>Gavrilenko, Yevgeniy (URS) (1951)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 1976 Olympic Games (Montreal, CAN)</b>															<i>Behm (1995) - la tactique du 400 haies</i>				
date	25-Jul-76	time	6.0	9.7	13.4	17.4	21.5		25.7	29.9	34.5	39.0	43.8		49.45	8 / 3			
reaction time		interval		3.70	3.70	4.00	4.10		4.20	4.20	4.60	4.50	4.80	5.65			11.40	12.50	13.90
		velocity	7.50	9.46	9.46	8.75	8.54		8.33	8.33	7.61	7.78	7.29	7.08	8.09		9.21	8.40	7.55
H1 lead leg	L	strides		13	13	13	13		13	15	15	15	15	125					
<b>FINAL - 1972 Olympic Games (Munich, FRG)</b>																			
<i>Letzelter (1973) - schrittgestaltung und geschwindigkeitsverlauf beim 400-m-hürdenlauf der olympischen spiele 1972</i>																			
date	03-Sep-72	time	6.0	9.8	13.7	17.6	21.6	23.3	25.9	30.3	34.8	39.3	44.1		49.66	2 / 6			
reaction time		interval		3.80	3.85	3.95	4.00		4.25	4.40	4.50	4.55	4.75	5.61			11.60	12.65	13.80
		velocity	7.50	9.21	9.09	8.86	8.75	8.58	8.24	7.95	7.78	7.69	7.37	7.13	8.05		9.05	8.30	7.61
H1 lead leg	L	strides	21	13	13	13	13		13		15	15	15	131					
<b>Gaymon, Justin (USA) (1986)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2008 USA Olympic Trials (Eugene, OR)</b>															<i>USATF Hurdle Development (2008)</i>				
date	29-Jun-08	time	6.07	9.97	13.73	17.73	21.70		25.82	30.09	34.50	38.87	43.32		48.46	8 / 4			
reaction time		interval		3.90	3.76	4.00	3.97		4.12	4.27	4.41	4.37	4.45	5.14	<b>PB</b>		11.66	12.36	13.23
		velocity	7.41	8.97	9.31	8.75	8.82		8.50	8.20	7.94	8.01	7.87	7.78	8.25		9.01	8.50	7.94
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	15	153					
<b>Heat 3 - 2007 USATF National Championships (Indianapolis, IN)</b>																			
<i>USATF Men's Hurdle Development (2007)</i>																			
date	21-Jun-07	time	6.02	10.01	14.06	18.27	22.41		26.75	31.18	35.70	40.27	44.93		50.16	6 / 2			
reaction time		interval		3.99	4.05	4.21	4.14		4.34	4.43	4.52	4.57	4.66	5.23			12.25	12.91	13.75
		velocity	7.48	8.77	8.64	8.31	8.45		8.06	7.90	7.74	7.66	7.51	7.65	7.97		8.57	8.13	7.64
H1 lead leg	R	strides	22	15	15	14	14		15	15	15	15	15	155					
<b>Geiger, Karl (FRG) (1953)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 1975 West German National Championships (Gelsenkirchen, FRG)</b>															<i>Helbig (1975) - 400-m-hürdenlauf</i>				
date	28-Jun-75	time	6.3	10.3	14.4	18.6	23.4	25.4	27.8	32.4	37.1	41.8	46.7		52.42	4 / 7			
reaction time		interval		4.02	4.11	4.18	4.86		4.40	4.60	4.63	4.68	4.97	5.70			12.31	13.86	14.28
		velocity	7.18	8.71	8.52	8.37	7.20	7.86	7.95	7.61	7.56	7.48	7.04	7.02	7.63		8.53	7.58	7.35
H1 lead leg		strides																	
<b>Gianessi, Paolo (ITA)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 1993 Bergamo, ITA</b>															<i>Partipilo (1994) - la distribuzione dello sforzo nei 400m ad ostacoli</i>				
date	03-Oct-93	time	6.49	10.73	14.96	19.38	23.81	25.80	28.51	33.37	38.35	43.81	49.17		55.47	???			
reaction time		interval		4.24	4.23	4.42	4.43		4.70	4.86	4.98	5.46	5.36	6.30			12.89	13.99	15.80
		velocity	6.93	8.25	8.27	7.92	7.90	7.75	7.45	7.20	7.03	6.41	6.53	6.35	7.21		8.15	7.51	6.65
H1 lead leg		strides	22	15	15	15	15		15	15	15	16	16	159					

**FINAL - 1993 Urbino, ITA**

															<i>Partipilo (1994) - la distribuzione dello sforzo nei 400m ad ostacoli</i>				
date	08-Sep-93	time	6.7	11.1	15.6	21.2	24.8	26.9	29.4	34.3	39.2	44.2	49.4	55.20	???				
reaction time		interval		4.40	4.50	5.60	3.60		4.60	4.90	4.90	5.00	5.20	5.80		14.50	13.10	15.10	
		velocity	6.72	7.95	7.78	6.25	9.72	7.43	7.61	7.14	7.14	7.00	6.73	6.90	7.25		7.24	8.02	6.95
H1 lead leg		strides	22	15	15	15	15		15	15	15	15	15	157					

**FINAL - 1992 Corridonia, ITA**

															<i>Partipilo (1994) - la distribuzione dello sforzo nei 400m ad ostacoli</i>				
date	31-May-92	time	6.84	11.47	16.18	20.93	25.67	27.70	30.50	35.51	40.51	45.63	50.80	56.70	???				
reaction time		interval		4.63	4.71	4.75	4.74		4.83	5.01	5.00	5.12	5.17	5.90		14.09	14.58	15.29	
		velocity	6.58	7.56	7.43	7.37	7.38	7.22	7.25	6.99	7.00	6.84	6.77	6.78	7.05		7.45	7.20	6.87
H1 lead leg		strides	22	15	15	15	15		15	15	15	15	15	157					

**Gibson, Jeffery (BAH) (1990)**

															<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>				
date	20-Jul-19	time	6.04	9.88	13.84	17.84	22.00	23.8	26.24		35.12	39.76	44.44	49.88	1 / 7				
reaction time	0.153	interval		3.84	3.96	4.00	4.16		4.24		8.88	4.64	4.68	5.44		11.80			
		velocity	7.45	9.11	8.84	8.75	8.41	8.40	8.25		7.88	7.54	7.48	7.35	8.02		8.90		
H1 lead leg	R	strides	20	13	13	13	13					14	14	17.7	117.7				

**FINAL - 2018 Commonwealth Games (Gold Coast, AUS) (TV Analysis)**

															<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>				
date	12-Apr-18	time	6.00	9.84	13.68	17.58	21.55		25.69	30.06	34.53	39.17	43.77	49.10	8 / 2				
reaction time	0.146	interval		3.84	3.84	3.90	3.97		4.14	4.37	4.47	4.64	4.60	5.33		11.58	12.48	13.71	
		velocity	7.50	9.11	9.11	8.97	8.82		8.45	8.01	7.83	7.54	7.61	7.50	8.15		9.07	8.41	7.66
H1 lead leg	R	strides		13	13	13	13		13	14	14	14	14	17.7	138.7				

**FINAL - 2016 Prefontaine Classic (Eugene, OR) (TV Analysis)**

															<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>				
date	28-May-16	time	6.04	9.88	13.80	17.76		26.16	30.44	34.32	39.48	44.00	49.16	6 / 4					
reaction time		interval		3.84	3.92	3.96		8.40	4.28	3.88	5.16	4.52	5.16		11.72	12.68	13.56		
		velocity	7.45	9.11	8.93	8.84		8.33	8.18	7.73	7.75	7.74	7.75	8.14		8.96	8.28	7.74	
H1 lead leg	R	strides	20	13	13	13			13	11	16	14	17	130					

**FINAL - 2016 Shanghai Golden Grand Prix (Shanghai, CHN)**

															<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>				
date	14-May-16	time	5.92	9.68	13.56	17.52	21.56		25.72	30.08	34.60	39.16	43.76	49.11	4 / 3				
reaction time	0.213	interval		3.76	3.88	3.96	4.04		4.16	4.36	4.52	4.56	4.60	5.35		11.60	12.56	13.68	
		velocity	7.60	9.31	9.02	8.84	8.66		8.41	8.03	7.74	7.68	7.61	7.48	8.14		9.05	8.36	7.68
H1 lead leg	R	strides	20	13	13	13	13		13	13	14	14	14	17.5	157.5				

**FINAL - 2015 IAAF World Championships (Beijing, CHN) (TV Analysis)**

															<i>Henson (2021) - Athlete First: major championships report</i>				
date	25-Aug-15	time	5.88	9.64	13.36	17.16	21.12		25.08	29.28	33.60	38.08	42.72	48.17	7 / 3				
reaction time	0.184	interval		3.76	3.72	3.80	3.96		3.96	4.20	4.32	4.48	4.64	5.45	NR PB	11.28	12.12	13.44	
		velocity	7.65	9.31	9.41	9.21	8.84		8.84	8.33	8.10	7.81	7.54	7.34	8.30		9.31	8.66	7.81
H1 lead leg	R	strides		13	13	12	13		13	13	14	14	14	17.5	136.5				

**Goller, Thomas (GER) (1977)**

															<i>Graubner (2007) - http://www.fgs.uni-halle.de</i>				
date	23-Jun-07	time	6.00	9.77	13.68	17.64	21.70		25.97	30.46	35.10	39.94	44.80	50.48	1 / 5				
reaction time	0.143	interval		3.77	3.91	3.96	4.06		4.27	4.49	4.64	4.84	4.86	5.68		11.64	12.82	14.34	
		velocity	7.50	9.28	8.95	8.84	8.62		8.20	7.80	7.54	7.23	7.20	7.04	7.92		9.02	8.19	7.32
H1 lead leg		strides																	

**Semi-Final 1 - 2000 Olympic Games (Sydney, AUS)**

															<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>				
date	25-Sep-00	time	5.90	9.58	13.50	17.42	21.38	22.90	25.50	29.82	34.30	38.94	43.66	49.28	3 / 6				
reaction time	0.152	interval		3.68	3.92	3.92	3.96		4.12	4.32	4.48	4.64	4.72	5.62		11.52	12.40	13.84	
		velocity	7.63	9.51	8.93	8.93	8.84	8.73	8.50	8.10	7.81	7.54	7.42	7.12	8.12		9.11	8.47	7.59
H1 lead leg		strides	21	13	13	13	13		13	14	14	15	15	18	162				

**Heat 1 - 2000 Olympic Games (Sydney, AUS)**

															<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>				
date	24-Sep-00	time	5.94	9.58	13.30	17.10	21.02		25.10	29.50	33.94	38.74	43.62	49.32	7 / 2				
reaction time	0.154	interval		3.64	3.72	3.80	3.92		4.08	4.40	4.44	4.80	4.88	5.70		11.16	12.40	14.12	
		velocity	7.58	9.62	9.41	9.21	8.93		8.58	7.95	7.88	7.29	7.17	7.02	8.11		9.41	8.47	7.44
H1 lead leg		strides	21	13	13	13	13		13	14	14	15	15	19.2	163.2				

**FINAL - 2000 ISTAF (Berlin, GER)**

															<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>				
date	01-Sep-00	time	5.98	9.68	13.46	17.35	21.40		25.52	29.83	34.16	38.74	43.44	48.82	1 / 5				
reaction time		interval		3.70	3.78	3.89	4.05		4.12	4.31	4.33	4.58	4.70	5.38		11.37	12.48	13.61	
		velocity	7.53	9.46	9.26	9.00	8.64		8.50	8.12	8.08	7.64	7.45	7.43	8.19		9.23	8.41	7.71
H1 lead leg		strides																	

**Semi-Final 2 - 1999 IAAF World Championships (Sevilla, ESP)**

															<i>Sanchez (1999) - Sevilla '99: análisis de la carreras con villas</i>				
date	25-Aug-99	time	5.58	9.26	13.02	16.87	20.78		24.94	29.50	34.12	38.82	43.74	49.89	1 / 8				
reaction time	0.178	interval		3.68	3.76	3.85	3.91		4.16	4.56	4.62	4.70	4.92	6.15		11.29	12.63	14.24	
		velocity	8.06	9.51	9.31	9.09	8.95		8.41	7.68	7.58	7.45	7.11	6.50	8.02		9.30	8.31	7.37
H1 lead leg	L	strides	20	13	13	13	13		13	15	15	15	15	19	164				

**Gollnow, David (GER) (1989)**

															<i>Beck (2011) - 400-meter-hürdensprinter im aufschwung</i>				
date		time																	

date	24-Jul-11	time	6.26	10.12	13.94	17.80	21.81	25.96	30.34	34.93	39.62	44.35	49.56	6 / 1			
reaction time	0.175	interval		3.86	3.82	3.86	4.01	4.15	4.38	4.59	4.69	4.73	5.21		11.54	12.54	14.01
		velocity	7.19	9.07	9.16	9.07	8.73	8.43	7.99	7.63	7.46	7.40	7.68	8.07	9.10	8.37	7.49
H1 lead leg		strides	21	13	13	13	13	13	14	14	15	15	144				

**FINAL - 2011 European U23 Championships (Ostrava, CZE)***Beck (2011) - 400-meter-hürdensprinter im aufschwung*

date	16-Jul-11	time	6.22	10.16	14.19	18.16	22.30	26.62	31.02	35.54	40.20	44.84	49.97	2 / 6			
reaction time	0.201	interval		3.94	4.03	3.97	4.14	4.32	4.40	4.52	4.66	4.64	5.13		11.94	12.86	13.82
		velocity	7.23	8.88	8.68	8.82	8.45	8.10	7.95	7.74	7.51	7.54	7.80	8.00	8.79	8.16	7.60
H1 lead leg		strides	21	13	13	13	13	14	14	14	15	15	145				

**Gonigam, Philippe (FRA) (1963)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 1987 French National Championships (Annecy, FRA)***Veney - split times from PJ*

date	09-Aug-87	time	6.15	10.12	14.23	18.46	22.68	26.94	31.30	35.69	40.33	45.01	50.60	/ 2			
reaction time		interval		3.97	4.11	4.23	4.22	4.26	4.36	4.39	4.64	4.68	5.59		12.31	12.84	13.71
		velocity	7.32	8.82	8.52	8.27	8.29	8.22	8.03	7.97	7.54	7.48	7.16	7.91	8.53	8.18	7.66
H1 lead leg		strides	22	15	15	15	15	15	15	15	15	16	158				

**FINAL - 1986 French National Championships (Aix les Bains, FRA)***Veney - split times from PJ*

date	10-Aug-86	time	6.11	10.03	14.09	18.17	22.36	26.58	30.81	35.16	39.62	44.16	49.82	/ 1			
reaction time		interval		3.92	4.06	4.08	4.19	4.22	4.23	4.35	4.46	4.54	5.66		12.06	12.64	13.35
		velocity	7.36	8.93	8.62	8.58	8.35	8.29	8.27	8.05	7.85	7.71	7.07	8.03	8.71	8.31	7.87
H1 lead leg		strides															

**Gong Debin (CHN) (1997)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2024 Chinese National Championships (Quzhou, CHN)***Shandong Athletics Sport Science (2024)*

date	16-Sep-24	time	6.04	9.97	13.89	17.96	22.07	26.34	30.58	35.03	39.55	44.17	49.33	5 / 2			
reaction time	0.241	interval		3.93	3.92	4.07	4.11	4.27	4.24	4.45	4.52	4.62	5.16	<b>PB</b>	11.92	12.62	13.59
		velocity	7.45	8.91	8.93	8.60	8.52	8.20	8.25	7.87	7.74	7.58	7.75	8.11	8.81	8.32	7.73
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	18.2	168.2			

**FINAL - 2024 Chinese National Grand Prix Final (Rizhao, CHN)***Shandong Athletics Sport Science (2024)*

date	29-Jun-24	time	5.97	9.79	13.63	17.65	21.70	25.96	30.31	34.88	39.50	44.19	49.41	6 / 1			
reaction time	0.258	interval		3.82	3.84	4.02	4.05	4.26	4.35	4.57	4.62	4.69	5.22	<b>PB</b>	11.68	12.66	13.88
		velocity	7.54	9.16	9.11	8.71	8.64	8.22	8.05	7.66	7.58	7.46	7.66	8.10	8.99	8.29	7.56
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	18.7	168.7			

**Heat 3 - 2021 Chinese National Championships (Chongqing, CHN)***CAA Hurdle Development (2021)*

date	26-Jun-21	time	6.11	10.08	14.10	18.42	22.79	27.33	32.02	36.84	41.74	46.58	52.00	4 / 4			
reaction time	0.271	interval		3.97	4.02	4.32	4.37	4.54	4.69	4.82	4.90	4.84	5.42		12.31	13.60	14.56
		velocity	7.36	8.82	8.71	8.10	8.01	7.71	7.46	7.26	7.14	7.23	7.38	7.69	8.53	7.72	7.21
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	18.5	170.5			

**FINAL - 2020 Chinese Olympic Trials (Shaoxing, CHN)***CAA Hurdle Development (2021)*

date	13-Jun-21	time	5.95	9.96	13.95	18.28	22.65	27.41	32.23	37.09	41.98	47.01	53.07	1 / 8			
reaction time	0.257	interval		4.01	3.99	4.33	4.37	4.76	4.82	4.86	4.89	5.03	6.06		12.33	13.95	14.78
		velocity	7.56	8.73	8.77	8.08	8.01	7.35	7.26	7.20	7.16	6.96	6.60	7.54	8.52	7.53	7.10
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	19	171			

**Heat 3 - 2021 East China District Meeting (Zhaoqing, CHN)***CAA Hurdle Development (2021)*

date	25-Apr-21	time	6.24	10.29	14.64	18.94	23.54	28.14	32.85	37.67	42.54	47.36	52.97	5 / 3			
reaction time	0.300	interval		4.05	4.35	4.30	4.60	4.60	4.71	4.82	4.87	4.82	5.61		12.70	13.91	14.51
		velocity	7.21	8.64	8.05	8.14	7.61	7.61	7.43	7.26	7.19	7.26	7.13	7.55	8.27	7.55	7.24
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	18	170			

**Heat 2 - 2019 Chinese National Grand Prix Final (Daqing, CHN)***CAA Hurdle Development (2019)*

date	22-Aug-19	time	6.36	10.53	14.71	19.07	23.62	28.24	33.12	38.15	43.18	48.20	54.11	7 / 6			
reaction time	0.325	interval		4.17	4.18	4.36	4.55	4.62	4.88	5.03	5.03	5.02	5.91		12.71	14.05	15.08
		velocity	7.08	8.39	8.37	8.03	7.69	7.58	7.17	6.96	6.96	6.97	6.77	7.39	8.26	7.47	6.96
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	16	19	172			

**Heat 1 - 2019 Asian Athletics Championships (Doha, QAT)***CAA Hurdle Development (2019)*

date	21-Apr-19	time	5.96	9.81	13.63	17.68	21.81	26.19	30.81	35.55	40.27	45.12	50.96	1 / 4			
reaction time	0.182	interval		3.85	3.82	4.05	4.13	4.38	4.62	4.74	4.72	4.85	5.84		11.72	13.13	14.31
		velocity	7.55	9.09	9.16	8.64	8.47	7.99	7.58	7.38	7.42	7.22	6.85	7.85	8.96	8.00	7.34
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	18.7	170.7			

**Gorban, Boris (RUS) (1978)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2001 IAAF World Championships (Edmonton, CAN)***Behm (2001) - Edmonton: Le quatrache: les finales*

date	10-Aug-01	time	5.9	9.8	13.7	17.7	21.6	25.5	29.5	33.8	38.3	42.9	48.40	2 / 5			
reaction time	0.176	interval		3.90	3.90	4.00	3.90	3.90	4.00	4.30	4.50	4.60	5.50	<b>DQ</b>	11.80	11.80	13.40
		velocity	7.63	8.97	8.97	8.75	8.97	8.97	8.75	8.14	7.78	7.61	7.27	8.26	8.90	8.90	7.84
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	14	14	17.5	156.5			

**Semi-Final 3 - 2000 Olympic Games (Sydney, AUS)***Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games*

date	25-Sep-00	time	5.94	9.74	13.66	17.62	21.66	23.18	25.74	30.02	34.54	39.14	43.86	49.29	5 / 5		
reaction time	0.454	interval		3.80	3.92	3.96	4.04	4.08	4.28	4.52	4.60	4.72	5.43		11.68	12.40	13.84



H1 lead leg	velocity	7.58	9.21	8.93	8.84	8.66	8.63	8.58	8.18	7.74	7.61	7.42	7.37	8.12	8.99	8.47	7.59
	strides	20	13	13	13	13		13	14	14	14	14	17.5	158.5			
<b>Heat 2 - 2000 Olympic Games (Sydney, AUS)</b>																	
<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																	
date	24-Sep-00	time	5.98	9.82	13.62	17.54	21.54	25.70		34.66	39.30	43.98		49.44	8 / 2		
reaction time	0.195	interval		3.84	3.80	3.92	4.00	4.16		8.96	4.64	4.68	5.46			11.56	
		velocity	7.53	9.11	9.21	8.93	8.75	8.41		7.81	7.54	7.48	7.33	8.09		9.08	
H1 lead leg		strides	20	13	13	13	13	13			14	14	17.8	130.8			
<b>Gordon, Jehue (TTO) (1991)</b>																	
<b>FINAL - 2013 IAAF World Championships (Moscow, RUS) (TV Analysis)</b>																	
<i>Henson (2021) - Athlete First: major championships report</i>																	
date	15-Aug-13	time	5.73	9.40	13.20	17.07	20.97		24.97	29.07	33.27	37.63	42.17	47.69	6 / 1		
reaction time	0.174	interval		3.67	3.80	3.87	3.90	4.00	4.10	4.20	4.36	4.54	5.52			11.34	12.00
		velocity	7.85	9.54	9.21	9.04	8.97	8.75	8.54	8.33	8.03	7.71	7.25	8.39		9.26	8.75
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	14	14	17.7	156.7			8.02
<b>FINAL - 2012 Olympic Games (London, GBR)</b>																	
<i>Hillier (2012) - uka 2012 olympic games report: 400m hurdles</i>																	
date	06-Aug-12	time	5.72	9.28	13.07	16.92	20.93	22.73	25.02	29.14	33.40	38.05	43.07	48.86	8 / 6		
reaction time	0.165	interval		3.56	3.79	3.85	4.01	4.09	4.12	4.26	4.65	5.02	5.79			11.20	12.22
		velocity	7.87	9.83	9.23	9.09	8.73	8.80	8.56	8.50	8.22	7.53	6.97	6.91	8.19	9.38	8.59
H1 lead leg	L	strides	21	13	13	13	13	13	14	15	15	15	15	145			7.54
<b>FINAL - 2009 IAAF World Championships (Berlin, GER)</b>																	
<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>																	
date	18-Aug-09	time	6.04	9.76	13.60	17.40	21.32		25.36	29.59	33.96	38.44	43.00	48.26	2 / 4		
reaction time	0.172	interval		3.72	3.84	3.80	3.92	4.04	4.23	4.37	4.48	4.56	5.26	NR		11.36	12.19
		velocity	7.45	9.41	9.11	9.21	8.93	8.66	8.27	8.01	7.81	7.68	7.60	8.29		9.24	8.61
H1 lead leg	L	strides	21	13	13	13	13	13	13	13	14	14	17	157			7.83
<b>Semi-Final 1 - 2009 IAAF World Championships (Berlin, GER)</b>																	
<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>																	
date	16-Aug-09	time	6.00	9.68	13.50	17.36	21.39		25.60	29.84	34.22	38.80	43.44	48.77	7 / 5		
reaction time	0.162	interval		3.68	3.82	3.86	4.03	4.21	4.24	4.38	4.58	4.64	5.33			11.36	12.48
		velocity	7.50	9.51	9.16	9.07	8.68	8.31	8.25	7.99	7.64	7.54	7.50	8.20		9.24	8.41
H1 lead leg		strides			13	13	13	13	13	13	14	14	17	123			7.72
<b>Heat 3 - 2009 IAAF World Championships (Berlin, GER)</b>																	
<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>																	
date	15-Aug-09	time	6.05	9.78	13.53	17.36	21.33		25.55	29.77	34.17	38.91	43.45	48.66	8 / 3		
reaction time	0.173	interval		3.73	3.75	3.83	3.97	4.22	4.22	4.40	4.74	4.54	5.21	NR		11.31	12.41
		velocity	7.44	9.38	9.33	9.14	8.82	8.29	8.29	7.95	7.38	7.71	7.68	8.22		9.28	8.46
H1 lead leg		strides															7.68
<b>Gotoh, Keita (JPN) (1999)</b>																	
<b>Heat 2 - 2016 Japanese National Youth Championships (Mizuho, JPN)</b>																	
<i>(2016.11.17) - https://twitter.com/touchdown_time/media?lang=en&amp;lang=en&amp;lang=en&amp;lang=en</i>																	
date	23-Oct-16	time				24.01				39.19				56.49	4 / 5		
reaction time		interval								15.18							
		velocity				7.71				6.92				7.08			
H1 lead leg		strides															
<b>Goto, Sota (JPN)</b>																	
<b>FINAL - 2018 Japanese National High School Championships (Nagoya, JPN)</b>																	
<i>Kota (2018) - 71st high school championships: JAF scientific committee - biomechanics data collection</i>																	
date	04-Aug-18	time	6.22	10.24	14.46	18.77	23.21		27.71	32.30	36.94	41.89	46.88	52.56	6 / 6		
reaction time		interval		4.02	4.22	4.31	4.44	4.50	4.59	4.64	4.95	4.99	5.68			12.55	13.53
		velocity	7.23	8.71	8.29	8.12	7.88	7.78	7.63	7.54	7.07	7.01	7.04	7.61		8.37	7.76
H1 lead leg		strides		15	15	15	15	15	15	15	16	16	16	137			7.20
<b>Graham, John (CAN) (1965)</b>																	
<b>Semi-Final 1 - 1988 Olympic Games (Seoul, KOR)</b>																	
<i>Brüggenmann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988</i>																	
date	24-Sep-88	time	6.05	10.05	14.09	18.14	22.38		26.75	31.16	35.79	40.68	45.68	51.33	7 / 8		
reaction time		interval		4.00	4.04	4.05	4.24	4.37	4.41	4.63	4.89	5.00	5.65			12.09	13.02
		velocity	7.44	8.75	8.66	8.64	8.25	8.01	7.94	7.56	7.16	7.00	7.08	7.79		8.68	8.06
H1 lead leg		strides	21	14	14	14	14	14	15	15	15	16	18.5	170.5			7.23
<b>Graham, Winthrop (JAM) (1965)</b>																	
<b>FINAL - 1993 IAAF World Championships (Stuttgart, GER)</b>																	
<i>Graubner (2008) - http://www.fgs.uni-halle.de</i>																	
date	19-Aug-93	time	5.92	9.63	13.43	17.26	21.18		25.07	29.10	33.44	37.77	42.33	47.62	5 / 3		
reaction time	0.213	interval		3.71	3.80	3.83	3.92	3.89	4.03	4.34	4.33	4.56	5.29			11.34	11.84
		velocity	7.60	9.43	9.21	9.14	8.93	9.00	8.68	8.06	8.08	7.68	7.56	8.40		9.26	8.87
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	14	15	18	146			7.94
<b>FINAL - 1992 Olympic Games (Barcelona, ESP)</b>																	
<i>Knight (1992) - 1992 Olympic report: the hurdling events</i>																	
date	06-Aug-92	time	5.9	9.5	13.3	17.1	20.9		24.9	29.1	33.3	37.8	42.4	47.66	3 / 2		
reaction time		interval		3.60	3.80	3.80	3.80	4.00	4.20	4.20	4.50	4.60	5.26			11.20	12.00
		velocity	7.63	9.72	9.21	9.21	9.21	8.75	8.33	8.33	7.78	7.61	7.60	8.39		9.38	8.75
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	14	15	17.7	159			7.89
<b>FINAL - 1991 IAAF World Championships (Tokyo, JPN)</b>																	
<i>Behm (1995) - la tactique du 400 haies</i>																	
date	27-Aug-91	time	5.9	9.5	13.2	16.8	20.4		24.3	28.6	33.0	37.5	42.1	47.74	5 / 2		
reaction time		interval		3.60	3.70	3.60	3.60	3.90	4.30	4.40	4.50	4.60	5.64	NR		10.90	11.80
																	13.50

H1 lead leg	L	velocity	7.63	9.72	9.46	9.72	9.72	8.97	8.14	7.95	7.78	7.61	7.09	8.38	9.63	8.90	7.78	
		strides	20	13	13	13	13	13	13	14	14	15	18.5	159.5				
<b>FINAL - 1988 Olympic Games (Seoul, KOR)</b>																		
<i>Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988</i>																		
date	25-Sep-88	time	6.15	9.96	13.79	17.68	21.57	25.61	29.69	34.02	38.40	42.95	48.04	4 / 5				
reaction time	0.191	interval	3.81	3.83	3.89	3.89	4.04	4.08	4.33	4.38	4.55	5.09	<b>PB</b>	11.53	12.01	13.26		
		velocity	7.32	9.19	9.14	9.00	9.00	8.66	8.58	8.08	7.99	7.69	7.86	8.33	9.11	8.74	7.92	
H1 lead leg	L	strides	21	14	13	14	13	14	14	14	14	14	17.3	162.3				
<b>Semi-Final 2 - 1988 Olympic Games (Seoul, KOR)</b>																		
<i>Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988</i>																		
date	24-Sep-88	time	6.00	9.85	13.77	17.72	21.70	25.78	29.95	34.27	38.74	43.32	48.37	6 / 2				
reaction time		interval	3.85	3.92	3.95	3.98	4.08	4.17	4.32	4.47	4.58	5.05		11.72	12.23	13.37		
		velocity	7.50	9.09	8.93	8.86	8.79	8.58	8.39	8.10	7.83	7.64	7.92	8.27	8.96	8.59	7.85	
H1 lead leg		strides	21	14	14	13	13	14	14	14	14	15	17.5	163.5				
<b>Grant, Robert (USA) (1996)</b>																		
<b>H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10</b>																		
<b>FINAL - 2019 NCAA Championships (Austin, TX) (TV Analysis)</b>																		
<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>																		
date	07-Jun-19	time	6.00	9.80	13.80	17.83	21.96	26.13	30.36	34.73		43.63	48.83	7 / 4				
reaction time	0.186	interval	3.80	3.80	4.00	4.03	4.13	4.17	4.23	4.37		8.90	5.20	<b>DQ</b>	11.83	12.53	13.27	
		velocity	7.50	9.21	8.75	8.68	8.47	8.39	8.27	8.01		7.87	7.69	8.19	8.88	8.38	7.91	
H1 lead leg	R	strides	14	14	14	14	14	14	16	15		101						
<b>Green, Jack (GBR) (1991)</b>																		
<b>H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10</b>																		
<b>FINAL - 2018 Müller Anniversary Games (London, GBR) (TV Analysis)</b>																		
<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>																		
date	21-Jul-18	time	6.08	9.96										dnf	2 / --			
reaction time	0.180	interval	3.88															
		velocity	7.40	9.02														
H1 lead leg	R	strides	22	14										36				
<b>FINAL - 2018 Athletissima (Lausanne, SUI) (TV Analysis)</b>																		
<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>																		
date	05-Jul-18	time	6.00	9.80	13.76		21.80	25.96	30.32		39.44	44.12	49.52	1 / 7				
reaction time	0.172	interval	3.80	3.80	3.96		8.04	4.16	4.36		9.12	4.68	5.40				13.80	
		velocity	7.50	9.21	8.84		8.71	8.41	8.03		7.68	7.48	7.41	8.08				7.61
H1 lead leg	R	strides	22	14	14		14	14	14		15	15	18.2	140.2				
<b>FINAL - 2018 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)</b>																		
<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>																		
date	10-Jun-18	time	6.04	9.84	13.72	17.68	21.80	26.12	30.56	35.04	39.60	44.40	49.73	8 / 5				
reaction time	0.176	interval	3.80	3.88	3.96	4.12	4.12	4.32	4.44	4.48	4.56	4.80	5.33		11.64	12.88	13.84	
		velocity	7.45	9.21	9.02	8.84	8.50	8.10	7.88	7.81	7.68	7.29	7.50	8.04	9.02	8.15	7.59	
H1 lead leg	R	strides	22	14	14	13	14	15	15	15	15	16	153					
<b>FINAL - 2018 Doha Diamond League (Doha, QAT) (TV Analysis)</b>																		
<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>																		
date	04-May-18	time	6.12	10.00	13.92	18.04	22.32	26.64	31.12	35.56	40.20	44.96	50.22	8 / 7				
reaction time	0.230	interval	3.88	3.92	4.12	4.28	4.32	4.48	4.44	4.64	4.76	5.26		11.92	13.08	13.84		
		velocity	7.35	9.02	8.93	8.50	8.18	8.10	7.81	7.88	7.54	7.35	7.60	7.96	8.81	8.03	7.59	
H1 lead leg	R	strides	22	14	13	14	14	14	14	15	15	15	150					
<b>FINAL - 2018 Commonwealth Games (Gold Coast, AUS) (TV Analysis)</b>																		
<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>																		
date	12-Apr-18	time	6.17	9.97	13.74	17.65	21.75	25.99	30.30	34.70	39.24	43.77	49.18	7 / 4				
reaction time	0.185	interval	3.80	3.77	3.91	4.10	4.24	4.31	4.40	4.54	4.53	5.41		11.48	12.65	13.47		
		velocity	7.29	9.21	9.28	8.95	8.54	8.25	8.12	7.95	7.71	7.73	7.39	8.13	9.15	8.30	7.80	
H1 lead leg	R	strides	22	14	13	13	14	14	14	14	15	15	19.2	167.2				
<b>FINAL - 2017 Weltklasse (Zürich, SUI) (TV Analysis)</b>																		
<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>																		
date	24-Aug-17	time	6.00	9.72	13.48	17.40	21.52	25.84	30.24	34.76	39.44	44.12	49.41	8 / 6				
reaction time	0.218	interval	3.72	3.76	3.92	4.12	4.32	4.40	4.52	4.68	4.68	5.29		11.40	12.84	13.88		
		velocity	7.50	9.41	9.31	8.93	8.50	8.10	7.95	7.74	7.48	7.48	7.56	8.10	9.21	8.18	7.56	
H1 lead leg	L	strides	21	13	13	13	14	14	15	15	15	15	18.5	151.5				
<b>FINAL - 2017 Müller's Anniversary Games (London, GBR) (TV Analysis)</b>																		
<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>																		
date	09-Jul-17	time	6.16	9.92	13.68	17.48	21.44	25.72	30.00	34.40	38.92	43.52	48.77	9 / 6				
reaction time	0.213	interval	3.76	3.76	3.80	3.96	4.28	4.28	4.40	4.52	4.60	5.25		11.32	12.52	13.52		
		velocity	7.31	9.31	9.31	9.21	8.84	8.18	8.18	7.95	7.74	7.61	7.62	8.20	9.28	8.39	7.77	
H1 lead leg	R	strides	22	14	13	13	13	14	14	15	15	15	18.7	166.7				
<b>FINAL - 2017 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)</b>																		
<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>																		
date	18-Jun-17	time	6.08	9.88	13.60	17.44	21.48	25.76	30.12	34.60	39.16	43.80	49.29	8 / 4				
reaction time	0.203	interval	3.80	3.72	3.84	4.04	4.28	4.36	4.48	4.56	4.64	5.49		11.36	12.68	13.68		
		velocity	7.40	9.21	9.41	9.11	8.66	8.18	8.03	7.81	7.68	7.54	7.29	8.12	9.24	8.28	7.68	
H1 lead leg	R	strides	22	14	13	13	14	14	15	15	15	15	19.2	169.2				
<b>FINAL - 2016 London Anniversary Games (London, GBR) (TV Analysis)</b>																		
<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>																		
date	23-Jul-16	time	6.12	10.00	13.84	17.80	21.92	26.12	30.40	34.72	39.20	43.76	48.99	9 / 5				
reaction time	0.187	interval	3.88	3.84	3.96	4.12	4.20	4.28	4.32	4.48	4.56	5.23		11.68	12.60	13.36		
		velocity	7.35	9.02	9.11	8.84	8.50	8.33	8.18	8.10	7.81	7.68	7.65	8.16	8.99	8.33	7.86	
H1 lead leg	R	strides	22	14	13	13	14	14	15	15	15	15	18.7	168.7				





H1 lead leg	velocity	7.44	9.36	9.07	9.07	8.68		8.50	8.18	8.14	7.99	7.81	7.74	8.29	9.16	8.45	7.98	
	strides							14	14	15	15	15	18.7	91.7				
<b>Heat 4 - 2009 IAAF World Championships (Berlin, GER)</b>																		
<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>																		
date	15-Aug-09	time	6.16	9.98	13.88	17.93	22.03	26.20	30.44	34.76	39.22	43.64		48.76	7 / 1			
reaction time	0.165	interval		3.82	3.90	4.05	4.10	4.17	4.24	4.32	4.46	4.42	5.12		11.77	12.51	13.20	
		velocity	7.31	9.16	8.97	8.64	8.54	8.39	8.25	8.10	7.85	7.92	7.81	8.20	8.92	8.39	7.95	
H1 lead leg		strides																
<b>Greene, Joe (USA) (1987)</b>																		
<b>Heat 2 - 2007 USATF National Championships (Indianapolis, IN)</b>																		
<i>USATF Men's Hurdle Development (2007)</i>																		
date	21-Jun-07	time	6.17	9.88	13.70	17.60	21.71	26.08	30.61	35.25	39.94	44.72		50.44	5 / 6			
reaction time		interval		3.71	3.82	3.90	4.11	4.37	4.53	4.64	4.69	4.78	5.72		11.43	13.01	14.11	
		velocity	7.29	9.43	9.16	8.97	8.52	8.01	7.73	7.54	7.46	7.32	6.99	7.93	9.19	8.07	7.44	
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	146					
<b>Griffith, Rasheeme (BAR) (2000)</b>																		
<b>FINAL - 2023 NCAA Championships (Austin, TX) (TV Analysis)</b>																		
<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>																		
date	09-Jun-23	time	6.05	9.74	13.60	17.52	21.54		30.06	34.48	39.09	43.91		49.17	3 / 5			
reaction time		interval		3.69	3.86	3.92	4.02		8.52	4.42	4.61	4.82	5.26		11.47	12.54	13.85	
		velocity	7.44	9.49	9.07	8.93	8.71		8.22	7.92	7.59	7.26	7.60	8.14	9.15	8.37	7.58	
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	15	18	147					
<b>Grimes, Norman (USA) (1998)</b>																		
<b>FINAL - 2019 NCAA Championships (Austin, TX) (TV Analysis)</b>																		
<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>																		
date	07-Jun-19	time	5.93	9.60	13.30	17.06	20.86	24.80	29.06	33.46	38.16	42.93		48.71	3 / 2			
reaction time	0.231	interval		3.67	3.70	3.76	3.80	3.94	4.26	4.40	4.70	4.77	5.78	PB	11.13	12.00	13.87	
		velocity	7.59	9.54	9.46	9.31	9.21	8.88	8.22	7.95	7.45	7.34	6.92	8.21	9.43	8.75	7.57	
H1 lead leg	L	strides	13	13	13	13	13	13	14	14	14	14	17.5	138.5				
<b>Gucek, Matic Ian (SLO) (2003)</b>																		
<b>Repechage 2 - 2024 Olympic Games (Paris, FRA)</b>																		
<i>Paris 2024 Olympc Games - Results Book (2024)</i>																		
date	07-Aug-24	time	5.86	9.63	13.48	17.40	21.43	25.56	29.82	34.26	38.88	43.57		49.06	7 / 4			
reaction time	0.146	interval		3.77	3.85	3.92	4.03	4.13	4.26	4.44	4.62	4.69	5.49		11.54	12.42	13.75	
		velocity	7.68	9.28	9.09	8.93	8.68	8.47	8.22	7.88	7.58	7.46	7.29	8.15	9.10	8.45	7.64	
H1 lead leg	R	strides	22	14	14	14	14	14	14	15	15	15	18.5	169.5				
<b>Heat 1 - 2024 Olympic Games (Paris, FRA)</b>																		
<i>Paris 2024 Olympc Games - Results Book (2024)</i>																		
date	05-Aug-24	time	5.97	9.70	13.45	17.33	21.32	25.50	29.88	34.49	39.34	44.41		50.30	3 / 7			
reaction time	0.147	interval		3.73	3.75	3.88	3.99	4.18	4.38	4.61	4.85	5.07	5.89		11.36	12.55	14.53	
		velocity	7.54	9.38	9.33	9.02	8.77	8.37	7.99	7.59	7.22	6.90	6.79	7.95	9.24	8.37	7.23	
H1 lead leg	R	strides	24	14	14	14	14	14	14	15	15	15	19.5	172.5				
<b>FINAL - 2024 European Athletics Championships (Roma, ITA)</b>																		
<i>European Athletics (2024) - 2024 european athletics championships - results book</i>																		
date	11-Jun-24	time	5.84	9.63	13.48	17.36	21.40	25.44	29.73	34.11	38.76	43.40		48.87	2 / 7			
reaction time	0.158	interval		3.79	3.85	3.88	4.04	4.04	4.29	4.38	4.65	4.64	5.47		11.52	12.37	13.67	
		velocity	7.71	9.23	9.09	9.02	8.66	8.66	8.16	7.99	7.53	7.54	7.31	8.18	9.11	8.49	7.68	
H1 lead leg	R	strides	22	14	14	14	14	14	14	15	15	15	18.7	155.7				
<b>Semi-Final 3 - 2024 European Athletics Championships (Roma, ITA)</b>																		
<i>European Athletics (2024) - 2024 european athletics championships - results book</i>																		
date	10-Jun-24	time	5.86	9.59	13.42	17.23	21.12	25.18	29.34	33.60	38.17	42.85		48.34	8 / 3			
reaction time	0.186	interval		3.73	3.83	3.81	3.89	4.06	4.16	4.26	4.57	4.68	5.49	NR PB	11.37	12.11	13.51	
		velocity	7.68	9.38	9.14	9.19	9.00	8.62	8.41	8.22	7.66	7.48	7.29	8.27	9.23	8.67	7.77	
H1 lead leg	R	strides	22	14	14	14	14	14	14	15	15	15	19	170				
<b>FINAL - 2024 Bauhaus Galan (Stockholm, SWE) (TV Analysis)</b>																		
<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>																		
date	02-Jun-24	time	5.97	9.76	13.53	17.40	21.46	25.63	29.96	34.50	39.06	43.76		49.13	8 / 6			
reaction time	0.151	interval		3.79	3.77	3.87	4.06	4.17	4.33	4.54	4.56	4.70	5.37		11.43	12.56	13.80	
		velocity	7.54	9.23	9.28	9.04	8.62	8.39	8.08	7.71	7.68	7.45	7.45	8.14	9.19	8.36	7.61	
H1 lead leg	R	strides	22	14	14	14	14	14	14	15	15	15	18.5	169.5				
<b>Semi-Final 3 - 2022 European Athletics Championships (Munich, GER)</b>																		
<i>European Athletics (2022) - european athletics championships race analysis</i>																		
date	18-Aug-22	time	5.83	9.64	13.50	17.60	21.78	23.56	26.00	30.40	35.00	39.56	44.36	49.93	3 / 7			
reaction time	0.188	interval		3.81	3.86	4.10	4.18	4.22	4.40	4.60	4.56	4.80	5.57		11.77	12.80	13.96	
		velocity	7.72	9.19	9.07	8.54	8.37	8.49	8.29	7.95	7.61	7.68	7.29	7.18	8.01	8.92	8.20	7.52
H1 lead leg	R	strides	22				14	14	14	15	15	15	18	127				
<b>Guillaume, Jacques (USA) (2002)</b>																		
<b>Heat 3 - 2024 USA Olympic Trials (Eugene, OR)</b>																		
<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>																		
date	27-Jun-24	time	6.12	9.83	13.69	17.60	21.52	23.42	25.84	30.40	35.50	40.69	45.76	55.09	4 / 7			
reaction time		interval		3.71	3.86	3.91	3.92	4.32	4.56	5.10	5.19	5.07	9.33	DQ	11.48	12.80	15.36	
		velocity	7.35	9.43	9.07	8.95	8.93	8.54	8.10	7.68	6.86	6.74	6.90	4.29	7.26	9.15	8.20	6.84
H1 lead leg	L	strides	21	13	13	13	13	14	15	16	16			134				
<b>Guillen, Serge (FRA) (1960)</b>																		
<b>Heat 1 - 1982 European Championships (Athens, GRE)</b>																		
<i>(1982) - XIII championnats d'Europe d'Atletisma, Athens 1982</i>																		
date	08-Sep-82	time	5.9		13.9		22.0		30.6		39.6			50.07	1 / 2			

reaction time	interval		8.00	8.10		8.60	9.00														
	velocity	7.63	8.75	8.64		8.14	7.78												7.99		
H1 lead leg	strides																				
<b>Guo Jingwei (CHN) (2005)</b>																					
<b>FINAL - 2024 Chinese National Championships (Quzhou, CHN)</b>																					
															Shandong Athletics Sport Science (2024)						
date	16-Sep-24	time	6.14	10.02	14.03	18.10	22.24		26.52	31.00	35.62	40.31	45.31		50.81						
reaction time	0.196	interval		3.88	4.01	4.07	4.14		4.28	4.48	4.62	4.69	5.00	5.50				11.96	12.90	14.31	
		velocity	7.33	9.02	8.73	8.60	8.45		8.18	7.81	7.58	7.46	7.00	7.27				8.78	8.14	7.34	
H1 lead leg	L	strides	21	14	14	14	14		15	15	15	15	15	18.2							
<b>Haapalainen, Jere (FIN) (2004)</b>																					
<b>Heat 3 - 2024 European Athletics Championships (Roma, ITA)</b>																					
															European Athletics (2024) - 2024 european athletics championships - results book						
date	09-Jun-24	time	5.98	9.86	13.84	17.95	22.19		26.52	31.01	35.70	40.91	46.16		52.18						
reaction time	0.217	interval		3.88	3.98	4.11	4.24		4.33	4.49	4.69	5.21	5.25	6.02				11.97	13.06	15.15	
		velocity	7.53	9.02	8.79	8.52	8.25		8.08	7.80	7.46	6.72	6.67	6.64				8.77	8.04	6.93	
H1 lead leg		strides												0							
<b>Hackelbusch, Henning (GER) (1982)</b>																					
<b>Heat 2 - 2002 European Championships (Munich, GER)</b>																					
															Graubner (2009) - <a href="http://www.fgs.uni-halle.de">http://www.fgs.uni-halle.de</a>						
date	07-Aug-02	time	6.21	10.13	14.09	18.10	22.23		26.67	31.23	35.97	40.80	45.71		51.37						
reaction time		interval		3.92	3.96	4.01	4.13		4.44	4.56	4.74	4.83	4.91	5.66				11.89	13.13	14.48	
		velocity	7.25	8.93	8.84	8.73	8.47		7.88	7.68	7.38	7.25	7.13	7.07				8.83	8.00	7.25	
H1 lead leg		strides																			
<b>Hackett, Darek (USA) (2002)</b>																					
<b>Heat 3 - 2024 USA Olympic Trials (Eugene, OR)</b>																					
															USATF and Karmarush (2024) - USA Olympic trials results and race analysis						
date	27-Jun-24	time	5.85	9.71	13.48	17.49	21.54	23.43	25.81	30.36	35.24	40.32	45.78		52.78						
reaction time		interval		3.86	3.77	4.01	4.05		4.27	4.55	4.88	5.08	5.46	7.00				11.64	12.87	15.42	
		velocity	7.69	9.07	9.28	8.73	8.64	8.54	8.20	7.69	7.17	6.89	6.41	5.71				9.02	8.16	6.81	
H1 lead leg	L	strides	24	15	14	14	14		14	15	15	16	16	20.5							
<b>Hale, Ja'Kwan (USA) (2000)</b>																					
<b>FINAL - 2024 NCAA Championships (Eugene, OR) (TV Analysis)</b>																					
															Henson (2024) - Athlete First: 2024 year end hurdle report						
date	07-Jun-24	time	6.05	9.78	13.74	17.72	21.72		26.04	30.41	35.01	39.59	44.26		49.49						
reaction time		interval		3.73	3.96	3.98	4.00		4.32	4.37	4.60	4.58	4.67	5.23				11.67	12.69	13.85	
		velocity	7.44	9.38	8.84	8.79	8.75		8.10	8.01	7.61	7.64	7.49	7.65				9.00	8.27	7.58	
H1 lead leg	R	strides	20	13	14	14	13		14	14	15	15	15	18							
<b>Hall, Quincy (USA) (1998)</b>																					
<b>FINAL - 2022 USATF National Championships (Eugene, OR) (TV Analysis)</b>																					
															Henson (2022) - Athlete First: 2022 year end hurdle report						
date	26-Jun-22	time	6.10	9.81	13.61	17.55	21.62	23.22	25.76	29.96	34.26	38.77	43.34		48.33						
reaction time		interval		3.71	3.80	3.94	4.07		4.14	4.20	4.30	4.51	4.57	4.99				11.45	12.41	13.38	
		velocity	7.38	9.43	9.21	8.88	8.60	8.61	8.45	8.33	8.14	7.76	7.66	8.02				9.17	8.46	7.85	
H1 lead leg	R	strides	21	13	13	13	13		13	13	13	14	14	16							
<b>FINAL - 2022 Prefontaine Classic (Eugene, OR) (TV Analysis)</b>																					
															Henson (2022) - Athlete First: 2022 year end hurdle report						
date	28-May-22	time	5.80	9.53	13.30	17.16	21.10	23.83	25.20	29.46	33.73	38.37	43.00		48.10						
reaction time	0.213	interval		3.73	3.77	3.86	3.94		4.10	4.26	4.27	4.64	4.63	5.10				<b>PB</b>	11.36	12.30	13.54
		velocity	7.76	9.38	9.28	9.07	8.88	8.39	8.54	8.22	8.20	7.54	7.56	7.84				8.32	9.24	8.54	7.75
H1 lead leg	R	strides	21	13	13	13	13		13	13	13	14	14	16							
<b>FINAL - 2019 NCAA Championships (Austin, TX) (TV Analysis)</b>																					
															Henson (2020) - Athlete First: 2019 year end hurdle report						
date	07-Jun-19	time	6.06	9.83	13.70	17.56	21.53		25.53	29.70	34.03	38.60	43.40		48.48						
reaction time	0.269	interval		3.77	3.87	3.86	3.97		4.00	4.17	4.33	4.57	4.80	5.08				<b>PB</b>	11.50	12.14	13.70
		velocity	7.43	9.28	9.04	9.07	8.82		8.75	8.39	8.08	7.66	7.29	7.87				8.25	9.13	8.65	7.66
H1 lead leg	R	strides	21	13	13	13	13		13	13	13	13	15	16.7							
<b>Hamada, Hiroshi (JPN) (2001)</b>																					
<b>FINAL - 2019 Japanese National High School Championships (Okinawa, JPN)</b>																					
															Kota (2019) - 72nd high school championships: JAF scientific committee - biomechanics data collection						
date	06-Aug-19	time	6.26	10.28	14.41	18.69	23.02		27.46	31.92	36.53	41.54	46.85		52.71						
reaction time		interval		4.02	4.13	4.28	4.33		4.44	4.46	4.61	5.01	5.31	5.86				12.43	13.23	14.93	
		velocity	7.19	8.71	8.47	8.18	8.08		7.88	7.85	7.59	6.99	6.59	6.83				8.45	7.94	7.03	
H1 lead leg		strides		15	15	15	15		15	15	15	16	17								
<b>FINAL - 2018 Japanese National High School Championships (Nagoya, JPN)</b>																					
															Kota (2018) - 71st high school championships: JAF scientific committee - biomechanics data collection						
date	04-Aug-18	time	6.41	10.56	14.81	19.10	23.46		27.79	32.25	36.82	41.61	46.50		51.98						
reaction time		interval		4.15	4.25	4.29	4.36		4.33	4.46	4.57	4.79	4.89	5.48				<b>PB</b>	12.69	13.15	14.25
		velocity	7.02	8.43	8.24	8.16	8.03		8.08	7.85	7.66	7.31	7.16	7.30				8.27	7.98	7.37	
H1 lead leg		strides		15	15	15	15		15	15	15	15	15								
<b>Hamamura, Kazuki (JPN) (1997)</b>																					
<b>FINAL - 2015 Japanese National High School Championships (Wakayama, JPN)</b>																					
															Enomoto (2015) - 68th high school championships: JAF scientific committee - biomechanics data						
date	31-Jul-15	time	6.16	10.33	14.43	18.64	22.96		27.38	31.97	36.75	41.86	47.31		53.19						
reaction time		interval		4.17	4.10	4.21	4.32		4.42	4.59	4.78	5.11	5.45	5.88				12.48	13.33	15.34	
		velocity	7.31	8.39	8.54	8.31	8.10		7.92	7.63	7.32	6.85	6.42	6.80				8.41	7.88	6.84	
H1 lead leg		strides		15	15	15	15		15	16	15	17	17								

														H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>Hamed, Zaid Abou (SYR) (1970)</b>																														
														<b>Heat 7 - 2000 Olympic Games (Sydney, AUS)</b>				<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>												
date	24-Sep-00	time	6.08	10.08	14.20	18.36	22.76	27.04	31.60	36.04	40.68		50.74	3 / 5																
reaction time	0.117	interval	4.00	4.12	4.16	4.40	4.28	4.56	4.44	4.64						12.28	13.24													
		velocity	7.40	8.75	8.50	8.41	7.95	8.18	7.68	7.88	7.54		7.88			8.55	7.93													
H1 lead leg		strides	21	14	14	14	14	14	15	15	15		136																	
<b>Hamm, Shareez (USA) (1998)</b>																														
														<b>Semi-Final 1 - 2024 USA Olympic Trials (Eugene, OR)</b>				<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>												
date	28-Jun-24	time	6.02	9.80	13.75	17.79	21.94	23.82	26.38	30.97	35.64	40.34	45.09	51.02	1 / 6															
reaction time		interval	3.78	3.95	4.04	4.15	4.44	4.59	4.67	4.70	4.75	5.93				11.77	13.18	14.12												
		velocity	7.48	9.26	8.86	8.66	8.43	8.40	7.88	7.63	7.49	7.45	7.37	6.75	7.84	8.92	7.97	7.44												
H1 lead leg	L	strides	22	14	14	14	14	14	15	15	15	15	16	19	172															
														<b>Heat 5 - 2024 USA Olympic Trials (Eugene, OR)</b>				<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>												
date	27-Jun-24	time	6.00	9.76	13.67	17.78	22.08	23.96	26.52	31.28	35.88	40.50	45.29	50.92	7 / 6															
reaction time		interval	3.76	3.91	4.11	4.30	4.44	4.76	4.60	4.62	4.79	5.63				11.78	13.50	14.01												
		velocity	7.50	9.31	8.95	8.52	8.14	8.35	7.88	7.35	7.61	7.58	7.31	7.10	7.86	8.91	7.78	7.49												
H1 lead leg	L	strides	22	14	14	14	14	14	15	15	15	15	19	171																
<b>Han Mingkun (CHN) (1995)</b>																														
														<b>Heat 1 - 2021 East China District Meeting (Zhaoqing, CHN)</b>				<i>CAA Hurdle Development (2021)</i>												
date	25-Apr-21	time	6.46	10.54	14.78	19.26	23.91		28.66	33.42	38.19	43.04	48.16	54.11	7 / 6															
reaction time	0.205	interval	4.08	4.24	4.48	4.65		4.75	4.76	4.77	4.85	5.12	5.95			12.80	14.16	14.74												
		velocity	6.97	8.58	8.25	7.81	7.53		7.37	7.35	7.34	7.22	6.84	6.72	7.39	8.20	7.42	7.12												
H1 lead leg	L	strides	21	14	14	15	15		15	15	15	15	16	19	174															
														<b>FINAL - 2017 Chinese National Games (Tianjin, CHN)</b>				<i>Wang (2020) - comparative analysis of pre-competitoin training of finalist in 400m hurdlers at 13th national games</i>												
date	04-Sep-17	time	5.98	10.16	14.42	18.71	23.02		27.54	32.07	36.66	41.19	45.74	51.13	1 / 7															
reaction time		interval	4.18	4.26	4.29	4.31		4.52	4.53	4.59	4.53	4.55	5.39	PB		12.73	13.36	13.67												
		velocity	7.53	8.37	8.22	8.16	8.12		7.74	7.73	7.63	7.73	7.69	7.42	7.82	8.25	7.86	7.68												
H1 lead leg		strides	21	14	14	15	15		15	15	15	15	15	154																
<b>Hanaoka, Kazuma (JPN) (2000)</b>																														
														<b>FINAL - 2017 Japanese National High School Chamionships (Yamagata, JPN)</b>				<i>Kota (2017) - 70th high school championships: JAF scientific committee- biomechanics data</i>												
date	31-Jul-17	time	6.31	10.39	14.53	18.74	23.09		27.59	32.20	36.97	41.99	47.18	52.88	5 / 6															
reaction time	0.192	interval	4.08	4.14	4.21	4.35		4.50	4.61	4.77	5.02	5.19	5.70			12.43	13.46	14.98												
		velocity	7.13	8.58	8.45	8.31	8.05		7.78	7.59	7.34	6.97	6.74	7.02	7.56	8.45	7.80	7.01												
H1 lead leg		strides	15	15	15	15		15	15	15	17	17		139																
<b>Hann, Mamadou Kasse (FRA) (1986)</b>																														
														<b>FINAL - 2019 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)</b>				<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>												
date	06-Jun-19	time	5.97	9.87	13.77	17.70	21.77		25.97	30.32	34.85	39.48	44.45	50.00	1 / 6															
reaction time	0.157	interval	3.90	3.90	3.93	4.07		4.20	4.35	4.53	4.63	4.97	5.55			11.73	12.62	14.13												
		velocity	7.54	8.97	8.97	8.91	8.60		8.33	8.05	7.73	7.56	7.04	7.21	8.00	8.95	8.32	7.43												
H1 lead leg	L	strides	21	14	14	13	13		14	14	14	14	15	17.7	163.7															
														<b>FINAL - 2018 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)</b>				<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>												
date	10-Jun-18	time	6.00	9.80	13.68	17.52	21.48		25.68	30.04	34.56	39.24	44.04	49.58	3 / 4															
reaction time	0.140	interval	3.80	3.88	3.84	3.96		4.20	4.36	4.52	4.68	4.80	5.54			11.52	12.52	14.00												
		velocity	7.50	9.21	9.02	9.11	8.84		8.33	8.03	7.74	7.48	7.29	7.22	8.07	9.11	8.39	7.50												
H1 lead leg	L	strides	21	13	13	13	13		14	14	15	15	15	17.7	163.7															
														<b>FINAL - 2018 Bislett Games (Oslo, NOR) (TV Analysis)</b>				<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>												
date	07-Jun-18	time	5.92	9.72		21.48	23.3	25.68	30.08	34.48	39.16	43.96		49.50	2 / 7															
reaction time	0.159	interval	3.80		11.76		4.20	4.40	4.40	4.68	4.80	5.54					13.88													
		velocity	7.60	9.21	8.93	8.58	8.33	7.95	7.95	7.48	7.29	7.22	8.08				7.56													
H1 lead leg	L	strides	21	13			14	14	14	14	15	17	122																	
														<b>FINAL - 2017 Müller's Anniversary Games (London, GBR) (TV Analysis)</b>				<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>												
date	09-Jul-17	time	6.08	9.96	13.84	17.64	21.60		25.72	30.16	34.64	39.36	44.16	49.50	3 / 9															
reaction time	0.151	interval	3.88	3.88	3.80	3.96		4.12	4.44	4.48	4.72	4.80	5.34			11.56	12.52	14.00												
		velocity	7.40	9.02	9.02	9.21	8.84		8.50	7.88	7.81	7.42	7.29	7.49	8.08	9.08	8.39	7.50												
H1 lead leg	L	strides	21	14	14	13	13		13	14	14	15	14	145																
														<b>FINAL - 2017 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)</b>				<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>												
date	18-Jun-17	time	6.04	9.92		17.76	21.88		26.08	30.60	35.16	39.80	44.44	49.72	5 / 5															
reaction time	0.158	interval	3.88		7.84	4.12		4.20	4.52	4.56	4.64	4.64	5.28			11.72	12.84	13.84												
		velocity	7.45	9.02	8.93	8.50		8.33	7.74	7.68	7.54	7.54	7.58	8.05		8.96	8.18	7.59												
H1 lead leg	L	strides	21	13			13		14	14	14	14	14	117																
														<b>FINAL - 2017 Bislett Games (Oslo, NOR) (TV Analysis)</b>				<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>												
date	15-Jun-17	time	6.03	9.80	13.53	17.36	21.26		25.46	29.76	34.26	39.00	43.73	48.97	5 / 4															
reaction time	0.176	interval	3.77	3.73	3.83	3.90		4.20	4.30	4.50	4.74	4.73	5.24			11.33	12.40	13.97												
		velocity	7.46	9.28	9.38	9.14	8.97		8.33	8.14	7.78	7.38	7.40	7.63	8.17	9.27	8.47	7.52												
H1 lead leg	L	strides	21	13	13	13	13		14	14	15	15	15	17.2	163.2															





H1 lead leg	L	velocity	7.58	9.38	9.62	9.72	9.19		8.88	8.54	7.54		7.06	7.25	8.19		9.57	8.86	7.22	
		strides	20	13	13	13	13		13	13	14			17.7	129.7					
<b>Heat 3 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>																<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>				
date	20-Aug-23	time	5.93	9.80	13.60	17.43	21.23		25.26	29.46	33.80	38.53	43.36		48.63		4 / 1			
reaction time	0.172	interval		3.87	3.80	3.83	3.80		4.03	4.20	4.34	4.73	4.83	5.27				11.50	12.03	13.90
		velocity	7.59	9.04	9.21	9.14	9.21		8.68	8.33	8.06	7.40	7.25	7.59		8.23		9.13	8.73	7.55
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	15	17		158				
<b>FINAL - 2023 Herculis Meeting International d'Athlétisme (Monaco, MON)</b>																<i>Omega Timing (2023) - diamond league race analysis</i>				
date	21-Jul-23	time	5.80	9.44	13.14	16.91	20.82		24.89	29.09	33.44	38.09	42.79		48.25		4 / 5			
reaction time	0.149	interval		3.64	3.70	3.77	3.91		4.07	4.20	4.35	4.65	4.70	5.46				11.11	12.18	13.70
		velocity	7.76	9.62	9.46	9.28	8.95		8.60	8.33	8.05	7.53	7.45	7.33		8.29		9.45	8.62	7.66
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	15		115					
<b>FINAL - 2023 Bauhaus Galan (Stockholm, SWE)</b>																<i>Omega Timing (2023) - diamond league race analysis</i>				
date	02-Jul-23	time	5.79	9.44	13.12	16.88	20.80		24.86	29.12	33.68	38.71	43.77		49.67		6 / 5			
reaction time	0.151	interval		3.65	3.68	3.76	3.92		4.06	4.26	4.56	5.03	5.06	5.90				11.09	12.24	14.65
		velocity	7.77	9.59	9.51	9.31	8.93		8.62	8.22	7.68	6.96	6.92	6.78		8.05		9.47	8.58	7.17
H1 lead leg	L	strides	20	13	13	13	13		13	13	14	15	15		129					
<b>FINAL - 2023 Bislett Games (Oslo, NOR)</b>																<i>Omega Timing (2023) - diamond league race analysis</i>				
date	15-Jun-23	time	5.82	9.47	13.16	16.95	20.88		24.93	29.11	33.48	38.00	42.70		48.13		5 / 3			
reaction time	0.159	interval		3.65	3.69	3.79	3.93		4.05	4.18	4.37	4.52	4.70	5.43				11.13	12.16	13.59
		velocity	7.73	9.59	9.49	9.23	8.91		8.64	8.37	8.01	7.74	7.45	7.37		8.31		9.43	8.63	7.73
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	17		104					
<b>FINAL - 2023 Meeting de Paris (Paris, FRA)</b>																<i>Omega Timing (2023) - diamond league race analysis</i>				
date	09-Jun-23	time	5.76	9.37	13.06	16.85	20.77		24.79	28.96	33.32	38.00	42.81		48.26		6 / 2			
reaction time	0.156	interval		3.61	3.69	3.79	3.92		4.02	4.17	4.36	4.68	4.81	5.45				11.09	12.11	13.85
		velocity	7.81	9.70	9.49	9.23	8.93		8.71	8.39	8.03	7.48	7.28	7.34		8.29		9.47	8.67	7.58
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	15	18		159				
<b>FINAL - 2023 FBK Games (Hengelo, NED)</b>																<i>Omega Timing (2023) - continental tour race analysis</i>				
date	04-Jun-23	time	5.85	9.55	13.34	17.23	21.27		25.40	29.68	34.18	38.98	43.79		49.40		7 / 4			
reaction time	0.158	interval		3.70	3.79	3.89	4.04		4.13	4.28	4.50	4.80	4.81	5.61				11.38	12.45	14.11
		velocity	7.69	9.46	9.23	9.00	8.66		8.47	8.18	7.78	7.29	7.28	7.13		8.10		9.23	8.43	7.44
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	15	17.5		158.5				
<b>FINAL - 2023 Doha Diamond League (Doha, QAT)</b>																<i>Omega Timing (2023) - diamond league race analysis</i>				
date	05-May-23	time	5.85	9.55	13.30	17.17	21.14		25.24	29.53	33.96	38.65	43.56		49.12		5 / 3			
reaction time	0.156	interval		3.70	3.75	3.87	3.97		4.10	4.29	4.43	4.69	4.91	5.56				11.32	12.36	14.03
		velocity	7.69	9.46	9.33	9.04	8.82		8.54	8.16	7.90	7.46	7.13	7.19		8.14		9.28	8.50	7.48
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	15	18		159				
<b>FINAL - 2022 Weltklasse (Zürich, SUI) (TV Analysis)</b>																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	08-Sep-22	time	5.87	9.54	13.38	17.32	21.32	22.89	25.46	29.69	34.00	38.71	43.48		48.72		7 / 4			
reaction time	0.130	interval		3.67	3.84	3.94	4.00		4.14	4.23	4.31	4.71	4.77	5.24				11.45	12.37	13.79
		velocity	7.67	9.54	9.11	8.88	8.75	8.74	8.45	8.27	8.12	7.43	7.34	7.63		8.21		9.17	8.49	7.61
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	15	17.5		158.5				
<b>FINAL - 2022 Memorial van Damme (Brussels, BEL) (TV Analysis)</b>																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	02-Sep-22	time	5.87	9.51	13.24		21.08	22.72	25.16	29.46	33.97	38.67	43.44		48.61		5 / 4 3			
reaction time	0.170	interval		3.64	3.73		7.84		4.08	4.30	4.51	4.70	4.77	5.17					13.98	
		velocity	7.67	9.62	9.38		8.93	8.80	8.58	8.14	7.76	7.45	7.34	7.74		8.23			7.51	
H1 lead leg	L	strides	20	13	13				13	13	13	15	15	17.2		132.2				
<b>FINAL - 2022 European Athletics Championships (Munich, GER)</b>																<i>European Athletics (2022) - european athletics championships race analysis</i>				
date	19-Aug-22	time	5.68	9.33	13.11	16.96	20.90	22.67	24.97	29.27	33.79	38.39	43.12		48.56		3 / 2			
reaction time	0.185	interval		3.65	3.78	3.85	3.94		4.07	4.30	4.52	4.60	4.73	5.44				11.28	12.31	13.85
		velocity	7.92	9.59	9.26	9.09	8.88	8.82	8.60	8.14	7.74	7.61	7.40	7.35		8.24		9.31	8.53	7.58
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	15	18		133				
<b>Semi-Final 1 - 2022 European Athletics Championships (Munich, GER)</b>																<i>European Athletics (2022) - european athletics championships race analysis</i>				
date	18-Aug-22	time	5.81	9.61	13.38	17.28	21.27	22.99	25.31	29.51	33.96	38.52	43.27		48.89		3 / 1			
reaction time	0.197	interval		3.80	3.77	3.90	3.99		4.04	4.20	4.45	4.56	4.75	5.62				11.47	12.23	13.76
		velocity	7.75	9.21	9.28	8.97	8.77	8.70	8.66	8.33	7.87	7.68	7.37	7.12		8.18		9.15	8.59	7.63
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	15	17		132				
<b>FINAL - 2022 Silesia Kamila Skolimowska Memorial (Chorzów, POL) (TV Analysis)</b>																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	06-Aug-22	time	5.83	9.50	13.26	17.10	21.10	22.80	25.23	29.50	33.93	38.70	43.50		48.74		5 / 3			
reaction time	0.154	interval		3.67	3.76	3.84	4.00		4.13	4.27	4.43	4.77	4.80	5.24				11.27	12.40	14.00
		velocity	7.72	9.54	9.31	9.11	8.75	8.77	8.47	8.20	7.90	7.34	7.29	7.63		8.21		9.32	8.47	7.50
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	15	17.7		145.7				
<b>FINAL - 2022 World Athletics Championships (Eugene, OR)</b>																<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>				
date	19-Jul-22	time	5.79	9.33	12.95	16.58	20.34	21.86	24.26	28.50	32.83	37.49	42.18		47.41		5 / 4			

reaction time	0.134	interval	3.54	3.62	3.63	3.76		3.92	4.24	4.33	4.66	4.69	5.23	<b>PB</b>	10.79	11.92	13.68		
		velocity	7.77	9.89	9.67	9.64	9.31	9.15	8.93	8.25	8.08	7.51	7.46	7.65	8.44	9.73	8.81	7.68	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	13	15	15	18	159				
<b>Semi-Final 3 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)</b>															<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	17-Jul-22	time	5.76	9.40	13.20	16.90	20.76	22.44	24.80	29.06	33.46	38.07	42.73	48.14	6 / 2				
reaction time	0.136	interval	3.64	3.80	3.70	3.86		4.04	4.26	4.40	4.61	4.66	5.41	<b>PB</b>	11.14	12.16	13.67		
		velocity	7.81	9.62	9.21	9.46	9.07	8.91	8.66	8.22	7.95	7.59	7.51	7.39	8.31	9.43	8.63	7.68	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	13	15	15	18	159				
<b>Heat 2 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)</b>															<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	16-Jul-22	time	5.96	9.60	13.40	17.27	21.30	23.05	25.40	29.73	34.20	39.07	44.07	49.60	6 / 3				
reaction time	0.308	interval	3.64	3.80	3.87	4.03		4.10	4.33	4.47	4.87	5.00	5.53		11.31	12.46	14.34		
		velocity	7.55	9.62	9.21	9.04	8.68	8.68	8.54	8.08	7.83	7.19	7.00	7.23	8.06	9.28	8.43	7.32	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	13	15	15	17.2	158.2				
<b>FINAL - 2022 Bislett Games (Oslo, NOR) (TV Analysis)</b>															<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	16-Jun-22	time	5.76	9.40	13.22	17.12	21.10	22.81	25.28	29.72	34.12	38.80	43.48	49.01	3 / 3				
reaction time	0.150	interval	3.64	3.82	3.90	3.98		4.18	4.44	4.40	4.68	4.68	5.53	<b>PB</b>	11.36	12.60	13.76		
		velocity	7.81	9.62	9.16	8.97	8.79	8.77	8.37	7.88	7.95	7.48	7.48	7.23	8.16	9.24	8.33	7.63	
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	15	15	18	161					
<b>FINAL - FINAL - 2022 Prefontaine Classic (Eugene, OR) (TV Analysis)</b>															<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	05-Jun-22	time	5.87	9.50	13.27	17.17	21.20	22.90	25.30	29.80	34.30	39.07	43.83	49.27	2 / 3				
reaction time	0.143	interval	3.63	3.77	3.90	4.03		4.10	4.50	4.50	4.77	4.76	5.44		11.30	12.63	14.03		
		velocity	7.67	9.64	9.28	8.97	8.68	8.73	8.54	7.78	7.78	7.34	7.35	7.35	8.12	9.29	8.31	7.48	
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	15	15	15	143					
<b>Semi-Final 3 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>															<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>				
date	01-Aug-21	time	6.00	9.73	13.53	17.43	21.43		25.56	30.03	34.56	39.30	44.06	49.49	3 / 7				
reaction time	0.130	interval	3.73	3.80	3.90	4.00		4.13	4.47	4.53	4.74	4.76	5.43		11.43	12.60	14.03		
		velocity	7.50	9.38	9.21	8.97	8.75		8.47	7.83	7.73	7.38	7.35	7.37	8.08	9.19	8.33	7.48	
H1 lead leg	L	strides	20	13	13	13	13		13	14	14	15	15	18	161				
<b>Heat 3 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>															<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>				
date	30-Jul-21	time	6.13	9.93	13.80	17.80	21.83		26.03	30.46	34.96	39.53	44.23	49.39	5 / 5				
reaction time	0.152	interval	3.80	3.87	4.00	4.03		4.20	4.43	4.50	4.57	4.70	5.16		11.67	12.66	13.77		
		velocity	7.34	9.21	9.04	8.75	8.68		8.33	7.90	7.78	7.66	7.45	7.75	8.10	9.00	8.29	7.63	
H1 lead leg	L	strides	20	13	13	13	13		13	14	14	15	15	17.7	160.7				
<b>FINAL - 2021 Herculis Meeting International d'Athletisme (Monaco, MON) (TV Analysis)</b>															<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>				
date	09-Jul-21	time	5.84	9.54		17.32	21.37	23.1	25.52	30.05	34.60	39.34	44.17	49.66	3 / 5				
reaction time	0.123	interval	3.70		7.78	4.05		4.15	4.53	4.55	4.74	4.83	5.49		11.48	12.73	14.12		
		velocity	7.71	9.46		9.00	8.64	8.66	8.43	7.73	7.69	7.38	7.25	7.29	8.05	9.15	8.25	7.44	
H1 lead leg	L	strides	20	13		13		13	14		15	15		103					
<b>FINAL - 2021 Bauhaus Galan (Stockholm, SWE) (TV Analysis)</b>															<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>				
date	04-Jul-21	time	5.80	9.56	13.40	17.24	21.20	23.0	25.28		34.04	38.88	43.64	49.28	2 / 6				
reaction time	0.136	interval	3.76	3.84	3.84	3.96		4.08		8.76	4.84	4.76	5.64		11.44				
		velocity	7.76	9.31	9.11	9.11	8.84	8.70	8.58		7.99	7.23	7.35	7.09	8.12	9.18			
H1 lead leg	L	strides	20	13	13	13	13		13	13		15	15	18	146				
<b>FINAL - 2020 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)</b>															<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>				
date	17-Sep-20	time	5.91	9.71		21.59	23.4		30.10	34.53	39.21	44.01	49.65	5 / 5					
reaction time	0.166	interval	3.80		11.88				8.51	4.43	4.68	4.80	5.64				13.91		
		velocity	7.61	9.21		8.84	8.55		8.23	7.90	7.48	7.29	7.09	8.06			7.55		
H1 lead leg	L	strides	20	13						14	15	15	17.5	94.5					
<b>FINAL - 2020 Bauhaus Galan (Stockholm, SWE) (TV Analysis)</b>															<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>				
date	23-Aug-20	time	5.86		13.48	17.44	21.40	23.2	25.54		34.36	38.94	43.64	49.14	5 / 2				
reaction time	0.141	interval		7.62	3.96	3.96		4.14		8.82	4.58	4.70	5.50		11.58				
		velocity	7.68		9.19	8.84	8.84	8.62	8.45		7.94	7.64	7.45	7.27	8.14	9.07			
H1 lead leg	L	strides	20	13		13	13		13			15	15	18.5	120.5				
<b>FINAL - 2017 European U20 Championships (Grosseto, ITA) (TV Analysis)</b>															<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>				
date	23-Jul-17	time	5.88	9.64	13.56	17.60	21.84		26.04	30.56	34.92	39.48	44.24	49.93	6 / 1				
reaction time	0.234	interval	3.76	3.92	4.04	4.24		4.20	4.52	4.36	4.56	4.76	5.69	<b>NJR PB</b>	11.72	12.96	13.68		
		velocity	7.65	9.31	8.93	8.66	8.25		8.33	7.74	8.03	7.68	7.35	7.03	8.01	8.96	8.10	7.68	
H1 lead leg	L	strides		13	13	13	13		13	14	14	15	15	18	141				
<b>Harada, Hibiki (JPN) (2003)</b>																			
			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2021 Japanese High School National Championships (Fukui, JPN)</b>															<i>Shibayama (2021) - national high school and U20 national championships</i>				
date	30-Jul-21	time	6.19	10.08	14.32	18.84	23.36		28.01	32.83	37.74	42.91	48.06	53.82	1 / 8				
reaction time	0.162	interval	3.89	4.24	4.52	4.52		4.65	4.82	4.91	5.17	5.15	5.76		12.65	13.99	15.23		
		velocity	7.27	9.00	8.25	7.74	7.74		7.53	7.26	7.13	6.77	6.80	6.94	7.43	8.30	7.51	6.89	
H1 lead leg		strides	14	14	15	15		15	15	15	16	16		135					



Harnden, Iain (ZIM) (1976)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<b>Heat 8 - 2000 Olympic Games (Sydney, AUS)</b>		<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 Sydney Olympic Games</i>																	
date	24-Sep-00	time	6.26	10.10	13.98	17.98	22.18	26.62	31.22	36.26	41.74			54.01	3 / 7				
reaction time	0.287	interval		3.84	3.88	4.00	4.20	4.44	4.60	5.04	5.48					11.72	13.24		
		velocity	7.19	9.11	9.02	8.75	8.33	7.88	7.61	6.94	6.39			7.41		8.96	7.93		
H1 lead leg		strides	21	13	13	13	13	14	14	15	16			132					
Harnden, Ken (ZIM) (1973)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<b>Heat 5 - 2000 Olympic Games (Sydney, AUS)</b>		<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 Sydney Olympic Games</i>																	
date	24-Sep-00	time	6.28	10.00	13.92	17.84	21.88	26.00	30.40	35.24	40.48	45.72		51.83	5 / 4				
reaction time	0.435	interval		3.72	3.92	3.92	4.04	4.12	4.40	4.84	5.24	5.24	6.11			11.56	12.56	15.32	
		velocity	7.17	9.41	8.93	8.93	8.66	8.50	7.95	7.23	6.68	6.68	6.55	7.72		9.08	8.36	6.85	
H1 lead leg		strides	22	13	13	13	13	13	13	15	17	17	19.7	168.7					
Harris, Danny (USA) (1965)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<b>FINAL - 1987 IAAF World Championships (Rome, ITA)</b>		<i>Sušanka (1990) - time analysis of the 400m hurdles - Rome 1987 Scientific Report (2nd ed)</i>																	
date	01-Sep-87	time	6.07	9.20	13.44	17.22	21.09	24.98	29.17	33.35	37.76	42.42		47.48	4 / 2				
reaction time		interval		3.13	4.24	3.78	3.87	3.89	4.19	4.18	4.41	4.66	5.06	PB		11.15	11.95	13.25	
		velocity	7.41	11.18	8.25	9.26	9.04	9.00	8.35	8.37	7.94	7.51	7.91	8.42		9.42	8.79	7.92	
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	15	17.8	161					
<b>Semi-Final 1 - 1987 IAAF World Championships (Rome, ITA)</b>		<i>Sušanka (1990) - time analysis of the 400m hurdles - Rome 1987 Scientific Report (2nd ed)</i>																	
date	31-Aug-87	time	6.01	9.69	13.41	17.17	21.02	24.96	29.21	33.58	38.15	43.01		48.24	3 / 2				
reaction time		interval		3.68	3.72	3.76	3.85	3.94	4.25	4.37	4.57	4.86	5.23			11.16	12.04	13.80	
		velocity	7.49	9.51	9.41	9.31	9.09	8.88	8.24	8.01	7.66	7.20	7.65	8.29		9.41	8.72	7.61	
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	15	18.1	161.1					
<b>Heat 2 - 1987 IAAF World Championships (Rome, ITA)</b>		<i>Sušanka (1990) - time analysis of the 400m hurdles - Rome 1987 Scientific Report (2nd ed)</i>																	
date	30-Aug-87	time	6.11	9.80	13.59	17.45	21.42	25.62	30.04	34.48	38.98	43.54		48.74	8 / 1				
reaction time		interval		3.69	3.79	3.86	3.97	4.20	4.42	4.44	4.50	4.56	5.20			11.34	12.59	13.50	
		velocity	7.36	9.49	9.23	9.07	8.82	8.33	7.92	7.88	7.78	7.68	7.69	8.21		9.26	8.34	7.78	
H1 lead leg	L	strides	21	13	13	13	13	14	14	14	14	14	17	160					
<b>FINAL - 1984 Olympic Games (Los Angeles, CA)</b>		<i>Behm (1995) - la tactique du 400 haies</i>																	
date	05-Aug-84	time	6.0	9.8	13.7	17.6	21.6	25.7	29.9	34.1	38.5	43.0		48.13	4 / 2				
reaction time	0.210	interval		3.80	3.90	3.90	4.00	4.10	4.20	4.20	4.40	4.50	5.13			11.60	12.30	13.10	
		velocity	7.50	9.21	8.97	8.97	8.75	8.54	8.33	8.33	7.95	7.78	7.80	8.31		9.05	8.54	8.02	
H1 lead leg	R	strides	21	13	13	13	13	13	13	13	13	14	15	158					
Harris, Rickey (USA) (1981)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<b>Heat 2 - 2007 USATF National Championships (Indianapolis, IN)</b>		<i>USATF Men's Hurdle Development (2007)</i>																	
date	21-Jun-07	time	6.02	9.93	13.85	17.85	21.97	26.28	30.63	35.11	39.71	44.41		49.46	6 / 3				
reaction time		interval		3.91	3.92	4.00	4.12	4.31	4.35	4.48	4.60	4.70	5.05			11.83	12.78	13.78	
		velocity	7.48	8.95	8.93	8.75	8.50	8.12	8.05	7.81	7.61	7.45	7.92	8.09		8.88	8.22	7.62	
H1 lead leg	R	strides	22	15	15	15	15	15	15	15	15	15	15	157					
Hartman, Samuel (USA) (1999)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<b>Semi-Final 1 - 2024 USA Olympic Trials (Eugene, OR)</b>		<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>																	
date	28-Jun-24	time	6.16	9.99	13.87	17.84	21.73	23.56	25.78	30.13	34.93	39.84	44.72	50.50	3 / 5				
reaction time		interval		3.83	3.88	3.97	3.89	4.05	4.35	4.80	4.91	4.88	5.78			11.68	12.29	14.59	
		velocity	7.31	9.14	9.02	8.82	9.00	8.49	8.64	8.05	7.29	7.13	7.17	6.92	7.92	8.99	8.54	7.20	
H1 lead leg	R	strides		13	13	13	13		13	13	15	15	15	18.2	141.2				
<b>Heat 4 - 2024 USA Olympic Trials (Eugene, OR)</b>		<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>																	
date	27-Jun-24	time	6.17	10.05	14.00	17.96	21.96	23.74	26.04	30.40	35.13	39.89	45.09	50.98	9 / 4				
reaction time		interval		3.88	3.95	3.96	4.00	4.08	4.36	4.73	4.76	5.20	5.89			11.79	12.44	14.69	
		velocity	7.29	9.02	8.86	8.84	8.75	8.42	8.58	8.03	7.40	7.35	6.73	6.79	7.85	8.91	8.44	7.15	
H1 lead leg	R	strides	21	13	13	13	13		13	14	14	14	15	19	162				
Harvey, Jonathan (USA) (1997)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<b>Semi-Final 2 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)</b>		<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>																	
date	25-Jun-21	time	5.93	9.67	13.54	17.55	21.69	26.16	30.63	35.23	39.77	44.34		49.53	7 / 6				
reaction time	0.140	interval		3.74	3.87	4.01	4.14	4.47	4.47	4.60	4.54	4.57	5.19	PB		11.62	13.08	13.71	
		velocity	7.59	9.36	9.04	8.73	8.45	7.83	7.83	7.61	7.71	7.66	7.71	8.08		9.04	8.03	7.66	
H1 lead leg	R	strides	21	13	13	13	13		14	14	15	15	15	17.2	163.2				
<b>FINAL - 2021 NCAA Championships (Eugene, OR) (TV Analysis)</b>		<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>																	
date	11-Jun-21	time	5.87	9.57		17.20	21.27		30.07	34.70	39.33	44.03		49.64	2 / 7				
reaction time	0.149	interval		3.70		7.63	4.07		8.80	4.63	4.63	4.70	5.61	PB		11.33	12.87	13.96	
		velocity	7.67	9.46		9.17	8.60		7.95	7.56	7.56	7.45	7.13	8.06		9.27	8.16	7.52	
H1 lead leg	R	strides	21	13		13					15	15	15	18.5	110.5				
Hashimoto, Ryosei (JPN)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<b>FINAL - 2023 Japanese National High School Championships (Sapporo, JPN)</b>		<i>Takashima (2023) - national high school sports festival - biomechanics data</i>																	
date	04-Aug-23	time	6.17	10.23	14.36	18.50	22.72	27.08	31.50	36.00	40.66	45.40		50.74	4 / 3				
reaction time	0.206	interval		4.06	4.13	4.14	4.22		4.36	4.42	4.50	4.66	4.74	5.34		12.33	13.00	13.90	
		velocity	7.29	8.62	8.47	8.45	8.29		8.03	7.92	7.78	7.51	7.38	7.49	7.88	8.52	8.08	7.55	

H1 lead leg	strides	20	15	15	15	15	15	15	15	15	15	15	18	173					
<b>Hashimoto, Yu (JPN) (2006)</b>																			
<b>FINAL</b> - 2024 Japanese National High School Championships (Fukuoka, JPN)																			
															<i>Takashima (2024) - national high school sports festival - biomechanics data</i>				
date	30-Jul-24	time	6.07	9.86	13.73	17.83	21.89	26.14	30.53	35.10	39.77	44.71	50.46	8 / 2					
reaction time	0.207	interval	3.79	3.87	4.10	4.06	4.25	4.39	4.57	4.67	4.94	5.75	<b>PB</b>		11.76	12.70	14.18		
		velocity	7.41	9.23	9.04	8.54	8.62	8.24	7.97	7.66	7.49	7.09	6.96	7.93	8.93	8.27	7.40		
H1 lead leg	strides	21	14	14	14	14	15	15	15	15	15	15	21	173					
<b>Hataura, Yusuke (JPN) (1998)</b>																			
<b>FINAL</b> - 2020 Japanese National Championships (Niigata, JPN)																			
															<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>				
date	02-Oct-20	time	6.16	9.99	13.93	17.95	22.14	26.48	30.85	35.34	39.99	44.91	50.80	8 / 7					
reaction time	0.131	interval	3.83	3.94	4.02	4.19	4.34	4.37	4.49	4.65	4.92	5.89			11.79	12.90	14.06		
		velocity	7.31	9.14	8.88	8.71	8.35	8.06	8.01	7.80	7.53	7.11	6.79	7.87	8.91	8.14	7.47		
H1 lead leg	R	strides	22	14	14	14	14	15	15	15	15	15	15	153					
<b>He Jiahao (CHN)</b>																			
<b>U20 FINAL</b> - 2022 Shandong Provincial Games (Rizhao, CHN)																			
															<i>Shandong Athletics Sport Science (2022)</i>				
date	03-Sep-22	time	6.44	10.53	14.88	19.22	23.67	28.20	33.02	38.08	43.26	48.30	53.87	8 / 3					
reaction time	0.224	interval	4.09	4.35	4.34	4.45	4.53	4.82	5.06	5.18	5.04	5.57			12.78	13.80	15.28		
		velocity	6.99	8.56	8.05	8.06	7.87	7.73	7.26	6.92	6.76	6.94	7.18	7.43	8.22	7.61	6.87		
H1 lead leg	R	strides	21	13	13	13	13	13	15	15	15	15	17.2	163					
<b>Hemeida, Bassem (QAT) (2000)</b>																			
<b>Repechage 1</b> - 2024 Olympic Games (Paris, FRA)																			
															<i>Paris 2024 Olympc Games - Results Book (2024)</i>				
date	07-Aug-24	time	5.93	9.75	13.70	17.62	21.66	25.94	30.34	34.93	39.56	44.31	49.64	2 / 6					
reaction time	0.146	interval	3.82	3.95	3.92	4.04	4.28	4.40	4.59	4.63	4.75	5.33			11.69	12.72	13.97		
		velocity	7.59	9.16	8.86	8.93	8.66	8.18	7.95	7.63	7.56	7.37	7.50	8.06	8.98	8.25	7.52		
H1 lead leg	R	strides	21	13	13	13	14	14	14	14	14	14	18	135					
<b>Heat 1</b> - 2024 Olympic Games (Paris, FRA)																			
															<i>Paris 2024 Olympc Games - Results Book (2024)</i>				
date	05-Aug-24	time	5.89	9.62	13.43	17.32	21.35	25.66	30.18	34.87	39.66	44.39	49.82	5 / 5					
reaction time	0.141	interval	3.73	3.81	3.89	4.03	4.31	4.52	4.69	4.79	4.73	5.43			11.43	12.86	14.21		
		velocity	7.64	9.38	9.19	9.00	8.68	8.12	7.74	7.46	7.31	7.40	7.37	8.03	9.19	8.16	7.39		
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	18	164					
<b>FINAL</b> - 2024 Bauhaus Galan (Stockholm, SWE) (TV Analysis)																			
															<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>				
date	02-Jun-24	time	6.00	9.83		21.76		30.68	35.27	40.10	44.96	50.38	1 / 8						
reaction time	0.154	interval	3.83			11.93		8.92	4.59	4.83	4.86	5.42							14.28
		velocity	7.50	9.14		8.80		7.85	7.63	7.25	7.20	7.38	7.94						7.35
H1 lead leg	R	strides	21	13		13		14	15	15	15	18	96						
<b>FINAL</b> - 2024 Bislett Games (Oslo, NOR) (TV Analysis)																			
															<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>				
date	30-May-24	time	6.00	9.77	13.71	17.62	26.16	35.53	40.54			52.41	2 / 8						
reaction time	0.171	interval	3.77	3.94	3.91		8.54	9.37	5.01						11.62				
		velocity	7.50	9.28	8.88	8.95	8.20	7.47	6.99			7.63			9.04				
H1 lead leg	R	strides	21	13	13	14			15			76							
<b>Semi-Final 1</b> - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)																			
															<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>				
date	21-Aug-23	time	5.96	9.80	13.63	17.36	21.26	25.50	29.83	34.40	39.06	43.97	49.50	4 / 7					
reaction time	0.172	interval	3.84	3.83	3.73	3.90	4.24	4.33	4.57	4.66	4.91	5.53			11.40	12.47	14.14		
		velocity	7.55	9.11	9.14	9.38	8.97	8.25	8.08	7.66	7.51	7.13	7.23	8.08	9.21	8.42	7.43		
H1 lead leg	R	strides	21	13	14	13	13	14	14	14	15	17.7	148.7						
<b>Heat 3</b> - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)																			
															<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>				
date	20-Aug-23	time	6.03	9.93	13.90	17.73	21.66	25.83	30.23	34.72	39.47	44.20	49.50	2 / 3					
reaction time	0.156	interval	3.90	3.97	3.83	3.93	4.17	4.40	4.49	4.75	4.73	5.30			11.70	12.50	13.97		
		velocity	7.46	8.97	8.82	9.14	8.91	8.39	7.95	7.80	7.37	7.40	7.55	8.08	8.97	8.40	7.52		
H1 lead leg	R	strides	21	13	13	13	14	14	14	14	14	14	17	161					
<b>Hemery, David (GBR) (1944)</b>																			
<b>FINAL</b> - 1972 Olympic Games (Munich, FRG)																			
															<i>Le Masurier (1977) - die olympischen 400-m-hürdenlauf vom Mexico City, München und Montreal</i>				
date	03-Sep-72	time	6.1	9.8	13.4	17.2	21.1	22.8	25.1	29.3	33.6	38.2	43.0	48.52	5 / 3				
reaction time		interval	3.70	3.60	3.80	3.90	4.00	4.20	4.30	4.30	4.60	4.80	5.52		11.10	12.10	13.70		
		velocity	7.38	9.46	9.72	9.21	8.97	8.77	8.75	8.33	8.14	7.61	7.29	7.25	8.24	9.46	8.68	7.66	
H1 lead leg	L	strides	21	13	13	13	13	13	13	15	15	15	15	18.2	164.2				
<b>Heat 2</b> - 1972 Olympic Games (Munich, FRG)																			
															<i>Schmidt (1973) - vorolympisches training von john akii-bua über 400 hürden</i>				
date	01-Sep-72	time				21.8		30.3			44.3	49.72	5 / 1						
reaction time		interval						8.50			14.00	5.42							14.00
		velocity				8.49		8.24			7.50	7.38	8.05						7.50
H1 lead leg		strides																	
<b>FINAL</b> - 1968 Olympic Games (Mexico City, MEX) ( <i>Altitude</i> )																			
															<i>McFarlane (1981) - understanding the 400m hurdles (in Jarver (ed) - the hurdles, 1981)</i>				
date	15-Oct-68	time	6.0	9.8	13.6	17.5	21.5	23.3	25.4	29.6	33.9	38.3	42.8	48.1	6 / 1				
reaction time		interval	3.80	3.80	3.90	4.00	3.90	4.20	4.30	4.40	4.50	5.30	<b>WR</b>		11.50	12.10	13.20		
		velocity	7.50	9.21	9.21	8.97	8.75	8.58	8.97	8.33	8.14	7.95	7.78	7.55	8.32	(48.12)	9.13	8.68	7.95

H1 lead leg L strides 21 13 13 13 13 13 15 15 15 15 18 164

**Heat 4 - 1968 Olympic Games (Mexico City, MEX) (Altitude)**

Jonath (1969) - wie gerhard hennige trainiert

date 13-Oct-68 time 6.0 10.0 14.0 18.1 22.2 23.7 26.7 30.8 35.0 39.5 44.1 50.3  
 reaction time interval 4.00 4.00 4.10 4.10 4.50 4.10 4.20 4.50 4.60 6.20 (50.33) / 2  
 velocity 7.50 8.75 8.75 8.54 8.54 8.44 7.78 8.54 8.33 7.78 7.61 6.45 7.95 12.10 12.70 13.30  
 H1 lead leg strides 8.68 8.27 7.89

**Hennige, Gerhard (FRG) (1940)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**FINAL - 1968 Olympic Games (Mexico City, MEX) (Altitude)**

Dessons (1982) - traite d'athletisme - volume 1: les courses

date 15-Oct-68 time 6.0 9.9 13.8 17.8 21.9 23.8 26.1 30.5 34.9 39.4 44.0 49.0 2 / 2  
 reaction time interval 3.90 3.90 4.00 4.10 4.20 4.40 4.40 4.50 4.60 5.00 (49.02) 11.80 12.70 13.50  
 velocity 7.50 8.97 8.97 8.75 8.54 8.40 8.33 7.95 7.95 7.78 7.61 8.00 8.16 8.90 8.27 7.78  
 H1 lead leg L strides 21 13 13 13 13 13 15 15 15 15 18.2 164

**Semi-Final 2 - 1968 Olympic Games (Mexico City, MEX) (Altitude)**

Jonath (1969) - wie gerhard hennige trainiert

date 14-Oct-68 time 6.1 9.9 13.7 17.7 21.9 23.6 26.0 30.3 34.6 39.0 43.6 49.1 / 1  
 reaction time interval 3.80 3.80 4.00 4.20 4.10 4.30 4.30 4.40 4.60 5.50 (49.16) 11.60 12.60 13.30  
 velocity 7.38 9.21 9.21 8.75 8.33 8.47 8.54 8.14 8.14 7.95 7.61 7.27 8.15 9.05 8.33 7.89  
 H1 lead leg strides

**Heat 1 - 1968 Olympic Games (Mexico City, MEX) (Altitude)**

Jonath (1969) - wie gerhard hennige trainiert

date 13-Oct-68 time 5.9 9.8 13.6 17.6 21.8 23.5 25.8 30.0 34.5 39.1 43.5 49.5 / 1  
 reaction time interval 3.90 3.80 4.00 4.20 4.00 4.20 4.50 4.60 4.40 6.00 (49.57) 11.70 12.40 13.50  
 velocity 7.63 8.97 9.21 8.75 8.33 8.51 8.75 8.33 7.78 7.61 7.95 6.67 8.08 8.97 8.47 7.78  
 H1 lead leg strides

**Herbert, Llewellyn (RSA) (1977)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**FINAL - 2003 IAAF World Championships (Paris, FRA)**

Behm (2003) - Paris 2003:Le quatrache masculin - féminin

date 29-Aug-03 time 6.1 9.8 13.7 17.6 21.6 25.5 29.6 33.7 38.0 42.8 72.10 8 / 8  
 reaction time 0.149 interval 3.70 3.90 3.90 4.00 3.90 4.10 4.10 4.30 4.80 29.30 11.50 12.00 13.20  
 velocity 7.38 9.46 8.97 8.97 8.75 8.97 8.54 8.54 8.14 7.29 1.37 5.55 9.13 8.75 7.95  
 H1 lead leg R strides 22 14 14 14 14 14 14 15 15 16 152

**FINAL - 2002 IAAF World Cup (Madrid, ESP)**

Sanchez (2002) - copa del mundo de Madrid '02: análisis de la carreras con villas

date 20-Sep-02 time 6.06 9.90 13.94 17.93 21.98 26.20 30.53 35.03 39.76 44.75 50.52 2 / 7  
 reaction time 0.136 interval 3.84 4.04 3.99 4.05 4.22 4.33 4.50 4.73 4.99 5.77 11.87 12.60 14.22  
 velocity 7.43 9.11 8.66 8.77 8.64 8.29 8.08 7.78 7.40 7.01 6.93 7.92 8.85 8.33 7.38  
 H1 lead leg L strides 22 14 14 14 14 14 15 16 16 16 18.5 173.5

**FINAL - 2000 Olympic Games (Sydney, AUS)**

Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games

date 27-Sep-00 time 5.98 9.78 13.62 17.50 21.46 22.98 25.50 29.54 33.70 38.06 42.54 47.81 6 / 3  
 reaction time 0.169 interval 3.80 3.84 3.88 3.96 4.04 4.04 4.16 4.36 4.48 5.27 NR 11.52 12.04 13.00  
 velocity 7.53 9.21 9.11 9.02 8.84 8.70 8.66 8.66 8.41 8.03 7.81 7.59 8.37 9.11 8.72 8.08  
 H1 lead leg strides 22 14 14 14 14 14 14 15 15 15 18.2 169.2

**Semi-Final 2 - 2000 Olympic Games (Sydney, AUS)**

Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games

date 25-Sep-00 time 5.96 9.80 13.80 17.72 21.72 23.38 25.80 29.96 34.16 38.56 43.12 48.38 4 / 1  
 reaction time 0.153 interval 3.84 4.00 3.92 4.00 4.08 4.16 4.20 4.40 4.56 5.26 11.76 12.24 13.16  
 velocity 7.55 9.11 8.75 8.93 8.75 8.55 8.58 8.41 8.33 7.95 7.68 7.60 8.27 8.93 8.58 7.98  
 H1 lead leg strides 13 13 13 14 14 14 15 15 15 15 18.2 144.2

**Heat 1 - 2000 Olympic Games (Sydney, AUS)**

Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games

date 24-Sep-00 time 5.98 9.82 13.62 17.50 21.42 25.58 29.82 34.18 38.74 43.62 49.25 8 / 1  
 reaction time 0.171 interval 3.84 3.80 3.88 3.92 4.16 4.24 4.36 4.56 4.88 5.63 11.52 12.32 13.80  
 velocity 7.53 9.11 9.21 9.02 8.93 8.41 8.25 8.03 7.68 7.17 7.10 8.12 9.11 8.52 7.61  
 H1 lead leg strides 22 14 14 14 14 15 15 15 15 16 19.2 173.2

**FINAL - 1997 IAAF World Championships (Athens, GRE)**

Hommel (1999) - biomechanical research project, athens 1997: final report

date 04-Aug-97 time 5.96 9.62 13.46 17.32 21.48 25.64 29.86 34.14 38.48 42.87 47.86 1 / 2  
 reaction time 0.147 interval 3.66 3.84 3.86 4.16 4.16 4.22 4.28 4.34 4.39 4.99 NR 11.36 12.54 13.01  
 velocity 7.55 9.56 9.11 9.07 8.41 8.41 8.29 8.18 8.06 7.97 8.02 8.36 9.24 8.37 8.07  
 H1 lead leg strides

**Herrero, Juan (ESP) (1976)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**FINAL - 1998 Spanish National Championships (San Sebastián, ESP)**

Ruiz (1998) - campeonato des españa absoluto: análisis de la carreras con villas

date 02-Aug-98 time 6.03 10.02 14.18 18.37 22.62 26.87 31.25 35.77 40.38 45.15 50.96 3 / 2  
 reaction time interval 3.99 4.16 4.19 4.25 4.25 4.38 4.52 4.61 4.77 5.81 12.34 12.88 13.90  
 velocity 7.46 8.77 8.41 8.35 8.24 8.24 7.99 7.74 7.59 7.34 6.88 7.85 8.51 8.15 7.55  
 H1 lead leg L strides 22 14 14 14 14 14 15 15 15 15 19 171

**Housse, Jean-Laurent (FRA) (1974)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**Semi-Final 1 - 1999 IAAF World Championships (Sevilla, ESP)**

Sanchez (1999) - Sevilla '99: análisis de la carreras con villas

date 25-Aug-99 time 5.75 9.54 13.44 17.45 21.57 25.82 30.25 34.73 39.34 44.21 50.47 1 / 8  
 reaction time 0.141 interval 3.79 3.90 4.01 4.12 4.25 4.43 4.48 4.61 4.87 6.26 11.70 12.80 13.96  
 velocity 7.83 9.23 8.97 8.73 8.50 8.24 7.90 7.81 7.59 7.19 6.39 7.93 8.97 8.20 7.52  
 H1 lead leg R strides 21 13 13 13 14 14 15 15 15 15 19 167



<b>Hinti, Saad (MAR) (2002)</b>		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<b>FINAL - FINAL - 2022 Prefontaine Classic (Eugene, OR) (TV Analysis)</b>													<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>						
date	05-Jun-22	time	5.83	9.63	13.57	17.67	22.00	23.85	26.43	31.00	35.63			52.98	3 / 6				
reaction time	0.191	interval		3.80	3.94	4.10	4.33		4.43	4.57	4.63					11.84	13.33		
		velocity	7.72	9.21	8.88	8.54	8.08	8.39	7.90	7.66	7.56			7.55		8.87	7.88		
H1 lead leg	R	strides	21	14	14	15	15		15	15	15			124					
<b>Hirata, Ai (JPN) (2004)</b>		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<b>FINAL - 2022 Japanese National High School Championships (Naruto, JPN)</b>													<i>Kishima (2022) - national high school championships biomechanics data collection</i>						
date	05-Aug-22	time	6.15	10.03	14.05	18.08	22.27		26.57	30.98	35.53	40.25	45.20	51.01	5 / 2				
reaction time	0.185	interval		3.88	4.02	4.03	4.19		4.30	4.41	4.55	4.72	4.95	5.81		<b>PB</b>	11.93	12.90	14.22
		velocity	7.32	9.02	8.71	8.68	8.35		8.14	7.94	7.69	7.42	7.07	6.88	7.84		8.80	8.14	7.38
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	15	20	177					
<b>Holmes, TJ (USA) (1995)</b>		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<b>Semi-Final 1 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)</b>													<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>						
date	25-Jun-21	time	6.07	9.93	13.73	17.53	21.53		25.83	30.57	35.33	40.43	45.93	53.98	5 / 8				
reaction time	0.189	interval		3.86	3.80	3.80	4.00		4.30	4.74	4.76	5.10	5.50	8.05			11.46	13.04	15.36
		velocity	7.41	9.07	9.21	9.21	8.75		8.14	7.38	7.35	6.86	6.36	4.97	7.41		9.16	8.05	6.84
H1 lead leg	L	strides	19	12	12	13	13		13	14	14	14	15	139					
<b>FINAL - 2019 IAAF World Championships (Doha, QAT)</b>													<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>						
date	30-Sep-19	time	6.00	9.63	13.36	17.08	20.96		25.06	29.34	33.76	38.48	43.10	48.20	3 / 5				
reaction time	0.193	interval		3.63	3.73	3.72	3.88		4.10	4.28	4.42	4.72	4.62	5.10		<b>PB</b>	11.08	12.26	13.76
		velocity	7.50	9.64	9.38	9.41	9.02		8.54	8.18	7.92	7.42	7.58	7.84	8.30		9.48	8.56	7.63
H1 lead leg	L	strides	20	13	13	13	13		13	13	14	14	17	157					
<b>Semi-Final 2 - 2019 IAAF World Championships (Doha, QAT)</b>													<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>						
date	28-Sep-19	time	5.90	9.49	13.18	16.95	20.97		25.16	29.45	34.05	38.59	43.38	48.67	7 / 3				
reaction time	0.258	interval		3.59	3.69	3.77	4.02		4.19	4.29	4.60	4.54	4.79	5.29			11.05	12.50	13.93
		velocity	7.63	9.75	9.49	9.28	8.71		8.35	8.16	7.61	7.71	7.31	7.56	8.22		9.50	8.40	7.54
H1 lead leg	L	strides	20	13	13	13	13		13	13	14	14	17	157					
<b>FINAL - 2019 Meeting de Paris (Paris, FRA) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>						
date	24-Aug-19	time	5.86	9.56	13.30	17.32	21.46	23.2	25.62	29.94	34.40	39.12	43.80	49.04	6 / 5				
reaction time	0.197	interval		3.70	3.74	4.02	4.14		4.16	4.32	4.46	4.72	4.68	5.24			11.46	12.62	13.86
		velocity	7.68	9.46	9.36	8.71	8.45	8.62	8.41	8.10	7.85	7.42	7.48	7.63	8.16		9.16	8.32	7.58
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	14	14	17	156				
<b>FINAL - 2019 Prefontaine Classic (Stanford, CA) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>						
date	30-Jun-19	time	5.90	9.46	13.30	17.13	21.10		25.46	29.86	34.56	39.16	44.03	49.79	8 / 5				
reaction time	0.282	interval		3.56	3.84	3.83	3.97		4.36	4.40	4.70	4.60	4.87	5.76			11.23	12.73	14.17
		velocity	7.63	9.83	9.11	9.14	8.82		8.03	7.95	7.45	7.61	7.19	6.94	8.03		9.35	8.25	7.41
H1 lead leg	L	strides	20	13		13	13		14	14	14		15	116					
<b>FINAL - 2019 Bislett Games (Oslo, NOR) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>						
date	13-Jun-19	time	6.05	9.71	13.48		21.35	23.0	25.48	29.86	34.26	39.44	44.48	50.60	5 / 7				
reaction time	0.292	interval		3.66	3.77		7.87		4.13	4.38	4.40	5.18	5.04	6.12				14.62	
		velocity	7.44	9.56	9.28		8.89	8.70	8.47	7.99	7.95	6.76	6.94	6.54	7.91			7.18	
H1 lead leg	L	strides	19	13	13				13	13	13	15	15	18	132				
<b>FINAL - 2019 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>						
date	30-May-19	time	5.86	9.52	13.32	17.15	21.11	22.7	25.26	29.62	34.06	38.90	43.62	49.25	6 / 2				
reaction time	0.156	interval		3.66	3.80	3.83	3.96		4.15	4.36	4.44	4.84	4.72	5.63			11.29	12.47	14.00
		velocity	7.68	9.56	9.21	9.14	8.84	8.81	8.43	8.03	7.88	7.23	7.42	7.10	8.12		9.30	8.42	7.50
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	14	14	17.2	156.2				
<b>FINAL - 2018 Weltklasse (Zürich, SUI) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>						
date	30-Aug-18	time	5.76	9.32	13.08	16.96	21.00	22.8	25.16	29.44	34.00	39.04	44.48	51.39	6 / 8				
reaction time	0.186	interval		3.56	3.76	3.88	4.04		4.16	4.28	4.56	5.04	5.44	6.91			11.20	12.48	15.04
		velocity	7.81	9.83	9.31	9.02	8.66	8.77	8.41	8.18	7.68	6.94	6.43	5.79	7.78		9.38	8.41	6.98
H1 lead leg	L	strides	20	13	13	13	13		13	13	14		16	128					
<b>FINAL - 2018 Müller Anniversary Games (London, GBR) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>						
date	21-Jul-18	time	5.92	9.64			21.24		25.40	29.76	34.40	39.12	44.00	49.66	4 / 7				
reaction time	0.211	interval		3.72			11.60		4.16	4.36	4.64	4.72	4.88	5.66				14.24	
		velocity	7.60	9.41			9.05		8.41	8.03	7.54	7.42	7.17	7.07	8.05			7.37	
H1 lead leg	L	strides	20	13					13	13	14	14	15	102					
<b>FINAL - 2018 Athletissima (Lausanne, SUI) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>						
date	05-Jul-18	time	5.84	9.56	13.28	17.12	21.16		25.40	29.76	34.20	38.92	43.64	48.94	7 / 4				
reaction time	0.188	interval		3.72	3.72	3.84	4.04		4.24	4.36	4.44	4.72	4.72	5.30			11.28	12.64	13.88
		velocity	7.71	9.41	9.41	9.11	8.66		8.25	8.03	7.88	7.42	7.42	7.55	8.17		9.31	8.31	7.56
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	14	14	156					
<b>FINAL - 2018 Meeting de Paris (Paris, FRA) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>						

date	30-Jun-18	time	5.96	9.60	13.32	17.12	21.04	22.8	25.16	29.48	33.92	38.56	43.12		48.30	4 / 4			
reaction time	0.230	interval		3.64	3.72	3.80	3.92		4.12	4.32	4.44	4.64	4.56	5.18	<b>PB</b>		11.16	12.36	13.64
		velocity	7.55	9.62	9.41	9.21	8.93	8.77	8.50	8.10	7.88	7.54	7.68	7.72	8.28		9.41	8.50	7.70
H1 lead leg	L	strides	20	13	13	13	13		13	14	14	14	14	17	158				

**FINAL - 2018 Bislett Games (Oslo, NOR) (TV Analysis)**

Henson (2020) - Athlete First: 2018 year end hurdle report

date	07-Jun-18	time	5.76	9.36			20.84	22.6	24.96	29.36	33.84	38.56	43.24		48.64	3 / 4				
reaction time	0.210	interval		3.60			11.48		4.12	4.40	4.48	4.72	4.68	5.40					13.88	
		velocity	7.81	9.72			9.15	8.85	8.50	7.95	7.81	7.42	7.48	7.41	8.22					7.56
H1 lead leg	L	strides	20	13	13				13	14	14	14	14	17	132					

**FINAL - 2018 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)**

Henson (2020) - Athlete First: 2018 year end hurdle report

date	31-May-18	time	5.96	9.72	13.60	17.56	21.60		25.88	30.20	34.68	39.40	43.92		49.00	3 / 4					
reaction time	0.194	interval		3.76	3.88	3.96	4.04		4.28	4.32	4.48	4.72	4.52	5.08					11.60	12.64	13.72
		velocity	7.55	9.31	9.02	8.84	8.66		8.18	8.10	7.81	7.42	7.74	7.87	8.16				9.05	8.31	7.65
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	14	14	17	156						

**FINAL - 2017 IAAF World Championships (London, GBR) (TV Analysis)**

Henson (2020) - Athlete First: 2017 year end hurdle report

date	09-Aug-17	time	6.04	9.88	13.84	17.80	21.84		25.92	30.24	34.64	39.20	43.72		49.00	7 / 5					
reaction time	0.210	interval		3.84	3.96	3.96	4.04		4.08	4.32	4.40	4.56	4.52	5.28					11.76	12.44	13.48
		velocity	7.45	9.11	8.84	8.84	8.66		8.58	8.10	7.95	7.68	7.74	7.58	8.16				8.93	8.44	7.79
H1 lead leg	L	strides	20	13	13	13	13		13	14	14	14	14	17.2	158.2						

**FINAL - 2017 USATF Championships (Sacramento, CA) (TV Analysis)**

Henson (2020) - Athlete First: 2017 year end hurdle report

date	25-Jun-17	time	5.93	9.65	13.41	17.07	20.93		24.86	29.31	33.65	38.34	43.14		48.44	2 / 3					
reaction time		interval		3.72	3.76	3.66	3.86		3.93	4.45	4.34	4.69	4.80	5.30	<b>PB</b>				11.14	12.24	13.83
		velocity	7.59	9.41	9.31	9.56	9.07		8.91	7.87	8.06	7.46	7.29	7.55	8.26				9.43	8.58	7.59
H1 lead leg	L	strides	20	13	13	13	13		13	14	14	15	15	18	161						

**Holub, Krzysztof (POL) (2000)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**Heat 3 - 2024 European Athletics Championships (Roma, ITA)**

European Athletics (2024) - 2024 european athletics championships - results book

date	09-Jun-24	time	6.00	9.77	13.77	17.74	21.86		26.23	30.87	35.22	40.18	44.98		50.42	5 / 6					
reaction time	0.160	interval		3.77	4.00	3.97	4.12		4.37	4.64	4.35	4.96	4.80	5.44					11.74	13.13	14.11
		velocity	7.50	9.28	8.75	8.82	8.50		8.01	7.54	8.05	7.06	7.29	7.35	7.93				8.94	8.00	7.44
H1 lead leg		strides													0						

**Heat 4 - 2022 European Athletics Championships (Munich, GER)**

European Athletics (2022) - european athletics championships race analysis

date	17-Aug-22	time	5.92	9.67	13.54	17.45	21.45	23.30	25.69	30.17	34.75	39.51	44.37		50.12	8 / 5					
reaction time	0.168	interval		3.75	3.87	3.91	4.00		4.24	4.48	4.58	4.76	4.86	5.75	<b>=PB</b>				11.53	12.72	14.20
		velocity	7.60	9.33	9.04	8.95	8.75	8.58	8.25	7.81	7.64	7.35	7.20	6.96	7.98				9.11	8.25	7.39
H1 lead leg	L	strides	21	13		13			14	14	15	15	15	18.7	138.7						

**Holúbek, Radoslav (SVK) (1975)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**Heat 7 - 2000 Olympic Games (Sydney, AUS)**

Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games

date	24-Sep-00	time	6.04	10.08	14.16	18.36	22.56		26.88	31.36	35.92	40.68		51.18	2 / 7					
reaction time	0.127	interval		4.04	4.08	4.20	4.20		4.32	4.48	4.56	4.76							12.32	13.00
		velocity	7.45	8.66	8.58	8.33	8.33		8.10	7.81	7.68	7.35			7.82				8.52	8.08
H1 lead leg		strides	22	14	14	14	14		14	14	15	15		136						

**Hong Zhewei (CHN)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**U20 FINAL - 2022 Shandong Provincial Games (Rizhao, CHN)**

Shandong Athletics Sport Science (2022)

date	03-Sep-22	time	6.54	10.65	14.99	19.22	23.68		28.36	33.20	38.14	43.78	49.79		56.98	2 / 8					
reaction time	0.251	interval		4.11	4.34	4.23	4.46		4.68	4.84	4.94	5.64	6.01	7.19					12.68	13.98	16.59
		velocity	6.88	8.52	8.06	8.27	7.85		7.48	7.23	7.09	6.21	5.82	5.56	7.02				8.28	7.51	6.33
H1 lead leg	L	strides	22	14	15	14	15		15	15	15	17	17	159							

**Honma, Ryota (JPN)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**FINAL - 2016 Japanese National High School Championships (Okayama, JPN)**

Kota (2016) - 69th high school championships: JAF scientific committee- biomechanics data

date	31-Jul-16	time	6.47	10.63	14.90	19.24	23.62		28.23	32.86	37.89	42.98	47.98		53.23	3 / 7					
reaction time	0.167	interval		4.16	4.27	4.34	4.38		4.61	4.63	5.03	5.09	5.00	5.25					12.77	13.62	15.12
		velocity	6.96	8.41	8.20	8.06	7.99		7.59	7.56	6.96	6.88	7.00	7.62	7.51				8.22	7.71	6.94
H1 lead leg		strides		15	15	15	15		15	15	17	17	17	141							

**Horbenko, Hennadiy (UKR) (1975)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**FINAL - 2000 Olympic Games (Sydney, AUS)**

Ditroilo (2004) - analysis of the race distribution for male 400m hurdlers at the sydney olympics (in Jarver (ed) - the hurdles, 2004)

date	27-Sep-00	time	6.26	10.02	13.90	17.70	21.70	23.18	25.70	29.90	34.34	38.90	43.58		49.01	7 / 8					
reaction time	0.395	interval		3.76	3.88	3.80	4.00		4.00	4.20	4.44	4.56	4.68	5.43					11.44	12.20	13.68
		velocity	7.19	9.31	9.02	9.21	8.75	8.63	8.75	8.33	7.88	7.68	7.48	7.37	8.16				9.18	8.61	7.68
H1 lead leg		strides	20	13	13	13	13		13	13	14	14	14	140							

**Semi-Final 1 - 2000 Olympic Games (Sydney, AUS)**

Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games

date	25-Sep-00	time	5.94	9.86	13.70	17.62	21.82	23.10	25.62	29.66	34.10	38.50	43.18		48.40	5 / 3					
reaction time	0.478	interval		3.92	3.84	3.92	4.20		3.80	4.04	4.44	4.40	4.68	5.22	<b>PB</b>				11.68	12.04	13.52
		velocity	7.58	8.93	9.11	8.93	8.33	8.66	9.21	8.66	7.88	7.95	7.48	7.66	8.26				8.99	8.72	7.77
H1 lead leg		strides	21	13	13	13	13		13	13	14	14	14	17.4	158.4						

**Heat 7 - 2000 Olympic Games (Sydney, AUS)**

Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games

date	24-Sep-00	time	6.08	9.88	13.80	17.76	21.76	25.84	30.12	34.48	39.00	43.72	49.12	5 / 2						
reaction time	0.406	interval		3.80	3.92	3.96	4.00	4.08	4.28	4.36	4.52	4.72	5.40	<b>PB</b>	11.68	12.36	13.60			
		velocity	7.40	9.21	8.93	8.84	8.75	8.58	8.18	8.03	7.74	7.42	7.41	8.14	8.99	8.50	7.72			
H1 lead leg		strides	20	13	13	13	13	13	13	14	14	14	17.4	157.4						
<b>Horinishi, Kojun (JPN)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>	
<b>FINAL - 2019 Shimane High School Championships (Izumo, JPN)</b>													<i>Shimizu (2019) - shimane high school championships 2019 - biomechanics data analysis</i>							
date	25-May-19	time	6.70	11.11	15.54	20.16	24.80	29.83	34.87	40.00	45.09	50.24	56.04	5 / 1						
reaction time		interval		4.41	4.43	4.62	4.64	5.03	5.04	5.13	5.09	5.15	5.80				13.46	14.71	15.37	
		velocity	6.72	7.94	7.90	7.58	7.54	6.96	6.94	6.82	6.88	6.80	6.90	7.14			7.80	7.14	6.83	
H1 lead leg		strides	21	15	15	15	15	15	15	15	15	15	18	174						
<b>Hosono, Hayato (JPN) (2001)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>	
<b>FINAL - 2020 Japanese U20 National Championships (Hiroshima, JPN)</b>													<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>							
date	25-Oct-20	time	6.42	10.69	15.08	19.54	24.09	28.78	33.52	38.36	43.11	47.80	52.97	3 / 3						
reaction time	0.202	interval		4.27	4.39	4.46	4.55	4.69	4.74	4.84	4.75	4.69	5.17				13.12	13.98	14.28	
		velocity	7.01	8.20	7.97	7.85	7.69	7.46	7.38	7.23	7.37	7.46	7.74	7.55			8.00	7.51	7.35	
H1 lead leg	R	strides	22	15	15	15	15	15	15	15	15	15	18.2	175.2						
<b>Houston, Victor (BAR) (1974)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>	
<b>Heat 1 - 2000 Olympic Games (Sydney, AUS)</b>													<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>							
date	24-Sep-00	time	5.90	9.58	13.34	17.22	21.22	25.54	30.10	34.86	39.98	45.34	51.51	2 / 7						
reaction time	0.179	interval		3.68	3.76	3.88	4.00	4.32	4.56	4.76	5.12	5.36	6.17				11.32	12.88	15.24	
		velocity	7.63	9.51	9.31	9.02	8.75	8.10	7.68	7.35	6.84	6.53	6.48	7.77			9.28	8.15	6.89	
H1 lead leg		strides		13	13	13	13	14	14	15	15	16	126							
<b>Hughes, David (GBR) (1984)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>	
<b>FINAL - 2010 Commonwealth Games (Dehli, IND)</b>													<i>Arnold (2010) - 400mH planning and peaking</i>							
date	10-Oct-10	time	6.0	9.9	13.7	17.8	21.9	23.7	26.1	30.6	35.3	40.1	44.9	50.48	2 / 8					
reaction time	0.170	interval		3.90	3.80	4.08	4.12	4.20	4.50	4.70	4.80	4.80	5.58				11.78	12.82	14.30	
		velocity	7.50	8.97	9.21	8.58	8.50	8.44	8.33	7.78	7.45	7.29	7.29	7.17	7.92		8.91	8.19	7.34	
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	15	15	15	17.7	160.7					
<b>Heat 3 - 2010 Commonwealth Games (Dehli, IND)</b>													<i>Arnold (2010) - 400mH planning and peaking</i>							
date	09-Oct-10	time	5.9	9.8	13.8	17.8	21.9	23.7	26.2	30.6	35.2	40.0	44.8	50.55	6 / 3					
reaction time	0.180	interval		3.90	4.00	4.00	4.10	4.30	4.40	4.60	4.80	4.80	5.75				11.90	12.80	14.20	
		velocity	7.63	8.97	8.75	8.75	8.54	8.44	8.14	7.95	7.61	7.29	7.29	6.96	7.91		8.82	8.20	7.39	
H1 lead leg		strides																		
<b>Hussein, Kariem (SUI) (1989)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>	
<b>FINAL - 2018 Doha Diamond League (Doha, QAT) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>							
date	04-May-18	time	6.04	9.88	13.84	17.88	22.00	26.28	30.72	35.36	40.32	45.14	51.40	7 / 8						
reaction time	0.230	interval		3.84	3.96	4.04	4.12	4.28	4.44	4.64	4.96	5.14	5.78				11.84	12.84		
		velocity	7.45	9.11	8.84	8.66	8.50	8.18	7.88	7.54	7.06	6.78	6.78	7.78			8.87	8.18		
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	14	14	15	141						
<b>FINAL - 2017 Weltklasse (Zürich, SUI) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>							
date	24-Aug-17	time	6.00	9.72	13.56	17.56	21.56	25.68	29.84	34.20	38.60	43.12	48.45	3 / 3						
reaction time	0.148	interval		3.72	3.84	3.92	4.00	4.12	4.16	4.36	4.40	4.52	5.33	<b>=PB</b>					13.28	
		velocity	7.50	9.41	9.11	8.75	8.50	8.50	8.41	8.03	7.95	7.74	7.50	8.26					7.91	
H1 lead leg	L	strides	20	13	13	13	13	14	14	14	14	14	17.2	133.2						
<b>FINAL - 2017 IAAF World Championships (London, GBR) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>							
date	09-Aug-17	time	6.00	9.84	13.72	17.72	21.80	26.00	30.40	34.92	39.52	44.28	50.07	9 / 8						
reaction time	0.163	interval		3.84	3.88	4.00	4.08	4.20	4.40	4.52	4.60	4.76	5.79				11.72	12.68	13.88	
		velocity	7.50	9.11	9.02	8.75	8.58	8.33	7.95	7.74	7.61	7.35	6.91	7.99			8.96	8.28	7.56	
H1 lead leg	L	strides	20	13	13	13	13	14	14	14	14	14	17.2	159.2						
<b>FINAL - 2017 Athletissima (Lausanne, SUI) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>							
date	06-Jul-17	time	5.96	9.76	13.68	17.68	21.72	25.88	30.16	34.48	39.00	43.56	48.79	5 / 1						
reaction time	0.170	interval		3.80	3.92	4.00	4.04	4.16	4.28	4.32	4.52	4.56	5.23				11.72	12.48	13.40	
		velocity	7.55	9.21	8.93	8.75	8.66	8.41	8.18	8.10	7.74	7.68	7.65	8.20			8.96	8.41	7.84	
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	14	14	17	158						
<b>FINAL - 2017 Bislett Games (Oslo, NOR) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>							
date	15-Jun-17	time	6.03	9.70	13.53	17.56	21.76	25.86	30.20	34.53	39.03	43.73	49.37	2 / 6						
reaction time	0.162	interval		3.67	3.83	4.03	4.03	4.30	4.34	4.33	4.50	4.70	5.64				11.53	12.64	13.53	
		velocity	7.46	9.54	9.14	8.68	8.41	8.43	8.06	8.08	7.78	7.45	7.09	8.10			9.11	8.31	7.76	
H1 lead leg	L	strides	20	13	13	13	13	14	14	14	14	15	17.2	133.2						
<b>FINAL - 2017 Shanghai Diamond League (Shanghai, CHN) (TV Analysis)</b>													<i>Henson (2021) - Athlete First: 2017 year end hurdle report</i>							
date	13-May-17	time	6.04	9.92	13.92	18.08	22.24	26.40	30.72	35.12	40.00	45.14	50.02	9 / 6						
reaction time	0.177	interval		3.88	4.00	4.16	4.16	4.16	4.32	4.40	4.52	4.64	5.33				12.04	12.64		
		velocity	7.45	9.02	8.75	8.41	8.41	8.41	8.10	7.95	7.74	7.68	7.65	8.00			8.72	8.31		
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	14	14	17	113						
<b>FINAL - 2016 Weltklasse (Zürich, SUI) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>							



date	01-Sep-16	time	5.76	9.40	13.12	16.96	20.92	25.00	29.32	33.72	38.40	43.32	49.21	7 / 5				
reaction time	0.147	interval		3.64	3.72	3.84	3.96	4.08	4.32	4.40	4.68	4.92	5.89		11.20	12.36	14.00	
		velocity	7.81	9.62	9.41	9.11	8.84	8.58	8.10	7.95	7.48	7.11	6.79	8.13	9.38	8.50	7.50	
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	15	15	18	161				

**FINAL - 2016 European Championships (Amsterdam, NED) (TV Analysis)**

Henson (2020) - Athlete First: 2016 year end hurdle report

date	08-Jul-16	time	5.88	9.64	13.52	17.60	21.72	25.88	29.92	34.36	38.92	43.68	49.10	3 / 3				
reaction time	0.134	interval		3.76	3.88	4.08	4.12	4.16	4.04	4.44	4.56	4.76	5.42		11.72	12.32	13.76	
		velocity	7.65	9.31	9.02	8.58	8.50	8.41	8.66	7.88	7.68	7.35	7.38	8.15	8.96	8.52	7.63	
H1 lead leg	L	strides	20	13	13	13	13	14	14	14	15	15	18	162				

**FINAL - 2016 Prefontaine Classic (Eugene, OR) (TV Analysis)**

(H8 5m short)

Henson (2020) - Athlete First: 2016 year end hurdle report

date	28-May-16	time	6.00	9.80	13.72	17.72	21.76	26.04	30.20	34.08	39.32	44.08	49.47	8 / 6				
reaction time		interval		3.80	3.92	4.00		8.32	4.16	3.88	5.24	4.76	5.39		11.72	12.48	13.88	
		velocity	7.50	9.21	8.93	8.75		8.41	8.41	7.73	7.63	7.35	7.42	8.09	8.96	8.41	7.56	
H1 lead leg	L	strides	20	13	13	13			13	13	15	17.7	117.7					

**FINAL - 2014 European Championships (Zurich, SUI)**

Green (2015) - twitter.com/jackpgreen (from Behm?)

date	15-Aug-14	time	6.04	9.80	13.72	17.72	21.76	25.88	30.08	34.40	38.80	43.44	48.96	/ 1				
reaction time	0.169	interval		3.76	3.92	4.00	4.04	4.12	4.20	4.32	4.40	4.64	5.52	PB	11.68	12.36	13.36	
		velocity	7.45	9.31	8.93	8.75	8.66	8.50	8.33	8.10	7.95	7.54	7.25	8.17	8.99	8.50	7.86	
H1 lead leg	L	strides		13	13	13	13	14	14	14	14	15	123					

**Hutcherson, Orentheus (USA) (1976)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**Heat 4 - 2007 USATF National Championships (Indianapolis, IN)**

USATF Men's Hurdle Development (2007)

date	21-Jun-07	time	5.91	9.74	13.69	17.76	21.97	26.35	30.81	35.24	39.82	44.50	49.93	8 / 4				
reaction time		interval		3.83	3.95	4.07	4.21	4.38	4.46	4.43	4.58	4.68	5.43		11.85	13.05	13.69	
		velocity	7.61	9.14	8.86	8.60	8.31	7.99	7.85	7.90	7.64	7.48	7.37	8.01	8.86	8.05	7.67	
H1 lead leg	R	strides	22	14	14	14	14	15	15	15	15	15	153					

**Hyde, Jaheel (JAM) (1997)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**FINAL - 2024 Kamila Skolimowska Memorial (Silesia, POL)**

Omega Timing (2023) - diamond league race analysis

date	25-Aug-24	time	5.76	9.55	13.53	17.57	21.77	26.14	30.68	35.30	39.97	44.68	50.57	2 / 9				
reaction time	0.151	interval		3.79	3.98	4.04	4.20	4.37	4.54	4.62	4.67	4.71	5.89		12.22	13.11	14.00	
		velocity	7.81	9.23	8.79	8.66	8.33	8.01	7.71	7.58	7.49	7.43	6.79	7.91	8.59	8.01	7.50	
H1 lead leg	L	strides	22	14	14	14	14	14	14	14	14	14	134					

**Semi-Final 1 - 2024 Olympic Games (Paris, FRA)**

Paris 2024 Olympic Games - Results Book (2024)

date	07-Aug-24	time	5.64	9.26	12.92	16.70	20.69	24.82	29.16	33.66	38.50	43.62	50.03	8 / 7				
reaction time	0.239	interval		3.62	3.66	3.78	3.99	4.13	4.34	4.50	4.84	5.12	6.41		11.06	12.46	14.46	
		velocity	7.98	9.67	9.56	9.26	8.77	8.47	8.06	7.78	7.23	6.84	6.24	8.00	9.49	8.43	7.26	
H1 lead leg	L	strides	22	13	13	13	13	14	14	14	15	15	131					

**Heat 1 - 2024 Olympic Games (Paris, FRA)**

Paris 2024 Olympic Games - Results Book (2024)

date	05-Aug-24	time	5.72	9.40	13.16	17.05	21.09	25.30	29.58	34.03	38.73	43.55	49.08	6 / 2				
reaction time	0.175	interval		3.68	3.76	3.89	4.04	4.21	4.28	4.45	4.70	4.82	5.53		11.33	12.53	13.97	
		velocity	7.87	9.51	9.31	9.00	8.66	8.31	8.18	7.87	7.45	7.26	7.23	8.15	9.27	8.38	7.52	
H1 lead leg	L	strides	22	13	13	13	13	14	14	14	15	15	18	164				

**FINAL - 2024 Prefontaine Classic (Eugene, OR)**

Omega Timing (2024) - diamond league race analysis

date	25-May-24	time	5.79	9.68	13.70	17.65	21.63	25.81	30.10	34.60	39.29	44.07	49.83	9 / 7				
reaction time	0.188	interval		3.89	4.02	3.95	3.98	4.18	4.29	4.50	4.69	4.78	5.76		11.86	12.45	13.97	
		velocity	7.77	9.00	8.71	8.86	8.79	8.37	8.16	7.78	7.46	7.32	6.94	8.03	8.85	8.43	7.52	
H1 lead leg		strides			14	14	14	14	14	14	15	15	114					

**Semi-Final 1 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)**

Henson (2023) - Athlete First: 2023 year end hurdle report

date	21-Aug-23	time	5.90	9.66	13.43	17.13	21.00	25.13	29.46	34.16	38.83	43.55	48.94	3 / 5				
reaction time	0.205	interval		3.76	3.77	3.70	3.87	4.13	4.33	4.70	4.67	4.72	5.39		11.23	12.33	14.09	
		velocity	7.63	9.31	9.28	9.46	9.04	8.47	8.08	7.45	7.49	7.42	7.42	8.17	9.35	8.52	7.45	
H1 lead leg	R	strides	20	13	13	13	13	13		14	15	15	18	147				

**Heat 5 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)**

Henson (2023) - Athlete First: 2023 year end hurdle report

date	20-Aug-23	time	5.80	9.46	13.23	17.00	20.83	25.03	29.26	33.80	38.40	43.20	48.63	9 / 2				
reaction time	0.182	interval		3.66	3.77	3.77	3.83	4.20	4.23	4.54	4.60	4.80	5.43		11.20	12.26	13.94	
		velocity	7.76	9.56	9.28	9.28	9.14	8.33	8.27	7.71	7.61	7.29	7.37	8.23	9.38	8.56	7.53	
H1 lead leg	L	strides	22	13	13	13	13	14	14	14	14	15	18	163				

**FINAL - 2022 World Athletics Championships (Eugene, OR)**

Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season

date	19-Jul-22	time	5.71	9.26	12.86	16.52	20.25	21.86	24.27	28.40	32.83	37.47	42.33	48.03	7 / 6			
reaction time	0.149	interval		3.55	3.60	3.66	3.73	4.02	4.13	4.43	4.64	4.86	5.70	PB	10.81	11.88	13.93	
		velocity	7.88	9.86	9.72	9.56	9.38	9.15	8.71	8.47	7.90	7.54	7.20	7.02	8.33	9.71	8.84	7.54
H1 lead leg	L	strides	22	13	13	13	13	14	14	15	15	15	18.2	165.2				

**Semi-Final 1 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)**

Henson (2022) - Athlete First: 2022 year end hurdle report

date	17-Jul-22	time	5.77	9.46	13.33	17.27	21.33	23.13	25.53	29.80	34.30	38.90	43.60	49.09	8 / 2			
reaction time	0.149	interval		3.69	3.87	3.94	4.06	4.20	4.27	4.50	4.60	4.70	5.49		11.50	12.53	13.80	
		velocity	7.80	9.49	9.04	8.88	8.62	8.65	8.33	8.20	7.78	7.61	7.45	7.29	8.15	9.13	8.38	7.61

H1 lead leg	L	strides	22	13	13	13	13	14	14	14	14	15	18	163							
<b>Heat 3 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)</b>																			<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>		
date	16-Jul-22	time	5.80	9.63	13.63	17.63	21.70	23.51	26.03	30.26	34.80	39.53	44.37	50.03	6 / 3						
reaction time	0.187	interval		3.83	4.00	4.00	4.07		4.33	4.23	4.54	4.73	4.84	5.66		11.83	12.63	14.11			
		velocity	7.76	9.14	8.75	8.75	8.60	8.51	8.08	8.27	7.71	7.40	7.23	7.07	8.00	8.88	8.31	7.44			
H1 lead leg	L	strides	22	14	14	14	14	14	14	14	15	15	15	18	169						
<b>FINAL - FINAL - 2022 Prefontaine Classic (Eugene, OR) (TV Analysis)</b>																			<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>		
date	05-Jun-22	time	5.67	9.23	12.90	16.67	20.50	22.22	24.67	28.97	33.50	38.27	43.37	49.35	8 / 5						
reaction time	0.150	interval		3.56	3.67	3.77	3.83		4.17	4.30	4.53	4.77	5.10	5.98		11.00	12.30	14.40			
		velocity	7.94	9.83	9.54	9.28	9.14	9.00	8.39	8.14	7.73	7.34	6.86	6.69	8.11	9.55	8.54	7.29			
H1 lead leg	L	strides	22	13	13	13	13	14	14	14	15	15	15	146							
<b>FINAL - 2022 Prefontaine Classic (Eugene, OR) (TV Analysis)</b>																			<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>		
date	28-May-22	time	5.73	9.50	13.40	17.30	21.27	23.07	25.50	29.93	34.57	39.50		50.38	2 / 7						
reaction time	0.157	interval		3.77	3.90	3.90	3.97		4.23	4.43	4.64	4.93				11.57	12.63				
		velocity	7.85	9.28	8.97	8.97	8.82	8.67	8.27	7.90	7.54	7.10		7.94		9.08	8.31				
H1 lead leg	L	strides	21	13	13	13	13	14	15	15	15	15		132							
<b>FINAL - 2022 Doha Diamond League (Doha, QAT) (TV Analysis)</b>																			<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>		
date	13-May-22	time	5.87	9.67	13.71	17.81	22.05	24.2	26.52	30.96	35.40	39.90		50.23	8 / 5						
reaction time	0.167	interval		3.80	4.04	4.10	4.24		4.47	4.44	4.44	4.50				11.94	13.15				
		velocity	7.67	9.21	8.66	8.54	8.25	8.26	7.83	7.88	7.88	7.78		7.96		8.79	7.98				
H1 lead leg	L	strides	22	14	14	14	14	15	14	14	14	14		135							
<b>FINAL - 2021 ISTAF (Berlin, GER) (TV Analysis)</b>																			<i>Henson (2021) - Athlete First: 2021 Karsten Warholm 400m Hurdles World Record Season</i>		
date	12-Sep-21	time	5.80		13.28	17.12			25.32	29.68	34.08	38.68	43.44	48.95	4 / 3						
reaction time	0.180	interval			7.48	3.84			8.20	4.36	4.40	4.60	4.76	5.51		11.32	12.56	13.76			
		velocity	7.76		9.36	9.11			8.54	8.03	7.95	7.61	7.35	7.26	8.17	9.28	8.36	7.63			
H1 lead leg	L	strides	21		13				14	14	15	15	18	95							
<b>FINAL - 2021 Memorial van Damme (Brussels, BEL) (TV Analysis)</b>																			<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>		
date	03-Sep-21	time	5.84	9.56	13.36	17.24	21.32	23.1	25.52	29.72	34.04	38.60	43.32	48.91	7 / 4						
reaction time	0.166	interval		3.72	3.80	3.88	4.08		4.20	4.20	4.32	4.56	4.72	5.59		11.40	12.48	13.60			
		velocity	7.71	9.41	9.21	9.02	8.58	8.66	8.33	8.33	8.10	7.68	7.42	7.16	8.18	9.21	8.41	7.72			
H1 lead leg	L	strides	22	13	13	13	13	14	14	14	15	15	18	164							
<b>Semi-Final 3 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>																			<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>		
date	01-Aug-21	time	5.76	9.43	13.10	16.83	20.73		24.76	29.00	33.56			87.38	4 / 8						
reaction time	0.159	interval		3.67	3.67	3.73	3.90		4.03	4.24	4.56					11.07	12.17				
		velocity	7.81	9.54	9.54	9.38	8.97		8.68	8.25	7.68			4.58		9.49	8.63				
H1 lead leg	L	strides	22	13	13	13	13	14	14	15				117							
<b>Heat 2 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>																			<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>		
date	30-Jul-21	time	5.82	9.43	13.20	16.93	20.81		24.84	29.13	33.57	38.20	43.01	48.54	4 / 1						
reaction time	0.184	interval		3.61	3.77	3.73	3.88		4.03	4.29	4.44	4.63	4.81	5.53		11.11	12.20	13.88			
		velocity	7.73	9.70	9.28	9.38	9.02		8.68	8.16	7.88	7.56	7.28	7.23	8.24	9.45	8.61	7.56			
H1 lead leg	L	strides	22	13	13	13	13	13	13	14	14	14	15	18	162						
<b>FINAL - 2019 Müller Anniversary Games (London, GBR) (TV Analysis)</b>																			<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>		
date	20-Jul-19	time	5.96	9.80	13.80	17.76	21.88	23.6	26.16		34.92	39.56	44.28	49.79	2 / 6						
reaction time	0.159	interval		3.84	4.00	3.96	4.12		4.28		8.76	4.64	4.72	5.51		11.80					
		velocity	7.55	9.11	8.75	8.84	8.50	8.47	8.18		7.99	7.54	7.42	7.26	8.03	8.90					
H1 lead leg	L	strides	22	14	14	13	13	14				15	15	18	138						
<b>FINAL - 2018 Commonwealth Games (Gold Coast, AUS) (TV Analysis)</b>																			<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>		
date	12-Apr-18	time	5.80	9.54	13.24	17.08	21.15		25.22	29.49	34.03	38.67	43.47	49.16	3 / 3						
reaction time	0.157	interval		3.74	3.70	3.84	4.07		4.07	4.27	4.54	4.64	4.80	5.69		11.28	12.41	13.98			
		velocity	7.76	9.36	9.46	9.11	8.60		8.60	8.20	7.71	7.54	7.29	7.03	8.14	9.31	8.46	7.51			
H1 lead leg	L	strides	22	14	14	14	14	14	14	14	15	15	15	18.7	169.7						
<b>FINAL - 2017 Jamaica International Invitational (Kingston, JAM) (TV Analysis)</b>																			<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>		
date	20-May-17	time	5.84	9.64	13.51	17.48	21.55		25.62	29.86	34.16	38.57	43.21	48.52	3 / 2						
reaction time		interval		3.80	3.87	3.97	4.07		4.07	4.24	4.30	4.41	4.64	5.31		<b>PB</b>					
		velocity	7.71	9.21	9.04	8.82	8.60		8.60	8.25	8.14	7.94	7.54	7.53	8.24	9.02	8.48	7.87			
H1 lead leg	L	strides	22	14	14	13	14			14	14	15	15	18.5	153.5						
<b>Iakovákis, Perikís (GRE) (1979)</b>																					
<b>FINAL - 2009 IAAF World Championships (Berlin, GER)</b>																			<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>		
date	18-Aug-09	time	6.17	9.87	13.67	17.55	21.57		25.71	29.94	34.24	38.63	43.15	48.42	7 / 5						
reaction time	0.189	interval		3.70	3.80	3.88	4.02		4.14	4.23	4.30	4.39	4.52	5.27		11.38	12.39	13.21			
		velocity	7.29	9.46	9.21	9.02	8.71		8.45	8.27	8.14	7.97	7.74	7.59	8.26	9.23	8.47	7.95			
H1 lead leg	R	strides	21	13	13	13	13		14	14	14	14	15	18.5	162.5						
<b>Semi-Final 2 - 2009 IAAF World Championships (Berlin, GER)</b>																			<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>		
date	16-Aug-09	time	6.09	9.74	13.49	17.35	21.39		25.38	29.66	33.98	38.48	43.22	48.73	3 / 3						

reaction time	0.180	interval	3.65	3.75	3.86	4.04	3.99	4.28	4.32	4.50	4.74	5.51	11.26	12.31	13.56		
		velocity	7.39	9.59	9.33	9.07	8.66	8.77	8.18	8.10	7.78	7.38	7.26	8.21	9.33	8.53	7.74
H1 lead leg		strides						14	14	14	14	15	19	90			
<b>Heat 1 - 2009 IAAF World Championships (Berlin, GER)</b>													<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>				
date	15-Aug-09	time	6.13	10.87	13.68	17.52	21.43	25.53	29.80	34.14	38.74	43.53	49.12	4 / 2			
reaction time	0.179	interval	4.74	2.81	3.84	3.91	4.10	4.27	4.34	4.60	4.79	5.59		11.39	12.28	13.73	
		velocity	7.34	7.38	12.46	9.11	8.95	8.54	8.20	8.06	7.61	7.31	7.16	8.14	9.22	8.55	7.65
H1 lead leg		strides															
<b>FINAL - 2008 Olympic Games (Beijing, CHN)</b>													<i>Behm (2008) - Pekin 2008: Le quatrache masculin - féminin</i>				
date	18-Aug-08	time	5.9	9.7	13.3	17.1	20.9	25.0	29.5	34.0	38.7	43.6	49.96	2 / 8			
reaction time	0.195	interval	3.80	3.60	3.80	3.80	4.10	4.50	4.50	4.70	4.90	6.36		11.20	12.40	14.10	
		velocity	7.63	9.21	9.72	9.21	9.21	8.54	7.78	7.78	7.45	7.14	6.29	8.01	9.38	8.47	7.45
H1 lead leg	L	strides	21	13	13	13	14	14	14	15	16	16	18.5	168			
<b>FINAL - 2007 IAAF World Championships (Osaka, JPN)</b>													<i>Yasunori (2008) - race pattern analysis of the world and Japanese top 400m hurdlers</i>				
date	28-Aug-07	time	5.98	9.67	13.42	17.27	21.26	25.40	29.82	34.27	38.94	43.69	49.25	2 / 6			
reaction time	0.154	interval	3.69	3.75	3.85	3.99	4.14	4.42	4.45	4.67	4.75	5.56		11.29	12.55	13.87	
		velocity	7.53	9.49	9.33	9.09	8.77	8.45	7.92	7.87	7.49	7.37	7.19	8.12	9.30	8.37	7.57
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	14	14	14	142			
<b>FINAL - 2007 European Cup (Munich, GER)</b>													<i>Graubner (2007) - http://www.fgs.uni-halle.de</i>				
date	23-Jun-07	time	6.13	9.95	13.73	17.54	21.42	25.48	29.70	34.02	38.44	43.03	48.35	/ 1			
reaction time	0.165	interval	3.82	3.78	3.81	3.88	4.06	4.22	4.32	4.42	4.59	5.32		11.41	12.16	13.33	
		velocity	7.34	9.16	9.26	9.19	9.02	8.62	8.29	8.10	7.92	7.63	7.52	8.27	9.20	8.63	7.88
H1 lead leg		strides															
<b>FINAL - 2006 IAAF World Athletic Final (Stuttgart, GER) (TV Analysis)</b>													<i>Graubner (2008) - http://www.fgs.uni-halle.de</i>				
date	10-Sep-06	time	5.97	9.65	13.39	17.23	21.17	25.22	29.44	33.75	38.19	42.77	47.92	3 / 1			
reaction time	0.158	interval	3.68	3.74	3.84	3.94	4.05	4.22	4.31	4.44	4.58	5.15		11.26	12.21	13.33	
		velocity	7.54	9.51	9.36	9.11	8.88	8.64	8.29	8.12	7.88	7.64	7.77	8.35	9.33	8.60	7.88
H1 lead leg		strides															
<b>FINAL - 2006 European Championships (Göteborg, SWE)</b>													<i>Behm (2006) - Göteborg 2006: Le quatrache</i>				
date	10-Aug-06	time	5.8	9.4	13.0	16.8	20.7	24.7	29.0	33.4	37.8	42.8	48.46	/ 1			
reaction time		interval	3.60	3.60	3.80	3.90	4.00	4.30	4.40	4.40	5.00	5.66		11.00	12.20	13.80	
		velocity	7.76	9.72	9.72	9.21	8.97	8.75	8.14	7.95	7.95	7.00	7.07	8.25	9.55	8.61	7.61
H1 lead leg	R	strides	21	13	13	13	13	14	14	14	14	15	19	163			
<b>FINAL - 2006 Osaka Grand Prix (Osaka, JPN)</b>													<i>Yasunori (2007) - race pattern analysis of top Japanese 400m hurdlers</i>				
date	06-May-06	time	6.06	9.70	13.44	17.21	21.04	25.08	29.23	33.49	37.93	42.60	47.82	/ 2			
reaction time		interval	3.64	3.74	3.77	3.83	4.04	4.15	4.26	4.44	4.67	5.22	NR	11.15	12.02	13.37	
		velocity	7.43	9.62	9.36	9.28	9.14	8.66	8.43	8.22	7.88	7.49	7.66	8.36	9.42	8.74	7.85
H1 lead leg		strides	13	13	13	13	14	14	14	14	14	15	123				
<b>FINAL - 2003 IAAF World Championships (Paris, FRA)</b>													<i>Behm (2003) - Paris 2003: Le quatrache masculin - féminin</i>				
date	29-Aug-03	time	5.9	9.5	13.2	17.1	21.0	25.0	29.4	33.8	38.3	42.9	48.24	4 / 3			
reaction time	0.174	interval	3.60	3.70	3.90	3.90	4.00	4.40	4.40	4.50	4.60	5.34		11.20	12.30	13.50	
		velocity	7.63	9.72	9.46	8.97	8.97	8.75	7.95	7.95	7.78	7.61	7.49	8.29	9.38	8.54	7.78
H1 lead leg	R	strides	21	13	13	13	13	13	13	14	14	15	18	160			
<b>FINAL - 2002 European Championships (Munich, GER)</b>													<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>				
date	09-Aug-02	time	6.11	9.91	13.75	17.69	21.67	25.75	30.05	34.42	39.02	43.78	49.07	/ 5			
reaction time	0.163	interval	3.80	3.84	3.94	3.98	4.08	4.30	4.37	4.60	4.76	5.29		11.58	12.36	13.73	
		velocity	7.36	9.21	9.11	8.88	8.79	8.58	8.14	8.01	7.61	7.35	7.56	8.15	9.07	8.50	7.65
H1 lead leg		strides															
<b>Semi-Final 1 - 2002 European Championships (Munich, GER)</b>													<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>				
date	08-Aug-02	time	6.15	9.99	13.87	17.82	21.83	25.95	30.15	34.53	39.05	43.71	48.99	/ 4			
reaction time		interval	3.84	3.88	3.95	4.01	4.12	4.20	4.38	4.52	4.66	5.28		11.67	12.33	13.56	
		velocity	7.32	9.11	9.02	8.86	8.73	8.50	8.33	7.99	7.74	7.51	7.58	8.16	9.00	8.52	7.74
H1 lead leg		strides															
<b>Heat 1 - 2002 European Championships (Munich, GER)</b>													<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>				
date	07-Aug-02	time		13.85	17.89	21.97	26.19	30.77	34.88	39.43	44.07	49.24	/ 3				
reaction time		interval		4.04	4.08	4.22	4.58	4.11	4.55	4.64	5.17			12.88	13.30		
		velocity		8.30	8.66	8.58	8.29	7.64	8.52	7.69	7.54	7.74	8.12		8.15	7.89	
H1 lead leg		strides															
<b>FINAL - 2001 European Cup (Bremen, GER)</b>													<i>Graubner (2007) - http://www.fgs.uni-halle.de</i>				
date	23-Jun-01	time	6.30	10.18	14.02	18.02	21.96	26.08	30.56	35.26	40.08	44.86	50.28	/ 6			
reaction time		interval	3.88	3.84	4.00	3.94	4.12	4.48	4.70	4.82	4.78	5.42		11.72	12.54	14.30	
		velocity	7.14	9.02	9.11	8.75	8.88	8.50	7.81	7.45	7.26	7.32	7.38	7.96	8.96	8.37	7.34
H1 lead leg		strides															
<b>Heat 4 - 2000 Olympic Games (Sydney, AUS)</b>													<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>				



date	24-Sep-00	time	6.00	9.84	13.76	17.72	21.72	25.72	30.12	34.72	39.68	44.72	50.20	1 / 3						
reaction time	0.165	interval		3.84	3.92	3.96	4.00	4.00	4.40	4.60	4.96	5.04	5.48			11.72	12.40	14.60		
		velocity	7.50	9.11	8.93	8.84	8.75	8.75	7.95	7.61	7.06	6.94	7.30	7.97		8.96	8.47	7.19		
H1 lead leg		strides	22	14	14	14	14	14	14	15	16	16	18.6	171.6						
<b>Ibañez Guevara, Pablo Andres (ESA)</b>	<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>			
<b>FINAL - 2023 FBK Games (Hengelo, NED)</b>														<i>Omega Timing (2023) - continental tour race analysis</i>						
date	04-Jun-23	time	5.99	9.94	13.93	17.94	21.97	26.21	30.61	35.05	39.63	44.22	49.63	3 / 6						
reaction time	0.156	interval		3.95	3.99	4.01	4.03	4.24	4.40	4.44	4.58	4.59	5.41			11.95	12.67	13.61		
		velocity	7.51	8.86	8.77	8.73	8.68	8.25	7.95	7.88	7.64	7.63	7.39	8.06		8.79	8.29	7.71		
H1 lead leg	L	strides	21	14							15	15	18.2	83.2						
<b>Ibrahim, Marc Anthony (LBN) (2002)</b>	<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>			
<b>FINAL - West Asian Championships - 2024 Seashore Doha Meeting (Doha, QAT)</b>														<i>Omega Timing (2024) - diamond league race analysis</i>						
date	10-May-24	time	5.34	9.35	13.42	17.45	21.60	26.06	30.62	35.30	40.10	44.89	49.84	5 / 1						
reaction time	0.173	interval		4.01	4.07	4.03	4.15	4.46	4.56	4.68	4.80	4.79	4.95			12.11	13.17	14.27		
		velocity	8.43	8.73	8.60	8.68	8.43	7.85	7.68	7.48	7.29	7.31	8.08	8.03		8.67	7.97	7.36		
H1 lead leg		strides											0							
<b>Ichiyo, Miromu (JPN) (2001)</b>	<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>			
<b>B FINAL - 2020 Japanese U20 National Championships (Hiroshima, JPN)</b>														<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>						
date	25-Oct-20	time	6.36	10.48	14.78	19.02	23.52	28.09	32.93	37.90	42.99	48.38	54.55	5 / 3						
reaction time	0.175	interval		4.12	4.30	4.24	4.50	4.57	4.84	4.97	5.09	5.39	6.17			12.66	13.91	15.45		
		velocity	7.08	8.50	8.14	8.25	7.78	7.66	7.23	7.04	6.88	6.49	6.48	7.33		8.29	7.55	6.80		
H1 lead leg	R	strides	22	14	14	14	14	15	15	15	15	16	154							
<b>Ideura, Noriuki (JPN) (1987)</b>	<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>			
<b>C FINAL - 2014 Shizuoka International Athletics Meeting (Fukuroi, JPN)</b>														<i>Yasunori (2014) - race pattern analysis of Japanese top 400m hurdlers for major domestic competitions</i>						
date	03-May-14	time	6.36	10.40	14.47	18.61	22.78	26.95	31.22	35.59	40.19	45.01	50.59	/ 2						
reaction time		interval		4.04	4.07	4.14	4.17	4.17	4.27	4.37	4.60	4.82	5.58			12.25	12.61	13.79		
		velocity	7.08	8.66	8.60	8.45	8.39	8.39	8.20	8.01	7.61	7.26	7.17	7.91		8.57	8.33	7.61		
H1 lead leg		strides		14	14	14	14	15	15	15	15	15	131							
<b>FINAL - 2011 Japanese National Championships (Kumagaya, JPN)</b>														<i>Yasuhori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>						
date	11-Jun-11	time	6.27	10.24	14.24	18.29	22.44	26.66	30.98	35.40	39.92	44.57	49.87	/ 4						
reaction time		interval		3.97	4.00	4.05	4.15	4.22	4.32	4.42	4.52	4.65	5.30	<b>PB</b>		12.02	12.69	13.59		
		velocity	7.18	8.82	8.75	8.64	8.43	8.29	8.10	7.92	7.74	7.53	7.55	8.02		8.74	8.27	7.73		
H1 lead leg		strides		14	14	14	14	14	15	15	15	15	130							
<b>Ido, Takahiro (JPN) (1999)</b>	<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>			
<b>FINAL - 2017 Japanese National High School Championships (Yamagata, JPN)</b>														<i>Kota (2017) - 70th high school championships: JAF scientific committee - biomechanics data collection</i>						
date	31-Jul-17	time	6.21	10.36	14.61	19.00	23.56	28.28	32.87	37.75	42.69	47.80	53.27	2 / 8						
reaction time	0.143	interval		4.15	4.25	4.39	4.56	4.72	4.59	4.88	4.94	5.11	5.47			12.79	13.87	14.93		
		velocity	7.25	8.43	8.24	7.97	7.68	7.42	7.63	7.17	7.09	6.85	7.31	7.51		8.21	7.57	7.03		
H1 lead leg		strides		15	15	15	15	15	15	15	15	15	135							
<b>Ikwaukor, Akovunndu (USA) (1984)</b>	<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>			
<b>FINAL - 2003 USATF National Junior Championships (Palo Alto, CA)</b>														<i>USATF Women's Sprint Development (2003)</i>						
date	22-Jun-03	time	6.01	9.88	13.93	18.01	22.30	27.03	31.70	36.62	41.81	47.31	54.25	3 / 8						
reaction time		interval		3.87	4.05	4.08	4.29	4.73	4.67	4.92	5.19	5.50	6.94			12.00	13.69	15.61		
		velocity	7.49	9.04	8.64	8.58	8.16	7.40	7.49	7.11	6.74	6.36	5.76	7.37		8.75	7.67	6.73		
H1 lead leg		strides																		
<b>Imaka, Kaito (JPN)</b>	<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>			
<b>Heat 1 - 2016 Japanese National Youth Championships (Mizuho, JPN)</b>														<i>(2016.11.17) - https://twitter.com/touchdown_time/media?lang=en&amp;lang=en&amp;lang=en&amp;lang=en</i>						
date	23-Oct-16	time				24.08							55.86	6 / 3						
reaction time		interval								38.27										
		velocity				7.68				14.19			7.16							
H1 lead leg		strides								7.40										
<b>Imanishi, Ryota (JPN) (2004)</b>	<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>			
<b>FINAL - 2023 Japanese U20 National Championships (Osaka, JPN)</b>														<i>Kishima (2022) - national high school championships biomechanics data collection</i>						
date	03-Jun-23	time	6.16	10.01	13.86	17.82	21.91	26.13	30.58	35.19	39.99	44.93	50.94	7 / 1						
reaction time	0.177	interval		3.85	3.85	3.96	4.09	4.22	4.45	4.61	4.80	4.94	6.01	<b>PB</b>		11.66	12.76	14.35		
		velocity	7.31	9.09	9.09	8.84	8.56	8.29	7.87	7.59	7.29	7.09	6.66	7.85		9.01	8.23	7.32		
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	18.7	170.7						
<b>FINAL - 2022 Japanese National High School Championships (Naruto, JPN)</b>														<i>Kishima (2022) - national high school championships biomechanics data collection</i>						
date	05-Aug-22	time	6.27	10.18	14.08	18.27	22.67	27.15	31.73	36.55	41.65	47.10	54.00	9 / 8						
reaction time	0.181	interval		3.91	3.90	4.19	4.40	4.48	4.58	4.82	5.10	5.45	6.90			12.00	13.46	15.37		
		velocity	7.18	8.95	8.97	8.35	7.95	7.81	7.64	7.26	6.86	6.42	5.80	7.41		8.75	7.80	6.83		
H1 lead leg	L	strides	22	14	14	15	15	15	15	15	15	16	156							
<b>Imaoka, Hiroki (JPN)</b>	<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>			
<b>FINAL - 2018 Shimane High School Championships (Izumo, JPN)</b>														<i>Shimizu (2018) - shimane high school championships 2018 - biomechanics data analysis</i>						
date	26-May-18	time	6.57	10.98	15.42	19.90	24.57	29.37	34.40	39.62	44.92	50.13	55.97	6 / 3						
reaction time		interval		4.41	4.44	4.48	4.67	4.80	5.03	5.22	5.30	5.21	5.84			13.33	14.50	15.73		

H1 lead leg	velocity	6.85	7.94	7.88	7.81	7.49		7.29	6.96	6.70	6.60	6.72	6.85	7.15		7.88	7.24	6.68	
	strides	22	15	15	15	15		15	17	17	17	17	20	185					
<b>Imazeki, Yuta (JPN) (1987)</b>																			
<b>FINAL - 2012 Japanese National Championships (Osaka, JPN)</b>																			
<i>Yasunori (2013) - race pattern analysis for the top Japanese 400m hurdlers in major domestic competitions</i>																			
date	09-Jun-12	time	6.19	10.14	14.11	18.25	22.48		26.72	30.96	35.25	39.69	44.21		49.50		8 / 4		
reaction time		interval		3.95	3.97	4.14	4.23		4.24	4.24	4.29	4.44	4.52	5.29			12.06	12.71	13.25
		velocity	7.27	8.86	8.82	8.45	8.27		8.25	8.25	8.16	7.88	7.74	7.56	8.08		8.71	8.26	7.92
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	15	18.7	172				
<b>FINAL - 2012 Shizuoka International Athletics Meeting (Fukuroi, JPN)</b>																			
<i>Yasunori (2013) - race pattern analysis for the top Japanese 400m hurdlers in major domestic competitions</i>																			
date	03-May-12	time	6.22	10.11	14.01	18.00	22.15		26.30	30.59	35.08	39.68	44.38		49.76		/ 3		
reaction time		interval		3.89	3.90	3.99	4.15		4.15	4.29	4.49	4.60	4.70	5.38			11.78	12.59	13.79
		velocity	7.23	9.00	8.97	8.77	8.43		8.43	8.16	7.80	7.61	7.45	7.43	8.04		8.91	8.34	7.61
H1 lead leg		strides		14	14	14	14		15	15	15	15	15	131					
<b>FINAL - 2011 Japanese National Championships (Kumagaya, JPN)</b>																			
<i>Yasunori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>																			
date	11-Jun-11	time	6.21	10.15	14.19	18.21	22.26		26.33	30.53	34.93	39.52	44.22		49.61		/ 2		
reaction time		interval		3.94	4.04	4.02	4.05		4.07	4.20	4.40	4.59	4.70	5.39			12.00	12.32	13.69
		velocity	7.25	8.88	8.66	8.71	8.64		8.60	8.33	7.95	7.63	7.45	7.42	8.06		8.75	8.52	7.67
H1 lead leg		strides		14	14	14	14		15	15	15	15	15	131					
<b>Race A - 2011 Shizuoka International Athletics Meeting (Fukuroi, JPN)</b>																			
<i>Yasunori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>																			
date	03-May-11	time	6.21	10.16	14.13	18.17	22.32		26.56	30.85	35.29	39.84	44.46		49.71		/ 3		
reaction time		interval		3.95	3.97	4.04	4.15		4.24	4.29	4.44	4.55	4.62	5.25			11.96	12.68	13.61
		velocity	7.25	8.86	8.82	8.66	8.43		8.25	8.16	7.88	7.69	7.58	7.62	8.05		8.78	8.28	7.71
H1 lead leg		strides		14	14	14	14		15	15	15	15	15	131					
<b>FINAL - 2010 Japanese National Championships (Marugume, JPN)</b>																			
<i>Yasunori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>																			
date	05-Jun-10	time	6.17	10.19	14.36	18.55	22.85		27.20	31.54	35.93	40.36	44.79		49.81		/ 4		
reaction time	0.181	interval		4.02	4.17	4.19	4.30		4.35	4.34	4.39	4.43	4.43	5.02			12.38	12.99	13.25
		velocity	7.29	8.71	8.39	8.35	8.14		8.05	8.06	7.97	7.90	7.90	7.97	8.03		8.48	8.08	7.92
H1 lead leg		strides		14	14	14	14		15	15	15	15	15	131					
<b>FINAL - 2010 Osaka Grand Prix (Osaka, JPN)</b>																			
<i>Yasunori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>																			
date	08-May-10	time	6.29	10.26	14.21	18.28	22.42		26.69	31.06	35.60	40.10	44.64		49.77		/ 4		
reaction time		interval		3.97	3.95	4.07	4.14		4.27	4.37	4.54	4.50	4.54	5.13			11.99	12.78	13.58
		velocity	7.15	8.82	8.86	8.60	8.45		8.20	8.01	7.71	7.78	7.71	7.80	8.04		8.76	8.22	7.73
H1 lead leg		strides		14	14	14	14		15	15	15	15	15	131					
<b>Race A - 2010 Shizuoka International Athletics Meeting (Fukuroi, JPN)</b>																			
<i>Yasunori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>																			
date	03-May-10	time	6.42	10.37	14.41	18.51	22.71		26.96	31.25	35.69	40.21	44.81		50.09		/ 1		
reaction time		interval		3.95	4.04	4.10	4.20		4.25	4.29	4.44	4.52	4.60	5.28			12.09	12.74	13.56
		velocity	7.01	8.86	8.66	8.54	8.33		8.24	8.16	7.88	7.74	7.61	7.58	7.99		8.68	8.24	7.74
H1 lead leg		strides		14	14	14	14		15	15	15	15	15	131					
<b>Ina, Sota (JPN) (2000)</b>																			
<b>B FINAL - 2020 World Athletics Trials (Fuji, JPN)</b>																			
<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>																			
date	06-Sep-20	time	6.24	10.26	14.18	18.28	22.51		26.78	31.18	35.84	40.59	45.33		50.67		7 / 3		
reaction time		interval		4.02	3.92	4.10	4.23		4.27	4.40	4.66	4.75	4.74	5.34			12.04	12.90	14.15
		velocity	7.21	8.71	8.93	8.54	8.27		8.20	7.95	7.51	7.37	7.38	7.49	7.89		8.72	8.14	7.42
H1 lead leg	R	strides	21	13	13	14	14		14	14	15	15	15	18	166				
<b>Inoue, Daichi (JPN) (1999)</b>																			
<b>FINAL - 2017 Tokyo High School Championships (Tokyo, JPN)</b>																			
<i>(2017) - tfdata-store.com/2017/05/14/post-470/</i>																			
date	14-May-17	time	6.25	10.05	13.95	17.90	21.88		26.05	30.69	35.34	40.18	45.08		50.37		5 / 1		
reaction time		interval		3.80	3.90	3.95	3.98		4.17	4.64	4.65	4.84	4.90	5.29	<b>PB</b>		11.65	12.79	14.39
		velocity	7.20	9.21	8.97	8.86	8.79		8.39	7.54	7.53	7.23	7.14	7.56	7.94		9.01	8.21	7.30
H1 lead leg		strides		13	13	13	13		13	15	15	15	15	125					
<b>U19 FINAL - 2016 National Sports Festival (Kitakami, JPN)</b>																			
<i>(2017) - tfdata-store.com/2017/05/14/post-470/</i>																			
date	08-Oct-16	time	6.26	10.01	13.94	18.09	22.44		27.02	31.70	36.47	41.21	45.98		51.36		7 / 1		
reaction time		interval		3.75	3.93	4.15	4.35		4.58	4.68	4.77	4.74	4.77	5.38	<b>PB</b>		11.83	13.61	14.28
		velocity	7.19	9.33	8.91	8.43	8.05		7.64	7.48	7.34	7.38	7.34	7.43	7.79		8.88	7.71	7.35
H1 lead leg	R	strides	21	13	13	14	14		15	15	15	15	15	19	169				
<b>Inoue, Kakeru (JPN) (1996)</b>																			
<b>FINAL - 2021 Michitaka Kinami Memorial (Osaka, JPN)</b>																			
<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>																			
date	01-Jun-21	time	6.04	9.76	13.61	17.52	21.55		25.73	30.08	34.58	39.27	44.18		49.80		8 / 1		
reaction time	0.258	interval		3.72	3.85	3.91	4.03		4.18	4.35	4.50	4.69	4.91	5.62			11.48	12.56	14.10
		velocity	7.45	9.41	9.09	8.95	8.68		8.37	8.05	7.78	7.46	7.13	7.12	8.03		9.15	8.36	7.45
H1 lead leg	R	strides	21	13	13	13	13		14	14	15	15	15	19	165				
<b>B FINAL - 2020 Michitaka Kinami Memorial (Osaka, JPN)</b>																			
<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>																			
date	24-Oct-20	time	6.18	10.09	14.13	18.18	22.34		26.68	31.13	35.72	40.44	45.20		50.60		1 / 1		
reaction time		interval		3.91	4.04	4.05	4.16		4.34	4.45	4.59	4.72	4.76	5.40			12.00	12.95	14.07
		velocity	7.28	8.95	8.66	8.64	8.41		8.06	7.87	7.63	7.42	7.35	7.41	7.91		8.75	8.11	7.46



H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	18.7	164.7
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**FINAL** - 2020 All Japan Corporate Championships (Kumagaya, JPN)*Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season*

date	20-Sep-20	time	6.17	10.06	14.00	18.07	22.41	26.88	31.61	36.54	41.66	46.93	53.05	2 / 8	11.90	13.54	15.32
reaction time	0.220	interval	3.89	3.94	4.07	4.34	4.47	4.73	4.93	5.12	5.27	6.12	7.54	8.82	7.75	6.85	
H1 lead leg		velocity	7.29	9.00	8.88	8.60	8.06	7.83	7.40	7.10	6.84	6.64	6.54	7.54	8.82	7.75	6.85
H1 lead leg	R	strides	13	13	13	14	14	15	15	15	15	15	127				

**B FINAL** - 2020 World Athletics Trials (Fuji, JPN)*Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season*

date	06-Sep-20	time	6.12	10.01	13.96	18.03	22.17	26.43	30.86	35.49	40.31	45.31	51.11	6 / 4	11.91	12.83	14.45
reaction time		interval	3.89	3.95	4.07	4.14	4.26	4.43	4.63	4.82	5.00	5.80	7.83	8.82	8.18	7.27	
H1 lead leg	R	velocity	7.35	9.00	8.86	8.60	8.45	8.22	7.90	7.56	7.26	7.00	6.90	7.83	8.82	8.18	7.27
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	18.7	164.7			

**FINAL** - 2019 Seiko Golden Grand Prix (Osaka, JPN)*Hirokawa (2019) - research on athlete performance and technique- 2019 data book*

date	19-May-19	time	6.09	9.94	13.86	17.87	22.06	26.34	30.86	35.57	40.44	45.35	50.97	9 / 4	11.78	12.99	14.49
reaction time	0.175	interval	3.85	3.92	4.01	4.19	4.28	4.52	4.71	4.87	4.91	5.62	7.85	8.91	8.08	7.25	
H1 lead leg	R	velocity	7.39	9.09	8.93	8.73	8.35	8.18	7.74	7.43	7.19	7.13	7.12	7.85	8.91	8.08	7.25
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	19	165			

**A FINAL** - 2019 Shizuoka International Athletics Meeting (Fukuroi, JPN)*Kobayashi (2019) - research on athlete performance and technique- 2019 data book*

date	03-May-19	time	6.14	9.94	13.88	17.90	21.99	26.26	30.68	35.22	39.97	44.84	50.34	8 / 3	11.76	12.78	14.16
reaction time		interval	3.80	3.94	4.02	4.09	4.27	4.42	4.54	4.75	4.87	5.50	7.95	8.93	8.22	7.42	
H1 lead leg	R	velocity	7.33	9.21	8.88	8.71	8.56	8.20	7.92	7.71	7.37	7.19	7.27	7.95	8.93	8.22	7.42
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	146				

**C FINAL** - 2018 Shizuoka International Athletics Meeting (Fukuroi, JPN)*Morioka (2018) - race pattern analysis of Japan's top 400m hurdles - main national competitions in 2018*

date	03-May-18	time	6.14	9.99	13.86	17.76	21.75	25.94	30.26	34.78	39.45	44.19	49.54	5 / 1	11.62	12.50	13.93
reaction time	0.182	interval	3.85	3.87	3.90	3.99	4.19	4.32	4.52	4.67	4.74	5.35	PB	9.04	8.40	7.54	
H1 lead leg	R	velocity	7.33	9.09	9.04	8.97	8.77	8.35	8.10	7.74	7.49	7.38	7.48	8.07	9.04	8.40	7.54
H1 lead leg	R	strides	21	14	14	14	14	14	15	15	15	15	18.5	169.5			

**Inoue, Shunta (JPN) (2002)**

H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
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**FINAL** - 2023 Japanese National Championships (Osaka, JPN)*Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season*

date	03-Jun-23	time	5.92	9.63	13.33	17.13	21.12	25.44	29.91	34.62	39.41	44.39	50.03	5 / 4	11.21	12.78	14.48
reaction time	0.211	interval	3.71	3.70	3.80	3.99	4.32	4.47	4.71	4.79	4.98	5.64	8.00	9.37	8.22	7.25	
H1 lead leg	L	velocity	7.60	9.43	9.46	9.21	8.77	8.10	7.83	7.43	7.31	7.03	7.09	8.00	9.37	8.22	7.25
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	18	164			

**Isakov, Erkinjon (UZB) (1974)**

H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
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**Heat 3** - 2000 Olympic Games (Sydney, AUS)*Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games*

date	24-Sep-00	time	6.10	10.14	14.14	18.30	22.62	26.70	31.18	35.74	40.34	45.02	50.71	5 / 5	12.20	12.88	13.84
reaction time	0.182	interval	4.04	4.00	4.16	4.32	4.08	4.48	4.56	4.60	4.68	5.69	7.89	8.61	8.15	7.59	
H1 lead leg		velocity	7.38	8.66	8.75	8.41	8.10	8.58	7.81	7.68	7.61	7.48	7.03	7.89	8.61	8.15	7.59
H1 lead leg		strides	22	14	14	14	14	14	14	15	15	15	151				

**Ishida, Yusuke (JPN) (1995)**

H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
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**FINAL** - 2017 Japanese National Championships (Osaka, JPN)*Morioka (2018) - Analysis of the race patterns of the top 400m hurdles in Japan*

date	24-Jun-17	time	6.16	9.96	13.86	17.77	21.76	26.06	30.38	34.90	39.59	44.34	49.79	1 / 2	11.61	12.61	13.96
reaction time	0.185	interval	3.80	3.90	3.91	3.99	4.30	4.32	4.52	4.69	4.75	5.45	8.03	9.04	8.33	7.52	
H1 lead leg		velocity	7.31	9.21	8.97	8.95	8.77	8.14	8.10	7.74	7.46	7.37	7.34	8.03	9.04	8.33	7.52
H1 lead leg		strides	13	13	13	13	13	14	14	15	15	15	125				

**FINAL** - 2017 Nambu Memorial (Sapporo, JPN)*(2017) - tfdata-store.com/2017/07/11/post-1019/*

date	09-Jul-17	time	6.14	9.93	13.82	17.77	21.79	26.06	30.35	34.87	39.53	44.20	49.35	6 / 1	11.63	12.58	13.85
reaction time		interval	3.79	3.89	3.95	4.02	4.27	4.29	4.52	4.66	4.67	5.15	PB	9.03	8.35	7.58	
H1 lead leg	L	velocity	7.33	9.23	9.00	8.86	8.71	8.20	8.16	7.74	7.51	7.49	7.77	8.11	9.03	8.35	7.58
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	18	164			

**Ito, Masahiro (JPN) (1999)**

H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
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**Heat 2** - 2016 Japanese National Youth Championships (Mizuho, JPN)*(2016.11.17) - https://twitter.com/touchdown\_time/media?lang=en&lang=en&lang=en&lang=en*

date	23-Oct-16	time				23.65			38.41			55.05	7 / 2			
reaction time		interval						14.76								
H1 lead leg		velocity				7.82		7.11				7.27				
H1 lead leg		strides														

**Ito, Masanao (JPN)**

H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
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**FINAL** - 2023 Shimane High School Championships (Izumo, JPN)*Shimizu (2023) - shimane high school championships 2023 - biomechanics data analysis*

date	27-May-23	time	6.70	11.13	15.67	20.40	25.28	30.52	35.68	41.18	46.75	52.23	58.32	1 / 2	13.70	15.28	16.55
reaction time		interval	4.43	4.54	4.73	4.88	5.24	5.16	5.50	5.57	5.48	6.09	6.86	7.66	6.87	6.34	
H1 lead leg		velocity	6.72	7.90	7.71	7.40	7.17	6.68	6.78	6.36	6.28	6.39	6.57	6.86	7.66	6.87	6.34
H1 lead leg		strides	23	16	16	16	16	17	17	17	17	20	192				

**Itt, Edgar (FRG) (1967)**

H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
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**FINAL** - 1988 Olympic Games (Seoul, KOR)*Bruggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988*

date	25-Sep-88	time	6.04	9.90	13.77	17.69	21.77	25.98	30.26	34.63	39.07	43.59	48.78	8 / 8	11.65	12.57	13.33
reaction time	0.187	interval	3.86	3.87	3.92	4.08	4.21	4.28	4.37	4.44	4.52	5.19		11.65	12.57	13.33	



H1 lead leg	L	velocity	7.45	9.07	9.04	8.93	8.58		8.31	8.18	8.01	7.88	7.74	7.71	8.20		9.01	8.35	7.88	
		strides	21	13	13	13	13		14	14	14	14	14	16.8	159.8					
<b>Semi-Final 2 - 1988 Olympic Games (Seoul, KOR)</b>																				
<i>Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988</i>																				
date	24-Sep-88	time	6.08	9.79	13.65	17.56	21.58		25.78	30.14	34.60	39.15	43.69		48.86		2 / 4			
reaction time		interval		3.71	3.86	3.91	4.02		4.20	4.36	4.46	4.55	4.54	5.17				11.48	12.58	13.55
		velocity	7.40	9.43	9.07	8.95	8.71		8.33	8.03	7.85	7.69	7.71	7.74	8.19			9.15	8.35	7.75
H1 lead leg		strides	21	13	13	13	13		14	14	14	14	14	17.3	160.3					
<b>Iwabuchi, Soya (JPN)</b>																				
<b>H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10</b>																				
<b>FINAL - 2018 Japanese National High School Championships (Nagoya, JPN)</b>																				
<i>Kota (2018) - 71st high school championships: JAF scientific committee - biomechanics data collection</i>																				
date	04-Aug-18	time	6.34	10.51	14.86	19.18	23.53		28.04	32.50	36.97	41.47	46.08		51.37		5 / 2			
reaction time		interval		4.17	4.35	4.32	4.35		4.51	4.46	4.47	4.50	4.61	5.29	<b>PB</b>			12.84	13.32	13.58
		velocity	7.10	8.39	8.05	8.10	8.05		7.76	7.85	7.83	7.78	7.59	7.56	7.79			8.18	7.88	7.73
H1 lead leg		strides		15	15	15	15		15	15	15	15	15		135					
<b>Iwamoto, Takeshi (JPN) (1996)</b>																				
<b>H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10</b>																				
<b>B FINAL - 2020 World Athletics Trials (Fuji, JPN)</b>																				
<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>																				
date	06-Sep-20	time	6.14	9.98	13.93	17.92	22.09		26.36	30.83	35.41	40.32	45.28		50.56		4 / 2			
reaction time		interval		3.84	3.95	3.99	4.17		4.27	4.47	4.58	4.91	4.96	5.28				11.78	12.91	14.45
		velocity	7.33	9.11	8.86	8.77	8.39		8.20	7.83	7.64	7.13	7.06	7.58	7.91			8.91	8.13	7.27
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	14	14	16.2	155.2					
<b>Iwasaka, Shuto (JPN) (2001)</b>																				
<b>H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10</b>																				
<b>FINAL - 2019 Japanese National High School Championships (Okinawa, JPN)</b>																				
<i>Kota (2019) - 72nd high school championships: JAF scientific committee - biomechanics data collection</i>																				
date	06-Aug-19	time	6.26	10.46	14.73	19.13	23.52		28.08	32.48	36.97	41.64	46.55		51.99		6 / 2			
reaction time		interval		4.20	4.27	4.40	4.39		4.56	4.40	4.49	4.67	4.91	5.44				12.87	13.35	14.07
		velocity	7.19	8.33	8.20	7.95	7.97		7.68	7.95	7.80	7.49	7.13	7.35	7.69			8.16	7.87	7.46
H1 lead leg		strides		15	15	15	15		15	15	15	15	15		135					
<b>Iwasaki, Takafumi (JPN) (1997)</b>																				
<b>H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10</b>																				
<b>FINAL - 2021 Denka Athletics Challenge Cup (Niigata, JPN)</b>																				
<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>																				
date	06-Jun-21	time	6.06	9.91	13.91	17.97	22.15		26.41	30.76	35.19	39.77	44.43		49.73		7 / 3			
reaction time		interval		3.85	4.00	4.06	4.18		4.26	4.35	4.43	4.58	4.66	5.30				11.91	12.79	13.67
		velocity	7.43	9.09	8.75	8.62	8.37		8.22	8.05	7.90	7.64	7.51	7.55	8.04			8.82	8.21	7.68
H1 lead leg	L	strides	21	14	14	14	14		14	15	15	15	15	18.2	169.2					
<b>FINAL - 2021 Ready Steady Tokyo (Tokyo, JPN)</b>																				
<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>																				
date	09-May-21	time	5.99	9.81	13.73	17.77	21.92		26.26	30.68	35.14	39.72	44.34		49.64		2 / 5			
reaction time	0.183	interval		3.82	3.92	4.04	4.15		4.34	4.42	4.46	4.58	4.62	5.30	<b>PB</b>			11.78	12.91	13.66
		velocity	7.51	9.16	8.93	8.66	8.43		8.06	7.92	7.85	7.64	7.58	7.55	8.06			8.91	8.13	7.69
H1 lead leg		strides		14	14	14	14		14	15	15	15	15		130					
<b>C FINAL - 2021 Shizuoka International Athletics Meeting (Fukuroi, JPN)</b>																				
<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>																				
date	03-May-21	time	6.01	9.86	13.88	17.97	22.09		26.41	30.85	35.42	40.11	44.84		50.44		4 / 1			
reaction time	0.192	interval		3.85	4.02	4.09	4.12		4.32	4.44	4.57	4.69	4.73	5.60				11.96	12.88	13.99
		velocity	7.49	9.09	8.71	8.56	8.50		8.10	7.88	7.66	7.46	7.40	7.14	7.93			8.78	8.15	7.51
H1 lead leg	L	strides	21	14	14	14	14		14	15	15	15	15	19	170					
<b>Jabir, Madari Pillyalil (IND) (1996)</b>																				
<b>H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10</b>																				
<b>Heat 5 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>																				
<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>																				
date	30-Jul-21	time	6.03	9.93	14.03	18.06	22.30		26.60	30.96	35.46	40.20	45.13		50.77		5 / 7			
reaction time	0.167	interval		3.90	4.10	4.03	4.24		4.30	4.36	4.50	4.74	4.93	5.64				12.03	12.90	14.17
		velocity	7.46	8.97	8.54	8.68	8.25		8.14	8.03	7.78	7.38	7.10	7.09	7.88			8.73	8.14	7.41
H1 lead leg	L	strides	22	15	15	15	15		15	15	16	16	16	160						
<b>Semi-Final 3 - 2019 IAAF World Championships (Doha, QAT)</b>																				
<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>																				
date	28-Sep-19	time	5.95	9.82	13.69	17.64	21.74		25.92	30.19	34.61	39.24	44.12		49.71		9 / 5			
reaction time	0.199	interval		3.87	3.87	3.95	4.10		4.18	4.27	4.42	4.63	4.88	5.59				11.69	12.55	13.93
		velocity	7.56	9.04	9.04	8.86	8.54		8.37	8.20	7.92	7.56	7.17	7.16	8.05			8.98	8.37	7.54
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	16	16	19.7	178.7					
<b>Jackson, Bershawn (USA) (1983)</b>																				
<b>H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10</b>																				
<b>FINAL - 2018 Weltklasse (Zürich, SUI) (TV Analysis)</b>																				
<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>																				
date	30-Aug-18	time	5.76	9.68	13.80	18.00	22.32	24.2	26.56	30.84		39.80	44.72		50.63		2 / 7			
reaction time	0.140	interval		3.92	4.12	4.20	4.32		4.24	4.28		8.96	4.92	5.91				12.24	12.84	13.88
		velocity	7.81	8.93	8.50	8.33	8.10	8.26	8.25	8.18		7.81	7.11	6.77	7.90			8.58	8.18	7.56
H1 lead leg	L	strides	22	15	15		15		15	15			16		113					
<b>FINAL - 2018 Athletissima (Lausanne, SUI) (TV Analysis)</b>																				
<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>																				
date	05-Jul-18	time	5.60	9.44	13.44	17.52	21.64		25.72	29.84	34.12	38.60	43.40		49.31		8 / 6			
reaction time	0.129	interval		3.84	4.00	4.08	4.12		4.08	4.12	4.28	4.48	4.80	5.91				11.92	12.32	13.56
		velocity	8.04	9.11	8.75	8.58	8.50		8.58	8.50	8.18	7.81	7.29	6.77	8.11			8.81	8.52	7.74
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	15	15		157					
<b>FINAL - 2018 Meeting de Paris (Paris, FRA) (TV Analysis)</b>																				
<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>																				
date	05-Jul-18	time	5.68	9.44	13.40	17.44	21.56	23.4	25.64	29.76	34.04	38.52	43.32		49.16		2 / 6			

reaction time	0.140	interval	3.76	3.96	4.04	4.12		4.08	4.12	4.28	4.48	4.80	5.84		11.76	12.32	13.56	
		velocity	7.92	9.31	8.84	8.66	8.50	8.55	8.58	8.50	8.18	7.81	7.29	6.85	8.14	8.93	8.52	7.74
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	15	19	176				
<b>FINAL - 2018 Doha Diamond League (Doha, QAT) (TV Analysis)</b>														<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>				
date	04-May-18	time	5.72	9.56	13.64	17.84	22.04		26.20	30.32	34.56	39.00	43.60		49.08	2 / 2		
reaction time	0.176	interval		3.84	4.08	4.20	4.20		4.16	4.12	4.24	4.44	4.60	5.48		12.12	12.48	13.28
		velocity	7.87	9.11	8.58	8.33	8.33		8.41	8.50	8.25	7.88	7.61	7.30	8.15	8.66	8.41	7.91
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	15	19	161				
<b>FINAL - 2017 Weltklasse (Zürich, SUI) (TV Analysis)</b>														<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>				
date	24-Aug-17	time	5.60	9.36	13.32		21.52		25.64	29.80	34.16	38.88	43.96		50.02	2 / 8		
reaction time	0.127	interval		3.76	3.96		8.20		4.12	4.16	4.36	4.72	5.08	6.06				14.16
		velocity	8.04	9.31	8.84		8.54		8.50	8.41	8.03	7.42	6.89	6.60	8.00			7.42
H1 lead leg	L	strides	22	15	15				15	15	15		17	20	134			
<b>FINAL - 2017 Athletissima (Lausanne, SUI) (TV Analysis)</b>														<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>				
date	06-Jul-17	time	5.72	9.64	13.84	18.12	22.32		26.44	30.56	34.76	39.12	43.64		49.04	3 / 4		
reaction time	0.140	interval		3.92	4.20	4.28	4.20		4.12	4.12	4.20	4.36	4.52	5.40		12.40	12.44	13.08
		velocity	7.87	8.93	8.33	8.18	8.33		8.50	8.50	8.33	8.03	7.74	7.41	8.16	8.47	8.44	8.03
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	15	19	176				
<b>FINAL - 2017 USATF Championships (Sacramento, CA) (TV Analysis)</b>														<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>				
date	25-Jun-17	time	5.79	9.69	13.79	17.93	22.14			30.31	34.58	39.03	43.83		49.51	1 / 8		
reaction time		interval		3.90	4.10	4.14	4.21			8.17	4.27	4.45	4.80	5.68		12.14	12.38	13.52
		velocity	7.77	8.97	8.54	8.45	8.31			8.57	8.20	7.87	7.29	7.04	8.08	8.65	8.48	7.77
H1 lead leg	L	strides	22	15		15	15			15	15	17	19.2	133.2				
<b>FINAL - 2017 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)</b>														<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>				
date	18-Jun-17	time	5.72	9.52		17.68	21.80		25.92	30.12	34.64	39.36	44.08		50.28	4 / 6		
reaction time	0.135	interval		3.80		8.16	4.12		4.12	4.20	4.52	4.72	4.72	6.20		11.96	12.44	13.96
		velocity	7.87	9.21		8.58	8.50		8.50	8.33	7.74	7.42	7.42	6.45	7.96	8.78	8.44	7.52
H1 lead leg	L	strides	22	15		15	15		15	15		16	15	113				
<b>FINAL - 2017 Jamaica International Invitational (Kingston, JAM) (TV Analysis)</b>														<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>				
date	20-May-17	time	5.74	9.54	13.54	17.65	21.75		25.86	29.93	34.16	38.54	43.21		48.63	4 / 3		
reaction time		interval		3.80	4.00	4.11	4.10		4.11	4.07	4.23	4.38	4.67	5.42		11.91	12.28	13.28
		velocity	7.84	9.21	8.75	8.52	8.54		8.52	8.60	8.27	7.99	7.49	7.38	8.23	8.82	8.55	7.91
H1 lead leg	L	strides	22	15	15	15	15			15	15	15	15	19	161			
<b>FINAL - 2017 Shanghai Diamond League (Shanghai, CHN) (TV Analysis)</b>														<i>Henson (2021) - Athlete First: 2017 year end hurdle report</i>				
date	13-May-17	time	5.64	9.40	13.40	17.56	21.60		25.68	29.76	33.96	38.40	43.04		48.63	4 / 1		
reaction time	0.127	interval		3.76	4.00	4.16	4.04		4.08	4.08	4.20	4.44	4.64	5.59		11.92	12.20	13.28
		velocity	7.98	9.31	8.75	8.41	8.66		8.58	8.58	8.33	7.88	7.54	7.16	8.23	8.81	8.61	7.91
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	15	19	176				
<b>FINAL - 2016 USA Olympic Trials (Eugene, OR) (TV Analysis)</b>														<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>				
date	10-Jul-16	time	5.90	9.68	13.61	17.68	21.82		25.86	30.00	34.30	39.07	43.98		49.96	1 / 8		
reaction time	0.233	interval		3.78	3.93	4.07	4.14		4.04	4.14	4.30	4.77	4.91	5.98		11.78	12.32	13.98
		velocity	7.63	9.26	8.91	8.60	8.45		8.66	8.45	8.14	7.34	7.13	6.69	8.01	8.91	8.52	7.51
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	16	16	19.5	178.5			
<b>FINAL - 2016 Prefontaine Classic (Eugene, OR) (TV Analysis)</b>														<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>				
date	28-May-16	time	5.76	9.60	13.72	17.96	22.24		26.40	30.48	34.24	39.16	43.72		49.04	4 / 3		
reaction time		interval		3.84	4.12	4.24	4.28		4.16	4.08	3.76	4.92	4.56	5.32		12.20	12.52	13.24
		velocity	7.81	9.11	8.50	8.25	8.18		8.41	8.58	7.98	8.13	7.68	7.52	8.16	8.61	8.39	7.93
H1 lead leg	L	strides	22	15	15	15	15		15			17	15	19	148			
<b>FINAL - 2011 IAAF World Championships (Daegu, KOR)</b>														<i>Behm (2011) - Le quatrace: Démus enfin!</i>				
date	01-Sep-11	time	5.7	9.3	13.3	17.2	21.2		25.4	29.6	33.8	38.4	43.3		49.24	5 / 6		
reaction time	0.151	interval		3.60	4.00	3.90	4.00		4.20	4.20	4.20	4.60	4.90	5.94		11.50	12.40	13.70
		velocity	7.89	9.72	8.75	8.97	8.75		8.33	8.33	8.33	7.61	7.14	6.73	8.12	9.13	8.47	7.66
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	15	17	20	179			
<b>FINAL - 2009 IAAF World Championships (Berlin, GER)</b>														<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>				
date	18-Aug-09	time	5.76	9.63	13.59	17.71	21.87		26.01	30.17	34.43	38.79	43.22		48.23	5 / 3		
reaction time	0.141	interval		3.87	3.96	4.12	4.16		4.14	4.16	4.26	4.36	4.43	5.01		11.95	12.46	13.05
		velocity	7.81	9.04	8.84	8.50	8.41		8.45	8.41	8.22	8.03	7.90	7.98	8.29	8.79	8.43	8.05
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	15	15	19	172			
<b>Semi-Final 2 - 2009 IAAF World Championships (Berlin, GER)</b>														<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>				
date	16-Aug-09	time	5.74	9.58	13.50	17.61	21.70		25.87	30.04	34.28	38.64	43.09		48.23	5 / 1		
reaction time	0.146	interval		3.84	3.92	4.11	4.09		4.17	4.17	4.24	4.36	4.45	5.14		11.87	12.43	13.05
		velocity	7.84	9.11	8.93	8.52	8.56		8.39	8.39	8.25	8.03	7.87	7.78	8.29	8.85	8.45	8.05
H1 lead leg	L	strides	22	14	14				15	15	15	15	15	18.7	143.7			
<b>Heat 2 - 2009 IAAF World Championships (Berlin, GER)</b>														<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>				

date	15-Aug-09	time	6.14	10.20	14.38	18.60	22.89		27.07	31.28	35.58	40.00	44.44		49.34	2 / 2			
reaction time	0.151	interval		4.06	4.18	4.22	4.29		4.18	4.21	4.30	4.42	4.44	4.90			12.46	12.68	13.16
		velocity	7.33	8.62	8.37	8.29	8.16		8.37	8.31	8.14	7.92	7.88	8.16	8.11		8.43	8.28	7.98
H1 lead leg		strides																	
<b>FINAL - 2008 Olympic Games (Beijing, CHN)</b>																<i>Behm (2008) - Pekin 2008: Le quatrache masculin - féminin</i>			
date	18-Aug-08	time	5.6	9.2	13.2	17.3	21.5		25.5	29.5	33.7	38.0	42.6		48.06	7 / 3			
reaction time	0.145	interval		3.60	4.00	4.10	4.20		4.00	4.00	4.20	4.30	4.60	5.46			11.70	12.20	13.10
		velocity	8.04	9.72	8.75	8.54	8.33		8.75	8.75	8.33	8.14	7.61	7.33	8.32		8.97	8.61	8.02
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	15	15	19.5	177.5				
<b>FINAL - 2008 USA Olympic Trials (Eugene, OR)</b>																<i>USATF Hurdle Development (2008)</i>			
date	29-Jun-08	time	5.79	9.54	13.61	17.87	22.19		26.18	30.25	34.45	38.71	43.13		48.17	4 / 1			
reaction time		interval		3.75	4.07	4.26	4.32		3.99	4.07	4.20	4.26	4.42	5.04			12.08	12.38	12.88
		velocity	7.77	9.33	8.60	8.22	8.10		8.77	8.60	8.33	8.22	7.92	7.94	8.30		8.69	8.48	8.15
H1 lead leg	L	strides	23	15	15	15	15		15	15	15	15	15	158					
<b>FINAL - 2007 IAAF World Athletics Final (Stuttgart, GER)</b>																<i>Graubner (2007) - http://www.fgs.uni-halle.de</i>			
date	22-Sep-07	time	5.86	9.68	13.68	17.80	21.96		26.02	30.14	34.38	38.72	43.33		48.58	2 / 4			
reaction time	0.167	interval		3.82	4.00	4.12	4.16		4.06	4.12	4.24	4.34	4.61	5.25			11.94	12.34	13.19
		velocity	7.68	9.16	8.75	8.50	8.41		8.62	8.50	8.25	8.06	7.59	7.62	8.23		8.79	8.51	7.96
H1 lead leg		strides																	
<b>FINAL - 2007 Osaka Grand Prix (Osaka, JPN)</b>																<i>Yasunori (2008) - race pattern analysis of the world and Japanese top 400m hurdlers</i>			
date	05-May-07	time	5.71	9.40	13.29	17.36	21.48		25.47	29.57	33.81	38.23	42.88		48.13	/ 1			
reaction time		interval		3.69	3.89	4.07	4.12		3.99	4.10	4.24	4.42	4.65	5.25			11.65	12.21	13.31
		velocity	7.88	9.49	9.00	8.60	8.50		8.77	8.54	8.25	7.92	7.53	7.62	8.31		9.01	8.60	7.89
H1 lead leg		strides		15	15	15	15		15	15	15	15	15	135					
<b>FINAL - 2006 USATF National Championships (Indianapolis, IN)</b>																<i>USATF Men's Hurdle Development (2006)</i>			
date	24-Jun-06	time	5.72	9.49	13.31	17.25	21.29		25.16	29.23	33.32	37.64	42.16		47.48	6 / 2			
reaction time		interval		3.77	3.82	3.94	4.04		3.87	4.07	4.09	4.32	4.52	5.32			11.53	11.98	12.93
		velocity	7.87	9.28	9.16	8.88	8.66		9.04	8.60	8.56	8.10	7.74	7.52	8.42		9.11	8.76	8.12
H1 lead leg	L	strides	23	15	15	15	15		15	15	15	15	15	19.7	178				
<b>FINAL - 2006 Osaka Grand Prix (Osaka, JPN)</b>																<i>Yasunori (2007) - race pattern analysis of top Japanese 400m hurdlers</i>			
date	06-May-06	time	6.04	10.06	14.15	18.29	22.36		26.28	30.22	34.22	38.43	42.73		47.60	/ 1			
reaction time		interval		4.02	4.09	4.14	4.07		3.92	3.94	4.00	4.21	4.30	4.87			12.25	11.93	12.51
		velocity	7.45	8.71	8.56	8.45	8.60		8.93	8.88	8.75	8.31	8.14	8.21	8.40		8.57	8.80	8.39
H1 lead leg		strides		15	15	15	15		15	15	15	15	15	135					
<b>FINAL - 2005 Seiko Super Grand Prix (Yokohama, JPN)</b>																<i>Yasunori (2006) - race pattern analysis of top Japanese 400m hurdlers</i>			
date	19-Sep-05	time	5.92	9.89	14.08	18.27	22.36		26.30	30.30	34.49	38.76	43.15		48.24	/ 1			
reaction time		interval		3.97	4.19	4.19	4.09		3.94	4.00	4.19	4.27	4.39	5.09			12.35	12.03	12.85
		velocity	7.60	8.82	8.35	8.35	8.56		8.88	8.75	8.35	8.20	7.97	7.86	8.29		8.50	8.73	8.17
H1 lead leg		strides		15	15	15	15		15	15	15	15	15	135					
<b>FINAL - 2005 IAAF World Championships (Helsinki, FIN)</b>																<i>Yasunori (2006) - race pattern analysis of top Japanese 400m hurdlers</i>			
date	09-Aug-05	time	5.73	9.50	13.30	17.34	21.41		25.38	29.42	33.59	37.86	42.25		47.30	6 / 1			
reaction time	0.153	interval		3.77	3.80	4.04	4.07		3.97	4.04	4.17	4.27	4.39	5.05	<b>PB</b>		11.61	12.08	12.83
		velocity	7.85	9.28	9.21	8.66	8.60		8.82	8.66	8.39	8.20	7.97	7.92	8.46		9.04	8.69	8.18
H1 lead leg		strides		13	13	15	15		15	15	15	15	15	19	150				
<b>FINAL - 2003 USATF National Championships (Palo Alto, CA)</b>																<i>USATF Women's Sprint Development (2003)</i>			
date	22-Jun-03	time	5.97	9.84	13.85	17.92	22.04		26.18	30.30	34.47	38.91	43.56		49.01	4 / <del>2</del> 1			
reaction time		interval		3.87	4.01	4.07	4.12		4.14	4.12	4.17	4.44	4.65	5.45			11.95	12.38	13.26
		velocity	7.54	9.04	8.73	8.60	8.50		8.45	8.50	8.39	7.88	7.53	7.34	8.16		8.79	8.48	7.92
H1 lead leg		strides																	
<b>James-King, Malik (JAM) (1999)</b>																			
<b>FINAL - 2024 Memorial van damme (Brussels, BEL)</b>																<i>Omega Timing (2023) - diamond league race analysis</i>			
date	14-Sep-24	time	6.00	9.74	13.58	17.40	21.44		25.68	30.06	34.51	39.08	43.74		49.37	7 / 6			
reaction time	0.153	interval		3.74	3.84	3.82	4.04		4.24	4.38	4.45	4.57	4.66	5.63			11.70	12.66	13.68
		velocity	7.50	9.36	9.11	9.16	8.66		8.25	7.99	7.87	7.66	7.51	7.10	8.10		8.97	8.29	7.68
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	15	18	171				
<b>Semi-Final 2 - 2024 Olympic Games (Paris, FRA)</b>																<i>Paris 2024 Olympc Games - Results Book (2024)</i>			
date	07-Aug-24	time	6.00	9.77	13.46	17.19	21.09		25.13	29.29	33.60	38.08	42.65		48.85	6 / 7			
reaction time	0.222	interval		3.77	3.69	3.73	3.90		4.04	4.16	4.31	4.48	4.57	6.20			11.19	12.10	13.36
		velocity	7.50	9.28	9.49	9.38	8.97		8.66	8.41	8.12	7.81	7.66	6.45	8.19		9.38	8.68	7.86
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	15	19	172				
<b>Heat 5 - 2024 Olympic Games (Paris, FRA)</b>																<i>Paris 2024 Olympc Games - Results Book (2024)</i>			
date	05-Aug-24	time	5.94	9.64	13.38	17.08	20.93		25.04	29.31	33.71	38.32	42.90		48.21	2 / 1			
reaction time	0.150	interval		3.70	3.74	3.70	3.85		4.11	4.27	4.40	4.61	4.58	5.31			11.14	12.23	13.59
		velocity	7.58	9.46	9.36	9.46	9.09		8.52	8.20	7.95	7.59	7.64	7.53	8.30		9.43	8.59	7.73
H1 lead leg	R	strides	22	14	14	14	14		14	15	15	16	15	18	171				



**FINAL - 2024 Herculis Meeting International d'Athlétisme (Monaco, MON)**

date	12-Jul-24	time	6.02	9.78	13.47	17.22	21.01	25.00	29.06	33.22	37.52	42.00		<i>Omega Timing (2024) - diamond league race analysis</i>					
reaction time	0.150	interval		3.76	3.69	3.75	3.79	3.99	4.06	4.16	4.30	4.48	5.73	47.73	3 / 4		11.20	11.84	12.94
		velocity	7.48	9.31	9.49	9.33	9.23	8.77	8.62	8.41	8.14	7.81	6.98	8.38		9.38	8.87	8.11	
H1 lead leg	L	strides	23	14	14	14	14	14		15	15	15	19.5	157.5					

**FINAL - 2024 Meeting de Paris (Paris, FRA)**

date	07-Jul-24	time	5.92	9.69	13.44	17.28	21.34	25.42	29.60	34.00	38.39	42.89		<i>Omega Timing (2024) - diamond league race analysis</i>					
reaction time	0.172	interval		3.77	3.75	3.84	4.06	4.08	4.18	4.40	4.39	4.50	5.48	48.37	7 / 3		11.36	12.32	13.29
		velocity	7.60	9.28	9.33	9.11	8.62	8.58	8.37	7.95	7.97	7.78	7.30	8.27		9.24	8.52	7.90	
H1 lead leg	R	strides	22	14	14	14	14	14	15	15	15	15	18	170					

**FINAL - 2024 Prefontaine Classic (Eugene, OR)**

date	25-May-24	time	6.07	10.00	14.03	18.06	22.19	26.40	30.68	35.09	39.66	44.20		<i>Omega Timing (2024) - diamond league race analysis</i>					
reaction time	0.144	interval		3.93	4.03	4.03	4.13	4.21	4.28	4.41	4.57	4.54	5.31	49.51	3 / 5		11.99	12.62	13.52
		velocity	7.41	8.91	8.68	8.68	8.47	8.31	8.18	7.94	7.66	7.71	7.53	8.08		8.76	8.32	7.77	
H1 lead leg	L	strides	23	15	15	14	14	15	15	15	15	15	142						

**Januszewski, Pawel (POL) (1972)****FINAL - 2002 European Championships (Munich, GER)**

date	09-Aug-02	time	6.10	9.93	13.69	17.49	21.37	25.45	29.61	33.98	38.46	43.12		<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>					
reaction time	0.145	interval		3.83	3.76	3.80	3.88	4.08	4.16	4.37	4.48	4.66	5.34	48.46	1 / 3		11.39	12.12	13.51
		velocity	7.38	9.14	9.31	9.21	9.02	8.58	8.41	8.01	7.81	7.51	7.49	8.25		9.22	8.66	7.77	
H1 lead leg		strides		14	14	14	14	14	14	14	15	15	128						

**Semi-Final 1 - 2002 European Championships (Munich, GER)**

date	08-Aug-02	time	6.04	9.93	13.73	17.59	21.55	25.67	29.83	34.15	38.65	43.23		<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>					
reaction time		interval		3.89	3.80	3.86	3.96	4.12	4.16	4.32	4.50	4.58	5.37	48.60	1 / 2		11.55	12.24	13.40
		velocity	7.45	9.00	9.21	9.07	8.84	8.50	8.41	8.10	7.78	7.64	7.45	8.23		9.09	8.58	7.84	
H1 lead leg		strides																	

**Heat 1 - 2002 European Championships (Munich, GER)**

date	07-Aug-02	time	6.09	10.06	13.97	17.85	21.89	26.03	30.31	34.71	39.32	43.87		<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>					
reaction time		interval		3.97	3.91	3.88	4.04	4.14	4.28	4.40	4.61	4.55	5.30	49.17	1 / 1		11.76	12.46	13.56
		velocity	7.39	8.82	8.95	9.02	8.66	8.45	8.18	7.95	7.59	7.69	7.55	8.14		8.93	8.43	7.74	
H1 lead leg		strides																	

**FINAL - 2001 IAAF World Championships (Edmonton, CAN)**

date	10-Aug-01	time	5.9	9.8	13.5	17.5	21.4	25.5	29.8	34.1	38.7	43.3		<i>Behm (2001) - Edmonton: Le quatrache: les finales</i>					
reaction time	0.175	interval		3.90	3.70	4.00	3.90	4.10	4.30	4.30	4.60	4.60	5.27	48.57	7 / <del>7</del> 6		11.60	12.30	13.50
		velocity	7.63	8.97	9.46	8.75	8.97	8.54	8.14	8.14	7.61	7.61	7.59	8.24		9.05	8.54	7.78	
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	152						

**FINAL - 2000 Olympic Games (Sydney, AUS)**

date	27-Sep-00	time	5.98	9.86	13.66	17.50	21.46	22.94	25.62	29.82	34.10	38.66	43.18		<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>				
reaction time	0.149	interval		3.88	3.80	3.84	3.96	4.16	4.20	4.28	4.56	4.52	5.26	48.44	2 / 6		11.52	12.32	13.36
		velocity	7.53	9.02	9.21	9.11	8.84	8.72	8.41	8.33	8.18	7.68	7.74	7.60	8.26		9.11	8.52	7.86
H1 lead leg		strides	22	14	14	14	14	14	14	14	15	15	15	18.1	169.1				

**Semi-Final 1 - 2000 Olympic Games (Sydney, AUS)**

date	25-Sep-00	time	6.02	9.86	13.70	17.62	21.58	23.14	25.70	29.94	34.26	38.66	43.22		<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>				
reaction time	0.244	interval		3.84	3.84	3.92	3.96	4.12	4.24	4.32	4.40	4.56	5.20	48.42	7 / 4		11.60	12.32	13.28
		velocity	7.48	9.11	9.11	8.93	8.84	8.64	8.50	8.25	8.10	7.95	7.68	7.69	8.26		9.05	8.52	7.91
H1 lead leg		strides	22	14	14	14	14	14	14	14	15	15	15	18.2	169.2				

**Heat 5 - 2000 Olympic Games (Sydney, AUS)**

date	24-Sep-00	time	6.08	9.88	13.64	17.48	21.44	25.60	30.08	34.80	40.04	45.28		<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>					
reaction time	0.163	interval		3.80	3.76	3.84	3.96	4.16	4.48	4.72	5.24	5.24	6.12	51.40	2 / 2		11.40	12.60	15.20
		velocity	7.40	9.21	9.31	9.11	8.84	8.41	7.81	7.42	6.68	6.68	6.54	7.78		9.21	8.33	6.91	
H1 lead leg		strides	22	14	14	14	14	14	14	14	15	15	15	19.7	170.7				

**FINAL - 2000 ISTAF (Berlin, GER)**

date	01-Sep-00	time	6.07	9.93	13.76	17.69	21.67	25.81	29.98	34.28	38.76	43.34		<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>					
reaction time		interval		3.86	3.83	3.93	3.98	4.14	4.17	4.30	4.48	4.58	5.15	48.49	1 / 3		11.62	12.29	13.36
		velocity	7.41	9.07	9.14	8.91	8.79	8.45	8.39	8.14	7.81	7.64	7.77	8.25		9.04	8.54	7.86	
H1 lead leg		strides																	

**FINAL - 1999 IAAF World Championships (Sevilla, ESP)**

date	27-Aug-99	time	5.54	9.24	13.00	16.77	20.74	24.77	29.00	33.21	37.64	42.27		<i>Sanchez (1999) - Sevilla '99: análisis de la carreras con villas</i>					
reaction time	0.138	interval		3.70	3.76	3.77	3.97	4.03	4.23	4.21	4.43	4.63	5.92	48.19	4 / 5		11.23	12.23	13.27
		velocity	8.12	9.46	9.31	9.28	8.82	8.68	8.27	8.31	7.90	7.56	6.76	8.30		9.35	8.59	7.91	
H1 lead leg	L	strides	21	14	14	14	14	14	14	14	15	15	15	18.5	168.5				

**Semi-Final 1 - 1999 IAAF World Championships (Sevilla, ESP)**

date	25-Aug-99	time	5.81	9.59	13.39	17.21	21.25	25.30	29.51	33.85	38.20	42.79		<i>Sanchez (1999) - Sevilla '99: análisis de la carreras con villas</i>					
reaction time	0.255	interval		3.78	3.80	3.82	4.04	4.05	4.21	4.34	4.35	4.59	5.84	48.63	7 / 2		11.40	12.30	13.28

H1 lead leg	L	velocity	7.75	9.26	9.21	9.16	8.66		8.64	8.31	8.06	8.05	7.63	6.85	8.23		9.21	8.54	7.91
		strides	21	14	14	14	14		14	14	15	15	15	18	168				
<b>FINAL - 1998 European Championships (Budapest, HUN)</b>													<i>Behm (1998) - analyse et commentaries: le 400m haies: Pavel la surprise!</i>						
date	20-Aug-98	time	5.9	9.8	13.6	17.4	21.2		25.2	29.3	33.6	38.1	42.7		48.17		3 / 1		
reaction time		interval		3.9	3.8	3.8	3.8		4.0	4.1	4.3	4.5	4.6	5.47	<b>NR / PB</b>		11.50	11.90	13.40
		velocity	7.63	8.97	9.21	9.21	9.21		8.75	8.54	8.14	7.78	7.61	7.31	8.30		9.13	8.82	7.84
H1 lead leg	L	strides	21	14	14	14	14		13	14	14	15	15	18.5	166.5				
<b>Johnson, Brandon (USA) (1985)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2008 USA Olympic Trials (Eugene, OR)</b>													<i>USATF Hurdle Development (2008)</i>						
date	29-Jun-08	time	5.84	9.59	13.41	17.37	21.54		25.64	29.96	34.38	38.89	43.38		48.72		2 / 6		
reaction time		interval		3.75	3.82	3.96	4.17		4.10	4.32	4.42	4.51	4.49	5.34			11.53	12.59	13.42
		velocity	7.71	9.33	9.16	8.84	8.39		8.54	8.10	7.92	7.76	7.80	7.49	8.21		9.11	8.34	7.82
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	14	14		142				
<b>Heat 3 - 2007 USATF National Championships (Indianapolis, IN)</b>													<i>USATF Men's Hurdle Development (2007)</i>						
date	21-Jun-07	time	5.87	9.58	13.51	17.48	21.60		25.86	30.46	35.07	39.01	44.69		50.04		5 / 1		
reaction time		interval		3.71	3.93	3.97	4.12		4.26	4.60	4.61	3.94	5.68	5.35			11.61	12.98	14.23
		velocity	7.67	9.43	8.91	8.82	8.50		8.22	7.61	7.59	8.88	6.16	7.48	7.99		9.04	8.09	7.38
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	15	15		144				
<b>Jonot, Franck (FRA) (1961)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 1986 French National Championships (Aix les Bains, FRA)</b>													<i>Veney - split times from PJ</i>						
date	10-Aug-86	time	6.05	10.02	13.86	17.80	21.94		26.03	30.53	34.95	39.57	44.39		50.21		/ 2		
reaction time		interval		3.97	3.84	3.94	4.14		4.09	4.50	4.42	4.62	4.82	5.82			11.75	12.73	13.86
		velocity	7.44	8.82	9.11	8.88	8.45		8.56	7.78	7.92	7.58	7.26	6.87	7.97		8.94	8.25	7.58
H1 lead leg		strides																	
<b>Jordan-Bacot, Quivell (USA) (1999)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2023 USATF National Championships (Eugene, OR) (TV Analysis)</b>													<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>						
date	09-Jul-23	time	5.94	9.67	13.61	17.58	21.65		26.06		35.16	39.97	44.84		50.73		2 / 8		
reaction time		interval		3.73	3.94	3.97	4.07		4.41		9.10	4.81	4.87	5.89			11.64		
		velocity	7.58	9.38	8.88	8.82	8.60		7.94		7.69	7.28	7.19	6.79	7.88		9.02		
H1 lead leg	L	strides	21	13	13	13	13					15	15		103				
<b>Jordan, Quivell (USA) (1999)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>Semi-Final 1 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)</b>													<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>						
date	25-Jun-21	time	5.93	9.77	13.87	18.03	22.27		26.57	31.07	35.63	40.37	45.17		50.94		2 / 7		
reaction time	0.178	interval		3.84	4.10	4.16	4.24		4.30	4.50	4.56	4.74	4.80	5.77			12.10	13.04	14.10
		velocity	7.59	9.11	8.54	8.41	8.25		8.14	7.78	7.68	7.38	7.29	6.93	7.85		8.68	8.05	7.45
H1 lead leg	L	strides	21	13	14	14	14				15	15	15	15	136				
<b>FINAL - 2021 NCAA Championships (Eugene, OR) (TV Analysis)</b>													<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>						
date	11-Jun-21	time	6.00	9.75		17.73	21.80			30.57	35.20	40.00		50.54		1 / 9			
reaction time	0.166	interval		3.75		7.98	4.07			8.77	4.63	4.80					11.73	12.84	
		velocity	7.50	9.33		8.77	8.60			7.98	7.56	7.29		7.91			8.95	8.18	
H1 lead leg	L	strides	21	13			14				15	15		78					
<b>Juan, Jaime (ESP) (1977)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 1998 Spanish National Championships (San Sebastián, ESP)</b>													<i>Ruiz (1998) - campeonato des españa absoluto: análisis de la carreras con villas</i>						
date	02-Aug-98	time	6.22	10.26	14.35	18.57	22.96		27.51	32.00	36.51	41.27	46.19		52.40		8 / 6		
reaction time		interval		4.04	4.09	4.22	4.39		4.55	4.49	4.51	4.76	4.92	6.21			12.35	13.43	14.19
		velocity	7.23	8.66	8.56	8.29	7.97		7.69	7.80	7.76	7.35	7.11	6.44	7.63		8.50	7.82	7.40
H1 lead leg	L	strides	21	14	14	14	14		15	15	15	15	15	18.5	170.5				
<b>Juránek, Martin (CZE) (1991)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2020 Golden Spike (Ostrava, CZE) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>						
date	08-Sep-20	time	6.10	10.04	13.98	17.95	22.09			30.63	35.30	40.24		51.71		2 / 7			
reaction time	0.166	interval		3.94	3.94	3.97	4.14			8.54	4.67	4.94					11.85	12.68	
		velocity	7.38	8.88	8.88	8.82	8.45			8.20	7.49	7.09		7.74			8.86	8.28	
H1 lead leg	L	strides	22	15		15	15					17	17	101					
<b>Juricic, Darko (CRO) (1969)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>Heat 5 - 2000 Olympic Games (Sydney, AUS)</b>													<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>						
date	24-Sep-00	time	6.04	9.92	13.76	17.72	21.80		25.96	30.64	35.60	40.88	46.16		52.39		1 / 6		
reaction time	0.167	interval		3.88	3.84	3.96	4.08		4.16	4.68	4.96	5.28	5.28	6.23			11.68	12.92	15.52
		velocity	7.45	9.02	9.11	8.84	8.58		8.41	7.48	7.06	6.63	6.63	6.42	7.64		8.99	8.13	6.77
H1 lead leg		strides	22	14	14	14	14		14	16	17	18	18	21.9	182.9				
<b>Kageyama, Ayata (JPN) (2000)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2018 Japanese National High School Championships (Nagoya, JPN)</b>													<i>Kota (2018) - 71st high school championships: JAF scientific committee - biomechanics data collection</i>						
date	04-Aug-18	time	6.49	10.73	15.28	19.92	24.61		29.31	34.00	38.61	43.36	48.25		53.79		7 / 8		
reaction time		interval		4.24	4.55	4.64	4.69		4.70	4.69	4.61	4.75	4.89	5.54			13.43	14.08	14.25
		velocity	6.93	8.25	7.69	7.54	7.46		7.45	7.46	7.59	7.37	7.16	7.22	7.44		7.82	7.46	7.37
H1 lead leg		strides		15	15	15	15		15	15	15	15	15		135				
<b>Kajiki, Ryo (JPN) (1995)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>

**C FINAL - 2021 Denka Athletics Challenge Cup (Niigata, JPN)***Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season*

date	06-Jun-21	time	5.96	9.78	13.66	17.65	21.79	26.13	30.58	35.19	39.92	44.81	50.33	9 / 1			
reaction time		interval		3.82	3.88	3.99	4.14	4.34	4.45	4.61	4.73	4.89	5.52		11.69	12.93	14.23
		velocity	7.55	9.16	9.02	8.77	8.45	8.06	7.87	7.59	7.40	7.16	7.25		8.98	8.12	7.38
H1 lead leg		strides		14	14	14	14	14	14	15	15	15	129				

**B FINAL - 2021 Michitaka Kinami Memorial (Osaka, JPN)***Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season*

date	01-Jun-21	time	6.04	9.79	13.61	17.60	21.64	25.88	30.35	34.90	39.69	44.58	50.16	7 / 3			
reaction time	0.248	interval		3.75	3.82	3.99	4.04	4.24	4.47	4.55	4.79	4.89	5.58		11.56	12.75	14.23
		velocity	7.45	9.33	9.16	8.77	8.66	8.25	7.83	7.69	7.31	7.16	7.17		9.08	8.24	7.38
H1 lead leg	R	strides		20	13	13	13	13	14	14	15	15	18.5		161.5		

**FINAL - 2020 All Japan Corporate Championships (Kumagaya, JPN)***Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season*

date	20-Sep-20	time	6.14	9.99	13.95	18.02	22.24	26.66	31.13	35.89	40.86	46.01	51.89	8 / 7			
reaction time	0.258	interval		3.85	3.96	4.07	4.22	4.42	4.47	4.76	4.97	5.15	5.88		11.88	13.11	14.88
		velocity	7.33	9.09	8.84	8.60	8.29	7.92	7.83	7.35	7.04	6.80	6.80		8.84	8.01	7.06
H1 lead leg		strides		13	13	13	13	13	14	14	15	15	123				

**FINAL - 2018 National Sports Festival (Fukui, JPN)***Morioka (2018) - race pattern analysis of Japan's top 400m hurdlers - main national competitions in 2018*

date	08-Oct-18	time	6.04	9.86	13.76	17.73	21.83	26.15	30.64	35.14	39.78	44.50	49.61	6 / 1			
reaction time	0.190	interval		3.82	3.90	3.97	4.10	4.32	4.49	4.50	4.64	4.72	5.11		11.69	12.91	13.86
		velocity	7.45	9.16	8.97	8.82	8.54	8.10	7.80	7.78	7.54	7.42	7.83		8.98	8.13	7.58
H1 lead leg		strides		13	13	13	13	13	14	14	15	15	123				

**Kakimori, Hiroshi (JPN) (1968)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 1986 IAAF World Junor Championships (Athens, GRE)***Miskos (1986) - IAAF biomechanical research - Athens 1986 - hurdle races*

date	18-Jul-86	time	6.21	9.92	13.94	18.30	21.95	26.08	30.48	34.98	39.68	44.50	50.09	/ 2			
reaction time		interval		3.71	4.02	4.36	3.65	4.13	4.40	4.50	4.70	4.82	5.59		12.09	12.18	14.02
		velocity	7.25	9.43	8.71	8.03	9.59	8.47	7.95	7.78	7.45	7.26	7.16		8.68	8.62	7.49
H1 lead leg		strides		22	13	13	13	15	15	15	15	15	19		168		

**Kamani, Bayano (PAN) (1980)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2004 Olympic Games (Athina, GRE)***Behm (2005) - Athènes 2004: Les Haies Basses*

date	26-Aug-04	time	5.9	9.5	13.2	17.0	21.1	25.1	29.3	33.9	38.3	42.9	48.74	2 / 5			
reaction time	0.233	interval		3.60	3.70	3.80	4.10	4.00	4.20	4.60	4.40	4.60	5.84		11.10	12.30	13.60
		velocity	7.63	9.72	9.46	9.21	8.54	8.75	8.33	7.61	7.95	7.61	6.85		9.46	8.54	7.72
H1 lead leg	L	strides		20	13	13	13	14	15	15	15	15	19		166		

**Kamata, Mao (JPN)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2019 Shimane High School Championships (Izumo, JPN)***Shimizu (2019) - shimane high school championships 2019 - biomechanics data analysis*

date	25-May-19	time	6.85	11.41	16.12	20.94	25.90	31.07	36.30	41.54	46.77	51.99	57.61	9 / 3			
reaction time		interval		4.56	4.71	4.82	4.96	5.17	5.23	5.24	5.23	5.22	5.62		14.09	15.36	15.69
		velocity	6.57	7.68	7.43	7.26	7.06	6.77	6.69	6.68	6.69	6.70	7.12		7.45	6.84	6.69
H1 lead leg		strides		24	17	17	17	17	17	17	17	17	20		197		

**Kanbara, Daichi (JPN)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****Heat 2 - 2016 Japanese National Youth Championships (Mizuho, JPN)***(2016.11.17) - https://twitter.com/touchdown\_time/media?lang=en&lang=en&lang=en&lang=en*

date	23-Oct-16	time				23.85					38.93		56.20	5 / 4			
reaction time		interval									15.08						
		velocity				7.76					6.96		7.12				
H1 lead leg		strides															

**Kanno, Kohei (JPN) (2002)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2021 Japanese U20 National Championships (Osaka, JPN)***Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season*

date	26-Jun-21	time	6.46	10.51	14.60	18.67	22.84	27.08	31.38	35.77	40.37	45.31	50.88	9 / 4			
reaction time	0.200	interval		4.05	4.09	4.07	4.17	4.24	4.30	4.39	4.60	4.94	5.57		12.21	12.71	13.93
		velocity	6.97	8.64	8.56	8.60	8.39	8.25	8.14	7.97	7.61	7.09	7.18		8.60	8.26	7.54
H1 lead leg	L	strides		22	15	15	15	15	15	15	15	17	19.5		178.5		

**FINAL - 2020 Japanese High School National Championships (Hiroshima, JPN)***Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season*

date	25-Oct-20	time	6.26	10.31	14.48	18.65	22.84	27.11	31.55	36.07	40.86	46.08	51.78	5 / 1			
reaction time	0.177	interval		4.05	4.17	4.17	4.19	4.27	4.44	4.52	4.79	5.22	5.70		12.39	12.90	14.53
		velocity	7.19	8.64	8.39	8.39	8.35	8.20	7.88	7.74	7.31	6.70	7.02		8.47	8.14	7.23
H1 lead leg	L	strides		22	15	15	15	15	15	15	17	19	20.2		183.2		

**Kasai, Yuki (JPN) (2006)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2024 Japanese National High School Championships (Fukuoka, JPN)***Takashima (2024) - national high school sports festival - biomechanics data*

date	30-Jul-24	time	6.22	10.21	14.33	18.55	22.76	26.93	31.33	35.94	40.67	45.68	51.54	4 / 3			
reaction time	0.217	interval		3.99	4.12	4.22	4.21	4.17	4.40	4.61	4.73	5.01	5.86		12.33	12.78	14.35
		velocity	7.23	8.77	8.50	8.29	8.31	8.39	7.95	7.59	7.40	6.99	6.83		8.52	8.22	7.32
H1 lead leg		strides		20	15	15	15	15	15	15	15	15	18		173		

**Kato, Ryosuke (JPN)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2019 Shimane High School Championships (Izumo, JPN)***Shimizu (2019) - shimane high school championships 2019 - biomechanics data analysis*

date	25-May-19	time	6.69	10.91	15.24	19.74	24.38	29.46	34.70	40.02	45.22	50.63	56.54	6 / 2			
reaction time		interval		4.22	4.33	4.50	4.64	5.08	5.24	5.32	5.20	5.41	5.91		13.05	14.96	15.93
		velocity	6.73	8.29	8.08	7.78	7.54	6.89	6.68	6.58	6.73	6.47	6.77		8.05	7.02	6.59
H1 lead leg		strides															



H1 lead leg	strides	23	15	15	15	15	15	17	17	17	17	20	186						
<b>Kato, Seiya (JPN) (1992)</b>																			
<b>C FINAL - 2014 Shizuoka International Athletics Meeting (Fukuroi, JPN)</b>																			
										<i>Yasunori (2014) - race pattern analysis of Japanese top 400m hurdlers for major domestic competitions</i>									
date	03-May-14	time	6.17	10.01	13.93	17.93	22.13	26.35	30.74	35.26	39.90	44.74	50.40	/ 1					
reaction time		interval	3.84	3.92	4.00	4.20	4.22	4.39	4.52	4.64	4.84	5.66	<b>PB</b>		11.76	12.81	14.00		
		velocity	7.29	9.11	8.93	8.75	8.33	8.29	7.97	7.74	7.54	7.23	7.07	7.94	8.93	8.20	7.50		
H1 lead leg	strides		13	13	13	14	14	15	15	15	15	15	127						
<b>FINAL - 2010 Japanese National High School Championships (Okinawa, JPN)</b>																			
										<i>Matsuo (2010) - 63rd high school championships: JAF scientific committee- biomechanics data</i>									
date	31-Jul-10	time	6.37	10.32	14.27	18.24	22.41	26.63	30.98	35.62	40.46	45.45	51.04	/ 1					
reaction time		interval	3.95	3.95	3.97	4.17	4.22	4.35	4.64	4.84	4.99	5.59			11.87	12.74	14.47		
		velocity	7.06	8.86	8.86	8.82	8.39	8.29	8.05	7.54	7.23	7.01	7.16	7.84	8.85	8.24	7.26		
H1 lead leg	strides		13	13	13	14	14	15	15	15	15	15	127						
<b>FINAL - 2009 Japanese National High School Championships (Nara, JPN)</b>																			
										<i>Matsuo (2009) - 62nd high school championships: JAF scientific committee- biomechanics data</i>									
date	31-Jul-09	time	6.32	10.46	14.73	19.05	23.45	28.05	32.74	37.47	42.24	47.00	52.42	/ 3					
reaction time		interval	4.14	4.27	4.32	4.40	4.60	4.69	4.73	4.77	4.76	5.42			12.73	13.69	14.26		
		velocity	7.12	8.45	8.20	8.10	7.95	7.61	7.46	7.40	7.34	7.35	7.38	7.63	8.25	7.67	7.36		
H1 lead leg	strides		14	14	14	14	15	15	15	15	15	15	131						
<b>Kawagoe, Hiroya (JPN) (1997)</b>																			
<b>B FINAL - 2023 Michitaka Kinami Memorial (Osaka, JPN)</b>																			
										<i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>									
date	07-May-23	time	6.09	9.99	14.10	18.25	22.47	26.83	31.26	35.79	40.41	45.13	50.46	2 / 3					
reaction time	0.166	interval	3.90	4.11	4.15	4.22	4.36	4.43	4.53	4.62	4.72	5.33			12.16	13.01	13.87		
		velocity	7.39	8.97	8.52	8.43	8.29	8.03	7.90	7.73	7.58	7.42	7.50	7.93	8.63	8.07	7.57		
H1 lead leg	strides		14	14	14	14	15	15	15	15	15	15	131						
<b>FINAL - 2022 Japanese National Championships (Osaka, JPN)</b>																			
										<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>									
date	11-Jun-22	time	6.01	9.84	13.76	17.82	21.94	26.21	30.63	35.10	39.66	44.33	49.72	4 / 2					
reaction time	0.193	interval	3.83	3.92	4.06	4.12	4.27	4.42	4.47	4.56	4.67	5.39	<b>PB</b>		11.81	12.81	13.70		
		velocity	7.49	9.14	8.93	8.62	8.50	8.20	7.92	7.83	7.68	7.49	7.42	8.05	8.89	8.20	7.66		
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	18.7	170.7					
<b>FINAL - 2022 Seiko Golden Grand Prix (Tokyo, JPN)</b>																			
										<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>									
date	08-May-22	time	5.97	9.73	13.70	17.67	21.79	26.21	30.76	35.40	40.12	45.01	50.66	8 / 9					
reaction time	0.177	interval	3.76	3.97	3.97	4.12	4.42	4.55	4.64	4.72	4.89	5.65			11.70	13.09	14.25		
		velocity	7.54	9.31	8.82	8.82	8.50	7.92	7.69	7.54	7.42	7.16	7.08	7.90	8.97	8.02	7.37		
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	18.2	170.2					
<b>FINAL - 2022 Michitaka Kinami Memorial (Osaka, JPN)</b>																			
										<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>									
date	01-May-22	time	6.02	9.84	13.85	17.92	22.07	26.39	30.88	35.47	40.14	44.91	50.36	8 / 6					
reaction time	0.167	interval	3.82	4.01	4.07	4.15	4.32	4.49	4.59	4.67	4.77	5.45			11.90	12.96	14.03		
		velocity	7.48	9.16	8.73	8.60	8.43	8.10	7.80	7.63	7.49	7.34	7.34	7.94	8.82	8.10	7.48		
H1 lead leg		strides	14	14	14	14	15	15	15	15	15	15	131						
<b>FINAL - 2021 Japanese National Championships (Osaka, JPN)</b>																			
										<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>									
date	26-Jun-21	time	6.06	9.93	13.96	18.05	22.26	26.64	31.16	35.82	40.57	45.40	50.71	3 / 7					
reaction time	0.191	interval	3.87	4.03	4.09	4.21	4.38	4.52	4.66	4.75	4.83	5.31			11.99	13.11	14.24		
		velocity	7.43	9.04	8.68	8.56	8.31	7.99	7.74	7.51	7.37	7.25	7.53	7.89	8.76	8.01	7.37		
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	152						
<b>FINAL - 2021 Denka Athletics Challenge Cup (Niigata, JPN)</b>																			
										<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>									
date	06-Jun-21	time	6.09	10.03	14.03	18.07	22.19	26.51	30.88	35.35	39.97	44.68	50.11	8 / 4					
reaction time		interval	3.94	4.00	4.04	4.12	4.32	4.37	4.47	4.62	4.71	5.43			11.98	12.81	13.80		
		velocity	7.39	8.88	8.75	8.66	8.50	8.10	8.01	7.83	7.58	7.43	7.37	7.98	8.76	8.20	7.61		
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	152						
<b>FINAL - 2021 Michitaka Kinami Memorial (Osaka, JPN)</b>																			
										<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>									
date	01-Jun-21	time	6.21	10.14	14.11	18.17	22.36	26.63	31.06	35.59	40.29	45.10	50.61	4 / 3					
reaction time	0.182	interval	3.93	3.97	4.06	4.19	4.27	4.43	4.53	4.70	4.81	5.51			11.96	12.89	14.04		
		velocity	7.25	8.91	8.82	8.62	8.35	8.20	7.90	7.73	7.45	7.28	7.26	7.90	8.78	8.15	7.48		
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	18.5	170.5					
<b>FINAL - 2021 Ready Steady Tokyo (Tokyo, JPN)</b>																			
										<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>									
date	09-May-21	time	5.96	9.79	13.75	17.75	21.86	26.16	30.50	35.04	39.62	44.29	49.76	9 / 6					
reaction time	0.142	interval	3.83	3.96	4.00	4.11	4.30	4.34	4.54	4.58	4.67	5.47	<b>PB</b>		11.79	12.75	13.79		
		velocity	7.55	9.14	8.84	8.75	8.52	8.14	8.06	7.71	7.64	7.49	7.31	8.04	8.91	8.24	7.61		
H1 lead leg		strides	14	14	14	14	15	15	15	15	15	15	131						
<b>B FINAL - 2021 Shizuoka International Athletics Meeting (Fukuroi, JPN)</b>																			
										<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>									
date	03-May-21	time	6.09	9.96	13.91	17.95	22.07	26.36	30.76	35.24	39.77	44.48	49.91	5 / 1					
reaction time	0.184	interval	3.87	3.95	4.04	4.12	4.29	4.40	4.48	4.53	4.71	5.43			11.86	12.81	13.72		
		velocity	7.39	9.04	8.86	8.66	8.50	8.16	7.95	7.81	7.73	7.43	7.37	8.01	8.85	8.20	7.65		
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	19	171					
<b>FINAL - 2020 Japanese National Championships (Niigata, JPN)</b>																			
										<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>									

date	02-Oct-20	time	6.07	9.96	13.98	18.02	22.19	26.59	31.05	35.57	40.24	45.05	50.61	7 / 6			
reaction time	0.170	interval		3.89	4.02	4.04	4.17	4.40	4.46	4.52	4.67	4.81	5.56		11.95	13.03	14.00
		velocity	7.41	9.00	8.71	8.66	8.39	7.95	7.85	7.74	7.49	7.28	7.19	7.90	8.79	8.06	7.50
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	19	171			

**FINAL - 2020 Seiko Golden Grand Prix (Tokyo, JPN)***Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season*

date	23-Aug-20	time	5.92	9.76	13.65	17.63	21.74	26.01	30.38	34.87	39.56	44.93	52.17	3 / 8			
reaction time	0.142	interval		3.84	3.89	3.98	4.11	4.27	4.37	4.49	4.69	5.37	7.24		11.71	12.75	14.55
		velocity	7.60	9.11	9.00	8.79	8.52	8.20	8.01	7.80	7.46	6.52	5.52	7.67	8.97	8.24	7.22
H1 lead leg		strides	14	14	14	14	14	15	15	15	15	17	133				

**Kawaguchi, Takuto (JPN)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****Heat 2 - 2016 Japanese National Youth Championships (Mizuho, JPN)***(2016.11.17) - https://twitter.com/touchdown\_time/media?lang=en&lang=en&lang=en&lang=en*

date	23-Oct-16	time				24.15							58.08	6 / 6			
reaction time		interval															
		velocity				7.66							6.89				
H1 lead leg		strides															

**Kawakami, Daichi (JPN) (2006)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2024 Japanese National High School Championships (Fukuoka, JPN)***Takashima (2024) - national high school sports festival - biomechanics data*

date	30-Jul-24	time	6.34	10.41	14.56	18.87	23.26	27.66	32.13	36.85	41.71	46.65	52.32	3 / 5			
reaction time	0.240	interval		4.07	4.15	4.31	4.39	4.40	4.47	4.72	4.86	4.94	5.67		12.53	13.26	14.52
		velocity	7.10	8.60	8.43	8.12	7.97	7.95	7.83	7.42	7.20	7.09	7.05	7.65	8.38	7.92	7.23
H1 lead leg		strides	20	14	14	14	14	15	15	15	15	15	18	169			

**Kawakita, Naohiro (JPN) (1980)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2010 Japanese National Championships (Marugame, JPN)***Yasuori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11*

date	05-Jun-10	time	6.16	10.07	13.98	17.95	22.02	26.31	30.65	35.19	39.78	44.42	49.63	1 / 2			
reaction time	0.169	interval		3.91	3.91	3.97	4.07	4.29	4.34	4.54	4.59	4.64	5.21		11.79	12.70	13.77
		velocity	7.31	8.95	8.95	8.82	8.60	8.16	8.06	7.71	7.63	7.54	7.68	8.06	8.91	8.27	7.63
H1 lead leg		strides		13	13	13	13	14	14	14	15	15	124				

**FINAL - 2009 Japanese National Championships (Hiroshima, JPN)***Yasuori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11*

date	27-Jun-09	time	6.13	9.97	13.86	17.85	21.95	26.30	30.75	35.30	39.94	44.59	49.74	4 / 3			
reaction time		interval		3.84	3.89	3.99	4.10	4.35	4.45	4.55	4.64	4.65	5.15		11.72	12.90	13.84
		velocity	7.34	9.11	9.00	8.77	8.54	8.05	7.87	7.69	7.54	7.53	7.77	8.04	8.96	8.14	7.59
H1 lead leg		strides		13	13	13	13	14	14	14	15	15	124				

**FINAL - 2006 Seiko Super Grand Prix (Yokohama, JPN)***Yasuori (2007) - race pattern analysis of top Japanese 400m hurdlers*

date	24-Sep-06	time	6.06	9.83	13.63	17.57	21.66	26.04	30.41	34.88	39.47	44.09	49.30	1 / 2			
reaction time		interval		3.77	3.80	3.94	4.09	4.38	4.37	4.47	4.59	4.62	5.21		11.51	12.84	13.68
		velocity	7.43	9.28	9.21	8.88	8.56	7.99	8.01	7.83	7.63	7.58	7.68	8.11	9.12	8.18	7.68
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	125				

**FINAL - 2006 Japanese National Championships (Kobe, JPN)***Yasuori (2007) - race pattern analysis of top Japanese 400m hurdlers*

date	01-Jul-06	time	6.16	10.01	13.95	17.94	22.01	26.25	30.69	35.33	39.98	44.63	49.70	1 / 3			
reaction time		interval		3.85	3.94	3.99	4.07	4.24	4.44	4.64	4.65	4.65	5.07		11.78	12.75	13.94
		velocity	7.31	9.09	8.88	8.77	8.60	8.25	7.88	7.54	7.53	7.53	7.89	8.05	8.91	8.24	7.53
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	125				

**FINAL - 2006 Osaka Grand Prix (Osaka, JPN)***Yasuori (2007) - race pattern analysis of top Japanese 400m hurdlers*

date	06-May-06	time	6.12	9.89	13.78	17.67	21.67	25.81	30.20	34.70	39.36	44.01	49.25	1 / 7			
reaction time		interval		3.77	3.89	3.89	4.00	4.14	4.39	4.50	4.66	4.65	5.24	<b>PB</b>	11.55	12.53	13.81
		velocity	7.35	9.28	9.00	9.00	8.75	8.45	7.97	7.78	7.51	7.53	7.63	8.12	9.09	8.38	7.60
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	125				

**FINAL - 2005 Japanese National Championships (Tokyo, JPN)***Yasuori (2006) - race pattern analysis of top Japanese 400m hurdlers*

date	04-Jun-05	time	6.14	10.06	14.06	18.10	22.22	26.52	31.07	35.71	40.40	45.24	50.66	1 / 3			
reaction time		interval		3.92	4.00	4.04	4.12	4.30	4.55	4.64	4.69	4.84	5.42		11.96	12.97	14.17
		velocity	7.33	8.93	8.75	8.66	8.50	8.14	7.69	7.54	7.46	7.23	7.38	7.90	8.78	8.10	7.41
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	125				

**Kawamura, Hideaki (JPN) (1974)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2004 Japanese National Championships (Tottori, JPN)***Yasuori (2005) - race pattern analysis of top Japanese 400m hurdlers*

date	05-Jun-04	time	5.97	9.77	13.64	17.68	21.92	26.27	30.72	35.16	39.70	44.34	49.66	1 / 3			
reaction time		interval		3.80	3.87	4.04	4.24	4.35	4.45	4.44	4.54	4.64	5.32		11.71	13.04	13.62
		velocity	7.54	9.21	9.04	8.66	8.25	8.05	7.87	7.88	7.71	7.54	7.52	8.05	8.97	8.05	7.71
H1 lead leg		strides		14	14	14	14	15	15	15	15	15	131				

**FINAL - 2004 Osaka Grand Prix (Osaka, JPN)***Yasuori (2005) - race pattern analysis of top Japanese 400m hurdlers*

date	08-May-04	time	6.10	9.90	13.87	17.99	22.28	26.63	31.00	35.40	39.95	44.62	50.01	1 / 6			
reaction time		interval		3.80	3.97	4.12	4.29	4.35	4.37	4.40	4.55	4.67	5.39		11.89	13.01	13.62
		velocity	7.38	9.21	8.82	8.50	8.16	8.05	8.01	7.95	7.69	7.49	7.42	8.00	8.83	8.07	7.71
H1 lead leg		strides		14	14	14	14	15	15	15	15	15	131				

**Heat 4 - 2000 Olympic Games (Sydney, AUS)***Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games*

date	24-Sep-00	time	5.96	9.68	13.80	17.52	21.52	25.64	30.04	34.60	39.68	44.72	50.68	4 / 4			
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reaction time	0.172	interval	3.72	4.12	3.72	4.00	4.12	4.40	4.56	5.08	5.04	5.96										11.56	12.52	14.68	
		lead leg	7.55	9.41	8.50	9.41	8.75	8.50	7.95	7.68	6.89	6.94	6.71	7.89								9.08	8.39	7.15	
H1 lead leg		strides	21	14	14	14	14	15	15	15	17	16	20	175											
<b>Kechi, Heni (FRA) (1980)</b>																									
<b>FINAL - 2010 European Championships (Barcelona, ESP)</b>																									
date	31-Jul-10	time	6.1	10.0	14.0	18.1	22.3	26.5	30.7	35.0	39.4	44.0		49.34	Lane / Place	7 / 4									
reaction time	0.186	interval	3.90	4.00	4.10	4.20	4.20	4.20	4.30	4.40	4.60	5.34											12.00	12.60	13.30
		velocity	7.38	8.97	8.75	8.54	8.33	8.33	8.33	8.14	7.95	7.61	7.49	8.11									8.75	8.33	7.89
H1 lead leg	R	strides	22	15	15	15	15	15	15	15	15	15	19.5	176.5											
<b>Keita, Naman (FRA) (1978)</b>																									
<b>FINAL - 2007 European Cup (Munich, GER)</b>																									
date	23-Jun-07	time	6.25	9.94	13.60	17.68	21.63	25.72	29.98	34.32	38.73	43.50		48.90	Lane / Place	1 / 3									
reaction time	0.248	interval	3.69	3.66	4.08	3.95	4.09	4.26	4.34	4.41	4.77	5.40											11.43	12.30	13.52
		velocity	7.20	9.49	9.56	8.58	8.86	8.56	8.22	8.06	7.94	7.34	7.41	8.18									9.19	8.54	7.77
H1 lead leg		strides																							
<b>FINAL - 2006 European Championships (Göteborg, SWE)</b>																									
date	10-Aug-06	time	5.9	9.4	13.1	17.0	20.9	25.0	29.5	34.0	38.7	43.5		49.13	Lane / Place	1 / 4									
reaction time		interval	3.50	3.70	3.90	3.90	4.10	4.50	4.50	4.70	4.80	5.63											11.10	12.50	14.00
		velocity	7.63	10.00	9.46	8.97	8.97	8.54	7.78	7.78	7.45	7.29	7.10	8.14									9.46	8.40	7.50
H1 lead leg	R	strides	20	12	12	12	12	13	13	14	14	14	136												
<b>FINAL - 2004 Olympic Games (Athens, GRE)</b>																									
date	26-Aug-04	time	6.00	9.62	13.46	17.26	21.41	25.50	29.68	33.99	38.32	42.92		48.26	Lane / Place	7 / 3									
reaction time	0.268	interval	3.62	3.84	3.80	4.15	4.09	4.18	4.31	4.33	4.60	5.34											11.26	12.42	13.24
		velocity	7.50	9.67	9.11	9.21	8.43	8.56	8.37	8.12	8.08	7.61	7.49	8.29									9.33	8.45	7.93
H1 lead leg	R	strides	20	12	12	12	13	13	13	13	13	13	17	151											
<b>Semi-Final 2 - 2003 IAAF World Championships (Paris, FRA)</b>																									
date	27-Aug-03	time	6.0	9.8	13.6	17.8	22.0	26.3	30.6	35.1	39.7		49.57	Lane / Place	1 / 8										
reaction time	0.169	interval	3.80	3.80	4.20	4.20	4.30	4.30	4.50	4.60		9.87											11.80	12.80	
		velocity	7.50	9.21	9.21	8.33	8.33	8.14	8.14	7.78	7.61	7.60	8.07										8.90	8.20	
H1 lead leg		strides	21	12	12	13	12	13	13	13	13	14	18	154											
<b>Heat 2 - 2003 IAAF World Championships (Paris, FRA)</b>																									
date	26-Aug-03	time	5.7	9.7	13.4	17.3	21.3	25.5	29.7	34.2	38.8	43.6		49.08	Lane / Place	5 / 5									
reaction time	0.232	interval	4.00	3.70	3.90	4.00	4.20	4.20	4.50	4.60	4.80	5.48											11.60	12.40	13.90
		velocity	7.89	8.75	9.46	8.97	8.75	8.33	8.33	7.78	7.61	7.29	7.30	8.15									9.05	8.47	7.55
H1 lead leg		strides	21	12	12	13	12	13	13	13	13	14	17.5	153.5											
<b>Kenziera, Dave (USA) (1994)</b>																									
<b>FINAL - 2024 USA Olympic Trials (Eugene, OR)</b>																									
date	30-Jun-24	time	5.78	9.41	13.29	17.16	21.06	22.82	25.13	29.31	33.83	38.68	43.65		49.84	Lane / Place	2 / 7								
reaction time		interval	3.63	3.88	3.87	3.90	4.07	4.18	4.52	4.85	4.97	6.19											11.38	12.15	14.34
		velocity	7.79	9.64	9.02	9.04	8.97	8.76	8.60	8.37	7.74	7.22	7.04	6.46	8.03								9.23	8.64	7.32
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	14	15	16	18	161										
<b>Semi-Final 3 - 2024 USA Olympic Trials (Eugene, OR)</b>																									
date	28-Jun-24	time	5.90	9.58	13.34	17.21	21.08	22.91	25.24	29.53	34.05	38.86	43.58		49.22	Lane / Place	8 / 4								
reaction time		interval	3.68	3.76	3.87	3.87	4.16	4.29	4.52	4.81	4.72	5.64													
		velocity	7.63	9.51	9.31	9.04	9.04	8.73	8.41	8.16	7.74	7.28	7.42	7.09	8.13								11.31	12.32	14.05
H1 lead leg	R	strides		13	13	13	13	13	13	13	14	14	14	17.5	137.5								9.28	8.52	7.47
<b>Heat 5 - 2024 USA Olympic Trials (Eugene, OR)</b>																									
date	27-Jun-24	time	5.84	9.56	13.52	17.56	21.62	23.48	25.83	30.28	35.05	39.98	44.96		50.72	Lane / Place	3 / 2								
reaction time		interval	3.72	3.96	4.04	4.06	4.21	4.45	4.77	4.93	4.98	5.76											11.72	12.72	14.68
		velocity	7.71	9.41	8.84	8.66	8.62	8.52	8.31	7.87	7.34	7.10	7.03	6.94	7.89								8.96	8.25	7.15
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	14	14	15	18	159										
<b>FINAL - 2024 Seashore Doha Meeting (Doha, QAT)</b>																									
date	10-May-24	time	5.81	9.52	13.30	17.16	21.15	25.29	29.59	34.13	38.79	43.57		49.29	Lane / Place	8 / 4									
reaction time	0.165	interval	3.71	3.78	3.86	3.99	4.14	4.30	4.54	4.66	4.78	5.72											11.35	12.43	13.98
		velocity	7.75	9.43	9.26	9.07	8.77	8.45	8.14	7.71	7.51	7.32	6.99	8.12									9.25	8.45	7.51
H1 lead leg	R	strides	20	13	13	13	13	13	13	14	14	14	18	158											
<b>FINAL - 2023 USATF National Championships (Eugene, OR) (TV Analysis)</b>																									
date	09-Jul-23	time	6.00	9.84	13.58	17.35	21.25	25.29	29.59	34.13	38.90		49.74	Lane / Place	8 / 7										
reaction time		interval	3.84	3.74	3.77	3.90	4.04	4.30	4.54	4.77		10.84											11.35	12.24	
		velocity	7.50	9.11	9.36	9.28	8.97	8.66	8.14	7.71	7.34	6.92	8.04										9.25	8.58	
H1 lead leg	L	strides	21	14	13	13	13		14	14	15		117												
<b>Semi-Final 3 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>																									
date	01-Aug-21	time	5.90	9.56	13.33	17.13	21.13	25.20	29.43	33.87	38.40	43.13		48.67	Lane / Place	9 / 3									
reaction time	0.190	interval	3.66	3.77	3.80	4.00	4.07	4.23	4.44	4.53	4.73	5.54											11.23	12.30	13.70
		velocity	7.63	9.56	9.28	9.21	8.75	8.60	8.27	7.88	7.73	7.40	7.22	8.22									9.35	8.54	7.66



H1 lead leg	R	strides	20	13	13	13	13	13	13	14	14	15	18.2	159.2					
<b>Heat 4 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>																<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>			
date	30-Jul-21	time	6.00	9.76	13.56	17.50	21.53	25.70	30.10	39.15	43.85	49.23	6 / 4	11.50	12.60	13.75			
reaction time	0.192	interval	3.76	3.80	3.94	4.03	4.17	4.40	9.05	4.70	5.38	8.13	9.13	8.33	7.64				
		velocity	7.50	9.31	9.21	8.88	8.68	8.39	7.95	7.73	7.45	7.43	8.13	9.13	8.33	7.64			
H1 lead leg	R	strides	20	13	13	13	13	13	14	14	14	14	18	145					
<b>FINAL - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)</b>																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	26-Jun-21	time	5.80	9.57	13.41	17.38	21.38	25.52	29.73	34.16	38.57	43.06	48.38	4 / 3	11.58	12.35	13.33		
reaction time	0.172	interval	3.77	3.84	3.97	4.00	4.14	4.21	4.43	4.41	4.49	5.32	PB	9.07	8.50	7.88			
		velocity	7.76	9.28	9.11	8.82	8.75	8.45	8.31	7.90	7.94	7.80	7.52	8.27	9.07	8.50	7.88		
H1 lead leg	R	strides	20	13	13	13	13	13	13	14	14	14	18.2	158.2					
<b>Semi-Final 2 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)</b>																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	25-Jun-21	time	6.00	9.82	13.70	17.58	21.55	25.72	30.10	34.56	39.10	43.91	49.05	8 / 3	11.58	12.52	13.81		
reaction time	0.190	interval	3.82	3.88	3.88	3.97	4.17	4.38	4.46	4.54	4.81	5.14	8.15	9.07	8.39	7.60			
		velocity	7.50	9.16	9.02	9.02	8.82	8.39	7.99	7.85	7.71	7.28	7.78	8.15	9.07	8.39	7.60		
H1 lead leg	R	strides	13	13	13	13	13	13	13	14	14	14	18	138					
<b>Heat 2 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)</b>																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	24-Jun-21	time	5.94	9.74	13.61	17.58	21.65	25.89	30.23	34.67	39.17	43.78	49.19	8 / 2	11.64	12.65	13.55		
reaction time	0.250	interval	3.80	3.87	3.97	4.07	4.24	4.34	4.44	4.50	4.61	5.41	8.13	9.02	8.30	7.75			
		velocity	7.58	9.21	9.04	8.82	8.60	8.25	8.06	7.88	7.78	7.59	7.39	8.13	9.02	8.30	7.75		
H1 lead leg	R	strides	13	13	13	13	13	13	13	14	14	14	17.5	137.5					
<b>FINAL - 2021 Doha Diamond League (Doha, QAT) (TV Analysis)</b>																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	28-May-21	time	5.90	9.84	13.85	17.88	22.02	23.7	26.26	30.60	35.20	39.94	44.74	50.39	8 / 8	11.98	12.72	14.14	
reaction time	0.197	interval	3.94	4.01	4.03	4.14	4.24	4.34	4.60	4.74	4.80	5.65	7.94	8.76	8.25	7.43			
		velocity	7.63	8.88	8.73	8.68	8.45	8.44	8.25	8.06	7.61	7.38	7.29	7.08	7.94	8.76	8.25	7.43	
H1 lead leg	R	strides	20	13	13	13	13	13	13	14	14	14	140						
<b>FINAL - 2020 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)</b>																<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>			
date	17-Sep-20	time	5.81	9.58	13.35	17.25	21.25	23.0	25.36	29.73	34.30	39.04	43.84	49.35	9 / 4	11.44	12.48	14.11	
reaction time	0.172	interval	3.77	3.77	3.90	4.00	4.11	4.37	4.57	4.74	4.80	5.51	8.11	9.18	8.41	7.44			
		velocity	7.75	9.28	9.28	8.97	8.75	8.70	8.52	8.01	7.66	7.38	7.29	7.26	8.11	9.18	8.41	7.44	
H1 lead leg	R	strides	20	13	13	13	13	13	13	14	14	15	18.2	159.2					
<b>FINAL - 2020 ISTAF (Berlin, GER) (TV Analysis)</b>																<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>			
date	13-Sep-20	time	5.88	13.56	17.40	25.60	29.96	34.52	39.32	44.36	50.28	4 / 3	11.52	12.56	14.40				
reaction time	0.198	interval	7.68	3.84	8.20	4.36	4.56	4.80	5.04	5.92	7.96	9.11	8.36	7.29					
		velocity	7.65	9.11	9.11	8.54	8.03	7.68	7.29	6.94	6.76	7.96	9.11	8.36	7.29				
H1 lead leg	L	strides	21	13	13	13	13	13	13	14	15	15	78						
<b>FINAL - 2020 Bauhaus Galan (Stockholm, SWE) (TV Analysis)</b>																<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>			
date	23-Aug-20	time	5.68	9.46	13.30	17.28	21.34	23.1	25.50	29.78	34.24	38.94	43.68	49.47	7 / 5	11.60	12.50	13.90	
reaction time	0.170	interval	3.78	3.84	3.98	4.06	4.16	4.28	4.46	4.70	4.74	5.79	8.09	9.05	8.40	7.55			
		velocity	7.92	9.26	9.11	8.79	8.62	8.66	8.41	8.18	7.85	7.45	7.38	6.91	8.09	9.05	8.40	7.55	
H1 lead leg	R	strides	13	13	13	13	13	13	13	13	14	14	18.5	124.5					
<b>FINAL - 2019 The Match - Europe v USA (Minsk, BLR) (TV Analysis)</b>																<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>			
date	10-Sep-19	time	5.80	9.56	13.40	17.23	21.20	25.33	29.73	34.16	38.76	43.46	48.99	6 / 1	11.43	12.50	13.73		
reaction time	0.157	interval	3.76	3.84	3.83	3.97	4.13	4.40	4.43	4.60	4.70	5.53	8.16	9.19	8.40	7.65			
		velocity	7.76	9.31	9.11	9.14	8.82	8.47	7.95	7.90	7.61	7.45	7.23	8.16	9.19	8.40	7.65		
H1 lead leg	R	strides	13	13	13	13	13	13	13	14	14	14	18.2	138.2					
<b>FINAL - 2019 Weltklasse (Zürich, SUI) (TV Analysis)</b>																<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>			
date	29-Aug-19	time	5.80	9.52	13.30	17.30	21.28	22.9	25.40	29.68	38.80	43.56	48.98	3 / 5	11.50	12.38	13.88		
reaction time	0.156	interval	3.72	3.78	3.98	4.06	4.12	4.28	4.46	4.70	4.74	5.79	8.09	9.05	8.40	7.55			
		velocity	7.76	9.41	9.00	8.79	8.73	8.50	8.18	7.68	7.35	7.38	8.17	9.13	8.48	7.56			
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	14	14	86						
<b>FINAL - 2019 Meeting de Paris (Paris, FRA) (TV Analysis)</b>																<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>			
date	24-Aug-19	time	5.80	9.60	13.52	17.42	21.50	23.2	25.66	30.00	34.44	39.08	43.78	49.16	5 / 6	11.62	12.58	13.78	
reaction time	0.152	interval	3.80	3.92	3.90	4.08	4.16	4.34	4.44	4.64	4.70	5.38	8.14	9.04	8.35	7.62			
		velocity	7.76	9.21	8.93	8.97	8.58	8.62	8.41	8.06	7.88	7.54	7.45	7.43	8.14	9.04	8.35	7.62	
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	14	14	17.5	156.5					
<b>FINAL - 2019 Müller Grand Prix (Birmingham, GBR) (TV Analysis)</b>																<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>			
date	18-Aug-19	time	5.84	9.68	13.52	17.36	21.28	23.1	25.40	29.76	34.32	38.92	43.68	49.29	7 / 3	11.52	12.40	13.92	
reaction time	0.130	interval	3.84	3.84	3.84	3.92	4.12	4.36	4.56	4.60	4.76	5.61	8.12	9.11	8.47	7.54			
		velocity	7.71	9.11	9.11	9.11	8.93	8.66	8.50	8.03	7.68	7.61	7.35	7.13	8.12	9.11	8.47	7.54	
H1 lead leg	R	strides	20	13	13	13	13	13	13	14	14	15	18.5	159.5					
<b>FINAL - 2019 Prefontaine Classic (Stanford, CA) (TV Analysis)</b>																<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>			
date	30-Jun-19	time	5.73	9.50	13.43	17.43	21.46	25.70	30.10	34.66	39.30	43.97	49.46	7 / 4	11.70	12.67	13.87		
reaction time	0.247	interval	3.77	3.93	4.00	4.03	4.24	4.40	4.56	4.64	4.67	5.49	8.17	9.11	8.47	7.54			

H1 lead leg	R	velocity	7.85	9.28	8.91	8.75	8.68		8.25	7.95	7.68	7.54	7.49	7.29	8.09		8.97	8.29	7.57	
		strides	20	13	13	13	13		13	13	14		15		127					
<b>FINAL - 2019 Bislett Games (Oslo, NOR) (TV Analysis)</b>																<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>				
date	13-Jun-19	time	5.88	9.68	13.58		21.55	23.3	25.69	30.02	34.39	39.04	43.74		49.27		4 / 4			
reaction time	0.163	interval		3.80	3.90		7.97		4.14	4.33	4.37	4.65	4.70	5.53					13.72	
		velocity	7.65	9.21	8.97		8.78	8.58	8.45	8.08	8.01	7.53	7.45	7.23	8.12				7.65	
H1 lead leg	R	strides	20	13	13				13	13	13	14	14	18	131					
<b>FINAL - 2019 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)</b>																<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>				
date	06-Jun-19	time	5.82	9.65	13.49	17.50	21.55		25.76	29.99	34.46	39.01	43.67		48.99		9 / 2			
reaction time	0.142	interval		3.83	3.84	4.01	4.05		4.21	4.23	4.47	4.55	4.66	5.32				11.68	12.49	13.68
		velocity	7.73	9.14	9.11	8.73	8.64		8.31	8.27	7.83	7.69	7.51	7.52	8.16			8.99	8.41	7.68
H1 lead leg	R	strides	20	13	13	13	13		13	13	14	14	15	17	157					
<b>FINAL - 2018 Müller Anniversary Games (London, GBR) (TV Analysis)</b>																<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>				
date	21-Jul-18	time	5.80	9.64			21.60		25.72	30.04	34.52	39.04	43.64		49.02		3 / 4			
reaction time	0.167	interval		3.84			11.96		4.12	4.32	4.48	4.52	4.60	5.38					13.60	
		velocity	7.76	9.11			8.78		8.50	8.10	7.81	7.74	7.61	7.43	8.16				7.72	
H1 lead leg	R	strides	20	13					13	13	14	14	15	18	120					
<b>FINAL - 2018 NCAA Championships (Eugene, OR) (TV Analysis)</b>																<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>				
date	08-Jun-18	time	5.86		13.43	17.20	21.03		25.06			38.43	43.03		48.42		3 / 3			
reaction time		interval			7.57	3.77	3.83		4.03			13.37	4.60	5.39	PB			11.34		
		velocity	7.68		9.25	9.28	9.14		8.68			7.85	7.61	7.42	8.26			9.26		
H1 lead leg	R	strides				13	13		13				15	19	73					
<b>Keter, Erick (KEN) (1966)</b>																				
<b>Semi-Final 3 - 2000 Olympic Games (Sydney, AUS)</b>																<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>				
date	25-Sep-00	time	6.14	9.90	13.70	17.70	21.98		26.26	30.74	35.34				51.25		7 / 8			
reaction time	0.202	interval		3.76	3.80	4.00	4.28		4.28	4.48	4.60							11.56	13.04	
		velocity	7.33	9.31	9.21	8.75	8.18		8.18	7.81	7.61				7.80			9.08	8.05	
H1 lead leg		strides	21	13	13	15	15		15	15	15				122					
<b>Heat 2 - 2000 Olympic Games (Sydney, AUS)</b>																				
<b>Heat 2 - 2000 Olympic Games (Sydney, AUS)</b>																<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>				
date	24-Sep-00	time	6.18	10.02	13.90	17.98	22.10		26.34		35.22	39.86	44.58		50.06		3 / 6			
reaction time	0.269	interval		3.84	3.88	4.08	4.12		4.24		8.88	4.64	4.72	5.48				11.80		
		velocity	7.28	9.11	9.02	8.58	8.50		8.25		7.88	7.54	7.42	7.30	7.99			8.90		
H1 lead leg		strides	21	13	15	15	15		15	15	15	15	15	18.1	172.1					
<b>Kharlov, Aleksandr (URS) (1958)</b>																				
<b>FINAL - 1983 IAAF World Championships (Helsinki, FIN)</b>																<i>McFarlane (1988) - The Science of Hurdling</i>				
date	09-Aug-83	time	5.79	9.58	13.75		21.80		25.80	29.97	34.47	39.05	43.76		49.03		1 / 3			
reaction time		interval		3.79	4.17		8.05		4.00	4.17	4.50	4.58	4.71	5.27					13.79	
		velocity	7.77	9.23	8.39		8.70		8.75	8.39	7.78	7.64	7.43	7.59	8.16				7.61	
H1 lead leg	L	strides	21	13	13	13	13		13	13	13	13	13	17	155					
<b>Kikuta, Kyo (JPN) (2006)</b>																				
<b>FINAL - 2024 Japanese National High School Championships (Fukuoka, JPN)</b>																<i>Takashima (2024) - national high school sports festival - biomechanics data</i>				
date	30-Jul-24	time	5.97	9.93	13.93	18.12	22.31		26.58	31.01	35.52	40.06	44.86		50.14		7 / 1			
reaction time	0.179	interval		3.96	4.00	4.19	4.19		4.27	4.43	4.51	4.54	4.80	5.28				12.15	12.89	13.85
		velocity	7.54	8.84	8.75	8.35	8.35		8.20	7.90	7.76	7.71	7.29	7.58	7.98			8.64	8.15	7.58
H1 lead leg		strides	21	15	15	15	15		15	15	15	17	17	21	181					
<b>Kino, Tomoharu (JPN) (1989)</b>																				
<b>D FINAL - 2012 Shizuoka International Athletics Meeting (Fukuroi, JPN)</b>																<i>Yasunori (2013) - race pattern analysis for the top Japanese 400m hurdlers in major domestic competitions</i>				
date	03-May-12	time	6.07	9.92	13.87	17.87	21.97		26.26	30.68	35.28	40.07	44.83		50.08		/ 1			
reaction time		interval		3.85	3.95	4.00	4.10		4.29	4.42	4.60	4.79	4.76	5.25				11.80	12.81	14.15
		velocity	7.41	9.09	8.86	8.75	8.54		8.16	7.92	7.61	7.31	7.35	7.62	7.99			8.90	8.20	7.42
H1 lead leg		strides		13	13	13	14		14	15	15	15	15	15	127					
<b>Kinoshita, Seita (JPN)</b>																				
<b>FINAL - 2023 Japanese National High School Championships (Sapporo, JPN)</b>																<i>Takashima (2023) - national high school sports festival - biomechanics data</i>				
date	04-Aug-23	time	6.32	10.41	14.61	18.95	23.41		27.98	32.67	37.50	42.48	47.50		52.93		2 / 8			
reaction time	0.277	interval		4.09	4.20	4.34	4.46		4.57	4.69	4.83	4.98	5.02	5.43				12.63	13.72	14.83
		velocity	7.12	8.56	8.33	8.06	7.85		7.66	7.46	7.25	7.03	6.97	7.37	7.56			8.31	7.65	7.08
H1 lead leg		strides	21	15	15	15	15		15	15	15	15	15	19	175					
<b>Kishimoto, Takayuki (JPN) (1990)</b>																				
<b>FINAL - 2023 Japanese National Championships (Osaka, JPN)</b>																<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>				
date	03-Jun-23	time	5.87	9.56	13.35	17.27	21.39		25.66	30.10	34.75	39.62	44.71		50.80		4 / 8			
reaction time	0.156	interval		3.69	3.79	3.92	4.12		4.27	4.44	4.65	4.87	5.09	6.09				11.40	12.83	14.61
		velocity	7.67	9.49	9.23	8.93	8.50		8.20	7.88	7.53	7.19	6.88	6.57	7.87			9.21	8.18	7.19
H1 lead leg	R	strides	21	13	13	13	13		14	14	14	15	15	19	164					
<b>FINAL - 2023 Seiko Golden Grand Prix (Yokohama, JPN)</b>																<i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>				
date	21-May-23	time	5.84	9.51	13.31	17.35	21.50		25.71	29.91	34.32	38.97	43.78		49.28		8 / 3			

reaction time	0.138	interval	3.67	3.80	4.04	4.15	4.21	4.20	4.41	4.65	4.81	5.50	11.51	12.56	13.87			
		velocity	7.71	9.54	9.21	8.66	8.43	8.31	8.33	7.94	7.53	7.28	7.27	8.12	9.12	8.36	7.57	
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	18	164				
<b>B FINAL - 2023 Michitaka Kinami Memorial (Osaka, JPN)</b>													<i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>					
date	07-May-23	time	5.97	9.81	13.83	17.98	22.31	26.64	31.05	35.62	40.27	45.01	50.49	9 / 4				
reaction time	0.136	interval	3.84	4.02	4.15	4.33	4.33	4.41	4.57	4.65	4.74	5.48	12.01	13.07	13.96			
		velocity	7.54	9.11	8.71	8.43	8.08	8.08	7.94	7.66	7.53	7.38	7.30	7.92	8.74	8.03	7.52	
H1 lead leg		strides	13	13	13	13	14	14	15	15	15	15	125					
<b>B FINAL - 2023 Shizuoka International Meeting (Fukuroi, JPN)</b>													<i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>					
date	03-May-23	time	5.90	9.66	13.55	17.48	21.52	25.72	30.14	34.70	39.34	44.11	49.61	9 / 3				
reaction time	0.152	interval	3.76	3.89	3.93	4.04	4.20	4.42	4.56	4.64	4.77	5.50	11.58	12.66	13.97			
		velocity	7.63	9.31	9.00	8.91	8.66	8.33	7.92	7.68	7.54	7.34	7.27	8.06	9.07	8.29	7.52	
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	18	164				
<b>Heat 2 - 2022 World Athletics Championships (Eugene, OR)</b>													<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>					
date	16-Jul-22	time	5.99	9.81	13.75	17.82	22.06	23.76	26.39	30.83	35.47	40.17	45.03	50.66	2 / 6			
reaction time	0.117	interval	3.82	3.94	4.07	4.24	4.33	4.44	4.64	4.70	4.86	5.63	11.83	13.01	14.20			
		velocity	7.51	9.16	8.88	8.60	8.25	8.42	8.08	7.88	7.54	7.45	7.20	7.10	7.90	8.88	8.07	7.39
H1 lead leg		strides	13	13	13	13	14	14	15	15	15	15	125					
<b>FINAL - 2022 Japanese National Championships (Osaka, JPN)</b>													<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>					
date	11-Jun-22	time	5.96	9.73	13.65	17.71	21.94	26.26	30.61	35.19	39.79	44.51	49.99	6 / 4				
reaction time	0.164	interval	3.77	3.92	4.06	4.23	4.32	4.35	4.58	4.60	4.72	5.48	11.75	12.90	13.90			
		velocity	7.55	9.28	8.93	8.62	8.27	8.10	8.05	7.64	7.61	7.42	7.30	8.00	8.94	8.14	7.55	
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	18.2	164.2				
<b>FINAL - 2022 Seiko Golden Grand Prix (Tokyo, JPN)</b>													<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>					
date	08-May-22	time	5.91	9.69	13.58	17.60	21.74	26.03	30.43	35.02	39.61	44.41	49.86	5 / 5				
reaction time	0.138	interval	3.78	3.89	4.02	4.14	4.29	4.40	4.59	4.59	4.80	5.45	11.69	12.83	13.98			
		velocity	7.61	9.26	9.00	8.71	8.45	8.16	7.95	7.63	7.63	7.29	7.34	8.02	8.98	8.18	7.51	
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	18.2	164.2				
<b>FINAL - 2022 Michitaka Kinami Memorial (Osaka, JPN)</b>													<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>					
date	01-May-22	time	5.94	9.79	13.76	17.83	21.96	26.18	30.46	34.97	39.57	44.34	49.84	9 / 4				
reaction time	0.125	interval	3.85	3.97	4.07	4.13	4.22	4.28	4.51	4.60	4.77	5.50	11.89	12.63	13.88			
		velocity	7.58	9.09	8.82	8.60	8.47	8.29	8.18	7.76	7.61	7.34	7.27	8.03	8.83	8.31	7.56	
H1 lead leg		strides	13	13	13	13	14	14	15	15	15	15	125					
<b>FINAL - 2021 Japanese National Championships (Osaka, JPN)</b>													<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>					
date	26-Jun-21	time	5.92	9.71	13.61	17.63	21.72	25.93	30.23	34.70	39.20	43.88	49.29	8 / 3				
reaction time	0.156	interval	3.79	3.90	4.02	4.09	4.21	4.30	4.47	4.50	4.68	5.41	11.71	12.60	13.65			
		velocity	7.60	9.23	8.97	8.71	8.56	8.31	8.14	7.83	7.78	7.48	7.39	8.12	8.97	8.33	7.69	
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	18	164				
<b>FINAL - 2021 Denka Athletics Challenge Cup (Niigata, JPN)</b>													<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>					
date	06-Jun-21	time	5.96	9.79	13.66	17.67	21.76	25.93	30.18	34.70	39.27	43.98	49.38	3 / 1				
reaction time		interval	3.83	3.87	4.01	4.09	4.17	4.25	4.52	4.57	4.71	5.40	11.71	12.51	13.80			
		velocity	7.55	9.14	9.04	8.73	8.56	8.39	8.24	7.74	7.66	7.43	7.41	8.10	8.97	8.39	7.61	
H1 lead leg		strides	13	13	13	13	14	14	15	15	15	15	125					
<b>FINAL - 2021 Michitaka Kinami Memorial (Osaka, JPN)</b>													<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>					
date	01-Jun-21	time	6.01	9.79	13.66	17.62	21.67	25.99	30.25	34.73	39.55	44.44	49.97	5 / 2				
reaction time	0.140	interval	3.78	3.87	3.96	4.05	4.32	4.26	4.48	4.82	4.89	5.53	11.61	12.63	14.19			
		velocity	7.49	9.26	9.04	8.84	8.64	8.10	8.22	7.81	7.26	7.16	7.23	8.00	9.04	8.31	7.40	
H1 lead leg	R	strides	21	13	13	13	13	14	14	14	15	15	18.2	163.2				
<b>B FINAL - 2021 Shizuoka International Athletics Meeting (Fukuroi, JPN)</b>													<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>					
date	03-May-21	time	5.99	9.83	13.75	17.83	22.04	26.39	30.81	35.39	40.06	44.91	50.56	4 / 3				
reaction time	0.145	interval	3.84	3.92	4.08	4.21	4.35	4.42	4.58	4.67	4.85	5.65	11.84	12.98	14.10			
		velocity	7.51	9.11	8.93	8.58	8.31	8.05	7.92	7.64	7.49	7.22	7.08	7.91	8.87	8.09	7.45	
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	18.5	164.5				
<b>FINAL - 2018 Japanese National Championships (Yamaguchi, JPN)</b>													<i>Morioka (2018) - race pattern analysis of Japan's top 400m hurdles - main national competitions in 2018</i>					
date	23-Jun-18	time	5.82	9.52	13.36	17.30	21.44	25.71	30.05	34.57	39.14	43.86	49.30	4 / 1				
reaction time	0.148	interval	3.70	3.84	3.94	4.14	4.27	4.34	4.52	4.57	4.72	5.44	11.48	12.75	13.81			
		velocity	7.73	9.46	9.11	8.88	8.45	8.20	8.06	7.74	7.66	7.42	7.35	8.11	9.15	8.24	7.60	
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	18.5	164.5				
<b>FINAL - 2018 Seiko Golden Grand Prix (Osaka, JPN)</b>													<i>Morioka (2018) - race pattern analysis of Japan's top 400m hurdles - main national competitions in 2018</i>					
date	20-May-18	time	5.85	9.54	13.33	17.22	21.24	25.44	29.91	34.51	39.13	43.88	49.36	5 / 2				
reaction time	0.140	interval	3.69	3.79	3.89	4.02	4.20	4.47	4.60	4.62	4.75	5.48	11.37	12.69	13.97			
		velocity	7.69	9.49	9.23	9.00	8.71	8.33	7.83	7.61	7.58	7.37	7.30	8.10	9.23	8.27	7.52	
H1 lead leg	R	strides	20	13	13	13	13	14	14	15	15	15	18.2	163.2				
<b>A FINAL - 2018 Shizuoka International Athletics Meeting (Fukuroi, JPN)</b>													<i>Morioka (2018) - race pattern analysis of Japan's top 400m hurdles - main national competitions in 2018</i>					



date	03-May-18	time	5.89	9.68	13.53	17.50	21.55	25.74	30.16	34.70	39.29	43.98	49.33	1 / 2				
reaction time	0.170	interval		3.79	3.85	3.97	4.05	4.19	4.42	4.54	4.59	4.69	5.35		11.61	12.66	13.82	
		velocity	7.64	9.23	9.09	8.82	8.64	8.35	7.92	7.71	7.63	7.46	7.48	8.11	9.04	8.29	7.60	
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	18.2	164.2				
<b>FINAL - 2017 National Sport Festival (Matsuyama, JPN)</b>													<i>Morioka (2018) - Analysis of the race patterns of the top 400m hurdles in Japan</i>					
date	07-Oct-17	time	5.84	9.54	13.41	17.41	21.51	25.78	30.08	34.60	39.27	44.01	49.39	/ 1				
reaction time	0.149	interval		3.70	3.87	4.00	4.10	4.27	4.30	4.52	4.67	4.74	5.38		11.57	12.67	13.93	
		velocity	7.71	9.46	9.04	8.75	8.54	8.20	8.14	7.74	7.49	7.38	7.43	8.10	9.08	8.29	7.54	
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	125					
<b>A FINAL - 2017 Shizuoka International Athletics Meeting (Fukuroi, JPN)</b>													<i>Morioka (2018) - Analysis of the race patterns of the top 400m hurdles in Japan</i>					
date	03-May-17	time	5.93	9.65	13.50	17.44	21.51	25.76	30.16	34.73	39.42	44.26	49.93	/ 1				
reaction time		interval		3.72	3.85	3.94	4.07	4.25	4.40	4.57	4.69	4.84	5.67		11.51	12.72	14.10	
		velocity	7.59	9.41	9.09	8.88	8.60	8.24	7.95	7.66	7.46	7.23	7.05	8.01	9.12	8.25	7.45	
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	125					
<b>FINAL - 2015 Japanese National Championships (Niigata, JPN)</b>													<i>Yasunori (2015) - race pattern analysis of the top 400m hurdlers in Japan</i>					
date	28-Jun-15	time	6.01	9.76	13.61	17.55	21.64	25.91	30.26	34.78	39.42	44.26	49.81	5 / 2				
reaction time	0.134	interval		3.75	3.85	3.94	4.09	4.27	4.35	4.52	4.64	4.84	5.55		11.54	12.71	14.00	
		velocity	7.49	9.33	9.09	8.88	8.56	8.20	8.05	7.74	7.54	7.23	7.21	8.03	9.10	8.26	7.50	
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	19	165				
<b>FINAL - 2014 Japanese National Championships (Fukushima, JPN)</b>													<i>Yasunori (2014) - race pattern analysis of Japanese top 400m hurdlers for major domestic competitions</i>					
date	08-Jun-14	time	5.89	9.64	13.53	17.52	21.62	25.89	30.28	34.75	39.32	44.01	49.49	4 / 1				
reaction time		interval		3.75	3.89	3.99	4.10	4.27	4.39	4.47	4.57	4.69	5.48		11.63	12.76	13.73	
		velocity	7.64	9.33	9.00	8.77	8.54	8.20	7.97	7.83	7.66	7.46	7.30	8.08	9.03	8.23	7.65	
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	18.5	165				
<b>FINAL - 2014 Seiko Golden Grand Prix (Tokyo, JPN)</b>													<i>Yasunori (2014) - race pattern analysis of Japanese top 400m hurdlers for major domestic competitions</i>					
date	11-May-14	time	5.92	9.64	13.46	17.41	21.60	25.97	30.47	34.97	39.61	44.33	49.81	/ 4				
reaction time		interval		3.72	3.82	3.95	4.19	4.37	4.50	4.50	4.64	4.72	5.48		11.49	13.06	13.86	
		velocity	7.60	9.41	9.16	8.86	8.35	8.01	7.78	7.78	7.54	7.42	7.30	8.03	9.14	8.04	7.58	
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	125					
<b>A FINAL - 2014 Shizuoka International Athletics Meeting (Fukuroi, JPN)</b>													<i>Yasunori (2014) - race pattern analysis of Japanese top 400m hurdlers for major domestic competitions</i>					
date	03-May-14	time	5.96	9.71	13.56	17.60	21.75	26.07	30.49	35.03	39.70	44.42	49.75	/ 1				
reaction time		interval		3.75	3.85	4.04	4.15	4.32	4.42	4.54	4.67	4.72	5.33		11.64	12.89	13.93	
		velocity	7.55	9.33	9.09	8.66	8.43	8.10	7.92	7.71	7.49	7.42	7.50	8.04	9.02	8.15	7.54	
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	125					
<b>FINAL - 2012 Japanese National Championships (Osaka, JPN)</b>													<i>Yasunori (2013) - race pattern analysis for the top Japanese 400m hurdlers in major domestic competitions</i>					
date	09-Jun-12	time	5.76	9.43	13.25	17.15	21.25	25.49	29.74	34.16	38.66	43.28	48.41	5 / 1				
reaction time		interval		3.67	3.82	3.90	4.10	4.24	4.25	4.42	4.50	4.62	5.13	<b>PB</b>	11.39	12.59	13.54	
		velocity	7.81	9.54	9.16	8.97	8.54	8.25	8.24	7.92	7.78	7.58	7.80	8.26	9.22	8.34	7.75	
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	18	164				
<b>FINAL - 2012 Shizuoka International Athletics Meeting (Fukuroi, JPN)</b>													<i>Yasunori (2013) - race pattern analysis for the top Japanese 400m hurdlers in major domestic competitions</i>					
date	03-May-12	time	5.77	9.51	13.31	17.25	21.35	25.69	30.04	34.54	39.09	43.69	48.88	/ 1				
reaction time		interval		3.74	3.80	3.94	4.10	4.34	4.35	4.50	4.55	4.60	5.19		11.48	12.79	13.65	
		velocity	7.80	9.36	9.21	8.88	8.54	8.06	8.05	7.78	7.69	7.61	7.71	8.18	9.15	8.21	7.69	
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	125					
<b>FINAL - 2011 Japanese National Championships (Kumagaya, JPN)</b>													<i>Yasuhori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>					
date	11-Jun-11	time	5.94	9.74	13.63	17.62	21.81	25.91	30.21	34.63	39.23	43.92	49.28	/ 1				
reaction time		interval		3.80	3.89	3.99	4.19	4.10	4.30	4.42	4.60	4.69	5.36		11.68	12.59	13.71	
		velocity	7.58	9.21	9.00	8.77	8.35	8.54	8.14	7.92	7.61	7.46	7.46	8.12	8.99	8.34	7.66	
H1 lead leg		strides		13	13	13	14	14	14	14	15	15	125					
<b>Race A - 2011 Shizuoka International Athletics Meeting (Fukuroi, JPN)</b>													<i>Yasuhori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>					
date	03-May-11	time	5.97	9.76	13.66	17.66	21.85	26.09	30.38	34.75	39.35	43.96	49.27	/ 2				
reaction time		interval		3.79	3.90	4.00	4.19	4.24	4.29	4.37	4.60	4.61	5.31	<b>PB</b>	11.69	12.72	13.58	
		velocity	7.54	9.23	8.97	8.75	8.35	8.25	8.16	8.01	7.61	7.59	7.53	8.12	8.98	8.25	7.73	
H1 lead leg		strides		13	13	13	14	14	14	14	15	15	125					
<b>FINAL - 2010 Osaka Grand Prix (Osaka, JPN)</b>													<i>Yasuhori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>					
date	08-May-10	time	5.97	9.84	13.85	17.86	22.06	26.28	30.60	35.09	39.71	44.45	49.95	/ 6				
reaction time		interval		3.87	4.01	4.01	4.20	4.22	4.32	4.49	4.62	4.74	5.50		11.89	12.74	13.85	
		velocity	7.54	9.04	8.73	8.73	8.33	8.29	8.10	7.80	7.58	7.38	7.27	8.01	8.83	8.24	7.58	
H1 lead leg		strides		13	13	13	14	14	15	15	15	15	127					
<b>FINAL - 2008 Japanese National High School Championships (Kumagaya, JPN)</b>													<i>Abe (2008) - 61st high school championships: JAF scientific committee- biomechanics data</i>					
date	31-Jul-08	time	6.06	10.08	14.24	18.51	22.91	27.37	31.75	36.21	40.75	45.40	50.64	/ 1				
reaction time		interval		4.02	4.16	4.27	4.40	4.46	4.38	4.46	4.54	4.65	5.24		12.45	13.24	13.65	
		velocity	7.43	8.71	8.41	8.20	7.95	7.85	7.99	7.85	7.71	7.53	7.63	7.90	8.43	7.93	7.69	
H1 lead leg		strides		15	15	15	15	15	15	15	15	15	135					

Kitur, Simon (KEN) (1959)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>Semi-Final 2 - 1988 Olympic Games (Seoul, KOR)</b>		<i>Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988</i>																
date	24-Sep-88	time	6.12	9.92	13.81	17.81	21.90	26.10	30.45	34.91	39.63	44.45		49.74	1 / 6			
reaction time		interval		3.80	3.89	4.00	4.09	4.20	4.35	4.46	4.72	4.82	5.29			11.69	12.64	14.00
		velocity	7.35	9.21	9.00	8.75	8.56	8.33	8.05	7.85	7.42	7.26	7.56	8.04		8.98	8.31	7.50
H1 lead leg		strides	22	15	15	15	15	15	15	15	16	16	18.1	177.1				
<b>Kjerpeset, Øyrind Strømmen (NOR) ( )</b>		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL - 2016 Bislett Games (Oslo, NOR) (TV Analysis)</b>		<i>Henson (2021) - Athlete First: 2016 year end hurdle report</i>																
date	09-Jun-16	time	6.08	9.92	13.84	17.92	22.24	26.56	31.00	35.48	40.24	45.16		50.98	2 / 8			
reaction time	0.153	interval		3.84	3.92	4.08	4.32	4.32	4.44	4.48	4.76	4.92	5.82			11.84	13.08	14.16
		velocity	7.40	9.11	8.93	8.58	8.10	8.10	7.88	7.81	7.35	7.11	6.87	7.85		8.87	8.03	7.42
H1 lead leg	L	strides	21	13		13	13	14	14	14	14	15		131				
<b>Knoke, Gary (AUS) (1942)</b>		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL - 1964 Olympic Games (Tokyo, JPN)</b>		<i>Breitschaft (1965) - die leichtathletik wettkämpfe der 1964 olympischen sommerspielen - 400m hürdenlauf</i>																
date	16-Oct-64	time	5.8		13.7		21.8		30.6		40.1			50.4	2 / 4			
reaction time		interval			7.90		8.10		8.80		9.50		10.30					
		velocity	7.76		8.86		8.64		7.95		7.37		7.28	7.94				
H1 lead leg		strides																
<b>Kodama, Yusaka (JPN) (2000)</b>		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL - 2023 Japanese National Championships (Osaka, JPN)</b>		<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>																
date	03-Jun-23	time	5.91	9.63	13.41	17.25	21.37	25.58	29.90	34.37	39.04	44.01		49.83	7 / 3			
reaction time	0.198	interval		3.72	3.78	3.84	4.12	4.21	4.32	4.47	4.67	4.97	5.82			11.34	12.65	14.11
		velocity	7.61	9.41	9.26	9.11	8.50	8.31	8.10	7.83	7.49	7.04	6.87	8.03		9.26	8.30	7.44
H1 lead leg	R	strides	21	13	13	13	14	14	15	15	15	15	19.7	167.7				
<b>FINAL - 2023 Seiko Golden Grand Prix (Yokohama, JPN)</b>		<i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>																
date	21-May-23	time	5.86	9.53	13.30	17.23	21.34	25.53	29.85	34.28	38.77	43.39		48.77	4 / 1			
reaction time	0.180	interval		3.67	3.77	3.93	4.11	4.19	4.32	4.43	4.49	4.62	5.38	<b>PB</b>		11.37	12.62	13.54
		velocity	7.68	9.54	9.28	8.91	8.52	8.35	8.10	7.90	7.80	7.58	7.43	8.20		9.23	8.32	7.75
H1 lead leg	R	strides	21	13	13	13	14	14	15	15	15	15	19	167				
<b>C FINAL - 2023 Michitaka Kinami Memorial (Osaka, JPN)</b>		<i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>																
date	07-May-23	time	5.97	9.76	13.61	17.58	21.72	25.99	30.40	34.97	39.64	44.51		50.10	6 / 1			
reaction time	0.163	interval		3.79	3.85	3.97	4.14	4.27	4.41	4.57	4.67	4.87	5.59			11.61	12.82	14.11
		velocity	7.54	9.23	9.09	8.82	8.45	8.20	7.94	7.66	7.49	7.19	7.16	7.98		9.04	8.19	7.44
H1 lead leg		strides		13	13	13	14	14	15	15	15	15		127				
<b>A FINAL - 2023 Shizuoka International Meeting (Fukuroi, JPN)</b>		<i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>																
date	03-May-23	time	5.91	9.71	13.55	17.42	21.47	25.61	29.93	34.34	38.88	43.58		49.01	3 / 1			
reaction time	0.171	interval		3.80	3.84	3.87	4.05	4.14	4.32	4.41	4.54	4.70	5.43	<b>PB</b>		11.51	12.51	13.65
		velocity	7.61	9.21	9.11	9.04	8.64	8.45	8.10	7.94	7.71	7.45	7.37	8.16		9.12	8.39	7.69
H1 lead leg	R	strides	21	13	13	13	14	14	15	15	15	15	19	167				
<b>Koeh, Haron (KEN) (1990)</b>		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL - 2019 Seiko Golden Grand Prix (Osaka, JPN)</b>		<i>Hirokawa (2019) - research on athlete performance and technique- 2019 data book</i>																
date	19-May-19	time	6.46	10.44	14.51	18.65	22.89	27.34	31.92	36.72	41.65	46.63		52.48	5 / 7			
reaction time	0.174	interval		3.98	4.07	4.14	4.24	4.45	4.58	4.80	4.93	4.98	5.85			12.19	13.27	14.71
		velocity	6.97	8.79	8.60	8.45	8.25	7.87	7.64	7.29	7.10	7.03	6.84	7.62		8.61	7.91	7.14
H1 lead leg	R	strides	23	13	15	13	13	15	15	15	15	15	18.7	170.7				
<b>Köhldorfer, Leo (AUT) (2001)</b>		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>Heat 2 - 2024 European Athletics Championships (Roma, ITA)</b>		<i>European Athletics (2024) - 2024 european athletics championships - results book</i>																
date	09-Jun-24	time	5.92	9.73	13.63	17.65	21.83	26.17	30.69	35.39	40.37	45.42		51.52	9 / 7			
reaction time	0.198	interval		3.81	3.90	4.02	4.18	4.34	4.52	4.70	4.98	5.05	6.10			11.73	13.04	14.73
		velocity	7.60	9.19	8.97	8.71	8.37	8.06	7.74	7.45	7.03	6.93	6.56	7.76		8.95	8.05	7.13
H1 lead leg		strides												0				
<b>Köhler, Hermann (FRG) (1950)</b>		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL - 1975 West German National Championships (Gelsenkirchen, FRG)</b>		<i>Helbig (1975) - 400-m-hürdenlauf</i>																
date	28-Jun-75	time	6.1	10.2	14.2	18.3	22.6	24.6	27.0	32.0	36.1	40.8	45.6	51.37	3 / 3			
reaction time		interval		4.11	4.02	4.13	4.26	4.38	5.00	4.16	4.65	4.78	5.82			12.26	13.64	13.59
		velocity	7.43	8.52	8.71	8.47	8.22	8.14	7.99	7.00	8.41	7.53	7.32	6.87	7.79	8.56	7.70	7.73
H1 lead leg		strides																
<b>Köhrbrück, Carsten (FRG) (1967)</b>		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL - 1985 European Junior Championships (Cottbus, GDR)</b>		<i>Warburton (1985) - 1985 european junior championships - hurdles</i>																
date	25-Aug-85	time	6.46	10.09	14.09	18.37	22.66	27.21	31.50	36.24	40.78	45.63		51.23	1 / 3			
reaction time		interval		3.63	4.00	4.28	4.29	4.55	4.29	4.74	4.54	4.85	5.60			11.91	13.13	14.13
		velocity	6.97	9.64	8.75	8.18	8.16	7.69	8.16	7.38	7.71	7.22	7.14	7.81		8.82	8.00	7.43
H1 lead leg		strides																
<b>Koike, Takayuki (JPN) (1984)</b>		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL - 2010 Japanese National Championships (Marugume, JPN)</b>		<i>Yasuho (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>																
date	05-Jun-10	time	6.02	9.79	13.71	17.66	21.78	26.03	30.40	34.94	39.51	44.23		49.76	1 / 3			

reaction time	0.197	interval	3.77	3.92	3.95	4.12	4.25	4.37	4.54	4.57	4.72	5.53		11.64	12.74	13.83	
		velocity	7.48	9.28	8.93	8.86	8.50	8.24	8.01	7.71	7.66	7.42	7.23	8.04	9.02	8.24	7.59
H1 lead leg		strides	14	14	14	14	15	15	15	15	15	15	131				
<b>FINAL - 2010 Osaka Grand Prix (Osaka, JPN)</b>																	
<i>Yasunori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>																	
date	08-May-10	time	6.11	9.91	13.75	17.59	21.59	25.76	30.08	34.53	39.03	43.85	49.42	/ 3			
reaction time		interval	3.80	3.84	3.84	4.00	4.17	4.32	4.45	4.50	4.82	5.57		11.48	12.49	13.77	
		velocity	7.36	9.21	9.11	9.11	8.75	8.39	8.10	7.87	7.78	7.26	7.18	8.09	9.15	8.41	7.63
H1 lead leg		strides	14	14	14	14	15	15	15	15	15	15	131				
<b>FINAL - 2009 Osaka Grand Prix (Osaka, JPN)</b>																	
<i>Yasunori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>																	
date	09-May-09	time	6.02	9.79	13.63	17.57	21.59	25.78	30.15	34.77	39.44	44.28	49.93	/ 7			
reaction time		interval	3.77	3.84	3.94	4.02	4.19	4.37	4.62	4.67	4.84	5.65		11.55	12.58	14.13	
		velocity	7.48	9.28	9.11	8.88	8.71	8.35	8.01	7.58	7.49	7.23	7.08	8.01	9.09	8.35	7.43
H1 lead leg		strides	14	14	14	14	14	14	14	15	15	15	129				
<b>FINAL - 2008 Japanese National Championships (Kawasaki, JPN)</b>																	
<i>Yasunori (2009) - race pattern analysis of prestigious Japanese 400m hurdlers</i>																	
date	27-Jun-08	time	5.92	9.62	13.44	17.31	21.36	25.56	29.93	34.40	39.07	44.11	50.09	/ 3			
reaction time		interval	3.70	3.82	3.87	4.05	4.20	4.37	4.47	4.67	5.04	5.98		11.39	12.62	14.18	
		velocity	7.60	9.46	9.16	9.04	8.64	8.33	8.01	7.83	7.49	6.94	6.69	7.99	9.22	8.32	7.40
H1 lead leg		strides	13	13	13	13	13	13	14	14	15	15	123				
<b>FINAL - 2006 Seiko Super Grand Prix (Yokohama, JPN)</b>																	
<i>Yasunori (2007) - race pattern analysis of top Japanese 400m hurdlers</i>																	
date	24-Sep-06	time	6.06	9.85	13.70	17.62	21.72	25.99	30.36	34.81	39.33	43.95	49.45	/ 3			
reaction time		interval	3.79	3.85	3.92	4.10	4.27	4.37	4.45	4.52	4.62	5.50		11.56	12.74	13.59	
		velocity	7.43	9.23	9.09	8.93	8.54	8.20	8.01	7.87	7.74	7.58	7.27	8.09	9.08	8.24	7.73
H1 lead leg		strides	14	14	14	14	15	15	15	15	15	15	131				
<b>Kong Jie (CHN) (2003)</b>																	
<b>H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10</b>																	
<i>CAA Hurdle Development (2021)</i>																	
date	02-Apr-21	time	6.33	10.43	14.71	19.08	23.48	28.09	32.92	37.90	43.07	48.43	54.89	1 / 7			
reaction time	0.264	interval	4.10	4.28	4.37	4.40	4.61	4.83	4.98	5.17	5.36	6.46		12.75	13.84	15.51	
		velocity	7.11	8.54	8.18	8.01	7.95	7.59	7.25	7.03	6.77	6.53	6.19	7.29	8.24	7.59	6.77
H1 lead leg	L	strides	21	17	15	15	15	15	15	15	15	15	19	177			
<b>Heat 1 - 2021 National Grand Prix (Chengdu, CHN)</b>																	
<i>CAA Hurdle Development (2021)</i>																	
date	01-Apr-21	time	6.28	10.46	14.80	19.08	23.54	28.10	32.82	37.68	42.70	47.96	53.91	6 / 4			
reaction time	0.233	interval	4.18	4.34	4.28	4.46	4.56	4.72	4.86	5.02	5.26	5.95		12.80	13.74	15.14	
		velocity	7.17	8.37	8.06	8.18	7.85	7.68	7.42	7.20	6.97	6.65	6.72	7.42	8.20	7.64	6.94
H1 lead leg	L	strides	21	15	15	15	15	15	15	15	15	15	18	174			
<b>Königsmark, Varg (GER) (1992)</b>																	
<b>H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10</b>																	
<i>Green (2015) - twitter.com/jackpgreen (from Behm?)</i>																	
date	15-Aug-14	time	6.03	9.79	13.71	17.59	21.51	25.71	30.03	34.55	39.31	44.35	49.91	/ 7			
reaction time	0.190	interval	3.76	3.92	3.88	3.92	4.20	4.32	4.52	4.76	5.04	5.56		11.56	12.44	14.32	
		velocity	7.46	9.31	8.93	9.02	8.93	8.33	8.10	7.74	7.35	6.94	7.19	8.01	9.08	8.44	7.33
H1 lead leg	L	strides	13	13	13	13	14	14	14	14	15	15	124				
<b>FINAL - 2011 DLV Junioren-Gala (Mannheim, GER)</b>																	
<i>Beck (2011) - 400-meter-hürdensprinter im aufschwung</i>																	
date	03-Jul-11	time	6.12	10.02	14.06	18.10	22.22	26.44	30.74	35.22	39.97	44.86	50.46	/ 1			
reaction time		interval	3.90	4.04	4.04	4.12	4.22	4.30	4.48	4.75	4.89	5.60		11.98	12.64	14.12	
		velocity	7.35	8.97	8.66	8.66	8.50	8.29	8.14	7.81	7.37	7.16	7.14	7.93	8.76	8.31	7.44
H1 lead leg		strides	20	13	13	13	13	13	14	14	15	15	143				
<b>FINAL - 2011 German National Junior Championships (Bremen, GER)</b>																	
<i>Beck (2011) - 400-meter-hürdensprinter im aufschwung</i>																	
date	26-Jun-11	time	6.22	10.12	14.14	18.21	22.40	26.84	31.38	35.98	40.54	45.18	50.24	/ 1			
reaction time		interval	3.90	4.02	4.07	4.19	4.44	4.54	4.60	4.56	4.64	5.06		11.99	13.17	13.80	
		velocity	7.23	8.97	8.71	8.60	8.35	7.88	7.71	7.61	7.68	7.54	7.91	7.96	8.76	7.97	7.61
H1 lead leg		strides	20	13	13	13	13	14	14	14	14	14	142				
<b>Konishi, Yuta (JPN) (1990)</b>																	
<b>H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10</b>																	
<i>(2017) - tfdata-store.com/2017/05/22/post-605/</i>																	
date	21-May-17	time	6.13	9.99	13.86	17.82	21.94	26.18	30.45	34.89	39.54	44.38	49.95	4 / 5			
reaction time	0.146	interval	3.86	3.87	3.96	4.12	4.24	4.27	4.44	4.65	4.84	5.57		11.69	12.63	13.93	
		velocity	7.34	9.07	9.04	8.84	8.50	8.25	8.20	7.88	7.53	7.23	7.18	8.01	8.98	8.31	7.54
H1 lead leg	L	strides	20	13	13	13	13	14	14	15	15	15	19	164			
<b>FINAL - 2016 Japanese National Championships (Nagoya, JPN)</b>																	
<i>Morioka (2016) - race pattern of top 400m hurdlers in japan</i>																	
date	24-Jun-16	time	6.08	9.90	13.77	17.67	21.62	25.84	30.09	34.56	39.16	43.98	49.55	4 / 3			
reaction time	0.165	interval	3.82	3.87	3.90	3.95	4.22	4.25	4.47	4.60	4.82	5.57		11.59	12.42	13.89	
		velocity	7.40	9.16	9.04	8.97	8.86	8.29	8.24	7.83	7.61	7.26	7.18	8.07	9.06	8.45	7.56
H1 lead leg		strides	13	13	13	13	14	14	15	15	15	15	125				
<b>FINAL - 2016 Kansai Business Championships (Osaka, JPN)</b>																	
<i>(2017) - tfdata-store.com/2017/05/22/post-605/</i>																	
date	20-May-16	time	6.12	10.01	13.90	17.83	21.95	26.32	30.64	35.10	39.72	44.44	49.76	5 / 1			
reaction time		interval	3.89	3.89	3.93	4.12	4.37	4.32	4.46	4.62	4.72	5.32		11.71	12.81	13.80	
		velocity	7.35	9.00	9.00	8.91	8.50	8.01	8.10	7.85	7.58	7.42	7.52	8.04	8.97	8.20	7.61



H1 lead leg	strides	13	13	13	13	14	14	15	15	15	125									
<b>FINAL - 2015 Japanese National Championships (Niigata, JPN)</b>												<i>Yasunori (2015) - race pattern analysis of the top 400m hurdlers in Japan</i>								
date	28-Jun-15	time	6.21	10.05	14.00	18.02	22.12	26.37	30.71	35.21	39.86	44.58	50.06	4 / 3						
reaction time	0.166	interval	3.84	3.95	4.02	4.10	4.25	4.34	4.50	4.65	4.72	5.48			11.81	12.69	13.87			
		velocity	7.25	9.11	8.86	8.71	8.54	8.24	8.06	7.78	7.53	7.42	7.30	7.99		8.89	8.27	7.57		
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	19	165						
<b>FINAL - 2015 Seiko Golden Grand Prix (Kawasaki, JPN)</b>												<i>Yasunori (2015) - race pattern analysis of the top 400m hurdlers in Japan</i>								
date	10-May-15	time	6.17	10.14	14.16	18.30	22.42	26.57	30.79	35.21	39.71	44.38	49.70	/ 2						
reaction time		interval	3.97	4.02	4.14	4.12	4.15	4.22	4.42	4.50	4.67	5.32			12.13	12.49	13.59			
		velocity	7.29	8.82	8.71	8.45	8.50	8.43	8.29	7.92	7.78	7.49	7.52	8.05		8.66	8.41	7.73		
H1 lead leg		strides	14	14	14	14	15	15	15	15	15	15	131							
<b>FINAL - 2015 Shizuoka International Athletics Meeting (Fukuroi, JPN)</b>												<i>Yasunori (2015) - race pattern analysis of the top 400m hurdlers in Japan</i>								
date	03-May-15	time	6.17	10.04	13.98	18.00	22.15	26.32	30.76	35.30	39.97	44.64	49.98	/ 3						
reaction time	0.189	interval	3.87	3.94	4.02	4.15	4.17	4.44	4.54	4.67	4.67	5.34			11.83	12.76	13.88			
		velocity	7.29	9.04	8.88	8.71	8.43	8.39	7.88	7.71	7.49	7.49	7.49	8.00		8.88	8.23	7.56		
H1 lead leg		strides	14	14	14	14	14	14	15	15	15	15	130							
<b>FINAL - 2014 Japanese National Championships (Fukushima, JPN)</b>												<i>Yasunori (2014) - race pattern analysis of Japanese top 400m hurdlers for major domestic competitions</i>								
date	08-Jun-14	time	5.99	9.83	13.68	17.58	21.55	25.74	30.06	34.60	39.27	44.19	49.97	/ 3						
reaction time		interval	3.84	3.85	3.90	3.97	4.19	4.32	4.54	4.67	4.92	5.78			11.59	12.48	14.13			
		velocity	7.51	9.11	9.09	8.97	8.82	8.35	8.10	7.71	7.49	7.11	6.92	8.00		9.06	8.41	7.43		
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	19.2	171						
<b>Konno, Ryoma (JPN) (2004)</b>		<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>		
<b>FINAL - 2022 Japanese National High School Championships (Naruto, JPN)</b>												<i>Kishima (2022) - national high school championships biomechanics data collection</i>								
date	05-Aug-22	time	6.07	9.93	13.85	17.95	22.13	26.42	30.82	35.25	39.67	44.67	50.46	4 / 1						
reaction time	0.161	interval	3.86	3.92	4.10	4.18	4.29	4.40	4.43	4.42	5.00	5.79			11.88	12.87	13.85			
		velocity	7.41	9.07	8.93	8.54	8.37	8.16	7.95	7.90	7.92	7.00	6.91	7.93		8.84	8.16	7.58		
H1 lead leg	R	strides	21	15	15	15	15	15	15	15	15	15	19	175						
<b>FINAL - 2022 Japanese U20 National Championships (Osaka, JPN)</b>												<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>								
date	11-Jun-22	time	6.21	10.24	14.36	18.59	22.76	27.03	31.35	35.72	40.14	44.73	50.17	9 / 1						
reaction time	0.177	interval	4.03	4.12	4.23	4.17	4.27	4.32	4.37	4.42	4.59	5.44	<b>PB</b>		12.38	12.76	13.38			
		velocity	7.25	8.68	8.50	8.27	8.39	8.20	8.10	8.01	7.92	7.63	7.35	7.97		8.48	8.23	7.85		
H1 lead leg	R	strides	21	15	15	15	15	15	15	15	15	15	18.5	174.5						
<b>Kono, Shoma (JPN) (2000)</b>		<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>		
<b>FINAL - 2018 Japanese National High School Championships (Nagoya, JPN)</b>												<i>Kota (2018) - 71st high school championships: JAF scientific committee - biomechanics data collection</i>								
date	04-Aug-18	time	6.39	10.58	14.98	19.37	23.81	28.28	32.83	37.42	42.09	46.88	52.12	3 / 5						
reaction time		interval	4.19	4.40	4.39	4.44	4.47	4.55	4.59	4.67	4.79	5.24			12.98	13.46	14.05			
		velocity	7.04	8.35	7.95	7.97	7.88	7.83	7.69	7.63	7.49	7.31	7.63	7.67		8.09	7.80	7.47		
H1 lead leg		strides	15	15	15	15	15	15	15	15	15	15	135							
<b>Koroknai, Máté (HUN) (1993)</b>		<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>		
<b>Heat 1 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>												<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>								
date	30-Jul-21	time	6.07	9.93	13.83	17.82	21.78	25.90	30.16	34.60	39.27	44.10	49.80	7 / 6						
reaction time	0.151	interval	3.86	3.90	3.99	3.96	4.12	4.26	4.44	4.67	4.83	5.70			11.75	12.34	13.94			
		velocity	7.41	9.07	8.97	8.77	8.84	8.50	8.22	7.88	7.49	7.25	7.02	8.03		8.94	8.51	7.53		
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	14	14	143							
<b>Kostić, Nikola (SRB) (2004)</b>		<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>		
<b>Heat 1 - 2024 European Athletics Championships (Roma, ITA)</b>												<i>European Athletics (2024) - 2024 european athletics championships - results book</i>								
date	09-Jun-24	time	5.90	9.66	13.61	17.72	21.92	26.33	30.72	35.29	39.99	44.78	50.48	2 / 5						
reaction time	0.142	interval	3.76	3.95	4.11	4.20	4.41	4.39	4.57	4.70	4.79	5.70			11.82	13.00	14.06			
		velocity	7.63	9.31	8.86	8.52	8.33	7.94	7.97	7.66	7.45	7.31	7.02	7.92		8.88	8.08	7.47		
H1 lead leg		strides											0							
<b>Kucej, Jožef (TCH) (1965)</b>		<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>		
<b>FINAL - 1991 European Cup (Frankfurt, GER)</b>												<i>Federle (2003) - http://www.fgs.uni-halle.de</i>								
date	29-Jun-91	time	6.09	9.93	13.82	17.82	21.96	26.24	30.55	35.04	39.75	44.63	50.27	/ 5						
reaction time		interval	3.84	3.89	4.00	4.14	4.28	4.31	4.49	4.71	4.88	5.64			11.73	12.73	14.08			
		velocity	7.39	9.11	9.00	8.75	8.45	8.18	8.12	7.80	7.43	7.17	7.09	7.96		8.95	8.25	7.46		
H1 lead leg		strides																		
<b>Kučera, Martin (SVK) (1990)</b>		<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>		
<b>Heat 1 - 2022 European Athletics Championships (Munich, GER)</b>												<i>European Athletics (2022) - european athletics championships race analysis</i>								
date	17-Aug-22	time	6.11	10.01	14.07	18.03	22.14	23.94	26.34	30.77	35.65	40.46	45.19	50.82	4 / 5					
reaction time	0.233	interval	3.90	4.06	3.96	4.11	4.20	4.43	4.88	4.81	4.73	5.63			11.92	12.74	14.42			
		velocity	7.36	8.97	8.62	8.84	8.52	8.35	8.33	7.90	7.17	7.28	7.40	7.10	7.87		8.81	8.24	7.28	
H1 lead leg	R	strides	20	13		13	13	13	13	14	14	14	16.5	130.5						
<b>FINAL - 2020 Golden Spike (Ostrava, CZE) (TV Analysis)</b>												<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>								
date	08-Sep-20	time	6.17	10.08	14.11	18.12	22.25	26.59	31.06	35.90	40.57	46.57	50.84	7 / 5						
reaction time	0.185	interval	3.91	4.03	4.01	4.13	4.34	4.47	4.84	4.67					11.95	12.94				

H1 lead leg	R	velocity	7.29	8.95	8.68	8.73	8.47		8.06	7.83	7.23	7.49		7.87		8.79	8.11		
		strides	20	13		13	13			14		14		87					
<b>FINAL - 2016 European Championships (Amsterdam, NED) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>						
date	08-Jul-16	time	6.08	9.96	13.92	18.08	22.20		30.60	35.00	39.64	44.52		49.82		1 / 7			
reaction time	0.121	interval		3.88	3.96	4.16	4.12		8.40	4.40	4.64	4.88	5.30			12.00	12.52	13.92	
		velocity	7.40	9.02	8.84	8.41	8.50		8.33	7.95	7.54	7.17	7.55		8.03	8.75	8.39	7.54	
H1 lead leg	R	strides	20	13		13	13			13	14	14	16.7		116.7				
<b>Kudryatsev, Denis (RUS) (1992)</b>													<i>Henson (2021) - Athlete First: major championships report</i>						
<b>FINAL - 2015 IAAF World Championships (Beijing, CHN) (TV Analysis)</b>													<i>Henson (2021) - Athlete First: major championships report</i>						
date	25-Aug-15	time	5.84	9.48	13.20	16.96	20.84		24.84	29.08	33.40	37.96	42.68		48.05		6 / 2		
reaction time	0.146	interval		3.64	3.72	3.76	3.88		4.00	4.24	4.32	4.56	4.72	5.37	<b>NR PB</b>		11.12	12.12	13.60
		velocity	7.71	9.62	9.41	9.31	9.02		8.75	8.25	8.10	7.68	7.42	7.45		8.32	9.44	8.66	7.72
H1 lead leg	L	strides		13	13	13	13		13	14	14	15	15	19		142			
<b>FINAL - 2014 European Championships (Zurich, SUI)</b>													<i>Green (2015) - twitter.com/jackpgreen (from Behm?)</i>						
date	15-Aug-14	time	6.12	9.92	13.80	17.68	21.64		25.76	30.12	34.48	39.08	43.84		49.16		/ 3		
reaction time	0.158	interval		3.80	3.88	3.88	3.96		4.12	4.36	4.36	4.60	4.76	5.32			11.56	12.44	13.72
		velocity	7.35	9.21	9.02	9.02	8.84		8.50	8.03	8.03	7.61	7.35	7.52		8.14	9.08	8.44	7.65
H1 lead leg	L	strides		13	13	13	13		13	14	14	15	15		123				
<b>Kunkel, Adam (CAN) (1981)</b>													<i>Behm (2007) - Osaka 2007: Le quatrache</i>						
<b>FINAL - 2007 IAAF World Championships (Osaka, JPN)</b>													<i>Behm (2007) - Osaka 2007: Le quatrache</i>						
date	28-Aug-07	time	5.8	9.5	13.3	17.3	21.9								dnf		3 / --		
reaction time	0.181	interval		3.70	3.80	4.00	4.60										11.50		
		velocity	7.76	9.46	9.21	8.75	7.61										9.13		
H1 lead leg	L	strides	21	13	14	14	14								76				
<b>Kuribayashi, Toshimasa (JPN) (2001)</b>													<i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>						
<b>A FINAL - 2023 Michitaka Kinami Memorial (Osaka, JPN)</b>													<i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>						
date	07-May-23	time	6.22	10.19	14.30	18.49	22.71		27.03	31.45	35.87	40.34	45.01		50.43		8 / 3		
reaction time	0.154	interval		3.97	4.11	4.19	4.22		4.32	4.42	4.42	4.47	4.67	5.42			12.27	12.96	13.56
		velocity	7.23	8.82	8.52	8.35	8.29		8.10	7.92	7.92	7.83	7.49	7.38		7.93	8.56	8.10	7.74
H1 lead leg		strides		14	14	14	14		15	15	15	15	15		131				
<b>Kurokawa, Kazuki (JPN) (2001)</b>													<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>						
<b>Semi-Final 2 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>													<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>						
date	21-Aug-23	time	5.77	9.47	13.21	16.88	20.89		25.09	29.33	33.81	38.44	43.21		48.58		5 / 4		
reaction time	0.144	interval		3.70	3.74	3.67	4.01		4.20	4.24	4.48	4.63	4.77	5.37	<b>PB</b>		11.11	12.45	13.88
		velocity	7.80	9.46	9.36	9.54	8.73		8.33	8.25	7.81	7.56	7.34	7.45		8.23	9.45	8.43	7.56
H1 lead leg	L	strides	21	13	13	13	13		14	14	15	15	15	19		165			
<b>Heat 5 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>													<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>						
date	20-Aug-23	time	5.73	9.46	13.20	17.00	20.83		25.03	29.36	33.83	38.46	43.23		48.71		3 / 3		
reaction time	0.158	interval		3.73	3.74	3.80	3.83		4.20	4.33	4.47	4.63	4.77	5.48			11.27	12.36	13.87
		velocity	7.85	9.38	9.36	9.21	9.14		8.33	8.08	7.83	7.56	7.34	7.30		8.21	9.32	8.50	7.57
H1 lead leg	L	strides	21	13	13	13	13		14	14	15	15	15	18.7		164.7			
<b>FINAL - 2023 Seiko Golden Grand Prix (Yokohama, JPN)</b>													<i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>						
date	21-May-23	time	5.79	9.39	13.11	17.02	21.12		25.36	29.65	34.03	38.64	43.39		49.03		5 / 2		
reaction time	0.141	interval		3.60	3.72	3.91	4.10		4.24	4.29	4.38	4.61	4.75	5.64			11.23	12.63	13.74
		velocity	7.77	9.72	9.41	8.95	8.54		8.25	8.16	7.99	7.59	7.37	7.09		8.16	9.35	8.31	7.64
H1 lead leg	L	strides	21	13	13	13	13		14	14	15	15	15	18.5		164.5			
<b>B FINAL - 2023 Michitaka Kinami Memorial (Osaka, JPN)</b>													<i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>						
date	07-May-23	time	5.91	9.61	13.46	17.47	21.59		25.91	30.21	34.73	39.39	44.19		49.81		6 / 1		
reaction time	0.158	interval		3.70	3.85	4.01	4.12		4.32	4.30	4.52	4.66	4.80	5.62			11.56	12.74	13.98
		velocity	7.61	9.46	9.09	8.73	8.50		8.10	8.14	7.74	7.51	7.29	7.12		8.03	9.08	8.24	7.51
H1 lead leg		strides		13	13	13	13		14	14	15	15	15		125				
<b>B FINAL - 2023 Shizuoka International Meeting (Fukuroi, JPN)</b>													<i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>						
date	03-May-23	time	5.91	9.71	13.54	17.43	21.44		25.64	29.88	34.36	38.99	43.71		49.06		5 / 1		
reaction time	0.191	interval		3.80	3.83	3.89	4.01		4.20	4.24	4.48	4.63	4.72	5.35			11.52	12.45	13.83
		velocity	7.61	9.21	9.14	9.00	8.73		8.33	8.25	7.81	7.56	7.42	7.48		8.15	9.11	8.43	7.59
H1 lead leg	L	strides	21	13	13	13	13		14	14	15	15	15	18		164			
<b>Semi-Final 3 - 2022 World Athletics Championships (Eugene, OR)</b>													<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>						
date	17-Jul-22	time	5.81	9.49	13.35	17.18	21.14	22.76	25.33	29.68		34.25	39.02	43.93		49.69		1 / 6	
reaction time	0.136	interval		3.68	3.86	3.83	3.96		4.19	4.35	4.57	4.77	4.91	5.76			11.37	12.50	14.25
		velocity	7.75	9.51	9.07	9.14	8.84	8.79	8.35	8.05	7.66	7.34	7.13	6.94		8.05	9.23	8.40	7.37
H1 lead leg	L	strides		13	13	13	13		14	14	15	15	15	18		143			
<b>Heat 1 - 2022 World Athletics Championships (Eugene, OR)</b>													<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>						
date	16-Jul-22	time	5.86	9.53	13.31	17.20	21.42	23.14	25.76	30.23		34.87	39.64	44.51		50.02		3 / 4	
reaction time	0.142	interval		3.67	3.78	3.89	4.22		4.34	4.47	4.64	4.77	4.87	5.51			11.34	13.03	14.28
		velocity	7.68	9.54	9.26	9.00	8.29	8.64	8.06	7.83	7.54	7.34	7.19	7.26		8.00	9.26	8.06	7.35

H1 lead leg	L	strides	21	13	13	13	14	14	15	15	15	15	18	166
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**FINAL - 2022 Japanese National Championships (Osaka, JPN)**

date	11-Jun-22	time	5.77	9.38	13.10	16.97	20.99	25.23	29.48	34.00	38.64	43.38	48.89	5 / 1			
reaction time	0.192	interval	3.61	3.72	3.87	4.02	4.24	4.25	4.52	4.64	4.74	5.51	11.20	12.51	13.90		
		velocity	7.80	9.70	9.41	9.04	8.71	8.25	8.24	7.74	7.54	7.38	7.26	8.18	9.38	8.39	7.55
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	18.2	164.2			

Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season

**FINAL - 2022 Seiko Golden Grand Prix (Tokyo, JPN)**

date	08-May-22	time	5.86	9.57	13.26	17.05	21.02	25.19	29.48	33.98	38.69	43.54	49.08	7 / 2			
reaction time	0.206	interval	3.71	3.69	3.79	3.97	4.17	4.29	4.50	4.71	4.85	5.54	11.19	12.43	14.06		
		velocity	7.68	9.43	9.49	9.23	8.82	8.39	8.16	7.78	7.43	7.22	7.22	8.15	9.38	8.45	7.47
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	18.5	164.5			

Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season

**FINAL - 2022 Michitaka Kinami Memorial (Osaka, JPN)**

date	01-May-22	time	5.91	9.54	13.28	17.08	21.02	25.21	29.48	33.95	38.64	43.44	48.90	6 / 1			
reaction time	0.157	interval	3.63	3.74	3.80	3.94	4.19	4.27	4.47	4.69	4.80	5.46	11.17	12.40	13.96		
		velocity	7.61	9.64	9.36	9.21	8.88	8.35	8.20	7.83	7.46	7.29	7.33	8.18	9.40	8.47	7.52
H1 lead leg		strides	13	13	13	13	13	14	14	15	15	15	125				

Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season

**Heat 4 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)**

date	30-Jul-21	time	6.00	9.73	13.56	17.50	21.80	26.00	30.33	34.76	39.53	44.36	50.30	3 / 6			
reaction time	0.154	interval	3.73	3.83	3.94	4.30	4.20	4.33	4.43	4.77	4.83	5.94	11.50	12.83	14.03		
		velocity	7.50	9.38	9.14	8.88	8.14	8.33	8.08	7.90	7.34	7.25	6.73	7.95	9.13	8.18	7.48
H1 lead leg	L	strides	21	13	13	13	13	14	14	14	14	15	18	162			

Henson (2024) - Athlete First: 2021 year end hurdle report

**FINAL - 2021 Japanese National Championships (Osaka, JPN)**

date	26-Jun-21	time	5.83	9.43	13.10	16.87	20.79	24.94	29.21	33.61	38.26	43.10	48.69	7 / 1			
reaction time	0.202	interval	3.60	3.67	3.77	3.92	4.15	4.27	4.40	4.65	4.84	5.59	11.04	12.34	13.89		
		velocity	7.72	9.72	9.54	9.28	8.93	8.43	8.20	7.95	7.53	7.23	7.16	8.22	9.51	8.51	7.56
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	19	165			

Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season

**FINAL - 2021 Ready Steady Tokyo (Tokyo, JPN)**

date	09-May-21	time	5.77	9.36	13.06	16.92	20.97	25.23	29.40	33.80	38.36	43.14	48.68	6 / 1			
reaction time	0.150	interval	3.59	3.70	3.86	4.05	4.26	4.17	4.40	4.56	4.78	5.54	PB	11.15	12.48	13.74	
		velocity	7.80	9.75	9.46	9.07	8.64	8.22	8.39	7.95	7.68	7.32	7.22	8.22	9.42	8.41	7.64
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	19	165			

Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season

**FINAL - 2021 Shizuoka International Athletics Meeting (Fukuroi, JPN)**

date	03-May-21	time	5.96	9.61	13.43	17.38	21.54	25.94	30.28	34.80	39.46	44.36	50.20	6 / 1			
reaction time	0.185	interval	3.65	3.82	3.95	4.16	4.40	4.34	4.52	4.66	4.90	5.84	11.42	12.90	14.08		
		velocity	7.55	9.59	9.16	8.86	8.41	7.95	8.06	7.74	7.51	7.14	6.85	7.97	9.19	8.14	7.46
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	20	166			

Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season

**FINAL - 2020 Japanese National Championships (Niigata, JPN)**

date	02-Oct-20	time	6.09	9.94	13.93	18.00	22.26	26.71	31.26	36.02	41.04	46.15	52.46	2 / 8			
reaction time	0.184	interval	3.85	3.99	4.07	4.26	4.45	4.55	4.76	5.02	5.11	6.31	11.91	13.26	14.89		
		velocity	7.39	9.09	8.77	8.60	8.22	7.87	7.69	7.35	6.97	6.85	6.34	7.62	8.82	7.92	7.05
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	146				

Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season

**FINAL - 2019 Japanese National High School Championships (Okinawa, JPN)**

date	06-Aug-19	time	6.18	10.23	14.33	18.78	23.43	28.29	32.97	37.69	42.43	47.17	52.27	5 / 3			
reaction time		interval	4.05	4.10	4.45	4.65	4.86	4.68	4.72	4.74	4.74	5.10	12.60	14.19	14.20		
		velocity	7.28	8.64	8.54	7.87	7.53	7.20	7.48	7.42	7.38	7.38	7.84	7.65	8.33	7.40	7.39
H1 lead leg		strides	13	13	14	14	14	14	14	14	14	15	125				

Kota (2019) - 72nd high school championships: JAF scientific committee - biomechanics data collection

**Kyotake, Taiga (JPN) (2003)**

			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
date	11-Jun-22	time	6.29	10.31	14.38	18.49	22.76	27.08	31.46	36.10	40.85	45.60	50.96	4 / 4					
reaction time	0.203	interval	4.02	4.07	4.11	4.27	4.32	4.38	4.64	4.75	4.75	5.36	PB	12.20	12.97	14.14			
		velocity	7.15	8.71	8.60	8.52	8.20	8.10	7.99	7.54	7.37	7.37	7.46	7.85	8.61	8.10	7.43		
H1 lead leg	L	strides	22	14	14	15	15	15	15	15	15	15	19	174					

Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season

**Lahoulou, Abdelmalik (ALG) (1992)**

			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
date	15-Jun-23	time	5.94	9.59	13.26	17.04	20.97	25.07	29.40	33.90	38.57	43.47	49.27	8 / 7					
reaction time	0.178	interval	3.65	3.67	3.78	3.93	4.10	4.33	4.50	4.67	4.90	5.80	11.10	12.36	14.07				
		velocity	7.58	9.59	9.54	9.26	8.91	8.54	8.08	7.78	7.49	7.14	6.90	8.12	9.46	8.50	7.46		
H1 lead leg	L	strides	22	13	13	13	13	14				15	103						

Omega Timing (2023) - diamond league race analysis

**FINAL - 2023 FBK Games (Hengelo, NED)**

date	04-Jun-23	time	5.98	9.68	13.48	17.34	21.27	25.42	29.90	34.54	39.40	44.28	49.96	1 / 8			
reaction time	0.173	interval	3.70	3.80	3.86	3.93	4.15	4.48	4.64	4.86	4.88	5.68	11.36	12.56	14.38		
		velocity	7.53	9.46	9.21	9.07	8.91	8.43	7.81	7.54	7.20	7.17	7.04	8.01	9.24	8.36	7.30
H1 lead leg	L	strides	22	13								15	15	18	83		

Omega Timing (2023) - continental tour race analysis

**FINAL - 2023 Seiko Golden Grand Prix (Yokohama, JPN)**

Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season



date	21-May-23	time	6.16	9.78	13.51	17.33	21.30	25.38	29.56	34.08	38.96	44.06	49.71	3 / 6				
reaction time	0.195	interval		3.62	3.73	3.82	3.97	4.08	4.18	4.52	4.88	5.10	5.65		11.17	12.23	14.50	
		velocity	7.31	9.67	9.38	9.16	8.82	8.58	8.37	7.74	7.17	6.86	7.08	8.05	9.40	8.59	7.24	
H1 lead leg	L	strides	21	13	13	13	13	13	13	14	15	16	18	162				
<b>Semi-Final 2 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)</b>														<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	17-Jul-22	time	6.03	9.67	13.43	17.16	21.07	22.79	25.17	29.53	33.97	38.63	43.47	48.90	3 / 5			
reaction time	0.157	interval		3.64	3.76	3.73	3.91	4.10	4.36	4.44	4.66	4.84	5.43		11.13	12.37	13.94	
		velocity	7.46	9.62	9.31	9.38	8.95	8.78	8.54	8.03	7.88	7.51	7.23	7.37	8.18	9.43	8.49	7.53
H1 lead leg	L	strides	22	13	13	13	13	13	13	14	14	15	15	17.2	162.2			
<b>Heat 1 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)</b>														<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	16-Jul-22	time	6.10	9.86	13.70	17.66	21.76	23.44	30.16	34.67	39.43	44.26	49.58	6 / 2				
reaction time	0.171	interval		3.76	3.84	3.96	4.10	4.36	4.40	4.51	4.76	4.83	5.32		11.56	12.50	14.10	
		velocity	7.38	9.31	9.11	8.84	8.54	8.53	8.33	7.76	7.35	7.25	7.52	8.07	9.08	8.40	7.45	
H1 lead leg	L	strides	22	13	13	13	13			14	15	15	17	120				
<b>Semi-Final 3 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>														<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>				
date	01-Aug-21	time	5.96	9.56	13.30	16.97	20.86	24.90	29.36	33.92	38.66	43.50	49.14	5 / 5				
reaction time	0.125	interval		3.60	3.74	3.67	3.89	4.04	4.46	4.56	4.74	4.84	5.64		11.01	12.39	14.14	
		velocity	7.55	9.72	9.36	9.54	9.00	8.66	7.85	7.68	7.38	7.23	7.09	8.14	9.54	8.47	7.43	
H1 lead leg	L	strides	22	13	13	13	13	13	14	14	15	15	17.7	162.7				
<b>Heat 1 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>														<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>				
date	30-Jul-21	time	6.02	9.62	13.30	17.10	21.07	25.18	29.58	34.03	38.63	43.43	48.83	8 / 3				
reaction time	0.149	interval		3.60	3.68	3.80	3.97	4.11	4.40	4.45	4.60	4.80	5.40		11.08	12.48	13.85	
		velocity	7.48	9.72	9.51	9.21	8.82	8.52	7.95	7.87	7.61	7.29	7.41	8.19	9.48	8.41	7.58	
H1 lead leg	L	strides	22	13	13	13	13	13	15	15	15	15	17.5	164.5				
<b>FINAL - 2019 IAAF World Championships (Doha, QAT)</b>														<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>				
date	30-Sep-19	time	6.02	9.60	13.23	16.96	20.84	24.97	29.36	33.94	38.72	43.67	49.46	8 / 8				
reaction time	0.187	interval		3.58	3.63	3.73	3.88	4.13	4.39	4.58	4.78	4.95	5.79		10.94	12.40	14.31	
		velocity	7.48	9.78	9.64	9.38	9.02	8.47	7.97	7.64	7.32	7.07	6.91	8.09	9.60	8.47	7.34	
H1 lead leg	L	strides	22	13	13	13	13	14	14	15	15	15	18	165				
<b>Semi-Final 2 - 2019 IAAF World Championships (Doha, QAT)</b>														<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>				
date	28-Sep-19	time	6.05	9.67	13.30	17.03	20.93	25.05	29.38	33.90	38.48	43.11	48.39	6 / 2				
reaction time	0.159	interval		3.62	3.63	3.73	3.90	4.12	4.33	4.52	4.58	4.63	5.28	NR PB	10.98	12.35	13.73	
		velocity	7.44	9.67	9.64	9.38	8.97	8.50	8.08	7.74	7.64	7.56	7.58	8.27	9.56	8.50	7.65	
H1 lead leg	L	strides	22	13	13	13	13	13	13	14	14	14	18	160				
<b>FINAL - 2019 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)</b>														<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>				
date	30-May-19	time	6.06	9.80	13.80	17.93	22.06	23.7	26.40	31.00	35.66	40.80	45.86	51.82	3 / 8			
reaction time	0.151	interval		3.74	4.00	4.13	4.13	4.34	4.60	4.66	5.14	5.06	5.96		11.87	13.07	14.86	
		velocity	7.43	9.36	8.75	8.47	8.47	8.44	8.06	7.61	7.51	6.81	6.92	6.71	7.72	8.85	8.03	7.07
H1 lead leg	L	strides	22	13	14	14	14	14	15	15	15	15	15	136				
<b>FINAL - 2018 IAAF Continental Cup (Ostrava, CZE) (TV Analysis)</b>														<i>Henson (2021) - Athlete First: 2018 year end hurdle report</i>				
date	08-Sep-18	time	6.04	9.76	13.44	17.24	21.16	25.32	29.68	34.24	38.96	43.76	49.12	6 / 5				
reaction time	0.179	interval		3.72	3.68	3.80	3.92	4.16	4.36	4.56	4.72	4.80	5.36		11.20	12.44	14.08	
		velocity	7.45	9.41	9.51	9.21	8.93	8.41	8.03	7.68	7.42	7.29	7.46	8.14	9.38	8.44	7.46	
H1 lead leg	L	strides	23	13	13	13	13			14	15	15	15	17.2	151.2			
<b>FINAL - 2016 Meeting Paris (Saint-Denis, FRA) (TV Analysis)</b>														<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>				
date	27-Aug-16	time	6.08	9.84	13.60	17.48	21.48	25.60	29.96	34.44	39.08	43.84	48.92	8 / 6				
reaction time	0.191	interval		3.76	3.76	3.88	4.00	4.12	4.36	4.48	4.64	4.76	5.08		11.40	12.48	13.88	
		velocity	7.40	9.31	9.31	9.02	8.75	8.50	8.03	7.81	7.54	7.35	7.87	8.18	9.21	8.41	7.56	
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	15	15	144					
<b>Lambrughi, Mario (ITA) (1992)</b>																		
<b>Semi-Final 1 - 2024 European Athletics Championships (Roma, ITA)</b>														<i>European Athletics (2024) - 2024 european athletics championships - results book</i>				
date	10-Jun-24	time	5.84	9.61	13.44	17.43	21.60	26.05	30.71	35.15	39.86	44.56	50.03	9 / 6				
reaction time	0.147	interval		3.77	3.83	3.99	4.17	4.45	4.66	4.44	4.71	4.70	5.47		11.59	13.28	13.85	
		velocity	7.71	9.28	9.14	8.77	8.39	7.87	7.51	7.88	7.43	7.45	7.31	8.00	9.06	7.91	7.58	
H1 lead leg	R	strides	22	14	14	14	14	14	15	15	15	15	18.7	170.7				
<b>Heat 3 - 2024 European Athletics Championships (Roma, ITA)</b>														<i>European Athletics (2024) - 2024 european athletics championships - results book</i>				
date	09-Jun-24	time	5.88	9.63	13.56	17.47	21.52	25.72	30.09	34.77	39.69	44.48	49.74	8 / 1				
reaction time	0.208	interval		3.75	3.93	3.91	4.05	4.20	4.37	4.68	4.92	4.79	5.26		11.59	12.62	14.39	
		velocity	7.65	9.33	8.91	8.95	8.64	8.33	8.01	7.48	7.11	7.31	7.60	8.04	9.06	8.32	7.30	
H1 lead leg		strides												0				
<b>Heat 4 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>														<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>				
date	20-Aug-23	time	5.90	9.86	13.66	17.56	21.40	25.53		34.40	39.03	43.73	49.05	1 / 6				
reaction time	0.129	interval		3.96	3.80	3.90	3.84	4.13		8.87	4.63	4.70	5.32		11.66			
		velocity	7.63	8.84	9.21	8.97	9.11	8.47		7.89	7.56	7.45	7.52	8.15	9.01			
H1 lead leg	R	strides	22	14	14	14	14	14			15	15	18.5	140.5				

**Semi-Final 2 - 2022 European Athletics Championships (Munich, GER)**

													<i>European Athletics (2022) - european athletics championships race analysis</i>					
date	18-Aug-22	time	5.78	9.56	13.40	17.19	21.10	22.87	25.18	29.45	34.17	38.97	43.84	49.50	5 / 6			
reaction time	0.151	interval		3.78	3.84	3.79	3.91		4.08	4.27	4.72	4.80	4.87	5.66		11.41	12.26	14.39
		velocity	7.79	9.26	9.11	9.23	8.95	8.75	8.58	8.20	7.42	7.29	7.19	7.07	8.08	9.20	8.56	7.30
H1 lead leg	R	strides	22	14	14	14	14		14	14	15	15	15	18.7	169.7			

**Heat 3 - 2022 European Athletics Championships (Munich, GER)**

													<i>European Athletics (2022) - european athletics championships race analysis</i>					
date	17-Aug-22	time	5.93	9.72	13.63	17.53	21.63	23.52	25.87	30.29	34.89	39.65	44.42	50.27	8 / 1			
reaction time	0.144	interval		3.79	3.91	3.90	4.10		4.24	4.42	4.60	4.76	4.77	5.85		11.60	12.76	14.13
		velocity	7.59	9.23	8.95	8.97	8.54	8.50	8.25	7.92	7.61	7.35	7.34	6.84	7.96	9.05	8.23	7.43
H1 lead leg	L	strides	21	14	14	14	14		14	14	15	15	15	18	168			

**FINAL - 2020 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)**

													<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>						
date	17-Sep-20	time	5.94	9.74			21.79	23.6		30.46	35.03	39.74	44.54	49.87	2 / 6				
reaction time	0.136	interval		3.80			12.05		8.67	4.57	4.71	4.80	5.33					14.08	
		velocity	7.58	9.21			8.71	8.47	8.07	7.66	7.43	7.29	7.50	8.02					7.46
H1 lead leg	R	strides	22	14							15	15	15	18.5					

**FINAL - 2018 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)**

													<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>						
date	31-May-18	time	5.84	9.80	13.76	17.88										dnf	1 / --		
reaction time	0.135	interval		3.96	3.96	4.12													12.04
		velocity	7.71	8.84	8.84	8.50													8.72
H1 lead leg	R	strides	22	14	14	14									64				

**Lan Jie (CHN) (2000)**

													<i>CAA Hurdle Development (2019)</i>						
date	17-Aug-19	time	6.32	10.45	14.72	18.95	23.26		27.69	32.30	37.28	42.45	47.78	53.70	7 / 4				
reaction time	0.203	interval		4.13	4.27	4.23	4.31		4.43	4.61	4.98	5.17	5.33	5.92					12.63
		velocity	7.12	8.47	8.20	8.27	8.12		7.90	7.59	7.03	6.77	6.57	6.76	7.45				8.31
H1 lead leg	L	strides	22	15	15	15	15		15	15	16	16	17	20.5	181.5				6.78

**Langford, Noah (USA) (1999)**

													<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>						
date	27-Jun-24	time	6.01	9.74	13.63	17.49	21.49	23.33	25.73	30.21	34.97	39.90	45.10	53.27	3 / 6				
reaction time		interval		3.73	3.89	3.86	4.00		4.24	4.48	4.76	4.93	5.20	8.17					11.48
		velocity	7.49	9.38	9.00	9.07	8.75	8.57	8.25	7.81	7.35	7.10	6.73	4.90	7.51				9.15
H1 lead leg	R	strides	21	13	13	13	13		13	15	15	15	15	146					7.05

**Lattin, Amere (USA) (1997)**

													<i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>						
date	21-May-23	time	5.86	9.56	13.41	17.32	21.39		25.69	30.06	34.65	39.32	44.13	49.65	6 / 5				
reaction time	0.146	interval		3.70	3.85	3.91	4.07		4.30	4.37	4.59	4.67	4.81	5.52					11.46
		velocity	7.68	9.46	9.09	8.95	8.60		8.14	8.01	7.63	7.49	7.28	7.25	8.06				9.16
H1 lead leg	L	strides	20	13	13	13	13		14	14	14	14	14	17	159				7.46

**FINAL - 2022 Silesia Kamila Skolimowska Memorial (Chorzów, POL) (TV Analysis)**

													<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>						
date	06-Aug-22	time	5.77	9.43	13.16	17.07	21.03	22.71		34.10	38.73	43.43		48.79	2 / 4				
reaction time	0.147	interval		3.66	3.73	3.91	3.96			13.07	4.63	4.70	5.36						11.30
		velocity	7.80	9.56	9.38	8.95	8.84	8.81		8.03	7.56	7.45	7.46	8.20					9.29
H1 lead leg	L	strides	20	13	13	13	13				14	14	17	104					

**FINAL - 2022 USATF National Championships (Eugene, OR) (TV Analysis)**

													<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>						
date	26-Jun-22	time	5.87	9.51	13.28	17.08	21.05	22.70	25.12	29.56	34.06	38.73	43.37	48.53	2 / 6				
reaction time		interval		3.64	3.77	3.80	3.97		4.07	4.44	4.50	4.67	4.64	5.16					11.21
		velocity	7.67	9.62	9.28	9.21	8.82	8.81	8.60	7.88	7.78	7.49	7.54	7.75	8.24				9.37
H1 lead leg	L	strides	20	13	13	13	13		13	14	14	14	14	17	158				7.60

**FINAL - 2021 Bauhaus Galan (Stockholm, SWE) (TV Analysis)**

													<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>						
date	04-Jul-21	time	5.72	9.44	13.24	17.20	21.28	23.1	25.64		34.64	39.36	44.20	49.87	3 / 7				
reaction time	0.140	interval		3.72	3.80	3.96	4.08		4.36		9.00	4.72	4.84	5.67					11.48
		velocity	7.87	9.41	9.21	8.84	8.58	8.66	8.03		7.78	7.42	7.23	7.05	8.02				9.15
H1 lead leg	L	strides	20	13	13	13	13		14			15	15	17	133				

**Semi-Final 1 - 2019 IAAF World Championships (Doha, QAT)**

													<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>						
date	28-Sep-19	time	5.93	9.71	13.64	17.66	21.74		25.91	30.29	34.66	39.27	43.85	49.20	2 / 6				
reaction time	0.152	interval		3.78	3.93	4.02	4.08		4.17	4.38	4.37	4.61	4.58	5.35					11.73
		velocity	7.59	9.26	8.91	8.71	8.58		8.39	7.99	8.01	7.59	7.64	7.48	8.13				8.95
H1 lead leg	L	strides	20	13	13	13	13		13	14	14	14	14	17	158				7.74

**FINAL - 2019 The Match - Europe v USA (Minsk, BLR) (TV Analysis)**

													<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>						
date	10-Sep-19	time	5.90	9.63	13.53	17.46	21.60		25.90	30.26	34.76	39.20	43.93	49.12	4 / 2				
reaction time	0.171	interval		3.73	3.90	3.93	4.14		4.30	4.36	4.50	4.44	4.73	5.19					11.56
		velocity	7.63	9.38	8.97	8.91	8.45		8.14	8.03	7.78	7.88	7.40	7.71	8.14				9.08
H1 lead leg	L	strides		13	13	13			14	14	14	14	15	17.2	127.2				7.68

**FINAL - 2019 Müller Grand Prix (Birmingham, GBR) (TV Analysis)***Henson (2020) - Athlete First: 2019 year end hurdle report*

date	18-Aug-19	time	5.76	9.64	13.48	17.32	21.28	23.1	25.60	30.04	34.64	39.48	44.88	51.15	5 / 8			
reaction time	0.145	interval		3.88	3.84	3.84	3.96		4.32	4.44	4.60	4.84	5.40	6.27		11.56	12.72	14.84
		velocity	7.81	9.02	9.11	9.11	8.84	8.66	8.10	7.88	7.61	7.23	6.48	6.38	7.82	9.08	8.25	7.08
H1 lead leg	L	strides	20	13	13	13	13		14	14	14	15	16	145				

**FINAL - 2019 Pan American Games (Lima, PER) (TV Analysis)***Henson (2020) - Athlete First: 2019 year end hurdle report*

date	08-Aug-19	time	5.80	9.57	13.38	17.25	21.15		25.36	29.69	34.06			48.98	7 / 2			
reaction time	0.175	interval		3.77	3.81	3.87	3.90		4.21	4.33	4.37					11.45	12.44	
		velocity	7.76	9.28	9.19	9.04	8.97		8.31	8.08	8.01			8.17		9.17	8.44	
H1 lead leg	L	strides	20	13	13	13			13	14	14			100				

**FINAL - 2019 Müller Anniversary Games (London, GBR) (TV Analysis)***Henson (2020) - Athlete First: 2019 year end hurdle report*

date	20-Jul-19	time	5.88	9.56	13.32	17.16	21.12	22.9	25.28		34.20	38.96	43.80	49.18	8 / 3			
reaction time	0.140	interval		3.68	3.76	3.84	3.96		4.16		8.92	4.76	4.84	5.38		11.28		
		velocity	7.65	9.51	9.31	9.11	8.84	8.73	8.41		7.85	7.35	7.23	7.43	8.13	9.31		
H1 lead leg	L	strides	21	13	13	13	13		13	13		15	15	17.7	146.7			

**FINAL - 2019 Prefontaine Classic (Stanford, CA) (TV Analysis)***Henson (2020) - Athlete First: 2019 year end hurdle report*

date	30-Jun-19	time	5.73	9.43	13.33	17.26	21.26		25.50	30.10	34.80	39.53	44.36	50.01	1 / 7			
reaction time	0.183	interval		3.70	3.90	3.93	4.00		4.24	4.60	4.70	4.73	4.83	5.65		11.53	12.84	14.26
		velocity	7.85	9.46	8.97	8.91	8.75		8.25	7.61	7.45	7.40	7.25	7.08	8.00	9.11	8.18	7.36
H1 lead leg	L	strides	21	13		13	13		13	15	15	15	15	118				

**FINAL - 2019 NCAA Championships (Austin, TX) (TV Analysis)***Henson (2020) - Athlete First: 2019 year end hurdle report*

date	07-Jun-19	time	6.00	9.76	13.63	17.50	21.40		25.46		34.20	38.83	43.56	48.72	4 / 3			
reaction time	0.212	interval		3.76	3.87	3.87	3.90		4.06		8.74	4.63	4.73	5.16	PB	11.50		
		velocity	7.50	9.31	9.04	9.04	8.97		8.62		8.01	7.56	7.40	7.75	8.21	9.13		
H1 lead leg	L	strides	21	13	13	13	13		13		15	15	17	133				

**Ledgister, Leonardo (JAM) (1999)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2021 NCAA Championships (Eugene, OR) (TV Analysis)***Henson (2021) - Athlete First: 2021 year end hurdle report*

date	11-Jun-21	time	5.97	9.60		17.17	21.10		25.20	29.50	34.03	38.80	43.77	49.28	3 / 6			
reaction time	0.228	interval		3.63		7.57	3.93		4.10	4.30	4.53	4.77	4.97	5.51		11.20	12.33	14.27
		velocity	7.54	9.64		9.25	8.91		8.54	8.14	7.73	7.34	7.04	7.26	8.12	9.38	8.52	7.36
H1 lead leg	R	strides	22	14		14			14	15	15	16	16	18.2	144.2			

**Lee, David (USA) (1959)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 1982 TAC National Championships (Knoxville, TN)***Mann (1987) - the elite athlete program biomechanical analysis of the long hurdles: tac championship meet*

date	20-Jun-82	time	6.36	10.18	14.08	17.94	21.80		25.82	30.00	34.44	38.98	43.80	48.96	1 / 3			
reaction time		interval		3.82	3.90	3.86	3.86		4.02	4.18	4.44	4.54	4.82	5.16		11.58	12.06	13.80
		velocity	7.08	9.16	8.97	9.07	9.07		8.71	8.37	7.88	7.71	7.26	7.75	8.17	9.07	8.71	7.61
H1 lead leg		strides																

**Lee Doo-Yeon (KOR) (1975)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****Heat 4 - 2000 Olympic Games (Sydney, AUS)***Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games*

date	24-Sep-00	time	6.12	10.04	14.04	18.16	22.32		26.60	31.40	36.20			52.61	5 / 8			
reaction time	0.192	interval		3.92	4.00	4.12	4.16		4.28	4.80	4.80					12.04	13.24	
		velocity	7.35	8.93	8.75	8.50	8.41		8.18	7.29	7.29			7.60		8.72	7.93	
H1 lead leg		strides	21	13	13	13	13		13	15	15			116				

**Leger, Stéphane (FRA) (1968)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 1987 European Junior Championships (Birmingham, GBR)***Veney - split times from PJ*

date	09-Aug-87	time	6.26	10.18	14.30	18.33	22.49		26.72	31.34	35.88	40.72	46.02	51.37	1 / 3			
reaction time		interval		3.92	4.12	4.03	4.16		4.23	4.62	4.54	4.84	5.30	5.35		12.07	13.01	14.68
		velocity	7.19	8.93	8.50	8.68	8.41		8.27	7.58	7.71	7.23	6.60	7.48	7.79	8.70	8.07	7.15
H1 lead leg		strides		15	15	15	15		15	15	15	15	16	136				

**Lehtonen, Toumas (FIN) (1998)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****Heat 2 - 2024 European Athletics Championships (Roma, ITA)***European Athletics (2024) - 2024 european athletics championships - results book*

date	09-Jun-24	time	5.95	9.87	13.92	18.02	22.29		26.70	31.17	35.70	40.36	45.02	50.50	8 / 6			
reaction time	0.190	interval		3.92	4.05	4.10	4.27		4.41	4.47	4.53	4.66	4.66	5.48		12.07	13.15	13.85
		velocity	7.56	8.93	8.64	8.54	8.20		7.94	7.83	7.73	7.51	7.51	7.30	7.92	8.70	7.98	7.58
H1 lead leg		strides												0				

**Heat 3 - 2022 European Athletics Championships (Munich, GER)***European Athletics (2022) - european athletics championships race analysis*

date	17-Aug-22	time	5.93	9.83	13.92	18.07	22.40	24.29	26.81	31.37	36.28	41.22	46.56	52.75	4 / 7			
reaction time	0.198	interval		3.90	4.09	4.15	4.33		4.41	4.56	4.91	4.94	5.34	6.19		12.14	13.30	15.19
		velocity	7.59	8.97	8.56	8.43	8.08	8.23	7.94	7.68	7.13	7.09	6.55	6.46	7.58	8.65	7.89	6.91
H1 lead leg	L	strides	22	14		14			15	15	15	15	16	19.5	145.5			

**Leng Ziheng (CHN) (2000)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****U20 FINAL - 2019 Chinese National Youth Games (Taiyuan, CHN)***CAA Hurdle Development (2019)*

date	17-Aug-19	time	6.40	10.64	15.01	19.34	23.80		28.48	33.28	38.18	43.58	49.16	55.34	3 / 8			
reaction time	0.195	interval		4.24	4.37	4.33	4.46		4.68	4.80	4.90	5.40	5.58	6.18		12.94	13.94	15.88
		velocity	7.03	8.25	8.01	8.08	7.85		7.48	7.29	7.14	6.48	6.27	6.47	7.23	8.11	7.53	6.61
H1 lead leg	L	strides	21	15	15	15	15		15	15	15	17	17	19	179			



**U20 Heat 3 - 2019 Chinese National Youth Games (Taiyuan, CHN)**

CAA Hurdle Development (2019)

date	17-Aug-19	time	6.35	10.55	14.83	19.20	23.68	28.33	33.10	37.88	43.02	48.03	53.51	3 / 3					
reaction time	0.202	interval		4.20	4.28	4.37	4.48	4.65	4.77	4.78	5.14	5.01	5.48		PB	12.85	13.90	14.93	
		velocity	7.09	8.33	8.18	8.01	7.81	7.53	7.34	7.32	6.81	6.99	7.30			7.48	8.17	7.55	7.03
H1 lead leg	L	strides	21	15	15	15	15	15	15	15	16	16	19.5			177.5			

**Levantinos, Dimitris (GRE) (1997)**

Heat 1 - 2024 European Athletics Championships (Roma, ITA)	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
date	09-Jun-24	time	6.07	9.91	14.09	18.25	22.46	26.79	31.19	35.71	40.51	45.41	51.13	8 / 6				
reaction time	0.171	interval		3.84	4.18	4.16	4.21	4.33	4.40	4.52	4.80	4.90	5.72		12.18	12.94	14.22	
		velocity	7.41	9.11	8.37	8.41	8.31	8.08	7.95	7.74	7.29	7.14	6.99		7.82	8.62	8.11	7.38
H1 lead leg		strides											0					

**Levingston, Isaiah (USA) (1998)**

FINAL - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
date	26-Jun-21	time	5.80	9.61	13.51	17.65	21.95	26.29	30.66	39.40	43.94	49.25	49.25	9 / 6			
reaction time	0.231	interval		3.81	3.90	4.14	4.30	4.34	4.37	8.74	4.54	5.31			11.85	13.01	13.28
		velocity	7.76	9.19	8.97	8.45	8.14	8.06	8.01	8.01	7.71	7.53	8.12		8.86	8.07	7.91
H1 lead leg	L	strides	13	13	13	13	13	13	13	13	13	104					

**Semi-Final 1 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)**

Heat 1 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
date	25-Jun-21	time	6.13	10.00	13.90	18.00	22.20	26.47	30.77	35.13	39.60	44.10	49.34	8 / 3			
reaction time	0.247	interval		3.87	3.90	4.10	4.20	4.27	4.30	4.36	4.47	4.50	5.24		11.87	12.77	13.33
		velocity	7.34	9.04	8.97	8.54	8.33	8.20	8.14	8.03	7.83	7.78	7.63	8.11	8.85	8.22	7.88
H1 lead leg	L	strides	21	13	13	13	13	13	13	13	13	31	16.2		172.2		

**Heat 1 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)**

FINAL - 2021 NCAA Championships (Eugene, OR) (TV Analysis)	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
date	24-Jun-21	time	5.97	9.84	13.81	17.85	21.99	26.20	30.46	34.80	39.20	43.78	49.06	8 / 2			
reaction time	0.192	interval		3.87	3.97	4.04	4.14	4.21	4.26	4.34	4.40	4.58	5.28		11.88	12.61	13.32
		velocity	7.54	9.04	8.82	8.66	8.45	8.31	8.22	8.06	7.95	7.64	7.58	8.15	8.84	8.33	7.88
H1 lead leg	L	strides	13	13	13	13	13	13	13	13	13	16	133				

**FINAL - 2021 NCAA Championships (Eugene, OR) (TV Analysis)**

Li Chong (CHN)	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
date	11-Jun-21	time	5.97	9.77	17.75	21.80	30.16	34.57	39.07	43.57	48.49	48.49	48.49	9 / 2			
reaction time	0.233	interval		3.80	7.98	4.05	8.36	4.41	4.50	4.50	4.92	PB			11.78	12.41	13.41
		velocity	7.54	9.21	8.77	8.64	8.37	7.94	7.78	7.78	8.13	8.25	104.5		8.91	8.46	7.83
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	16.5	104.5					

**Li Chong (CHN)**

U18 FINAL - 2022 Shandong Provincial Games (Rizhao, CHN) (84cm)	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
date	03-Sep-22	time	6.58	10.90	15.35	19.86	24.48	29.28	34.16	39.28	44.28	49.30	55.21	5 / 4			
reaction time	0.198	interval		4.32	4.45	4.51	4.62	29.28	4.88	5.12	5.00	5.02	5.91		13.28	14.30	15.14
		velocity	6.84	8.10	7.87	7.76	7.58	1.20	7.17	6.84	7.00	6.97	6.77	7.25	7.91	7.34	6.94
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	18.2		175		

**Li Guancheng (CHN) (2002)**

Heat 1 - 2021 Chinese National Championships (Chongqing, CHN)	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
date	26-Jun-21	time	6.22	10.43	14.81	19.28	23.96	28.56	33.68	39.41	58.41	58.41	58.41	2 / 6			
reaction time	0.211	interval		4.21	4.38	4.47	4.68	4.60	5.12	5.73					13.06	14.40	
		velocity	7.23	8.31	7.99	7.83	7.48	7.62	6.83	6.11	6.85				8.04	7.29	
H1 lead leg	L	strides	21	14	14	14	14	14	16	107							

**FINAL - 2021 National Grand Prix (Chengdu, CHN)**

Heat 1 - 2021 National Grand Prix (Chengdu, CHN)	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
date	02-Apr-21	time	6.21	10.40	14.68	19.03	23.46	27.99	32.59	37.32	42.35	47.83	54.09	4 / 6			
reaction time	0.204	interval		4.19	4.28	4.35	4.43	4.53	4.60	4.73	5.03	5.48	6.26		12.82	13.56	15.24
		velocity	7.25	8.35	8.18	8.05	7.90	7.73	7.61	7.40	6.96	6.39	6.39	7.40	8.19	7.74	6.89
H1 lead leg	L	strides	21	14	14	13	13	14	14	14	14	15	18		164		

**Heat 1 - 2021 National Grand Prix (Chengdu, CHN)**

Li Guangzhen (CHN) (1995)	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
date	01-Apr-21	time	6.12	10.32	14.64	19.04	23.48	27.92	32.40	36.98	41.82	46.88	52.61	5 / 2			
reaction time	0.212	interval		4.20	4.32	4.40	4.44	4.44	4.48	4.58	4.84	5.06	5.73		12.92	13.36	14.48
		velocity	7.35	8.33	8.10	7.95	7.88	7.88	7.81	7.64	7.23	6.92	6.98	7.60	8.13	7.86	7.25
H1 lead leg	L	strides	21	14	14	14	14	14	14	14	15	15	18		167		

**Li Guangzhen (CHN) (1995)**

FINAL - 2021 Chinese National Championships (Chongqing, CHN)	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
date	26-Jun-21	time	6.40	10.51	14.65	18.83	23.24	27.86	32.51	37.27	42.01	46.66	51.72	4 / 4-3			
reaction time	0.218	interval		4.11	4.14	4.18	4.41	4.62	4.65	4.76	4.74	4.65	5.06		12.43	13.68	14.15
		velocity	7.03	8.52	8.45	8.37	7.94	7.58	7.53	7.35	7.38	7.53	7.91	7.73	8.45	7.68	7.42
H1 lead leg	R	strides	21	14	14	14	14	15	15	15	15	15	17.2		169.2		

**Heat 4 - 2021 Chinese National Championships (Chongqing, CHN)**

Heat 4 - 2021 Chinese National Championships (Chongqing, CHN)	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
date	26-Jun-21	time	6.16	10.11	14.26	18.57	23.07	27.68	32.25	36.89	41.57	46.16	51.33	5 / 1			
reaction time	0.183	interval		3.95	4.15	4.31	4.50	4.61	4.57	4.64	4.68	4.59	5.17		12.41	13.68	13.91
		velocity	7.31	8.86	8.43	8.12	7.78	7.59	7.66	7.54	7.48	7.63	7.74	7.79	8.46	7.68	7.55
H1 lead leg	L	strides	22	14	14	14	14	15	15	14	15	15	17.2		169.2		

**FINAL - 2020 Chinese Olympic Trials (Shaoxing, CHN)**

														CAA Hurdle Development (2021)				
date	13-Jun-21	time	6.19	10.16	14.18	18.28	22.52	26.83	31.35	36.04	40.67	45.33	50.58	3 / 2				
reaction time	0.195	interval		3.97	4.02	4.10	4.24	4.31	4.52	4.69	4.63	4.66	5.25		PB	12.09	13.07	13.98
		velocity	7.27	8.82	8.71	8.54	8.25	8.12	7.74	7.46	7.56	7.51	7.62			8.68	8.03	7.51
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	15	15	17.7					

**FINAL - 2021 Philippe Cup Athletics Invitational (Wuhan, CHN)**

														CAA Hurdle Development (2021)				
date	20-May-21	time	6.47	10.49	14.48	18.55	22.76	27.19	31.75	36.37	41.02	45.86	51.17	7 / 1				
reaction time	0.210	interval		4.02	3.99	4.07	4.21	4.43	4.56	4.62	4.65	4.84	5.31			12.08	13.20	14.11
		velocity	6.96	8.71	8.77	8.60	8.31	7.90	7.68	7.58	7.53	7.23	7.53			8.69	7.95	7.44
H1 lead leg	R	strides	22	14	14	14	14	14	14	15	15	15	18					

**FINAL - 2019 Chinese National Grand Prix Final (Daqing, CHN)**

														CAA Hurdle Development (2019)				
date	23-Aug-19	time	6.74	10.51	14.48	18.67	22.89	27.21	31.70	36.37	41.02	45.75	51.02	6 / 2				
reaction time	0.213	interval		3.77	3.97	4.19	4.22	4.32	4.49	4.67	4.65	4.73	5.27			11.93	13.03	14.05
		velocity	6.68	9.28	8.82	8.35	8.29	8.10	7.80	7.49	7.53	7.40	7.59			8.80	8.06	7.47
H1 lead leg	L	strides	22	14	14	14	14	14	14	15	15	15	18					

**Heat 1 - 2019 Chinese National Grand Prix Final (Daqing, CHN)**

														CAA Hurdle Development (2019)				
date	22-Aug-19	time	6.66	10.90	15.12	19.50	23.95	28.45	32.96	37.67	42.36	47.05	52.20	9 / 1				
reaction time	0.258	interval		4.24	4.22	4.38	4.45	4.50	4.51	4.71	4.69	4.69	5.15			12.84	13.46	14.09
		velocity	6.76	8.25	8.29	7.99	7.87	7.78	7.76	7.43	7.46	7.46	7.77			8.18	7.80	7.45
H1 lead leg	L	strides	22	14	14	14	14	14	14	15	15	15	18					

**FINAL - 2019 Chinese World Championship Trials (Shenyang, CHN)**

														CAA Hurdle Development (2019)				
date	03-Aug-19	time	6.14	10.17	14.08	18.17	22.59	27.03	31.57	36.19	40.81	45.58	50.92	4 / 3				
reaction time	0.174	interval		4.03	3.91	4.09	4.42	4.44	4.54	4.62	4.62	4.77	5.34		PB	12.03	13.40	14.01
		velocity	7.33	8.68	8.95	8.56	7.92	7.88	7.71	7.58	7.58	7.34	7.49			8.73	7.84	7.49
H1 lead leg	L	strides	22	14	14	13	14	14	15	15	15	15	18					

**Heat 1 - 2019 Chinese World Championship Trials (Shenyang, CHN)**

														CAA Hurdle Development (2019)				
date	03-Aug-19	time	6.40	10.63	14.88	19.12	23.40	27.75	32.13	36.64	41.60	46.52	51.88	6 / 1				
reaction time	0.186	interval		4.23	4.25	4.24	4.28	4.35	4.38	4.51	4.96	4.92	5.36		PB	12.72	13.01	14.39
		velocity	7.03	8.27	8.24	8.25	8.18	8.05	7.99	7.76	7.06	7.11	7.46			8.25	8.07	7.30
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	15	15	18					

**Heat 2 - 2019 Chinese National Championships (Shenyang, CHN)**

														CAA Hurdle Development (2019)					
date	09-Jul-19	time	6.45	10.51	14.59	18.73	22.86	27.15	31.53	36.02	40.62	45.36	50.83	3 / 4					
reaction time	0.276	interval		4.06	4.08	4.14	4.13	4.29	4.38	4.49	4.60	4.74	5.47		DQ	12.28	12.80	13.83	
		velocity	6.98	8.62	8.58	8.45	8.47	8.16	7.99	7.80	7.61	7.38	7.31	7.87			8.55	8.20	7.59
H1 lead leg	L	strides	22	14	14	14	14	14	14	15	15	15	17.5						

**Li Jiake (CHN)**

														CAA Hurdle Development (2019)					
<b>U20 FINAL - 2022 Shandong Provincial Games (Rizhao, CHN)</b>			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
date	03-Sep-22	time	6.29	10.38	14.60	18.87	23.31	27.63	32.10	36.71	41.54	46.42	51.88	5 / 2					
reaction time	0.205	interval		4.09	4.22	4.27	4.44	4.32	4.47	4.61	4.83	4.88	5.46			12.58	13.23	14.32	
		velocity	7.15	8.56	8.29	8.20	7.88	8.10	7.83	7.59	7.25	7.17	7.33	7.71			8.35	7.94	7.33
H1 lead leg	R	strides	22	15	15	15	15	15	15	15	16	16	19.7						

**Li Mingyu (CHN)**

														CAA Hurdle Development (2019)					
<b>U18 FINAL - 2022 Shandong Provincial Games (Rizhao, CHN) (84cm)</b>			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
date	03-Sep-22	time	6.76	11.18	15.82	20.47	25.41	30.47	35.57	41.13	46.77	52.61	58.67	2 / 6					
reaction time	0.231	interval		4.42	4.64	4.65	4.94	30.47	5.10	5.56	5.64	5.84	6.06			13.71	15.10	17.04	
		velocity	6.66	7.92	7.54	7.53	7.09	1.15	6.86	6.29	6.21	5.99	6.60	6.82			7.66	6.95	6.16
H1 lead leg	R	strides	22	15	15	15	15	15	15	15	17	17	17	19					

**Li Zhilong (CHN) (1988)**

														CAA Hurdle Development (2019)					
<b>FINAL - 2013 Chinese National Grand Prix Final (Shenyang, CHN)</b>			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
date	16-Jun-13	time	6.16	10.08	14.08	18.12	22.28	26.56	30.92	35.36	39.96	44.72	49.96	1 / 1					
reaction time		interval		3.92	4.00	4.04	4.16	4.28	4.36	4.44	4.60	4.76	5.24			11.96	12.80	13.80	
		velocity	7.31	8.93	8.75	8.66	8.41	8.18	8.03	7.88	7.61	7.35	7.63	8.01			8.78	8.20	7.61
H1 lead leg		strides																	

**FINAL - 2013 Chinese National Championships (Suzhou, CHN)**

														CAA Hurdle Development (2019)					
														<i>Li (2014) - research on training characteristics of Li Zhilong's of Chinese men's 400m hurdles</i>					
date	30-May-13	time	6.08	9.96	13.96	18.00	22.16	26.48	30.92	35.52	40.32	45.56	51.41	1 / 3					
reaction time		interval		3.88	4.00	4.04	4.16	4.32	4.44	4.60	4.80	5.24	5.85			11.92	12.92	14.64	
		velocity	7.40	9.02	8.75	8.66	8.41	8.10	7.88	7.61	7.29	6.68	6.84	7.78			8.81	8.13	7.17
H1 lead leg		strides																	

**FINAL - 2013 Chinese National Grand Prix (Zhaoqing, CHN)**

														CAA Hurdle Development (2019)					
														<i>Li (2014) - research on training characteristics of Li Zhilong's of Chinese men's 400m hurdles</i>					
date	28-Apr-13	time	6.24	10.16	14.20	18.28	22.44	26.72	31.16	35.76	40.48	45.44	50.95	1 / 2					
reaction time		interval		3.92	4.04	4.08	4.16	4.28	4.44	4.60	4.72	4.96	5.51			12.04	12.88	14.28	
		velocity	7.21	8.93	8.66	8.58	8.41	8.18	7.88	7.61	7.42	7.06	7.26	7.85			8.72	8.15	7.35
H1 lead leg		strides																	

**FINAL - 2012 Chinese National Championships (Kunshan, CHN)**

														CAA Hurdle Development (2019)			
														<i>Li (2014) - research on training characteristics of Li Zhilong's of Chinese men's 400m hurdles</i>			
date	23-Sep-12	time	6.04	9.88	13.84	17.88	22.00	26.28	30.72	35.24	39.92	44.76	50.25	1 / 1			

reaction time	interval	3.84	3.96	4.04	4.12		4.28	4.44	4.52	4.68	4.84	5.49		11.84	12.84	14.04	
	velocity	7.45	9.11	8.84	8.66	8.50	8.18	7.88	7.74	7.48	7.23	7.29	7.96	8.87	8.18	7.48	
H1 lead leg	strides																
<b>FINAL - 2011 Chinese National Championships (Hefei, CHN)</b>																	
<i>Li (2014) - research on training characteristics of Li Zhilong's of Chinese men's 400m hurdles</i>																	
date	09-Sep-11	time	6.08	9.92	13.92	17.92	22.04	26.36	30.68	35.08	39.60	44.20	49.47	/ 1			
reaction time	interval		3.84	4.00	4.00	4.12	4.32	4.32	4.40	4.52	4.60	5.27	<b>PB</b>	11.84	12.76	13.52	
	velocity	7.40	9.11	8.75	8.75	8.50	8.10	8.10	7.95	7.74	7.61	7.59	8.09	8.87	8.23	7.77	
H1 lead leg	strides	22	15	15	15	15	15	15	15	15	15	18	175				
<b>FINAL - 2011 Chinese National Grand Prix (Fuzhou, CHN)</b>																	
<i>Li (2014) - research on training characteristics of Li Zhilong's of Chinese men's 400m hurdles</i>																	
date	26-Jun-11	time	6.08	9.88	13.84	17.80	21.88	26.16	30.48	35.04	39.68	44.48	49.58	/ 2			
reaction time	interval		3.80	3.96	3.96	4.08	4.28	4.32	4.56	4.64	4.80	5.10	<b>PB</b>	11.72	12.68	14.00	
	velocity	7.40	9.21	8.84	8.84	8.58	8.18	8.10	7.68	7.54	7.29	7.84	8.07	8.96	8.28	7.50	
H1 lead leg	strides																
<b>Liang Chao (CHN) (2000)</b>																	
<b>Heat 1 - 2021 East China District Meeting (Zhaoqing, CHN)</b>																	
<i>CAA Hurdle Development (2021)</i>																	
date	25-Apr-21	time	6.22	10.34	14.54	18.92	23.38	28.06	32.85	37.74	42.81	48.01	53.86	8 / 5			
reaction time	0.168	interval		4.12	4.20	4.38	4.46	4.68	4.79	4.89	5.07	5.20	5.85		12.70	13.93	15.16
	velocity	7.23	8.50	8.33	7.99	7.85	7.48	7.31	7.16	6.90	6.73	6.84	7.43	8.27	7.54	6.93	
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	19	171			
<b>Lima, Matheus (BRA) (2003)</b>																	
<b>FINAL - 2024 Kamila Skolimowska Memorial (Silesia, POL)</b>																	
<i>Omega Timing (2023) - diamond league race analysis</i>																	
date	25-Aug-24	time	5.96	9.69	13.45	17.30	21.30	25.42	29.71	34.06	38.47	42.95	48.12	4 / 6			
reaction time	0.175	interval		3.73	3.76	3.85	4.00	4.12	4.29	4.35	4.41	4.48	5.17	<b>PB</b>	11.61	12.41	13.24
	velocity	7.55	9.38	9.31	9.09	8.75	8.50	8.16	8.05	7.94	7.81	7.74	8.31	9.04	8.46	7.93	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	14	14	16.2	155.2			
<b>Semi-Final 3 - 2024 Olympic Games (Paris, FRA)</b>																	
<i>Paris 2024 Olympic Games - Results Book (2024)</i>																	
date	07-Aug-24	time	5.93	9.73	13.51	17.34	21.38	25.48	29.65	34.05	38.80	43.56	49.08	6 / 4			
reaction time	0.191	interval		3.80	3.78	3.83	4.04	4.10	4.17	4.40	4.75	4.76	5.52		11.41	12.31	13.91
	velocity	7.59	9.21	9.26	9.14	8.66	8.54	8.39	7.95	7.37	7.35	7.25	8.15	9.20	8.53	7.55	
H1 lead leg	L	strides	21	13	13	13	13	13	13	13	14	14	17	157			
<b>Heat 5 - 2024 Olympic Games (Paris, FRA)</b>																	
<i>Paris 2024 Olympic Games - Results Book (2024)</i>																	
date	05-Aug-24	time	6.09	9.91	13.78	17.71	21.76	26.01	30.35	34.72	39.22	43.77	48.90	6 / 2			
reaction time	0.180	interval		3.82	3.87	3.93	4.05	4.25	4.34	4.37	4.50	4.55	5.13		11.62	12.64	13.42
	velocity	7.39	9.16	9.04	8.91	8.64	8.24	8.06	8.01	7.78	7.69	7.80	8.18	9.04	8.31	7.82	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	13	14	17	155			
<b>Lin Lin (CHN) (2002)</b>																	
<b>FINAL - 2024 Chinese National Grand Prix Final (Rizhao, CHN)</b>																	
<i>Shandong Athletics Sport Science (2024)</i>																	
date	29-Jun-24	time	6.16	10.08	14.13	18.20	22.45	26.89	31.38	35.98	40.72	45.53	51.00	2 / 6			
reaction time	0.185	interval		3.92	4.05	4.07	4.25	4.44	4.49	4.60	4.74	4.81	5.47		12.04	13.18	14.15
	velocity	7.31	8.93	8.64	8.60	8.24	7.88	7.80	7.61	7.38	7.28	7.31	7.84	8.72	7.97	7.42	
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	15	15	19	172			
<b>Lin Yingxian (CHN) (2002)</b>																	
<b>U18 FINAL - 2019 Chinese National Youth Games (Taiyuan, CHN) (84cm)</b>																	
<i>CAA Hurdle Development (2019)</i>																	
date	17-Aug-19	time	6.50	10.65	14.90	19.16	23.62	28.26	33.02	37.68	42.68	47.62	53.18	5 / 3			
reaction time	0.211	interval		4.15	4.25	4.26	4.46	4.64	4.76	4.66	5.00	4.94	5.56		12.66	13.86	14.60
	velocity	6.92	8.43	8.24	8.22	7.85	7.54	7.35	7.51	7.00	7.09	7.19	7.52	8.29	7.58	7.19	
H1 lead leg	L	strides	23	15	15	15	15	15	15	15	15	15	19.5	177.5			
<b>Lin Zhikai (CHN) (2001)</b>																	
<b>Heat 2 - 2021 Chinese National Championships (Chongqing, CHN)</b>																	
<i>CAA Hurdle Development (2021)</i>																	
date	26-Jun-21	time	6.23	10.23	14.27	18.43	22.70	27.11	31.63	36.29	41.09	46.05	51.70	6 / 2			
reaction time	0.187	interval		4.00	4.04	4.16	4.27	4.41	4.52	4.66	4.80	4.96	5.65		12.20	13.20	14.42
	velocity	7.22	8.75	8.66	8.41	8.20	7.94	7.74	7.51	7.29	7.06	7.08	7.74	8.61	7.95	7.28	
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	18.2	175.2			
<b>FINAL - 2020 Chinese Olympic Trials (Shaoxing, CHN)</b>																	
<i>CAA Hurdle Development (2021)</i>																	
date	13-Jun-21	time	6.19	10.19	14.30	18.45	22.74	27.16	36.39	41.24	46.21	52.13	2 / 7				
reaction time	0.168	interval		4.00	4.11	4.15	4.29	4.42	9.23	4.85	4.97	5.92		12.26			
	velocity	7.27	8.75	8.52	8.43	8.16	7.92	7.58	7.22	7.04	6.76	7.67	8.56				
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	18.5	175.5				
<b>FINAL - 2021 East China District Meeting (Zhaoqing, CHN)</b>																	
<i>CAA Hurdle Development (2021)</i>																	
date	25-Apr-21	time	6.30	10.28	14.35	18.50	22.79	27.17	31.72	36.40	41.19	46.13	51.81	3 / 3			
reaction time	0.201	interval		3.98	4.07	4.15	4.29	4.38	4.55	4.68	4.79	4.94	5.68		12.20	13.22	14.41
	velocity	7.14	8.79	8.60	8.43	8.16	7.99	7.69	7.48	7.31	7.09	7.04	7.72	8.61	7.94	7.29	
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	18.5	175.5			
<b>Heat 3 - 2021 East China District Meeting (Zhaoqing, CHN)</b>																	
<i>CAA Hurdle Development (2021)</i>																	
date	25-Apr-21	time	6.30	10.34	14.46	18.66	23.00	27.42	31.98	36.62	41.42	46.42	52.54	7 / 2			



reaction time	0.203	interval	4.04	4.12	4.20	4.34	4.42	4.56	4.64	4.80	5.00	6.12	12.36	13.32	14.44		
		velocity	7.14	8.66	8.50	8.33	8.06	7.92	7.68	7.54	7.29	7.00	6.54	7.61	8.50	7.88	7.27
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	19	176			
<b>FINAL - 2020 Chinese National Championships (Shaoxing, CHN)</b>													<i>CAA Hurdle Development (2020)</i>				
date	17-Sep-20	time	6.08	10.21	14.29	18.42	22.75	27.21	31.75	36.42	41.08	45.87	51.33	3 / 4			
reaction time		interval	4.13	4.08	4.13	4.33	4.46	4.54	4.67	4.66	4.79	5.46	12.34	13.33	14.12		
		velocity	7.40	8.47	8.58	8.47	8.08	7.85	7.71	7.49	7.51	7.31	7.33	7.79	8.51	7.88	7.44
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	18	175			
<b>U20 FINAL - 2019 Chinese National Youth Games (Taiyuan, CHN)</b>													<i>CAA Hurdle Development (2019)</i>				
date	17-Aug-19	time	6.44	10.58	14.79	19.02	23.38	27.90	32.50	37.22	41.96	46.74	51.95	2 / 5			
reaction time	0.203	interval	4.14	4.21	4.23	4.36	4.52	4.60	4.72	4.74	4.78	5.21	PB	12.58	13.48	14.24	
		velocity	6.99	8.45	8.31	8.27	8.03	7.74	7.61	7.42	7.38	7.32	7.68	7.70	8.35	7.79	7.37
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	18	175			
<b>U20 Heat 1 - 2019 Chinese National Youth Games (Taiyuan, CHN)</b>													<i>CAA Hurdle Development (2019)</i>				
date	17-Aug-19	time	6.65	10.98	15.24	19.58	24.00	28.56	33.14	37.84	42.62	47.56	53.12	7 / 3			
reaction time	0.197	interval	4.33	4.26	4.34	4.42	4.56	4.58	4.70	4.78	4.94	5.56	12.93	13.56	14.42		
		velocity	6.77	8.08	8.22	8.06	7.92	7.68	7.64	7.45	7.32	7.09	7.19	7.53	8.12	7.74	7.28
H1 lead leg	L	strides	23	15	15	15	15	15	15	15	15	17.8	175.8				
<b>Lituyev, Yury (URS) (1925)</b>													<i>CAA Hurdle Development (2019)</i>				
<b>FINAL - 1953 Hungary vs. USSR (Budapest, HUN)</b>													<i>Quercetani (2000): Athletics: A history of modern track and field athletics (1860-2000)</i>				
date	20-Sep-53	time					23.5						50.4	/ 1			
reaction time		interval										26.9	WR				
		velocity					8.51					7.43	7.94				
H1 lead leg		strides	13	13	13	13		13	13	13	15	15	121				
<b>Liu Shuang (CHN) (2000)</b>													<i>CAA Hurdle Development (2019)</i>				
<b>U20 FINAL - 2019 Chinese National Youth Games (Taiyuan, CHN)</b>													<i>CAA Hurdle Development (2019)</i>				
date	17-Aug-19	time	6.20	10.08	14.02	18.10	22.32	26.66	31.16	35.88	40.76	46.04	51.84	9 / 4			
reaction time	0.173	interval	3.88	3.94	4.08	4.22	4.34	4.50	4.72	4.88	5.28	5.80	PB	11.90	13.06	14.88	
		velocity	7.26	9.02	8.88	8.58	8.29	8.06	7.78	7.42	7.17	6.63	6.90	7.72	8.82	8.04	7.06
H1 lead leg	L	strides	23	15	15	15	15	15	15	15	15	17	19.5	179.5			
<b>U20 Heat 3 - 2019 Chinese National Youth Games (Taiyuan, CHN)</b>													<i>CAA Hurdle Development (2019)</i>				
date	17-Aug-19	time	6.41	10.41	14.46	18.64	22.96	27.41	32.05	36.78	41.73	47.06	53.11	5 / 2			
reaction time	0.203	interval	4.00	4.05	4.18	4.32	4.45	4.64	4.73	4.95	5.33	6.05	PB	12.23	13.41	15.01	
		velocity	7.02	8.75	8.64	8.37	8.10	7.87	7.54	7.40	7.07	6.57	6.61	7.53	8.59	7.83	7.00
H1 lead leg	L	strides	23	15	15	15	15	15	15	15	15	17	19.5	179.5			
<b>Liu Yangyang (CHN) (1995)</b>													<i>CAA Hurdle Development (2019)</i>				
<b>Heat 3 - 2021 Chinese National Championships (Chongqing, CHN)</b>													<i>CAA Hurdle Development (2021)</i>				
date	26-Jun-21	time	6.42	10.59	14.85	19.22	23.81	28.40	33.17	37.82	42.63	47.50	52.90	3 / 6			
reaction time	0.222	interval	4.17	4.26	4.37	4.59	4.59	4.77	4.65	4.81	4.87	5.40	12.80	13.95	14.33		
		velocity	7.01	8.39	8.22	8.01	7.63	7.63	7.34	7.53	7.28	7.19	7.41	7.56	8.20	7.53	7.33
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	19	176			
<b>Heat 1 - 2019 Chinese National Grand Prix Final (Daqing, CHN)</b>													<i>CAA Hurdle Development (2019)</i>				
date	22-Aug-19	time	6.45	10.59	14.85	19.24	23.67	28.22	32.87	37.64	42.44	47.25	52.44	5 / 4			
reaction time	0.200	interval	4.14	4.26	4.39	4.43	4.55	4.65	4.77	4.80	4.81	5.19	12.79	13.63	14.38		
		velocity	6.98	8.45	8.22	7.97	7.90	7.69	7.53	7.34	7.29	7.28	7.71	7.63	8.21	7.70	7.30
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	18.5	175.5			
<b>FINAL - 2019 Chinese World Championship Trials (Shenyang, CHN)</b>													<i>CAA Hurdle Development (2019)</i>				
date	03-Aug-19	time	6.26	10.30	14.46	18.64	22.97	27.36	31.80	36.20	40.64	45.16	50.32	7 / 1			
reaction time	0.177	interval	4.04	4.16	4.18	4.33	4.39	4.44	4.40	4.44	4.52	5.16	PB	12.38	13.16	13.36	
		velocity	7.19	8.66	8.41	8.37	8.08	7.97	7.88	7.95	7.88	7.74	7.75	7.95	8.48	7.98	7.86
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	18.5	175.5			
<b>Heat 1 - 2019 Chinese World Championship Trials (Shenyang, CHN)</b>													<i>CAA Hurdle Development (2019)</i>				
date	03-Aug-19	time	6.66	10.90	15.28	19.68	24.20	28.90	33.58	38.32	43.10	48.08	54.44	8 / 3			
reaction time	0.333	interval	4.24	4.38	4.40	4.52	4.70	4.68	4.74	4.78	4.98	6.36	13.02	13.90	14.50		
		velocity	6.76	8.25	7.99	7.95	7.74	7.45	7.48	7.38	7.32	7.03	6.29	7.35	8.06	7.55	7.24
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	18.5	175.5			
<b>FINAL - 2019 Chinese National Championships (Shenyang, CHN)</b>													<i>CAA Hurdle Development (2019)</i>				
date	10-Jul-19	time	6.45	10.56	14.80	19.22	23.70	28.28	32.83	37.46	42.06	46.70	52.00	8 / 7			
reaction time	0.313	interval	4.11	4.24	4.42	4.48	4.58	4.55	4.63	4.60	4.64	5.30	12.77	13.61	13.87		
		velocity	6.98	8.52	8.25	7.92	7.81	7.64	7.69	7.56	7.61	7.54	7.55	7.69	8.22	7.71	7.57
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	17.8	174.8			
<b>Heat 2 - 2019 Chinese National Championships (Shenyang, CHN)</b>													<i>CAA Hurdle Development (2019)</i>				
date	09-Jul-19	time	6.36	10.39	14.56	18.81	23.17	27.58	32.14	36.77	41.46	46.13	51.32	2 / 3			
reaction time	0.216	interval	4.03	4.17	4.25	4.36	4.41	4.56	4.63	4.69	4.67	5.19	PB	12.45	13.33	13.99	
		velocity	7.08	8.68	8.39	8.24	8.03	7.94	7.68	7.56	7.46	7.49	7.71	7.79	8.43	7.88	7.51

H1 lead leg L strides 22 15 15 15 15 15 15 15 15 15 15 15 18.5 175.5

**FINAL - 2019 Chinese National Grand Prix 2 (Huangshi, CHN)**

CAA Hurdle Development (2019)

date	12-Apr-19	time	6.50	10.68	15.10	19.58	24.10	28.70	33.36	38.06	42.76	47.46	52.58	4 / 1	13.08	13.78	14.10
reaction time	0.204	interval	4.18	4.42	4.48	4.52	4.60	4.66	4.70	4.70	4.70	5.12	7.61	7.61	8.03	7.62	7.45
		velocity	6.92	8.37	7.92	7.81	7.74	7.61	7.51	7.45	7.45	7.45	7.81	7.61			

H1 lead leg L strides 21 15 15 15 15 15 15 15 15 15 15 15 19.2 175.2

**FINAL - 2019 Chinese National Grand Prix 1 (Zhaoqing, CHN)**

CAA Hurdle Development (2019)

date	08-Apr-19	time	6.52	10.51	15.15	19.59	24.06	28.71	33.41	38.02	42.62	47.26	52.30	8 / 5	13.07	13.82	13.85
reaction time	0.207	interval	3.99	4.64	4.44	4.47	4.65	4.70	4.61	4.60	4.64	5.04	7.65	7.65	8.03	7.60	7.58
		velocity	6.90	8.77	7.54	7.88	7.83	7.53	7.45	7.59	7.61	7.54	7.94	7.65			

H1 lead leg L strides 22 15 16 16 16 15 15 15 15 15 15 15 18 178

**Liu Yunlang (CHN) (2002)**

**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**  
CAA Hurdle Development (2019)

**U18 FINAL - 2019 Chinese National Youth Games (Taiyuan, CHN) (84cm)**

date	17-Aug-19	time	6.34	10.48	14.72	19.06	23.56	28.24	32.96	37.66	42.60	47.90	53.96	7 / 4	12.72	13.90	14.94
reaction time	0.190	interval	4.14	4.24	4.34	4.50	4.68	4.72	4.70	4.94	5.30	6.06	7.41	7.41	8.25	7.55	7.03
		velocity	7.10	8.45	8.25	8.06	7.78	7.48	7.42	7.45	7.09	6.60	6.60	7.41			

H1 lead leg L strides 22 15 15 15 15 15 15 15 15 15 17 19.5 178.5

**Long, Corde (USA) (2002)**

**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**  
USATF and Karmarush (2024) - USA Olympic trials results and race analysis

**Semi-Final 1 - 2024 USA Olympic Trials (Eugene, OR)**

date	28-Jun-24	time	6.02	9.79	13.58	17.45	21.48	23.31	25.68	30.13	34.73	39.54	44.27	50.05	7 / 4	11.43	12.68	14.14
reaction time		interval	3.77	3.79	3.87	4.03	4.20	4.45	4.60	4.81	4.73	5.78	7.99	7.99	9.19	8.28	7.43	
		velocity	7.48	9.28	9.23	9.04	8.68	8.58	8.33	7.87	7.61	7.28	7.40	6.92	7.99			

H1 lead leg L strides 13 13 13 13 13 13 13 14 14 14 14 14 16.5 136.5

**Heat 1 - 2024 USA Olympic Trials (Eugene, OR)**

Henson (2024) - Athlete First: 2024 year end hurdle report

date	27-Jun-24	time	6.20	10.03	13.90	17.97	22.15	26.47	31.13	35.73	40.50	45.20	50.42	8 / 3	11.77	13.16	14.07
reaction time		interval	3.83	3.87	4.07	4.18	4.32	4.66	4.60	4.77	4.70	5.22	7.93	7.93	8.92	7.98	7.46
		velocity	7.26	9.14	9.04	8.60	8.37	8.10	7.51	7.61	7.34	7.45	7.66	7.93			

H1 lead leg L strides 21 13 13 13 13 13 13 13 14 14 14 14 14 16.2 158.2

**FINAL - 2024 NCAA Championships (Eugene, OR) (TV Analysis)**

Henson (2024) - Athlete First: 2024 year end hurdle report

date	07-Jun-24	time	5.99	9.66	13.56	17.45	21.44	25.77	30.21	34.87	39.40	44.18	49.47	3 / 6	11.46	12.76	13.97
reaction time		interval	3.67	3.90	3.89	3.99	4.33	4.44	4.66	4.53	4.78	5.29	8.09	8.09	9.16	8.23	7.52
		velocity	7.51	9.54	8.97	9.00	8.77	8.08	7.88	7.51	7.73	7.32	7.56	8.09			

H1 lead leg L strides 21 13 13 13 13 14 14 14 14 14 14 17 160

**FINAL - 2023 NCAA Championships (Austin, TX) (TV Analysis)**

Henson (2023) - Athlete First: 2023 year end hurdle report

date	09-Jun-23	time	5.99	9.71	13.56	17.46	21.54	25.76	30.28	34.62	39.09	43.49	48.53	5 / 2	11.47	12.82	13.21
reaction time		interval	3.72	3.85	3.90	4.08	4.22	4.52	4.34	4.47	4.40	5.04	PB	8.24	9.15	8.19	7.95
		velocity	7.51	9.41	9.09	8.97	8.58	8.29	7.74	8.06	7.83	7.95	7.94	8.24			

H1 lead leg L strides 21 13 13 13 13 13 14 14 14 14 13 16.7 157.7

**Long Wei (CHN) (1997)**

**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**  
CAA Hurdle Development (2021)

**Heat 1 - 2021 Chinese National Championships (Chongqing, CHN)**

date	26-Jun-21	time	6.13	10.08	14.10	18.20	22.47	26.92	31.51	36.18	41.06	46.24	52.33	8 / 5	12.07	13.31	14.73
reaction time	0.227	interval	3.95	4.02	4.10	4.27	4.45	4.59	4.67	4.88	5.18	6.09	7.64	7.64	8.70	7.89	7.13
		velocity	7.34	8.86	8.71	8.54	8.20	7.87	7.63	7.49	7.17	6.76	6.57	7.64			

H1 lead leg L strides 21 15 15 15 15 15 15 15 15 15 15 15 19 175

**Heat 1 - 2019 Chinese National Grand Prix Final (Daqing, CHN)**

CAA Hurdle Development (2019)

date	22-Aug-19	time	6.36	10.58	14.81	19.12	23.59	28.19	32.88	37.65	42.61	47.68	53.57	3 / 6	12.76	13.76	14.80
reaction time	0.219	interval	4.22	4.23	4.31	4.47	4.60	4.69	4.77	4.96	5.07	5.89	7.47	7.47	8.23	7.63	7.09
		velocity	7.08	8.29	8.27	8.12	7.83	7.61	7.46	7.34	7.06	6.90	6.79	7.47			

H1 lead leg L strides 22 15 15 15 15 15 15 15 15 15 15 15 19 176

**Heat 2 - 2019 Chinese World Championship Trials (Shenyang, CHN)**

CAA Hurdle Development (2019)

date	03-Aug-19	time	7.01	11.70	16.40	21.15	26.09	31.31	36.89	42.34	47.68	53.38	59.62	3 / 6	14.14	15.74	16.49
reaction time	0.252	interval	4.69	4.70	4.75	4.94	5.22	5.58	5.45	5.45	11.04	6.24	7.64	7.64	7.43	6.67	6.37
		velocity	6.42	7.46	7.45	7.37	7.09	6.70	6.27	6.42	6.34	6.41	6.71	7.64			

H1 lead leg L strides 22 15 15 15 15 15 17 17 19.2 150.2

**Heat 1 - 2019 Chinese National Championships (Shenyang, CHN)**

CAA Hurdle Development (2019)

date	09-Jul-19	time	6.04	10.08	14.15	18.28	22.54	26.89	31.28	35.85	40.61	45.58	51.39	4 / 6	12.24	13.00	14.30
reaction time	0.188	interval	4.04	4.07	4.13	4.26	4.35	4.39	4.57	4.76	4.97	5.81	PB	8.58	8.08	7.34	
		velocity	7.45	8.66	8.60	8.47	8.22	8.05	7.97	7.66	7.35	7.04	6.88	7.78			

H1 lead leg L strides 21 15 15 15 15 15 15 15 15 15 15 15 18.8 174.8

**FINAL - 2019 Chinese National Grand Prix 4 (Luoyang, CHN)**

CAA Hurdle Development (2019)

date	29-May-19	time	6.22	10.21	14.36	18.58	22.92	27.42	32.04	36.70	41.47	46.34	51.87	2 / 3	12.36	13.46	14.30
reaction time	0.208	interval	3.99	4.15	4.22	4.34	4.50	4.62	4.66	4.77	4.87	5.53	PB	8.50	7.80	7.34	
		velocity	7.23	8.77	8.43	8.29	8.06	7.78	7.58	7.51	7.34	7.19	7.23	7.71			

H1 lead leg L strides 23 15 15 15 15 15 15 15 15 15 15 15 18.2 176.2

**FINAL - 2019 Chinese National Grand Prix 2 (Huangshi, CHN)**

														CAA Hurdle Development (2019)			
date	12-Apr-19	time	6.19	10.19	14.45	18.71	23.14	27.68	32.30	37.09	42.04	47.06	52.83	9 / 3	12.52	13.59	14.76
reaction time	0.250	interval		4.00	4.26	4.26	4.43	4.54	4.62	4.79	4.95	5.02	5.77		8.39	7.73	7.11
		velocity	7.27	8.75	8.22	8.22	7.90	7.71	7.58	7.31	7.07	6.97	6.93	7.57			
H1 lead leg	L	strides	21	15	15	15	15	15	15	15	15	15	19	175			

**FINAL - 2019 Chinese National Grand Prix 1 (Zhaoqing, CHN)**

														CAA Hurdle Development (2019)			
date	08-Apr-19	time	6.21	10.29	14.46	18.68	22.97	27.44	32.08	36.90	41.82	46.86	52.73	9 / 8	12.47	13.40	14.78
reaction time	0.271	interval		4.08	4.17	4.22	4.29	4.47	4.64	4.82	4.92	5.04	5.87		8.42	7.84	7.10
		velocity	7.25	8.58	8.39	8.29	8.16	7.83	7.54	7.26	7.11	6.94	6.81	7.59			
H1 lead leg	L	strides	21	15	15	15	15	15	15	15	15	15	19	175			

**López, Guillermo (ESP) (1977)**

														CAA Hurdle Development (2019)			
<b>FINAL - 1998 Spanish National Championships (San Sebastián, ESP)</b>														<i>Ruiz (1998) - campeonato des españa absoluto: análisis de la carreras con villas</i>			
date	02-Aug-98	time	6.19	10.32	14.39	18.54	22.87	27.28	31.88	36.59	41.52	46.57	52.50	1 / 7	12.35	13.34	14.69
reaction time		interval		4.13	4.07	4.15	4.33	4.41	4.60	4.71	4.93	5.05	5.93		8.50	7.87	7.15
		velocity	7.27	8.47	8.60	8.43	8.08	7.94	7.61	7.43	7.10	6.93	6.75	7.62			
H1 lead leg	L	strides	22	15	15	15	15	15	16	16	16	16	20	181			

**Lü Baoliang (CHN) (2000)**

														CAA Hurdle Development (2019)			
<b>U20 Heat 3 - 2019 Chinese National Youth Games (Taiyuan, CHN)</b>																	
date	17-Aug-19	time	6.65	10.98	15.36	19.84	24.41	29.28	34.32	39.37	44.68	49.90	55.71	8 / 5	13.19	14.48	15.58
reaction time	0.200	interval		4.33	4.38	4.48	4.57	4.87	5.04	5.05	5.31	5.22	5.81		7.96	7.25	6.74
		velocity	6.77	8.08	7.99	7.81	7.66	7.19	6.94	6.93	6.59	6.70	6.88	7.18			
H1 lead leg	L	strides	22	15	15	15	15	16	16	16	17	17	19	183			

**Lu Shengjing (CHN) (1998)**

														CAA Hurdle Development (2021)			
<b>FINAL - 2021 Chinese National Championships (Chongqing, CHN)</b>																	
date	26-Jun-21	time	6.24	10.29	14.55	18.88	23.37	27.91	32.45	37.02	41.71	46.48	51.78	1 / <del>5</del> 4	12.64	13.57	14.03
reaction time	0.187	interval		4.05	4.26	4.33	4.49	4.54	4.54	4.57	4.69	4.77	5.30		8.31	7.74	7.48
		velocity	7.21	8.64	8.22	8.08	7.80	7.71	7.71	7.66	7.46	7.34	7.55	7.72			
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	18.5	175.5			

**Heat 4 - 2021 Chinese National Championships (Chongqing, CHN)**

														CAA Hurdle Development (2021)			
date	26-Jun-21	time	6.34	10.37	14.62	18.98	23.39	27.73	32.12	36.60	41.25	46.03	51.54	8 / 2	12.64	13.14	13.91
reaction time	0.228	interval		4.03	4.25	4.36	4.41	4.34	4.39	4.48	4.65	4.78	5.51	<b>=PB</b>	8.31	7.99	7.55
		velocity	7.10	8.68	8.24	8.03	7.94	8.06	7.97	7.81	7.53	7.32	7.26	7.76			
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	19	176			

**FINAL - 2021 Philippe Cup Athletics Invitational (Wuhan, CHN)**

														CAA Hurdle Development (2021)			
date	20-May-21	time	6.17	10.24	14.35	18.53	22.81	27.21	31.68	36.33	41.04	46.06	51.83	6 / 3	12.36	13.15	14.38
reaction time	0.189	interval		4.07	4.11	4.18	4.28	4.40	4.47	4.65	4.71	5.02	5.77	<b>PB</b>	8.50	7.98	7.30
		velocity	7.29	8.60	8.52	8.37	8.18	7.95	7.83	7.53	7.43	6.97	6.93	7.72			
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	19	176			

**FINAL - 2021 East China District Meeting (Zhaoqing, CHN)**

														CAA Hurdle Development (2021)			
date	25-Apr-21	time	6.36	10.48	14.77	19.14	23.59	28.06	32.78	37.59	42.39	47.13	52.34	4 / 5	12.78	13.64	14.35
reaction time	0.217	interval		4.12	4.29	4.37	4.45	4.47	4.72	4.81	4.80	4.74	5.21		8.22	7.70	7.32
		velocity	7.08	8.50	8.16	8.01	7.87	7.83	7.42	7.28	7.29	7.38	7.68	7.64			
H1 lead leg	L	strides	22	15	15	15	15	15	16	16	15	15	18	177			

**Heat 2 - 2021 East China District Meeting (Zhaoqing, CHN)**

														CAA Hurdle Development (2021)			
date	25-Apr-21	time	6.47	10.64	14.98	19.37	23.79	28.23	32.78	37.33	41.99	46.71	51.96	3 / 2	12.90	13.41	13.93
reaction time	0.240	interval		4.17	4.34	4.39	4.42	4.44	4.55	4.55	4.66	4.72	5.25	<b>PB</b>	8.14	7.83	7.54
		velocity	6.96	8.39	8.06	7.97	7.92	7.88	7.69	7.69	7.51	7.42	7.62	7.70			
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	18	175			

**Luck, Jay (USA) (1940)**

														CAA Hurdle Development (2021)			
<b>FINAL - 1964 Olympic Games (Tokyo, JPN)</b>														<i>Breitschaft (1965) - die leichtathletik wettkämpfe der 1964 olympischen sommerspielen - 400m hürdenlauf</i>			
date	16-Oct-64	time	5.7		13.8		22.0		30.5		39.6		50.5	3 / 5			
reaction time		interval			8.10		8.20		8.50		9.10		10.90				
		velocity	7.89		8.64		8.54		8.24		7.69		6.88	7.92			
H1 lead leg		strides															

**Lunn, Atle (NOR) (1969)**

														CAA Hurdle Development (2021)			
<b>FINAL - 1997 European Cup (Munich, GER)</b>														<i>Jung (2003) - http://www.fgs.uni-halle.de</i>			
date	21-Jun-97	time	6.30	10.24	14.29	18.56	22.98	27.62	32.47	36.40	42.56	47.94	54.09	1 / 7	12.26	13.91	15.47
reaction time		interval		3.94	4.05	4.27	4.42	4.64	4.85	3.93	6.16	5.38	6.15		8.56	7.55	6.79
		velocity	7.14	8.88	8.64	8.20	7.92	7.54	7.22	8.91	5.68	6.51	6.50	7.40			
H1 lead leg		strides															

**Luo Xinyu (CHN) (2002)**

														CAA Hurdle Development (2021)			
<b>FINAL - 2024 Chinese National Championships (Quzhou, CHN)</b>														<i>Shandong Athletics Sport Science (2024)</i>			
date	16-Sep-24	time	6.12	10.06	14.11	18.30	22.54	26.98	31.65	36.28	40.99	45.74	50.93	7 / 7	12.18	13.35	14.09
reaction time	0.192	interval		3.94	4.05	4.19	4.24	4.44	4.67	4.63	4.71	4.75	5.19		8.62	7.87	7.45
		velocity	7.35	8.88	8.64	8.35	8.25	7.88	7.49	7.56	7.43	7.37	7.71	7.85			
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	18	170			



**FINAL - 2024 Chinese National Grand Prix Final (Rizhao, CHN)**

Shandong Athletics Sport Science (2024)

date	29-Jun-24	time	6.08	9.94	14.06	18.23	22.50	26.99	31.61	36.33	41.09	45.91	51.21	4 / 8	12.15	13.38	14.30
reaction time	0.182	interval		3.86	4.12	4.17	4.27	4.49	4.62	4.72	4.76	4.82	5.30		8.64	7.85	7.34
		velocity	7.40	9.07	8.50	8.39	8.20	7.80	7.58	7.42	7.35	7.26	7.55	7.81			
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	18	170			

**FINAL - 2021 National Grand Prix (Chengdu, CHN)**

CAA Hurdle Development (2021)

date	02-Apr-21	time	6.21	10.31	14.56	18.83	23.16	27.72	32.44	37.22	42.24	47.17	52.54	6 / 4	12.62	13.61	14.73
reaction time	0.198	interval		4.10	4.25	4.27	4.33	4.56	4.72	4.78	5.02	4.93	5.37		8.32	7.71	7.13
		velocity	7.25	8.54	8.24	8.20	8.08	7.68	7.42	7.32	6.97	7.10	7.45	7.61			
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	18.5	170.5			

**Heat 2 - 2021 National Grand Prix (Chengdu, CHN)**

CAA Hurdle Development (2021)

date	01-Apr-21	time	6.28	10.36	14.60	18.90	23.30	27.84	32.44	37.26	42.22	47.14	52.62	4 / 2	12.62	13.54	14.70
reaction time	0.235	interval		4.08	4.24	4.30	4.40	4.54	4.60	4.82	4.96	4.92	5.48		8.32	7.75	7.14
		velocity	7.17	8.58	8.25	8.14	7.95	7.71	7.61	7.26	7.06	7.11	7.30	7.60			
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	18.5	170.5			

**Machava, Armando (MOZ) (1996)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**Heat 2 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)**

Henson (2024) - Athlete First: 2021 year end hurdle report

date	30-Jul-21	time	5.90	9.67	13.67	17.73	21.86	26.23	30.77	35.37	40.05	44.80	50.37	6 / 5	11.83	13.04	14.03
reaction time	0.159	interval		3.77	4.00	4.06	4.13	4.37	4.54	4.60	4.68	4.75	5.57		8.88	8.05	7.48
		velocity	7.63	9.28	8.75	8.62	8.47	8.01	7.71	7.61	7.48	7.37	7.18	7.94			
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	15	15	18	156			

**Machida, Reo (JPN) (2003)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**FINAL - 2021 Japanese High School National Championships (Fukui, JPN)**

Shibayama (2021) - national high school and U20 national championships

date	30-Jul-21	time	6.57	10.79	15.32	19.82	24.41	28.98	33.62	38.41	43.34	48.25	53.54	8 / 7	13.25	13.80	14.63
reaction time	0.202	interval		4.22	4.53	4.50	4.59	4.57	4.64	4.79	4.93	4.91	5.29		7.92	7.61	7.18
		velocity	6.85	8.29	7.73	7.78	7.63	7.66	7.54	7.31	7.10	7.13	7.56	7.47			
H1 lead leg		strides		15	15	15	15	15	15	15	17	17	139				

**Madari Palliyalil, Jabir (IND) (1996)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**FINAL - 2022 Doha Diamond League (Doha, QAT) (TV Analysis)**

Henson (2022) - Athlete First: 2022 year end hurdle report

date	13-May-22	time	5.90	9.67	13.68	17.82	22.05	23.8	26.32	35.27	39.97	44.81	50.42	1 / 7	11.92		
reaction time	0.156	interval		3.77	4.01	4.14	4.23	4.27	4.27	8.95	4.70	4.84	5.61		8.81		
		velocity	7.63	9.28	8.73	8.45	8.27	8.40	8.20	7.82	7.45	7.23	7.13	7.93			
H1 lead leg	L	strides	22	15	15	15	15	15	15		16	16	129				

**Semi-Final 3 - 2019 IAAF World Championships (Doha, QAT)**

Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships

date	28-Sep-19	time	5.95	9.82	13.69	17.64	21.74	25.92	30.19	34.61	39.24	44.12	49.71	9 / 5	11.69	12.55	13.93
reaction time	0.199	interval		3.87	3.87	3.95	4.10	4.18	4.27	4.42	4.63	4.88	5.59		8.98	8.37	7.54
		velocity	7.56	9.04	9.04	8.86	8.54	8.37	8.20	7.92	7.56	7.17	7.16	8.05			
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	16	16	19.7	178.7			

**Maeno, Kei (JPN) (1991)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**B FINAL - 2019 Kinami Memorial (Osaka, JPN)**

Matsubayashi (2019) - research on athlete performance and technique- 2019 data book

date	06-May-19	time	6.04	9.83	13.68	17.53	21.67	25.91	30.34	34.87	39.56	44.49	50.37	6 / 2	11.49	12.81	14.15
reaction time		interval		3.79	3.85	3.85	4.14	4.24	4.43	4.53	4.69	4.93	5.88		9.14	8.20	7.42
		velocity	7.45	9.23	9.09	9.09	8.45	8.25	7.90	7.73	7.46	7.10	6.80	7.94			
H1 lead leg	R	strides	21	13	13	13	14	14	15	15	15	17	19.2	169.2			

**FINAL - 2018 Japanese National Championships (Yamaguchi, JPN)**

Morioka (2018) - race pattern analysis of Japan's top 400m hurdles - main national competitions in 2018

date	23-Jun-18	time	6.02	9.82	13.74	17.76	21.98	26.22	30.62	35.17	39.76	44.45	49.86	5 / 3	11.74	12.86	13.83
reaction time	0.215	interval		3.80	3.92	4.02	4.22	4.24	4.40	4.55	4.59	4.69	5.41		8.94	8.16	7.59
		velocity	7.48	9.21	8.93	8.71	8.29	8.25	7.95	7.69	7.63	7.46	7.39	8.02			
H1 lead leg	R	strides	21	13	13	13	14	14	15	15	15	15	18.2	166.2			

**FINAL - 2017 Nambu Memorial (Sapporo, JPN)**

(2017) - tfdata-store.com/2017/07/11/post-1019/

date	09-Jul-17	time	6.03	9.77	13.64	17.57	21.78	26.03	30.40	34.85	39.44	44.11	49.48	4 / 3	11.54	12.83	13.71
reaction time		interval		3.74	3.87	3.93	4.21	4.25	4.37	4.45	4.59	4.67	5.37		9.10	8.18	7.66
		velocity	7.46	9.36	9.04	8.91	8.31	8.24	8.01	7.87	7.63	7.49	7.45	8.08			
H1 lead leg	R	strides	21	13	13	13	14	14	15	15	15	15	18.2	166.2			

**Mägi, Rasmus (EST) (1992)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**FINAL - 2024 Memorial van damme (Brussels, BEL)**

Omega Timing (2023) - diamond league race analysis

date	14-Sep-24	time	5.88	9.62	13.45	17.25	21.27	25.38	29.57	33.93	38.40	42.97	48.26	8 / 3	11.65	12.32	13.40
reaction time	0.160	interval		3.74	3.83	3.80	4.02	4.11	4.19	4.36	4.47	4.57	5.29		9.01	8.52	7.84
		velocity	7.65	9.36	9.14	9.21	8.71	8.52	8.35	8.03	7.83	7.66	7.56	8.29			
H1 lead leg	R	strides	20	13	13	13	13	13	13	14	14	14	17	157			

**FINAL - 2024 Weltklasse (Zürich, SUI)**

Omega Timing (2023) - diamond league race analysis

date	05-Sep-24	time	5.89	9.59	13.39	17.21	21.14	25.16	29.35	33.76	38.28	42.81	48.02	8 / 3	11.55	12.14	13.46
reaction time	0.175	interval		3.70	3.80	3.82	3.93	4.02	4.19	4.41	4.52	4.53	5.21		9.09	8.65	7.80
		velocity	7.64	9.46	9.21	9.16	8.91	8.71	8.35	7.94	7.74	7.73	7.68	8.33			
H1 lead leg	R	strides	20	13		13		13	13	14	14	14	17	117			

<b>FINAL - 2024 Kamila Skolimowska Memorial (Silesia, POL)</b>														<i>Omega Timing (2023) - diamond league race analysis</i>				
date	25-Aug-24	time	5.89	9.57	13.25	17.04	20.92	25.00	29.29	33.73	38.17	42.66	47.97	9 / 5				
reaction time	0.178	interval		3.68	3.68	3.79	3.88	4.08	4.29	4.44	4.44	4.49	5.31		11.35	12.25	13.37	
		velocity	7.64	9.51	9.51	9.23	9.02	8.58	8.16	7.88	7.88	7.80	7.53	8.34	9.25	8.57	7.85	
H1 lead leg	R	strides	20	13	13	13	13	13	13			14	17	129				
<b>FINAL - 2024 Olympic Games (Paris, FRA)</b>														<i>Paris 2024 Olympc Games - Results Book (2024)</i>				
date	09-Aug-24	time	5.95	9.66	13.43	17.20	21.08	25.09	29.24	33.54	38.02	42.53	52.53	4 / 7				
reaction time	0.175	interval		3.71	3.77	3.77	3.88	4.01	4.15	4.30	4.48	4.51	10.00		11.25	12.04	13.29	
		velocity	7.56	9.43	9.28	9.28	9.02	8.73	8.43	8.14	7.81	7.76	4.00	7.61	9.33	8.72	7.90	
H1 lead leg	R	strides	20	13		13	13	13	13	13	14	14	126					
<b>Semi-Final 2 - 2024 Olympic Games (Paris, FRA)</b>														<i>Paris 2024 Olympc Games - Results Book (2024)</i>				
date	07-Aug-24	time	5.94	9.69	13.49	17.36	21.33	25.37	29.57	33.97	38.42	42.89	48.16	7 / 2				
reaction time	0.156	interval		3.75	3.80	3.87	3.97	4.04	4.20	4.40	4.45	4.47	5.27		11.42	12.21	13.32	
		velocity	7.58	9.33	9.21	9.04	8.82	8.66	8.33	7.95	7.87	7.83	7.59	8.31	9.19	8.60	7.88	
H1 lead leg	R	strides	20	13	13	13	13	13	14	14	14	14	17	158				
<b>Heat 3 - 2024 Olympic Games (Paris, FRA)</b>														<i>Paris 2024 Olympc Games - Results Book (2024)</i>				
date	05-Aug-24	time	5.98	9.78	13.57	17.43	21.39	25.48	29.70	34.16	38.74	43.34	48.62	5 / 1				
reaction time	0.196	interval		3.80	3.79	3.86	3.96	4.09	4.22	4.46	4.58	4.60	5.28		11.45	12.27	13.64	
		velocity	7.53	9.21	9.23	9.07	8.84	8.56	8.29	7.85	7.64	7.61	7.58	8.23	9.17	8.56	7.70	
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	14	14	17	156				
<b>FINAL - 2024 Meeting de Paris (Paris, FRA)</b>														<i>Omega Timing (2024) - diamond league race analysis</i>				
date	07-Jul-24	time	5.83	9.62	13.50	17.36	21.24	25.23	29.34	33.62	38.15	42.66	47.95	3 / 2				
reaction time	0.168	interval		3.79	3.88	3.86	3.88	3.99	4.11	4.28	4.53	4.51	5.29		11.53	11.98	13.32	
		velocity	7.72	9.23	9.02	9.07	9.02	8.77	8.52	8.18	7.73	7.76	7.56	8.34	9.11	8.76	7.88	
H1 lead leg	R	strides	20	13	13	13	13			13	14	14	17	130				
<b>FINAL - 2024 European Athletics Championships (Roma, ITA)</b>														<i>European Athletics (2024) - 2024 european athletics championships - results book</i>				
date	11-Jun-24	time	5.83	9.54	13.38	17.19	21.12	25.15	29.25	33.65	38.22	42.73	48.13	5 / 4				
reaction time	0.138	interval		3.71	3.84	3.81	3.93	4.03	4.10	4.40	4.57	4.51	5.40		11.36	12.06	13.48	
		velocity	7.72	9.43	9.11	9.19	8.91	8.68	8.54	7.95	7.66	7.76	7.41	8.31	9.24	8.71	7.79	
H1 lead leg	R	strides	20	13	13	13	13	13	13	14	14	14	17.2	144.2				
<b>Semi-Final 2 - 2024 European Athletics Championships (Roma, ITA)</b>														<i>European Athletics (2024) - 2024 european athletics championships - results book</i>				
date	10-Jun-24	time	5.88	9.54	13.41	17.32	21.30	25.44	29.60	33.91	38.55	43.17	48.43	7 / 1				
reaction time	0.185	interval		3.66	3.87	3.91	3.98	4.14	4.16	4.31	4.64	4.62	5.26		11.44	12.28	13.57	
		velocity	7.65	9.56	9.04	8.95	8.79	8.45	8.41	8.12	7.54	7.58	7.60	8.26	9.18	8.55	7.74	
H1 lead leg	R	strides	20	13	13	13	13	13	13	14	14	14	17	157				
<b>FINAL - 2024 Bauhaus Galan (Stockholm, SWE) (TV Analysis)</b>														<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>				
date	02-Jun-24	time	6.06	9.76	13.60	17.40	21.33	25.36	29.60	34.06	38.66	43.33	48.72	3 / 5				
reaction time	0.147	interval		3.70	3.84	3.80	3.93	4.03	4.24	4.46	4.60	4.67	5.39		11.34	12.20	13.73	
		velocity	7.43	9.46	9.11	9.21	8.91	8.68	8.25	7.85	7.61	7.49	7.42	8.21	9.26	8.61	7.65	
H1 lead leg	R	strides	21	13	13	13	13	13	13	14	14	14	17.7	158.7				
<b>FINAL - 2024 Bislett Games (Oslo, NOR) (TV Analysis)</b>														<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>				
date	30-May-24	time	5.97	9.61	13.31	17.15	21.15	25.22	29.53	34.00	38.54	43.21	48.56	8 / 4				
reaction time	0.213	interval		3.64	3.70	3.84	4.00	4.07	4.31	4.47	4.54	4.67	5.35		11.18	12.38	13.68	
		velocity	7.54	9.62	9.46	9.11	8.75	8.60	8.12	7.83	7.71	7.49	7.48	8.24	9.39	8.48	7.68	
H1 lead leg	R	strides	21	13	13	13	13	13	13	14	14	14	141					
<b>FINAL - 2024 Prefontaine Classic (Eugene, OR)</b>														<i>Omega Timing (2024) - diamond league race analysis</i>				
date	25-May-24	time	6.00	9.81	13.74	17.63	21.54	25.59	29.78	34.23	38.81	43.43	48.85	7 / 2				
reaction time	0.209	interval		3.81	3.93	3.89	3.91	4.05	4.19	4.45	4.58	4.62	5.42		11.63	12.15	13.65	
		velocity	7.50	9.19	8.91	9.00	8.95	8.64	8.35	7.87	7.64	7.58	7.38	8.19	9.03	8.64	7.69	
H1 lead leg		strides			13	13	13	13	13	14	14	14	107					
<b>FINAL - 2023 Prefontaine Classic (Eugene, OR)</b>														<i>Omega Timing (2023) - diamond league race analysis</i>				
date	16-Sep-23	time	5.96	9.70	13.46	17.26	21.18	25.26	29.46	33.82	38.28	42.74	47.99	9 / 7				
reaction time	0.155	interval		3.74	3.76	3.80	3.92	4.08	4.20	4.36	4.46	4.46	5.25		11.30	12.20	13.28	
		velocity	7.55	9.36	9.31	9.21	8.93	8.58	8.33	8.03	7.85	7.85	7.62	8.34	9.29	8.61	7.91	
H1 lead leg	R	strides	21			13	13	13	13	14			87					
<b>FINAL - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>														<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>				
date	23-Aug-23	time	6.04	9.86	13.45	17.18	21.09		29.36	33.83	38.41	43.09	48.33	4 / 7				
reaction time	0.161	interval		3.82	3.59	3.73	3.91		4.07	4.47	4.58	4.68	5.24		11.14	12.18	13.73	
		velocity	7.45	9.16	9.75	9.38	8.95		8.46	7.83	7.64	7.48	7.63	8.28	9.43	8.62	7.65	
H1 lead leg	R	strides	21	13	13	13	13			14	14	14	17.2	132.2				
<b>Semi-Final 1 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>														<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>				
date	21-Aug-23	time	6.07	10.03	13.77	17.53	21.43	25.50	29.68	34.03		43.13	48.30	7 / 2				
reaction time	0.180	interval		3.96	3.74	3.76	3.90	4.07	4.18	4.35		9.10	5.17		11.46	12.15	13.45	
		velocity	7.41	8.84	9.36	9.31	8.97	8.60	8.37	8.05		7.69	7.74	8.28	9.16	8.64	7.81	

H1 lead leg	R	strides	21	13	13	13	13	13	13	13	14	17.5	130.5							
<b>Heat 2 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>														<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>						
date	20-Aug-23	time	6.20	10.06	13.70	17.60	21.63	25.70	29.93	34.33	38.86	43.46	48.58	7 / 2						
reaction time	0.205	interval	3.86	3.64	3.90	4.03	4.07	4.23	4.40	4.53	4.60	5.12	8.23		11.40	12.33	13.53			
		velocity	7.26	9.07	9.62	8.97	8.68	8.60	8.27	7.95	7.73	7.61	7.81	8.23		9.21	8.52	7.76		
H1 lead leg	R	strides	21	13	13	13	13	13	13	14	14	14	17	158						
<b>FINAL - 2023 Bauhaus Galan (Stockholm, SWE)</b>														<i>Omega Timing (2023) - diamond league race analysis</i>						
date	02-Jul-23	time	5.92	9.69	13.48	17.27	21.16	25.20	29.50	34.02	38.65	43.38	49.04	3 / 3						
reaction time	0.165	interval	3.77	3.79	3.79	3.89	4.04	4.30	4.52	4.63	4.73	5.66	8.16		11.35	12.23	13.88			
		velocity	7.60	9.28	9.23	9.23	9.00	8.66	8.14	7.74	7.56	7.40	7.07	8.16		9.25	8.59	7.56		
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	15	18	134							
<b>FINAL - 2022 World Athletics Championships (Eugene, OR)</b>														<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>						
date	19-Jul-22	time	5.99	9.71	13.50	17.27	21.12	22.71	25.14	29.45	33.87	38.52	43.28	48.92	2 / 8					
reaction time	0.140	interval	3.72	3.79	3.77	3.85	4.02	4.31	4.42	4.65	4.76	5.64	8.18		11.28	12.18	13.83			
		velocity	7.51	9.41	9.23	9.28	9.09	8.81	8.71	8.12	7.92	7.53	7.35	7.09	8.18		9.31	8.62	7.59	
H1 lead leg	R	strides	13	13	13	13	13	13	13	14	14	15	18	139						
<b>Semi-Final 2 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)</b>														<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>						
date	17-Jul-22	time	5.93	9.70	13.53	17.33	21.27	23.00	25.33	29.67	33.97	38.46	43.07	48.40	4 / 3					
reaction time	0.137	interval	3.77	3.83	3.80	3.94	4.06	4.34	4.30	4.49	4.61	5.33	8.26		11.40	12.34	13.40			
		velocity	7.59	9.28	9.14	9.21	8.88	8.70	8.62	8.06	8.14	7.80	7.59	7.50	8.26		9.21	8.51	7.84	
H1 lead leg	R	strides	21	13	13	13	13	13	13	14	14	14	17.5	158.5						
<b>Heat 4 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)</b>														<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>						
date	16-Jul-22	time	6.13	10.00	13.87	17.73	21.67	23.23	25.73	29.96	34.33	38.87	43.46	48.78	5 / 1					
reaction time	0.169	interval	3.87	3.87	3.86	3.94	4.06	4.23	4.37	4.54	4.59	5.32	8.20		11.60	12.23	13.50			
		velocity	7.34	9.04	9.04	9.07	8.88	8.61	8.62	8.27	8.01	7.71	7.63	7.52	8.20		9.05	8.59	7.78	
H1 lead leg	R	strides	21	13	13	13	13	13	13	14	14	14	17	158						
<b>FINAL - 2022 Bauhaus Galan (Stockholm, SWE) (TV Analysis)</b>														<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>						
date	30-Jun-22	time	5.86	9.56	13.28	17.10	20.98	22.58	25.04	29.36	33.90	38.48	43.28	48.77	4 / 4					
reaction time	0.155	interval	3.70	3.72	3.82	3.88	4.06	4.32	4.54	4.58	4.80	5.49	8.20		11.24	12.26	13.92			
		velocity	7.68	9.46	9.41	9.16	9.02	8.86	8.62	8.10	7.71	7.64	7.29	7.29	8.20		9.34	8.56	7.54	
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	14	15	17.7	160.7						
<b>FINAL - 2022 Bislett Games (Oslo, NOR) (TV Analysis)</b>														<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>						
date	16-Jun-22	time	5.84	9.56	13.28	17.12	21.04	22.73	25.22	29.44	33.76	38.28	43.00	48.51	6 / 2					
reaction time	0.165	interval	3.72	3.72	3.84	3.92	4.18	4.22	4.32	4.52	4.72	5.51	8.25		11.28	12.32	13.56			
		velocity	7.71	9.41	9.41	9.11	8.93	8.80	8.37	8.29	8.10	7.74	7.42	7.26	8.25		9.31	8.52	7.74	
H1 lead leg	R	strides	21	13	13	13	13	13	13	14	14	14	18	159						
<b>FINAL - FINAL - 2022 Prefontaine Classic (Eugene, OR) (TV Analysis)</b>														<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>						
date	05-Jun-22	time	5.63	9.50	13.23	17.07	21.00	22.67	25.03	29.37	33.87	38.50	43.23	48.73	4 / 2					
reaction time	0.146	interval	3.87	3.73	3.84	3.93	4.03	4.34	4.50	4.63	4.73	5.50	8.21		11.44	12.30	13.86			
		velocity	7.99	9.04	9.38	9.11	8.91	8.82	8.68	8.06	7.78	7.56	7.40	7.27	8.21		9.18	8.54	7.58	
H1 lead leg	R	strides	21	13	13	13	13	13	13	14	14	14	141							
<b>FINAL - 2022 Prefontaine Classic (Eugene, OR) (TV Analysis)</b>														<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>						
date	28-May-22	time	5.87	9.66	13.50	17.36	21.30	23.05	25.35	29.60	34.09	38.73	43.33	48.66	3 / 5					
reaction time	0.174	interval	3.79	3.84	3.86	3.94	4.05	4.25	4.49	4.64	4.60	5.33	8.22		11.49	12.24	13.73			
		velocity	7.67	9.23	9.11	9.07	8.88	8.68	8.64	8.24	7.80	7.54	7.61	7.50	8.22		9.14	8.58	7.65	
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	14	14	142							
<b>FINAL - 2021 ISTAF (Berlin, GER) (TV Analysis)</b>														<i>Henson (2021) - Athlete First: 2021 Karsten Warholm 400m Hurdles World Record Season</i>						
date	12-Sep-21	time	6.04	13.64	17.52	21.48	25.60	29.92	38.92	43.52	48.73	6 / 2								
reaction time	0.191	interval	7.60	3.88	3.96	4.12	4.32	9.00	4.60	5.21	8.21		11.48	12.40	13.60					
		velocity	7.45	9.21	9.02	8.84	8.50	8.10	7.78	7.61	7.68	8.21		9.15	8.47	7.72				
H1 lead leg	R	strides	20	13	13	13	13	13	13	14	14	17	104							
<b>FINAL - 2021 Weltklasse (Zürich, SU) (TV Analysis)</b>														<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>						
date	09-Sep-21	time	6.00	21.44	23.0	25.56	29.84	38.80	43.52	48.84	3 / 4									
reaction time	0.158	interval	15.44	4.12	4.28	8.96	4.72	5.32	8.19											
		velocity	7.50	9.07	8.70	8.50	8.18	7.81	7.42	7.52	8.19									
H1 lead leg	R	strides	20	13	13	13	13	13	14	17	77									
<b>FINAL - 2021 Memorial van Damme (Brussels, BEL) (TV Analysis)</b>														<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>						
date	03-Sep-21	time	6.00	9.80	13.64	17.60	21.64	23.4	25.80	30.12	34.64	39.24	43.92	49.13	3 / 5					
reaction time	0.178	interval	3.80	3.84	3.96	4.04	4.16	4.32	4.52	4.60	4.68	5.21	8.14		11.60	12.52	13.80			
		velocity	7.50	9.21	9.11	8.84	8.66	8.55	8.41	8.10	7.74	7.61	7.48	7.68	8.14		9.05	8.39	7.61	
H1 lead leg	R	strides	20	13	13	13	13	13	14	14	14	14	17	158						
<b>FINAL - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>														<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>						
date	03-Aug-21	time	5.92	9.60	13.32	17.16	21.12	25.28	29.56	33.96	38.44	42.88	48.11	9 / 7						
reaction time	0.167	interval	3.68	3.72	3.84	3.96	4.16	4.28	4.40	4.48	4.44	5.23	8.23		11.24	12.40	13.32			



H1 lead leg	L	velocity	7.60	9.51	9.41	9.11	8.84		8.41	8.18	7.95	7.81	7.88	7.65	8.31		9.34	8.47	7.88
		strides	20	13	13	13	13		13	13	14	14	14		140				
<b>Semi-Final 3 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>																<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>			
date	01-Aug-21	time	5.96	9.66	13.36	17.20	21.16		25.23	29.53	33.94	38.50	43.13		48.36		6 / 2		
reaction time	0.156	interval		3.70	3.70	3.84	3.96		4.07	4.30	4.41	4.56	4.63	5.23	<b>NR PB</b>		11.24	12.33	13.60
		velocity	7.55	9.46	9.46	9.11	8.84		8.60	8.14	7.94	7.68	7.56	7.65	8.27		9.34	8.52	7.72
H1 lead leg	R	strides	20	13	13	13	13		13	13	14	14	14	17	157				
<b>Heat 5 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>																<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>			
date	30-Jul-21	time	6.03	9.76	13.63	17.56	21.64		25.70	30.05	34.43	38.86	43.43		48.73		4 / 2		
reaction time	0.160	interval		3.73	3.87	3.93	4.08		4.06	4.35	4.38	4.43	4.57	5.30			11.53	12.49	13.38
		velocity	7.46	9.38	9.04	8.91	8.58		8.62	8.05	7.99	7.90	7.66	7.55	8.21		9.11	8.41	7.85
H1 lead leg	R	strides	20	13	13	13	13		13	13	14	14	14	17	157				
<b>FINAL - 2021 Herculis Meeting International d'Athletisme (Monaco, MON) (TV Analysis)</b>																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	09-Jul-21	time	5.92	9.64		17.30	21.25	23.0	25.39	29.64	34.10	38.70	43.41		48.83		5 / 3		
reaction time	0.152	interval		3.72		7.66	3.95		4.14	4.25	4.46	4.60	4.71	5.42			11.38	12.34	13.77
		velocity	7.60	9.41		9.14	8.86	8.70	8.45	8.24	7.85	7.61	7.43	7.38	8.19		9.23	8.51	7.63
H1 lead leg	R	strides	20	13		13		13	13	14	14	14		114					
<b>FINAL - 2021 Bauhaus Galan (Stockholm, SWE) (TV Analysis)</b>																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	04-Jul-21	time	5.88	9.68	13.44	17.32	21.32	23.1	25.44	29.76	34.24	38.76	43.36		48.81		5 / 4		
reaction time	0.128	interval		3.80	3.76	3.88	4.00		4.12	4.32	4.48	4.52	4.60	5.45			11.44	12.44	13.60
		velocity	7.65	9.21	9.31	9.02	8.75	8.66	8.50	8.10	7.81	7.74	7.61	7.34	8.20		9.18	8.44	7.72
H1 lead leg	R	strides		13	13	13	13		13	13	14	14	14	17.2	137.2				
<b>FINAL - 2021 Bislett Games (Oslo, NOR) (TV Analysis)</b>																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	01-Jul-21	time	5.90	9.68	13.44	17.30	21.20		25.28		33.98	38.58	43.34		48.95		3 / 4		
reaction time	0.161	interval		3.78	3.76	3.86	3.90		4.08		8.70	4.60	4.76	5.61			11.40		
		velocity	7.63	9.26	9.31	9.07	8.97		8.58		8.05	7.61	7.35	7.13	8.17		9.21		
H1 lead leg	R	strides	20	13	13		13		13	13		14	14		113				
<b>FINAL - 2020 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)</b>																<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>			
date	17-Sep-20	time	5.97	9.74			21.45	23.2		29.96	34.43	38.94	43.51		48.72		4 / 3		
reaction time	0.150	interval		3.77			11.71			8.51	4.47	4.51	4.57	5.21					13.55
		velocity	7.54	9.28			8.97	8.62		8.23	7.83	7.76	7.66	7.68	8.21				7.75
H1 lead leg	R	strides	20	13							14	14	14	17.5	92.5				
<b>FINAL - 2020 ISTAF (Berlin, GER) (TV Analysis)</b>																<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>			
date	13-Sep-20	time	6.00		13.52	17.40			25.60	29.92	34.36	38.92	43.72		49.22		6 / 2		
reaction time	0.238	interval			7.52	3.88			8.20	4.32	4.44	4.56	4.80	5.50			11.40	12.52	13.80
		velocity	7.50		9.31	9.02			8.54	8.10	7.88	7.68	7.29	7.27	8.13		9.21	8.39	7.61
H1 lead leg	R	strides	20			13				13	14	14	14		88				
<b>FINAL - 2020 Golden Spike (Ostrava, CZE) (TV Analysis)</b>																<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>			
date	08-Sep-20	time	6.04	9.88		17.52	21.49			30.03	34.87	39.64	44.51		50.18		5 / 3		
reaction time	0.177	interval		3.84		7.64	3.97			8.54	4.84	4.77	4.87	5.67			11.48	12.51	14.48
		velocity	7.45	9.11		9.16	8.82			8.20	7.23	7.34	7.19	7.05	7.97		9.15	8.39	7.25
H1 lead leg	L	strides	21	13			13					15	15		77				
<b>FINAL - 2020 Bauhaus Galan (Stockholm, SWE) (TV Analysis)</b>																<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>			
date	23-Aug-20	time	5.98		13.68	17.62	21.60	23.4	25.76		34.72	39.32	43.98		49.40		4 / 4		
reaction time	0.159	interval			7.70	3.94	3.98		4.16		8.96	4.60	4.66	5.42			11.64		
		velocity	7.53		9.09	8.88	8.79	8.55	8.41		7.81	7.61	7.51	7.38	8.10		9.02		
H1 lead leg	L	strides	20	13			13	13	13			14	14	17.2	117.2				
<b>FINAL - 2020 Herculis Meeting International d'Athletisme (Monaco, MON) (TV Analysis)</b>																<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>			
date	14-Aug-20	time	6.00	9.74	13.61	17.55			25.79	30.16	34.60	39.24	43.88		49.23		4 / 3		
reaction time	0.146	interval		3.74	3.87	3.94			8.24	4.37	4.44	4.64	4.64	5.35			11.55	12.61	13.72
		velocity	7.50	9.36	9.04	8.88			8.50	8.01	7.88	7.54	7.54	7.48	8.13		9.09	8.33	7.65
H1 lead leg	L	strides	21	13	13	13				14	14	14	14	17.2	133.2				
<b>Semi-Final 1 - 2019 IAAF World Championships (Doha, QAT)</b>																<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>			
date	28-Sep-19	time	6.15	9.94	13.77	17.70	21.77		25.97	30.34	34.72	39.19	43.72		48.93		7 / 4		
reaction time	0.140	interval		3.79	3.83	3.93	4.07		4.20	4.37	4.38	4.47	4.53	5.21			11.55	12.64	13.38
		velocity	7.32	9.23	9.14	8.91	8.60		8.33	8.01	7.99	7.83	7.73	7.68	8.17		9.09	8.31	7.85
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	14	14	17.2	159.2				
<b>FINAL - 2019 Müller Anniversary Games (London, GBR) (TV Analysis)</b>																<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>			
date	20-Jul-19	time	6.12	9.92	13.72	17.64	21.76	23.5	25.96		34.88	39.52			49.71		9 / 5		
reaction time	0.158	interval		3.80	3.80	3.92	4.12		4.20		8.92	4.64					11.52		
		velocity	7.35	9.21	9.21	8.93	8.50	8.51	8.33		7.85	7.54			8.05		9.11		
H1 lead leg	L	strides	21	13	13	13	13		13			14		100					
<b>FINAL - 2019 Prefontaine Classic (Stanford, CA) (TV Analysis)</b>																<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>			
date	30-Jun-19	time	6.06	9.93	13.96	18.03	22.16		26.43	31.00	35.50	40.13	44.80		50.25		4 / 9		

reaction time	0.208	interval	3.87	4.03	4.07	4.13		4.27	4.57	4.50	4.63	4.67	5.45		11.97	12.97	13.80	
		velocity	7.43	9.04	8.68	8.60	8.47		8.20	7.66	7.78	7.56	7.49	7.34	7.96	8.77	8.10	7.61
H1 lead leg	L	strides	21	13	13	13	13		13	14	14		14	128				
<b>FINAL - 2019 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)</b>														<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>				
date	06-Jun-19	time	6.02	9.86	13.86	17.95	22.11		26.36	30.93	35.45	40.21	45.05		50.52	4 / 9		
reaction time	0.150	interval		3.84	4.00	4.09	4.16		4.25	4.57	4.52	4.76	4.84	5.47		11.93	12.98	14.12
		velocity	7.48	9.11	8.75	8.56	8.41		8.24	7.66	7.74	7.35	7.23	7.31	7.92	8.80	8.09	7.44
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	15	15	17.5	161.5			
<b>FINAL - 2018 Weltklasse (Zürich, SUI) (TV Analysis)</b>														<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>				
date	30-Aug-18	time	5.92	9.68	13.44	17.36	21.40	23.3	25.56	30.04		39.20	43.88		49.28	7 / 4		
reaction time	0.176	interval		3.76	3.76	3.92	4.04		4.16	4.48		9.16	4.68	5.40		11.44	12.68	13.84
		velocity	7.60	9.31	9.31	8.93	8.66	8.58	8.41	7.81		7.64	7.48	7.41	8.12	9.18	8.28	7.59
H1 lead leg	L	strides	21	13	13	13	13		13	14	14		14	128				
<b>FINAL - 2018 Müller Anniversary Games (London, GBR) (TV Analysis)</b>														<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>				
date	21-Jul-18	time	5.96	9.84	13.68	17.60	21.56		25.76	30.16	34.56	39.16	43.76		49.11	9 / 5		
reaction time	0.158	interval		3.88	3.84	3.92	3.96		4.20	4.40	4.40	4.60	4.60	5.35		11.64	12.56	13.60
		velocity	7.55	9.02	9.11	8.93	8.84		8.33	7.95	7.95	7.61	7.61	7.48	8.14	9.02	8.36	7.72
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	14	14	17.2	159.2			
<b>FINAL - 2018 Athletissima (Lausanne, SUI) (TV Analysis)</b>														<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>				
date	05-Jul-18	time	6.00	9.80	13.72		21.64		25.72	30.16	34.56	39.12	43.72		49.04	2 / 5		
reaction time	0.159	interval		3.80	3.92		7.92		4.08	4.44	4.40	4.56	4.60	5.32				13.56
		velocity	7.50	9.21	8.93		8.84		8.58	7.88	7.95	7.68	7.61	7.52	8.16			7.74
H1 lead leg	L	strides	21	13	13				13	14		14	14	17	119			
<b>FINAL - 2018 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)</b>														<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>				
date	10-Jun-18	time	6.00	9.88	13.88	17.84	21.96		26.20	30.64	35.20	39.88	44.56		50.11	4 / 7		
reaction time	0.135	interval		3.88	4.00	3.96	4.12		4.24	4.44	4.56	4.68	4.68	5.55		11.84	12.80	13.92
		velocity	7.50	9.02	8.75	8.84	8.50		8.25	7.88	7.68	7.48	7.48	7.21	7.98	8.87	8.20	7.54
H1 lead leg	L	strides	21	13	13	13	13		14	14	14	14	14	17.2	160.2			
<b>FINAL - 2018 Bislett Games (Oslo, NOR) (TV Analysis)</b>														<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>				
date	07-Jun-18	time	5.88	9.60	13.36	17.20	21.28	23.1	25.48	30.00	34.44	39.08	43.80		49.35	8 / 6		
reaction time	0.142	interval		3.72	3.76	3.84	4.08		4.20	4.52	4.44	4.64	4.72	5.55		11.32	12.80	13.80
		velocity	7.65	9.41	9.31	9.11	8.58	8.66	8.33	7.74	7.88	7.54	7.42	7.21	8.11	9.28	8.20	7.61
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	14	14	142				
<b>FINAL - 2018 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)</b>														<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>				
date	31-May-18	time	6.04	9.92	13.76	17.68	21.72		25.88	30.28	34.72	39.32	43.92		49.19	9 / 5		
reaction time	0.140	interval		3.88	3.84	3.92	4.04		4.16	4.40	4.44	4.60	4.60	5.27		11.64	12.60	13.64
		velocity	7.45	9.02	9.11	8.93	8.66		8.41	7.95	7.88	7.61	7.61	7.59	8.13	9.02	8.33	7.70
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	14	14	17	159			
<b>FINAL - 2017 Athletissima (Lausanne, SUI) (TV Analysis)</b>														<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>				
date	06-Jul-17	time	6.08	9.92	13.80	17.72	21.68		25.84	30.24	34.64	39.20	43.72		48.94	7 / 3		
reaction time	0.127	interval		3.84	3.88	3.92	3.96		4.16	4.40	4.40	4.56	4.52	5.22		11.64	12.52	13.48
		velocity	7.40	9.11	9.02	8.93	8.84		8.41	7.95	7.95	7.68	7.74	7.66	8.17	9.02	8.39	7.79
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	14	14	17.2	159.2			
<b>FINAL - 2017 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)</b>														<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>				
date	18-Jun-17	time	6.04	9.84		17.64	21.68		25.88	30.24	34.68	39.24	43.84		49.16	3 / 2		
reaction time	0.142	interval		3.80		7.80	4.04		4.20	4.36	4.44	4.56	4.60	5.32		11.60	12.60	13.60
		velocity	7.45	9.21		8.97	8.66		8.33	8.03	7.88	7.68	7.61	7.52	8.14	9.05	8.33	7.72
H1 lead leg	L	strides	21	13		13			13	14		14	14	17.5	119.5			
<b>FINAL - 2017 Bislett Games (Oslo, NOR) (TV Analysis)</b>														<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>				
date	15-Jun-17	time	6.03	9.83	13.70	17.66	21.73		25.86	30.33	34.73	39.23	43.80		49.10	3 / 5		
reaction time	0.147	interval		3.80	3.87	3.96	4.07		4.13	4.47	4.40	4.50	4.57	5.30		11.63	12.67	13.47
		velocity	7.46	9.21	9.04	8.84	8.60		8.47	7.83	7.95	7.78	7.66	7.55	8.15	9.03	8.29	7.80
H1 lead leg	L	strides	21	13	13	13	13			14	14	14	14	17.2	146.2			
<b>FINAL - 2017 Shanghai Diamond League (Shanghai, CHN) (TV Analysis)</b>														<i>Henson (2021) - Athlete First: 2017 year end hurdle report</i>				
date	13-May-17	time	6.08	9.92	13.80	17.76	21.84		26.04	30.44	34.88	39.48	44.12		49.38	8 / 3		
reaction time	0.138	interval		3.84	3.88	3.96	4.08		4.20	4.40	4.44	4.60	4.64	5.26		11.68	12.68	13.68
		velocity	7.40	9.11	9.02	8.84	8.58		8.33	7.95	7.88	7.61	7.54	7.60	8.10	8.99	8.28	7.68
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	14	14	17.5	159.5			
<b>FINAL - 2016 Weltklasse (Zürich, SUI) (TV Analysis)</b>														<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>				
date	01-Sep-16	time	6.00	9.76	13.52	17.40	21.40		25.52	29.92	34.44	39.12	43.72		48.90	8 / 4		
reaction time	0.114	interval		3.76	3.76	3.88	4.00		4.12	4.40	4.52	4.68	4.60	5.18		11.40	12.52	13.80
		velocity	7.50	9.31	9.31	9.02	8.75		8.50	7.95	7.74	7.48	7.61	7.72	8.18	9.21	8.39	7.61
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	14	14	16	158			
<b>FINAL - 2016 Meeting Paris (Saint-Denis, FRA) (TV Analysis)</b>														<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>				

date	27-Aug-16	time	6.04	9.80	17.48	21.44	25.52	34.28	38.88	43.44	48.66	3 / 5						
reaction time	0.147	interval		3.76	7.68	3.96	4.08	8.76	4.60	4.56	5.22		11.44					
		velocity	7.45	9.31	9.11	8.84	8.58	7.99	7.61	7.68	7.66	8.22	9.18					
H1 lead leg	L	strides	20	13		13	13		14	14	17	104						

**FINAL - 2016 Athletissime (Laussane, SUI) (TV Analysis)***Henson (2020) - Athlete First: 2016 year end hurdle report*

date	25-Aug-16	time	5.86	9.63	13.43	17.30	21.30	25.46	29.80	34.26	38.80	43.36	48.59	4 / 1				
reaction time	0.113	interval		3.77	3.80	3.87	4.00	4.16	4.34	4.46	4.54	4.56	5.23		11.44	12.50	13.56	
		velocity	7.68	9.28	9.21	9.04	8.75	8.41	8.06	7.85	7.71	7.68	7.65	8.23	9.18	8.40	7.74	
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	17.2	159.2				

**FINAL - 2014 European Championships (Zurich, SUI)***Green (2015) - twitter.com/jackpgreen (from Behm?)*

date	15-Aug-14	time	6.10	9.90	13.78	17.70	21.74	25.86	30.26	34.70	39.30	43.90	49.06	/ 2				
reaction time	0.156	interval		3.80	3.88	3.92	4.04	4.12	4.40	4.44	4.60	4.60	5.16		11.60	12.56	13.64	
		velocity	7.38	9.21	9.02	8.93	8.66	8.50	7.95	7.88	7.61	7.61	7.75	8.15	9.05	8.36	7.70	
H1 lead leg	L	strides		13	13	13	13	13	14	14	14	14	121					

**Makita, Akira (JPN)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2022 Shimane High School Championships (Izumo, JPN)***Shimizu (2022) - shimane high school championships 2022 - biomechanics data analysis*

date	27-May-22	time	6.82	11.38	16.05	20.78	25.60	30.38	35.57	40.87	46.15	51.47	57.59	9 / 5				
reaction time		interval		4.56	4.67	4.73	4.82	4.78	5.19	5.30	5.28	5.32	6.12		13.96	14.79	15.90	
		velocity	6.60	7.68	7.49	7.40	7.26	7.32	6.74	6.60	6.63	6.58	6.54	6.95	7.52	7.10	6.60	
H1 lead leg		strides	22	15	15	15	15	15	17	17	17	17	21	186				

**Maillard, Sébastien (FRA) (1981)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2006 European Championships (Göteborg, SWE)***Behm (2006) - Göteborg 2006: Le quatrace*

date	10-Aug-06	time	6.0	9.7	13.5	17.6	21.7	25.9	30.2	34.5	39.1	43.9	49.54	/ 5				
reaction time		interval		3.70	3.80	4.10	4.10	4.20	4.30	4.30	4.60	4.80	5.64		11.60	12.60	13.70	
		velocity	7.50	9.46	9.21	8.54	8.54	8.33	8.14	8.14	7.61	7.29	7.09	8.07	9.05	8.33	7.66	
H1 lead leg	L	strides	21	13	14	14	14	14	15	15	15	15	19.5	169.5				

**Semi-Final 3 - 2003 IAAF World Championships (Paris, FRA)***Behm (2003) - Paris 2003:Le quatrace masculin - féminin*

date	27-Aug-03	time	5.9	9.6	13.4	17.3	21.4	25.6	30.0	34.6			50.70	8 / 8				
reaction time	0.186	interval		3.70	3.80	3.90	4.10	4.20	4.40	4.60			16.10		11.40	12.70		
		velocity	7.63	9.46	9.21	8.97	8.54	8.33	7.95	7.61			6.83	7.89	9.21	8.27		
H1 lead leg		strides	21	14	14	14	14	15	15	15	16	16	19.5	173.5				

**Heat 4 - 2003 IAAF World Championships (Paris, FRA)***Behm (2003) - Paris 2003:Le quatrace masculin - féminin*

date	26-Aug-03	time	5.9	9.7	13.5	17.4	21.4	25.5	29.6	33.9	38.6	43.5	49.25	7 / 4				
reaction time	0.191	interval		3.80	3.80	3.90	4.00	4.10	4.10	4.30	4.70	4.90	5.75		11.50	12.20	13.90	
		velocity	7.63	9.21	9.21	8.97	8.75	8.54	8.54	8.14	7.45	7.14	6.96	8.12	9.13	8.61	7.55	
H1 lead leg		strides	21	14	14	14	14	15	15	15	16	16	19.5	173.5				

**Mann, Ralph (USA) (1949)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 1972 Olympic Games (Munich, FRG)***Le Masurier (1977) - die olympischen 400-m-hürdenlauf vom Mexico City, München und Montreal*

date	03-Sep-72	time	6.0	9.7	13.6	17.6	21.3	23.0	25.4	29.7	33.9	38.4	43.1	48.51	6 / 2			
reaction time		interval		3.70	3.90	4.00	3.70	4.10	4.30	4.20	4.50	4.70	5.41		11.60	12.10	13.40	
		velocity	7.50	9.46	8.97	8.75	9.46	8.70	8.54	8.14	8.33	7.78	7.45	7.39	8.25	9.05	8.68	7.84
H1 lead leg	L	strides	21	13	13	13	13	13	13	13	15	15	15	19	163			

**Heat 3 - 1972 Olympic Games (Munich, FRG)***Schmidt (1973) - vorolympisches training von john akii-bua über 400 hürden*

date	01-Sep-72	time					21.8						44.6	50.18	5 / 2			
reaction time		interval											22.80	5.58				
		velocity					8.49						7.68	7.17	7.97			
H1 lead leg		strides																

**FINAL - 1972 USA Olympic Trials (Eugene, OR)***(1972) - die große olympia-vorschau: von wettbewerb zu wettbewerb*

date	02-Jul-72	time	5.9	9.5	13.5	17.3	21.2	25.3	29.7	34.0	38.5	42.1	48.4	8 / 1				
reaction time		interval		3.60	4.00	3.80	3.90	4.10	4.40	4.30	4.50	3.60	6.30	(48.34)	11.40	12.40	12.40	
		velocity	7.63	9.72	8.75	9.21	8.97	8.54	7.95	8.14	7.78	9.72	6.35	8.26	9.21	8.47	8.47	
H1 lead leg	L	strides																

**Mano, Yutaro (JPN) (1996)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2019 Japanese National Championships (Fukuoka, JPN)***Yamanaka (2019) - research on athlete performance and technique- 2019 data book*

date	29-Jun-19	time	6.02	9.93	13.90	17.97	22.01	26.28	30.66	35.20	39.86	44.59	50.07	2 / 6				
reaction time	0.157	interval		3.91	3.97	4.07	4.04	4.27	4.38	4.54	4.66	4.73	5.48		11.95	12.69	13.93	
		velocity	7.48	8.95	8.82	8.60	8.66	8.20	7.99	7.71	7.51	7.40	7.30	7.99	8.79	8.27	7.54	
H1 lead leg	R	strides	21	14	14	14	14	15	15	15	15	15	152					

**A FINAL - 2019 Kinami Memorial (Osaka, JPN)***Matsubayashi (2019) - research on athlete performance and technique- 2019 data book*

date	06-May-19	time	6.16	10.14	14.11	18.12	22.32	26.63	30.13	35.57	40.27	45.03	50.51	6 / 5				
reaction time		interval		3.98	3.97	4.01	4.20	4.31	3.50	5.44	4.70	4.76	5.48		11.96	12.01	14.90	
		velocity	7.31	8.79	8.82	8.73	8.33	8.12	10.00	6.43	7.45	7.35	7.30	7.92	8.78	8.74	7.05	
H1 lead leg	R	strides	21	14	14	14	14	14	15	15	15	15	18.5	169.5				

**A FINAL - 2019 Shizuoka International Athletics Meeting (Fukuuroi, JPN)***Kobayashi (2019) - research on athlete performance and technique- 2019 data book*

date	03-May-19	time	6.12	10.01	13.90	17.97	22.12	26.36	30.78	35.30	40.01	44.95	50.57	5 / 4				
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reaction time	interval	3.89	3.89	4.07	4.15		4.24	4.42	4.52	4.71	4.94	5.62			11.85	12.81	14.17		
	velocity	7.35	9.00	9.00	8.60	8.43	8.25	7.92	7.74	7.43	7.09	7.12	7.91		8.86	8.20	7.41		
H1 lead leg	R	strides	21	16	16	16	17	17	17	19	19		174						
<b>Maran, Pascal (FRA) (1967)</b>		<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>	
<b>FINAL - 1986 IAAF World Junior Championships (Athens, GRE)</b>		<i>Miskos (1986) - IAAF biomechanical research - Athens 1986 - hurdle races</i>																	
date	18-Jul-86	time	6.09	10.04	14.08	18.17	22.36	26.66	31.10	35.74	40.36	45.08		50.39	/ 3				
reaction time	interval		3.95	4.04	4.09	4.19		4.30	4.44	4.64	4.62	4.72	5.31			12.08	12.93	13.98	
	velocity	7.39	8.86	8.66	8.56	8.35		8.14	7.88	7.54	7.58	7.42	7.53	7.94		8.69	8.12	7.51	
H1 lead leg	strides	20	13	13	13	14		14	14	15	15	15	18	164					
<b>Maritim, Hillary (KEN) (1973)</b>		<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>	
<b>Heat 3 - 2000 Olympic Games (Sydney, AUS)</b>		<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																	
date	24-Sep-00	time	6.10	9.98	13.94	17.98	22.14	26.46	30.90	35.54	40.26	45.34		51.04	3 / 6				
reaction time	interval		3.88	3.96	4.04	4.16		4.32	4.44	4.64	4.72	5.08	5.70			11.88	12.92	14.44	
	velocity	7.38	9.02	8.84	8.66	8.41		8.10	7.88	7.54	7.42	6.89	7.02	7.84		8.84	8.13	7.27	
H1 lead leg	strides	22	15	15	15	15		15	15	15	15	17		159					
<b>Maritim, Joseph (KEN) (1968)</b>		<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>	
<b>Semi-Final 1 - 1988 Olympic Games (Seoul, KOR)</b>		<i>Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988</i>																	
date	24-Sep-88	time	6.48	10.40	14.44	18.37	22.44	26.62	30.86	35.26	39.79	44.35		49.50	4 / 5				
reaction time	0.180	interval		3.92	4.04	3.93	4.07		4.18	4.24	4.40	4.53	5.15			11.89	12.49	13.49	
	velocity	6.94	8.93	8.66	8.91	8.60		8.37	8.25	7.95	7.73	7.68	7.77	8.08		8.83	8.41	7.78	
H1 lead leg	strides	22	15	15	13	13		15	13	15	15	15	18	169					
<b>Maritz, Hardus (NAM) (1990)</b>		<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>	
<b>FINAL - 2017 North-West University Pukke Invitational (Sasolburg, RSA) (TV Analysis)</b>		<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>																	
date	28-Mar-17	time	6.08	9.96	13.88	17.92	22.12	26.36	30.68	35.12	39.88	44.76		50.38	3 / 3				
reaction time	interval		3.88	3.92	4.04	4.20		4.24	4.32	4.44	4.76	4.88	5.62			11.84	12.76	14.08	
	velocity	7.40	9.02	8.93	8.66	8.33		8.25	8.10	7.88	7.35	7.17	7.12	7.94		8.87	8.23	7.46	
H1 lead leg	R	strides		13	13	13	13		13	13	13	14	14	119					
<b>Maruyama, Tomoyo (JPN) (2005)</b>		<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>	
<b>FINAL - 2022 Japanese National High School Championships (Naruto, JPN)</b>		<i>Kishima (2022) - national high school championships biomechanics data collection</i>																	
date	05-Aug-22	time	6.17	10.22	14.27	18.52	22.95	27.48	32.02	36.77	41.65	46.73		52.86	7 / 6				
reaction time	0.187	interval		4.05	4.05	4.25	4.43		4.53	4.54	4.75	4.88	5.08	6.13		12.35	13.50	14.71	
	velocity	7.29	8.64	8.64	8.24	7.90		7.73	7.71	7.37	7.17	6.89	6.53	7.57		8.50	7.78	7.14	
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	17	17	161					
<b>Mashchenko, Ruslan (RUS) (1971)</b>		<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>	
<b>FINAL - 2002 European Championships (Munich, GER)</b>		<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>																	
date	09-Aug-02	time	6.11	9.92	13.73	17.61	21.96	25.75	30.15	34.62	39.34	44.16		50.02	/ 7				
reaction time	0.184	interval		3.81	3.81	3.88	4.35		3.79	4.40	4.47	4.72	4.82	5.86		11.50	12.54	14.01	
	velocity	7.36	9.19	9.19	9.02	8.05		9.23	7.95	7.83	7.42	7.26	6.83	8.00		9.13	8.37	7.49	
H1 lead leg	strides																		
<b>Heat 4 - 2002 European Championships (Munich, GER)</b>		<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>																	
date	07-Aug-02	time	6.08	9.90	13.74	17.64	21.67	25.80	30.18	34.66	39.30	44.03		49.62	/ 1				
reaction time	interval		3.82	3.84	3.90	4.03		4.13	4.38	4.48	4.64	4.73	5.59			11.56	12.54	13.85	
	velocity	7.40	9.16	9.11	8.97	8.68		8.47	7.99	7.81	7.54	7.40	7.16	8.06		9.08	8.37	7.58	
H1 lead leg	strides																		
<b>FINAL - 2001 European Cup (Bremen, GER)</b>		<i>Graubner (2007) - http://www.fgs.uni-halle.de</i>																	
date	23-Jun-01	time	6.08	9.90	13.76	17.62	21.62	25.70	30.04	34.46	39.14	43.92		49.53	/ 4				
reaction time	interval		3.82	3.86	3.86	4.00		4.08	4.34	4.42	4.68	4.78	5.61			11.54	12.42	13.88	
	velocity	7.40	9.16	9.07	9.07	8.75		8.58	8.06	7.92	7.48	7.32	7.13	8.08		9.10	8.45	7.56	
H1 lead leg	strides																		
<b>Semi-Final 2 - 2000 Olympic Games (Sydney, AUS)</b>		<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																	
date	25-Sep-00	time	5.88	9.72	13.44	17.24	21.12	22.64	25.16	29.40	33.80	38.40	43.16		48.94	7 / 3			
reaction time	0.177	interval		3.84	3.72	3.80	3.88		4.04	4.24	4.40	4.60	4.76	5.78		11.36	12.16	13.76	
	velocity	7.65	9.11	9.41	9.21	9.02	8.83		8.66	8.25	7.95	7.61	7.35	6.92	8.17		9.24	8.63	7.63
H1 lead leg	strides		13	13	13	13		13	14	14	15	15	18.6	141.6					
<b>Heat 1 - 2000 Olympic Games (Sydney, AUS)</b>		<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																	
date	24-Sep-00	time	5.94	9.62	13.38	17.22	21.18	25.34	29.62	34.14	39.06	44.06		50.01	3 / 3				
reaction time	0.225	interval		3.68	3.76	3.84	3.96		4.16	4.28	4.52	4.92	5.00	5.95		11.28	12.40	14.44	
	velocity	7.58	9.51	9.31	9.11	8.84		8.41	8.18	7.74	7.11	7.00	6.72	8.00		9.31	8.47	7.27	
H1 lead leg	strides	20	13	13	13	13		13	14	14	15	15	18.3	161.3					
<b>FINAL - 1998 European Championships (Budapest, HUN)</b>		<i>Sanchez (1998) - Budapest '98: análisis de la carreras con villas</i>																	
date	20-Aug-98	time	5.95	9.75	13.59	17.51	21.38	25.39	29.47	33.70	38.12	42.70		48.25	5 / 2				
reaction time	interval		3.80	3.84	3.92	3.87		4.01	4.08	4.23	4.42	4.58	5.55			11.56	11.96	13.23	
	velocity	7.56	9.21	9.11	8.93	9.04		8.73	8.58	8.27	7.92	7.64	7.21	8.29		9.08	8.78	7.94	
H1 lead leg	L	strides	19	13	13	13	13		13	14	14	14	14	157					
<b>FINAL - 1997 IAAF World Championships (Athens, GRE)</b>		<i>Hommel (1999) - biomechanical research project, athens 1997: final report</i>																	

date	04-Aug-97	time	5.88	9.60	13.36	17.16	21.02	25.02	29.30	33.61	38.26	43.06	48.62	5 / 6					
reaction time	0.166	interval		3.72	3.76	3.80	3.86	4.00	4.28	4.31	4.65	4.80	5.56			11.28	12.14	13.76	
H1 lead leg		velocity	7.65	9.41	9.31	9.21	9.07	8.75	8.18	8.12	7.53	7.29	7.19	8.23		9.31	8.65	7.63	
		strides																	
<b>FINAL - 1997 European Cup (Munich, GER)</b>														<i>Jung (2003) - <a href="http://www.fgs.uni-halle.de">http://www.fgs.uni-halle.de</a></i>					
date	21-Jun-97	time	6.05	9.79	13.70	17.72	21.84	26.06	30.47	34.94	39.60	44.33	49.74	/ 3					
reaction time		interval		3.74	3.91	4.02	4.12	4.22	4.41	4.47	4.66	4.73	5.41			11.67	12.75	13.86	
H1 lead leg		velocity	7.44	9.36	8.95	8.71	8.50	8.29	7.94	7.83	7.51	7.40	7.39	8.04		9.00	8.24	7.58	
		strides																	
<b>Masui, Koki (JPN) (2004)</b>														<i>Kishima (2022) - national high school championships biomechanics data collection</i>					
date	03-Jun-23	time	6.14	10.06	14.10	18.20	22.51	26.88	31.43	36.32	41.44	46.75	52.37	3 / 4					
reaction time	0.182	interval		3.92	4.04	4.10	4.31	4.37	4.55	4.89	5.12	5.31	5.62	<b>PB</b>		12.06	13.23	15.32	
H1 lead leg	L	velocity	7.33	8.93	8.66	8.54	8.12	8.01	7.69	7.16	6.84	6.59	7.12	7.64		8.71	7.94	6.85	
		strides	21	14	14	14	14	15	15	15	16	16	19.7	173.7					
<b>Matsumoto, Tatsuki (JPN)</b>														<i>Shimizu (2019) - shimane high school championships 2019 - biomechanics data analysis</i>					
date	25-May-19	time	6.64	11.26	15.91	20.58	25.36	30.53	35.87	41.30	46.64	51.96	57.83	8 / 4					
reaction time		interval		4.62	4.65	4.67	4.78	5.17	5.34	5.43	5.34	5.32	5.87			13.94	15.29	16.09	
H1 lead leg		velocity	6.78	7.58	7.53	7.49	7.32	6.77	6.55	6.45	6.55	6.58	6.81	6.92		7.53	6.87	6.53	
		strides	23	17	17	17	17	17	19	19	19	19	22	206					
<b>Matete, Samuel (ZAM) (1968)</b>														<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>					
date	25-Sep-00	time	6.06	9.82	13.70	17.66	21.66	23.18	25.74	29.98	34.38	38.90	43.50	48.98	6 / 3				
reaction time	0.228	interval		3.76	3.88	3.96	4.00	4.08	4.24	4.40	4.52	4.60	5.48			11.60	12.32	13.52	
H1 lead leg		velocity	7.43	9.31	9.02	8.84	8.75	8.63	8.58	8.25	7.95	7.74	7.61	7.30	8.17		9.05	8.52	7.77
		strides	21	13	13	13	13	13	13	13	13	15	15	18	160				
<b>Heat 7 - 2000 Olympic Games (Sydney, AUS)</b>														<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>					
date	24-Sep-00	time	5.92	9.64	13.52	17.80	21.64	25.80	30.16	34.52	39.04	43.60	48.98	1 / 1					
reaction time	0.184	interval		3.72	3.88	4.28	3.84	4.16	4.36	4.36	4.52	4.56	5.38			11.88	12.36	13.44	
H1 lead leg		velocity	7.60	9.41	9.02	8.18	9.11	8.41	8.03	8.03	7.74	7.68	7.43	8.17		8.84	8.50	7.81	
		strides	21	13	13	13	13	13	13	15	15	15	17.8	161.8					
<b>FINAL - 2000 ISTAF (Berlin, GER)</b>														<i>Graubner (2009) - <a href="http://www.fgs.uni-halle.de">http://www.fgs.uni-halle.de</a></i>					
date	01-Sep-00	time	6.21	10.08	13.98	17.92	21.90	25.98	30.18	34.41	38.78	43.26	48.38	/ 2					
reaction time		interval		3.87	3.90	3.94	3.98	4.08	4.20	4.23	4.37	4.48	5.12			11.71	12.26	13.08	
H1 lead leg		velocity	7.25	9.04	8.97	8.88	8.79	8.58	8.33	8.27	8.01	7.81	7.81	8.27		8.97	8.56	8.03	
		strides																	
<b>Semi-Final 1 - 1999 IAAF World Championships (Sevilla, ESP)</b>														<i>Sanchez (1999) - Sevilla '99: análisis de la carreras con villas</i>					
date	25-Aug-99	time	5.68	9.44	13.23	17.25	21.31	25.38	29.66	34.10	38.59	43.28	49.28	3 / 6					
reaction time	0.169	interval		3.76	3.79	4.02	4.06	4.07	4.28	4.44	4.49	4.69	6.00			11.57	12.41	13.62	
H1 lead leg	L	velocity	7.92	9.31	9.23	8.71	8.62	8.60	8.18	7.88	7.80	7.46	6.67	8.12		9.08	8.46	7.71	
		strides	21	13	13	13	13	13	13	13	13	15	15	18.5	160.5				
<b>FINAL - 1997 IAAF World Championships (Athens, GRE)</b>														<i>Hommel (1999) - biomechanical research project, athens 1997: final report</i>					
date	04-Aug-97	time	5.98	9.66	13.41	17.24	21.16	25.18	29.20	33.62	38.10	42.70	48.11	8 / 5					
reaction time	0.237	interval		3.68	3.75	3.83	3.92	4.02	4.02	4.42	4.48	4.60	5.41			11.26	11.96	13.50	
H1 lead leg		velocity	7.53	9.51	9.33	9.14	8.93	8.71	8.71	7.92	7.81	7.61	7.39	8.31		9.33	8.78	7.78	
		strides																	
<b>FINAL - 1996 Olympic Games (Atlanta, GA)</b>														<i>McFarlane (2000) - the science of hurdling and speed</i>					
date	01-Aug-96	time	5.84	9.61	13.43	17.29	21.24	25.22	29.30	33.44	37.74	42.25	47.78	1 / 2					
reaction time	0.184	interval		3.77	3.82	3.86	3.95	3.98	4.08	4.14	4.30	4.51	5.53			11.45	12.01	12.95	
H1 lead leg		velocity	7.71	9.28	9.16	9.07	8.86	8.79	8.58	8.45	8.14	7.76	7.23	8.37		9.17	8.74	8.11	
		strides	20	13	13	13	13	13	13	13	15	15	141						
<b>FINAL - 1995 IAAF World Championships (Göteborg, SWE)</b>														<i>Behm (1999) - Les chiffres: Les podiums de tous le championnats</i>					
date	10-Aug-95	time					21.0						48.03	3 / 2					
reaction time		interval																	
H1 lead leg	L	velocity					8.81						8.33						
		strides	20	13	13	13	13	13	13	13	15	15	18.5	160					
<b>FINAL - 1993 IAAF World Championships (Stuttgart, GER)</b>														<i>Graubner (2008) - <a href="http://www.fgs.uni-halle.de">http://www.fgs.uni-halle.de</a></i>					
date	19-Aug-93	time	5.96	9.67	13.42	17.26	21.20	25.16	29.30	33.64	38.13	42.63	47.60	3 / 2					
reaction time	0.265	interval		3.71	3.75	3.84	3.94	3.96	4.14	4.34	4.49	4.50	4.97			11.30	12.04	13.33	
H1 lead leg	L	velocity	7.55	9.43	9.33	9.11	8.88	8.84	8.45	8.06	7.80	7.78	8.05	8.40		9.29	8.72	7.88	
		strides	21	13	13	13	13	13	13	13	15	18	119						
<b>Semi-Final 2 - 1993 IAAF World Championships (Stuttgart, GER)</b>														<i>Letzelter (1995) - schrittgestaltung im 400m-hürdenlauf der jugend</i>					
date	17-Aug-93	time	5.74	9.44	13.18	16.96	20.82	24.78	28.96	33.46	38.12	42.74	48.18	3 / 1					
reaction time		interval		3.70	3.74	3.78	3.86	3.96	4.18	4.50	4.66	4.62	5.44			11.22	12.00	13.78	

H1 lead leg	L	velocity	7.84	9.46	9.36	9.26	9.07		8.84	8.37	7.78	7.51	7.58	7.35	8.30		9.36	8.75	7.62
		strides	21	13	13	13	13		13	13	15	15	15	17.5	162				
<b>FINAL - 1991 IAAF World Championships (Tokyo, JPN)</b>																			
date	27-Aug-91	time	5.8	9.4	13.1	16.7	20.4		24.3	28.5	32.8	37.4	42.1		47.64		<i>Behm (1995) - la tactique du 400 haies</i>		
reaction time		interval		3.60	3.70	3.60	3.70		3.90	4.20	4.30	4.60	4.70	5.54			10.90	11.80	13.60
		velocity	7.76	9.72	9.46	9.72	9.46		8.97	8.33	8.14	7.61	7.45	7.22	8.40		9.63	8.90	7.72
H1 lead leg	L	strides	20	13	13	13	13		13	13	15	15	15	18.5	161.5				
<b>Matsumoto, Takahiro (JPN) (1994)</b>																			
date	05-Aug-11	time	6.22	10.40	14.69	19.02	23.37		27.77	32.19	36.82	41.71	46.74		52.34		<i>Abe (2011) - 64th high school championships: JAF scientific committee - biomechanics</i>		
reaction time		interval		4.18	4.29	4.33	4.35		4.40	4.42	4.63	4.89	5.03	5.60			12.80	13.17	14.55
		velocity	7.23	8.37	8.16	8.08	8.05		7.95	7.92	7.56	7.16	6.96	7.14	7.64		8.20	7.97	7.22
H1 lead leg		strides																	
<b>Matsumoto, Tatsuki (JPN)</b>																			
date	26-May-18	time	6.55	11.10	15.70	20.45	25.32		30.30	35.35	40.53	46.02	51.50		57.39		<i>Shimizu (2018) - shimane high school championships 2018 - biomechanics data analysis</i>		
reaction time		interval		4.55	4.60	4.75	4.87		4.98	5.05	5.18	5.49	5.48	5.89			13.90	14.90	16.15
		velocity	6.87	7.69	7.61	7.37	7.19		7.03	6.93	6.76	6.38	6.39	6.79	6.97		7.55	7.05	6.50
H1 lead leg		strides	24	18	17	17	17		17	17	17	19	19	22	204				
<b>Matsumoto, Yuki (JPN) (1991)</b>																			
date	11-Jun-22	time	6.16	10.04	14.05	18.15	22.29		26.59	31.05	35.72	40.44	45.15		50.57		<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>		
reaction time	0.171	interval		3.88	4.01	4.10	4.14		4.30	4.46	4.67	4.72	4.71	5.42			11.99	12.90	14.10
		velocity	7.31	9.02	8.73	8.54	8.45		8.14	7.85	7.49	7.42	7.43	7.38	7.91		8.76	8.14	7.45
H1 lead leg	R	strides	21	13	13	13	13		14	14	15	15	15	146					
<b>FINAL - 2022 Seiko Golden Grand Prix (Tokyo, JPN)</b>																			
date	08-May-22	time	6.16	10.08	14.01	18.02	22.07		26.43	30.91	35.52	40.14	44.84		50.31		<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>		
reaction time	0.199	interval		3.92	3.93	4.01	4.05		4.36	4.48	4.61	4.62	4.70	5.47			11.86	12.89	13.93
		velocity	7.31	8.93	8.91	8.73	8.64		8.03	7.81	7.59	7.58	7.45	7.31	7.95		8.85	8.15	7.54
H1 lead leg	R	strides	21	13	13	13	13		14	14	15	15	15	19	165				
<b>FINAL - 2022 Michitaka Kinami Memorial (Osaka, JPN)</b>																			
date	01-May-22	time	6.14	10.01	13.98	18.07	22.17		26.34	30.95	35.54	40.19	44.99		50.56		<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>		
reaction time	0.139	interval		3.87	3.97	4.09	4.10		4.17	4.61	4.59	4.65	4.80	5.57			11.93	12.88	14.04
		velocity	7.33	9.04	8.82	8.56	8.54		8.39	7.59	7.63	7.53	7.29	7.18	7.91		8.80	8.15	7.48
H1 lead leg		strides		13	13	13	13		14	14	15	15	15	125					
<b>B FINAL - 2021 Denka Athletics Challenge Cup (Niigata, JPN)</b>																			
date	06-Jun-21	time	6.16	9.99	13.96	17.97	22.12		26.53	31.01	35.62	40.26	44.94		50.31		<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>		
reaction time		interval		3.83	3.97	4.01	4.15		4.41	4.48	4.61	4.64	4.68	5.37			11.81	13.04	13.93
		velocity	7.31	9.14	8.82	8.73	8.43		7.94	7.81	7.59	7.54	7.48	7.45	7.95		8.89	8.05	7.54
H1 lead leg	R	strides	21	13	13	13	13		14	14	15	15	15	18.2	164.2				
<b>FINAL - 2021 Ready Steady Tokyo (Tokyo, JPN)</b>																			
date	09-May-21	time	5.97	9.71	13.56	17.47	21.59		25.93	30.41	34.97	39.62	44.31		49.88		<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>		
reaction time	0.164	interval		3.74	3.85	3.91	4.12		4.34	4.48	4.56	4.65	4.69	5.57			11.50	12.94	13.90
		velocity	7.54	9.36	9.09	8.95	8.50		8.06	7.81	7.68	7.53	7.46	7.18	8.02		9.13	8.11	7.55
H1 lead leg		strides		13	13	13	13		14	14	15	15	15	125					
<b>B FINAL - 2021 Shizuoka International Athletics Meeting (Fukuroi, JPN)</b>																			
date	03-May-21	time	6.19	10.01	13.93	17.92	22.06		26.44	30.90	35.52	40.21	44.98		50.52		<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>		
reaction time	0.218	interval		3.82	3.92	3.99	4.14		4.38	4.46	4.62	4.69	4.77	5.54			11.73	12.98	14.08
		velocity	7.27	9.16	8.93	8.77	8.45		7.99	7.85	7.58	7.46	7.34	7.22	7.92		8.95	8.09	7.46
H1 lead leg	R	strides	21	13	13	13	13		14	14	15	15	15	18.5	164.5				
<b>FINAL - 2020 Michitaka Kinami Memorial (Osaka, JPN)</b>																			
date	24-Oct-20	time	6.07	9.93	13.80	17.63	21.60		25.78	30.11	34.68	39.47	44.44		50.34		<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>		
reaction time		interval		3.86	3.87	3.83	3.97		4.18	4.33	4.57	4.79	4.97	5.90			11.56	12.48	14.33
		velocity	7.41	9.07	9.04	9.14	8.82		8.37	8.08	7.66	7.31	7.04	6.78	7.95		9.08	8.41	7.33
H1 lead leg	R	strides	21	13	13	13	13		14	14	15	15	15	19.2	165.2				
<b>FINAL - 2020 All Japan Corporate Championships (Kumagaya, JPN)</b>																			
date	20-Sep-20	time	6.22	10.03	13.95	17.93	22.11		26.48	31.05	35.79	40.57	45.40		50.97		<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>		
reaction time	0.209	interval		3.81	3.92	3.98	4.18		4.37	4.57	4.74	4.78	4.83	5.57			11.71	13.12	14.35
		velocity	7.23	9.19	8.93	8.79	8.37		8.01	7.66	7.38	7.32	7.25	7.18	7.85		8.97	8.00	7.32
H1 lead leg		strides		13	13	13	13		14	14	15	15	15	125					
<b>FINAL - 2020 Seiko Golden Grand Prix (Tokyo, JPN)</b>																			
date	23-Aug-20	time	6.14	9.91	13.78	17.82	22.01		26.36	30.83	35.42	40.09	44.89		50.60		<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>		
reaction time	0.147	interval		3.77	3.87	4.04	4.19		4.35	4.47	4.59	4.67	4.80	5.71			11.68	13.01	14.06
		velocity	7.33	9.28	9.04	8.66	8.35		8.05	7.83	7.63	7.49	7.29	7.01	7.91		8.99	8.07	7.47
H1 lead leg		strides		13	13	13	13		14	14	15	15	15	125					



**FINAL - 2019 Japanese National Championships (Fukuoka, JPN)***Yamanaka (2019) - research on athlete performance and technique- 2019 data book*

date	29-Jun-19	time	6.09	9.84	13.74	17.70	21.71	25.93	30.25	34.75	39.31	43.99	49.47	6 / 3				
reaction time	0.161	interval		3.75	3.90	3.96	4.01	4.22	4.32	4.50	4.56	4.68	5.48		11.61	12.55	13.74	
		velocity	7.39	9.33	8.97	8.84	8.73	8.29	8.10	7.78	7.68	7.48	7.30	8.09	9.04	8.37	7.64	
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	19.2	165.2				

**A FINAL - 2019 Kinami Memorial (Osaka, JPN)***Matsubayashi (2019) - research on athlete performance and technique- 2019 data book*

date	06-May-19	time	6.11	9.93	13.83	17.74	21.72	25.94	30.23	34.70	39.31	44.01	49.57	3 / 2				
reaction time		interval		3.82	3.90	3.91	3.98	4.22	4.29	4.47	4.61	4.70	5.56		11.63	12.49	13.78	
		velocity	7.36	9.16	8.97	8.95	8.79	8.29	8.16	7.83	7.59	7.45	7.19	8.07	9.03	8.41	7.62	
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	19	165				

**FINAL - 2017 Japanese National Championships (Osaka, JPN)***Morioka (2018) - Analysis of the race patterns of the top 400m hurdles in Japan*

date	24-Jun-17	time	6.14	9.96	13.88	17.80	21.79	26.09	30.43	34.92	39.54	44.33	49.92	/ 3				
reaction time	0.155	interval		3.82	3.92	3.92	3.99	4.30	4.34	4.49	4.62	4.79	5.59		11.66	12.63	13.90	
		velocity	7.33	9.16	8.93	8.93	8.77	8.14	8.06	7.80	7.58	7.31	7.16	8.01	9.01	8.31	7.55	
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	125					

**FINAL - 2017 Nambu Memorial (Sapporo, JPN)***(2017) - tfdata-store.com/2017/07/11/post-1019/*

date	09-Jul-17	time	6.16	9.90	13.73	17.65	21.68	25.91	30.28	34.80	39.46	44.13	49.41	7 / 2				
reaction time		interval		3.74	3.83	3.92	4.03	4.23	4.37	4.52	4.66	4.67	5.28		11.49	12.63	13.85	
		velocity	7.31	9.36	9.14	8.93	8.68	8.27	8.01	7.74	7.51	7.49	7.58	8.10	9.14	8.31	7.58	
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	18.5	164.5				

**FINAL - 2016 Japanese National Championships (Nagoya, JPN)***Morioka (2016) - race pattern of top 400m hurdlers in japan*

date	24-Jun-16	time	6.09	9.93	13.80	17.72	21.74	25.93	30.25	34.75	39.32	43.96	49.31	6 / 2				
reaction time	0.169	interval		3.84	3.87	3.92	4.02	4.19	4.32	4.50	4.57	4.64	5.35		11.63	12.53	13.71	
		velocity	7.39	9.11	9.04	8.93	8.71	8.35	8.10	7.78	7.66	7.54	7.48	8.11	9.03	8.38	7.66	
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	125					

**FINAL - 2016 Seiko Golden Grand Prix (Kawasaki, JPN)***Morioka (2016) - race pattern of top 400m hurdlers in japan*

date	08-May-16	time	6.02	9.82	13.66	17.58	21.57	25.77	30.17	34.69	39.26	43.88	49.10	3 / 3				
reaction time	0.191	interval		3.80	3.84	3.92	3.99	4.20	4.40	4.52	4.57	4.62	5.22		11.56	12.59	13.71	
		velocity	7.48	9.21	9.11	8.93	8.77	8.33	7.95	7.74	7.66	7.58	7.66	8.15	9.08	8.34	7.66	
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	18.5	164.5				

**FINAL - 2015 Japanese National Championships (Niigata, JPN)***Yasunori (2015) - race pattern analysis of the top 400m hurdlers in Japan*

date	28-Jun-15	time	6.11	9.91	13.83	17.78	21.88	26.15	30.57	35.21	39.86	44.55	49.76	6 / 1				
reaction time	0.169	interval		3.80	3.92	3.95	4.10	4.27	4.42	4.64	4.65	4.69	5.21		11.67	12.79	13.98	
		velocity	7.36	9.21	8.93	8.86	8.54	8.20	7.92	7.54	7.53	7.46	7.68	8.04	9.00	8.21	7.51	
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	19	165				

**B Race - 2015 Shizuoka International Athletics Meeting (Fukuroi, JPN)***Yasunori (2015) - race pattern analysis of the top 400m hurdlers in Japan*

date	03-May-15	time	6.04	9.88	13.78	17.72	21.76	26.03	30.40	35.00	39.67	44.47	49.78	/ 3				
reaction time	0.164	interval		3.84	3.90	3.94	4.04	4.27	4.37	4.60	4.67	4.80	5.31		11.68	12.68	14.07	
		velocity	7.45	9.11	8.97	8.88	8.66	8.20	8.01	7.61	7.49	7.29	7.53	8.04	8.99	8.28	7.46	
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	125					

**Matthews, Brian (USA) (2001)****Semi-Final 3 - 2024 USA Olympic Trials (Eugene, OR)***USATF and Karmarush (2024) - USA Olympic trials results and race analysis*

date	28-Jun-24	time	5.90	9.73	13.63	17.61	21.62	23.56	26.06	30.58	35.35	40.26	45.09	50.83	2 / 7				
reaction time		interval		3.83	3.90	3.98	4.01	4.44	4.52	4.77	4.91	4.83	5.74		11.71	12.97	14.51		
		velocity	7.63	9.14	8.97	8.79	8.73	8.49	7.88	7.74	7.34	7.13	7.25	6.97	7.87	8.97	8.10	7.24	
H1 lead leg	R	strides	24	15	15	15	15	15	16	16	16	17	21.5	185.5					

**Heat 5 - 2024 USA Olympic Trials (Eugene, OR)***USATF and Karmarush (2024) - USA Olympic trials results and race analysis*

date	27-Jun-24	time	5.92	9.81	13.80	17.88	22.05	23.96	26.39	30.94	35.67	40.43	45.18	50.81	4 / 5				
reaction time		interval		3.89	3.99	4.08	4.17	4.34	4.55	4.73	4.76	4.75	5.63	<b>PB</b>		11.96	13.06	14.24	
		velocity	7.60	9.00	8.77	8.58	8.39	8.35	8.06	7.69	7.40	7.35	7.37	7.10	7.87	8.78	8.04	7.37	
H1 lead leg	R	strides	24	15	15	15	15	15	16	16	16	17	17	21	186				

**Matulonis, Ryan (USA) (2004)****Semi-Final 1 - 2024 USA Olympic Trials (Eugene, OR)***USATF and Karmarush (2024) - USA Olympic trials results and race analysis*

date	28-Jun-24	time	5.91	9.70	13.55	17.53	21.58	23.57	25.95	30.55	35.31	40.21	45.42	51.30	4 / 8				
reaction time		interval		3.79	3.85	3.98	4.05	4.37	4.60	4.76	4.90	5.21	5.88		11.62	13.02	14.87		
		velocity	7.61	9.23	9.09	8.79	8.64	8.49	8.01	7.61	7.35	7.14	6.72	6.80	7.80	9.04	8.06	7.06	
H1 lead leg	L	strides	21	13	13	13	13	14	14	14	15	16	18	164					

**Heat 5 - 2024 USA Olympic Trials (Eugene, OR)***USATF and Karmarush (2024) - USA Olympic trials results and race analysis*

date	27-Jun-24	time	5.79	9.54	13.42	17.49	21.76	23.74	26.27	30.85	35.61	40.49	45.14	50.73	6 / 3				
reaction time		interval		3.75	3.88	4.07	4.27	4.51	4.58	4.76	4.88	4.65	5.59		11.70	13.36	14.29		
		velocity	7.77	9.33	9.02	8.60	8.20	8.42	7.76	7.64	7.35	7.17	7.53	7.16	7.88	8.97	7.86	7.35	
H1 lead leg	L	strides	20	13	13	13	14	14	14	14	15	15	18	163					

**Mbaye, Amadou (SEN) (1964)****FINAL - 1996 French National Championships (Evry, FRA)***Veney - split times from PJ*

date	???	time	6.1	9.9	13.9	18.0	22.0		26.2	30.5	35.0	39.6	44.5		50.30	/ 2			
reaction time		interval		3.80	4.00	4.10	4.00		4.20	4.30	4.50	4.60	4.90	5.80			11.90	12.50	14.00
		velocity	7.38	9.21	8.75	8.54	8.75		8.33	8.14	7.78	7.61	7.14	6.90	7.95		8.82	8.40	7.50
H1 lead leg		strides	20	13	13	13	13		13	14	14	14	14		141				

**McAlister, Chris (GBR) (1995)**

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<b>FINAL - 2022 Bauhaus Galan (Stockholm, SWE) (TV Analysis)</b>															<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	30-Jun-22	time	6.12	9.92	13.72	17.60	21.70	23.39	25.92	30.38	34.86	39.48	44.32		49.76	8 / 7			
reaction time	0.175	interval		3.80	3.80	3.88	4.10		4.22	4.46	4.48	4.62	4.84	5.44			11.48	12.78	13.94
		velocity	7.35	9.21	9.21	9.02	8.54	8.55	8.29	7.85	7.81	7.58	7.23	7.35	8.04		9.15	8.22	7.53
H1 lead leg	R	strides	22	14	14	14	14		14	15	15	15	15		152				

**FINAL - 2021 Weltklasse (Zürich, SUI) (TV Analysis)**

<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>																		
date	09-Sep-21	time	6.24				22.40	24.1	26.64		39.88	44.48		49.73	1 / 7			
reaction time	0.168	interval					16.16		4.24		13.24	4.60	5.25					
		velocity	7.21				8.66	8.30	8.25		7.93	7.61	7.62	8.04				
H1 lead leg	R	strides	22					14				15		51				

**FINAL - 2021 Memorial van Damme (Brussels, BEL) (TV Analysis)**

<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>																			
date	03-Sep-21	time	6.08	9.92	13.92	18.00	22.08	23.9	26.28	30.72	35.32	39.96	44.80		50.09	1 / 7			
reaction time	0.144	interval		3.84	4.00	4.08	4.08		4.20	4.44	4.60	4.64	4.84	5.29			11.92	12.72	14.08
		velocity	7.40	9.11	8.75	8.58	8.58	8.37	8.33	7.88	7.61	7.54	7.23	7.56	7.99		8.81	8.25	7.46
H1 lead leg	R	strides	22	14	14	14	14		14		15	15	15		137				

**FINAL - 2021 Herculis Meeting International d'Athletisme (Monaco, MON) (TV Analysis)**

<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>																		
date	09-Jul-21	time	5.97	9.77		17.65	23.5			34.77	39.60	44.57		49.98	2 / 6			
reaction time	0.144	interval		3.80		7.88				17.12	4.83	4.97	5.41				11.68	
		velocity	7.54	9.21		8.88	8.51			8.18	7.25	7.04	7.39	8.00			8.99	
H1 lead leg	R	strides	22	14								16	16		68			

**FINAL - 2021 Bauhaus Galan (Stockholm, SWE) (TV Analysis)**

<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>																		
date	04-Jul-21	time	6.04	9.88	13.84	17.80	21.80	23.6	25.88		34.72	39.36	43.92		49.16	1 / 5		
reaction time	0.134	interval		3.84	3.96	3.96	4.00		4.08		8.84	4.64	4.56	5.24	<b>PB</b>		11.76	
		velocity	7.45	9.11	8.84	8.84	8.75	8.47	8.58		7.92	7.54	7.68	7.63	8.14		8.93	
H1 lead leg	R	strides		14	14	14	14		14			15	15	18.5	118.5			

**FINAL - 2020 ISTAF (Berlin, GER) (TV Analysis)**

<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>																		
date	13-Sep-20	time	6.24		14.28	18.44	22.64		26.88		35.84	40.56		51.03	1 / 6			
reaction time	0.188	interval			8.04	4.16	4.20		4.24		8.96	4.72					12.20	
		velocity	7.21		8.71	8.41	8.33		8.25		7.81	7.42		7.84			8.61	
H1 lead leg	R	strides	22			15			15			15		67				

**Semi-Final 2 - 2019 IAAF World Championships (Doha, QAT)**

<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>																			
date	28-Sep-19	time	6.13	9.96	13.84	17.76	21.82		26.01	30.33	34.80	39.32	43.94		49.18	9 / 5			
reaction time	0.165	interval		3.83	3.88	3.92	4.06		4.19	4.32	4.47	4.52	4.62	5.24	<b>PB</b>		11.63	12.57	13.61
		velocity	7.34	9.14	9.02	8.93	8.62		8.35	8.10	7.83	7.74	7.58	7.63	8.13		9.03	8.35	7.71
H1 lead leg	R	strides	22	14	14	14	14		14	15	15	15	15	19	171				

**FINAL - 2019 Müller Anniversary Games (London, GBR) (TV Analysis)**

<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>																		
date	20-Jul-19	time	6.28	10.08	14.04	18.00	22.12	23.8	26.28		35.04	39.60	44.40		49.93	3 / 8		
reaction time	0.179	interval		3.80	3.96	3.96	4.12		4.16		8.76	4.56	4.80	5.53			11.72	
		velocity	7.17	9.21	8.84	8.84	8.50	8.40	8.41		7.99	7.68	7.29	7.23	8.01		8.96	
H1 lead leg	R	strides	22	14	14	14	14		14			15	15	19.2	141.2			

**McAvey, Jared (USA) (2001)**

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<b>Semi-Final 3 - 2024 USA Olympic Trials (Eugene, OR)</b>															<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>				
date	28-Jun-24	time	5.88	9.69	13.58	17.56	21.55	23.47	25.84	30.31	35.03	39.98	45.16		51.78	3 / 9			
reaction time		interval		3.81	3.89	3.98	3.99		4.29	4.47	4.72	4.95	5.18	6.62			11.68	12.75	14.85
		velocity	7.65	9.19	9.00	8.79	8.77	8.52	8.16	7.83	7.42	7.07	6.76	6.04	7.72		8.99	8.24	7.07
H1 lead leg	L	strides	21	14	14	14	14		14	15	15	15	15	19	170				

**Heat 2 - 2024 USA Olympic Trials (Eugene, OR)**

<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>																			
date	27-Jun-24	time	6.06	9.98	13.92	17.99	22.18	24.04	26.34	30.83	35.54	40.25	45.14		50.91	8 / 5			
reaction time		interval		3.92	3.94	4.07	4.19		4.16	4.49	4.71	4.71	4.89	5.77			11.93	12.84	14.31
		velocity	7.43	8.93	8.88	8.60	8.35	8.32	8.41	7.80	7.43	7.43	7.16	6.93	7.86		8.80	8.18	7.34
H1 lead leg	L	strides	21	14	14	14	14		14	15	15			18.5	139.5				

**McCoy, Reuben (USA) (1986)**

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<b>FINAL - 2008 USA Olympic Trials (Eugene, OR)</b>															<i>USATF Hurdle Development (2008)</i>				
date	29-Jun-08	time	6.07	9.88	13.68	17.67	21.81	26.01	30.31	34.70	39.12	43.71		49.18	6 / 7				
reaction time		interval		3.81	3.80	3.99	4.14		4.20	4.30	4.39	4.42	4.59	5.47			11.60	12.64	13.40
		velocity	7.41	9.19	9.21	8.77	8.45		8.33	8.14	7.97	7.92	7.63	7.31	8.13		9.05	8.31	7.84
H1 lead leg	R	strides	21	13	13	13	13		14	14	15	15	15		146				

**Heat 3 - 2007 USATF National Championships (Indianapolis, IN)**

<i>USATF Men's Hurdle Development (2007)</i>																			
date	21-Jun-07	time	6.21	9.99	13.93	18.03	22.37	26.86	31.33	35.79	40.32	44.89		50.16	8 / 3				
reaction time		interval		3.78	3.94	4.10	4.34		4.49	4.47	4.46	4.53	4.57	5.27			11.82	13.30	13.56

H1 lead leg	R	velocity	7.25	9.26	8.88	8.54	8.06	7.80	7.83	7.85	7.73	7.66	7.59	7.97	8.88	7.89	7.74
		strides	21	13	13	13	15	15	15	15	15	15	15	150			

**McFarlane, Danny (JAM) (1972)**

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL - 2009 IAAF World Championships (Berlin, GER)</b>																	
<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>																	
date	18-Aug-09	time	6.01	9.70	13.52	17.42	21.40	25.48	29.79	34.09	38.57	43.26	48.65	1 / 6			
reaction time	0.162	interval		3.69	3.82	3.90	3.98	4.08	4.31	4.30	4.48	4.69	5.39		11.41	12.37	13.47
		velocity	7.49	9.49	9.16	8.97	8.79	8.58	8.12	8.14	7.81	7.46	7.42	8.22	9.20	8.49	7.80
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	15	18	161			

**Semi-Final 1 - 2009 IAAF World Championships (Berlin, GER)**

<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>																	
date	16-Aug-09	time	5.99	9.65	13.40	17.29	21.34	25.46	29.78	34.08	38.54	43.16	48.49	4 / 4			
reaction time	0.161	interval		3.66	3.75	3.89	4.05	4.12	4.32	4.30	4.46	4.62	5.33		11.30	12.49	13.38
		velocity	7.51	9.56	9.33	9.00	8.64	8.50	8.10	8.14	7.85	7.58	7.50	8.25	9.29	8.41	7.85
H1 lead leg	L	strides		13	13	13	13	13	14	14	14	15	17.7	139.7			

**Heat 3 - 2009 IAAF World Championships (Berlin, GER)**

<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>																	
date	15-Aug-09	time	6.04	9.76	13.62	17.59	21.65	25.72	29.98	34.26	38.79	43.43	48.65	6 / 2			
reaction time	0.187	interval		3.72	3.86	3.97	4.06	4.07	4.26	4.28	4.53	4.64	5.22		11.55	12.39	13.45
		velocity	7.45	9.41	9.07	8.82	8.62	8.60	8.22	8.18	7.73	7.54	7.66	8.22	9.09	8.47	7.81
H1 lead leg		strides															

**FINAL - 2008 IAAF World Athletics Final (Stuttgart, GER)**

<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>																	
date	13-Sep-08	time	6.05	9.78	13.61	17.52	21.54	25.59	29.94	34.33	38.89	43.62	49.00	5 / 2			
reaction time	0.166	interval		3.73	3.83	3.91	4.02	4.05	4.35	4.39	4.56	4.73	5.38		11.47	12.42	13.68
		velocity	7.44	9.38	9.14	8.95	8.71	8.64	8.05	7.97	7.68	7.40	7.43	8.16	9.15	8.45	7.68
H1 lead leg		strides															

**FINAL - 2008 Olympic Games (Beijing, CHN)**

<i>Behm (2008) - Pekin 2008: Le quatrache masculin - féminin</i>																	
date	18-Aug-08	time	5.8	9.4	13.2	17.0	20.8	24.9	29.2	33.5	38.0	42.8	48.30	5 / 4			
reaction time	0.213	interval		3.60	3.80	3.80	3.80	4.10	4.30	4.30	4.50	4.80	5.50		11.20	12.20	13.60
		velocity	7.76	9.72	9.21	9.21	9.21	8.54	8.14	8.14	7.78	7.29	7.27	8.28	9.38	8.61	7.72
H1 lead leg	R	strides	21	13	13	13	13	14	14	14	15	15	17	162			

**FINAL - 2007 IAAF World Championships (Osaka, JPN)**

<i>Yasunori (2008) - race pattern analysis of the world and Japanese top 400m hurdlers</i>																	
date	28-Aug-07	time	6.02	9.76	13.56	17.43	21.43	25.50	29.76	34.06	38.51	43.18	48.59	9 / 5			
reaction time	0.172	interval		3.74	3.80	3.87	4.00	4.07	4.26	4.30	4.45	4.67	5.41		11.41	12.33	13.42
		velocity	7.48	9.36	9.21	9.04	8.75	8.60	8.22	8.14	7.87	7.49	7.39	8.23	9.20	8.52	7.82
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	18	160			

**FINAL - 2004 Olympic Games (Athina, GRE)**

<i>Ruiz (2004) - las carreras con vallas de juegos olimpicos de atenas '04</i>																	
date	26-Aug-04	time	6.02	9.52	13.23	17.17	21.19	25.21	29.50	33.62	38.23	42.88	48.11	5 / 2			
reaction time	0.256	interval		3.50	3.71	3.94	4.02	4.02	4.29	4.12	4.61	4.65	5.23		11.15	12.33	13.38
		velocity	7.48	10.00	9.43	8.88	8.71	8.71	8.16	8.50	7.59	7.53	7.65	8.31	9.42	8.52	7.85
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	15	18	161			

**FINAL - 2003 IAAF World Championships (Paris, FRA)**

<i>Behm (2003) - Paris 2003:Le quatrache masculin - féminin</i>																	
date	29-Aug-03	time	5.9	9.6	13.5	17.3	21.2	25.3	29.6	33.9	38.5	43.1	48.30	7 / 4			
reaction time	0.165	interval		3.70	3.90	3.80	3.90	4.10	4.30	4.30	4.60	4.60	5.20	<b>PB</b>	11.40	12.30	13.50
		velocity	7.63	9.46	8.97	8.97	8.97	8.54	8.14	8.14	7.61	7.61	7.69	8.28	9.21	8.54	7.78
H1 lead leg	L	strides	21	13	13	13	13	14	14	14	15	15	18	163			

**McGuirk, Tom (IRL) (1971)**

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>Heat 4 - 2000 Olympic Games (Sydney, AUS)</b>																	
<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																	
date	24-Sep-00	time	5.96	9.80	13.72	17.72	21.84	25.92	30.48	35.40	40.48	45.72	51.73	3 / 7			
reaction time	0.183	interval		3.84	3.92	4.00	4.12	4.08	4.56	4.92	5.08	5.24	6.01		11.76	12.76	15.24
		velocity	7.55	9.11	8.93	8.75	8.50	8.58	7.68	7.11	6.89	6.68	6.66	7.73	8.93	8.23	6.89
H1 lead leg		strides	22	14	14	14	14	15	17	16	17	18	161				

**McLaughlin, Taylor (USA) (1997)**

<b>FINAL - 2023 USATF National Championships (Eugene, OR) (TV Analysis)</b>																	
<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>																	
date	09-Jul-23	time	5.97	9.71	13.51	17.38	21.32	25.39		34.06	38.77	43.57	49.14	1 / 5			
reaction time		interval		3.74	3.80	3.87	3.94	4.07		8.67	4.71	4.80	5.57		11.41		
		velocity	7.54	9.36	9.21	9.04	8.88	8.60		8.07	7.43	7.29	7.18	8.14	9.20		
H1 lead leg	R	strides	21	13	13	13	13	13		15	15	18	134				

**FINAL - 2019 NCAA Championships (Austin, TX) (TV Analysis)**

<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>																	
date	07-Jun-19	time	5.96	9.66	13.40	17.23	21.16	25.20	29.46	33.96	38.50	43.33	48.85	6 / 5-4			
reaction time	0.199	interval		3.70	3.74	3.83	3.93	4.04	4.26	4.50	4.54	4.83	5.52	<b>PB</b>	11.27	12.23	13.87
		velocity	7.55	9.46	9.36	9.14	8.91	8.66	8.22	7.78	7.71	7.25	7.25	8.19	9.32	8.59	7.57
H1 lead leg	R	strides		13	13	13	13	13	13	14	14	15	18	139			

**McMaster, Kyron (IVB) (1997)**

<b>FINAL - 2024 Olympic Games (Paris, FRA)</b>																	
<i>Paris 2024 Olympc Games - Results Book (2024)</i>																	
date	09-Aug-24	time	5.64	9.24	12.93	16.67	20.55	24.53	28.69	33.07	37.65	42.27	47.79	6 / 5			
reaction time	0.143	interval		3.60	3.69	3.74	3.88	3.98	4.16	4.38	4.58	4.62	5.52		11.03	12.02	13.58
		velocity	7.98	9.72	9.49	9.36	9.02	8.79	8.41	7.99	7.64	7.58	7.25	8.37	9.52	8.74	7.73



H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	17	159				
<b>Semi-Final 2 - 2024 Olympic Games (Paris, FRA)</b>																<i>Paris 2024 Olympc Games - Results Book (2024)</i>		
date	07-Aug-24	time	5.70	9.33	13.07	16.86	20.74	24.77	28.95	33.40	37.92	42.49		48.15	4 / 1			
reaction time	0.160	interval	3.63	3.74	3.79	3.88	4.03	4.18	4.45	4.52	4.57	5.66				11.16	12.09	13.54
		velocity	7.89	9.64	9.36	9.23	9.02	8.68	8.37	7.87	7.74	7.66	7.07	8.31		9.41	8.68	7.75
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	18	160				
<b>Heat 1 - 2024 Olympic Games (Paris, FRA)</b>																<i>Paris 2024 Olympc Games - Results Book (2024)</i>		
date	05-Aug-24	time	5.71	9.37	13.13	16.94	20.86	25.01	29.38	34.00	38.82	43.71		49.24	2 / 3			
reaction time	0.166	interval	3.66	3.76	3.81	3.92	4.15	4.37	4.62	4.82	4.89	5.53				11.23	12.44	14.33
		velocity	7.88	9.56	9.31	9.19	8.93	8.43	8.01	7.58	7.26	7.16	7.23	8.12		9.35	8.44	7.33
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	17	159				
<b>FINAL - 2024 London Athletics Meet (London, GBR)</b>																<i>Omega Timing (2024) - diamond league race analysis</i>		
date	20-Jul-24	time	5.73	9.40	13.19	16.98	20.90	24.94	29.09	33.38	37.90	42.43		47.81	5 / 4			
reaction time	0.150	interval	3.67	3.79	3.79	3.92	4.04	4.15	4.29	4.52	4.53	5.38				11.25	12.11	13.34
		velocity	7.85	9.54	9.23	9.23	8.93	8.66	8.43	8.16	7.74	7.73	7.43	8.37		9.33	8.67	7.87
H1 lead leg	L	strides	21	13	13	13	13	13	13	13	14	14	17	157				
<b>FINAL - 2024 Bauhaus Galan (Stockholm, SWE) (TV Analysis)</b>																<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>		
date	02-Jun-24	time	5.83	9.46	13.16	16.93	20.87	24.96	29.17	33.66	38.18	42.77		48.05	7 / 2			
reaction time	0.157	interval	3.63	3.70	3.77	3.94	4.09	4.21	4.49	4.52	4.59	5.28				11.10	12.24	13.60
		velocity	7.72	9.64	9.46	9.28	8.88	8.56	8.31	7.80	7.74	7.63	7.58	8.32		9.46	8.58	7.72
H1 lead leg	L	strides	21	13	13	13	13	13	13	14	14	14	17.2	158.2				
<b>FINAL - 2024 Bislett Games (Oslo, NOR) (TV Analysis)</b>																<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>		
date	30-May-24	time	5.74	9.21	13.18	16.95	21.02	25.16	29.43	33.93	38.50	43.07		48.49	6 / 3			
reaction time	0.145	interval	3.47	3.97	3.77	4.07	4.14	4.27	4.50	4.57	4.57	5.42				11.21	12.48	13.64
		velocity	7.84	10.09	8.82	9.28	8.60	8.45	8.20	7.78	7.66	7.66	7.38	8.25		9.37	8.41	7.70
H1 lead leg	L	strides	21	13	13	13	13	13	13	14	14	14	141					
<b>FINAL - 2024 USATF LA Grand Prix (Los Angeles, CA) (TV Analysis)</b>																<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>		
date	18-May-24	time	5.87	9.51	13.28	17.05	21.02	29.26	33.66	38.20	42.94		48.51	7 / 3				
reaction time	0.220	interval	3.64	3.77	3.77	3.97	4.24	4.40	4.54	4.74	5.57					11.18	12.21	13.68
		velocity	7.67	9.62	9.28	9.28	8.82	8.50	7.95	7.71	7.38	7.18	8.25		9.39	8.60	7.68	
H1 lead leg	L	strides	21	13	13	13	13			14	14	14	17.2	132.2				
<b>FINAL - 2023 Prefontaine Classic (Eugene, OR)</b>																<i>Omega Timing (2023) - diamond league race analysis</i>		
date	16-Sep-23	time	5.58	9.11	12.71	16.42	20.29	24.26	28.35	32.59	37.11	41.75		47.31	6 / 3			
reaction time	0.133	interval	3.53	3.60	3.71	3.87	3.97	4.09	4.24	4.52	4.64	5.56				10.84	11.93	13.40
		velocity	8.06	9.92	9.72	9.43	9.04	8.82	8.56	8.25	7.74	7.54	7.19	8.45		9.69	8.80	7.84
H1 lead leg	L	strides	21	13	13	12	13	13	13	13	14	14	17	156				
<b>FINAL - 2023 Weltklasse (Zürich, SUI)</b>																<i>Omega Timing (2023) - diamond league race analysis</i>		
date	31-Aug-23	time	5.56	9.05	12.66	16.39	20.25	24.26	28.39	32.72	37.25	41.90		47.27	6 / 1			
reaction time	0.149	interval	3.49	3.61	3.73	3.86	4.01	4.13	4.33	4.53	4.65	5.37				10.83	12.00	13.51
		velocity	8.09	10.03	9.70	9.38	9.07	8.73	8.47	8.08	7.73	7.53	7.45	8.46		9.70	8.75	7.77
H1 lead leg	L	strides	21	13	13	13	13	13	13	14	14	14	17.2	158.2				
<b>FINAL - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>																<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>		
date	23-Aug-23	time	5.67	9.33	12.80	16.45	20.26	24.28	28.39	32.78	37.33	41.98		47.34	8 / 2			
reaction time	0.151	interval	3.66	3.47	3.65	3.81	4.02	4.11	4.39	4.55	4.65	5.36				10.78	11.94	13.59
		velocity	7.94	9.56	10.09	9.59	9.19	8.71	8.52	7.97	7.69	7.53	7.46	8.45		9.74	8.79	7.73
H1 lead leg	L	strides	21	13	13	13	13	13	13	14	14	14	17.7	158.7				
<b>Semi-Final 1 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>																<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>		
date	21-Aug-23	time	5.73	9.46	13.06	16.63	20.53	24.56	28.67	33.01	37.52	42.17		47.72	8 / 1			
reaction time	0.168	interval	3.73	3.60	3.57	3.90	4.03	4.11	4.34	4.51	4.65	5.55				10.90	12.04	13.50
		velocity	7.85	9.38	9.72	9.80	8.97	8.68	8.52	8.06	7.76	7.53	7.21	8.38		9.63	8.72	7.78
H1 lead leg	L	strides	21	13	13	13	13	13	13	13	14	14	17	157				
<b>Heat 2 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>																<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>		
date	20-Aug-23	time	5.80	9.50	16.83		24.70	28.90	33.33	38.00	42.90		48.47	4 / 1				
reaction time	0.156	interval	3.70	7.33		7.87	4.20	4.43	4.67	4.90	5.57					11.03	12.07	14.00
		velocity	7.76	9.46	9.55		8.89	8.33	7.90	7.49	7.14	7.18	8.25		9.52	8.70	7.50	
H1 lead leg	L	strides	21	13	13			13	14	14	14	17.2	119.2					
<b>FINAL - 2023 P-T-S Meeting (Banská Bystrica, SVK) (TV Analysis)</b>																<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>		
date	20-Jul-23	time	5.78	9.32	13.00	16.78	20.66	24.66	28.80	33.10	37.58	42.12		47.26	6 / 1			
reaction time	0.210	interval	3.54	3.68	3.78	3.88	4.00	4.14	4.30	4.48	4.54	5.14				11.00	12.02	13.32
		velocity	7.79	9.89	9.51	9.26	9.02	8.75	8.45	8.14	7.81	7.71	7.78	8.46		9.55	8.74	7.88
H1 lead leg	L	strides		13	13	13	13	13	14	14	14	14	17.2	138.2				
<b>FINAL - 2023 Bauhaus Galan (Stockholm, SWE)</b>																<i>Omega Timing (2023) - diamond league race analysis</i>		
date	02-Jul-23	time	5.66	9.33	13.08	16.92	20.94	25.08	29.37	33.82	38.44	43.20		48.94	7 / 2			
reaction time	0.147	interval	3.67	3.75	3.84	4.02	4.14	4.29	4.45	4.62	4.76	5.74				11.26	12.45	13.83

H1 lead leg	L	velocity	7.95	9.54	9.33	9.11	8.71		8.45	8.16	7.87	7.58	7.35	6.97	8.17	9.33	8.43	7.59	
		strides	21	13		13	13		14	14	14	14	15	17.7	148.7				
<b>FINAL - 2023 Meeting de Paris (Paris, FRA)</b>																<i>Omega Timing (2023) - diamond league race analysis</i>			
date	09-Jun-23	time	5.70	9.31	13.03	16.79	20.66		24.70	28.90	33.35	38.00	42.81		48.65	8 / 5			
reaction time	0.157	interval		3.61	3.72	3.76	3.87		4.04	4.20	4.45	4.65	4.81	5.84			11.09	12.11	13.91
		velocity	7.89	9.70	9.41	9.31	9.04		8.66	8.33	7.87	7.53	7.28	6.85	8.22		9.47	8.67	7.55
H1 lead leg	L	strides	21	13	13	13	13		13	13	14	15	15	17.5	160.5				
<b>FINAL - 2022 NACAC Championships (Freeport, BAH) (TV Analysis)</b>																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>			
date	21-Aug-22	time	5.60	9.23	13.03	16.87	20.77		24.80	28.86	33.06	37.43		47.34	6 / 1				
reaction time		interval		3.63	3.80	3.84	3.90		4.03	4.06	4.20	4.37		<b>CR</b>			11.27	11.99	
		velocity	8.04	9.64	9.21	9.11	8.97		8.68	8.62	8.33	8.01		8.45			9.32	8.76	
H1 lead leg	L	strides		13	13	13	13		13	13	13	14		105					
<b>Heat 5 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)</b>																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>			
date	16-Jul-22	time	5.73	9.43	13.33	17.23	21.33	23.07	25.53	29.97	34.60	39.40	44.36		49.98	4 / 4			
reaction time	0.157	interval		3.70	3.90	3.90	4.10		4.20	4.44	4.63	4.80	4.96	5.62			11.50	12.74	14.39
		velocity	7.85	9.46	8.97	8.97	8.54	8.67	8.33	7.88	7.56	7.29	7.06	7.12	8.00		9.13	8.24	7.30
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	14	15	17	160				
<b>FINAL - 2022 Bauhaus Galan (Stockholm, SWE) (TV Analysis)</b>																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>			
date	30-Jun-22	time	5.78	9.42	13.18	16.96	20.86	22.50	24.92	29.24	33.68	38.22	42.96		48.58	5 / 3			
reaction time	0.161	interval		3.64	3.76	3.78	3.90		4.06	4.32	4.44	4.54	4.74	5.62			11.18	12.28	13.72
		velocity	7.79	9.62	9.31	9.26	8.97	8.89	8.62	8.10	7.88	7.71	7.38	7.12	8.23		9.39	8.55	7.65
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	14	15	17.5	160.5				
<b>FINAL - 2022 Doha Diamond League (Doha, QAT) (TV Analysis)</b>																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>			
date	13-May-22	time	5.70	9.37	13.18	17.28	21.52	23.3	25.89		34.93	39.57	44.28		49.93	3 / 4			
reaction time	0.208	interval		3.67	3.81	4.10	4.24		4.37		9.04	4.64	4.71	5.65			11.58		
		velocity	7.89	9.54	9.19	8.54	8.25	8.58	8.01		7.74	7.54	7.43	7.08	8.01		9.07		
H1 lead leg	L	strides	21	13	13	13	13		14		14	14	14	115					
<b>FINAL - 2021 Weltklasse (Zürich, SUI) (TV Analysis)</b>																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	09-Sep-21	time	5.72		13.08	16.88	20.76	22.4	24.80	29.00	33.36	37.88	42.65		48.24	5 / 3			
reaction time	0.160	interval			7.36	3.80	3.88		4.04	4.20	4.36	4.52	4.77	5.59			11.16	12.12	13.65
		velocity	7.87		9.51	9.21	9.02	8.93	8.66	8.33	8.03	7.74	7.34	7.16	8.29		9.41	8.66	7.69
H1 lead leg	L	strides	21		13	13	13		13	14	14	14	14	17.5	133.5				
<b>FINAL - 2021 Memorial van Damme (Brussels, BEL) (TV Analysis)</b>																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	03-Sep-21	time	5.76	9.40	13.20	17.04	21.00	22.7	25.12	29.40	33.68	38.16	42.96		48.31	5 / 2			
reaction time	0.176	interval		3.64	3.80	3.84	3.96		4.12	4.28	4.28	4.48	4.80	5.35			11.28	12.36	13.56
		velocity	7.81	9.62	9.21	9.11	8.84	8.81	8.50	8.18	8.18	7.81	7.29	7.48	8.28		9.31	8.50	7.74
H1 lead leg	R	strides	20	13	13	13	13		13	14	14	14	15	17.5	159.5				
<b>FINAL - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	03-Aug-21	time	5.68	9.24	12.96	16.72	20.60		24.60	28.86	33.20	37.60	41.96		47.08	4 / 4			
reaction time	0.157	interval		3.56	3.72	3.76	3.88		4.00	4.26	4.34	4.40	4.36	5.12	<b>NR PB</b>		11.04	12.14	13.10
		velocity	7.92	9.83	9.41	9.31	9.02		8.75	8.22	8.06	7.95	8.03	7.81	8.50		9.51	8.65	8.02
H1 lead leg	R	strides	20	13	13	13	13		13	14	14	14	14	17	158				
<b>Semi-Final 3 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>																<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>			
date	01-Aug-21	time	5.95	9.63	13.46	17.30	21.36		25.40	29.60	33.97	38.40	42.98		48.26	7 / 1			
reaction time	0.179	interval		3.68	3.83	3.84	4.06		4.04	4.20	4.37	4.43	4.58	5.28			11.35	12.30	13.38
		velocity	7.56	9.51	9.14	9.11	8.62		8.66	8.33	8.01	7.90	7.64	7.58	8.29		9.25	8.54	7.85
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	14	14	17	159				
<b>Heat 4 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>																<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>			
date	30-Jul-21	time	5.97	9.57	13.33	17.10	21.08		25.15	29.36	33.90	38.62	43.35		48.79	2 / 1			
reaction time	0.184	interval		3.60	3.76	3.77	3.98		4.07	4.21	4.54	4.72	4.73	5.44			11.13	12.26	13.99
		velocity	7.54	9.72	9.31	9.28	8.79		8.60	8.31	7.71	7.42	7.40	7.35	8.20		9.43	8.56	7.51
H1 lead leg	L	strides	20	13	13	13	13		13	13	14	14	14	17	157				
<b>FINAL - 2021 Bauhaus Galan (Stockholm, SWE) (TV Analysis)</b>																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	04-Jul-21	time	5.60	9.08	12.76	16.52	20.36	22.1	24.32	28.44	32.80	37.68	42.84		dnf	6 / --			
reaction time	0.177	interval		3.48	3.68	3.76	3.84		3.96	4.12	4.36	4.88	5.16				10.92	11.92	14.40
		velocity	8.04	10.06	9.51	9.31	9.11	9.05	8.84	8.50	8.03	7.17	6.78				9.62	8.81	7.29
H1 lead leg	L	strides		13	13	13	13		13	13	14	15	15	122					
<b>FINAL - 2021 USATF Golden Games (Walnut, CA) (TV Analysis)</b>																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	09-May-21	time	5.80	9.41	13.18	17.02	20.92		24.96	29.19	33.53	37.97	42.47		47.50	6 / 2			
reaction time		interval		3.61	3.77	3.84	3.90		4.04	4.23	4.34	4.44	4.50	5.03	<b>NR PB</b>		11.22	12.17	13.28
		velocity	7.76	9.70	9.28	9.11	8.97		8.66	8.27	8.06	7.88	7.78	7.95	8.42		9.36	8.63	7.91
H1 lead leg	R	strides	20	13	13	13	13		13	13	14	14	14	16.7	156.7				
<b>FINAL - 2021 Doha Diamond League (Doha, QAT) (TV Analysis)</b>																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	28-May-21	time	5.70	9.37	13.21	17.15	21.19	22.9	25.31	29.53	33.87	38.24	42.64		47.82	3 / 3			

reaction time	0.199	interval	3.67	3.84	3.94	4.04		4.12	4.22	4.34	4.37	4.40	5.18		11.45	12.38	13.11		
		velocity	7.89	9.54	9.11	8.88	8.66	8.73	8.50	8.29	8.06	8.01	7.95	7.72	8.36	9.17	8.48	8.01	
H1 lead leg	R	strides	20	13	13	13		13	13	14	14	14	17	144					
<b>FINAL - 2019 IAAF World Championships (Doha, QAT)</b>													<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>						
date	30-Sep-19	time	5.75	9.33	13.02	16.78	20.64		24.67	28.85	33.25	37.72	42.49	48.10	2 / 4				
reaction time	0.171	interval		3.58	3.69	3.76	3.86		4.03	4.18	4.40	4.47	4.77	5.61		11.03	12.07	13.64	
		velocity	7.83	9.78	9.49	9.31	9.07		8.68	8.37	7.95	7.83	7.34	7.13	8.32	9.52	8.70	7.70	
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	14	14	18.2	160.2				
<b>Semi-Final 1 - 2019 IAAF World Championships (Doha, QAT)</b>													<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>						
date	28-Sep-19	time	5.88	9.76	13.51	17.29	21.19		25.24	29.42	33.85	38.35	42.97	48.40	5 / 3				
reaction time	0.229	interval		3.88	3.75	3.78	3.90		4.05	4.18	4.43	4.50	4.62	5.43		11.41	12.13	13.55	
		velocity	7.65	9.02	9.33	9.26	8.97		8.64	8.37	7.90	7.78	7.58	7.37	8.26	9.20	8.66	7.75	
H1 lead leg	L	strides	21	13	13	13	13		13	13	14	14	14	18	159				
<b>FINAL - 2019 Weltklasse (Zürich, SUI) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>						
date	29-Aug-19	time	5.72	9.36	13.06	16.76	20.62	22.3	24.64	28.88	33.30	37.98	42.80	48.58	6 / 3				
reaction time	0.177	interval		3.64	3.70	3.70	3.86		4.02	4.24	4.42	4.68	4.82	5.78		11.04	12.12	13.92	
		velocity	7.87	9.62	9.46	9.46	9.07	8.97	8.71	8.25	7.92	7.48	7.26	6.92	8.23	9.51	8.66	7.54	
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	15	15	129					
<b>FINAL - 2019 Meeting de Paris (Paris, FRA) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>						
date	24-Aug-19	time	5.78	9.48	13.24	17.02	20.92	22.6	24.92	29.12	33.44	38.00	42.72	48.33	8 / 3				
reaction time	0.172	interval		3.70	3.76	3.78	3.90		4.00	4.20	4.32	4.56	4.72	5.61		11.24	12.10	13.60	
		velocity	7.79	9.46	9.31	9.26	8.97	8.85	8.75	8.33	8.10	7.68	7.42	7.13	8.28	9.34	8.68	7.72	
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	14	14	18	160				
<b>FINAL - 2019 Müller Anniversary Games (London, GBR) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>						
date	20-Jul-19	time	5.88												dnf	6 / --			
reaction time	0.190	interval																	
		velocity	7.65																
H1 lead leg	L	strides	21																
<b>FINAL - 2019 Prefontaine Classic (Stanford, CA) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>						
date	30-Jun-19	time	5.93	9.60	13.50	17.53	21.56		25.70	30.00	34.33	38.86	43.40	48.94	6 / 2				
reaction time	0.268	interval		3.67	3.90	4.03	4.03		4.14	4.30	4.33	4.53	4.54	5.54		11.60	12.47	13.40	
		velocity	7.59	9.54	8.97	8.68	8.68		8.45	8.14	8.08	7.73	7.71	7.22	8.17	9.05	8.42	7.84	
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	14	14	17.5	159.5				
<b>FINAL - 2019 Bislett Games (Oslo, NOR) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>						
date	13-Jun-19	time	5.68	9.24	12.88	16.66	20.61	22.3	24.74	29.01	33.45	38.03	43.00	49.12	6 / 3				
reaction time	0.219	interval		3.56	3.64	3.78	3.95		4.13	4.27	4.44	4.58	4.97	6.12		10.98	12.35	13.99	
		velocity	7.92	9.83	9.62	9.26	8.86	8.97	8.47	8.20	7.88	7.64	7.04	6.54	8.14	9.56	8.50	7.51	
H1 lead leg	R	strides	20	13	12	13	13		13	14	14	14	15	18	159				
<b>FINAL - 2018 IAAF Continental Cup (Ostrava, CZE) (TV Analysis)</b>													<i>Henson (2021) - Athlete First: 2018 year end hurdle report</i>						
date	08-Sep-18	time	5.80	9.52	13.28	17.20	21.28		25.44	29.76	34.56	40.00		52.62	5 / 8				
reaction time	0.166	interval		3.72	3.76	3.92	4.08		4.16	4.32	4.80	5.44				11.40	12.56		
		velocity	7.76	9.41	9.31	8.93	8.58		8.41	8.10	7.29	6.43		7.60		9.21	8.36		
H1 lead leg	R	strides	20	13	12	13	13		13	13	14	15	15	141					
<b>FINAL - 2018 Weltklasse (Zürich, SUI) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>						
date	30-Aug-18	time	5.80	9.50	13.30		21.16	22.9	25.24	29.44	33.84	38.32	42.88	48.08	3 / 1				
reaction time	0.178	interval		3.70	3.80		7.86		4.08	4.20	4.40	4.48	4.56	5.20				13.44	
		velocity	7.76	9.46	9.21		8.91	8.73	8.58	8.33	7.95	7.81	7.68	7.69	8.32				7.81
H1 lead leg	L	strides	20	13	13				13	13	14	14	14	17	131				
<b>FINAL - 2018 Athletissima (Lausanne, SUI) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>						
date	05-Jul-18	time	5.60	9.16	12.76	16.48									dnf	4 / --			
reaction time	0.162	interval		3.56	3.60	3.72											10.88		
		velocity	8.04	9.83	9.72	9.41											9.65		
H1 lead leg	L	strides	21	13	13	13								60					
<b>FINAL - 2018 Meeting de Paris (Paris, FRA) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>						
date	30-Jun-18	time	5.64	9.24	12.88	16.64	20.48	22.2	24.48	28.64	32.96	37.44	42.04	47.54	6 / 2				
reaction time	0.183	interval		3.60	3.64	3.76	3.84		4.00	4.16	4.32	4.48	4.60	5.50	<b>NR PB</b>		11.00	12.00	13.40
		velocity	7.98	9.72	9.62	9.31	9.11	9.01	8.75	8.41	8.10	7.81	7.61	7.27	8.41		9.55	8.75	7.84
H1 lead leg	R	strides	20	12	13	13	13		13	13	14	14	14	17	156				
<b>FINAL - 2018 Doha Diamond League (Doha, QAT) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>						
date	04-May-18	time	5.92	9.68	13.52	17.44	21.48		25.64	30.00	34.52	39.12	43.84	49.46	5 / 3				
reaction time	0.215	interval		3.76	3.84	3.92	4.04		4.16	4.36	4.52	4.60	4.72	5.62		11.52	12.56	13.84	
		velocity	7.60	9.31	9.11	8.93	8.66		8.41	8.03	7.74	7.61	7.42	7.12	8.09	9.11	8.36	7.59	
H1 lead leg	L	strides	21	13	13	13	13		14	14	14	14	14	17	146				
<b>FINAL - 2018 Commonwealth Games (Gold Coast, AUS) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>						



date	12-Apr-18	time	5.94	9.67	13.41	17.28	21.25		25.36	29.56	33.93	38.44	43.04		48.25	5 / 1			
reaction time	0.156	interval		3.73	3.74	3.87	3.97		4.11	4.20	4.37	4.51	4.60	5.21			11.34	12.28	13.48
		velocity	7.58	9.38	9.36	9.04	8.82		8.52	8.33	8.01	7.76	7.61	7.68	8.29		9.26	8.55	7.79
H1 lead leg	L	strides	21	13	13	13	13		13	13	14	14	14	17	158				

**FINAL - 2017 Weltklasse (Zürich, SUI) (TV Analysis)**

Henson (2020) - Athlete First: 2017 year end hurdle report

date	24-Aug-17	time	5.72	9.42	13.16		21.00		25.08	29.32	33.76	38.24	42.88		48.07	4 / 1			
reaction time	0.153	interval		3.70	3.74		7.84		4.08	4.24	4.44	4.48	4.64	5.19					13.56
		velocity	7.87	9.46	9.36		8.93		8.58	8.25	7.88	7.81	7.54	7.71	8.32				7.74
H1 lead leg	R	strides	20	13	13				13	13	14	14	14	17.2	131.2				

**FINAL - 2017 Müller's Anniversary Games (London, GBR) (TV Analysis)**

Henson (2020) - Athlete First: 2017 year end hurdle report

date	09-Jul-17	time	5.76	9.32	13.04	16.72	20.60		24.68	28.96	33.36	37.92	42.76		48.12	6 / 2			
reaction time	0.164	interval		3.56	3.72	3.68	3.88		4.08	4.28	4.40	4.56	4.84	5.36			10.96	12.24	13.80
		velocity	7.81	9.83	9.41	9.51	9.02		8.58	8.18	7.95	7.68	7.23	7.46	8.31		9.58	8.58	7.61
H1 lead leg	R	strides	20	13	13	13	13		13	14	14	14	15	18	160				

**FINAL - 2017 Jamaica International Invitational (Kingston, JAM) (TV Analysis)**

Henson (2020) - Athlete First: 2017 year end hurdle report

date	20-May-17	time		9.51	13.28	17.08	21.02		24.99	29.13	33.43	37.90			47.80	5 / 1			
reaction time		interval			3.77	3.80	3.94		3.97	4.14	4.30	4.47			<b>NR PB</b>				12.05
		velocity		8.41	9.28	9.21	8.88		8.82	8.45	8.14	7.83			8.37				8.71
H1 lead leg	R	strides			13	13	13		13	13	14	14	14		107				

**Melero, Julio (ESP) (1972)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**FINAL - 1998 Spanish National Championships (San Sebastián, ESP)**

Ruiz (1998) - campeonato des españa absoluto: análisis de la carreras con villas

date	02-Aug-98	time	6.07	10.16	14.27	18.50	22.86		27.34	31.86	36.55	41.29	46.08		52.08	4 / 5			
reaction time		interval		4.09	4.11	4.23	4.36		4.48	4.52	4.69	4.74	4.79	6.00			12.43	13.36	14.22
		velocity	7.41	8.56	8.52	8.27	8.03		7.81	7.74	7.46	7.38	7.31	6.67	7.68		8.45	7.86	7.38
H1 lead leg	R	strides	21	14	14	14	14		15	15	15	15	15	18	170				

**Melnykov, Stanislav (UKR) (1987)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**FINAL - 2010 European Championships (Barcelona, ESP)**

Behm (2010) - les haies bases

date	31-Jul-10	time	6.1	9.9	13.7	17.5	21.5		25.7	29.9	34.4	39.0	43.7		49.09	6 / 3			
reaction time	0.314	interval		3.80	3.80	3.80	4.00		4.20	4.20	4.50	4.60	4.70	5.39			11.40	12.40	13.80
		velocity	7.38	9.21	9.21	9.21	8.75		8.33	8.33	7.78	7.61	7.45	7.42	8.15		9.21	8.47	7.61
H1 lead leg	R	strides	21	13	13	13	14		14	14	14	15	15	18	164				

**Meng Yan (CHN) (1980)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**FINAL - 2006 Asian Grand Prix (Bengaluru, IND)**

Meng (2009) - a comparative study on rhythm changes between hurdles of chinese and foreign 400m hurdlers

date	22-May-06	time	5.85	9.60	13.47	17.52	21.62		25.87	30.25	34.70	39.20	43.83		49.03	1 / 1			
reaction time		interval		3.75	3.87	4.05	4.10		4.25	4.38	4.45	4.50	4.63	5.20	<b>NR PB</b>		11.67	12.73	13.58
		velocity	7.69	9.33	9.04	8.64	8.54		8.24	7.99	7.87	7.78	7.56	7.69	8.16		9.00	8.25	7.73
H1 lead leg		strides	21	13	13	13	13		13	14	14	15	15	18	162				

**Metivier, Malik (CAN) (1998)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**FINAL - 2021 NCAA Championships (Eugene, OR) (TV Analysis)**

Henson (2021) - Athlete First: 2021 year end hurdle report

date	11-Jun-21	time	5.90	9.57		17.33	21.35		25.60	30.17	34.77	39.43	44.10		49.26	4 / 5			
reaction time	0.144	interval		3.67		7.76	4.02		4.25	4.57	4.60	4.66	4.67	5.16	<b>PB</b>		11.43	12.84	13.93
		velocity	7.63	9.54		9.02	8.71		8.24	7.66	7.61	7.51	7.49	7.75	8.12		9.19	8.18	7.54
H1 lead leg	R	strides	22	13			13		14	14	15	15	15	18.2	139.2				

**Mfomkpa, Alain-Hervé (SUI) (1996)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**FINAL - 2017 Athletissima (Lausanne, SUI) (TV Analysis)**

Henson (2020) - Athlete First: 2017 year end hurdle report

date	06-Jul-17	time	6.04	9.80	13.72	17.64	21.68		25.96	30.36	35.04	40.00	45.24		51.45	1 / 8			
reaction time	0.156	interval		3.76	3.92	3.92	4.04		4.28	4.40	4.68	4.96	5.24	6.21			11.60	12.72	14.88
		velocity	7.45	9.31	8.93	8.93	8.66		8.18	7.95	7.48	7.06	6.68	6.44	7.77		9.05	8.25	7.06
H1 lead leg	L	strides	21	13	13	13	13		14	14	14	15	16		146				

**FINAL - 2016 Athletissima (Laussane, SUI) (TV Analysis)**

Henson (2020) - Athlete First: 2016 year end hurdle report

date	25-Aug-16	time	5.96	9.83	13.73	17.73	22.10		26.47	30.93	35.67	40.57			51.58	8 / 6			
reaction time	0.182	interval		3.87	3.90	4.00	4.37		4.37	4.46	4.74	4.90					11.77	13.20	
		velocity	7.55	9.04	8.97	8.75	8.01		8.01	7.85	7.38	7.14			7.75		8.92	7.95	
H1 lead leg	L	strides	21	13	13	13	14		14	15	15	15			133				

**Michishita, Koya (JPN) (1998)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**FINAL - 2016 Japanese National High School Championships (Okayama, JPN)**

Kota (2016) - 69th high school championships: JAF scientific committee- biomechanics data

date	31-Jul-16	time	6.31	10.56	14.80	19.22	23.69		28.28	32.97	37.65	42.43	47.26		52.60	5 / 3			
reaction time	0.168	interval		4.25	4.24	4.42	4.47		4.59	4.69	4.68	4.78	4.83	5.34			12.91	13.75	14.29
		velocity	7.13	8.24	8.25	7.92	7.83		7.63	7.46	7.48	7.32	7.25	7.49	7.60		8.13	7.64	7.35
H1 lead leg		strides		14	14	14	14		15	15	15	15	15		131				

**Mikolajewski, Gabriel (POL) (1999)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**FINAL - 2020 Golden Spike (Ostrava, CZE) (TV Analysis)**

Henson (2020) - Athlete First: 2020 year end hurdle report

date	08-Sep-20	time	6.14	10.04	14.14	18.12			31.13	35.97	40.84				51.42	3 / 6			
reaction time	0.145	interval		3.90	4.10	3.98			13.01	4.84	4.87						11.98	13.01	
		velocity	7.33	8.97	8.54	8.79			8.07	7.23	7.19				7.78		8.76	8.07	
H1 lead leg	L	strides	21	14		14	14					15			78				

Minami, Ren (JPN)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL</b> - 2024 Shimane High School Championships (Izumo, JPN)												Shimizu (2024) - shimane high school championships 2024 - biomechanics data analysis						
date	25-May-24	time	7.08	11.92	16.62	21.33	26.23	31.28	36.40	41.68	47.18	52.98		58.99	5 / 4			
reaction time		interval		4.84	4.70	4.71	4.90	5.05	5.12	5.28	5.50	5.80	6.01			14.25	15.07	16.58
		velocity	6.36	7.23	7.45	7.43	7.14	6.93	6.84	6.63	6.36	6.03	6.66	6.78		7.37	6.97	6.33
H1 lead leg		strides	23	17	15	15	15	15	17	17	17	19	22	192				
Minato, Ozora (JPN) (1997)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL</b> - 2015 Japanese National High School Championships (Wakayama, JPN)												Enomoto (2015) - 68th high school championships: JAF scientific committee- biomechanics data						
date	31-Jul-15	time	6.47	10.53	14.70	18.85	23.16	27.66	32.45	37.60	43.04	48.43		54.55	2 / 8			
reaction time		interval		4.06	4.17	4.15	4.31	4.50	4.79	5.15	5.44	5.39	6.12			12.38	13.60	15.98
		velocity	6.96	8.62	8.39	8.43	8.12	7.78	7.31	6.80	6.43	6.49	6.54	7.33		8.48	7.72	6.57
H1 lead leg		strides		15	15	15	15	17	17	16	17	17	17	144				
Mituyunagi, Haruki (JPN) (2005)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL</b> - 2023 Japanese U20 National Championships (Osaka, JPN)												Kishima (2022) - national high school championships biomechanics data collection						
date	03-Jun-23	time	6.21	10.16	14.16	18.27	22.56	27.03	31.73	36.77	42.14	47.58		53.52	2 / 7			
reaction time	0.234	interval		3.95	4.00	4.11	4.29	4.47	4.70	5.04	5.37	5.44	5.94			12.06	13.46	15.85
		velocity	7.25	8.86	8.75	8.52	8.16	7.83	7.45	6.94	6.52	6.43	6.73	7.47		8.71	7.80	6.62
H1 lead leg	L	strides	21	14	14	14	14	15	15	17	17	17	20	178				
Miyako, Kohei (JPN) (1997)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL</b> - 2019 Japanese National Championships (Fukuoka, JPN)												Yamanaka (2019) - research on athlete performance and technique- 2019 data book						
date	29-Jun-19	time	6.17	10.08	14.20	18.32	22.56	26.96	31.53	36.10	40.82	45.88		51.37	9 / 8			
reaction time	0.149	interval		3.91	4.12	4.12	4.24	4.40	4.57	4.57	4.72	5.06	5.49			12.15	13.21	14.35
		velocity	7.29	8.95	8.50	8.50	8.25	7.95	7.66	7.66	7.42	6.92	7.29	7.79		8.64	7.95	7.32
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	15	157				
Miyamura, Yushi (JPN)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL</b> - 2024 Shimane High School Championships (Izumo, JPN)												Shimizu (2024) - shimane high school championships 2024 - biomechanics data analysis						
date	25-May-24	time	6.88	11.37	15.72	20.18	24.87	29.77	34.87	40.05	45.47	51.22		57.10	6 / 1			
reaction time		interval		4.49	4.35	4.46	4.69	4.90	5.10	5.18	5.42	5.75	5.88			13.30	14.69	16.35
		velocity	6.54	7.80	8.05	7.85	7.46	7.14	6.86	6.76	6.46	6.09	6.80	7.01		7.89	7.15	6.42
H1 lead leg		strides	22	15	15	15	15	15	17	17	17	17	22	187				
<b>FINAL</b> - 2023 Shimane High School Championships (Izumo, JPN)												Shimizu (2023) - shimane high school championships 2023 - biomechanics data analysis						
date	27-May-23	time	6.95	11.53	16.18	21.00	25.88	31.27	36.75	42.30	47.75	53.35		59.11	3 / 4			
reaction time		interval		4.58	4.65	4.82	4.88	5.39	5.48	5.55	5.45	5.60	5.76			14.05	15.75	16.60
		velocity	6.47	7.64	7.53	7.26	7.17	6.49	6.39	6.31	6.42	6.25	6.94	6.77		7.47	6.67	6.33
H1 lead leg		strides	22	15	15	15	15	17	17	17	17	17	22.8	189.8				
Miyazaki, Takumi (JPN) (2001)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL</b> - 2019 Japanese National High School Championships (Okinawa, JPN)												Kota (2019) - 72nd high school championships: JAF scientific committee - biomechanics data						
date	06-Aug-19	time	6.37	10.61	14.96	19.38	23.92	28.60	33.15	37.91	42.80	47.69		53.26	2 / 5			
reaction time		interval		4.24	4.35	4.42	4.54	4.68	4.55	4.76	4.89	4.89	5.57			13.01	13.77	14.54
		velocity	7.06	8.25	8.05	7.92	7.71	7.48	7.69	7.35	7.16	7.16	7.18	7.51		8.07	7.63	7.22
H1 lead leg		strides		15	15	15	15	15	15	15	15	15	15	135				
Miyoshi, Ren (JPN) (1998)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL</b> - 2016 Japanese National High School Championships (Okayama, JPN)												Kota (2016) - 69th high school championships: JAF scientific committee- biomechanics data						
date	31-Jul-16	time	6.33	10.36	14.48	18.72	23.11	27.63	32.33	37.30	42.39	47.60		53.42	6 / 8			
reaction time	0.200	interval		4.03	4.12	4.24	4.39	4.52	4.70	4.97	5.09	5.21	5.82			12.39	13.61	15.27
		velocity	7.11	8.68	8.50	8.25	7.97	7.74	7.45	7.04	6.88	6.72	6.87	7.49		8.47	7.71	6.88
H1 lead leg		strides		15	15	15	15	15	15	17	17	17	17	141				
Mizuguchi, Kai (JPN) (2001)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>B FINAL</b> - 2020 Japanese U20 National Championships (Hiroshima, JPN)												Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season						
date	25-Oct-20	time	6.41	10.64	14.96	19.34	23.89	28.81	34.03	39.37	44.94	50.53		56.84	2 / 4			
reaction time	0.198	interval		4.23	4.32	4.38	4.55	4.92	5.22	5.34	5.57	5.59	6.31			12.93	14.69	16.50
		velocity	7.02	8.27	8.10	7.99	7.69	7.11	6.70	6.55	6.28	6.26	6.34	7.04		8.12	7.15	6.36
H1 lead leg	R	strides	21	14	14	14	14	15	15	15	17	16	155					
Mizuno, Tatsuhiko (JPN) (1990)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL</b> - 2008 Japanese National High School Championships (Kumagaya, JPN)												Abe (2008) - 61st high school championships: JAF scientific committee- biomechanics data						
date	31-Jul-08	time	6.14	10.08	14.20	18.33	22.61	27.12	31.69	36.27	40.96	45.72		51.41	/ 2			
reaction time		interval		3.94	4.12	4.13	4.28	4.51	4.57	4.58	4.69	4.76	5.69			12.19	13.36	14.03
		velocity	7.33	8.88	8.50	8.47	8.18	7.76	7.66	7.64	7.46	7.35	7.03	7.78		8.61	7.86	7.48
H1 lead leg		strides		14	14	14	14	15	15	15	15	15	15	131				
Monreal, Ínigo (ESP) (1974)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>Heat 8</b> - 2000 Olympic Games (Sydney, AUS)												Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games						
date	24-Sep-00	time	6.18	9.94	13.86	17.90	22.02	26.30	30.74	35.58	40.66	45.90		51.32	5 / 4			
reaction time	0.502	interval		3.76	3.92	4.04	4.12	4.28	4.44	4.84	5.08	5.24	5.42			11.72	12.84	15.16
		velocity	7.28	9.31	8.93	8.66	8.50	8.18	7.88	7.23	6.89	6.68	7.38	7.79		8.96	8.18	6.93
H1 lead leg		strides	20	13	13	13	13	13	14	15	15	15	144					

**FINAL - 1998 Spanish National Championships (San Sebastián, ESP)***Ruiz (1998) - campeonato des españa absoluto: análisis de la carreras con villas*

date	02-Aug-98	time	6.00	9.99	14.04	18.19	22.47	26.95	31.27	35.78	40.41	44.99	50.49	6 / 1			
reaction time		interval		3.99	4.05	4.15	4.28	4.48	4.32	4.51	4.63	4.58	5.50		12.19	13.08	13.72
		velocity	7.50	8.77	8.64	8.43	8.18	7.81	8.10	7.76	7.56	7.64	7.27	7.92	8.61	8.03	7.65
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	14	14	17	156			

**Monteiro, Edivaldo (POR) (1976)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****Heat 3 - 2002 European Championships (Munich, GER)***Graubner (2009) - http://www.fgs.uni-halle.de*

date	07-Aug-02	time	6.20	10.17	14.07	17.96	22.05	26.31	30.64	36.24	39.81	44.44	49.64	/ 2			
reaction time		interval		3.97	3.90	3.89	4.09	4.26	4.33	5.60	3.57	4.63	5.20		11.76	12.68	13.80
		velocity	7.26	8.82	8.97	9.00	8.56	8.22	8.08	6.25	9.80	7.56	7.69	8.06	8.93	8.28	7.61
H1 lead leg		strides															

**Moore, Charlie (USA) (1929)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 1952 Olympic Games (Helsinki, FIN)***Mitchell (1967) - future of the one-lap hurdles*

date	21-Jul-52	time	6.2	10.3	14.4	18.6	22.7	27.3	31.9	36.5	41.1	45.4	50.8	6 / 1				
reaction time		interval		4.10	4.10	4.20	4.10	4.60	4.60	4.60	4.60	4.30	5.40	=OR	12.40	13.30	13.50	
		velocity	7.26	8.54	8.54	8.33	8.54	7.61	7.61	7.61	7.61	8.14	7.41	7.87	(51.06)	8.47	7.89	7.78
H1 lead leg		strides																

**Moritaka, Sojiro (JPN) (2003)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2022 Japanese U20 National Championships (Osaka, JPN)***Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season*

date	11-Jun-22	time	6.11	10.13	14.20	18.35	22.56	26.92	31.40	36.02	40.61	45.38	50.71	8 / 2			
reaction time	0.216	interval		4.02	4.07	4.15	4.21	4.36	4.48	4.62	4.59	4.77	5.33	PB	12.24	13.05	13.98
		velocity	7.36	8.71	8.60	8.43	8.31	8.03	7.81	7.58	7.63	7.34	7.50	7.89	8.58	8.05	7.51
H1 lead leg	R	strides	22	14	14	14	14	15	15	15	15	16	20	174			

**Morale, Salvatore (ITA) (1938)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 1964 Olympic Games (Tokyo, JPN)***Breitschaft (1965) - die leichtathletik wettkampfe der 1964 olympischen sommerspielen - 400m hürdenlauf*

date	16-Oct-64	time	5.8		13.8		22.0		30.8		40.0		50.1	8 / 3			
reaction time		interval			8.00		8.20		8.80		9.20		10.10				
		velocity	7.76		8.75		8.54		7.95		7.61		7.43	7.98			
H1 lead leg		strides															

**FINAL - 1962 European Championships (Belgrad, YUG)***Nett (1964) - Training des leichtathleten: Hürdenlauf, sprung, wurf, mehrkampf*

date	14-Sep-62	time	6.0	9.9	14.0	18.0	22.1	26.4	30.8	35.2	39.5	44.1	49.2	/ 1			
reaction time		interval		3.90	4.10	4.00	4.10	4.30	4.40	4.40	4.30	4.60	5.10	=WR	12.00	12.80	13.30
		velocity	7.50	8.97	8.54	8.75	8.54	8.14	7.95	7.95	8.14	7.61	7.84	8.13	8.75	8.20	7.89
H1 lead leg		strides															

**FINAL - 1961 International Fall Meeting (Rome, ITA)***Nett (1964) - Training des leichtathleten: Hürdenlauf, sprung, wurf, mehrkampf*

date	15-Oct-61	time	5.8	9.8	13.8	17.8	21.8	23.4	26.0	30.2	34.6	39.6	44.4	49.7	6 / 1				
reaction time		interval		4.00	4.00	4.00	4.00	4.20	4.20	4.40	5.00	4.80	5.30	AR	12.00	12.40	14.20		
		velocity	7.76	8.75	8.75	8.75	8.75	8.55	8.33	8.33	7.95	7.00	7.29	7.55	8.05	(50.1y)	8.75	8.47	7.39
H1 lead leg		strides																	

**FINAL - 1961 Universiade (Sofia, BUL)***Nett (1964) - Training des leichtathleten: Hürdenlauf, sprung, wurf, mehrkampf*

date	01-Sep-61	time	5.8	9.8	13.9	18.2	22.5	26.8	31.1	35.5	40.0	44.7	50.0	/ 1			
reaction time		interval		4.00	4.10	4.30	4.30	4.30	4.30	4.40	4.50	4.70	5.30	NR	12.40	12.90	13.60
		velocity	7.76	8.75	8.54	8.14	8.14	8.14	8.14	7.95	7.78	7.45	7.55	8.00	8.47	8.14	7.72
H1 lead leg		strides															

**Morgan, Dinsdale (JAM) (1972)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****Semi-Final 3 - 2000 Olympic Games (Sydney, AUS)***Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games*

date	25-Sep-00	time	5.86	9.54	13.34	17.30	21.42	23.02	25.70	30.02	34.70	39.46	44.42	50.23	2 / 7			
reaction time	0.166	interval		3.68	3.80	3.96	4.12	4.28	4.32	4.68	4.76	4.96	5.81		11.44	12.72	14.40	
		velocity	7.68	9.51	9.21	8.84	8.50	8.69	8.18	8.10	7.48	7.35	7.06	6.88	7.96	9.18	8.25	7.29
H1 lead leg		strides	22	14	14	14	14	14	14	15	15	15	16	19	172			

**Heat 3 - 2000 Olympic Games (Sydney, AUS)***Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games*

date	24-Sep-00	time	5.90	9.66	13.54	17.54	21.66	25.94	30.34	34.86	39.42	44.14	49.64	6 / 2			
reaction time	0.171	interval		3.76	3.88	4.00	4.12	4.28	4.40	4.52	4.56	4.72	5.50		11.64	12.80	13.80
		velocity	7.63	9.31	9.02	8.75	8.50	8.18	7.95	7.74	7.68	7.42	7.27	8.06	9.02	8.20	7.61
H1 lead leg		strides	22	14	14	14	14	15	15	15	15	15	18.5	171.5			

**FINAL - 1999 IAAF World Championships (Sevilla, ESP)***Sanchez (1999) - Sevilla '99: análisis de la carreras con villas*

date	27-Aug-99	time	5.46	9.27	12.98	16.90	20.94	25.07	29.42	33.81	38.33	43.09	48.92	2 / 7			
reaction time	0.164	interval		3.81	3.71	3.92	4.04	4.13	4.35	4.39	4.52	4.76	5.83		11.44	12.52	13.67
		velocity	8.24	9.19	9.43	8.93	8.66	8.47	8.05	7.97	7.74	7.35	6.86	8.18	9.18	8.39	7.68
H1 lead leg	L	strides	22	14	14	14	14	14	15	15	15	16	18.5	171.5			

**Semi-Final 2 - 1999 IAAF World Championships (Sevilla, ESP)***Sanchez (1999) - Sevilla '99: análisis de la carreras con villas*

date	25-Aug-99	time	5.58	9.34	13.14	17.06	21.17	25.30	29.62	34.05	38.45	43.12	48.71	3 / 5			
reaction time	0.179	interval		3.76	3.80	3.92	4.11	4.13	4.32	4.43	4.40	4.67	5.59		11.48	12.56	13.50
		velocity	8.06	9.31	9.21	8.93	8.52	8.47	8.10	7.90	7.95	7.49	7.16	8.21	9.15	8.36	7.78
H1 lead leg	L	strides	22	14	14	14	14	14	14	15	15	15	18.5	169.5			



**FINAL - 1997 IAAF World Championships (Athens, GRE)***Hommel (1999) - biomechanical research project, athens 1997: final report*

date	04-Aug-97	time	5.96	9.68	13.52	17.45	21.48	25.56	29.86	34.32	38.96	43.70	49.06	7 / 7				
reaction time	0.152	interval		3.72	3.84	3.93	4.03	4.08	4.30	4.46	4.64	4.74	5.36		11.49	12.41	13.84	
		velocity	7.55	9.41	9.11	8.91	8.68	8.58	8.14	7.85	7.54	7.38	7.46	8.15	9.14	8.46	7.59	
H1 lead leg		strides																

**Mori, Fabrizio (ITA) (1969)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**  
*Graubner (2009) - http://www.fgs.uni-halle.de***FINAL - 2002 European Championships (Munich, GER)**

date	09-Aug-02	time	6.24	10.16	14.14	18.20	22.22	26.36	30.64	35.02	39.42	43.88	49.05	4			
reaction time	0.133	interval		3.92	3.98	4.06	4.02	4.14	4.28	4.38	4.40	4.46	5.17		11.96	12.44	13.24
		velocity	7.21	8.93	8.79	8.62	8.71	8.45	8.18	7.99	7.95	7.85	7.74	8.15	8.78	8.44	7.93
H1 lead leg		strides															

**Semi-Final 1 - 2002 European Championships (Munich, GER)***Graubner (2009) - http://www.fgs.uni-halle.de*

date	08-Aug-02	time	6.17	9.99	13.82	17.66	21.65	25.77	30.16	34.37	38.83	43.43	48.70	3			
reaction time		interval		3.82	3.83	3.84	3.99	4.12	4.39	4.21	4.46	4.60	5.27		11.49	12.50	13.27
		velocity	7.29	9.16	9.14	9.11	8.77	8.50	7.97	8.31	7.85	7.61	7.59	8.21	9.14	8.40	7.91
H1 lead leg		strides															

**Heat 1 - 2002 European Championships (Munich, GER)***Graubner (2009) - http://www.fgs.uni-halle.de*

date	07-Aug-02	time	6.37	10.33	14.29	18.25	22.28	26.41	30.85	35.82	39.49	43.99	49.20	2			
reaction time		interval		3.96	3.96	3.96	4.03	4.13	4.44	4.97	3.67	4.50	5.21		11.88	12.60	13.14
		velocity	7.06	8.84	8.84	8.84	8.68	8.47	7.88	7.04	9.54	7.78	7.68	8.13	8.84	8.33	7.99
H1 lead leg		strides															

**FINAL - 2001 IAAF World Championships (Edmonton, CAN)***Behm (2001) - Edmonton: Le quatrache: les finales*

date	10-Aug-01	time	5.9	9.7	13.5	17.3	21.2	25.2	29.3	33.6	36.9	42.3	47.54	4 / 2				
reaction time	0.158	interval		3.80	3.80	3.80	3.90	4.00	4.10	4.30	3.30	5.40	5.24		NR / PB	11.40	12.00	13.00
		velocity	7.63	9.21	9.21	9.21	8.97	8.75	8.54	8.14	10.61	6.48	7.63	8.41	9.21	8.75	8.08	
H1 lead leg	L	strides	22	14	14	14	14	14	14	15	15	15	19	170				

**FINAL - 2001 European Cup (Bremen, GER)***Graubner (2007) - http://www.fgs.uni-halle.de*

date	23-Jun-01	time	6.13	9.95	13.76	17.72	21.71	25.70	30.00	34.34	38.80	43.30	49.39	1			
reaction time		interval		3.82	3.81	3.96	3.99	3.99	4.30	4.34	4.46	4.50	6.09		11.59	12.28	13.30
		velocity	7.34	9.16	9.19	8.84	8.77	8.77	8.14	8.06	7.85	7.78	6.57	8.10	9.06	8.55	7.89
H1 lead leg		strides															

**FINAL - 2000 Olympic Games (Sydney, AUS)***Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games*

date	27-Sep-00	time	6.10	9.94	13.66	17.46	21.46	22.90	25.54	29.70	34.06	38.54	43.22	48.78	3 / 7			
reaction time	0.198	interval		3.84	3.72	3.80	4.00	4.08	4.16	4.36	4.48	4.68	5.56		11.36	12.24	13.52	
		velocity	7.38	9.11	9.41	9.21	8.75	8.73	8.58	8.41	8.03	7.81	7.48	7.19	9.24	8.58	7.77	
H1 lead leg		strides	22	14	14	14	14	14	14	15	15	15	18.5	169.5				

**Semi-Final 1 - 2000 Olympic Games (Sydney, AUS)***Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games*

date	25-Sep-00	time	6.14	10.10	13.90	17.82	21.82	23.42	25.98	30.14	34.50	38.90	43.34	48.40	4 / 2			
reaction time		interval		3.96	3.80	3.92	4.00	4.16	4.16	4.36	4.40	4.44	5.06		11.68	12.32	13.20	
		velocity	7.33	8.84	9.21	8.93	8.75	8.54	8.41	8.41	8.03	7.95	7.88	7.91	8.26	8.99	8.52	7.95
H1 lead leg		strides	22	14	14	14	14	14	14	15	15	15	19	170				

**Heat 2 - 2000 Olympic Games (Sydney, AUS)***Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games*

date	24-Sep-00	time	6.22	10.06	13.94	17.86	21.94	26.06		34.86	39.38	43.98	49.35	5 / 1			
reaction time	0.162	interval		3.84	3.88	3.92	4.08	4.12		8.05	4.52	4.60	5.37		11.64		
		velocity	7.23	9.11	9.02	8.93	8.58	8.50		8.70	7.74	7.61	7.45	8.11	9.02		
H1 lead leg		strides	22	14	14	14	14	14	14	15	15	15	18.3	169.3			

**FINAL - 1999 IAAF World Championships (Sevilla, ESP)***Sanchez (1999) - Sevilla '99: análisis de la carreras con villas*

date	27-Aug-99	time	5.62	9.36	13.12	16.96	20.89	24.92	29.06	33.34	37.68	42.16	47.72	3 / 1				
reaction time	0.157	interval		3.74	3.76	3.84	3.93	4.03	4.14	4.28	4.34	4.48	5.56		NR PB	11.34	12.10	13.10
		velocity	8.01	9.36	9.31	9.11	8.91	8.68	8.45	8.18	8.06	7.81	7.19	8.38	9.26	8.68	8.02	
H1 lead leg	L	strides	22	14	14	14	14	14	14	15	15	15	18	169				

**Semi-Final 2 - 1999 IAAF World Championships (Sevilla, ESP)***Sanchez (1999) - Sevilla '99: análisis de la carreras con villas*

date	25-Aug-99	time	5.78	9.51	13.31	17.21	21.10	25.14	29.39	33.74	38.12	42.64	48.29	5 / 2			
reaction time	0.164	interval		3.73	3.80	3.90	3.89	4.04	4.25	4.35	4.38	4.52	5.65		11.43	12.18	13.25
		velocity	7.79	9.38	9.21	8.97	9.00	8.66	8.24	8.05	7.99	7.74	7.08	8.28	9.19	8.62	7.92
H1 lead leg	L	strides	22	14	14	14	14	14	14	15	15	15	18	169			

**Heat 3 - 1999 IAAF World Championships (Sevilla, ESP)***Sanchez (1999) - Sevilla '99: análisis de la carreras con villas*

date	24-Aug-99	time	5.96	9.84	13.78	17.68	21.72	25.92	30.22	34.70	39.11	43.59	49.07	6 / 1			
reaction time	0.152	interval		3.88	3.94	3.90	4.04	4.20	4.30	4.48	4.41	4.48	5.48		11.72	12.54	13.37
		velocity	7.55	9.02	8.88	8.97	8.66	8.33	8.14	7.81	7.94	7.81	7.30	8.15	8.96	8.37	7.85
H1 lead leg	L	strides	22	14	14	14	14	14	14	15	15	15	18	169			

**FINAL - 1998 European Championships (Budapest, HUN)***Behm (1998) - analyse et commentaries: le 400m haies: Pavel la surprise!*

date	20-Aug-98	time	6.2	10.3	14.2	18.1	22.2	26.3	30.4	34.6	38.9	43.4	48.71	7 / 3			
reaction time		interval		4.1	3.9	3.9	4.1	4.1	4.1	4.2	4.3	4.5	5.31		11.90	12.30	13.00
		velocity	7.26	8.54	8.97	8.97	8.54	8.54	8.54	8.33	8.14	7.78	7.53	8.21	8.82	8.54	8.08

H1 lead leg L strides 22 14 14 14 14 14 14 14 15 15 15 18.5 169.5

**FINAL - 1997 IAAF World Championships (Athens, GRE)***Hommel (1999) - biomechanical research project, athens 1997: final report*

date 04-Aug-97 time 6.14 10.02 13.78 17.72 21.72 25.85 30.04 34.40 38.78 43.18 48.05 4 / 4  
 reaction time 0.156 interval 3.88 3.76 3.94 4.00 4.13 4.19 4.36 4.38 4.40 4.87 **NR** 11.58 12.32 13.14  
 velocity 7.33 9.02 9.31 8.88 8.75 8.47 8.35 8.03 7.99 7.95 8.21 8.32 9.07 8.52 7.99  
 H1 lead leg strides

**FINAL - 1997 European Cup (Munich, GER)***Jung (2003) - http://www.fgs.uni-halle.de*

date 21-Jun-97 time 6.22 10.15 14.12 18.24 22.36 26.67 31.00 35.34 39.71 44.11 48.93 / 1  
 reaction time interval 3.93 3.97 4.12 4.12 4.31 4.33 4.34 4.37 4.40 4.82 12.02 12.76 13.11  
 velocity 7.23 8.91 8.82 8.50 8.50 8.12 8.08 8.06 8.01 7.95 8.30 8.17 8.74 8.23 8.01  
 H1 lead leg strides

**FINAL - 1996 Olympic Games (Atlanta, GA)***Behm (1996) - 400m haies*

date 01-Aug-96 time 6.0 10.0 14.0 17.9 21.9 26.0 30.1 34.4 38.8 43.4 48.41 7 / 6  
 reaction time 0.192 interval 4.00 4.00 3.90 4.00 4.10 4.10 4.30 4.40 4.60 5.01 11.90 12.20 13.30  
 velocity 7.50 8.75 8.75 8.97 8.75 8.54 8.54 8.14 7.95 7.61 7.98 8.26 8.82 8.61 7.89  
 H1 lead leg strides 21 14 14 14 14 14 14 15 15 15 150

**FINAL - 1991 European Cup (Frankfurt, GER)***Federle (2003) - http://www.fgs.uni-halle.de*

date 29-Jun-91 time 6.43 10.33 14.28 18.27 22.35 26.60 31.01 35.38 40.01 44.65 49.76 / 3  
 reaction time interval 3.90 3.95 3.99 4.08 4.25 4.41 4.37 4.63 4.64 5.11 11.84 12.74 13.64  
 velocity 7.00 8.97 8.86 8.77 8.58 8.24 7.94 8.01 7.56 7.54 7.83 8.04 8.87 8.24 7.70  
 H1 lead leg strides

**Moriki, Hiroto (JPN)**

**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**  
*Shimizu (2022) - shimane high school championships 2022 - biomechanics data analysis*

**FINAL - 2022 Shimane High School Championships (Izumo, JPN)**  
 date 27-May-22 time 6.55 10.70 14.87 19.00 23.28 27.95 32.92 38.07 43.17 48.38 54.42 7 / 1  
 reaction time interval 4.15 4.17 4.13 4.28 4.67 4.97 5.15 5.10 5.21 6.04 12.45 13.92 15.46  
 velocity 6.87 8.43 8.39 8.47 8.18 7.49 7.04 6.80 6.86 6.72 6.62 7.35 8.43 7.54 6.79  
 H1 lead leg strides 22 15 15 15 15 15 17 17 17 17 20.7 185.7

**FINAL - 2021 Shimane High School Championships (Izumo, JPN)***Shimizu (2021) - shimane high school championships 2021 - biomechanics data analysis*

date 29-May-21 time 6.93 11.47 16.10 20.78 25.63 30.53 35.63 40.80 46.05 51.32 57.17 5 / 2  
 reaction time interval 4.54 4.63 4.68 4.85 4.90 5.10 5.17 5.25 5.27 5.85 13.85 14.85 15.69  
 velocity 6.49 7.71 7.56 7.48 7.22 7.14 6.86 6.77 6.67 6.64 6.84 7.00 7.58 7.07 6.69  
 H1 lead leg strides 22 15 15 15 15 15 17 17 17 17 20.3 185.3

**Morioka, Yuuki (JPN) (2003)**

**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**  
*Wamari (2023) - race analysis of men's and women's 400m hurdles in the 2022 season*

**FINAL - 2022 Japanese U20 National Championships (Osaka, JPN)**  
 date 11-Jun-22 time 6.36 10.41 14.51 18.77 23.10 27.48 32.00 36.74 41.39 46.15 51.43 5 / 5  
 reaction time 0.208 interval 4.05 4.10 4.26 4.33 4.38 4.52 4.74 4.65 4.76 5.28 12.41 13.23 14.15  
 velocity 7.08 8.64 8.54 8.22 8.08 7.99 7.74 7.38 7.53 7.35 7.58 7.78 8.46 7.94 7.42  
 H1 lead leg R strides 22 14 14 14 14 14 14 14 15 15 15 18.7 169.7

**FINAL - 2021 Japanese High School National Championships (Fukui, JPN)***Shibayama (2021) - national high school and U20 national championships*

date 30-Jul-21 time 6.37 10.64 15.18 19.65 24.27 28.95 33.65 38.41 43.16 47.95 53.10 7 / 4  
 reaction time 0.154 interval 4.27 4.54 4.47 4.62 4.68 4.70 4.76 4.75 4.79 5.15 13.28 14.00 14.30  
 velocity 7.06 8.20 7.71 7.83 7.58 7.48 7.45 7.35 7.37 7.31 7.77 7.53 7.91 7.50 7.34  
 H1 lead leg strides 14 15 14 15 15 15 15 15 15 15 133

**Morita, Mitsunori (JPN)**

**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**  
*Shimizu (2020) - shimane high school championships 2020 - biomechanics data analysis*

**FINAL - 2020 Shimane High School Championships (Izumo, JPN)**  
 date 12-Jul-20 time 6.45 10.75 15.08 19.47 23.95 28.50 33.23 38.18 43.60 49.10 55.31 5 / 1  
 reaction time interval 4.30 4.33 4.39 4.48 4.55 4.73 4.95 5.42 5.50 6.21 13.02 13.76 15.87  
 velocity 6.98 8.14 8.08 7.97 7.81 7.69 7.40 7.07 6.46 6.36 6.44 7.23 8.06 7.63 6.62  
 H1 lead leg strides 22 15 15 15 15 15 15 15 15 17 17 21 182

**FINAL - 2019 Shimane High School Championships (Izumo, JPN)***Shimizu (2019) - shimane high school championships 2019 - biomechanics data analysis*

date 25-May-19 time 6.57 11.04 15.66 20.46 25.28 30.28 35.55 41.42 46.86 52.43 58.05 7 / 6  
 reaction time interval 4.47 4.62 4.80 4.82 5.00 5.27 5.87 5.44 5.57 5.62 13.89 15.09 16.88  
 velocity 6.85 7.83 7.58 7.29 7.26 7.00 6.64 5.96 6.43 6.28 7.12 6.89 7.56 6.96 6.22  
 H1 lead leg strides 21 15 15 15 15 15 16 18 17 17 20 184

**Moritaka, Sojiro (JPN) (2003)**

**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**  
*Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season*

**FINAL - 2020 Japanese High School National Championships (Hiroshima, JPN)**  
 date 25-Oct-20 time 6.07 10.11 14.21 18.40 22.67 27.14 31.85 36.60 41.64 46.71 52.41 7 / 3  
 reaction time 0.164 interval 4.04 4.10 4.19 4.27 4.47 4.71 4.75 5.04 5.07 5.70 12.33 13.45 14.86  
 velocity 7.41 8.66 8.54 8.35 8.20 7.83 7.43 7.37 6.94 6.90 7.02 7.63 8.52 7.81 7.07  
 H1 lead leg R strides 21 14 14 14 14 15 15 15 16 16 19.7 173.7

**Mörö, Oskari (FIN) (1993)**

**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**  
*Henson (2020) - Athlete First: 2016 year end hurdle report*

**FINAL - 2016 Athletissime (Laussane, SUI) (TV Analysis)**  
 date 25-Aug-16 time 6.00 9.83 13.86 17.86 21.96 26.26 30.60 35.06 39.63 44.33 49.81 2 / 4  
 reaction time 0.129 interval 3.83 4.03 4.00 4.10 4.30 4.34 4.46 4.57 4.70 5.48 11.86 12.74 13.73  
 velocity 7.50 9.14 8.68 8.75 8.54 8.14 8.06 7.85 7.66 7.45 7.30 8.03 8.85 8.24 7.65

H1 lead leg	L	strides	21	14	14	13	13	14	14	15	15	15	18	166
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**FINAL - 2016 European Championships (Amsterdam, NED) (TV Analysis)***Henson (2020) - Athlete First: 2016 year end hurdle report*

date	08-Jul-16	time	6.04	9.84	13.68	17.64	21.68	25.92	30.16	34.60	39.24	43.92	49.24	7 / 4	11.60	12.52	13.76
reaction time	0.155	interval		3.80	3.84	3.96	4.04	4.24	4.24	4.44	4.64	4.68	5.32		9.05	8.39	7.63
		velocity	7.45	9.21	9.11	8.84	8.66	8.25	8.25	7.88	7.54	7.48	7.52	8.12			
H1 lead leg	L	strides	21	14	14	13	13	14	14	15	15	15	18.2	152.2			

**FINAL - 2014 European Championships (Zurich, SUI)***Green (2015) - twitter.com/jackpgreen (from Behm?)*

date	15-Aug-14	time	6.10	9.86	13.70	17.78	21.90	26.18	30.54	35.02	39.74	44.62	50.14	/ 8	11.68	12.76	14.08
reaction time	0.149	interval		3.76	3.84	4.08	4.12	4.28	4.36	4.48	4.72	4.88	5.52		8.99	8.23	7.46
		velocity	7.38	9.31	9.11	8.58	8.50	8.18	8.03	7.81	7.42	7.17	7.25	7.98			
H1 lead leg	R	strides		13	13	13	13	14	14	14	14	15	123				

**Moses, Edwin (USA) (1955)**

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
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**FINAL - 1988 Olympic Games (Seoul, KOR)***Gill (1990) - atletismo (I) carreras y marcha*

date	25-Sep-88	time	5.89	9.56	13.32	17.16	21.00	25.01	29.08	33.26	37.60	42.19	47.56	3 / 3	11.27	11.92	13.11
reaction time	0.209	interval		3.67	3.76	3.84	3.84	4.01	4.07	4.18	4.34	4.59	5.37		9.32	8.81	8.01
		velocity	7.64	9.54	9.31	9.11	9.11	8.73	8.60	8.37	8.06	7.63	7.45	8.41			
H1 lead leg	L	strides	19	13	13	13	13	13	13	13	13	13	16.5	152.5			

**Semi-Final 1 - 1988 Olympic Games (Seoul, KOR)***Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988*

date	24-Sep-88	time	5.95	9.72	13.68	17.64	21.60	25.65	29.78	33.94	38.35	42.79	47.89	3 / 1	11.69	12.14	13.01
reaction time		interval		3.77	3.96	3.96	3.96	4.05	4.13	4.16	4.41	4.44	5.10		8.98	8.65	8.07
		velocity	7.56	9.28	8.84	8.84	8.84	8.64	8.47	8.41	7.94	7.88	7.84	8.35			
H1 lead leg		strides	19.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	16.50	152.50			

**FINAL - 1987 IAAF World Championships (Rome, ITA)***Sušanka (1990) - time analysis of the 400m hurdles - Rome 1987 Scientific Report (2nd ed)*

date	01-Sep-87	time	5.82	9.49	13.21	16.97	20.73	24.58	28.58	32.89	37.42	42.15	47.46	3 / 1	11.15	11.61	13.57
reaction time		interval		3.67	3.72	3.76	3.76	3.85	4.00	4.31	4.53	4.73	5.31	CR	9.42	9.04	7.74
		velocity	7.73	9.54	9.41	9.31	9.31	9.09	8.75	8.12	7.73	7.40	7.53	8.43			
H1 lead leg	L	strides	19	13	13	13	13	13	13	13	13	13	16.7	152.7			

**Semi-Final 2 - 1987 IAAF World Championships (Rome, ITA)***Sušanka (1990) - time analysis of the 400m hurdles - Rome 1987 Scientific Report (2nd ed)*

date	31-Aug-87	time	5.92	9.61	13.37	17.17	21.14	25.26	29.47	33.82	38.37	43.07	48.38	6 / 1	11.25	12.30	13.60
reaction time		interval		3.69	3.76	3.80	3.97	4.12	4.21	4.35	4.55	4.70	5.31		9.33	8.54	7.72
		velocity	7.60	9.49	9.31	9.21	8.82	8.50	8.31	8.05	7.69	7.45	7.53	8.27			
H1 lead leg	L	strides	19	13	13	13	13	13	13	13	13	13	16	152			

**Heat 1 - 1987 IAAF World Championships (Rome, ITA)***Sušanka (1990) - time analysis of the 400m hurdles - Rome 1987 Scientific Report (2nd ed)*

date	30-Aug-87	time	5.90	9.75	13.69	17.62	21.68	25.77	30.07	34.44	38.96	43.60	49.03	2 / 1	11.72	12.45	13.53
reaction time		interval		3.85	3.94	3.93	4.06	4.09	4.30	4.37	4.52	4.64	5.43		8.96	8.43	7.76
		velocity	7.63	9.09	8.88	8.91	8.62	8.56	8.14	8.01	7.74	7.54	7.37	8.16			
H1 lead leg	L	strides	19	13	13	13	13	13	13	13	13	13	15.8	151.8			

**FINAL - 1987 Meeting BNP D'Atletisme (Paris, FRA)***Behm (1988) - 45-39*

date	16-Jul-87	time	5.8	9.4	13.0	16.7	20.4	24.3	28.4	32.8	37.7		dnf	/ --	10.90	11.76	
reaction time		interval		3.62	3.61	3.67	3.72	3.89	4.15	4.36	4.97		fell		9.63	8.93	
		velocity	7.83	9.67	9.70	9.54	9.41	9.00	8.43	8.03	7.04						
H1 lead leg		strides															

**FINAL - 1984 Olympic Games (Los Angeles, CA)***Behm (1995) - la tactique du 400 haies*

date	05-Aug-84	time	5.8	9.5	13.3	17.2	21.1	25.1	29.2	33.4	37.7	42.4	47.75	6 / 1	11.40	12.00	13.20
reaction time	0.193	interval		3.70	3.80	3.90	3.90	4.00	4.10	4.20	4.30	4.70	5.35		9.21	8.75	7.95
		velocity	7.76	9.46	9.21	8.97	8.97	8.75	8.54	8.33	8.14	7.45	7.48	8.38			
H1 lead leg	L	strides	19	13	13	13	13	13	13	13	13	13	16.2	152.2			

**FINAL - 1983 Internationale Leichtathletiksportfest (Koblenz, FRG)***Arnold (1992) - Hurdling*

date	31-Aug-83	time	5.9	9.6	13.4	17.1	21.0	22.7	24.9	29.0	33.1	37.4	41.9	47.02	/ 1	11.20	11.90	12.90
reaction time		interval		3.70	3.80	3.70	3.90	3.90	3.90	4.10	4.10	4.30	4.50	5.12	WR	9.38	8.82	8.14
		velocity	7.63	9.46	9.21	9.46	8.97	8.81	8.97	8.54	8.54	8.14	7.78	7.81	8.51			
H1 lead leg	L	strides	19	13	13	13	13	13	13	13	13	13	16	152				

**FINAL - 1983 IAAF World Championships (Rome, ITA)***McFarlane (1988) - The Science of Hurdling*

date	09-Aug-83	time	5.58	9.29	13.21	16.79	20.71	24.63	28.80	32.97	37.43	41.97	47.50	2 / 1	11.21	12.01	13.17
reaction time		interval		3.71	3.92	3.58	3.92	3.92	4.17	4.17	4.46	4.54	5.53	CR	9.37	8.74	7.97
		velocity	8.06	9.43	8.93	9.78	8.93	8.93	8.39	8.39	7.85	7.71	7.23	8.42			
H1 lead leg	L	strides	19	13	13	13	13	13	13	13	13	13	15.7	151.7			

**Semi-Final 1 - 1983 IAAF World Championships (Rome, ITA)***Lyle - miscellaneous coaching notes*

date	08-Aug-83	time	5.59	9.38	13.30	17.18	21.03	25.01	29.16	33.50	37.91	42.32	48.11	1 / 1	11.59	11.98	13.16
reaction time		interval		3.79	3.92	3.88	3.85	3.98	4.15	4.34	4.41	4.41	5.79		9.06	8.76	7.98
		velocity	8.05	9.23	8.93	9.02	9.09	8.79	8.43	8.06	7.94	7.94	6.91	8.31			
H1 lead leg	L	strides	19	13	13	13	13	13	13	13	13	13	15.5	151.5			

**FINAL - 1981 ISTAF (West Berlin, FRG)***Behm (1988) - 45-39*

date	21-Aug-81	time	5.7	9.4	13.3	17.1	20.9	24.9	29.0	33.3	37.7	42.1	47.27	/ 1			
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reaction time	interval	3.70	3.90	3.80	3.80		4.00	4.10	4.30	4.40	4.40	5.17		11.40	11.90	13.10		
	velocity	7.89	9.46	8.97	9.21	9.21	8.75	8.54	8.14	7.95	7.95	7.74	8.46	9.21	8.82	8.02		
H1 lead leg	strides		13	12	12	13	13	13	13	13	13		115					
<b>FINAL - 1981 Weltklasse (Zurich, SUI)</b>													<i>Behm (1988) - 45-39</i>					
date	19-Aug-81	time	5.7	9.4	13.1	16.8	20.7	24.7	28.9	33.1	37.7	42.3	47.64	/ 1				
reaction time		interval	3.70	3.70	3.70	3.90	4.00	4.20	4.20	4.60	4.60	5.34		11.10	12.10	13.40		
		velocity	7.89	9.46	9.46	9.46	8.97	8.75	8.33	8.33	7.61	7.61	7.49	8.40	9.46	8.68	7.84	
H1 lead leg		strides	12	12	12	12	13	13	13	13	13	13	113					
<b>FINAL - 1980 Mario Lanzi Memorial (Milan, ITA)</b>													<i>Behm (1995) - la tactique du 400 haies</i>					
date	03-Jul-80	time	5.7	9.4	13.2	17.0	20.9	24.7	28.6	32.8	37.2	41.7	47.13	6 / 1				
reaction time		interval	3.70	3.80	3.80	3.90	3.80	3.90	4.20	4.40	4.50	5.43	WR	11.30	11.60	13.10		
		velocity	7.89	9.46	9.21	9.21	8.97	9.21	8.97	8.33	7.95	7.78	7.37	8.49	9.29	9.05	8.02	
H1 lead leg	L	strides	13	13	13	13	13	13	13	13	13	15.7	132.7					
<b>FINAL - 1976 Olympic Games (Montreal, CAN)</b>													<i>McFarlane (1981) - understanding the 400m hurdles (in Jarver (ed) - the hurdles, 1981)</i>					
date	25-Jul-76	time	6.0	9.8	13.6	17.5	21.4	23.1	25.5	29.6	33.9	38.2	42.7	47.64	4 / 1			
reaction time		interval	3.80	3.80	3.90	3.90	4.10	4.10	4.30	4.30	4.50	4.94	WR	11.50	12.10	13.10		
		velocity	7.50	9.21	9.21	8.97	8.97	8.66	8.54	8.54	8.14	8.14	7.78	8.10	9.13	8.68	8.02	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	13	16	153					
<b>Motima, Satoshi (JPN)</b>																		
<b>FINAL - 2018 Japanese National High School Championships (Nagoya, JPN)</b>																		
date	04-Aug-18	time	6.21	10.24	14.40	18.57	22.92	27.43	31.93	36.54	41.21	46.15	51.66	8 / 3				
reaction time		interval	4.03	4.16	4.17	4.35	4.51	4.50	4.61	4.67	4.94	5.51	PB	12.36	13.36	14.22		
		velocity	7.25	8.68	8.41	8.39	8.05	7.76	7.78	7.59	7.49	7.09	7.26	7.74	8.50	7.86	7.38	
H1 lead leg		strides	15	15	15	15	15	15	15	15	15	16	136					
<b>Moumoulidis, Konstadinos (GRE) (1)</b>																		
<b>FINAL - 1997 European Cup (Munich, GER)</b>																		
date	21-Jun-97	time	6.22	10.13	14.10	18.19	22.42	26.81	31.29	36.04	41.03	46.20	52.01	/ 6				
reaction time		interval	3.91	3.97	4.09	4.23	4.39	4.48	4.75	4.99	5.17	5.81		11.97	13.10	14.91		
		velocity	7.23	8.95	8.82	8.56	8.27	7.97	7.81	7.37	7.01	6.77	6.88	7.69	8.77	8.02	7.04	
H1 lead leg		strides																
<b>Mowatt, Kemar (JAM) (1995)</b>																		
<b>Semi-Final 3 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)</b>																		
date	17-Jul-22	time	5.76	9.33	13.17	16.86	20.77	22.53	29.20	33.73	38.40	43.10	48.59	4 / 4				
reaction time	0.143	interval	3.57	3.84	3.69	3.91			8.43	4.53	4.67	4.70	5.49		11.10	12.34	13.90	
		velocity	7.81	9.80	9.11	9.49	8.95	8.88	8.30	7.73	7.49	7.45	7.29	8.23	9.46	8.51	7.55	
H1 lead leg	L	strides	21	13	13	13	13		15	15	15	18	136					
<b>Heat 2 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)</b>																		
date	16-Jul-22	time	5.90	9.67	13.53	17.53	21.67	23.51	25.97	30.37	34.93	39.53	44.17	49.44	7 / 2			
reaction time	0.146	interval	3.77	3.86	4.00	4.14			4.30	4.40	4.56	4.60	4.64	5.27		11.63	12.84	
		velocity	7.63	9.28	9.07	8.75	8.45	8.51	8.14	7.95	7.68	7.61	7.54	7.59	8.09	9.03	8.18	7.61
H1 lead leg	L	strides	21	13	13	13	13	14	14	14	14	15	17.2	161.2				
<b>FINAL - 2022 Prefontaine Classic (Eugene, OR) (TV Analysis)</b>																		
date	28-May-22	time	5.80	9.56	13.36	17.33	21.34	23.20	25.56	30.07	34.73	39.73	50.81	8 / 8				
reaction time	0.157	interval	3.76	3.80	3.97	4.01			4.22	4.51	4.66	5.00		11.53	12.74			
		velocity	7.76	9.31	9.21	8.82	8.73	8.62	8.29	7.76	7.51	7.00	7.87	9.11	8.24			
H1 lead leg	L	strides	21	13	13	13	13	14	14	14	15	130						
<b>Semi-Final 1 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>																		
date	01-Aug-21	time	5.90	9.56	13.30	17.00	20.98	25.06	29.53		38.57	43.36	48.95	9 / 5				
reaction time	0.166	interval	3.66	3.74	3.70	3.98			4.08	4.47	9.04	4.79	5.59		11.10	12.53	13.83	
		velocity	7.63	9.56	9.36	9.46	8.79	8.58	7.83		7.74	7.31	7.16	8.17	9.46	8.38	7.59	
H1 lead leg	L	strides	21	13	13	13	13	13	14			15	18	133				
<b>Heat 1 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>																		
date	30-Jul-21	time	5.80	9.48	13.28	17.24	21.40	25.56	30.00	34.47	39.05	43.78	49.06	4 / 4				
reaction time	0.139	interval	3.64	3.80	3.96	4.16			4.16	4.44	4.47	4.58	4.73	5.28		11.44	12.76	
		velocity	7.76	9.51	9.21	8.84	8.41	8.41	7.88	7.83	7.83	7.64	7.40	7.58	8.15	9.18	8.23	7.62
H1 lead leg	L	strides	21	13	13	13	13	13	13	14	14	15	17.7	161.7				
<b>FINAL - 2021 Bauhaus Galan (Stockholm, SWE) (TV Analysis)</b>																		
date	04-Jul-21	time	5.72	9.36	13.08	16.92	20.92	22.7	24.92	29.20	33.68	38.32	43.12	48.75	8 / 3			
reaction time	0.156	interval	3.64	3.72	3.84	4.00			4.00	4.28	4.48	4.64	4.80	5.63		11.20	12.28	
		velocity	7.87	9.62	9.41	9.11	8.75	8.81	8.75	8.18	7.81	7.54	7.29	7.10	8.21	9.38	8.55	7.54
H1 lead leg	L	strides		13	13	13	13		13	14	14	14	14	17.7	138.7			
<b>Semi-Final 1 - 2019 IAAF World Championships (Doha, QAT)</b>																		
date	28-Sep-19	time	5.93	9.57	13.25	17.05	20.97	25.15	29.43	33.92	38.54	43.42	49.32	8 / 7				
reaction time	0.163	interval	3.64	3.68	3.80	3.92			4.18	4.28	4.49	4.62	4.88	5.90		11.12	12.38	
		velocity	7.59	9.62	9.51	9.21	8.93	8.37	8.18	7.80	7.58	7.17	6.78	8.11	9.44	8.48	7.51	

H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	18	164
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**FINAL - 2019 Müller Grand Prix (Birmingham, GBR) (TV Analysis)**

date	18-Aug-19	time	5.80	9.48	13.32	17.20	21.16	22.9	25.20	29.64	34.12	38.84	43.64	49.56	3 / 4	Henson (2020) - Athlete First: 2019 year end hurdle report		
reaction time	0.162	interval	3.68	3.84	3.88	3.96	3.96	4.04	4.44	4.48	4.72	4.80	5.92	8.07	11.40	12.44	14.00	
		velocity	7.76	9.51	9.11	9.02	8.84	8.73	8.66	7.88	7.81	7.42	7.29	6.76	8.07	9.21	8.44	7.50
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	15	15	18.5	162.5				

**FINAL - 2019 Pan American Games (Lima, PER) (TV Analysis)**

date	08-Aug-19	time	5.77	9.47	13.21	17.08	21.00	25.09	29.46	33.93	38.64	43.50	49.09	4 / 3	Henson (2020) - Athlete First: 2019 year end hurdle report		
reaction time	0.177	interval	3.70	3.74	3.87	4.00	4.00	8.01	4.37	4.47	4.71	4.86	5.59	8.15	11.31	12.38	14.04
		velocity	7.80	9.46	9.36	9.04	8.75	8.74	8.01	7.83	7.43	7.20	7.16	8.15	9.28	8.48	7.48
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	18	136				

**FINAL - 2018 NCAA Championships (Eugene, OR) (TV Analysis)**

date	08-Jun-18	time	5.86	9.53	13.23	17.00	21.00	25.13	29.40	33.80	38.36	43.13	48.83	6 / 4	Henson (2020) - Athlete First: 2018 year end hurdle report		
reaction time		interval	3.67	3.70	3.77	4.00	4.13	4.27	4.40	4.56	4.77	5.70	8.19	11.14	12.40	13.73	
		velocity	7.68	9.54	9.46	9.28	8.75	8.47	8.20	7.95	7.68	7.34	7.02	8.19	9.43	8.47	7.65
H1 lead leg	L	strides	13	13	13	13	13	13	14	14	15	15	18.5	141.5			

**FINAL - 2017 IAAF World Championships (London, GBR) (TV Analysis)**

date	09-Aug-17	time	5.92	9.72	13.52	17.40	21.40	25.64	29.92	34.36	39.00	43.64	48.99	3 / 4	Henson (2020) - Athlete First: 2017 year end hurdle report		
reaction time	0.189	interval	3.80	3.80	3.88	4.00	4.24	4.28	4.44	4.64	4.64	5.35	8.16	11.48	12.52	13.72	
		velocity	7.60	9.21	9.21	9.02	8.75	8.25	8.18	7.88	7.54	7.54	7.48	8.16	9.15	8.39	7.65
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	18	164			

**Mpoke, Moitalel (KEN) (2001)**

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL - 2021 NCAA Championships (Eugene, OR) (TV Analysis)</b>																	
date	11-Jun-21	time	6.03	9.83	13.80	17.77	21.70	25.89	30.13	34.63	39.23	43.73	48.70	6 / 4	Henson (2021) - Athlete First: 2021 year end hurdle report		
reaction time	0.267	interval	3.80	3.97	3.97	3.93	4.19	4.24	4.50	4.60	4.50	4.97	PB	11.74	12.36	13.60	
		velocity	7.46	9.21	8.82	8.82	8.91	8.36	8.25	7.78	7.61	7.78	8.05	8.21	8.94	8.50	7.72
H1 lead leg	R	strides	21	13	14	14	13	14	14	15	15	15	18.5	166.5			

**Mucheru, Bonface (KEN) (1992)**

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL - 2017 Doha Diamond League (Doha, QAT) (TV Analysis)</b>																	
date	05-May-17	time	6.23	10.16	14.16	18.23	22.40	26.66	31.03	35.50	40.10	44.86	50.61	3 / 7	Henson (2020) - Athlete First: 2017 year end hurdle report		
reaction time	0.155	interval	3.93	4.00	4.07	4.17	4.26	4.37	4.47	4.60	4.76	5.75	7.90	12.00	12.80	13.83	
		velocity	7.22	8.91	8.75	8.60	8.39	8.22	8.01	7.83	7.61	7.35	6.96	7.90	8.75	8.20	7.59
H1 lead leg	R	strides	22	15	15	15	15	15	15	15	15	15	18.5	175.5			

**FINAL - 2016 Weltklasse (Zürich, SUI) (TV Analysis)**

date	01-Sep-16	time	6.24	dnf														5 / 8	Henson (2020) - Athlete First: 2016 year end hurdle report		
reaction time	0.132	interval	7.21																		
		velocity	7.21																		
H1 lead leg	R	strides	22																		

**FINAL - 2016 Athletissima (Laussane, SUI) (TV Analysis)**

date	25-Aug-16	time	5.96	9.67	13.46	17.30	21.20	25.26	29.56	34.00	38.50	44.73	68.05	5 / 7	Henson (2020) - Athlete First: 2016 year end hurdle report		
reaction time	0.153	interval	3.71	3.79	3.84	3.90	4.06	4.30	4.44	4.50	6.23	23.32	5.88	11.34	12.26	15.17	
		velocity	7.55	9.43	9.23	9.11	8.97	8.62	8.14	7.88	7.78	5.62	1.72	5.88	9.26	8.56	6.92
H1 lead leg	R	strides	22	13	13	13	13	13	15	15	15	17	149				

**FINAL - 2016 Shanghai Golden Grand Prix (Shanghai, CHN)**

date	14-May-16	time	6.04	9.96	14.04	18.12	22.36	26.64	31.00	35.40	40.10	44.86	50.16	9 / 9	Henson (2020) - Athlete First: 2016 year end hurdle report		
reaction time	0.123	interval	3.92	4.08	4.08	4.24	4.28	4.36	4.40	4.40	4.44	4.52	5.33	8.28	12.08	12.88	
		velocity	7.45	8.93	8.58	8.58	8.25	8.18	8.03	7.95	7.95	7.74	7.50	7.97	8.69	8.15	
H1 lead leg	R	strides	22	15	15	15	15	15	15	15	15	15	127				

**FINAL - 2015 IAAF World Championships (Beijing, CHN) (TV Analysis)**

date	25-Aug-15	time	5.96	13.56	17.32	21.20	25.32	29.64	34.04	38.48	43.00	48.33	4 / 5	Henson (2021) - Athlete First: major championships report		
reaction time	0.164	interval	7.60	3.76	3.88	4.12	4.32	4.40	4.44	4.52	5.33	8.28	11.36	12.32	13.36	
		velocity	7.55	9.21	9.31	9.02	8.50	8.10	7.95	7.88	7.74	7.50	8.28	9.24	8.52	7.86
H1 lead leg	R	strides	15	13	13	13	15	15	15	15	15	18.5	119.5			

**Mukhobe, Wiseman (KEN) (1997)**

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>Semi-Final 3 - 2024 Olympic Games (Paris, FRA)</b>																	
date	07-Aug-24	time	5.82	9.51	13.36	17.21	21.28	25.47	29.83	34.35	39.04	43.74	49.22	4 / 5	Paris 2024 Olympc Games - Results Book (2024)		
reaction time	0.217	interval	3.69	3.85	3.85	4.07	4.19	4.36	4.52	4.69	4.70	5.48	8.13	11.39	12.62	13.91	
		velocity	7.73	9.49	9.09	9.09	8.60	8.35	8.03	7.74	7.46	7.45	7.30	8.13	9.22	8.32	7.55
H1 lead leg	R	strides	22	14	14	14	14	14	14	15	15	15	19	170			

**Heat 4 - 2024 Olympic Games (Paris, FRA)**

date	05-Aug-24	time	5.68	9.28	13.01	16.86	20.89	25.06	29.32	33.81	38.41	43.06	48.58	5 / 5	Paris 2024 Olympc Games - Results Book (2024)		
reaction time	0.198	interval	3.60	3.73	3.85	4.03	4.17	4.26	4.49	4.60	4.65	5.52	8.23	11.18	12.46	13.74	
		velocity	7.92	9.72	9.38	9.09	8.68	8.39	8.22	7.80	7.61	7.53	7.25	8.23	9.39	8.43	7.64
H1 lead leg	R	strides	21	14	14	13	14	14	15	15	15	15	19	169			

**Semi-Final 2 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)***Henson (2023) - Athlete First: 2023 year end hurdle report*

date	21-Aug-23	time	5.94	9.81	13.61	17.35	21.55	25.82	30.26	34.83	44.01	49.40	9 / 6					
reaction time	0.196	interval		3.87	3.80	3.74	4.20	4.27	4.44	4.57	9.18	5.39		11.41	12.91	13.75		
		velocity	7.58	9.04	9.21	9.36	8.33	8.20	7.88	7.66	7.63	7.42	8.10		9.20	8.13	7.64	
H1 lead leg	R	strides	22	14	14	13	14	14	15			19	125					

**Heat 2 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)***Henson (2023) - Athlete First: 2023 year end hurdle report*

date	20-Aug-23	time	5.93		17.63		25.83		34.63	39.23	43.83	49.10	1 / 4					
reaction time	0.199	interval			11.70		8.20		8.80	4.60	4.60	5.27		11.70				
		velocity	7.59		8.97		8.54		7.95	7.61	7.61	7.59	8.15	8.97				
H1 lead leg	R	strides	20							15	15	19	69					

**Müller, Vít (CZE) (1996)****FINAL - 2024 Kamila Skolimowska Memorial (Silesia, POL)***Omega Timing (2023) - diamond league race analysis*

date	25-Aug-24	time	5.88	9.58	13.37	17.26	21.24	25.31	29.60	34.19	38.93	43.68	49.20	1 / 8				
reaction time	0.163	interval		3.70	3.79	3.89	3.98	4.07	4.29	4.59	4.74	4.75	5.52		11.66	12.34	14.08	
		velocity	7.65	9.46	9.23	9.00	8.79	8.60	8.16	7.63	7.38	7.37	7.25	8.13	9.01	8.51	7.46	
H1 lead leg	L	strides	20	13	13	13	13	13			14	15	17.5	131.5				

**Repechage 1 - 2024 Olympic Games (Paris, FRA)***Paris 2024 Olympc Games - Results Book (2024)*

date	07-Aug-24	time	5.90	9.61	13.38	17.22	21.13	25.15	29.35	33.96	38.74	43.53	48.96	7 / 3				
reaction time	0.157	interval		3.71	3.77	3.84	3.91	4.02	4.20	4.61	4.78	4.79	5.43		11.32	12.13	14.18	
		velocity	7.63	9.43	9.28	9.11	8.95	8.71	8.33	7.59	7.32	7.31	7.37	8.17	9.28	8.66	7.40	
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	14	15	18	159				

**Heat 2 - 2024 Olympic Games (Paris, FRA)***Paris 2024 Olympc Games - Results Book (2024)*

date	05-Aug-24	time	5.91	9.57	13.29	17.09	21.02	25.15	29.50	34.18	39.03	43.88	49.44	2 / 6				
reaction time	0.150	interval		3.66	3.72	3.80	3.93	4.13	4.35	4.68	4.85	4.85	5.56		11.18	12.41	14.38	
		velocity	7.61	9.56	9.41	9.21	8.91	8.47	8.05	7.48	7.22	7.22	7.19	8.09	9.39	8.46	7.30	
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	14	15	17.2	158.2				

**Semi-Final 3 - 2024 European Athletics Championships (Roma, ITA)***European Athletics (2024) - 2024 european athletics championships - results book*

date	10-Jun-24	time	5.94	9.70	13.55	17.38	21.32	25.38	29.75	34.27	38.87	43.59	49.25	9 / 6				
reaction time	0.197	interval		3.76	3.85	3.83	3.94	4.06	4.37	4.52	4.60	4.72	5.66		11.44	12.37	13.84	
		velocity	7.58	9.31	9.09	9.14	8.88	8.62	8.01	7.74	7.61	7.42	7.07	8.12	9.18	8.49	7.59	
H1 lead leg	L	strides	20	13	13	13	13	13	14	14		15	18	146				

**Heat 1 - 2024 European Athletics Championships (Roma, ITA)***European Athletics (2024) - 2024 european athletics championships - results book*

date	09-Jun-24	time	5.92	9.64	13.56	17.45	21.47	25.57	29.94	34.48	39.21	44.01	49.38	6 / 2				
reaction time	0.196	interval		3.72	3.92	3.89	4.02	4.10	4.37	4.54	4.73	4.80	5.37		11.53	12.49	14.07	
		velocity	7.60	9.41	8.93	9.00	8.71	8.54	8.01	7.71	7.40	7.29	7.45	8.10	9.11	8.41	7.46	
H1 lead leg		strides											0					

**Semi-Final 3 - 2022 European Athletics Championships (Munich, GER)***European Athletics (2022) - european athletics championships race analysis*

date	18-Aug-22	time	6.01	9.84	13.62	17.54	21.51	23.29	25.54	29.86	34.52	39.14	44.01	49.78	1 / 6			
reaction time	0.177	interval		3.83	3.78	3.92	3.97	4.03	4.32	4.66	4.62	4.87	5.77		11.53	12.32	14.15	
		velocity	7.49	9.14	9.26	8.93	8.82	8.59	8.68	8.10	7.51	7.58	7.19	6.93	8.04	9.11	8.52	7.42
H1 lead leg	L	strides	21				13		13	14	14	15	15	18	123			

**Heat 1 - 2022 European Athletics Championships (Munich, GER)***European Athletics (2022) - european athletics championships race analysis*

date	17-Aug-22	time	6.01	9.83	13.70	17.62	21.54	23.31	25.63	30.06	34.71	39.35	44.20	49.86	2 / 4			
reaction time	0.196	interval		3.82	3.87	3.92	3.92	4.09	4.43	4.65	4.64	4.85	5.66		11.61	12.44	14.14	
		velocity	7.49	9.16	9.04	8.93	8.93	8.58	8.56	7.90	7.53	7.54	7.22	7.07	8.02	9.04	8.44	7.43
H1 lead leg	L	strides	21	13			13		13	14	14	15	15	18	136			

**Semi-Final 2 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)***Henson (2024) - Athlete First: 2021 year end hurdle report*

date	01-Aug-21	time	6.13	9.90	13.76	17.67	21.70	25.76	30.20	34.70	39.36	44.18	49.69	3 / 8				
reaction time	0.145	interval		3.77	3.86	3.91	4.03	4.06	4.44	4.50	4.66	4.82	5.51		11.54	12.53	13.98	
		velocity	7.34	9.28	9.07	8.95	8.68	8.62	7.88	7.78	7.51	7.26	7.26	8.05	9.10	8.38	7.51	
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	15	15	144					

**Heat 5 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)***Henson (2024) - Athlete First: 2021 year end hurdle report*

date	30-Jul-21	time	6.20	9.96	13.80	17.73	21.83	26.05	30.50	35.03	39.63	44.33	49.59	3 / 5				
reaction time	0.143	interval		3.76	3.84	3.93	4.10	4.22	4.45	4.53	4.60	4.70	5.26		11.53	12.77	13.83	
		velocity	7.26	9.31	9.11	8.91	8.54	8.29	7.87	7.73	7.61	7.45	7.60	8.07	9.11	8.22	7.59	
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	15	15	18	162				

**FINAL - 2020 ISTAF (Berlin, GER) (TV Analysis)***Henson (2020) - Athlete First: 2020 year end hurdle report*

date	13-Sep-20	time	6.12		13.72	17.56		25.76		35.16	40.00		50.47	2 / 5				
reaction time	0.204	interval			7.60	3.84		8.20		9.40	4.84				11.44			
		velocity	7.35		9.21	9.11		8.54		7.45	7.23		7.93		9.18			
H1 lead leg	L	strides	21			13					15		49					

**Semi-Final 3 - 2019 IAAF World Championships (Doha, QAT)***Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships*

date	28-Sep-19	time	6.08	9.83	13.56	17.39	21.44	25.60	30.04	34.66	39.36	44.23	49.97	3 / 7				
reaction time	0.178	interval		3.75	3.73	3.83	4.05	4.16	4.44	4.62	4.70	4.87	5.74		11.31	12.65	14.19	
		velocity	7.40	9.33	9.38	9.14	8.64	8.41	7.88	7.58	7.45	7.19	6.97	8.00	9.28	8.30	7.40	



H1 lead leg	L	strides	21	13	13	13	13	13	14	14	15	15	18.5	162.5					
<b>Muratomi, Kotaro (JPN) (1998)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2016 Japanese National High School Championships (Okayama, JPN)</b>			<i>Kota (2016) - 69th high school championships: JAF scientific committee- biomechanics data</i>																
date	31-Jul-16	time	6.17	10.23	14.40	18.70	23.09		27.58	32.33	37.09	41.92	46.93		52.68	4 / 4			
reaction time	0.178	interval	4.06	4.17	4.30	4.39		4.49	4.75	4.76	4.83	5.01	5.75				12.53	13.63	14.60
		velocity	7.29	8.62	8.39	8.14	7.97		7.80	7.37	7.35	7.25	6.99	6.96	7.59		8.38	7.70	7.19
H1 lead leg		strides	14	14	14	14		14	15	15	15	15	15	130					
<b>Muto, Yuhi (JPN) (2004)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2022 Japanese National High School Championships (Naruto, JPN)</b>			<i>Kishima (2022) - national high school championships biomechanics data collection</i>																
date	05-Aug-22	time	6.47	10.43	14.48	18.67	23.03		27.52	32.05	36.63	41.62	46.57		52.14	8 / 5			
reaction time	0.199	interval	3.94	4.08	4.11	4.34		4.49	4.53	4.58	4.99	4.95	5.57				12.20	13.38	14.52
		velocity	6.96	8.84	8.64	8.35	8.03		7.80	7.73	7.64	7.01	7.07	7.18	7.67		8.61	7.85	7.23
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	15	17	159					
<b>FINAL - 2022 Japanese U20 National Championships (Osaka, JPN)</b>			<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>																
date	11-Jun-22	time	6.39	10.33	14.41	18.52	22.86		27.29	31.82	36.47	41.21	46.06		51.46	3 / 6			
reaction time	0.189	interval	3.94	4.08	4.11	4.34		4.43	4.53	4.65	4.74	4.85	5.40	<b>PB</b>			12.13	13.30	14.24
		velocity	7.04	8.88	8.58	8.52	8.06		7.90	7.73	7.53	7.38	7.22	7.41	7.77		8.66	7.89	7.37
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	15	19	176					
<b>Mužik, Jiri (CZE) (1976)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2002 IAAF World Cup (Madrid, ESP)</b>			<i>Sanchez (2002) - copa del mundo de Madrid '02: análisis de la carreras con villas</i>																
date	20-Sep-02	time	6.08	9.93	13.91	17.81	21.94		26.05	30.23	34.65	39.23	43.86		49.28	4 / 4			
reaction time	0.185	interval	3.85	3.98	3.90	4.13		4.11	4.18	4.42	4.58	4.63	5.42				11.73	12.42	13.63
		velocity	7.40	9.09	8.79	8.97	8.47		8.52	8.37	7.92	7.64	7.56	7.38	8.12		8.95	8.45	7.70
H1 lead leg	L	strides	21	14	14	14	14		14	14	14	15	15	18.5	167.5				
<b>FINAL - 2002 European Championships (Munich, GER)</b>			<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>																
date	09-Aug-02	time	6.08	9.90	13.80	17.75	21.76		25.80	29.90	34.18	38.60	43.12		48.43	/ 2			
reaction time	0.160	interval	3.82	3.90	3.95	4.01		4.04	4.10	4.28	4.42	4.52	5.31				11.67	12.15	13.22
		velocity	7.40	9.16	8.97	8.86	8.73		8.66	8.54	8.18	7.92	7.74	7.53	8.26		9.00	8.64	7.94
H1 lead leg		strides	14	14	14	14		14	14	14	15	15		128					
<b>Semi-Final 1 - 2002 European Championships (Munich, GER)</b>			<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>																
date	08-Aug-02	time	6.15	10.01	13.87	17.81	21.83		25.94	30.08	34.31	38.71	43.25		48.46	/ 1			
reaction time		interval	3.86	3.86	3.94	4.02		4.11	4.14	4.23	4.40	4.54	5.21				11.66	12.27	13.17
		velocity	7.32	9.07	9.07	8.88	8.71		8.52	8.45	8.27	7.95	7.71	7.68	8.25		9.01	8.56	7.97
H1 lead leg		strides																	
<b>Heat 2 - 2002 European Championships (Munich, GER)</b>			<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>																
date	07-Aug-02	time	6.24	10.23	14.29	18.37	22.52		26.69	30.95	35.31	39.85	44.47		49.76	/ 1			
reaction time	0.169	interval	3.99	4.06	4.08	4.15		4.17	4.26	4.36	4.54	4.62	5.29				12.13	12.58	13.52
		velocity	7.21	8.77	8.62	8.58	8.43		8.39	8.22	8.03	7.71	7.58	7.56	8.04		8.66	8.35	7.77
H1 lead leg		strides																	
<b>FINAL - 2001 IAAF World Championships (Edmonton, CAN)</b>			<i>Behm (2001) - Edmonton: Le quatrache: les finales</i>																
date	10-Aug-01	time	5.9	9.8	13.4	17.3	21.3		25.3	29.5	34.0	38.5	43.2		49.07	8 / <del>7</del>			
reaction time	0.203	interval	3.90	3.60	3.90	4.00		4.00	4.20	4.50	4.50	4.70	5.87				11.40	12.20	13.70
		velocity	7.63	8.97	9.72	8.97	8.75		8.75	8.33	7.78	7.78	7.45	6.81	8.15		9.21	8.61	7.66
H1 lead leg	R	strides	21	13	13	13	13		14	14	15	15	15	146					
<b>Semi-Final 2 - 2000 Olympic Games (Sydney, AUS)</b>			<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																
date	25-Sep-00	time	5.96	9.88	13.72	17.64	21.76	23.36	25.96	30.24	34.68	39.20	43.92		49.23	5 / 5			
reaction time	0.227	interval	3.92	3.84	3.92	4.12		4.20	4.28	4.44	4.52	4.72	5.31				11.68	12.60	13.68
		velocity	7.55	8.93	9.11	8.93	8.50	8.56	8.33	8.18	7.88	7.74	7.42	7.53	8.13		8.99	8.33	7.68
H1 lead leg		strides	13	13	13	14		14	14	15	15	15	19.2	145.2					
<b>Heat 4 - 2000 Olympic Games (Sydney, AUS)</b>			<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																
date	24-Sep-00	time	6.00	9.78	13.64	17.60	21.64		25.80	30.20	34.80	39.76	44.68		50.11	8 / 1			
reaction time	0.216	interval	3.78	3.86	3.96	4.04		4.16	4.40	4.60	4.96	4.92	5.43				11.60	12.60	14.48
		velocity	7.50	9.26	9.07	8.84	8.66		8.41	7.95	7.61	7.06	7.11	7.37	7.98		9.05	8.33	7.25
H1 lead leg		strides	21	13	13	13	13		14	14	14	16	16	18.9	165.9				
<b>Semi-Final 1 - 1999 IAAF World Championships (Sevilla, ESP)</b>			<i>Sanchez (1999) - Sevilla '99: análisis de la carreras con villas</i>																
date	25-Aug-99	time	5.60	9.38	13.18	17.19	21.35		25.51	29.85	34.30	38.82	43.50		49.17	2 / 5			
reaction time	0.179	interval	3.78	3.80	4.01	4.16		4.16	4.34	4.45	4.52	4.68	5.67				11.59	12.66	13.65
		velocity	8.04	9.26	9.21	8.73	8.41		8.41	8.06	7.87	7.74	7.48	7.05	8.14		9.06	8.29	7.69
H1 lead leg	R	strides	21	13	13	13	14		14	14	14	15	15	18.5	164.5				
<b>FINAL - 1998 European Championships (Budapest, HUN)</b>			<i>Sanchez (1998) - Budapest '98: análisis de la carreras con villas</i>																
date	20-Aug-98	time	6.01				21.40						44.30		50.51	8 / 7			
reaction time		interval					15.39						22.90		6.21				
		velocity	7.49				9.10						7.64		6.44		7.92		
H1 lead leg	R	strides	21	14	14	14	14		14	14	15	15	15	19.5	169.5				

**FINAL - 1997 IAAF World Championships (Athens, GRE)***Hommel (1999) - biomechanical research project, athens 1997: final report*

date	04-Aug-97	time	6.02	9.78	13.62	17.58	21.80	26.12	30.42	34.92	39.52	44.14	49.51	2 / 8				
reaction time	0.179	interval		3.76	3.84	3.96	4.22	4.32	4.30	4.50	4.60	4.62	5.37	<b>NR</b>	11.56	12.84	13.72	
		velocity	7.48	9.31	9.11	8.84	8.29	8.10	8.14	7.78	7.61	7.58	7.45	8.08	9.08	8.18	7.65	
H1 lead leg		strides																

**Myburgh, Alwyn (RSA) (1980)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2004 Olympic Games (Athina, GRE)***Behm (2005) - Athènes 2004: Les Haies Basses*

date	26-Aug-04	time	5.9	9.5	13.2	17.0	21.2	25.3	29.4	33.9	38.5	43.3	49.07	1 / 7				
reaction time	0.150	interval		3.60	3.70	3.80	4.20	4.10	4.10	4.50	4.60	4.80	5.77		11.10	12.40	13.90	
		velocity	7.63	9.72	9.46	9.21	8.33	8.54	8.54	7.78	7.61	7.29	6.93	8.15	9.46	8.47	7.55	
H1 lead leg	R	strides	21	14	14	14	14	14	14	15	15	15	19	169				

**Semi-Final 3 - 2000 Olympic Games (Sydney, AUS)***Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games*

date	25-Sep-00	time	5.78	9.50	13.34	17.26	21.22	22.74	25.26	29.50	34.06	38.74	43.58	49.25	1 / 4				
reaction time	0.202	interval		3.72	3.84	3.92	3.96	4.04	4.24	4.56	4.68	4.84	5.67		11.48	12.24	14.08		
		velocity	7.79	9.41	9.11	8.93	8.84	8.80	8.66	8.25	7.68	7.48	7.23	7.05	8.12	9.15	8.58	7.46	
H1 lead leg		strides	22	14	14	14	14	14	14	15	15	15	19	170					

**Heat 6 - 2000 Olympic Games (Sydney, AUS)***Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games*

date	24-Sep-00	time	5.98	9.82	13.82	17.82	21.94	26.22	30.50	34.98	39.54	44.14	49.57	6 / 3					
reaction time	0.184	interval		3.84	4.00	4.00	4.12	4.28	4.28	4.48	4.56	4.60	5.43		11.84	12.68	13.64		
		velocity	7.53	9.11	8.75	8.75	8.50	8.18	8.18	7.81	7.68	7.61	7.37	8.07	8.87	8.28	7.70		
H1 lead leg		strides	21	14	14	14	14	14	14	15	15	15	18.7	168.7					

**Naadokila, Moitalel Mpoke (KEN) (201)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****Semi-Final 2 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)***Henson (2022) - Athlete First: 2022 year end hurdle report*

date	17-Jul-22	time	9.90	14.03	18.07	22.27	24.10	26.53	30.93	35.43	39.90	44.37	49.34	1 / 6				
reaction time	0.149	interval		4.13	4.04	4.20		4.26	4.40	4.50	4.47	4.47	4.97			12.86	13.44	
		velocity		8.08	8.47	8.66	8.33	8.30	8.22	7.95	7.78	7.83	7.83	8.05	8.11	8.16	7.81	
H1 lead leg		strides		14	14	14		14	14	14	14	14	17	129				

**Heat 3 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)***Henson (2022) - Athlete First: 2022 year end hurdle report*

date	16-Jul-22	time	6.03	10.00	14.03	18.10	22.16	24.03	26.50	30.90	35.46	40.20	44.83	50.19	8 / 4				
reaction time	0.177	interval		3.97	4.03	4.07	4.06		4.34	4.40	4.56	4.74	4.63	5.36		12.07	12.80	13.93	
		velocity	7.46	8.82	8.68	8.60	8.62	8.32	8.06	7.95	7.68	7.38	7.56	7.46	7.97	8.70	8.20	7.54	
H1 lead leg	L	strides	21	14	14	14	14		14	14	14	14	17	164					

**Nagano, Yuichi (JPN) (1993)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2010 Japanese National High School Championships (Okinawa, JPN)***Matsuo (2010) - 63rd high school championships: JAF scientific committee- biomechanics data*

date	31-Jul-10	time	6.44	10.41	14.45	18.52	22.67	26.97	31.37	35.91	40.90	46.09	52.03	1 / 2				
reaction time		interval		3.97	4.04	4.07	4.15		4.30	4.40	4.54	4.99	5.19	5.94		12.08	12.85	14.72
		velocity	6.99	8.82	8.66	8.60	8.43		8.14	7.95	7.71	7.01	6.74	6.73	7.69	8.69	8.17	7.13
H1 lead leg		strides		13	13	13	13		14	14	14	15	15	124				

**Nagiko, Kazushi (JPN)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****Heat 2 - 2016 Japanese National Youth Championships (Mizuho, JPN)***(2016.11.17) - [https://twitter.com/touchdown\\_time/media?lang=en&lang=en&lang=en&lang=en](https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en)*

date	23-Oct-16	time	6.53	10.87	15.16	19.47	23.86	28.36	32.99	37.95	43.20	48.69	54.86	8 / 1				
reaction time		interval		4.34	4.29	4.31	4.39		4.50	4.63	4.96	5.25	5.49	6.17		12.94	13.52	15.70
		velocity	6.89	8.06	8.16	8.12	7.97		7.78	7.56	7.06	6.67	6.38	6.48	7.29	8.11	7.77	6.69
H1 lead leg		strides																

**Naito, Genichiro (JPN) (2002)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2021 Japanese U20 National Championships (Osaka, JPN)***Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season*

date	26-Jun-21	time	6.27	10.24	14.21	18.30	22.54	26.96	31.53	36.17	40.96	45.98	51.70	6 / 5				
reaction time	0.183	interval		3.97	3.97	4.09	4.24		4.42	4.57	4.64	4.79	5.02	5.72		12.03	13.23	14.45
		velocity	7.18	8.82	8.82	8.56	8.25		7.92	7.66	7.54	7.31	6.97	6.99	7.74	8.73	7.94	7.27
H1 lead leg	R	strides	21	14	14	14	14		15	15	15	15	15	152				

**FINAL - 2020 Japanese U20 National Championships (Hiroshima, JPN)***Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season*

date	25-Oct-20	time	6.44	10.59	14.83	19.20	23.62	28.21	32.90	37.65	42.53	47.73	53.45	5 / 4				
reaction time	0.186	interval		4.15	4.24	4.37	4.42		4.59	4.69	4.75	4.88	5.20	5.72		12.76	13.70	14.83
		velocity	6.99	8.43	8.25	8.01	7.92		7.63	7.46	7.37	7.17	6.73	6.99	7.48	8.23	7.66	7.08
H1 lead leg	R	strides	21	14	14	14	14		15	15	15	15	16	153				

**Nakai, Shuta (JPN) (2001)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2023 Japanese National Championships (Osaka, JPN)***Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season*

date	03-Jun-23	time	6.27	10.03	13.81	17.72	21.74	25.99	30.43	35.09	39.91	44.89	50.71	9 / 7				
reaction time	0.222	interval		3.76	3.78	3.91	4.02		4.25	4.44	4.66	4.82	4.98	5.82		11.45	12.71	14.46
		velocity	7.18	9.31	9.26	8.95	8.71		8.24	7.88	7.51	7.26	7.03	6.87	7.89	9.17	8.26	7.26
H1 lead leg	R	strides	21	13	13	13	13		14	14	15	15	15	146				

**FINAL - 2023 Seiko Golden Grand Prix (Yokohama, JPN)***Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season*

date	21-May-23	time	6.22	10.06	13.96	18.00	22.16	26.48	30.93	35.45	40.24	45.05	50.72	2 / 8				
reaction time	0.174	interval		3.84	3.90	4.04	4.16		4.32	4.45	4.52	4.79	4.81	5.67		11.78	12.93	14.12
		velocity	7.23	9.11	8.97	8.66	8.41		8.10	7.87	7.74	7.31	7.28	7.05	7.89	8.91	8.12	7.44
H1 lead leg	R	strides	21	13	13	13	13		14	14	15	15	15	18	164			



**A FINAL - 2023 Shizuoka International Meeting (Fukuroi, JPN)**

date	03-May-23	time	6.20	9.98	13.82	17.73	21.75	25.95	30.23	34.67	39.28	44.01	49.66	9 / 2					
reaction time	0.193	interval		3.78	3.84	3.91	4.02	4.20	4.28	4.44	4.61	4.73	5.65		<b>PB</b>	11.53	12.50	13.78	
		velocity	7.26	9.26	9.11	8.95	8.71	8.33	8.18	7.88	7.59	7.40	7.08			8.05	9.11	8.40	7.62
H1 lead leg	R	strides	20	13	13	13	13	14	14	15	15	15	18		163				

*Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season***Nakai, Sora (JPN)**

date	25-May-19	time	6.55	10.89	15.44	20.23	25.18	30.38	35.88	41.47	46.91	52.33	57.91	4 / 5					
reaction time		interval		4.34	4.55	4.79	4.95	5.20	5.50	5.59	5.44	5.42	5.58				13.68	15.65	16.45
		velocity	6.87	8.06	7.69	7.31	7.07	6.73	6.36	6.26	6.43	6.46	7.17		6.91		7.68	6.71	6.38
H1 lead leg		strides	24	15	15	17	17	17	19	19	19	19	21		202				

*Shimizu (2019) - shimane high school championships 2019 - biomechanics data analysis***Nakajima, Yoki (JPN)**

date	25-Oct-20	time	6.26	10.48	14.83	19.24	23.71	28.28	32.98	37.85	42.93	47.91	53.29	8 / 6					
reaction time	0.163	interval		4.22	4.35	4.41	4.47	4.57	4.70	4.87	5.08	4.98	5.38				12.98	13.74	14.93
		velocity	7.19	8.29	8.05	7.94	7.83	7.66	7.45	7.19	6.89	7.03	7.43		7.51		8.09	7.64	7.03
H1 lead leg	R	strides	22	15	15	15	15	15	15	15	17	17	17		161				

*Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season***Nakamura, Akihiko (JPN) (1990)**

date	08-Jun-14	time	6.09	10.03	14.05	18.12	22.32	26.62	31.01	35.55	40.19	44.74	49.95	5 / 2					
reaction time		interval		3.94	4.02	4.07	4.20	4.30	4.39	4.54	4.64	4.55	5.21				12.03	12.89	13.73
		velocity	7.39	8.88	8.71	8.60	8.33	8.14	7.97	7.71	7.54	7.69	7.68		8.01		8.73	8.15	7.65
H1 lead leg	R	strides	21	13	13	13	14	14	14	14	15	15	19		165				

*Yasunori (2014) - race pattern analysis of Japanese top 400m hurdlers for major domestic competitions***FINAL - 2012 Japanese National Championships (Osaka, JPN)**

date	09-Jun-12	time	6.09	9.96	14.01	18.15	22.34	26.63	30.98	35.42	40.01	44.49	49.38	6 / 2					
reaction time		interval		3.87	4.05	4.14	4.19	4.29	4.35	4.44	4.59	4.48	4.89		<b>PB</b>		12.06	12.83	13.51
		velocity	7.39	9.04	8.64	8.45	8.35	8.16	8.05	7.88	7.63	7.81	8.18		8.10		8.71	8.18	7.77
H1 lead leg	L	strides	21	13	13	13	13	14	14	14	15	15	18.2		163				

*Yasunori (2013) - race pattern analysis for the top Japanese 400m hurdlers in major domestic competitions***Nakamashi, Haruki (JPN) (2004)**

date	30-Jul-21	time	6.07	10.04	14.28	18.60	22.97	27.43	31.92	36.50	41.42	46.36	51.70	4 / 2					
reaction time	0.145	interval		3.97	4.24	4.32	4.37	4.46	4.49	4.58	4.92	4.94	5.34				12.53	13.32	14.44
		velocity	7.41	8.82	8.25	8.10	8.01	7.85	7.80	7.64	7.11	7.09	7.49		7.74		8.38	7.88	7.27
H1 lead leg		strides		15	15	15	15	15	15	15	17	17	139						

*Shibayama (2021) - national high school and U20 national championships***FINAL - 2021 Japanese U20 National Championships (Osaka, JPN)**

date	26-Jun-21	time	6.17	10.16	14.18	18.30	22.48	26.78	31.16	35.62	40.34	45.08	50.53	7 / 2					
reaction time	0.181	interval		3.99	4.02	4.12	4.18	4.30	4.38	4.46	4.72	4.74	5.45		<b>PB</b>		12.13	12.86	13.92
		velocity	7.29	8.77	8.71	8.50	8.37	8.14	7.99	7.85	7.42	7.38	7.34		7.92		8.66	8.16	7.54
H1 lead leg	R	strides	22	15	15	15	15	15	15	15	15	15	20.7		177.7				

*Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season***Nakanishi, Teruki (JPN) (2006)**

date	30-Jul-24	time	6.34	10.48	14.66	19.10	23.46	27.88	32.45	37.10	41.89	46.83	52.54	6 / 6					
reaction time	0.192	interval		4.14	4.18	4.44	4.36	4.42	4.57	4.65	4.79	4.94	5.71				12.76	13.35	14.38
		velocity	7.10	8.45	8.37	7.88	8.03	7.92	7.66	7.53	7.31	7.09	7.01		7.61		8.23	7.87	7.30
H1 lead leg		strides	21	15	15	15	15	15	15	15	15	15	19		175				

*Takashima (2024) - national high school sports festival - biomechanics data***Nakano, Sota (JPN)**

date	04-Aug-23	time	6.32	10.39	14.55	18.74	23.06	27.61	32.30	37.19	42.21	47.33	52.80	3 / 7					
reaction time	0.249	interval		4.07	4.16	4.19	4.32	4.55	4.69	4.89	5.02	5.12	5.47				12.42	13.56	15.03
		velocity	7.12	8.60	8.41	8.35	8.10	7.69	7.46	7.16	6.97	6.84	7.31		7.58		8.45	7.74	6.99
H1 lead leg		strides	23	15	15	15	15	15	15	17	17	17	20		184				

*Takashima (2023) - national high school sports festival - biomechanics data***Nakayama, Keita (JPN) (2003)**

date	25-Oct-20	time	6.42	10.59	14.81	19.09	23.51	28.18	33.07	38.02	42.96	47.90	52.95	6 / 4					
reaction time	0.195	interval		4.17	4.22	4.28	4.42	4.67	4.89	4.95	4.94	4.94	5.05				12.67	13.98	14.83
		velocity	7.01	8.39	8.29	8.18	7.92	7.49	7.16	7.07	7.09	7.09	7.92		7.55		8.29	7.51	7.08
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	19		176				

*Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season***Nallet, Jean-Claude (FRA) (1947)**

date	30-Aug-78	time	6.23	10.36	14.14	18.16	22.22						49.98	1 / 2				
reaction time		interval		4.13	3.78	4.02	4.06										11.93	
		velocity	7.22	8.47	9.26	8.71	8.62								8.00		8.80	
H1 lead leg		strides																

*Lamare (1978) - championnats d'Europa 1978***Semi-Final 2 - 1976 Olympic Games (Montreal, CAN)**

date	24-Jul-76	time	5.8	9.8	13.8	17.8	22.0	26.0	30.5	35.0	39.7	44.3	50.08	4 / 5				
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*Behm (1995) - la tactique du 400 haies*



reaction time	interval	4.00	4.00	4.00	4.15		4.05	4.50	4.50	4.70	4.60	5.78		12.00	12.70	13.80		
	velocity	7.76	8.75	8.75	8.75	8.43	8.64	7.78	7.78	7.45	7.61	6.92	7.99	8.75	8.27	7.61		
H1 lead leg	strides																	
<b>FINAL - 1971 European Championships (Helsinki, FIN)</b>													<i>Behm (1995) - la tactique du 400 haies</i>					
date	12-Aug-71	time	6.0	10.0	13.8	17.6	21.6	25.7	29.9	34.4	38.9	43.5	49.2	/ 1				
reaction time	interval		4.00	3.80	3.80	4.00		4.10	4.20	4.50	4.50	4.60	5.70	<b>CR</b>	11.60	12.30	13.60	
	velocity	7.50	8.75	9.21	9.21	8.75		8.54	8.33	7.78	7.78	7.61	7.02	8.13	9.05	8.54	7.72	
H1 lead leg	strides	19	13	13	13	13		13	13	15	15	15	142					
<b>FINAL - 1970 France vs. USA (Colombes, FRA)</b>													<i>Behm (1988) - 45-39</i>					
date	08-Jul-70	time	5.9	9.9	13.7	17.4	21.7	25.6	29.8	34.3	38.9	43.4	48.6	/ 1				
reaction time	interval		4.00	3.80	3.70	4.30		3.90	4.20	4.50	4.60	4.50	5.20	<b>PB</b>	11.50	12.40	13.60	
	velocity	7.63	8.75	9.21	9.46	8.14		8.97	8.33	7.78	7.61	7.78	7.69	8.23	9.13	8.47	7.72	
H1 lead leg	strides	19	13	13	13	13		13	13	15	15	15	142					
<b>Narisako, Kenji (JPN) (1984)</b>																		
		<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2010 Japanese National Championships (Marugume, JPN)</b>																		
<i>Yasuhori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>																		
date	05-Jun-10	time	6.07	9.86	13.71	17.60	21.59	25.73	30.07	34.51	39.01	43.58	49.01	/ 1				
reaction time	0.165	interval		3.79	3.85	3.89	3.99		4.14	4.34	4.44	4.50	4.57	5.43		11.53	12.47	13.51
	velocity	7.41	9.23	9.09	9.00	8.77		8.45	8.06	7.88	7.78	7.66	7.37	8.16		9.11	8.42	7.77
H1 lead leg	strides		13	13	13	13		13	14	14	15	15	123					
<b>FINAL - 2009 Japanese National Championships (Hiroshima, JPN)</b>																		
<i>Yasuhori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>																		
date	27-Jun-09	time	6.02	9.76	13.53	17.38	21.33	25.56	29.90	34.37	39.02	43.86	49.53	6 / 1				
reaction time	interval		3.74	3.77	3.85	3.95		4.23	4.34	4.47	4.65	4.84	5.67		11.36	12.52	13.96	
	velocity	7.48	9.36	9.28	9.09	8.86		8.27	8.06	7.83	7.53	7.23	7.05	8.08		9.24	8.39	7.52
H1 lead leg	strides		13	13	13	13		14	14	15	15	15	125					
<b>FINAL - 2009 Osaka Grand Prix (Osaka, JPN)</b>																		
<i>Yasuhori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>																		
date	09-May-09	time	6.04	9.73	13.50	17.30	21.19	25.28	29.63	34.02	38.61	43.36	48.77	/ 3				
reaction time	interval		3.69	3.77	3.80	3.89		4.09	4.35	4.39	4.59	4.75	5.41		11.26	12.33	13.73	
	velocity	7.45	9.49	9.28	9.21	9.00		8.56	8.05	7.97	7.63	7.37	7.39	8.20		9.33	8.52	7.65
H1 lead leg	strides		13	13	13	13		13	14	14	15	15	123					
<b>Race A - 2009 Shizuoka International Athletics Meeting (Fukuroi, JPN)</b>																		
<i>Yasuhori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>																		
date	03-May-09	time	6.06	9.76	13.61	17.48	21.47	25.54	29.81	34.13	38.68	43.43	48.99	/ 1				
reaction time	interval		3.70	3.85	3.87	3.99		4.07	4.27	4.32	4.55	4.75	5.56		11.42	12.33	13.62	
	velocity	7.43	9.46	9.09	9.04	8.77		8.60	8.20	8.10	7.69	7.37	7.19	8.16		9.19	8.52	7.71
H1 lead leg	strides		13	13	13	13		13	14	14	15	15	123					
<b>FINAL - 2008 Japanese National Championships (Kawasaki, JPN)</b>																		
<i>Yasunori (2009) - race pattern analysis of prestigious Japanese 400m hurdlers</i>																		
date	27-Jun-08	time	6.02	9.77	13.61	17.46	21.43	25.50	29.84	34.28	38.88	43.72	49.47	/ 2				
reaction time	interval		3.75	3.84	3.85	3.97		4.07	4.34	4.44	4.60	4.84	5.75		11.44	12.38	13.88	
	velocity	7.48	9.33	9.11	9.09	8.82		8.60	8.06	7.88	7.61	7.23	6.96	8.09		9.18	8.48	7.56
H1 lead leg	strides		13	13	13	13		13	14	14	15	15	123					
<b>FINAL - 2008 Osaka Grand Prix (Osaka, JPN)</b>																		
<i>Yasunori (2009) - race pattern analysis of prestigious Japanese 400m hurdlers</i>																		
date	10-May-08	time	5.97	9.59	13.36	17.16	21.11	25.21	29.56	33.98	38.58	43.37	49.00	9 / 1				
reaction time	interval		3.62	3.77	3.80	3.95		4.10	4.35	4.42	4.60	4.79	5.63		11.19	12.40	13.81	
	velocity	7.54	9.67	9.28	9.21	8.86		8.54	8.05	7.92	7.61	7.31	7.10	8.16		9.38	8.47	7.60
H1 lead leg	strides		13	13	13	13		13	14	14	15	15	123					
<b>FINAL - 2008 Shizuoka International Athletics Meeting (Fukuroi, JPN)</b>																		
<i>Yasunori (2009) - race pattern analysis of prestigious Japanese 400m hurdlers</i>																		
date	03-May-08	time	6.04	9.74	13.56	17.40	21.35	25.62	29.92	34.46	39.10	43.82	49.44	/ 1				
reaction time	interval		3.70	3.82	3.84	3.95		4.27	4.30	4.54	4.64	4.72	5.62		11.36	12.52	13.90	
	velocity	7.45	9.46	9.16	9.11	8.86		8.20	8.14	7.71	7.54	7.42	7.12	8.09		9.24	8.39	7.55
H1 lead leg	strides		13	13	13	13		14	14	15	15	15	125					
<b>Semi-Final 1 - 2007 IAAF World Championships (Osaka, JPN)</b>																		
<i>Yasunori (2008) - race pattern analysis of the world and Japanese top 400m hurdlers</i>																		
date	26-Aug-07	time	6.02	9.71	13.45	17.24	21.18	25.27	29.58	33.90	38.42	43.04	48.44	7 / 5				
reaction time	0.179	interval		3.69	3.74	3.79	3.94		4.09	4.31	4.32	4.52	4.62	5.40		11.22	12.34	13.46
	velocity	7.48	9.49	9.36	9.23	8.88		8.56	8.12	8.10	7.74	7.58	7.41	8.26		9.36	8.51	7.80
H1 lead leg	R	strides	21	13	13	13		13	14	14	15	15	19.2	163				
<b>Heat 5 - 2007 IAAF World Championships (Osaka, JPN)</b>																		
<i>Yasunori (2008) - race pattern analysis of the world and Japanese top 400m hurdlers</i>																		
date	25-Aug-07	time	6.00	9.70	13.44	17.28	21.22	25.32	29.72	34.12	38.72	43.39	48.92	2 / 3				
reaction time	0.172	interval		3.70	3.74	3.84	3.94		4.10	4.40	4.40	4.60	4.67	5.53		11.28	12.44	13.67
	velocity	7.50	9.46	9.36	9.11	8.88		8.54	7.95	7.95	7.61	7.49	7.23	8.18		9.31	8.44	7.68
H1 lead leg	R	strides	21	13	13	13		13	14	14	15	15	19.2	163.2				
<b>FINAL - 2007 Japanese National Championships (Osaka, JPN)</b>																		
<i>Yasunori (2008) - race pattern analysis of the world and Japanese top 400m hurdlers</i>																		
date	30-Jun-07	time	5.99	9.68	13.42	17.24	21.16	25.23	29.55	34.00	38.59	43.31	49.01	/ 2				
reaction time	interval		3.69	3.74	3.82	3.92		4.07	4.32	4.45	4.59	4.72	5.70		11.25	12.31	13.76	
	velocity	7.51	9.49	9.36	9.16	8.93		8.60	8.10	7.87	7.63	7.42	7.02	8.16		9.33	8.53	7.63
H1 lead leg	strides		13	13	13	13		13	14	14	15	15	123					

**FINAL - 2007 Osaka Grand Prix (Osaka, JPN)**

date	05-May-07	time	5.97	9.66	13.38	17.20	21.14	25.21	29.46	34.08	38.85	43.55	49.20	/ 4			
reaction time		interval		3.69	3.72	3.82	3.94	4.07	4.25	4.62	4.77	4.70	5.65	11.23	12.26	14.09	
		velocity	7.54	9.49	9.41	9.16	8.88	8.60	8.24	7.58	7.34	7.45	7.08	8.13	9.35	8.56	7.45
H1 lead leg		strides		13	13	13	13	13	14	14	15	15	123				

*Yasunori (2008) - race pattern analysis of the world and Japanese top 400m hurdlers***FINAL - 2006 Japanese National Championships (Kobe, JPN)**

date	01-Jul-06	time	6.07	9.82	13.61	17.51	21.46	25.60	30.02	34.52	39.11	43.75	48.95	/ 1			
reaction time		interval		3.75	3.79	3.90	3.95	4.14	4.42	4.50	4.59	4.64	5.20	11.44	12.51	13.73	
		velocity	7.41	9.33	9.23	8.97	8.86	8.45	7.92	7.78	7.63	7.54	7.69	8.17	9.18	8.39	7.65
H1 lead leg		strides		13	13	13	13	13	14	14	15	15	123				

*Yasunori (2007) - race pattern analysis of top Japanese 400m hurdlers***FINAL - 2006 Osaka Grand Prix (Osaka, JPN)**

date	06-May-06	time	5.95	9.63	13.41	17.23	21.10	25.12	29.44	33.77	38.17	42.72	47.93	/ 3			
reaction time		interval		3.68	3.78	3.82	3.87	4.02	4.32	4.33	4.40	4.55	5.21	PB	11.28	12.21	13.28
		velocity	7.56	9.51	9.26	9.16	9.04	8.71	8.10	8.08	7.95	7.69	7.68	8.35	9.31	8.60	7.91
H1 lead leg		strides		13	13	13	13	13	14	14	15	15	123				

*Yasunori (2007) - race pattern analysis of top Japanese 400m hurdlers***FINAL - 2005 Seiko Super Grand Prix (Yokohama, JPN)**

date	19-Sep-05	time	6.08	9.81	13.68	17.56	21.51	25.56	29.88	34.23	38.67	43.22	48.40	/ 2			
reaction time		interval		3.73	3.87	3.88	3.95	4.05	4.32	4.35	4.44	4.55	5.18	11.48	12.32	13.34	
		velocity	7.40	9.38	9.04	9.02	8.86	8.64	8.10	8.05	7.88	7.69	7.72	8.26	9.15	8.52	7.87
H1 lead leg		strides		13	13	13	13	13	14	14	15	15	123				

*Yasunori (2006) - race pattern analysis of top Japanese 400m hurdlers***Semi-Final 2 - 2005 IAAF World Championships (Helsinki, FIN)**

date	07-Aug-05	time	6.08	9.88	13.77	17.69	21.66	25.75	30.07	34.47	39.02	43.64	49.00	/ 3			
reaction time	0.158	interval		3.80	3.89	3.92	3.97	4.09	4.32	4.40	4.55	4.62	5.36	11.61	12.38	13.57	
		velocity	7.40	9.21	9.00	8.93	8.82	8.56	8.10	7.95	7.69	7.58	7.46	8.16	9.04	8.48	7.74
H1 lead leg		strides		13	13	13	13	13	14	14	15	15	123				

*Yasunori (2006) - race pattern analysis of top Japanese 400m hurdlers***FINAL - 2005 Japanese Championships (Tokyo, JPN)**

date	04-Jun-05	time	6.06	9.86	13.76	17.73	21.83	26.15	30.49	35.06	39.58	44.18	49.44	/ 2			
reaction time		interval		3.80	3.90	3.97	4.10	4.32	4.34	4.57	4.52	4.60	5.26	11.67	12.76	13.69	
		velocity	7.43	9.21	8.97	8.82	8.54	8.10	8.06	7.66	7.74	7.61	7.60	8.09	9.00	8.23	7.67
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	125				

*Yasunori (2006) - race pattern analysis of top Japanese 400m hurdlers***FINAL - 2005 Osaka Grand Prix (Osaka, JPN)**

date	07-May-05	time	5.99	9.68	13.45	17.25	21.24	25.39	29.81	34.25	38.77	43.37	48.71	/ 3			
reaction time		interval		3.69	3.77	3.80	3.99	4.15	4.42	4.44	4.52	4.60	5.34	11.26	12.56	13.56	
		velocity	7.51	9.49	9.28	9.21	8.77	8.43	7.92	7.88	7.74	7.61	7.49	8.21	9.33	8.36	7.74
H1 lead leg		strides		13	13	13	13	13	14	14	15	15	123				

*Yasunori (2006) - race pattern analysis of top Japanese 400m hurdlers***FINAL - 2004 Seiko Super Grand Prix (Yokohama, JPN)**

date	23-Sep-04	time	5.99	9.63	13.43	17.37	21.37	25.52	29.91	34.36	38.91	43.58	49.07	/ 4			
reaction time		interval		3.64	3.80	3.94	4.00	4.15	4.39	4.45	4.55	4.67	5.49	PB	11.38	12.54	13.67
		velocity	7.51	9.62	9.21	8.88	8.75	8.43	7.97	7.87	7.69	7.49	7.29	8.15	9.23	8.37	7.68
H1 lead leg		strides		13	13	13	13	13	15	15	15	15	125				

*Yasunori (2005) - race pattern analysis of top Japanese 400m hurdlers***FINAL - 2004 Japanese National Championships (Tottori, JPN)**

date	05-Jun-04	time	6.02	9.79	13.61	17.61	21.76	26.20	30.57	35.06	39.65	44.34	49.80	/ 4			
reaction time		interval		3.77	3.82	4.00	4.15	4.44	4.37	4.49	4.59	4.69	5.46	11.59	12.96	13.77	
		velocity	7.48	9.28	9.16	8.75	8.43	7.88	8.01	7.80	7.63	7.46	7.33	8.03	9.06	8.10	7.63
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	125				

*Yasunori (2005) - race pattern analysis of top Japanese 400m hurdlers***Nataura, Yusuke (JPN)**

<b>FINAL - 2016 Japanese National High School Championships (Okayama, JPN)</b>																	
<i>Kota (2016) - 69th high school championships: JAF scientific committee- biomechanics data</i>																	
date	31-Jul-16	time	6.27	10.41	14.73	19.17	23.62	28.06	32.53	37.12	41.83	46.88	52.93	/ 5			
reaction time	0.151	interval		4.14	4.32	4.44	4.45	4.44	4.47	4.59	4.71	5.05	6.05	12.90	13.36	14.35	
		velocity	7.18	8.45	8.10	7.88	7.87	7.88	7.83	7.63	7.43	6.93	6.61	7.56	8.14	7.86	7.32
H1 lead leg		strides		15	15	15	15	15	15	15	15	16	136				

**Nathaniel, Ezekiel (NGR) (2003)**

<b>Semi-Final 1 - 2024 Olympic Games (Paris, FRA)</b>																	
<i>Paris 2024 Olympic Games - Results Book (2024)</i>																	
date	07-Aug-24	time	5.76	9.43	13.13	16.89	20.85	24.98	29.16	33.51	38.22	43.08	48.65	/ 5			
reaction time	0.170	interval		3.67	3.70	3.76	3.96	4.13	4.18	4.35	4.71	4.86	5.57	11.13	12.27	13.92	
		velocity	7.81	9.54	9.46	9.31	8.84	8.47	8.37	8.05	7.43	7.20	7.18	8.22	9.43	8.56	7.54
H1 lead leg	R	strides	21	13	13	13	13	13	13	13	14	14	17	157			

**Heat 4 - 2024 Olympic Games (Paris, FRA)**

<i>Paris 2024 Olympic Games - Results Book (2024)</i>																	
date	05-Aug-24	time	5.84	9.46	13.15	16.93	20.85	25.00	29.32	33.82	38.51	43.10	48.38	/ 2			
reaction time	0.181	interval		3.62	3.69	3.78	3.92	4.15	4.32	4.50	4.69	4.59	5.28	11.09	12.39	13.78	
		velocity	7.71	9.67	9.49	9.26	8.93	8.43	8.10	7.78	7.46	7.63	7.58	8.27	9.47	8.47	7.62
H1 lead leg	R	strides	21	13	13	13	13	13	13	14	14	14	17	158			

**Semi-Final 1 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)**

<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>																
date	21-Aug-23	time	6.06	9.97	13.63	17.33	21.26	25.40	29.73	34.23	38.67	43.67	49.22	/ 6		
reaction time	0.209	interval		3.91	3.66	3.70	3.93	4.14	4.33	4.50	4.94	5.55		11.27	12.40	13.94

H1 lead leg	R	velocity	7.43	8.95	9.56	9.46	8.91		8.45	8.08	7.78		7.42	7.21	8.13		9.32	8.47	7.53
		strides	21	13	13	13	13		13	14	14		17	131					

**Heat 4 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)***Henson (2023) - Athlete First: 2023 year end hurdle report*

date	20-Aug-23	time	6.10	10.03	13.83	17.56	21.33		25.33	29.53	33.90	38.53	43.23		48.47		8 / 4			
reaction time	0.210	interval		3.93	3.80	3.73	3.77		4.00	4.20	4.37	4.63	4.70	5.24				11.46	11.97	13.70
H1 lead leg	R	velocity	7.38	8.91	9.21	9.38	9.28		8.75	8.33	8.01	7.56	7.45	7.63	8.25			9.16	8.77	7.66
		strides	21	13	13	13	13		13	13	14	14	14	17	158					

**FINAL - 2023 NCAA Championships (Austin, TX) (TV Analysis)***Henson (2023) - Athlete First: 2023 year end hurdle report*

date	09-Jun-23	time	5.99	9.69	13.50	17.33	21.30		25.39	29.66	34.06	38.66	43.39		48.54		8 / 3			
reaction time		interval		3.70	3.81	3.83	3.97		4.09	4.27	4.40	4.60	4.73	5.15				11.34	12.33	13.73
H1 lead leg	R	velocity	7.51	9.46	9.19	9.14	8.82		8.56	8.20	7.95	7.61	7.40	7.77	8.24			9.26	8.52	7.65
		strides	21	13	13	13	13		13	13	13	14	14	17.7	157.7					

**Semi-Final 3 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)***Henson (2022) - Athlete First: 2022 year end hurdle report*

date	17-Jul-22	time	5.97	10.33	14.36	18.40	22.60	24.53		31.80	36.77				54.18		7 / 8		
reaction time	0.176	interval		4.36	4.03	4.04	4.20			9.20	4.97							12.43	13.40
H1 lead leg	R	velocity	7.54	8.03	8.68	8.66	8.33	8.15		7.61	7.04				7.38			8.45	7.84
		strides	21	15	14	13	13			14	14				104				

**Heat 1 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)***Henson (2022) - Athlete First: 2022 year end hurdle report*

date	16-Jul-22	time	5.90	9.63	13.43	17.40	21.63	23.44		30.40	34.87	39.46	44.20		49.64		1 / 3			
reaction time	0.135	interval		3.73	3.80	3.97	4.23			8.77	4.47	4.59	4.74	5.44				11.50	13.00	13.80
H1 lead leg	R	velocity	7.63	9.38	9.21	8.82	8.27	8.53		7.98	7.83	7.63	7.38	7.35	8.06			9.13	8.08	7.61
		strides	21	13	13	14	14				14		15	17.2	121.2					

**Nezir, Ismail (TUR) (2003)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****Semi-Final 1 - 2024 European Athletics Championships (Roma, ITA)***European Athletics (2024) - 2024 european athletics championships - results book*

date	10-Jun-24	time	6.14	10.08	14.10	18.18	22.41		26.79	31.38	36.08	40.90	45.71		51.29		6 / 8			
reaction time	0.180	interval		3.94	4.02	4.08	4.23		4.38	4.59	4.70	4.82	4.81	5.58				12.04	13.20	14.33
H1 lead leg	L	velocity	7.33	8.88	8.71	8.58	8.27		7.99	7.63	7.45	7.26	7.28	7.17	7.80			8.72	7.95	7.33
		strides	20	13	13	13	13		13	14	14	14	14	17	158					

**FINAL - 2023 Doha Diamond League (Doha, QAT)***Omega Timing (2023) - diamond league race analysis*

date	05-May-23	time	6.16	10.10	14.19	18.37	22.62		27.08	31.79	36.37	41.13	45.91		51.40		2 / 8			
reaction time	0.195	interval		3.94	4.09	4.18	4.25		4.46	4.71	4.58	4.76	4.78	5.49				12.21	13.42	14.12
H1 lead leg	L	velocity	7.31	8.88	8.56	8.37	8.24		7.85	7.43	7.64	7.35	7.32	7.29	7.78			8.60	7.82	7.44
		strides	20	13	13	13	13		13		14	14	14	127						

**FINAL - 2022 Memorial van Damme (Brussels, BEL) (TV Analysis)***Henson (2022) - Athlete First: 2022 year end hurdle report*

date	02-Sep-22	time	6.14	10.04	13.98		22.19	23.88	26.36	30.59	35.20	39.87	44.58		49.92		1 / <del>2</del> 7		
reaction time	0.170	interval		3.90	3.94		8.21		4.17	4.23	4.61	4.67	4.71	5.34					13.99
H1 lead leg	L	velocity	7.33	8.97	8.88		8.53	8.38	8.39	8.27	7.59	7.49	7.43	7.49	8.01				7.51
		strides	20	13	13			13	13	14	14	14	14	114					

**Semi-Final 1 - 2022 European Athletics Championships (Munich, GER)***European Athletics (2022) - european athletics championships race analysis*

date	18-Aug-22	time	6.20	10.13	14.12	18.23	22.35	24.13	26.47	30.75	35.23	39.87	44.44		49.75		4 / 5			
reaction time	0.229	interval		3.93	3.99	4.11	4.12		4.12	4.28	4.48	4.64	4.57	5.31				12.03	12.52	13.69
H1 lead leg	L	velocity	7.26	8.91	8.77	8.52	8.50	8.29	8.50	8.18	7.81	7.54	7.66	7.53	8.04			8.73	8.39	7.67
		strides	20	13		13	13		13	13	13	14	14	17	143					

**Nichols, Regan (USA) (1973)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2003 USATF National Championships (Palo Alto, CA)***USATF Women's Sprint Development (2003)*

date	22-Jun-03	time	5.99	9.88	13.88	17.89	21.91		26.24	30.56	35.08	39.66	44.45		50.08		8 / <del>6</del> 5			
reaction time		interval		3.89	4.00	4.01	4.02		4.33	4.32	4.52	4.58	4.79	5.63				11.90	12.67	13.89
H1 lead leg		velocity	7.51	9.00	8.75	8.73	8.71		8.08	8.10	7.74	7.64	7.31	7.10	7.99			8.82	8.29	7.56
		strides																		

**Nilsson, Anton (SWE) (1992)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2011 Poks Memorial (Hässleholm, SWE)***Blomkvist (2011) - www.elitlandslag.se/SprintHäck/LängSprintHäck.aspx*

date	12-Jun-11	time	6.42	10.52	14.82	19.14	23.66		28.24	33.02	37.88	42.90	48.24		54.22		1 / 3			
reaction time		interval		4.10	4.30	4.32	4.52		4.58	4.78	4.86	5.02	5.34	5.98				12.72	13.88	15.22
H1 lead leg	L	velocity	7.01	8.54	8.14	8.10	7.74		7.64	7.32	7.20	6.97	6.55	6.69	7.38			8.25	7.56	6.90
		strides		14	14	14	14		14	15	15	15	16	19	150					

**FINAL - 2011 Fridrott (Stockholm, SWE)***Blomkvist (2011) - www.elitlandslag.se/SprintHäck/LängSprintHäck.aspx*

date	07-Jun-11	time	6.40	10.60	14.84	19.14	23.56		28.16	32.86	37.78	43.20	48.62		54.86		1 / 2			
reaction time		interval		4.20	4.24	4.30	4.42		4.60	4.70	4.92	5.42	5.42	6.24				12.74	13.72	15.76
H1 lead leg	L	velocity	7.03	8.33	8.25	8.14	7.92		7.61	7.45	7.11	6.46	6.46	6.41	7.29			8.24	7.65	6.66
		strides		14	14	14	14		14	15	15	16	16	19	151					

**Nilsson, Vance (USA) (2005)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****Semi-Final 2 - 2024 USA Olympic Trials (Eugene, OR)***USATF and Karmarush (2024) - USA Olympic trials results and race analysis*

date	28-Jun-24	time	6.02	9.79	13.63	17.60	21.63	23.44	25.75	30.20	34.93	39.74	44.49		49.77		8 / 3			
reaction time		interval		3.77	3.84	3.97	4.03		4.12	4.45	4.73	4.81	4.75	5.28	<b>PB</b>			11.58	12.60	14.29
		velocity	7.48	9.28	9.11	8.82	8.68	8.53	8.50	7.87	7.40	7.28	7.37	7.58	8.04			9.07	8.33	7.35



H1 lead leg R strides 20 13 13 13 13 13 13 13 13 14 14 15 17 158

**Heat 3 - 2024 USA Olympic Trials (Eugene, OR)***USATF and Karmarush (2024) - USA Olympic trials results and race analysis*

date 27-Jun-24 time 6.03 9.85 13.69 17.60 21.62 23.45 25.79 30.12 34.70 39.56 44.44 50.13 9 / 2  
 reaction time interval 3.82 3.84 3.91 4.02 4.17 4.33 4.58 4.86 4.88 5.69 **PB** 11.57 12.52 14.32  
 velocity 7.46 9.16 9.11 8.95 8.71 8.53 8.39 8.08 7.64 7.20 7.17 7.03 7.98 9.08 8.39 7.33

H1 lead leg R strides 20 13 13 13 13 13 13 13 13 15 15 17 158

**Nitta, Dai (JPN)**

**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**

**FINAL - 2023 Shimane High School Championships (Izumo, JPN)** *Shimizu (2023) - shimane high school championships 2023 - biomechanics data analysis*

date 27-May-23 time 7.00 11.47 16.20 21.08 26.32 31.73 37.08 42.45 47.87 53.23 59.12 2 / 5  
 reaction time interval 4.47 4.73 4.88 5.24 5.41 5.35 5.37 5.42 5.36 5.89 14.08 16.00 16.15  
 velocity 6.43 7.83 7.40 7.17 6.68 6.47 6.54 6.52 6.46 6.53 6.79 7.46 6.56 6.50  
 H1 lead leg strides 23 15 15 15 16 18 17 17 17 17 20.4 190.4

**Nitta, Takaya (JPN)**

**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**

**FINAL - 2020 Shimane High School Championships (Izumo, JPN)** *Shimizu (2020) - shimane high school championships 2020 - biomechanics data analysis*

date 12-Jul-20 time 6.67 11.23 15.93 20.80 25.80 30.80 35.95 41.33 47.13 53.07 59.62 4 / 3  
 reaction time interval 4.56 4.70 4.87 5.00 5.00 5.15 5.38 5.80 5.94 6.55 14.13 15.15 17.12  
 velocity 6.75 7.68 7.45 7.19 7.00 7.00 6.80 6.51 6.03 5.89 6.11 7.43 6.93 6.13  
 H1 lead leg strides 24 16 16 17 17 17 17 17 19 19 22.5 201.5

**Niu Jinshan (CHN) (2004)**

**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**

**U20 FINAL - 2022 Shandong Provincial Games (Rizhao, CHN)** *Shandong Athletics Sport Science (2022)*

date 03-Sep-22 time 6.31 10.55 14.72 18.92 23.26 27.75 32.45 37.33 42.75 48.24 54.04 4 / 4  
 reaction time 0.272 interval 4.24 4.17 4.20 4.34 4.49 4.70 4.88 5.42 5.49 5.80 12.61 13.53 15.79  
 velocity 7.13 8.25 8.39 8.33 8.06 7.80 7.45 7.17 6.46 6.38 6.90 8.33 7.76 6.65  
 H1 lead leg L strides 21 15 15 15 15 15 15 15 17 17 19.7 180

**Noda, Keisuke (JPN) (1999)**

**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**

**Heat 1 - 2016 Japanese National Youth Championships (Mizuho, JPN)** *(2016.11.17) - https://twitter.com/touchdown\_time/media?lang=en&lang=en&lang=en&lang=en*

date 23-Oct-16 time 6.49 10.65 14.85 19.10 23.43 27.86 32.49 37.47 42.48 47.45 52.99 8 / 1  
 reaction time interval 4.16 4.20 4.25 4.33 4.43 4.63 4.98 5.01 4.97 5.54 12.61 13.39 14.96  
 velocity 6.93 8.41 8.33 8.24 8.08 7.90 7.56 7.03 6.99 7.04 7.22 8.33 7.84 7.02  
 H1 lead leg strides

**Nozawa, Keisuke (JPN) (1991)**

**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**

**B FINAL - 2021 Michitaka Kinami Memorial (Osaka, JPN)** *Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season*

date 01-Jun-21 time 6.29 10.16 14.20 18.28 22.51 26.73 31.10 35.60 40.24 45.03 50.56 6 / 4  
 reaction time 0.199 interval 3.87 4.04 4.08 4.23 4.22 4.37 4.50 4.64 4.79 5.53 11.99 12.82 13.93  
 velocity 7.15 9.04 8.66 8.58 8.27 8.29 8.01 7.78 7.54 7.31 7.23 8.76 8.19 7.54  
 H1 lead leg L strides 21 14 14 14 14 14 14 15 15 15 19 169

**FINAL - 2020 Michitaka Kinami Memorial (Osaka, JPN)***Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season*

date 24-Oct-20 time 5.99 9.69 13.43 17.22 21.19 25.28 29.46 33.93 38.74 43.89 50.26 6 / 3  
 reaction time interval 3.70 3.74 3.79 3.97 4.09 4.18 4.47 4.81 5.15 6.37 11.23 12.24 14.43  
 velocity 7.51 9.46 9.36 9.23 8.82 8.56 8.37 7.83 7.28 6.80 6.28 9.35 8.58 7.28  
 H1 lead leg L strides 21 13 13 13 14 14 14 14 15 16 20 167

**FINAL - 2020 All Japan Corporate Championships (Kumagaya, JPN)***Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season*

date 20-Sep-20 time 6.21 10.11 14.18 18.30 22.59 26.91 31.41 36.00 40.66 45.48 51.03 3 / 6  
 reaction time 0.225 interval 3.90 4.07 4.12 4.29 4.32 4.50 4.59 4.66 4.82 5.55 12.09 13.11 14.07  
 velocity 7.25 8.97 8.60 8.50 8.16 8.10 7.78 7.63 7.51 7.26 7.21 8.68 8.01 7.46  
 H1 lead leg strides 14 14 14 14 14 14 14 15 15 15 129

**FINAL - 2019 Japanese National Championships (Fukuoka, JPN)***Yamanaka (2019) - research on athlete performance and technique- 2019 data book*

date 29-Jun-19 time 5.99 9.68 13.53 17.52 21.60 25.76 30.10 34.53 39.21 43.98 49.51 4 / 4  
 reaction time 0.179 interval 3.69 3.85 3.99 4.08 4.16 4.34 4.43 4.68 4.77 5.53 11.53 12.58 13.88  
 velocity 7.51 9.49 9.09 8.77 8.58 8.41 8.06 7.90 7.48 7.34 7.23 9.11 8.35 7.56  
 H1 lead leg L strides 21 13 13 14 14 14 14 14 15 15 19 166

**FINAL - 2019 Seiko Golden Grand Prix (Osaka, JPN)***Hirokawa (2019) - research on athlete performance and technique- 2019 data book*

date 19-May-19 time 6.14 9.91 13.88 17.87 21.99 26.14 30.46 35.02 39.98 44.94 50.65 6 / 2  
 reaction time 0.254 interval 3.77 3.97 3.99 4.12 4.15 4.32 4.56 4.96 4.96 5.71 11.73 12.59 14.48  
 velocity 7.33 9.28 8.82 8.77 8.50 8.43 8.10 7.68 7.06 7.06 7.01 8.95 8.34 7.25  
 H1 lead leg L strides 21 14 14 14 14 14 14 14 16 15 19 169

**A FINAL - 2019 Kinami Memorial (Osaka, JPN)***Matsubayashi (2019) - research on athlete performance and technique- 2019 data book*

date 06-May-19 time 6.04 9.79 13.61 17.45 21.47 25.53 29.76 34.18 38.84 43.76 49.52 8 / 1  
 reaction time interval 3.75 3.82 3.84 4.02 4.06 4.23 4.42 4.66 4.92 5.76 11.41 12.31 14.00  
 velocity 7.45 9.33 9.16 9.11 8.71 8.62 8.27 7.92 7.51 7.11 6.94 9.20 8.53 7.50  
 H1 lead leg L strides 21 14 14 14 14 14 14 15 15 15 19 169

**A FINAL - 2019 Shizuoka International Athletics Meeting (Fukuroi, JPN)***Kobayashi (2019) - research on athlete performance and technique- 2019 data book*

date 03-May-19 time 6.12 9.88 13.81 17.78 21.86 25.94 30.15 34.48 39.21 44.13 49.84 9 / 1  
 reaction time interval 3.76 3.93 3.97 4.08 4.08 4.21 4.33 4.73 4.92 5.71 11.66 12.37 13.98  
 velocity 7.35 9.31 8.91 8.82 8.58 8.58 8.31 8.08 7.40 7.11 7.01 9.01 8.49 7.51

H1 lead leg	L	strides	21	14	14	14	14	14	14	14	14	15	15	19.2	168.2				
<b>FINAL - 2017 Nambu Memorial (Sapporo, JPN)</b>																			
<i>(2017) - tfdata-store.com/2017/07/11/post-1019/</i>																			
date	09-Jul-17	time	5.99	9.69	13.47	17.32	21.34	25.50	29.77	34.25	39.04	44.30	50.68	8 / 6					
reaction time		interval	3.70	3.78	3.85	4.02	4.16	4.27	4.48	4.79	5.26	6.38			11.33	12.45	14.53		
		velocity	7.51	9.46	9.26	9.09	8.71	8.41	8.20	7.81	7.31	6.65	6.27	7.89	9.27	8.43	7.23		
H1 lead leg	L	strides	21	13	13	13	14	14	14	14	15	16	20	167					
<b>FINAL - 2016 Weltklasse (Zürich, SUI) (TV Analysis)</b>																			
<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>																			
date	01-Sep-16	time	5.88	9.68	13.52	17.44	21.48	25.68	29.96	34.40	39.12	43.96	49.42	2 / 7					
reaction time	0.134	interval	3.80	3.84	3.92	4.04	4.20	4.28	4.44	4.72	4.84	5.46			11.56	12.52	14.00		
		velocity	7.65	9.21	9.11	8.93	8.66	8.33	8.18	7.88	7.42	7.23	7.33	8.09	9.08	8.39	7.50		
H1 lead leg	L	strides	21	13	13	13	14	14	14	14	15	15	17.2	163.2					
<b>FINAL - 2016 Japanese National Championships (Nagoya, JPN)</b>																			
<i>Morioka (2016) - race pattern of top 400m hurdlers in japan</i>																			
date	24-Jun-16	time	5.98	9.63	13.43	17.30	21.27	25.47	29.71	34.16	38.73	43.57	49.14	5 / 1					
reaction time	0.174	interval	3.65	3.80	3.87	3.97	4.20	4.24	4.45	4.57	4.84	5.57			11.32	12.41	13.86		
		velocity	7.53	9.59	9.21	9.04	8.82	8.33	8.25	7.87	7.66	7.23	7.18	8.14	9.28	8.46	7.58		
H1 lead leg		strides	13	13	13	14	14	14	14	14	15	15	125						
<b>FINAL - 2016 Seiko Golden Grand Prix (Kawasaki, JPN)</b>																			
<i>Morioka (2016) - race pattern of top 400m hurdlers in japan</i>																			
date	08-May-16	time	5.96	9.58	13.27	17.06	21.03	25.05	29.15	33.45	38.05	42.89	48.67	4 / 1					
reaction time	0.155	interval	3.62	3.69	3.79	3.97	4.02	4.10	4.30	4.60	4.84	5.78	<b>PB</b>		11.10	12.09	13.74		
		velocity	7.55	9.67	9.49	9.23	8.82	8.71	8.54	8.14	7.61	7.23	6.92	8.22	9.46	8.68	7.64		
H1 lead leg	L	strides	21	13	13	14	14	14	14	15	15	15	19.2	167.2					
<b>FINAL - 2016 Shizuoka International Athletics Meeting (Fukuroi, JPN)</b>																			
<i>Morioka (2016) - race pattern of top 400m hurdlers in japan</i>																			
date	03-May-16	time	5.94	9.56	13.26	17.10	21.09	25.13	29.38	33.93	38.68	43.53	49.07	/ 1					
reaction time		interval	3.62	3.70	3.84	3.99	4.04	4.25	4.55	4.75	4.85	5.54	<b>PB</b>		11.16	12.28	14.15		
		velocity	7.58	9.67	9.46	9.11	8.77	8.66	8.24	7.69	7.37	7.22	7.22	8.15	9.41	8.55	7.42		
H1 lead leg		strides	13	13	14	14	14	14	14	15	15	15	127						
<b>B FINAL - 2012 Shizuoka International Athletics Meeting (Fukuroi, JPN)</b>																			
<i>Yasunori (2013) - race pattern analysis for the top Japanese 400m hurdlers in major domestic competitions</i>																			
date	03-May-12	time	6.17	10.07	14.07	18.12	22.32	26.54	30.89	35.34	39.98	44.75	50.00	/ 1					
reaction time		interval	3.90	4.00	4.05	4.20	4.22	4.35	4.45	4.64	4.77	5.25			11.95	12.77	13.86		
		velocity	7.29	8.97	8.75	8.64	8.33	8.29	8.05	7.87	7.54	7.34	7.62	8.00	8.79	8.22	7.58		
H1 lead leg		strides	14	14	14	14	14	14	14	14	14	15	127						
<b>Ntweng, Victor (BOT) (1995)</b>																			
<b>Repechage 2 - 2024 Olympic Games (Paris, FRA)</b>																			
<i>Paris 2024 Olympic Games - Results Book (2024)</i>																			
date	07-Aug-24	time	5.76	9.54	13.40	17.26	21.22	25.36	29.58	34.06	38.68	43.36	48.88	5 / 3					
reaction time	0.168	interval	3.78	3.86	3.86	3.96	4.14	4.22	4.48	4.62	4.68	5.52			11.50	12.32	13.78		
		velocity	7.81	9.26	9.07	9.07	8.84	8.45	8.29	7.81	7.58	7.48	7.25	8.18	9.13	8.52	7.62		
H1 lead leg	R	strides	20	13	13	13	13	13	13	14	14	14	17	157					
<b>Heat 3 - 2024 Olympic Games (Paris, FRA)</b>																			
<i>Paris 2024 Olympic Games - Results Book (2024)</i>																			
date	05-Aug-24	time	5.79	9.66	13.47	17.24	21.23	25.39	29.78	34.46	39.21	44.05	49.59	3 / 5					
reaction time	0.138	interval	3.87	3.81	3.77	3.99	4.16	4.39	4.68	4.75	4.84	5.54			11.45	12.54	14.27		
		velocity	7.77	9.04	9.19	9.28	8.77	8.41	7.97	7.48	7.37	7.23	7.22	8.07	9.17	8.37	7.36		
H1 lead leg	R	strides	20	13	13	13	13	13	14	14	15	15	17	160					
<b>Nuñez, Yeral (DOM) (2003)</b>																			
<b>Repechage 3 - 2024 Olympic Games (Paris, FRA)</b>																			
<i>Paris 2024 Olympic Games - Results Book (2024)</i>																			
date	06-Aug-24	time	5.83	9.49	13.28	17.34	21.36	25.60	29.89	34.44	39.17	44.21	53.68	7 / 5					
reaction time	0.204	interval	3.66	3.79	4.06	4.02	4.24	4.29	4.55	4.73	5.04	9.47			11.51	12.55	14.32		
		velocity	7.72	9.56	9.23	8.62	8.71	8.25	8.16	7.69	7.40	6.94	4.22	7.45	9.12	8.37	7.33		
H1 lead leg	L	strides	20	13	14	14	14	14	14	15	15	15	148						
<b>Heat 2 - 2024 Olympic Games (Paris, FRA)</b>																			
<i>Paris 2024 Olympic Games - Results Book (2024)</i>																			
date	05-Aug-24	time	5.82	9.44	13.11	16.89	20.85	25.00	29.37	33.87	38.42	43.05	48.67	8 / 4					
reaction time	0.187	interval	3.62	3.67	3.78	3.96	4.15	4.37	4.50	4.55	4.63	5.62			11.07	12.48	13.68		
		velocity	7.73	9.67	9.54	9.26	8.84	8.43	8.01	7.78	7.69	7.56	7.12	8.22	9.49	8.41	7.68		
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	18	164					
<b>Nylander, Sven (SWE) (1962)</b>																			
<b>FINAL - 1996 Olympic Games (Atlanta, GA)</b>																			
<i>Behm (1996) - 400m haies</i>																			
date	01-Aug-96	time	6.0	9.7	13.5	17.3	21.3	25.3	29.4	33.8	38.3	42.9	47.98	4 / 4					
reaction time	0.225	interval	3.70	3.80	3.80	4.00	4.00	4.10	4.40	4.50	4.60	5.08	<b>NR</b>		11.30	12.10	13.50		
		velocity	7.50	9.46	9.21	9.21	8.75	8.75	8.54	7.95	7.78	7.61	7.87	8.34	9.29	8.68	7.78		
H1 lead leg		strides	20	13	13	13	13	13	13	13	14	14	139						
<b>FINAL - 1994 European Championships (Helsinki, FIN)</b>																			
<i>Behm (1995) - la tactique du 400 haies</i>																			
date	10-Aug-94	time	5.9	9.5	13.3	17.2	21.1	25.3	29.3	33.6	38.2	42.8	48.22	/ 2					
reaction time		interval	3.60	3.80	3.90	3.90	4.20	4.00	4.30	4.60	4.60	5.42	<b>PB</b>		11.30	12.10	13.50		
		velocity	7.63	9.72	9.21	8.97	8.97	8.33	8.75	8.14	7.61	7.61	7.38	8.30	9.29	8.68	7.78		
H1 lead leg		strides	20	13	13	13	13	14	14	14	14	14	142						

**FINAL - 1990 European Championships (Split, YUG)***Behm (1995) - la tactique du 400 haies*

date	29-Aug-90	time	6.1	9.8	13.6	17.5	21.5	25.6	29.9	34.4	38.8	43.3	48.43	6 / 2				
reaction time	interval		3.70	3.80	3.90	4.00	4.10	4.30	4.50	4.40	4.50	5.13			11.40	12.40	13.40	
		velocity	7.38	9.46	9.21	8.97	8.75	8.54	8.14	7.78	7.95	7.78	7.80	8.26		9.21	8.47	7.84
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	13	14	17.2	155.2				

**FINAL - 1986 European Championships (Stuttgart, FRG)***Behm (1995) - la tactique du 400 haies*

date	28-Aug-86	time	5.9	9.7	13.6	17.6	21.7	26.0	30.4	34.9	39.5	44.1	49.38	/ 3				
reaction time	interval		3.80	3.90	4.00	4.10	4.30	4.40	4.50	4.60	4.60	5.28			11.70	12.80	13.70	
		velocity	7.63	9.21	8.97	8.75	8.54	8.14	7.95	7.78	7.61	7.61	7.58	8.10		8.97	8.20	7.66
H1 lead leg		strides	20	13	13	13	13	13	13	13	14	14	139					

**Nylander, Viktor (SWE) (1998)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2017 European U20 Championships (Grosseto, ITA) (TV Analysis)***Henson (2020) - Athlete First: 2017 year end hurdle report*

date	23-Jul-17	time	5.88	9.76	13.68	17.80	22.04	26.52	31.24	36.08	41.08	46.24	52.76	2 / 8				
reaction time	interval		3.88	3.92	4.12	4.24	4.48	4.72	4.84	5.00	5.16	6.52			11.92	13.44	15.00	
		velocity	7.65	9.02	8.93	8.50	8.25	7.81	7.42	7.23	7.00	6.78	6.13	7.58		8.81	7.81	7.00
H1 lead leg	R	strides		13	14	14	14	14	15	15	15	15	19	148				

**Obayashi, Masayuki (JPN) (1996)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2020 World Athletics Trials (Fuji, JPN)***Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season*

date	06-Sep-20	time	5.96	9.86	13.85	18.00	22.12	26.36	30.63	35.02	39.62	44.53	50.22	/ 2				
reaction time	interval		3.90	3.99	4.15	4.12	4.24	4.24	4.27	4.39	4.60	4.91	5.69		12.04	12.63	13.90	
		velocity	7.55	8.97	8.77	8.43	8.50	8.25	8.20	7.97	7.61	7.13	7.03	7.96		8.72	8.31	7.55
H1 lead leg		strides		14	14	14	15	15	15	15	15	15	132					

**FINAL - 2019 Seiko Golden Grand Prix (Osaka, JPN)***Hirokawa (2019) - research on athlete performance and technique- 2019 data book*

date	19-May-19	time	6.04	9.96	13.91	18.04	22.21	26.48	30.83	35.40	40.22	45.35	51.45	4 / 6				
reaction time	interval		3.92	3.95	4.13	4.17	4.27	4.35	4.57	4.82	5.13	6.10			12.00	12.79	14.52	
		velocity	7.45	8.93	8.86	8.47	8.39	8.20	8.05	7.66	7.26	6.82	6.56	7.77		8.75	8.21	7.23
H1 lead leg	R	strides	22	14	14	14	14	15	15	15	15	17	20.7	175.7				

**A FINAL - 2019 Kinami Memorial (Osaka, JPN)***Matsubayashi (2019) - research on athlete performance and technique- 2019 data book*

date	06-May-19	time	6.06	10.08	14.08	18.17	22.39	26.63	30.91	35.30	39.89	44.64	50.11	9 / 4				
reaction time	interval		4.02	4.00	4.09	4.22	4.24	4.28	4.39	4.59	4.75	5.47			12.11	12.74	13.73	
		velocity	7.43	8.71	8.75	8.56	8.29	8.25	8.18	7.97	7.63	7.37	7.31	7.98		8.67	8.24	7.65
H1 lead leg	R	strides	22	14	14	14	14	15	15	15	15	15	19	172				

**B FINAL - 2019 Shizuoka International Athletics Meeting (Fukuroi, JPN)***Kobayashi (2019) - research on athlete performance and technique- 2019 data book*

date	03-May-19	time	6.07	10.08	14.11	18.34	22.57	26.88	31.35	35.85	40.47	45.18	50.48	6 / 1				
reaction time	interval		4.01	4.03	4.23	4.23	4.31	4.47	4.50	4.62	4.71	5.30			12.27	13.01	13.83	
		velocity	7.41	8.73	8.68	8.27	8.27	8.12	7.83	7.78	7.58	7.43	7.55	7.92		8.56	8.07	7.59
H1 lead leg	R	strides	22	14	14	14	14	15	15	15	15	15	19	172				

**B FINAL - 2018 Shizuoka International Athletics Meeting (Fukuroi, JPN)***Morioka (2018) - race pattern analysis of Japan's top 400m hurdles - main national competitions in 2018*

date	03-May-18	time	6.01	9.75	13.93	18.07	22.26	26.48	30.77	35.21	39.76	44.48	49.93	6 / 1				
reaction time	interval		3.74	4.18	4.14	4.19	4.22	4.29	4.44	4.55	4.72	5.45	<b>PB</b>		12.06	12.70	13.71	
		velocity	7.49	9.36	8.37	8.45	8.35	8.29	8.16	7.88	7.69	7.42	7.34	8.01		8.71	8.27	7.66
H1 lead leg	R	strides	22	15	15	15	15	15	15	15	15	15	19.7	176.7				

**FINAL - 2017 Osaka University Athletics Championships (Osaka, JPN)***(2017.04.13) - https://twitter.com/touchdown\_time/media?lang=en&lang=en&lang=en&lang=en*

date	05-Apr-17	time	6.02	9.82	13.79	17.86	22.09	26.46	31.03	35.82	40.69	46.01	51.94	7 / 1				
reaction time	interval		3.80	3.97	4.07	4.23	4.37	4.57	4.79	4.87	5.32	5.93			11.84	13.17	14.98	
		velocity	7.48	9.21	8.82	8.60	8.27	8.01	7.66	7.31	7.19	6.58	6.75	7.70		8.87	7.97	7.01
H1 lead leg		strides																

**FINAL - 2015 Japanese National Junior Championships (Nagoya, JPN)***Yasunori (2015) - race pattern analysis of the top 400m hurdlers in Japan*

date	18-Oct-15	time	6.10	9.94	14.08	18.28	22.62	26.89	31.26	35.76	40.30	44.94	50.18	6 / 3				
reaction time	interval		3.84	4.14	4.20	4.34	4.27	4.37	4.50	4.54	4.64	5.24	<b>PB</b>		12.18	12.98	13.68	
		velocity	7.38	9.11	8.45	8.33	8.06	8.20	8.01	7.78	7.71	7.54	7.63	7.97		8.62	8.09	7.68
H1 lead leg		strides		15	15	15	15	15	15	15	15	15	135					

**Oda, Atuya (JPN) (2003)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2021 Japanese High School National Championships (Fukui, JPN)***Shibayama (2021) - national high school and U20 national championships*

date	30-Jul-21	time	6.26	10.39	14.76	19.20	23.77	28.48	33.25	38.19	43.13	48.01	53.18	5 / 5				
reaction time	interval		4.13	4.37	4.44	4.57	4.71	4.77	4.94	4.94	4.88	5.17			12.94	14.05	14.76	
		velocity	7.19	8.47	8.01	7.88	7.66	7.43	7.34	7.09	7.09	7.17	7.74	7.52		8.11	7.47	7.11
H1 lead leg		strides		15	15	15	15	15	15	15	15	15	135					

**FINAL - 2021 Japanese U20 National Championships (Osaka, JPN)***Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season*

date	26-Jun-21	time	6.31	10.26	14.23	18.28	22.57	27.08	31.72	36.55	41.57	46.91	52.76	8 / 8				
reaction time	interval		3.95	3.97	4.05	4.29	4.51	4.64	4.83	5.02	5.34	5.85			11.97	13.44	15.19	
		velocity	7.13	8.86	8.82	8.64	8.16	7.76	7.54	7.25	6.97	6.55	6.84	7.58		8.77	7.81	6.91
H1 lead leg	R	strides	22	15	15	15	15	15	15	15	15	17	159					

**Oda, Masaya (JPN) (1995)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2020 Michitaka Kinami Memorial (Osaka, JPN)***Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season*



date	24-Oct-20	time	5.99	9.82	13.75	17.68	21.72	25.98	30.35	34.88	39.56	44.33	49.79	2 / 1				
reaction time		interval		3.83	3.93	3.93	4.04	4.26	4.37	4.53	4.68	4.77	5.46		11.69	12.67	13.98	
		velocity	7.51	9.14	8.91	8.91	8.66	8.22	8.01	7.73	7.48	7.34	7.33	8.03	8.98	8.29	7.51	
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	19.2	171.2				

**FINAL - 2020 Japanese National Championships (Niigata, JPN)** *Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season*

date	02-Oct-20	time	6.04	9.81	13.66	17.60	21.72	26.09	30.58	35.12	39.84	44.71	50.44	3 / 4				
reaction time	0.178	interval		3.77	3.85	3.94	4.12	4.37	4.49	4.54	4.72	4.87	5.73		11.56	12.98	14.13	
		velocity	7.45	9.28	9.09	8.88	8.50	8.01	7.80	7.71	7.42	7.19	6.98	7.93	9.08	8.09	7.43	
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	19.7	171.7				

**FINAL - 2020 All Japan Corporate Championships (Kumagaya, JPN)** *Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season*

date	20-Sep-20	time	6.12	9.94	13.78	17.81	21.94	26.31	30.71	35.24	39.86	44.63	50.18	5 / 2				
reaction time	0.222	interval		3.82	3.84	4.03	4.13	4.37	4.40	4.53	4.62	4.77	5.55		11.69	12.90	13.92	
		velocity	7.35	9.16	9.11	8.68	8.47	8.01	7.95	7.73	7.58	7.34	7.21	7.97	8.98	8.14	7.54	
H1 lead leg		strides		14	14	14	14	15	15	15	15	15	131					

**FINAL - 2020 Seiko Golden Grand Prix (Tokyo, JPN)** *Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season*

date	23-Aug-20	time	6.01	9.76	13.56	17.57	21.77	26.08	30.51	35.14	39.92	45.05	50.73	9 / 6				
reaction time	0.159	interval		3.75	3.80	4.01	4.20	4.31	4.43	4.63	4.78	5.13	5.68		11.56	12.94	14.54	
		velocity	7.49	9.33	9.21	8.73	8.33	8.12	7.90	7.56	7.32	6.82	7.04	7.88	9.08	8.11	7.22	
H1 lead leg		strides		14	14	14	14	14	14	15	15	16	130					

**FINAL - 2019 National Sports Festival (Hitachinaka, JPN)** *Enomoto (2019) - research on athlete performance and technique- 2019 data book*

date	05-Oct-19	time	5.96	9.68	13.46	17.40	21.52	25.89	30.26	34.65	39.17	43.91	49.42	6 / 1				
reaction time	0.179	interval		3.72	3.78	3.94	4.12	4.37	4.37	4.39	4.52	4.74	5.51	<b>PB</b>	11.44	12.86	13.65	
		velocity	7.55	9.41	9.26	8.88	8.50	8.01	8.01	7.97	7.74	7.38	7.26	8.09	9.18	8.16	7.69	
H1 lead leg		strides		14	14	14	14	15	15	15	15	15	131					

**FINAL - 2019 Japanese National Championships (Fukuoka, JPN)** *Yamanaka (2019) - research on athlete performance and technique- 2019 data book*

date	29-Jun-19	time	5.91	9.66	13.58	17.53	21.59	25.84	30.25	34.72	39.34	44.13	49.60	3 / 5				
reaction time	0.201	interval		3.75	3.92	3.95	4.06	4.25	4.41	4.47	4.62	4.79	5.47	<b>PB</b>	11.62	12.72	13.88	
		velocity	7.61	9.33	8.93	8.86	8.62	8.24	7.94	7.83	7.58	7.31	7.31	8.06	9.04	8.25	7.56	
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	19.2	171.2				

**Odate, Yuya (JPN) (2000)**

**FINAL - 2018 Japanese National High School Championships (Nagoya, JPN)** *Kota (2018) - 71st high school championships: JAF scientific committee - biomechanics data collection*

date	04-Aug-18	time	6.46	10.56	14.81	19.12	23.57	28.16	32.87	37.69	42.78	47.88	53.37	2 / 7				
reaction time		interval		4.10	4.25	4.31	4.45	4.59	4.71	4.82	5.09	5.10	5.49		12.66	13.75	15.01	
		velocity	6.97	8.54	8.24	8.12	7.87	7.63	7.43	7.26	6.88	6.86	7.29	7.49	8.29	7.64	7.00	
H1 lead leg		strides		15	15	15	15	15	15	15	16	16	137					

**Ogawa, Daiki (JPN) (2003)**

**Repechage 1 - 2024 Olympic Games (Paris, FRA)** *Paris 2024 Olympic Games - Results Book (2024)*

date	07-Aug-24	time	5.84	9.67	13.57	17.57	21.62	25.82	30.13	34.60	39.18	43.85	49.25	3 / 5				
reaction time	0.136	interval		3.83	3.90	4.00	4.05	4.20	4.31	4.47	4.58	4.67	5.40		11.73	12.56	13.72	
		velocity	7.71	9.14	8.97	8.75	8.64	8.33	8.12	7.83	7.64	7.49	7.41	8.12	8.95	8.36	7.65	
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	19	169				

**Heat 1 - 2024 Olympic Games (Paris, FRA)** *Paris 2024 Olympic Games - Results Book (2024)*

date	05-Aug-24	time	5.94	9.76	13.65	17.66	21.80	26.05	30.45	35.03	39.75	44.62	50.21	8 / 6				
reaction time	0.174	interval		3.82	3.89	4.01	4.14	4.25	4.40	4.58	4.72	4.87	5.59		11.72	12.79	14.17	
		velocity	7.58	9.16	9.00	8.73	8.45	8.24	7.95	7.64	7.42	7.19	7.16	7.97	8.96	8.21	7.41	
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	150					

**FINAL - 2023 Japanese National Championships (Osaka, JPN)** *Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season*

date	03-Jun-23	time	6.06	9.93	13.87	17.90	22.04	26.28	30.58	35.07	39.66	44.33	49.52	3 / 1				
reaction time	0.170	interval		3.87	3.94	4.03	4.14	4.24	4.30	4.49	4.59	4.67	5.19	<b>PB</b>	11.84	12.68	13.75	
		velocity	7.43	9.04	8.88	8.68	8.45	8.25	8.14	7.80	7.63	7.49	7.71	8.08	8.87	8.28	7.64	
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	20	172				

**FINAL - 2022 Japanese U20 National Championships (Osaka, JPN)** *Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season*

date	11-Jun-22	time	6.12	10.14	14.18	18.26	22.46	26.76	31.11	35.74	40.57	45.41	50.72	7 / 3				
reaction time	0.173	interval		4.02	4.04	4.08	4.20	4.30	4.35	4.63	4.83	4.84	5.31		12.14	12.85	14.30	
		velocity	7.35	8.71	8.66	8.58	8.33	8.14	8.05	7.56	7.25	7.23	7.53	7.89	8.65	8.17	7.34	
H1 lead leg	L	strides	22	14	14	15	15	15	15	15	17	17	20.2	179.2				

**FINAL - 2021 Japanese High School National Championships (Fukui, JPN)** *Shibayama (2021) - national high school and U20 national championships*

date	30-Jul-21	time	6.29	10.51	14.88	19.30	23.86	28.53	33.23	38.04	42.98	47.96	53.22	2 / 6				
reaction time	0.154	interval		4.22	4.37	4.42	4.56	4.67	4.70	4.81	4.94	4.98	5.26		13.01	13.93	14.73	
		velocity	7.15	8.29	8.01	7.92	7.68	7.49	7.45	7.28	7.09	7.03	7.60	7.52	8.07	7.54	7.13	
H1 lead leg		strides		14	14	15	15	15	15	15	17	17	137					

**Okada, Sohei (JPN) (1993)**

**FINAL - 2011 Japanese National High School Championships (Kitakami, JPN)** *Abe (2011) - 64th high school championships: JAF scientific committee - biomechanics*

date	05-Aug-11	time	6.15	10.17	14.27	18.44	22.60	26.86	31.44	36.26	41.26	46.26	51.72	7 / 1				
reaction time		interval		4.02	4.10	4.17	4.16	4.26	4.58	4.82	5.00	5.00	5.46		12.29	13.00	14.82	

H1 lead leg	velocity	7.32	8.71	8.54	8.39	8.41		8.22	7.64	7.26	7.00	7.00	7.33	7.73		8.54	8.08	7.09	
	strides																		
<b>Okamoto, Gen (JPN)</b>																			
<b>FINAL - 2022 Shimane High School Championships (Izumo, JPN)</b>																			
<i>Shimizu (2022) - shimane high school championships 2022 - biomechanics data analysis</i>																			
date	27-May-22	time	7.02	11.67	16.42	21.18	26.10		31.07	36.38	41.80	47.22	52.63		58.73		4 / 6		
reaction time		interval		4.65	4.75	4.76	4.92		4.97	5.31	5.42	5.42	5.41	6.10			14.16	15.20	16.25
		velocity	6.41	7.53	7.37	7.35	7.11		7.04	6.59	6.46	6.46	6.47	6.56	6.81		7.42	6.91	6.46
H1 lead leg		strides	25	17	17	16	16		16	17	17	17	18	21	197				
<b>Okamura, Kunihiko (JPN) (2000)</b>																			
<b>FINAL - 2022 Japanese National Championships (Osaka, JPN)</b>																			
<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>																			
date	11-Jun-22	time	6.16	9.91	13.78	17.77	21.87		26.26	30.70	35.37	40.21	45.10		50.70		2 / 8		
reaction time	0.212	interval		3.75	3.87	3.99	4.10		4.39	4.44	4.67	4.84	4.89	5.60			11.61	12.93	14.40
		velocity	7.31	9.33	9.04	8.77	8.54		7.97	7.88	7.49	7.23	7.16	7.14	7.89		9.04	8.12	7.29
H1 lead leg	L	strides	21	13	13	13	13		14	14	15	15	15	146					
<b>Olejniczak, Jakub (POL) (1997)</b>																			
<b>Heat 3 - 2022 European Athletics Championships (Munich, GER)</b>																			
<i>European Athletics (2022) - european athletics championships race analysis</i>																			
date	17-Aug-22	time	5.92	9.78	13.64	17.68	21.87	23.80	26.31	30.89	35.75	40.75	45.81		51.77		3 / 6		
reaction time	0.256	interval		3.86	3.86	4.04	4.19		4.44	4.58	4.86	5.00	5.06	5.96			11.76	13.21	14.92
		velocity	7.60	9.07	9.07	8.66	8.35	8.40	7.88	7.64	7.20	7.00	6.92	6.71	7.73		8.93	7.95	7.04
H1 lead leg	L	strides	20	13		13		14	14	14	15	15	18	136					
<b>Omodiale, Sylvester (NGR) (1977)</b>																			
<b>Heat 3 - 2000 Olympic Games (Sydney, AUS)</b>																			
<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																			
date	24-Sep-00	time	5.98	9.78	13.70	17.78	22.06		26.30	30.62	35.30	40.10	45.14		51.06		2 / 7		
reaction time	0.189	interval		3.80	3.92	4.08	4.28		4.24	4.32	4.68	4.80	5.04	5.92			11.80	12.84	14.52
		velocity	7.53	9.21	8.93	8.58	8.18		8.25	8.10	7.48	7.29	6.94	6.76	7.83		8.90	8.18	7.23
H1 lead leg		strides	22	15	15	15	15		15	15	16	16	17	161					
<b>Omura, Haruki (JPN) (2002)</b>																			
<b>FINAL - 2021 Japanese U20 National Championships (Osaka, JPN)</b>																			
<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>																			
date	26-Jun-21	time	6.29	10.18	14.15	18.18	22.39		26.68	31.08	35.62	40.24	44.93		50.27		5 / 1		
reaction time	0.214	interval		3.89	3.97	4.03	4.21		4.29	4.40	4.54	4.62	4.69	5.34	<b>PB</b>		11.89	12.90	13.85
		velocity	7.15	9.00	8.82	8.68	8.31		8.16	7.95	7.71	7.58	7.46	7.49	7.96		8.83	8.14	7.58
H1 lead leg	L	strides	21	13	13	13	13		14	14	15	15	15	19	165				
<b>Onodera, Shota (JPN) (1999)</b>																			
<b>FINAL - 2022 Japanese National Championships (Osaka, JPN)</b>																			
<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>																			
date	11-Jun-22	time	6.32	10.24	14.30	18.42	22.56		26.74	30.96	35.42	40.11	45.03		50.49		7 / 6		
reaction time	0.192	interval		3.92	4.06	4.12	4.14		4.18	4.22	4.46	4.69	4.92	5.46			12.10	12.54	14.07
		velocity	7.12	8.93	8.62	8.50	8.45		8.37	8.29	7.85	7.46	7.11	7.33	7.92		8.68	8.37	7.46
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	15	17	159					
<b>FINAL - 2022 Seiko Golden Grand Prix (Tokyo, JPN)</b>																			
<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>																			
date	08-May-22	time	6.39	10.44	14.55	18.64	22.81		26.99	31.31	35.77	40.24	44.88		50.25		1 / 7		
reaction time	0.243	interval		4.05	4.11	4.09	4.17		4.18	4.32	4.46	4.47	4.64	5.37	<b>PB</b>		12.25	12.67	13.57
		velocity	7.04	8.64	8.52	8.56	8.39		8.37	8.10	7.85	7.83	7.54	7.45	7.96		8.57	8.29	7.74
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	15	15	20	177				
<b>FINAL - 2022 Michitaka Kinami Memorial (Osaka, JPN)</b>																			
<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>																			
date	01-May-22	time	6.31	10.28	14.35	18.47	22.62		26.79	31.03	35.57	40.24	45.10		50.52		3 / 7		
reaction time	0.210	interval		3.97	4.07	4.12	4.15		4.17	4.24	4.54	4.67	4.86	5.42			12.16	12.56	14.07
		velocity	7.13	8.82	8.60	8.50	8.43		8.39	8.25	7.71	7.49	7.20	7.38	7.92		8.63	8.36	7.46
H1 lead leg		strides		15	15	15	15		15	15	15	15	17	137					
<b>FINAL - 2017 Japanese National High School Championships (Yamagata, JPN)</b>																			
<i>Kota (2017) - 70th high school championships: JAF scientific committee - biomechanics data collection</i>																			
date	31-Jul-17	time	6.42	10.51	14.66	19.04	23.59		28.13	32.68	37.34	42.28	47.30		52.56		7 / 4		
reaction time	0.183	interval		4.09	4.15	4.38	4.55		4.54	4.55	4.66	4.94	5.02	5.26			12.62	13.64	14.62
		velocity	7.01	8.56	8.43	7.99	7.69		7.71	7.69	7.51	7.09	6.97	7.60	7.61		8.32	7.70	7.18
H1 lead leg		strides		14	14	14	16		15	15	15	17	17	137					
<b>Ören, Sinan (TUR) (1998)</b>																			
<b>FINAL - 2017 European U20 Championships (Grosseto, ITA) (TV Analysis)</b>																			
<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>																			
date	23-Jul-17	time	5.92	9.68	13.56	17.52	21.68		25.96	30.60	35.28	40.00	44.92		50.84		7 / 4		
reaction time	0.258	interval		3.76	3.88	3.96	4.16		4.28	4.64	4.68	4.72	4.92	5.92	<b>NJR PB</b>		11.60	13.08	14.32
		velocity	7.60	9.31	9.02	8.84	8.41		8.18	7.54	7.48	7.42	7.11	6.76	7.87		9.05	8.03	7.33
H1 lead leg	R	strides		14	14	13	13		14	15	15	15	18	131					
<b>Osida, Syuuna (JPN) (2005)</b>																			
<b>FINAL - 2023 Japanese U20 National Championships (Osaka, JPN)</b>																			
<i>Kishima (2022) - national high school championships biomechanics data collection</i>																			
date	03-Jun-23	time	6.39	10.54	14.76	18.97	23.41		27.93	32.68	37.59	42.68	47.90		53.49		9 / 6		
reaction time	0.149	interval		4.15	4.22	4.21	4.44		4.52	4.75	4.91	5.09	5.22	5.59	<b>PB</b>		12.58	13.71	15.22
		velocity	7.04	8.43	8.29	8.31	7.88		7.74	7.37	7.13	6.88	6.70	7.16	7.48		8.35	7.66	6.90
H1 lead leg	R	strides	23	15	15	15	15		15	15	16	17	18	20	184				







reaction time	0.185	interval	3.90	4.24	4.13	4.23		4.41	4.53	4.60	4.86	4.84	5.49		12.27	13.17	14.30	
		velocity	7.43	8.97	8.25	8.47	8.27	8.23	7.94	7.73	7.61	7.20	7.23	7.29	7.80	8.56	7.97	7.34
H1 lead leg	L	strides	21	14	14	14	14		14		15	15		121				
<b>FINAL - 2017 Müller's Anniversary Games (London, GBR) (TV Analysis)</b>														<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>				
date	09-Jul-17	time	6.00	9.72	13.56	17.48	21.56		25.72	30.04	34.48	39.08	43.76	49.49	1 / 8			
reaction time	0.156	interval		3.72	3.84	3.92	4.08		4.16	4.32	4.44	4.60	4.68	5.73	<b>PB</b>	11.48	12.56	13.72
		velocity	7.50	9.41	9.11	8.93	8.58		8.41	8.10	7.88	7.61	7.48	6.98	8.08	9.15	8.36	7.65
H1 lead leg	L	strides	21	14	14	14	14		14	14	15	15	15	150				
<b>FINAL - 2016 London Anniversary Games (London, GBR) (TV Analysis)</b>														<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>				
date	23-Jul-16	time	6.04	9.84	13.76	17.76	21.92		26.24	30.68	35.36	40.16	45.12	50.84	1 / 9			
reaction time	0.136	interval		3.80	3.92	4.00	4.16		4.32	4.44	4.68	4.80	4.96	5.72		11.72	12.92	14.44
		velocity	7.45	9.21	8.93	8.75	8.41		8.10	7.88	7.48	7.29	7.06	6.99	7.87	8.96	8.13	7.27
H1 lead leg	L	strides	21	13	13	13	13		14	14	15	15	15	146				
<b>Peng Ming-Yang (TPE) (1998)</b>																		
<b>B FINAL - 2023 Shizuoka International Meeting (Fukuroi, JPN)</b>														<i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>				
date	03-May-23	time	6.08	9.80	13.57	17.38	21.31		25.51	29.91	34.50	39.20	44.02	49.36	7 / 2			
reaction time	0.190	interval		3.72	3.77	3.81	3.93		4.20	4.40	4.59	4.70	4.82	5.34		11.30	12.53	14.11
		velocity	7.40	9.41	9.28	9.19	8.91		8.33	7.95	7.63	7.45	7.26	7.49	8.10	9.29	8.38	7.44
H1 lead leg	L	strides	21	13	13	13	13		14	14	15	15	15	18	164			
<b>FINAL - 2022 Michitaka Kinami Memorial (Osaka, JPN)</b>														<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>				
date	01-May-22	time	6.01	9.71	13.51	17.42	21.42		25.64	29.93	34.55	39.29	44.08	49.32	5 / 3			
reaction time	0.172	interval		3.70	3.80	3.91	4.00		4.22	4.29	4.62	4.74	4.79	5.24	<b>PB</b>	11.41	12.51	14.15
		velocity	7.49	9.46	9.21	8.95	8.75		8.29	8.16	7.58	7.38	7.31	7.63	8.11	9.20	8.39	7.42
H1 lead leg		strides		13	13	13	13		14	14	15	15	15	125				
<b>Peresta, Andrew (USA) (1985)</b>																		
<b>Heat 3 - 2007 USATF National Championships (Indianapolis, IN)</b>														<i>USATF Men's Hurdle Development (2007)</i>				
date	21-Jun-07	time	5.97	9.91	13.93	18.00	22.21		26.53	30.96	35.39	40.12	44.94	50.22	2 / 4			
reaction time		interval		3.94	4.02	4.07	4.21		4.32	4.43	4.43	4.73	4.82	5.28		12.03	12.96	13.98
		velocity	7.54	8.88	8.71	8.60	8.31		8.10	7.90	7.90	7.40	7.26	7.58	7.96	8.73	8.10	7.51
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	16	15	158				
<b>Pesa, Sinisa (YUG) (1973)</b>																		
<b>Heat 8 - 2000 Olympic Games (Sydney, AUS)</b>														<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>				
date	24-Sep-00	time	6.06	9.82	13.70	17.62	21.74		25.98	30.38	35.18	40.26		52.14	7 / 5			
reaction time	0.165	interval		3.76	3.88	3.92	4.12		4.24	4.40	4.80	5.08				11.56	12.76	
		velocity	7.43	9.31	9.02	8.93	8.50		8.25	7.95	7.29	6.89		7.67		9.08	8.23	
H1 lead leg		strides	20	13	13	13	14		14	14	14	16	16	147				
<b>Phillips, Andre (USA) (1959)</b>																		
<b>FINAL - 1988 Olympic Games (Seoul, KOR)</b>														<i>Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988</i>				
date	25-Sep-88	time	5.80	9.36	13.13	16.97	20.93		24.98	29.14	33.18	37.45	41.99	47.19	6 / 1			
reaction time	0.150	interval		3.56	3.77	3.84	3.96		4.05	4.16	4.04	4.27	4.54	5.20	<b>OR / PB</b>	11.17	12.17	12.85
		velocity	7.76	9.83	9.28	9.11	8.84		8.64	8.41	8.66	8.20	7.71	7.69	8.48	9.40	8.63	8.17
H1 lead leg	L	strides	19	13	13	13	13		13	13	13	13	13	17.9	153.9			
<b>Semi-Final 2 - 1988 Olympic Games (Seoul, KOR)</b>														<i>Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988</i>				
date	24-Sep-88	time	5.92	9.61	13.44	17.37	21.34		25.42	29.63	33.86	38.22	42.91	48.19	5 / 1			
reaction time		interval		3.69	3.83	3.93	3.97		4.08	4.21	4.23	4.36	4.69	5.28		11.45	12.26	13.28
		velocity	7.60	9.49	9.14	8.91	8.82		8.58	8.31	8.27	8.03	7.46	7.58	8.30	9.17	8.56	7.91
H1 lead leg		strides	19	13	13	13	13		13	13	13	13	14	18	155			
<b>FINAL - 1982 TAC National Championships (Knoxville, TN)</b>														<i>Mann (1987) - the elite athlete program biomechanical analysis of the long hurdles: tac championship meet</i>				
date	20-Jun-82	time	6.02	9.88	13.82	17.74	21.70		25.64	29.66	34.04	38.66	43.52	48.62	1 / 2			
reaction time		interval		3.86	3.94	3.92	3.96		3.94	4.02	4.38	4.62	4.86	5.10		11.72	11.92	13.86
		velocity	7.48	9.07	8.88	8.93	8.84		8.88	8.71	7.99	7.58	7.20	7.84	8.23	8.96	8.81	7.58
H1 lead leg		strides																
<b>Phillips, Isa (JAM) (1984)</b>																		
<b>Semi-Final 2 - 2009 IAAF World Championships (Berlin, GER)</b>														<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>				
date	16-Aug-09	time	5.98	9.52	13.19	17.02	20.93		25.04	29.38	33.78	38.48	43.19	48.93	6 / 4			
reaction time	0.238	interval		3.54	3.67	3.83	3.91		4.11	4.34	4.40	4.70	4.71	5.74		11.04	12.36	13.81
		velocity	7.53	9.89	9.54	9.14	8.95		8.52	8.06	7.95	7.45	7.43	6.97	8.17	9.51	8.50	7.60
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	15	14	18.7	161.7			
<b>Heat 1 - 2009 IAAF World Championships (Berlin, GER)</b>														<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>				
date	15-Aug-09	time	6.05	9.66	13.33	17.18	21.19		25.38	29.79	34.23	38.85	43.55	48.99	8 / 1			
reaction time	0.224	interval		3.61	3.67	3.85	4.01		4.19	4.41	4.44	4.62	4.70	5.44		11.13	12.61	13.76
		velocity	7.44	9.70	9.54	9.09	8.73		8.35	7.94	7.88	7.58	7.45	7.35	8.16	9.43	8.33	7.63
H1 lead leg		strides																
<b>FINAL - 2008 IAAF World Athletics Final (Stuttgart, GER)</b>														<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>				
date	13-Sep-08	time	6.09	9.79	13.63	17.63	21.80		26.11	30.35	34.80	39.34	44.00	49.22	2 / 3			

reaction time	0.185	interval	3.70	3.84	4.00	4.17		4.31	4.24	4.45	4.54	4.66	5.22			11.54	12.72	13.65	
		velocity	7.39	9.46	9.11	8.75	8.39	8.12	8.25	7.87	7.71	7.51	7.66	8.13		9.10	8.25	7.69	
H1 lead leg		strides																	
<b>Pineda, David José (ESP) (1998)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2017 European U20 Championships (Grosseto, ITA) (TV Analysis)</b>															<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>				
date	23-Jul-17	time	5.84	9.60	13.44	17.40	21.52		25.80	30.40	34.96	39.68	44.52		50.41	3 / 3			
reaction time	0.283	interval		3.76	3.84	3.96	4.12		4.28	4.60	4.56	4.72	4.84	5.89	<b>NJR PB</b>		11.56	13.00	14.12
		velocity	7.71	9.31	9.11	8.84	8.50		8.18	7.61	7.68	7.42	7.23	6.79	7.93		9.08	8.08	7.44
H1 lead leg	L	strides		15	15	15	15		15	17	17	17	17	21	164				
<b>Pirjahan, Mahdi (IRI) (1999)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - West Asian Championships - 2024 Seashore Doha Meeting (Doha, QAT)</b>															<i>Omega Timing (2024) - diamond league race analysis</i>				
date	10-May-24	time	6.34	10.08	14.00	18.10	22.33		26.50	30.85	35.28	39.82	44.48		50.60	6 / 2			
reaction time	0.166	interval		3.74	3.92	4.10	4.23		4.17	4.35	4.43	4.54	4.66	6.12			11.76	12.75	13.63
		velocity	7.10	9.36	8.93	8.54	8.27		8.39	8.05	7.90	7.71	7.51	6.54	7.91		8.93	8.24	7.70
H1 lead leg		strides												0					
<b>B FINAL - 2021 Doha Diamond League (Doha, QAT) (TV Analysis)</b>																			
date	28-May-21	time	5.97	9.93	13.93	17.97	22.17	24.1	26.50	30.90	35.30	39.90			dnf	7 / --			
reaction time	0.138	interval		3.96	4.00	4.04	4.20		4.33	4.40	4.40	4.60					12.00	12.93	
		velocity	7.54	8.84	8.75	8.66	8.33	8.30	8.08	7.95	7.95	7.61					8.75	8.12	
H1 lead leg	L	strides	20	14	13	13	13		13	13	13	13		125					
<b>Pitillas, Oscar (ESP) (1971)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 1998 Spanish National Championships (San Sebastián, ESP)</b>															<i>Ruiz (1998) - campeonato des españa absoluto: análisis de la carreras con villas</i>				
date	02-Aug-98	time	5.97	9.96	13.89	17.95	22.15		26.58	31.26	35.91	40.79	45.78		51.79	5 / 4			
reaction time		interval		3.99	3.93	4.06	4.20		4.43	4.68	4.65	4.88	4.99	6.01			11.98	13.31	14.52
		velocity	7.54	8.77	8.91	8.62	8.33		7.90	7.48	7.53	7.17	7.01	6.66	7.72		8.76	7.89	7.23
H1 lead leg	L	strides	20	13	13	13	13		13	14	14	15	15	18	161				
<b>FINAL - 1997 European Cup (Munich, GER)</b>																			
date	21-Jun-97	time	6.28	10.21	14.18	18.24	22.35		26.66	31.20	35.98	40.54	45.46		51.05				
reaction time		interval		3.93	3.97	4.06	4.11		4.31	4.54	4.78	4.56	4.92	5.59			11.96	12.96	14.26
		velocity	7.17	8.91	8.82	8.62	8.52		8.12	7.71	7.32	7.68	7.11	7.16	7.84		8.78	8.10	7.36
H1 lead leg		strides																	
<b>Plawgo, Marek (POL) (1981)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2008 Olympic Games (Beijing, CHN)</b>															<i>Behm (2008) - Pekin 2008: Le quatrache masculin - féminin</i>				
date	18-Aug-08	time	5.9	9.7	13.4	17.3	21.3		25.4	29.8	34.1	38.6	43.3		48.52	3 / 6			
reaction time	0.226	interval		3.80	3.70	3.90	4.00		4.10	4.40	4.30	4.50	4.70	5.22			11.40	12.50	13.50
		velocity	7.63	9.21	9.46	8.97	8.75		8.54	7.95	8.14	7.78	7.45	7.66	8.24		9.21	8.40	7.78
H1 lead leg	R	strides	20	13	13	13	13		14	14	14	14	14	17	159				
<b>FINAL - 2007 IAAF World Athletics Final (Stuttgart, GER)</b>																			
date	22-Sep-07	time	5.88	9.62	13.44	17.26	21.36		25.56	30.00	34.43	38.88	43.36		48.35	4 / 1			
reaction time	0.130	interval		3.74	3.82	3.82	4.10		4.20	4.44	4.43	4.45	4.48	4.99			11.38	12.74	13.36
		velocity	7.65	9.36	9.16	9.16	8.54		8.33	7.88	7.90	7.87	7.81	8.02	8.27		9.23	8.24	7.86
H1 lead leg		strides																	
<b>FINAL - 2007 IAAF World Championships (Osaka, JPN)</b>																			
date	28-Aug-07	time	5.87	9.52	13.28	17.06	20.97		25.15	29.48	33.76	38.22	42.80		48.12	7 / 3			
reaction time	0.157	interval		3.65	3.76	3.78	3.91		4.18	4.33	4.28	4.46	4.58	5.32	<b>NR</b>		11.19	12.42	13.32
		velocity	7.67	9.59	9.31	9.26	8.95		8.37	8.08	8.18	7.85	7.64	7.52	8.31		9.38	8.45	7.88
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	14	14	17	159				
<b>FINAL - 2007 European Cup (Munich, GER)</b>																			
date	23-Jun-07	time	6.04	9.94	13.82	17.78	21.83		25.84	30.34	34.70	39.20	43.84		48.90				
reaction time	0.151	interval		3.90	3.88	3.96	4.05		4.01	4.50	4.36	4.50	4.64	5.06			11.74	12.56	13.50
		velocity	7.45	8.97	9.02	8.84	8.64		8.73	7.78	8.03	7.78	7.54	7.91	8.18		8.94	8.36	7.78
H1 lead leg		strides																	
<b>FINAL - 2006 European Championships (Göteborg, SWE)</b>																			
date	10-Aug-06	time	5.8	9.5	13.4	17.4	21.5		25.7	30.0	34.5	39.0	43.6		48.71				
reaction time		interval		3.70	3.90	4.00	4.10		4.20	4.30	4.50	4.50	4.60	5.11			11.60	12.60	13.60
		velocity	7.76	9.46	8.97	8.75	8.54		8.33	8.14	7.78	7.78	7.61	7.83	8.21		9.05	8.33	7.72
H1 lead leg	L	strides	20	13	13	13	13		13	14	14	14	14	18	159				
<b>FINAL - 2004 Olympic Games (Athina, GRE)</b>																			
date	26-Aug-04	time	6.0	9.6	13.3	17.2	21.2		25.3	29.8	34.3	38.9	43.7		49.00	3 / 6			
reaction time	0.242	interval		3.60	3.70	3.90	4.00		4.10	4.50	4.50	4.60	4.80	5.30			11.20	12.60	13.90
		velocity	7.50	9.72	9.46	8.97	8.75		8.54	7.78	7.78	7.61	7.29	7.55	8.16		9.38	8.33	7.55
H1 lead leg	L	strides	20	13	13	13	13		13	14	14	15	15	143					
<b>FINAL - 2001 European Cup (Bremen, GER)</b>																			
date	23-Jun-01	time	5.94	9.68	13.54	17.50	21.52		25.60	29.46	34.48	39.10	43.86		48.98				
reaction time		interval		3.74	3.86	3.96	4.02		4.08	3.86	5.02	4.62	4.76	5.12			11.56	11.96	14.40

H1 lead leg	velocity	7.58	9.36	9.07	8.84	8.71		8.58	9.07	6.97	7.58	7.35	7.81	8.17		9.08	8.78	7.29	
	strides																		
<b>Pochanis, Konstantinos (CYP) (1973)</b>																			
<b>Heat 6 - 2000 Olympic Games (Sydney, AUS)</b>																			
<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																			
date	24-Sep-00	time	6.22	10.02	13.94	17.94	21.98		26.34	30.98	35.70	40.54		51.20		3 / 6			
reaction time	0.244	interval	3.80	3.92	4.00	4.04		4.36	4.64	4.72	4.84					11.72	13.04		
		velocity	7.23	9.21	8.93	8.75	8.66		8.03	7.54	7.42	7.23				8.96	8.05		
H1 lead leg		strides	22	14	14	14	14		15	16	16	16		141					
<b>Porras, Aleix (ESP) (1999)</b>																			
<b>Heat 2 - 2022 European Athletics Championships (Munich, GER)</b>																			
<i>European Athletics (2022) - european athletics championships race analysis</i>																			
date	17-Aug-22	time	5.86	9.66	13.55	17.54	21.62	23.43	25.85	30.44	35.09	40.02	44.96		50.77		5 / 6		
reaction time	0.196	interval	3.80	3.89	3.99	4.08		4.23	4.59	4.65	4.93	4.94	5.81				11.68	12.90	14.52
		velocity	7.68	9.21	9.00	8.77	8.58	8.54	8.27	7.63	7.53	7.10	7.09	6.88	7.88		8.99	8.14	7.23
H1 lead leg	R	strides	20	13	13				15	15	15	15	19	125					
<b>FINAL - 2017 European U20 Championships (Grosseto, ITA) (TV Analysis)</b>																			
<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>																			
date	23-Jul-17	time	5.80	9.76	13.60	17.60	21.84		26.24	30.92	35.60	40.40	45.32		51.36		8 / 7		
reaction time	0.231	interval	3.96	3.84	4.00	4.24		4.40	4.68	4.68	4.80	4.92	6.04				11.80	13.32	14.40
		velocity	7.76	8.84	9.11	8.75	8.25		7.95	7.48	7.48	7.29	7.11	6.62	7.79		8.90	7.88	7.29
H1 lead leg	R	strides		14	14	15	15		15	15	15	15	18	136					
<b>Porter, Will (USA) (1973)</b>																			
<b>FINAL - 1996 USA Olympic Trials (Atlanta, GA)</b>																			
<i>McNichols - Hurdle technique study through video analysis</i>																			
date	16-Jun-96	time	6.01	9.93	13.91	17.91	22.01	23.80	26.23	30.59	34.93	39.39	43.94		49.49		1 / 8		
reaction time		interval	3.92	3.98	4.00	4.10		4.22	4.36	4.34	4.46	4.55	5.55				11.90	12.68	13.35
		velocity	7.49	8.93	8.79	8.75	8.54	8.40	8.29	8.03	8.06	7.85	7.69	7.21	8.08		8.82	8.28	7.87
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	13	14	138					
<b>Preis, Constantin (GER) (1998)</b>																			
<b>Repechage 2 - 2024 Olympic Games (Paris, FRA)</b>																			
<i>Paris 2024 Olympic Games - Results Book (2024)</i>																			
date	07-Aug-24	time	6.09	9.93	13.81	17.81	21.96		28.26	30.69	35.32	40.10	44.97		51.02		6 / 5		
reaction time	0.218	interval	3.84	3.88	4.00	4.15		6.30	2.43	4.63	4.78	4.87	6.05				11.72	12.88	14.28
		velocity	7.39	9.11	9.02	8.75	8.43		5.56	14.40	7.56	7.32	7.19	6.61	7.84		8.96	8.15	7.35
H1 lead leg	L	strides	21	13	13	14	14		15	15	15	15	15	150					
<b>Heat 4 - 2024 Olympic Games (Paris, FRA)</b>																			
<i>Paris 2024 Olympic Games - Results Book (2024)</i>																			
date	05-Aug-24	time	6.06	9.85	13.76	17.82	21.96		26.20	30.63	35.23	39.90	44.58		49.99		2 / 8		
reaction time	0.221	interval	3.79	3.91	4.06	4.14		4.24	4.43	4.60	4.67	4.68	5.41				11.76	12.81	13.95
		velocity	7.43	9.23	8.95	8.62	8.45		8.25	7.90	7.61	7.49	7.48	7.39	8.00		8.93	8.20	7.53
H1 lead leg	L	strides	20	13	14	14	14		14	14	15	15	15	133					
<b>Semi-Final 1 - 2024 European Athletics Championships (Roma, ITA)</b>																			
<i>European Athletics (2024) - 2024 european athletics championships - results book</i>																			
date	10-Jun-24	time	6.11	9.96	13.93	17.94	22.05		26.33	30.82	35.34	40.02	44.59		49.68		7 / 4		
reaction time	0.226	interval	3.85	3.97	4.01	4.11		4.28	4.49	4.52	4.68	4.57	5.09				11.83	12.88	13.77
		velocity	7.36	9.09	8.82	8.73	8.52		8.18	7.80	7.74	7.48	7.66	7.86	8.05		8.88	8.15	7.63
H1 lead leg	L	strides	22	14	14	14	14		14	15	15	15	15	18	170				
<b>FINAL - 2022 Memorial van Damme (Brussels, BEL) (TV Analysis)</b>																			
<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>																			
date	02-Sep-22	time	6.04	9.74	13.48	17.32	21.29	22.98	25.42	29.69	34.20	38.77	43.44		48.83		8 / 5		
reaction time	0.253	interval	3.70	3.74	3.84	3.97		4.13	4.27	4.51	4.57	4.67	5.39				11.28	12.37	13.75
		velocity	7.45	9.46	9.36	9.11	8.82	8.70	8.47	8.20	7.76	7.66	7.49	7.42	8.19		9.31	8.49	7.64
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	15	15	153					
<b>Semi-Final 3 - 2022 European Athletics Championships (Munich, GER)</b>																			
<i>European Athletics (2022) - european athletics championships race analysis</i>																			
date	18-Aug-22	time	6.02	9.97	13.98	17.99	22.02	23.80	26.15	30.45	34.96	39.50	44.09		49.55		2 / 5		
reaction time	0.234	interval	3.95	4.01	4.01	4.03		4.13	4.30	4.51	4.54	4.59	5.46				11.97	12.46	13.64
		velocity	7.48	8.86	8.73	8.73	8.68	8.40	8.47	8.14	7.76	7.71	7.63	7.33	8.07		8.77	8.43	7.70
H1 lead leg	L	strides	22			14			15	15	15	15	15	19	130				
<b>Heat 4 - 2022 European Athletics Championships (Munich, GER)</b>																			
<i>European Athletics (2022) - european athletics championships race analysis</i>																			
date	17-Aug-22	time	5.95	9.78	13.67	17.53	21.52	23.34	25.73	30.08	34.60	39.38	44.14		49.63		7 / 1		
reaction time	0.238	interval	3.83	3.89	3.86	3.99		4.21	4.35	4.52	4.78	4.76	5.49				11.58	12.55	14.06
		velocity	7.56	9.14	9.00	9.07	8.77	8.57	8.31	8.05	7.74	7.32	7.35	7.29	8.06		9.07	8.37	7.47
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	16	16	19	174				
<b>FINAL - 2021 Weltklasse (Zürich, SUI) (TV Analysis)</b>																			
<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>																			
date	09-Sep-21	time	6.08	9.84	13.84	17.84	21.96	23.7	26.20	30.44	34.84	39.36	43.92		49.08		8 / 5		
reaction time	0.259	interval	3.76	4.00	4.00	4.12		4.24	4.24	4.40	4.52	4.56	5.16				11.76	12.60	13.48
		velocity	7.40	9.31	8.75	8.75	8.50	8.44	8.25	8.25	7.95	7.74	7.68	7.75	8.15		8.93	8.33	7.79
H1 lead leg	L	strides	21	13	14	14	14		14	15	15			120					
<b>FINAL - 2021 Memorial van Damme (Brussels, BEL) (TV Analysis)</b>																			
<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>																			
date	03-Sep-21	time	6.20	10.00	14.00	18.08	22.28	24.1	26.60	31.08	35.60	40.16		50.12		8 / 8			
reaction time	0.303	interval	3.80	4.00	4.08	4.20		4.32	4.48	4.52	4.56						11.88	13.00	
		velocity	7.26	9.21	8.75	8.58	8.33	8.30	8.10	7.81	7.74	7.68		7.98			8.84	8.08	



H1 lead leg	L	strides	21	13	14	14	14	15	15	15	15	136							
<b>Semi-Final 3 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>																			
date	01-Aug-21	time	6.06	9.93	13.80	17.78	21.80	26.06	30.46	34.93	39.44	43.97	49.10	<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>					
reaction time	0.186	interval	3.87	3.87	3.98	4.02	4.26	4.40	4.47	4.51	4.53	5.13	49.10	2 / 4	11.72	12.68	13.51		
		velocity	7.43	9.04	9.04	8.79	8.71	8.22	7.95	7.83	7.76	7.73	7.80	8.15	8.96	8.28	7.77		
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	15	15	18.2	171.2					
<b>Heat 2 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>																			
date	30-Jul-21	time	6.13	10.03	14.02	18.03	22.23	26.56	30.93	35.33	39.92	44.42	49.73	<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>					
reaction time	0.215	interval	3.90	3.99	4.01	4.20	4.33	4.37	4.40	4.59	4.50	5.31	49.73	9 / 4	11.90	12.90	13.49		
		velocity	7.34	8.97	8.77	8.73	8.33	8.08	8.01	7.95	7.63	7.78	7.53	8.04	8.82	8.14	7.78		
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	15	15	18	171					
<b>FINAL - 2021 Herculis Meeting International d'Athletisme (Monaco, MON) (TV Analysis)</b>																			
date	09-Jul-21	time	6.00	9.84	17.60	21.62	23.4	25.79	30.08	34.50	39.20	44.04	49.49	<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>					
reaction time	0.231	interval	3.84	3.84	4.02	4.17	4.29	4.42	4.70	4.84	5.45	49.49	4 / 4	11.60	12.48	13.96			
		velocity	7.50	9.11	9.02	8.71	8.55	8.39	8.16	7.92	7.45	7.23	7.34	8.08	9.05	8.41	7.52		
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	15	16	16	112					
<b>FINAL - 2021 Bislett Games (Oslo, NOR) (TV Analysis)</b>																			
date	01-Jul-21	time	6.00	9.82	13.66	17.70	21.72	25.88	30.08	34.50	39.20	44.04	49.49	<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>					
reaction time	0.246	interval	3.82	3.84	4.04	4.02	4.16	4.29	4.42	4.70	4.84	5.41	49.79	2 / 5	11.70				
		velocity	7.50	9.16	9.11	8.66	8.71	8.41	8.16	7.92	7.35	7.14	7.39	8.03	8.97				
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	15	16	16	111					
<b>FINAL - 2020 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)</b>																			
date	17-Sep-20	time	6.24	10.14	17.60	21.62	23.4	25.79	30.08	34.50	39.20	44.04	49.49	<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>					
reaction time	0.250	interval	3.90	3.90	4.02	4.17	4.29	4.42	4.70	4.84	5.45	49.49	1 / 7	11.60	12.48	13.96			
		velocity	7.21	8.97	8.59	8.26	8.05	7.83	7.59	7.61	7.74	8.01	8.01	9.05	8.41	7.52			
H1 lead leg	R	strides	22	14	14	14	14	15	15	15	15	18	99						
<b>FINAL - 2020 ISTAF (Berlin, GER) (TV Analysis)</b>																			
date	13-Sep-20	time	6.04	13.92	17.88	21.80	26.20	30.66	35.03	39.44	43.97	49.10	49.10	<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>					
reaction time	0.240	interval	7.88	7.88	3.96	8.32	8.32	8.41	8.41	8.41	8.41	8.41	8.41	5 / --	11.84				
		velocity	7.45	8.88	8.84	8.41	8.41	8.41	8.41	8.41	8.41	8.41	8.41	8.87					
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	15	18	36						
<b>FINAL - 2020 Bauhaus Galan (Stockholm, SWE) (TV Analysis)</b>																			
date	23-Aug-20	time	6.10	13.96	18.02	22.12	23.9	26.32	30.66	35.03	39.44	43.97	49.10	<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>					
reaction time	0.232	interval	7.86	7.86	4.06	4.10	4.20	4.34	4.50	4.51	4.60	4.57	5.05	50.13	2 / 6	11.92			
		velocity	7.38	8.91	8.62	8.54	8.37	8.33	8.06	7.78	7.76	7.61	7.66	7.92	8.08	8.94	8.07	7.68	
H1 lead leg	L	strides	21	14	14	14	14	14	15	15	15	15	18	111					
<b>FINAL - 2020 Herculis Meeting International d'Athletisme (Monaco, MON) (TV Analysis)</b>																			
date	14-Aug-20	time	6.00	9.81	13.71	17.75	21.92	26.26	30.76	35.27	39.87	44.44	49.49	<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>					
reaction time	0.251	interval	3.81	3.90	4.04	4.17	4.34	4.50	4.51	4.60	4.57	5.05	49.49	8 / 5	11.75	13.01	13.68		
		velocity	7.50	9.19	8.97	8.66	8.39	8.06	7.78	7.76	7.61	7.66	7.92	8.08	8.94	8.07	7.68		
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	15	15	138						
<b>Prince, Damian (USA) (1986)</b>																			
<b>Heat 1 - 2007 USATF National Championships (Indianapolis, IN)</b>																			
date	21-Jun-07	time	6.01	9.79	13.66	17.65	21.89	26.38	30.83	35.48	40.55	45.62	50.69	<i>USATF Men's Hurdle Development (2007)</i>					
reaction time		interval	3.78	3.87	3.99	4.24	4.49	4.45	4.65	5.07	5.48	5.89	6.30	6.71	7.12	7.53	7.94		
		velocity	7.49	9.26	9.04	8.77	8.25	7.80	7.87	7.53	6.90	6.27	5.64	5.01	4.38	3.75	3.12		
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	16	16	139						
<b>Rakotoarimandry, Yvon (MAD) (1976)</b>																			
<b>Heat 2 - 2000 Olympic Games (Sydney, AUS)</b>																			
date	24-Sep-00	time	5.98	9.82	13.70	17.66	21.70	26.06	30.46	34.93	39.44	43.97	49.10	<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>					
reaction time	0.185	interval	3.84	3.88	3.96	4.04	4.36	4.36	4.36	4.36	4.36	4.36	4.36	50.15	7 / 8	11.68			
		velocity	7.53	9.11	9.02	8.84	8.66	8.03	7.71	7.42	7.35	7.23	7.98	8.99					
H1 lead leg		strides	21	14	14	14	14	14	14	14	14	14	121						
<b>Ratnayake, Harijan (SRI) (1974)</b>																			
<b>Heat 3 - 2000 Olympic Games (Sydney, AUS)</b>																			
date	24-Sep-00	time	6.54	10.58	14.58	18.62	22.74	27.18	31.66	36.26	40.86	45.46	50.06	<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>					
reaction time	0.346	interval	4.04	4.00	4.04	4.12	4.44	4.48	4.60	4.72	4.84	4.96	5.08	50.43	7 / 4	12.08	13.04		
		velocity	6.88	8.66	8.75	8.66	8.50	7.88	7.81	7.61	7.42	7.23	7.04	7.93	8.69	8.05			
H1 lead leg		strides	22	14	14	13	13	14	14	14	14	14	118						
<b>Rawlinson, Christopher (GBR) (1972)</b>																			
<b>FINAL - 2003 IAAF World Championships (Paris, FRA)</b>																			
date	29-Aug-03	time	5.9	9.5	13.4	17.3	21.2	25.3	29.4	33.9	38.4	43.0	48.90	<i>Behm (2003) - Paris 2003:Le quatrache masculin - féminin</i>					
reaction time	0.165	interval	3.60	3.90	3.90	3.90	4.10	4.10	4.50	4.50	4.60	5.90	48.90	2 / 6	11.40	12.10	13.60		
		velocity	7.63	9.72	8.97	8.97	8.97	8.54	8.54	7.78	7.78	7.61	6.78	8.18	9.21	8.68	7.72		
H1 lead leg	R	strides	20	13	13	13	13	13	13	15	15	15	19	162					

**FINAL - 2002 IAAF World Cup (Madrid, ESP)**

date	20-Sep-02	time	5.83	9.55	13.30	17.13	21.07	25.07	29.44	34.01	38.65	43.46	49.18	3 / 3					
reaction time	0.172	interval		3.72	3.75	3.83	3.94	4.00	4.37	4.57	4.64	4.81	5.72		11.30	12.31	14.02		
		velocity	7.72	9.41	9.33	9.14	8.88	8.75	8.01	7.66	7.54	7.28	6.99	8.13		9.29	8.53	7.49	
H1 lead leg	R	strides	22	14	14	14	14	14	14	15	15	15	19	170					

Sanchez (2002) - copa del mundo de Madrid '02: análisis de la carreras con villas

**FINAL - 2002 European Championships (Munich, GER)**

date	09-Aug-02	time	6.30	10.24	14.28									dnf				
reaction time	0.160	interval		3.94	4.04													
		velocity	7.14	8.88	8.66													
H1 lead leg		strides																

Graubner (2009) - <http://www.fgs.uni-halle.de>**Heat 4 - 2002 European Championships (Munich, GER)**

date	07-Aug-02	time	6.02	9.72	13.44	17.32	21.34	25.50	29.82	34.56	39.30	44.10	49.73						
reaction time		interval		3.70	3.72	3.88	4.02	4.16	4.32	4.74	4.74	4.80	5.63		11.30	12.50	14.28		
		velocity	7.48	9.46	9.41	9.02	8.71	8.41	8.10	7.38	7.38	7.29	7.10	8.04		9.29	8.40	7.35	
H1 lead leg		strides																	

Graubner (2009) - <http://www.fgs.uni-halle.de>**FINAL - 2001 IAAF World Championships (Edmonton, CAN)**

date	10-Aug-01	time	5.8	9.6	13.3	17.1	21.0	25.0	29.2	33.6	38.1	42.7	48.54						
reaction time	0.164	interval		3.80	3.70	3.80	3.90	4.00	4.20	4.40	4.50	4.60	5.84		11.30	12.10	13.50		
		velocity	7.76	9.21	9.46	9.21	8.97	8.75	8.33	7.95	7.78	7.61	6.85	8.24		9.29	8.68	7.78	
H1 lead leg	R	strides	20	14	14	14	14	14	14	15	15	15	149						

Behm (2001) - Edmonton: Le quatrache: les finales

**FINAL - 2001 European Cup (Bremen, GER)**

date	23-Jun-01	time	6.09	9.81	13.56	17.48	21.46	25.63	30.02	34.58	39.48	44.55	50.11						
reaction time		interval		3.72	3.75	3.92	3.98	4.17	4.39	4.56	4.90	5.07	5.56		11.39	12.54	14.53		
		velocity	7.39	9.41	9.33	8.93	8.79	8.39	7.97	7.68	7.14	6.90	7.19	7.98		9.22	8.37	7.23	
H1 lead leg		strides																	

Graubner (2007) - <http://www.fgs.uni-halle.de>**Semi-Final 2 - 2000 Olympic Games (Sydney, AUS)**

date	25-Sep-00	time	6.00	9.76	13.56	17.40	21.36	22.88	25.48	29.80	34.24	38.92	43.76	49.25					
reaction time	0.177	interval		3.76	3.80	3.84	3.96	4.12	4.32	4.44	4.68	4.84	5.49		11.40	12.40	13.96		
		velocity	7.50	9.31	9.21	9.11	8.84	8.74	8.50	8.10	7.88	7.48	7.23	7.29	8.12		9.21	8.47	7.52
H1 lead leg		strides		14	14	14	14	14	15	15	15	16	19	150					

Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games

**Heat 5 - 2000 Olympic Games (Sydney, AUS)**

date	24-Sep-00	time	5.96	9.60	13.36	17.16	21.08	25.16	29.52	34.36	39.80	45.16	51.30						
reaction time	0.184	interval		3.64	3.76	3.80	3.92	4.08	4.36	4.84	5.44	5.36	6.14		11.20	12.36	15.64		
		velocity	7.55	9.62	9.31	9.21	8.93	8.58	8.03	7.23	6.43	6.53	6.51	7.80		9.38	8.50	6.71	
H1 lead leg		strides	22	14	14	14	14	14	14	15	17	17	20	175					

Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games

**FINAL - 1997 European Cup (Munich, GER)**

date	21-Jun-97	time	6.12	9.92	13.86	17.90	22.12	26.50	31.07	35.80	40.62	45.62	51.06						
reaction time		interval		3.80	3.94	4.04	4.22	4.38	4.57	4.73	4.82	5.00	5.44		11.78	13.17	14.55		
		velocity	7.35	9.21	8.88	8.66	8.29	7.99	7.66	7.40	7.26	7.00	7.35	7.83		8.91	7.97	7.22	
H1 lead leg		strides																	

Jung (2003) - <http://www.fgs.uni-halle.de>**Reemtsma, Will (USA) (2001)**

date	27-Jun-24	time	6.15	10.08	14.22	18.48	22.81	24.71	27.16	31.77	36.70	41.60	46.57	52.39					
reaction time		interval		3.93	4.14	4.26	4.33	4.35	4.61	4.93	4.90	4.97	5.82		12.33	13.29	14.80		
		velocity	7.32	8.91	8.45	8.22	8.08	8.09	8.05	7.59	7.10	7.14	7.04	6.87	7.64		8.52	7.90	7.09
H1 lead leg	L	strides	21	14	14	14	14	15	15	16	15	15	138						

USATF and Karmarush (2024) - USA Olympic trials results and race analysis

**Reibert, Werner (FRG) (1948)**

date	28-Jun-75	time	6.3	10.2	14.5	18.5	22.6	24.6	27.0	31.8	36.3	40.9	45.4	51.25					
reaction time		interval		3.97	4.24	3.99	4.09	4.44	4.81	4.50	4.55	4.58	5.81		12.20	13.34	13.63		
		velocity	7.18	8.82	8.25	8.77	8.56	8.14	7.88	7.28	7.78	7.69	7.64	6.88	7.80		8.61	7.87	7.70
H1 lead leg		strides																	

Helbig (1975) - 400-m-hürdenlauf

**Reinberg, Jan (GER) (1980)**

date	23-Jun-01	time	6.30	10.21	14.19	18.32	22.48	26.84	31.32	35.98	40.96	45.85	51.66						
reaction time		interval		3.91	3.98	4.13	4.16	4.36	4.48	4.66	4.98	4.89	5.81		12.02	13.00	14.53		
		velocity	7.14	8.95	8.79	8.47	8.41	8.03	7.81	7.51	7.03	7.16	6.88	7.74		8.74	8.08	7.23	
H1 lead leg		strides																	

Graubner (2007) - <http://www.fgs.uni-halle.de>**Reinke, Ulrich (FRG)**

date	28-Jun-75	time	6.2	10.2	14.5	18.7	23.1	25.1	27.6	32.3	37.2	42.1	47.6	54.54					
reaction time		interval		4.02	4.22	4.20	4.43	4.47	4.70	4.98	4.81	5.57	6.92		12.44	13.60	15.36		
		velocity	7.23	8.71	8.29	8.33	7.90	7.97	7.83	7.45	7.03	7.28	6.28	5.78	7.33		8.44	7.72	6.84
H1 lead leg		strides																	

Helbig (1975) - 400-m-hürdenlauf

**Rhodes, Calvin (USA)**

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL - 2003 USATF National Junior Championships (Indianapolis, IN)</b>													<i>USATF Women's Sprint Development (2003)</i>				
date	22-Jun-03	time	6.16	10.41	14.68	19.10	23.67	28.43	33.30	38.17	43.18	48.43	54.53	1 / 9			
reaction time		interval		4.25	4.27	4.42	4.57	4.76	4.87	4.87	5.01	5.25	6.10		12.94	14.20	15.13
		velocity	7.31	8.24	8.20	7.92	7.66	7.35	7.19	7.19	6.99	6.67	6.56	7.34	8.11	7.39	6.94
H1 lead leg		strides															

**Robertson, Max (GBR) (1963)**

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL - 1985 Great Britain vs. USA (Birmingham, GBR)</b>													<i>Warden (1989) - sprinting and hurdling</i>				
date	21-Jun-85	time	5.9	9.7	13.5	17.3	21.2	25.2	29.4	33.8	38.7	44.3	50.09	/ 2			
reaction time		interval		3.80	3.80	3.80	3.90	4.00	4.20	4.40	4.90	5.60	5.79		11.40	12.10	14.90
		velocity	7.63	9.21	9.21	9.21	8.97	8.75	8.33	7.95	7.14	6.25	6.91	7.99	9.21	8.68	7.05
H1 lead leg		strides	21	13	13	13	13	13	14	14	14	15	19	162			

**Robinson, Byron (USA) (1995)**

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL - 2019 Müller Anniversary Games (London, GBR) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>				
date	20-Jul-19	time	5.84	9.52	13.32	17.28	21.36	23.0	25.52	34.00	38.52	43.32	49.29	5 / 4			
reaction time	0.154	interval		3.68	3.80	3.96	4.08	4.16		8.48	4.52	4.80	5.97		11.44		
		velocity	7.71	9.51	9.21	8.84	8.58	8.70	8.41	8.25	7.74	7.29	6.70	8.12	9.18		
H1 lead leg	L	strides	22	15	15	15	15	15			15	15	20	147			

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL - 2017 Athletissima (Lausanne, SUI) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>				
date	06-Jul-17	time	5.84	9.64	13.68	17.80	21.88	26.00	30.12	34.40	38.80	43.36	48.88	4 / 2			
reaction time	0.151	interval		3.80	4.04	4.12	4.08	4.12	4.12	4.28	4.40	4.56	5.52		11.96	12.32	13.24
		velocity	7.71	9.21	8.66	8.50	8.58	8.50	8.50	8.18	7.95	7.68	7.25	8.18	8.78	8.52	7.93
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	20	177			

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL - 2017 USATF Championships (Sacramento, CA) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>				
date	25-Jun-17	time	5.79	9.55	13.51	17.58	21.68	25.69	29.87	34.07	38.42	42.86	48.50	6 / 4			
reaction time		interval		3.76	3.96	4.07	4.10	4.01	4.18	4.20	4.35	4.44	5.64	<b>PB</b>	11.79	12.29	12.99
		velocity	7.77	9.31	8.84	8.60	8.54	8.73	8.37	8.33	8.05	7.88	7.09	8.25	8.91	8.54	8.08
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	19.5	176.5			

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL - 2016 USA Olympic Trials (Eugene, OR) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>				
date	10-Jul-16	time	5.90	9.67	13.68	17.75	21.75	25.79	30.00	34.33	38.84	43.44	48.79	2 / 2			
reaction time	0.185	interval		3.77	4.01	4.07	4.00	4.04	4.21	4.33	4.51	4.60	5.35	<b>PB</b>	11.85	12.25	13.44
		velocity	7.63	9.28	8.73	8.60	8.75	8.66	8.31	8.08	7.76	7.61	7.48	8.20	8.86	8.57	7.81
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	19.2	176.2			

**Robinson, Chris (USA) (2001)**

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<b>FINAL - 2024 USA Olympic Trials (Eugene, OR)</b>													<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>					
date	30-Jun-24	time	5.78	9.34	13.01	16.74	20.53	22.30	24.59	28.95	33.35	37.92	42.45	47.96	4 / 4			
reaction time		interval		3.56	3.67	3.73	3.79	4.06	4.36	4.40	4.57	4.53	5.51		10.96	12.21	13.50	
		velocity	7.79	9.83	9.54	9.38	9.23	8.97	8.62	8.03	7.95	7.66	7.73	7.26	8.34	9.58	8.60	7.78
H1 lead leg	R	strides		13	13	13	13		14	14	15	15	18.5	143.5				

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<b>Semi-Final 1 - 2024 USA Olympic Trials (Eugene, OR)</b>													<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>					
date	28-Jun-24	time	5.91	9.58	13.32	17.14	20.97	22.72	25.01	29.44	34.06	38.87	43.64	49.34	5 / 2			
reaction time		interval		3.67	3.74	3.82	3.83	4.04	4.43	4.62	4.81	4.77	5.70		11.23	12.30	14.20	
		velocity	7.61	9.54	9.36	9.16	9.14	8.80	8.66	7.90	7.58	7.28	7.34	7.02	8.11	9.35	8.54	7.39
H1 lead leg	R	strides	21	13	13	13	13		14	14	14	15	15	18.5	163.5			

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<b>Heat 2 - 2024 USA Olympic Trials (Eugene, OR)</b>													<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>					
date	27-Jun-24	time	6.00	9.72	13.47	17.28	21.19	22.94	25.32	29.78	34.40	39.01	43.78	49.54	7 / 1			
reaction time		interval		3.72	3.75	3.81	3.91	4.13	4.46	4.62	4.61	4.77	5.76		11.28	12.50	14.00	
		velocity	7.50	9.41	9.33	9.19	8.95	8.72	8.47	7.85	7.58	7.59	7.34	6.94	8.07	9.31	8.40	7.50
H1 lead leg	R	strides	20	13	13	13	13		15	15	15	15	18.2	150.2				

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL - 2024 NCAA Championships (Eugene, OR) (TV Analysis)</b>													<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>				
date	07-Jun-24	time	5.90	9.52	13.20	16.93	20.82	24.77	29.03	33.32	37.76	42.38	47.98	8 / 2			
reaction time		interval		3.62	3.68	3.73	3.89	3.95	4.26	4.29	4.44	4.62	5.60		11.03	12.10	13.35
		velocity	7.63	9.67	9.51	9.38	9.00	8.86	8.22	8.16	7.88	7.58	7.14	8.34	9.52	8.68	7.87
H1 lead leg	R	strides		13	13	13	13		13	14	14	15	15	18.5	141.5		

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL - 2023 NCAA Championships (Austin, TX) (TV Analysis)</b>													<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>				
date	09-Jun-23	time	5.89	9.53	13.25	17.20	21.20	25.36	29.66	34.06	38.42	42.89	48.12	6 / 1			
reaction time		interval		3.64	3.72	3.95	4.00	4.16	4.30	4.40	4.36	4.47	5.23	<b>PB</b>	11.31	12.46	13.23
		velocity	7.64	9.62	9.41	8.86	8.75	8.41	8.14	7.95	8.03	7.83	7.65	8.31	9.28	8.43	7.94
H1 lead leg	R	strides	21	13	13	14	14		14	14	15	15	18.2	166.2			

**Robinson, Rohan (AUS) (1971)**

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>Heat 1 - 2000 Olympic Games (Sydney, AUS)</b>													<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>				
date	24-Sep-00	time	6.02	9.82	13.62	17.54	21.54	25.70	30.10	34.70	39.74	44.82	50.80	4 / 4			
reaction time	0.173	interval		3.80	3.80	3.92	4.00	4.16	4.40	4.60	5.04	5.08	5.98		11.52	12.56	14.72
		velocity	7.48	9.21	9.21	8.93	8.75	8.41	7.95	7.61	6.94	6.89	6.69	7.87	9.11	8.36	7.13
H1 lead leg		strides	21	14	14	14	14		14	14	15	16	16	152			



**FINAL - 1996 Olympic Games (Atlanta, GA)**

Behm (1996) - 400m haies

date	01-Aug-96	time	6.0	9.7	13.5	17.3	21.3		25.3	29.5	33.8	38.3	43.0		48.30	8 / 5			
reaction time	0.283	interval		3.70	3.80	3.80	4.00		4.00	4.20	4.30	4.50	4.70	5.30			11.30	12.20	13.50
		velocity	7.50	9.46	9.21	9.21	8.75		8.75	8.33	8.14	7.78	7.45	7.55	8.28		9.29	8.61	7.78
H1 lead leg		strides	21	14	14	14	14		14	14	15	15	15		150				

**Rodger, Sebastian (GBR) (1991)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**FINAL - 2019 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)**

Henson (2020) - Athlete First: 2019 year end hurdle report

date	30-May-19	time	6.16	10.06	14.13	18.20	22.30	24.0	26.63	31.06	35.50	40.13	44.93		50.50	2 / 4			
reaction time	0.139	interval		3.90	4.07	4.07	4.10		4.33	4.43	4.44	4.63	4.80	5.57			12.04	12.86	13.87
		velocity	7.31	8.97	8.60	8.60	8.54	8.33	8.08	7.90	7.88	7.56	7.29	7.18	7.92		8.72	8.16	7.57
H1 lead leg	R	strides	22	14	14	14	14		14	14	15	15	19	155					

**FINAL - 2018 Müller Anniversary Games (London, GBR) (TV Analysis)**

Henson (2020) - Athlete First: 2018 year end hurdle report

date	21-Jul-18	time	6.08	10.00		18.16	22.36		26.56	31.00	35.56	40.20	45.08		50.84	1 / 8			
reaction time	0.161	interval		3.92		8.16	4.20		4.20	4.44	4.56	4.64	4.88	5.76			12.08	12.84	14.08
		velocity	7.40	8.93		8.58	8.33		8.33	7.88	7.68	7.54	7.17	6.94	7.87		8.69	8.18	7.46
H1 lead leg	R	strides	22	14		14	14		14	14	15	15	15	123					

**FINAL - 2018 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)**

Henson (2020) - Athlete First: 2018 year end hurdle report

date	10-Jun-18	time	6.12	10.00	14.12	18.24	22.40		26.64	30.84	35.12	39.60	44.24		49.87	1 / 6			
reaction time	0.163	interval		3.88	4.12	4.12	4.16		4.24	4.20	4.28	4.48	4.64	5.63			12.12	12.60	13.40
		velocity	7.35	9.02	8.50	8.50	8.41		8.25	8.33	8.18	7.81	7.54	7.10	8.02		8.66	8.33	7.84
H1 lead leg	R	strides	22	14	14	14	14		14	14	15	15	15	19	170				

**FINAL - 2016 London Anniversary Games (London, GBR) (TV Analysis)**

Henson (2020) - Athlete First: 2016 year end hurdle report

date	23-Jul-16	time	6.16	10.04	13.92	17.96	22.08		26.28	30.60	35.04	39.52	44.04		49.35	8 / 6			
reaction time	0.155	interval		3.88	3.88	4.04	4.12		4.20	4.32	4.44	4.48	4.52	5.31			11.80	12.64	13.44
		velocity	7.31	9.02	9.02	8.66	8.50		8.33	8.10	7.88	7.81	7.74	7.53	8.11		8.90	8.31	7.81
H1 lead leg	R	strides	22	14	14	14	14		14	14	15	15	15	18	169				

**Rodríguez, Eduardo Iván (ESP) (1978)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**FINAL - 2001 European Cup (Bremen, GER)**Graubner (2007) - <http://www.fgs.uni-halle.de>

date	23-Jun-01	time	6.26	10.22	14.17	18.16	22.22		26.40	30.78	35.40	40.06	44.89		50.44	1 / 7			
reaction time		interval		3.96	3.95	3.99	4.06		4.18	4.38	4.62	4.66	4.83	5.55			11.90	12.62	14.11
		velocity	7.19	8.84	8.86	8.77	8.62		8.37	7.99	7.58	7.51	7.25	7.21	7.93		8.82	8.32	7.44
H1 lead leg		strides																	

**FINAL - 1998 Spanish National Championships (San Sebastián, ESP)**

Ruiz (1998) - campeonato des españa absoluto: análisis de la carreras con villas

date	02-Aug-98	time	6.10	10.22	14.34	18.52	22.90		27.32	31.89	36.58	41.41	46.24		51.65	7 / 3			
reaction time		interval		4.12	4.12	4.18	4.38		4.42	4.57	4.69	4.83	4.83	5.41			12.42	13.37	14.35
		velocity	7.38	8.50	8.50	8.37	7.99		7.92	7.66	7.46	7.25	7.25	7.39	7.74		8.45	7.85	7.32
H1 lead leg	L	strides	22	14	14	14	14		14	15	15	16	15	18.5	171.5				

**Rodríguez, Pedro (POR) (1971)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**Semi-Final 1 - 2000 Olympic Games (Sydney, AUS)**

Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games

date	25-Sep-00	time	6.06	9.98	13.98	17.98	21.98	23.50	26.02	30.38	34.86	39.42	44.10		49.48	1 / 7			
reaction time	0.162	interval		3.92	4.00	4.00	4.00		4.04	4.36	4.48	4.56	4.68	5.38			11.92	12.40	13.72
		velocity	7.43	8.93	8.75	8.75	8.75	8.51	8.66	8.03	7.81	7.68	7.48	7.43	8.08		8.81	8.47	7.65
H1 lead leg		strides	21	13	13	13	13		13	14	14	15	15	144					

**Heat 6 - 2000 Olympic Games (Sydney, AUS)**

Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games

date	24-Sep-00	time	6.06	9.64	14.10	18.02	22.02		26.30	30.58	35.02	39.58	44.46		49.90	5 / 4			
reaction time	0.162	interval		3.58	4.46	3.92	4.00		4.28	4.28	4.44	4.56	4.88	5.44			11.96	12.56	13.88
		velocity	7.43	9.78	7.85	8.93	8.75		8.18	8.18	7.88	7.68	7.17	7.35	8.02		8.78	8.36	7.56
H1 lead leg		strides	21	13	13	13	13		14	14	15	15	15	18.4	164.4				

**Romera, José María (ESP) (1980)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**FINAL - 2002 IAAF World Cup (Madrid, ESP)**

Sanchez (2002) - copa del mundo de Madrid '02: análisis de la carreras con villas

date	20-Sep-02	time	5.85	9.62	13.39	17.23	21.21		25.32	29.69	34.15	38.91	43.85		49.68	8 / 6			
reaction time	0.147	interval		3.77	3.77	3.84	3.98		4.11	4.37	4.46	4.76	4.94	5.83			11.38	12.46	14.16
		velocity	7.69	9.28	9.28	9.11	8.79		8.52	8.01	7.85	7.35	7.09	6.86	8.05		9.23	8.43	7.42
H1 lead leg	R	strides	21	13	13	13	13		14	14	14	15	15	18.5	163.5				

**Romig, Cole (USA) (2002)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**Semi-Final 3 - 2024 USA Olympic Trials (Eugene, OR)**

USATF and Karmarush (2024) - USA Olympic trials results and race analysis

date	28-Jun-24	time	6.27	10.36	14.50	18.76	23.02	24.91	27.43	31.84	36.46	41.15	45.91		51.22	1 / 8			
reaction time		interval		4.09	4.14	4.26	4.26		4.41	4.41	4.62	4.69	4.76	5.31			12.49	13.08	14.07
		velocity	7.18	8.56	8.45	8.22	8.22	8.03	7.94	7.94	7.58	7.46	7.35	7.53	7.81		8.41	8.03	7.46
H1 lead leg	L	strides	23	15	15	15	15		15	15	15	15	15	18.2	176.2				

**Heat 2 - 2024 USA Olympic Trials (Eugene, OR)**

USATF and Karmarush (2024) - USA Olympic trials results and race analysis

date	27-Jun-24	time	6.34	10.41	14.46	18.61	22.88	24.83	27.26	31.78	36.44	41.08	45.75		51.01	5 / 6			
reaction time		interval		4.07	4.05	4.15	4.27		4.38	4.52	4.66	4.64	4.67	5.26			12.27	13.17	13.97
		velocity	7.10	8.60	8.64	8.43	8.20	8.05	7.99	7.74	7.51	7.54	7.49	7.60	7.84		8.56	7.97	7.52
H1 lead leg	L	strides	22	15	15	15	15				15	15	15	19	146				

## Rosser, Khalifah (USA) (1995)

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<b>FINAL - 2024 USA Olympic Trials (Eugene, OR)</b>													<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>					
date	30-Jun-24	time	6.00	9.92	13.59	17.54	21.65	23.47	25.77	30.26	35.17	40.48	45.76	53.18	9 / 8			
reaction time		interval		3.92	3.67	3.95	4.11		4.12	4.49	4.91	5.31	5.28	7.42		11.54	12.72	15.50
		velocity	7.50	8.93	9.54	8.86	8.52	8.52	8.50	7.80	7.13	6.59	6.63	5.39	7.52	9.10	8.25	6.77
H1 lead leg	R	strides	20	13	13	13	13			13		15	15	115				
<b>Semi-Final 2 - 2024 USA Olympic Trials (Eugene, OR)</b>													<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>					
date	28-Jun-24	time	5.93	9.65	13.40	17.35	21.39	23.12	25.39	29.79	34.38	39.16	44.01	49.72	6 / 2			
reaction time		interval		3.72	3.75	3.95	4.04		4.00	4.40	4.59	4.78	4.85	5.71		11.42	12.44	14.22
		velocity	7.59	9.41	9.33	8.86	8.66	8.65	8.75	7.95	7.63	7.32	7.22	7.01	8.05	9.19	8.44	7.38
H1 lead leg	R	strides	20	13	13	13	13		14	14	14	14	15	17.5	160.5			
<b>Heat 2 - 2024 USA Olympic Trials (Eugene, OR)</b>													<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>					
date	27-Jun-24	time	5.91	9.67	13.50	17.40	21.36	23.14	25.35	29.67	34.32	39.06	43.95	49.93	6 / 2			
reaction time		interval		3.76	3.83	3.90	3.96		3.99	4.32	4.65	4.74	4.89	5.98		11.49	12.27	14.28
		velocity	7.61	9.31	9.14	8.97	8.84	8.64	8.77	8.10	7.53	7.38	7.16	6.69	8.01	9.14	8.56	7.35
H1 lead leg	R	strides	20	13	13	13	13		13	13	14	14	15	17.5	158.5			
<b>FINAL - 2024 Seashore Doha Meeting (Doha, QAT)</b>													<i>Omega Timing (2024) - diamond league race analysis</i>					
date	10-May-24	time	5.74	9.44	13.14	17.00	20.98		25.17	29.60	34.28	39.11	44.08	49.88	7 / 5			
reaction time	0.153	interval		3.70	3.70	3.86	3.98		4.19	4.43	4.68	4.83	4.97	5.80		11.26	12.60	14.48
		velocity	7.84	9.46	9.46	9.07	8.79		8.35	7.90	7.48	7.25	7.04	6.90	8.02	9.33	8.33	7.25
H1 lead leg	R	strides	20	13	13	13	13		13			15	15	17.7	132.7			
<b>FINAL - 2023 Herculis Meeting International d'Athlétisme (Monaco, MON)</b>													<i>Omega Timing (2023) - diamond league race analysis</i>					
date	21-Jul-23	time	5.73	9.31	12.98	16.73	20.59		24.65	28.93	33.46	38.13	43.00	48.71	1 / 7			
reaction time	0.172	interval		3.58	3.67	3.75	3.86		4.06	4.28	4.53	4.67	4.87	5.71		11.00	12.20	14.07
		velocity	7.85	9.78	9.54	9.33	9.07		8.62	8.18	7.73	7.49	7.19	7.01	8.21	9.55	8.61	7.46
H1 lead leg	R	strides	21	13	13	13				14	14	14	14	116				
<b>FINAL - 2023 USATF National Championships (Eugene, OR) (TV Analysis)</b>													<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>					
date	09-Jul-23	time	5.94	9.61	13.28	17.08	21.05		25.09	29.29	33.66	38.27	43.11	48.77	7 / 4			
reaction time		interval		3.67	3.67	3.80	3.97		4.04	4.20	4.37	4.61	4.84	5.66		11.14	12.21	13.82
		velocity	7.58	9.54	9.54	9.21	8.82		8.66	8.33	8.01	7.59	7.23	7.07	8.20	9.43	8.60	7.60
H1 lead leg	R	strides	21	13	13	13	13		13	13	14	14	15	18	160			
<b>FINAL - 2023 Bislett Games (Oslo, NOR)</b>													<i>Omega Timing (2023) - diamond league race analysis</i>					
date	15-Jun-23	time	5.71	9.31	12.97	16.74	20.67		24.79	29.09	33.54	38.25	43.09	48.87	3 / 6			
reaction time	0.172	interval		3.60	3.66	3.77	3.93		4.12	4.30	4.45	4.71	4.84	5.78		11.03	12.35	14.00
		velocity	7.88	9.72	9.56	9.28	8.91		8.50	8.14	7.87	7.43	7.23	6.92	8.18	9.52	8.50	7.50
H1 lead leg	R	strides	21			13	13		13			15	15	90				
<b>FINAL - 2023 Meeting de Paris (Paris, FRA)</b>													<i>Omega Timing (2023) - diamond league race analysis</i>					
date	09-Jun-23	time	5.74	9.36	13.06	16.85	20.80		24.88	29.09	33.61	38.26	43.09	48.96	3 / 6			
reaction time	0.143	interval		3.62	3.70	3.79	3.95		4.08	4.21	4.52	4.65	4.83	5.87		11.11	12.24	14.00
		velocity	7.84	9.67	9.46	9.23	8.86		8.58	8.31	7.74	7.53	7.25	6.81	8.17	9.45	8.58	7.50
H1 lead leg	R	strides	21	13	13	13	13		13	13	14	14	15	18	160			
<b>FINAL - 2023 Doha Diamond League (Doha, QAT)</b>													<i>Omega Timing (2023) - diamond league race analysis</i>					
date	05-May-23	time	5.84	9.50	13.29	17.14	21.14		25.32	29.69	34.20	38.85	43.66	49.25	4 / 4			
reaction time	0.161	interval		3.66	3.79	3.85	4.00		4.18	4.37	4.51	4.65	4.81	5.59		11.30	12.55	13.97
		velocity	7.71	9.56	9.23	9.09	8.75		8.37	8.01	7.76	7.53	7.28	7.16	8.12	9.29	8.37	7.52
H1 lead leg	R	strides	21	13	13	13	13		13	14	14	14	14	17.5	159.5			
<b>FINAL - 2022 Weltklasse (Zürich, SUI) (TV Analysis)</b>													<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	08-Sep-22	time	5.74	9.27			20.69	22.22	24.66	28.73	32.93	37.47	42.17	47.76	5 / 2			
reaction time	0.169	interval		3.53			11.42		3.97	4.07	4.20	4.54	4.70	5.59			13.44	
		velocity	7.84	9.92			9.19	9.00	8.82	8.60	8.33	7.71	7.45	7.16	8.38			7.81
H1 lead leg	R	strides	21	13					13	13	13	14	14	18	119			
<b>FINAL - 2022 Memorial van Damme (Brussels, BEL) (TV Analysis)</b>													<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	02-Sep-22	time	5.87	9.51	13.21		20.89	22.60	24.96	29.09	33.43	37.97	42.57	47.88	4 / 2			
reaction time	0.232	interval		3.64	3.70		7.68		4.07	4.13	4.34	4.54	4.60	5.31			13.48	
		velocity	7.67	9.62	9.46		9.11	8.85	8.60	8.47	8.06	7.71	7.61	7.53	8.35			7.79
H1 lead leg	R	strides	21	13	13				13	13	14	14	14	17.7	132.7			
<b>FINAL - 2022 NACAC Championships (Freeport, BAH) (TV Analysis)</b>													<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	21-Aug-22	time	5.73	9.46	13.26	17.03	20.96		25.00	29.00	33.16	37.53		47.59	4 / 2			
reaction time		interval		3.73	3.80	3.77	3.93		4.04	4.00	4.16	4.37		<b>PB</b>		11.30	11.97	
		velocity	7.85	9.38	9.21	9.28	8.91		8.66	8.75	8.41	8.01		8.41		9.29	8.77	
H1 lead leg	R	strides	21	13	13	13	13		13	13	13	14		126				
<b>FINAL - 2022 Silesia Kamila Skolimowska Memorial (Chorzów, POL) (TV Analysis)</b>													<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	06-Aug-22	time	5.87	9.53	13.33	17.17	21.16	22.84		29.36	33.73	38.23	42.86	48.30	4 / 2			
reaction time	0.177	interval		3.66	3.80	3.84	3.99		8.20	4.37	4.50	4.63	5.44			11.30	12.19	13.50
		velocity	7.67	9.56	9.21	9.11	8.77	8.76		8.54	8.01	7.78	7.56	7.35	8.28	9.29	8.61	7.78

H1 lead leg	R	strides	21	13	13		13				14	14	14	18	120
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**FINAL - 2022 World Athletics Championships (Eugene, OR)**

date	19-Jul-22	time	5.89	9.59	13.38	17.15	21.02	22.60	24.99	29.16	33.48	38.00	42.59	47.88	1 / 5	
reaction time	0.176	interval	3.70	3.79	3.77	3.87		3.97	4.17	4.32	4.52	4.59	5.29		12.01 13.43	
		velocity	7.64	9.46	9.23	9.28	9.04	8.85	8.82	8.39	8.10	7.74	7.63	7.56	8.35	8.74 7.82
H1 lead leg		strides		13	13	13	13		13	13	14	14	14	17.5	137.5	

Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season

**Semi-Final 3 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)**

date	17-Jul-22	time	5.73	9.36	13.17	16.87	20.70	22.41		28.93	33.47	38.00	42.73	48.34	3 / 3	
reaction time	0.141	interval	3.63	3.81	3.70	3.83			8.23	4.54	4.53	4.73	5.61		11.14 12.06 13.80	
		velocity	7.85	9.64	9.19	9.46	9.14	8.92		8.51	7.71	7.73	7.40	7.13	8.27	9.43 8.71 7.61
H1 lead leg	R	strides	21	13	13	13	13			14	14	14	18	133		

Henson (2022) - Athlete First: 2022 year end hurdle report

**Heat 5 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)**

date	16-Jul-22	time	5.84	9.63	13.46	17.27	21.26	22.98	25.33	29.52	33.86	38.40	43.03	48.62	2 / 1	
reaction time	0.168	interval	3.79	3.83	3.81	3.99		4.07	4.19	4.34	4.54	4.63	5.59		11.43 12.25 13.51	
		velocity	7.71	9.23	9.14	9.19	8.77	8.70	8.60	8.35	8.06	7.71	7.56	7.16	8.23	9.19 8.57 7.77
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	14	14	17.2	156.2	

Henson (2022) - Athlete First: 2022 year end hurdle report

**FINAL - 2022 USATF National Championships (Eugene, OR) (TV Analysis)**

date	26-Jun-22	time	5.97	9.57	13.24	17.01	20.92	22.49	24.86	28.93	33.30	37.73	42.37	47.65	4 / 3	
reaction time		interval	3.60	3.67	3.77	3.91		3.94	4.07	4.37	4.43	4.64	5.28	<b>PB</b>	11.04 11.92 13.44	
		velocity	7.54	9.72	9.54	9.28	8.95	8.89	8.88	8.60	8.01	7.90	7.54	7.58	8.39	9.51 8.81 7.81
H1 lead leg	R	strides	21	13	13	13	13		13	14	14	14	14	17.7	159.7	

Henson (2022) - Athlete First: 2022 year end hurdle report

**FINAL - FINAL - 2022 Prefontaine Classic (Eugene, OR) (TV Analysis)**

date	05-Jun-22	time	5.67	9.23	12.97	16.77	20.67	22.38	24.73	28.93	33.40	37.97	42.70	48.25	6 / 1	
reaction time	0.166	interval	3.56	3.74	3.80	3.90		4.06	4.20	4.47	4.57	4.73	5.55		11.10 12.16 13.77	
		velocity	7.94	9.83	9.36	9.21	8.97	8.94	8.62	8.33	7.83	7.66	7.40	7.21	8.29	9.46 8.63 7.63
H1 lead leg	R	strides	21	13	13	13	13		13	14	14	14	15	143		

Henson (2022) - Athlete First: 2022 year end hurdle report

**FINAL - 2022 Prefontaine Classic (Eugene, OR) (TV Analysis)**

date	28-May-22	time	5.70	9.33	13.06	16.90	20.87	22.62	24.90	29.06	33.33	37.90	42.56	48.10	4 / 2	
reaction time	0.158	interval	3.63	3.73	3.84	3.97		4.03	4.16	4.27	4.57	4.66	5.54	<b>PB</b>	11.20 12.16 13.50	
		velocity	7.89	9.64	9.38	9.11	8.82	8.84	8.68	8.41	8.20	7.66	7.51	7.22	8.32	9.38 8.63 7.78
H1 lead leg	R	strides	21	13	13	13	13		13	14	14	15	15	18	162	

Henson (2022) - Athlete First: 2022 year end hurdle report

**FINAL - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)**

date	26-Jun-21	time	5.77	9.37	13.10	16.96	20.99		25.16	29.48	33.83	38.33	43.06	48.81	8 / 5	
reaction time	0.279	interval	3.60	3.73	3.86	4.03		4.17	4.32	4.35	4.50	4.73	5.75		11.19 12.52 13.58	
		velocity	7.80	9.72	9.38	9.07	8.68		8.39	8.10	8.05	7.78	7.40	6.96	8.20	9.38 8.39 7.73
H1 lead leg	R	strides		13	13	13	13		14	14	14	14	15	18	141	

Henson (2021) - Athlete First: 2021 year end hurdle report

**Semi-Final 1 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)**

date	25-Jun-21	time	5.93	9.63	13.37	17.17	21.13		29.63	33.97	38.58	43.43	49.04	4 / 2	
reaction time	0.209	interval	3.70	3.74	3.80	3.96		4.17	4.34	4.61	4.85	5.61		11.24 12.46 13.80	
		velocity	7.59	9.46	9.36	9.21	8.84		8.24	8.06	7.59	7.22	7.13	8.16	9.34 8.43 7.61
H1 lead leg	R	strides		13	13	13	13		14	14	15	15	18.5	128.5	

Henson (2021) - Athlete First: 2021 year end hurdle report

**Heat 2 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)**

date	24-Jun-21	time	5.77	9.44	13.18	17.08	21.19		25.42	29.79	34.16	38.77	43.61	49.28	5 / 3	
reaction time	0.246	interval	3.67	3.74	3.90	4.11		4.23	4.37	4.37	4.61	4.84	5.67		11.31 12.71 13.82	
		velocity	7.80	9.54	9.36	8.97	8.52		8.27	8.01	8.01	7.59	7.23	7.05	8.12	9.28 8.26 7.60
H1 lead leg	R	strides		13	13	13	13		14	14	14	14	14	18	140	

Henson (2021) - Athlete First: 2021 year end hurdle report

**FINAL - 2019 Prefontaine Classic (Stanford, CA) (TV Analysis)**

date	30-Jun-19	time	5.93	9.53	13.36	17.26		25.43	29.80	34.36	39.10	43.96	49.87	9 / 6	
reaction time	0.361	interval	3.60	3.83	3.90		8.17	4.37	4.56	4.74	4.86	5.91		11.33 12.54 14.16	
		velocity	7.59	9.72	9.14	8.97		8.57	8.01	7.68	7.38	7.20	6.77	8.02	9.27 8.37 7.42
H1 lead leg	R	strides	21	13		13			14	15		15		91	

Henson (2020) - Athlete First: 2019 year end hurdle report

**Rowe, Shawn (JAM) (1992)**

			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
date	17-Jul-22	time	5.86	9.57	13.47	17.30	21.33	23.08	25.50	30.03	34.53	39.33	44.13	49.80	2 / 8				
reaction time	0.158	interval	3.71	3.90	3.83	4.03		4.17	4.53	4.50	4.80	4.80	5.67		11.44 12.73 14.10				
		velocity	7.68	9.43	8.97	9.14	8.68	8.67	8.39	7.73	7.78	7.29	7.29	7.05	8.03	9.18 8.25 7.45			
H1 lead leg	L	strides	20	13	13	13	13		13	14	14	14	14	17	158				

Henson (2022) - Athlete First: 2022 year end hurdle report

**Semi-Final 2 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)**

date	01-Aug-21	time	5.90	9.56	13.33	17.13	21.03		25.10	29.35		38.63	43.36	48.83	9 / 6	
reaction time	0.204	interval	3.66	3.77	3.80	3.90		4.07	4.25		9.28	4.73	5.47	<b>PB</b>	11.23 12.22 14.01	
		velocity	7.63	9.56	9.28	9.21	8.97		8.60	8.24		7.54	7.40	7.31	8.19	9.35 8.59 7.49
H1 lead leg	L	strides	20	13	13	13	13		13	13			14	17	129	

Henson (2024) - Athlete First: 2021 year end hurdle report

**Heat 4 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)**

date	30-Jul-21	time	5.95	9.66	13.42	17.24	21.23		25.26	29.70	34.16	38.96	43.70	49.18	4 / 3
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Henson (2024) - Athlete First: 2021 year end hurdle report



reaction time	0.157	interval	3.71	3.76	3.82	3.99		4.03	4.44	4.46	4.80	4.74	5.48			11.29	12.46	14.00	
		velocity	7.56	9.43	9.31	9.16	8.77	8.68	7.88	7.85	7.29	7.38	7.30	8.13		9.30	8.43	7.50	
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	14	14	17	158					
<b>Rudolph, Christian (GDR) (1949)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 1971 European Championships (Helsinki, FIN)</b>																<i>Behm (1995) - la tactique du 400 haies</i>			
date	12-Aug-71	time	6.0	10.0	13.9	17.7	21.7		25.7	29.9	34.4	38.9	43.5		49.3	/ 2			
reaction time		interval		4.00	3.90	3.80	4.00		4.00	4.20	4.50	4.50	4.60	5.80	<b>NR</b>		11.70	12.20	13.60
		velocity	7.50	8.75	8.97	9.21	8.75		8.75	8.33	7.78	7.78	7.61	6.90	8.11		8.97	8.61	7.72
H1 lead leg		strides		15	15	15	15		15	15	15	15	15		135				
<b>Saddler, Craig (USA)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2023 NCAA Championships (Austin, TX) (TV Analysis)</b>																<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>			
date	09-Jun-23	time	5.96	9.54	13.38	17.31	21.40			30.25	34.85	39.46	44.27		49.70	1 / 9			
reaction time		interval		3.58	3.84	3.93	4.09			8.85	4.60	4.61	4.81	5.43			11.35	12.94	14.02
		velocity	7.55	9.78	9.11	8.91	8.56			7.91	7.61	7.59	7.28	7.37	8.05		9.25	8.11	7.49
H1 lead leg	R	strides	21	13	13	13	13					15	15	15	17	135			
<b>Saifeldin, Muhand Khamis (QAT) (19</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>B FINAL - 2021 Doha Diamond League (Doha, QAT) (TV Analysis)</b>																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	28-May-21	time	6.10	10.13	14.27	18.60	23.07	25.1	27.73	32.47	37.33	42.17	47.27		53.06	4 / 5			
reaction time	0.127	interval		4.03	4.14	4.33	4.47		4.66	4.74	4.86	4.84	5.10	5.79			12.50	13.87	14.80
		velocity	7.38	8.68	8.45	8.08	7.83	7.97	7.51	7.38	7.20	7.23	6.86	6.91	7.54		8.40	7.57	7.09
H1 lead leg	L	strides	22	14	14	14	14		14			14	14	15	135				
<b>Salmerón, Fernando (ESP) (1978)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 1998 Spanish National Championships (San Sebastián, ESP)</b>																<i>Ruiz (1998) - campeonato des españa absoluto: análisis de la carreras con villas</i>			
date	02-Aug-98	time	6.18	10.27	14.57	18.74	23.20		27.72	32.28	36.79	41.74	46.72		52.75	2 / 8			
reaction time		interval		4.09	4.30	4.17	4.46		4.52	4.56	4.51	4.95	4.98	6.03			12.56	13.54	14.44
		velocity	7.28	8.56	8.14	8.39	7.85		7.74	7.68	7.76	7.07	7.03	6.63	7.58		8.36	7.75	7.27
H1 lead leg	L	strides	22	14	15	14	15		15	15	15	17	16	20	178				
<b>Semi-Final 2 - 1998 Spanish National Championships (San Sebastián, ESP)</b>																			
date	01-Aug-98	time	6.20	10.25	14.38	18.62	22.92		27.37	31.92	36.94	42.01	47.14		53.24	3 / ??			
reaction time		interval		4.05	4.13	4.24	4.30		4.45	4.55	5.02	5.07	5.13	6.10			12.42	13.30	15.22
		velocity	7.26	8.64	8.47	8.25	8.14		7.87	7.69	6.97	6.90	6.82	6.56	7.51		8.45	7.89	6.90
H1 lead leg	L	strides	22	14	14	14	14		15	15	16	16	16	20	176				
<b>Samba, Abderrahmane (QAT) (1995)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2024 Memorial van damme (Brussels, BEL)</b>																<i>Omega Timing (2023) - diamond league race analysis</i>			
date	14-Sep-24	time	5.73	9.47	13.25	16.96	20.88		25.00	29.19	33.57	38.09	42.75		48.20	4 / 2			
reaction time	0.170	interval		3.74	3.78	3.71	3.92		4.12	4.19	4.38	4.52	4.66	5.45			11.41	12.23	13.56
		velocity	7.85	9.36	9.26	9.43	8.93		8.50	8.35	7.99	7.74	7.51	7.34	8.30		9.20	8.59	7.74
H1 lead leg	R	strides	21	13	13	13	13		13	13	14	14	14	17.2	158.2				
<b>FINAL - 2024 Weltklasse (Zürich, SUI)</b>																<i>Omega Timing (2023) - diamond league race analysis</i>			
date	05-Sep-24	time	5.73	9.39	13.05	16.80	20.63		24.58	28.72	33.04	37.57	42.18		47.58	4 / 2			
reaction time	0.177	interval		3.66	3.66	3.75	3.83		3.95	4.14	4.32	4.53	4.61	5.40			11.24	11.92	13.46
		velocity	7.85	9.56	9.56	9.33	9.14		8.86	8.45	8.10	7.73	7.59	7.41	8.41		9.34	8.81	7.80
H1 lead leg	R	strides	21	13			13		13	13	13	14	14	17.2	131.2				
<b>FINAL - 2024 Kamila Skolimowska Memorial (Silesia, POL)</b>																<i>Omega Timing (2023) - diamond league race analysis</i>			
date	25-Aug-24	time	5.75	9.43	13.14	16.97	20.89		24.96	29.28	33.51	37.91	42.43		47.69	7 / 3			
reaction time	0.203	interval		3.68	3.71	3.83	3.92		4.07	4.32	4.23	4.40	4.52	5.26			11.22	12.31	13.15
		velocity	7.83	9.51	9.43	9.14	8.93		8.60	8.10	8.27	7.95	7.74	7.60	8.39		9.36	8.53	7.98
H1 lead leg	R	strides	21	13	13	13	13		13	13	13	13	14	17	156				
<b>FINAL - 2024 Olympic Games (Paris, FRA)</b>																<i>Paris 2024 Olympc Games - Results Book (2024)</i>			
date	09-Aug-24	time	5.74	9.48	13.28	17.11	20.98		24.99	29.16	33.52	38.14	42.67		47.98	2 / 6			
reaction time	0.169	interval		3.74	3.80	3.83	3.87		4.01	4.17	4.36	4.62	4.53	5.31			11.37	12.05	13.51
		velocity	7.84	9.36	9.21	9.14	9.04		8.73	8.39	8.03	7.58	7.73	7.53	8.34		9.23	8.71	7.77
H1 lead leg	R	strides	21	13			13		13	13	13	14	14	17	144				
<b>Semi-Final 2 - 2024 Olympic Games (Paris, FRA)</b>																<i>Paris 2024 Olympc Games - Results Book (2024)</i>			
date	07-Aug-24	time	5.78	9.51	13.25	17.02	20.90		24.91	29.13	33.58	38.23	42.86		48.20	5 / 3			
reaction time	0.216	interval		3.73	3.74	3.77	3.88		4.01	4.22	4.45	4.65	4.63	5.34			11.24	12.11	13.73
		velocity	7.79	9.38	9.36	9.28	9.02		8.73	8.29	7.87	7.53	7.56	7.49	8.30		9.34	8.67	7.65
H1 lead leg	L	strides	21	13	13	13	13		13	13	13	14	14	17.5	157.5				
<b>Heat 2 - 2024 Olympic Games (Paris, FRA)</b>																<i>Paris 2024 Olympc Games - Results Book (2024)</i>			
date	05-Aug-24	time	5.92	9.67	13.44	17.38	21.34		25.29	29.44	33.84	38.40	42.99		48.35	7 / 3			
reaction time	0.182	interval		3.75	3.77	3.94	3.96		3.95	4.15	4.40	4.56	4.59	5.36			11.46	12.06	13.55
		velocity	7.60	9.33	9.28	8.88	8.84		8.86	8.43	7.95	7.68	7.63	7.46	8.27		9.16	8.71	7.75
H1 lead leg	R	strides	21	13	12	12	13		13	13	13	14	14	17	155				
<b>FINAL - 2024 Herculis Meeting International d'Atlétisme (Monaco, MON)</b>																<i>Omega Timing (2024) - diamond league race analysis</i>			
date	12-Jul-24	time	5.83	9.54	13.28	17.14	21.18		25.33	29.55	33.92	38.47	43.08		48.27	8 / 5			

reaction time	0.179	interval	3.71	3.74	3.86	4.04	4.15	4.22	4.37	4.55	4.61	5.19	11.31	12.41	13.53			
		velocity	7.72	9.43	9.36	9.07	8.66	8.43	8.29	8.01	7.69	7.59	7.71	8.29	9.28	8.46	7.76	
H1 lead leg	R	strides	21	13	13	13	13	13	13	13	13	14	17	156				
<b>FINAL - 2024 Bauhaus Galan (Stockholm, SWE) (TV Analysis)</b>													<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>					
date	02-Jun-24	time	6.10	10.00	13.93	17.80	21.76	25.90	30.17	34.53	39.46	44.07	49.69	2 / 7				
reaction time	0.187	interval	3.90	3.93	3.87	3.96	4.14	4.27	4.36	4.93	4.61	5.62	11.70	12.37	13.90			
		velocity	7.38	8.97	8.91	9.04	8.84	8.45	8.20	8.03	7.10	7.59	7.12	8.05	8.97	8.49	7.55	
H1 lead leg	L	strides	20	13	13	13	13	13	14	15	15	14	18	161				
<b>FINAL - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>													<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>					
date	03-Aug-21	time	5.84	9.48	13.12	16.88	20.72	24.80	28.92	33.16	37.48	41.90	47.12	8 / 5				
reaction time	0.186	interval	3.64	3.64	3.76	3.84	4.08	4.12	4.24	4.32	4.42	5.22	11.04	12.04	12.98			
		velocity	7.71	9.62	9.62	9.31	9.11	8.58	8.50	8.25	8.10	7.92	7.66	8.49	9.51	8.72	8.09	
H1 lead leg	R	strides	21	13	13	13	13	13	13	13	14	14	17	157				
<b>Semi-Final 2 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>													<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>					
date	01-Aug-21	time	5.85	9.46	13.13	16.83	20.67	24.72	28.90	33.20	37.66	42.20	47.47	5 / 2				
reaction time	0.188	interval	3.61	3.67	3.70	3.84	4.05	4.18	4.30	4.46	4.54	5.27	10.98	12.07	13.30			
		velocity	7.69	9.70	9.54	9.46	9.11	8.64	8.37	8.14	7.85	7.71	7.59	8.43	9.56	8.70	7.89	
H1 lead leg	R	strides	21	13	13	13	13	13	13	13	14	14	17	157				
<b>Heat 1 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>													<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>					
date	30-Jul-21	time	6.03	9.83	13.70	17.65	21.57	25.77	30.13	34.43	38.84	43.30	48.38	2 / 1				
reaction time	0.200	interval	3.80	3.87	3.95	3.92	4.20	4.36	4.30	4.41	4.46	5.08	11.62	12.48	13.17			
		velocity	7.46	9.21	9.04	8.86	8.93	8.33	8.03	8.14	7.94	7.85	7.87	8.27	9.04	8.41	7.97	
H1 lead leg	R	strides	21	13	13	13	13	13	13	14	14	13	17.2	157.2				
<b>FINAL - 2021 Doha Diamond League (Doha, QAT) (TV Analysis)</b>													<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>					
date	28-May-21	time	5.87	9.71	13.61	17.58	21.59	23.3	25.66	29.99	34.27	38.60	42.91	48.26	4 / 4			
reaction time	0.153	interval	3.84	3.90	3.97	4.01	4.07	4.33	4.28	4.33	4.31	5.35	11.71	12.41	12.92			
		velocity	7.67	9.11	8.97	8.82	8.73	8.58	8.60	8.08	8.18	8.08	8.12	7.48	8.29	8.97	8.46	8.13
H1 lead leg	R	strides	21	13	13	13	13	13	13	13	13	14	14	17	144			
<b>FINAL - 2019 IAAF World Championships (Doha, QAT)</b>													<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>					
date	30-Sep-19	time	5.97	9.65	13.40	17.27	21.22	25.29	29.52	33.85	38.30	42.80	48.03	9 / 3				
reaction time	0.198	interval	3.68	3.75	3.87	3.95	4.07	4.23	4.33	4.45	4.50	5.23	11.30	12.25	13.28			
		velocity	7.54	9.51	9.33	9.04	8.86	8.60	8.27	8.08	7.87	7.78	7.65	8.33	9.29	8.57	7.91	
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	14	14	17.5	156.5				
<b>Semi-Final 3 - 2019 IAAF World Championships (Doha, QAT)</b>													<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>					
date	28-Sep-19	time	6.00	9.78	13.51	17.41	21.40	25.57	29.84	34.31	38.76	43.33	48.72	5 / 2				
reaction time	0.220	interval	3.78	3.73	3.90	3.99	4.17	4.27	4.47	4.45	4.57	5.39	11.41	12.43	13.49			
		velocity	7.50	9.26	9.38	8.97	8.77	8.39	8.20	7.83	7.87	7.66	7.42	8.21	9.20	8.45	7.78	
H1 lead leg	R	strides	21	13	13	13	13	13	13	14	14	14	17.2	158.2				
<b>Heat 3 - 2019 IAAF World Championships (Doha, QAT) (TV Analysis)</b>													<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>					
date	27-Sep-19	time	6.04	9.92	13.84	17.84	21.96	26.16	30.36	34.76	39.20	43.76	49.08	8 / 1				
reaction time	0.183	interval	3.88	3.92	4.00	4.12	4.20	4.20	4.40	4.44	4.56	5.32	11.80	12.52	13.40			
		velocity	7.45	9.02	8.93	8.75	8.50	8.33	8.33	7.95	7.88	7.68	7.52	8.15	8.90	8.39	7.84	
H1 lead leg	R	strides	21	13	13	13	13	13	13	13	13	14	17	156				
<b>FINAL - 2019 Shanghai Diamond League (Shanghai, CHN)</b>													<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>					
date	18-May-19	time	5.80	9.60	13.36	17.20	21.13	23.0	25.26	29.40	33.58	37.83	42.13	47.27	4 / 1			
reaction time	0.201	interval	3.80	3.76	3.84	3.93	4.13	4.14	4.18	4.25	4.30	5.14	11.40	12.20	12.73			
		velocity	7.76	9.21	9.31	9.11	8.91	8.70	8.47	8.45	8.37	8.24	8.14	7.78	8.46	9.21	8.61	8.25
H1 lead leg	R	strides	21	13	13	13	13	13	13	13	13	13	17	155				
<b>FINAL - 2019 Asian Athletics Championships (Doha, QAT)</b>													<i>CAA Hurdle Development (2019)</i>					
date	22-Apr-19	time	5.82	9.40	13.04	16.80	20.68	24.84	29.09	33.48	37.97	42.40	47.51	5 / 1				
reaction time	0.179	interval	3.58	3.64	3.76	3.88	4.16	4.25	4.39	4.49	4.43	5.11	CR	10.98	12.29	13.31		
		velocity	7.73	9.78	9.62	9.31	9.02	8.41	8.24	7.97	7.80	7.90	7.83	8.42	9.56	8.54	7.89	
H1 lead leg	R	strides	21	13	13	13	13	13	13	14	14	14	17.2	158.2				
<b>FINAL - 2018 IAAF Continental Cup (Ostrava, CZE) (TV Analysis)</b>													<i>Henson (2021) - Athlete First: 2018 year end hurdle report</i>					
date	08-Sep-18	time	5.84	9.52	13.28	17.04	20.96	24.96	29.16	33.48	37.96	42.32	47.37	3 / 1				
reaction time	0.219	interval	3.68	3.76	3.76	3.92	4.00	4.20	4.32	4.48	4.36	5.05	11.20	12.12	13.16			
		velocity	7.71	9.51	9.31	9.31	8.93	8.75	8.33	8.10	7.81	8.03	7.92	8.44	9.38	8.66	7.98	
H1 lead leg	R	strides	21	13	13	13	13	13	13	14	14	14	17.5	158.5				
<b>FINAL - 2018 Asian Games (Jakarta, INA)</b>													<i>Zhao (2020) - comparative analysis of the kinematic characteristics of Chinese and foreign outstanding men's 400-meter hurdlers</i>					
date	27-Aug-18	time	5.86	9.52	13.24	17.04	21.00	25.12	29.32	33.64	38.24	42.64	47.66	6 / 1				
reaction time	0.169	interval	3.66	3.72	3.80	3.96	4.12	4.20	4.32	4.60	4.40	5.02	11.18	12.28	13.32			
		velocity	7.68	9.56	9.41	9.21	8.84	8.50	8.33	8.10	7.61	7.95	7.97	8.39	9.39	8.55	7.88	
H1 lead leg	R	strides	21	13	13	13	13	13	13	14	14	14	18	159				
<b>FINAL - 2018 Athletissima (Lausanne, SUI) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>					

date	05-Jul-18	time	5.76	9.40	13.12	16.84	20.72		24.80	28.92	33.24	37.72	42.24		47.42	5 / 1			
reaction time	0.183	interval		3.64	3.72	3.72	3.88		4.08	4.12	4.32	4.48	4.52	5.18			11.08	12.08	13.32
		velocity	7.81	9.62	9.41	9.41	9.02		8.58	8.50	8.10	7.81	7.74	7.72	8.44		9.48	8.69	7.88
H1 lead leg	R	strides	21	13	13	13	13		13	13	13	14	14	17.2	157.2				

**FINAL - 2018 Meeting de Paris (Paris, FRA) (TV Analysis)**

Henson (2020) - Athlete First: 2018 year end hurdle report

date	30-Jun-18	time	5.88	9.48	13.12	16.84	20.60	22.3	24.52	28.68	32.88	37.36	41.84		46.98	5 / 1			
reaction time	0.209	interval		3.60	3.64	3.72	3.76		3.92	4.16	4.20	4.48	4.48	5.14	AR PB		10.96	11.84	13.16
		velocity	7.65	9.72	9.62	9.41	9.31	8.97	8.93	8.41	8.33	7.81	7.81	7.78	8.51		9.58	8.87	7.98
H1 lead leg	R	strides	21	13	13	13	13		13	13	14	14	14	17.2	158.2				

**FINAL - 2018 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)**

Henson (2020) - Athlete First: 2018 year end hurdle report

date	10-Jun-18	time	5.88	9.60	13.40	17.24	21.20		25.28	29.40	33.76	37.96	42.28		47.41	5 / 1			
reaction time	0.194	interval		3.72	3.80	3.84	3.96		4.08	4.12	4.36	4.20	4.32	5.13	AR PB		11.36	12.16	12.88
		velocity	7.65	9.41	9.21	9.11	8.84		8.58	8.50	8.03	8.33	8.10	7.80	8.44		9.24	8.63	8.15
H1 lead leg	R	strides	21	13	13	13	13		13	13	14	14	14	17.5	158.5				

**FINAL - 2018 Bislett Games (Oslo, NOR) (TV Analysis)**

Henson (2020) - Athlete First: 2018 year end hurdle report

date	07-Jun-18	time	5.76	9.36	13.08	16.92	20.88	22.7	25.04	29.28	33.72	38.00	42.40		47.60	5 / 1			
reaction time	0.189	interval		3.60	3.72	3.84	3.96		4.16	4.24	4.44	4.28	4.40	5.20			11.16	12.36	13.12
		velocity	7.81	9.72	9.41	9.11	8.84	8.81	8.41	8.25	7.88	8.18	7.95	7.69	8.40		9.41	8.50	8.00
H1 lead leg	R	strides	21	13	13	13	13		13	14	14	14	14	17.2	159.2				

**FINAL - 2018 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)**

Henson (2020) - Athlete First: 2018 year end hurdle report

date	31-May-18	time	5.76	9.44	13.20	17.04	20.92		25.04	29.24	33.56	37.96	42.36		47.48	4 / 1			
reaction time	0.158	interval		3.68	3.76	3.84	3.88		4.12	4.20	4.32	4.40	4.40	5.12	AR PB		11.28	12.20	13.12
		velocity	7.81	9.51	9.31	9.11	9.02		8.50	8.33	8.10	7.95	7.95	7.81	8.42		9.31	8.61	8.00
H1 lead leg	R	strides	21	13	13	13	13		13	13	13	14	14	17	157				

**FINAL - 2018 Doha Diamond League (Doha, QAT) (TV Analysis)**

Henson (2020) - Athlete First: 2018 year end hurdle report

date	04-May-18	time	5.80	9.44	13.16	16.96	20.92		24.96	29.16	33.48	37.88	42.36		47.57	4 / 1			
reaction time	0.192	interval		3.64	3.72	3.80	3.96		4.04	4.20	4.32	4.40	4.48	5.21	NR PB		11.16	12.20	13.20
		velocity	7.76	9.62	9.41	9.21	8.84		8.66	8.33	8.10	7.95	7.81	7.68	8.41		9.41	8.61	7.95
H1 lead leg	R	strides	20	13	13	13	13		13	13	13		14	17.5	142.5				

**FINAL - 2017 IAAF World Championships (London, GBR) (TV Analysis)**

Henson (2020) - Athlete First: 2017 year end hurdle report

date	09-Aug-17	time	5.80	9.56	13.36	17.16	21.08		25.24	29.48	33.88	38.44	43.04		49.74	6 / 7			
reaction time	0.206	interval		3.76	3.80	3.80	3.92		4.16	4.24	4.40	4.56	4.60	6.70			11.36	12.32	13.56
		velocity	7.76	9.31	9.21	9.21	8.93		8.41	8.25	7.95	7.68	7.61	5.97	8.04		9.24	8.52	7.74
H1 lead leg	R	strides	21	13	13	13	13		13	13	14	14	14	19	160				

**FINAL - 2017 Doha Diamond League (Doha, QAT) (TV Analysis)**

Henson (2020) - Athlete First: 2017 year end hurdle report

date	05-May-17	time	5.80	9.43	13.03	16.66	20.43		24.40	28.56	32.96	37.66	42.60		48.44	4 / 1			
reaction time	0.185	interval		3.63	3.60	3.63	3.77		3.97	4.16	4.40	4.70	4.94	5.84			10.86	11.90	14.04
		velocity	7.76	9.64	9.72	9.64	9.28		8.82	8.41	7.95	7.45	7.09	6.85	8.26		9.67	8.82	7.48
H1 lead leg	R	strides	20	13	13	13	13		13	13	14	14	15	18	159				

**FINAL - 2017 North-West University Pukke Invitational (Sasolburg, RSA) (TV Analysis)**

Henson (2020) - Athlete First: 2017 year end hurdle report

date	28-Mar-17	time	5.92	9.60	13.32	17.12	21.00		25.08	29.40	33.84	38.44	43.00		48.31	5 / 1			
reaction time		interval		3.68	3.72	3.80	3.88		4.08	4.32	4.44	4.60	4.56	5.31	PB		11.20	12.28	13.60
		velocity	7.60	9.51	9.41	9.21	9.02		8.58	8.10	7.88	7.61	7.68	7.53	8.28		9.38	8.55	7.72
H1 lead leg	R	strides		13	13	13	13		13	13	14	14	14	17.5	137.5				

**Samuel, Cameron (USA) (1999)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**FINAL - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)**

Henson (2021) - Athlete First: 2021 year end hurdle report

date	26-Jun-21	time	5.84	9.67	13.48	17.45	21.59		25.82	30.26	34.78	39.34	43.91		49.27	7 / 7			
reaction time	0.199	interval		3.83	3.81	3.97	4.14		4.23	4.44	4.52	4.56	4.57	5.36			11.61	12.81	13.65
		velocity	7.71	9.14	9.19	8.82	8.45		8.27	7.88	7.74	7.68	7.66	7.46	8.12		9.04	8.20	7.69
H1 lead leg	R	strides		14	14	14	14		14	15	15		15	115					

**Semi-Final 2 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)**

Henson (2021) - Athlete First: 2021 year end hurdle report

date	25-Jun-21	time	6.00	9.87	13.78	17.77	21.80		26.06	30.49	35.00	39.47	43.94		49.01	5 / 2			
reaction time	0.154	interval		3.87	3.91	3.99	4.03		4.26	4.43	4.51	4.47	4.47	5.07			11.77	12.72	13.45
		velocity	7.50	9.04	8.95	8.77	8.68		8.22	7.90	7.76	7.83	7.83	7.89	8.16		8.92	8.25	7.81
H1 lead leg	R	strides		14	14	14	14			15	15	15	15	18	134				

**FINAL - 2021 NCAA Championships (Eugene, OR) (TV Analysis)**

Henson (2021) - Athlete First: 2021 year end hurdle report

date	11-Jun-21	time	5.93	9.60		17.32	21.33		29.65	34.13	38.73	43.37		48.68	7 / 3				
reaction time	0.201	interval		3.67		7.72	4.01		8.32	4.48	4.60	4.64	5.31	PB			11.39	12.33	13.72
		velocity	7.59	9.54		9.07	8.73		8.41	7.81	7.61	7.54	7.53	8.22			9.22	8.52	7.65
H1 lead leg	R	strides	21	14		14				15	15	15	18.5	112.5					

**Sánchez, Félix (DOM) (1977)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**FINAL - 2013 IAAF World Championships (Moscow, RUS) (TV Analysis)**

Henson (2021) - Athlete First: major championships report

date	15-Aug-13	time	5.80	9.40	13.26	17.17	21.23		25.37	29.60	33.90	38.33	42.90		48.22	4 / 5			
reaction time	0.175	interval		3.60	3.86	3.91	4.06		4.14	4.23	4.30	4.43	4.57	5.32			11.37	12.43	13.30
		velocity	7.76	9.72	9.07	8.95	8.62		8.45	8.27	8.14	7.90	7.66	7.52	8.30		9.23	8.45	7.89





reaction time	0.168	interval	3.80	3.88	4.04	4.08		4.20	4.44	4.60	4.88	4.96	5.91		11.72	12.72	14.44		
		velocity	7.60	9.21	9.02	8.66	8.58	8.51	8.33	7.88	7.61	7.17	7.06	6.77	7.89	8.96	8.25	7.27	
H1 lead leg	L	strides	22	14	14	14	14		14	15	15	16	16	19	173				
<b>FINAL - 2017 IAAF World Championships (London, GBR) (TV Analysis)</b>														<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>					
date	09-Aug-17	time	5.84	9.64	13.52	17.40	21.32		25.44	29.76	34.28	38.84	43.52		49.04	2 / 6			
reaction time	0.158	interval		3.80	3.88	3.88	3.92		4.12	4.32	4.52	4.56	4.68	5.52		11.56	12.36	13.76	
		velocity	7.71	9.21	9.02	9.02	8.93		8.50	8.10	7.74	7.68	7.48	7.25	8.16	9.08	8.50	7.63	
H1 lead leg	R	strides	22	14	14	14	14		14	15	15	15	15	19	171				
<b>Sasaki, Teru (JPN)</b>			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL - 2022 Shimane High School Championships (Izumo, JPN)</b>														<i>Shimizu (2022) - shimane high school championships 2022 - biomechanics data analysis</i>					
date	27-May-22	time	6.62	10.98	15.47	19.98	24.92		30.20	35.58	40.93	46.38	51.72		57.53	8 / 4			
reaction time		interval		4.36	4.49	4.51	4.94		5.28	5.38	5.35	5.45	5.34	5.81			13.36	15.60	16.14
		velocity	6.80	8.03	7.80	7.76	7.09		6.63	6.51	6.54	6.42	6.55	6.88	6.95		7.86	6.73	6.51
H1 lead leg		strides	22	15	15	15	17		17	17	17	17	17	21.5	190.5				
<b>FINAL - 2021 Shimane High School Championships (Izumo, JPN)</b>														<i>Shimizu (2021) - shimane high school championships 2021 - biomechanics data analysis</i>					
date	29-May-21	time	6.75	11.25	15.87	20.58	25.47		30.57	35.80	41.10	46.38	51.77		57.30	4 / 3			
reaction time		interval		4.50	4.62	4.71	4.89		5.10	5.23	5.30	5.28	5.39	5.53			13.83	15.22	15.97
		velocity	6.67	7.78	7.58	7.43	7.16		6.86	6.69	6.60	6.63	6.49	7.23	6.98		7.59	6.90	6.57
H1 lead leg		strides	22	15	15	15	15		17	17	17	19	19	21.3	192.3				
<b>Sato, Shoki (JPN)</b>			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>Heat 1 - 2016 Japanese National Youth Championships (Mizuho, JPN)</b>														<i>(2016.11.17) - https://twitter.com/touchdown_time/media?lang=en&amp;lang=en&amp;lang=en&amp;lang=en</i>					
date	23-Oct-16	time					24.74				39.51				56.15	2 / 4			
reaction time		interval									14.77								
		velocity					7.48				7.11				7.12				
H1 lead leg		strides																	
<b>Sato, Shunma (JPN) (1998)</b>			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL - 2016 Japanese National High School Championships (Okayama, JPN)</b>														<i>Kota (2016) - 69th high school championships: JAF scientific committee- biomechanics data</i>					
date	31-Jul-16	time	6.47	10.58	14.90	19.25	23.79		28.29	32.88	37.69	42.66	47.71		53.19	9 / 6			
reaction time	0.197	interval		4.11	4.32	4.35	4.54		4.50	4.59	4.81	4.97	5.05	5.48			12.78	13.63	14.83
		velocity	6.96	8.52	8.10	8.05	7.71		7.78	7.63	7.28	7.04	6.93	7.30	7.52		8.22	7.70	7.08
H1 lead leg		strides		14	15	15	16		15	15	15	16	16	137					
<b>Sato, Yota (JPN) (1992)</b>			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL - 2011 Japanese National High School Championships (Kitakami, JPN)</b>														<i>Abe (2011) - 64th high school championships: JAF scientific committee - biomechanics</i>					
date	05-Aug-11	time	6.22	10.24	14.40	18.62	22.85		27.24	31.79	36.64	41.84	47.06		52.48	8 / 3			
reaction time		interval		4.02	4.16	4.22	4.23		4.39	4.55	4.85	5.20	5.22	5.42			12.40	13.17	15.27
		velocity	7.23	8.71	8.41	8.29	8.27		7.97	7.69	7.22	6.73	6.70	7.38	7.62		8.47	7.97	6.88
H1 lead leg		strides																	
<b>Schelbert, Marcel (SUI) (1976)</b>			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL - 1999 IAAF World Championships (Sevilla, ESP)</b>														<i>Sanchez (1999) - Sevilla '99: análisis de la carreras con villas</i>					
date	27-Aug-99	time	5.66	9.42	13.18	17.02	21.17		25.14	29.32	33.70	38.19	42.70		48.13	7 / 3			
reaction time	0.125	interval		3.76	3.76	3.84	4.15		3.97	4.18	4.38	4.49	4.51	5.43	<b>NR PB</b>		11.36	12.30	13.38
		velocity	7.95	9.31	9.31	9.11	8.43		8.82	8.37	7.99	7.80	7.76	7.37	8.31		9.24	8.54	7.85
H1 lead leg	L	strides	22	13	13	13	14		14	14	14	15	15	18.5	166				
<b>Semi-Final 1 - 1999 IAAF World Championships (Sevilla, ESP)</b>														<i>Sanchez (1999) - Sevilla '99: análisis de la carreras con villas</i>					
date	25-Aug-99	time	5.78	9.59	13.39	17.33	21.29		25.60	29.86	34.32	38.83	43.33		48.80	6 / 3			
reaction time	0.139	interval		3.81	3.80	3.94	3.96		4.31	4.26	4.46	4.51	4.50	5.47			11.55	12.53	13.47
		velocity	7.79	9.19	9.21	8.88	8.84		8.12	8.22	7.85	7.76	7.78	7.31	8.20		9.09	8.38	7.80
H1 lead leg	L	strides	22	13	13	13	13		14	14	15	15	15	19	166				
<b>Heat 6 - 1999 IAAF World Championships (Sevilla, ESP)</b>														<i>Sanchez (1999) - Sevilla '99: análisis de la carreras con villas</i>					
date	24-Aug-99	time	5.78	9.52	13.30	17.16	21.05		25.28	29.56	34.00	38.50	43.14		48.66	6 / 1			
reaction time	0.143	interval		3.74	3.78	3.86	3.89		4.23	4.28	4.44	4.50	4.64	5.52			11.38	12.40	13.58
		velocity	7.79	9.36	9.26	9.07	9.00		8.27	8.18	7.88	7.78	7.54	7.25	8.22		9.23	8.47	7.73
H1 lead leg	L	strides	22	13	13	13	13		14	14	15	15	15	19	166				
<b>Schiller, Udo (GER) (1967)</b>			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL - 1991 European Cup (Frankfurt, GER)</b>														<i>Federle (2003) - http://www.fgs.uni-halle.de</i>					
date	29-Jun-91	time	6.27	10.19	14.15	18.11	22.23		26.53	31.04	35.62	40.26	45.02		50.67	/ 6			
reaction time		interval		3.92	3.96	3.96	4.12		4.30	4.51	4.58	4.64	4.76	5.65			11.84	12.93	13.98
		velocity	7.18	8.93	8.84	8.84	8.50		8.14	7.76	7.64	7.54	7.35	7.08	7.89		8.87	8.12	7.51
H1 lead leg		strides																	
<b>Schmid, Harald (FRG) (1957)</b>			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL - 1988 Olympic Games (Seoul, KOR)</b>														<i>Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988</i>					
date	25-Sep-88	time	6.03	9.68	13.58	17.58	21.69		25.93	30.25	34.74	39.26	43.83		48.76	1 / 7			
reaction time	0.205	interval		3.65	3.90	4.00	4.11		4.24	4.32	4.49	4.52	4.57	4.93			11.55	12.67	13.58
		velocity	7.46	9.59	8.97	8.75	8.52		8.25	8.10	7.80	7.74	7.66	8.11	8.20		9.09	8.29	7.73
H1 lead leg	L	strides	21	13	13	13	13		13	13	14	14	14	17	158				

**Semi-Final 1 - 1988 Olympic Games (Seoul, KOR)***Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988*

date	24-Sep-88	time	6.05	9.64	13.56	17.57	21.73	25.93	30.20	34.62	39.18	43.79	48.93	1 / 3			
reaction time		interval		3.59	3.92	4.01	4.16	4.20	4.27	4.42	4.56	4.61	5.14		11.52	12.63	13.59
		velocity	7.44	9.75	8.93	8.73	8.41	8.33	8.20	7.92	7.68	7.59	7.78	8.17	9.11	8.31	7.73
H1 lead leg		strides	21	13	13	13	13	13	13	13	14	14	17	157			

**FINAL - 1987 IAAF World Championships (Rome, ITA)***Sušanka (1990) - time analysis of the 400m hurdles - Rome 1987 Scientific Report (2nd ed)*

date	01-Sep-87	time	6.00	9.69	13.45	17.29	21.17	25.06	29.02	33.22	37.73	42.32	47.48	5 / 3			
reaction time		interval		3.69	3.76	3.84	3.88	3.89	3.96	4.20	4.51	4.59	5.16	AR	11.29	11.73	13.30
		velocity	7.50	9.49	9.31	9.11	9.02	9.00	8.84	8.33	7.76	7.63	7.75	8.42	9.30	8.95	7.89
H1 lead leg	L	strides	21	13	13	13	13	13	13	13	14	14	17.7	158			

**Semi-Final 1 - 1987 IAAF World Championships (Rome, ITA)***Sušanka (1990) - time analysis of the 400m hurdles - Rome 1987 Scientific Report (2nd ed)*

date	31-Aug-87	time	6.09	9.73	13.53	17.44	21.48	25.50	29.66	33.99	38.51	43.07	48.23	6 / 1			
reaction time		interval		3.64	3.80	3.91	4.04	4.02	4.16	4.33	4.52	4.56	5.16		11.35	12.22	13.41
		velocity	7.39	9.62	9.21	8.95	8.66	8.71	8.41	8.08	7.74	7.68	7.75	8.29	9.25	8.59	7.83
H1 lead leg	L	strides	21	13	13	13	13	13	13	13	14	14	17	157			

**Heat 3 - 1987 IAAF World Championships (Rome, ITA)***Sušanka (1990) - time analysis of the 400m hurdles - Rome 1987 Scientific Report (2nd ed)*

date	30-Aug-87	time	6.10	9.89	13.82	17.79	21.95	26.23	30.65	35.08	39.68	44.28	49.28	5 / 1			
reaction time		interval		3.79	3.93	3.97	4.16	4.28	4.42	4.43	4.60	4.60	5.00		11.69	12.86	13.63
		velocity	7.38	9.23	8.91	8.82	8.41	8.18	7.92	7.90	7.61	7.61	8.00	8.12	8.98	8.16	7.70
H1 lead leg	L	strides	21	13	13	13	13	13	13	13	14	14	16.9	156.9			

**FINAL - 1986 European Championships (Stuttgart, FRG)***Behm (1995) - la tactique du 400 haies*

date	28-Aug-86	time	5.8	9.4	13.3	17.2	21.3	25.5	29.8	34.3	38.7	43.3	48.65	1 / 1			
reaction time		interval		3.60	3.90	3.90	4.10	4.20	4.30	4.50	4.40	4.60	5.35		11.40	12.60	13.50
		velocity	7.76	9.72	8.97	8.97	8.54	8.33	8.14	7.78	7.95	7.61	7.48	8.22	9.21	8.33	7.78
H1 lead leg		strides	21	13	13	13	13	13	13	13	14	14	140				

**FINAL - 1984 Olympic Games (Los Angeles, CA)***Behm (1995) - la tactique du 400 haies*

date	05-Aug-84	time	6.0	9.8	13.7	17.6	21.6	25.7	29.8	34.0	38.5	43.0	48.19	5 / 3			
reaction time	0.180	interval		3.80	3.90	3.90	4.00	4.10	4.10	4.20	4.50	4.50	5.19		11.60	12.20	13.20
		velocity	7.50	9.21	8.97	8.97	8.75	8.54	8.54	8.33	7.78	7.78	7.71	8.30	9.05	8.61	7.95
H1 lead leg	L	strides	21	13	13	13	13	13	13	13	14	14	17.2	157.2			

**FINAL - 1983 IAAF World Championships (Helsinki, FIN)***McFarlane (1988) - The Science of Hurdling*

date	09-Aug-83	time	5.75	9.24	13.24	17.24	20.93	24.93	28.81	33.48	38.31	43.02	48.61	7 / 2			
reaction time		interval		3.49	4.00	4.00	4.10	4.00	3.88	4.67	4.83	4.71	5.59				14.21
		velocity	7.83	10.03	8.75	8.75	9.10	8.75	9.02	7.49	7.25	7.43	7.16	8.23			7.39
H1 lead leg	L	strides	21	13	13	13	13	13	13	14	15	14	17	159			

**Semi-Final 2 - 1983 IAAF World Championships (Helsinki, FIN)***Lyle - miscellaneous coaching notes*

date	08-Aug-83	time	5.46	9.14	12.76	16.70	20.54	24.41	28.69	32.98	37.69	42.45	48.57	2 / 1			
reaction time		interval		3.68	3.62	3.94	3.84	3.87	4.28	4.29	4.71	4.76	6.12		11.24	11.99	13.76
		velocity	8.24	9.51	9.67	8.88	9.11	9.04	8.18	8.16	7.43	7.35	6.54	8.24	9.34	8.76	7.63
H1 lead leg	L	strides	21	13	13	13	13	13	13	13	13	14	17	143			

**FINAL - 1982 European Championships (Athens, GRE)***(1982) - XIII championnats d'Europe d'Atletisma, Athens 1982*

date	08-Sep-82	time	5.8	9.5	13.3	17.1	21.1	25.1	29.3	33.5	37.9	42.4	47.48	4 / 1			
reaction time		interval		3.70	3.80	3.80	4.00	4.00	4.20	4.20	4.40	4.50	5.08	AR / CR	11.30	12.20	13.10
		velocity	7.76	9.46	9.21	9.21	8.75	8.75	8.33	8.33	7.95	7.78	7.87	8.42	9.29	8.61	8.02
H1 lead leg	L	strides	21	13	13	13	13	13	13	13	14	14	17	157			

**FINAL - 1978 European Championships (Prague, TCH)***Lamare (1978) - championnats d'Europa 1978*

date	31-Aug-78	time	6.04	9.77	13.63	17.54	21.47	25.69	29.88	34.25	38.78	43.29	48.51	1 / 1			
reaction time		interval		3.73	3.86	3.91	3.93	4.22	4.19	4.37	4.53	4.51	5.22	CR	11.50	12.34	13.41
		velocity	7.45	9.38	9.07	8.95	8.91	8.29	8.35	8.01	7.73	7.76	7.66	8.25	9.13	8.51	7.83
H1 lead leg		strides															

**Schneider, Drake (USA) (1999)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****Semi-Final 2 - 2024 USA Olympic Trials (Eugene, OR)***USATF and Karmarush (2024) - USA Olympic trials results and race analysis*

date	28-Jun-24	time	5.93	9.67	13.62	17.70	21.90	23.85	26.24	30.75	35.71	41.37	47.11	53.77	3 / 9			
reaction time		interval		3.74	3.95	4.08	4.20	4.34	4.51	4.96	5.66	5.74	6.66		11.77	13.05	16.36	
		velocity	7.59	9.36	8.86	8.58	8.33	8.39	8.06	7.76	7.06	6.18	6.10	6.01	7.44	8.92	8.05	6.42
H1 lead leg	R	strides	20	13	13	13	13	13	13	14	16	17	16	148				

**Heat 4 - 2024 USA Olympic Trials (Eugene, OR)***USATF and Karmarush (2024) - USA Olympic trials results and race analysis*

date	27-Jun-24	time	5.87	9.57	13.40	17.49	21.62	23.47	25.82	30.39	35.17	40.18	45.41	51.50	5 / 5			
reaction time		interval		3.70	3.83	4.09	4.13	4.20	4.57	4.78	5.01	5.23	6.09		11.62	12.90	15.02	
		velocity	7.67	9.46	9.14	8.56	8.47	8.52	8.33	7.66	7.32	6.99	6.69	6.57	7.77	9.04	8.14	6.99
H1 lead leg	R	strides	20	13	13	13	13	13	13	14	14	14	15	18	160			

**Semi-Final 1 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)***Henson (2021) - Athlete First: 2021 year end hurdle report*

date	25-Jun-21	time	6.13	9.97	13.80	17.80	21.97	26.27	30.77	35.43	40.27	45.20	50.89	9 / 6			
reaction time	0.283	interval		3.84	3.83	4.00	4.17	4.30	4.50	4.66	4.84	4.93	5.69		11.67	12.97	14.43
		velocity	7.34	9.11	9.14	8.75	8.39	8.14	7.78	7.51	7.23	7.10	7.03	7.86	9.00	8.10	7.28



H1 lead leg	R	strides	13	13	13	13	14	14	15	15	15	125									
<b>Schubert, Rainer (FRG) (1941)</b>																					
<b>FINAL</b> - 1972 Olympic Games (Munich, FRG)															<i>Le Masurier (1977) - die olympischen 400-m-hürdenlauf vom Mexico City, München und Montreal</i>						
date	03-Sep-72	time	6.1	9.9	13.7	17.6	21.6	23.3	25.8	30.2	34.6	39.3	44.2	49.65	7 / 5						
reaction time		interval	3.80	3.80	3.90	4.00	4.20	4.40	4.40	4.70	4.90	5.45				11.50	12.60	14.00			
		velocity	7.38	9.21	9.21	8.97	8.75	8.58	8.33	7.95	7.95	7.45	7.14	7.34	8.06	9.13	8.33	7.50			
H1 lead leg	L	strides	21	13	13	13	13	13	15	15	15	15	15	146							
<b>FINAL</b> - 1968 Olympic Games (Mexico City, MEX) ( <i>Altitude</i> )															<i>Dessons (1982) - traite d'athletisme - volume 1: les courses</i>						
date	15-Oct-68	time	6.0	9.8	13.7	17.7	21.8	23.7	25.9	30.3	34.8	39.3	44.0	49.2	1 / 7						
reaction time		interval	3.80	3.90	4.00	4.10	4.10	4.40	4.40	4.50	4.50	4.70	5.20	(49.30)		11.70	12.60	13.70			
		velocity	7.50	9.21	8.97	8.75	8.54	8.44	8.54	7.95	7.78	7.78	7.45	7.69	8.13	8.97	8.33	7.66			
H1 lead leg	L	strides	21	13	13	13	13	13	15	15	15	15	17.2	163							
<b>Semi-Final 1</b> - 1968 Olympic Games (Mexico City, MEX) ( <i>Altitude</i> )															<i>Jonath (1969) - wie gerhard hennige trainiert</i>						
date	14-Oct-68	time	6.0	9.9	13.8	17.7	21.8	23.5	26.0	30.3	34.8	39.2	43.7	49.3	7 / 4						
reaction time		interval	3.90	3.90	3.90	4.10	4.20	4.30	4.30	4.50	4.40	4.50	5.60	(49.38)		11.70	12.60	13.40			
		velocity	7.50	8.97	8.97	8.97	8.54	8.51	8.33	8.14	7.78	7.95	7.78	7.14	8.11	8.97	8.33	7.84			
H1 lead leg		strides																			
<b>Heat 3</b> - 1968 Olympic Games (Mexico City, MEX) ( <i>Altitude</i> )															<i>Jonath (1969) - wie gerhard hennige trainiert</i>						
date	13-Oct-68	time	6.1	9.9	13.7	17.7	21.7	23.4	26.0	30.4	34.8	39.1	43.6	49.1	7 / 2						
reaction time		interval	3.80	3.80	4.00	4.00	4.30	4.40	4.40	4.30	4.50	5.50	PB		11.60	12.70	13.20				
		velocity	7.38	9.21	9.21	8.75	8.75	8.55	8.14	7.95	7.95	8.14	7.78	7.27	8.15	(49.15)	9.05	8.27	7.95		
H1 lead leg		strides																			
<b>Scott, Bryan (USA) (1985)</b>																					
<b>Heat 1</b> - 2007 USATF National Championships (Indianapolis, IN)															<i>USATF Men's Hurdle Development (2007)</i>						
date	21-Jun-07	time	6.17	10.13	14.05	18.27	22.47	26.79	31.10	35.74	40.31	45.05	50.39	7 / 4							
reaction time		interval	3.96	3.92	4.22	4.20	4.32	4.31	4.64	4.57	4.74	5.34			12.10	12.83	13.95				
		velocity	7.29	8.84	8.93	8.29	8.33	8.10	8.12	7.54	7.66	7.38	7.49	7.94	8.68	8.18	7.53				
H1 lead leg	L	strides	22	14	14	14	14	14	14	15	15	15	15	151							
<b>Scott, Ja'Qualon (USA) (2001)</b>																					
<b>FINAL</b> - 2024 NCAA Championships (Eugene, OR) (TV Analysis)															<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>						
date	07-Jun-24	time	5.96	9.73	13.58	17.51	21.47	25.56	30.05	34.55	39.15	43.79	49.08	11 / 4							
reaction time		interval	3.77	3.85	3.93	3.96	4.09	4.49	4.50	4.60	4.64	5.29	PB		11.55	12.54	13.74				
		velocity	7.55	9.28	9.09	8.91	8.84	8.56	7.80	7.78	7.61	7.54	7.56	8.15	9.09	8.37	7.64				
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	14	14	18	160							
<b>Sdad, Mustapha (MAR) (1970)</b>																					
<b>Heat 4</b> - 2000 Olympic Games (Sydney, AUS)															<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>						
date	24-Sep-00	time	6.04	10.16	14.20	18.36	22.56	26.88	31.36	36.04	40.96	45.92	51.39	2 / 6							
reaction time	0.216	interval	4.12	4.04	4.16	4.20	4.32	4.48	4.68	4.92	4.96	5.47			12.32	13.00	14.56				
		velocity	7.45	8.50	8.66	8.41	8.33	8.10	7.81	7.48	7.11	7.06	7.31	7.78	8.52	8.08	7.21				
H1 lead leg		strides	21	15	15	15	15	15	15	15	17	17	160								
<b>Selmon, Kenny (USA) (1996)</b>																					
<b>Semi-Final 2</b> - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)															<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>						
date	01-Aug-21	time	6.03	9.65	13.40	17.20	21.20	25.23	29.43	33.75	38.36	43.10	48.58	6 / 4							
reaction time	0.255	interval	3.62	3.75	3.80	4.00	4.03	4.20	4.32	4.61	4.74	5.48			11.17	12.23	13.67				
		velocity	7.46	9.67	9.33	9.21	8.75	8.68	8.33	8.10	7.59	7.38	7.30	8.23	9.40	8.59	7.68				
H1 lead leg	R	strides	21	13	13	13	13	13	13	13	14	14	17	157							
<b>Heat 2</b> - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)															<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>						
date	30-Jul-21	time	6.08	9.82	13.62	17.46	21.43	25.53	29.73	34.03	38.63	43.33	48.61	7 / 2							
reaction time	0.185	interval	3.74	3.80	3.84	3.97	4.10	4.20	4.30	4.60	4.70	5.28			11.38	12.27	13.60				
		velocity	7.40	9.36	9.21	9.11	8.82	8.54	8.33	8.14	7.61	7.45	7.58	8.23	9.23	8.56	7.72				
H1 lead leg	R	strides	21	13	13	13	13	13	13	13	13	14	14	16.7	156.7						
<b>FINAL</b> - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)															<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>						
date	26-Jun-21	time	5.90	9.61	13.35	17.20	21.12	25.19	29.36	33.63	38.10	42.74	48.08	6 / 2							
reaction time	0.212	interval	3.71	3.74	3.85	3.92	4.07	4.17	4.27	4.47	4.64	5.34	PB		11.30	12.16	13.38				
		velocity	7.63	9.43	9.36	9.09	8.93	8.60	8.39	8.20	7.83	7.54	7.49	8.32	9.29	8.63	7.85				
H1 lead leg	R	strides	21	13	13	13	13	13	13	13	13	14	17	157							
<b>Semi-Final 1</b> - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)															<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>						
date	25-Jun-21	time	6.10	9.83	13.63	17.53	21.47	25.60	29.80	34.13	38.70	43.30	48.51	6 / 1							
reaction time	0.242	interval	3.73	3.80	3.90	3.94	4.13	4.20	4.33	4.57	4.60	5.21			11.43	12.27	13.50				
		velocity	7.38	9.38	9.21	8.97	8.88	8.47	8.33	8.08	7.66	7.61	7.68	8.25	9.19	8.56	7.78				
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	13	14	14	17	156						
<b>Heat 1</b> - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)															<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>						
date	24-Jun-21	time	6.00	9.78	13.68	17.65	21.72	25.83	29.96	34.29	38.71	43.71	49.03	3 / 1							
reaction time	0.190	interval	3.78	3.90	3.97	4.07	4.20	4.32	4.37	4.60	4.61	5.32			11.65	12.48	13.58				
		velocity	7.50	9.26	8.97	8.82	8.60	8.32	8.01	7.61	7.59	7.52	8.16	9.01	8.41	7.73					

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

H1 lead leg R strides 13 13 13 13 13 14 14 16.7 109.7

**FINAL - 2021 Doha Diamond League (Doha, QAT) (TV Analysis)***Henson (2021) - Athlete First: 2021 year end hurdle report*

date 28-May-21 time 6.17 9.91 13.85 17.78 21.85 23.5 25.96 30.23 34.57 39.07 43.71 49.03 7 / 5  
 reaction time 0.314 interval 3.74 3.94 3.93 4.07 4.11 4.27 4.34 4.50 4.64 5.32 11.61 12.45 13.48  
 velocity 7.29 9.36 8.88 8.91 8.60 8.51 8.52 8.20 8.06 7.78 7.54 7.52 8.16 9.04 8.43 7.79  
 H1 lead leg R strides 21 13 13 13 13 13 13 13 14 14 127

**FINAL - 2019 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)***Henson (2020) - Athlete First: 2019 year end hurdle report*

date 06-Jun-19 time 6.00 9.78 13.63 17.56 21.60 25.72 30.03 34.55 39.37 44.25 49.83 8 / 5  
 reaction time 0.228 interval 3.78 3.85 3.93 4.04 4.12 4.31 4.52 4.82 4.88 5.58 11.56 12.47 14.22  
 velocity 7.50 9.26 9.09 8.91 8.66 8.50 8.12 7.74 7.26 7.17 7.17 8.03 9.08 8.42 7.38  
 H1 lead leg R strides 21 13 13 13 13 13 13 14 15 15 17.7 160.7

**FINAL - 2019 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)***Henson (2020) - Athlete First: 2019 year end hurdle report*

date 30-May-19 time 6.13 10.10 14.10 18.06 22.16 23.8 26.46 30.90 35.40 40.40 45.43 51.15 4 / 5  
 reaction time 0.185 interval 3.97 4.00 3.96 4.10 4.30 4.44 4.50 5.00 5.03 5.72 11.93 12.84 14.53  
 velocity 7.34 8.82 8.75 8.84 8.54 8.40 8.14 7.88 7.78 7.00 6.96 6.99 7.82 8.80 8.18 7.23  
 H1 lead leg R strides 21 13 13 13 13 14 14 14 15 15 145

**FINAL - 2018 NCAA Championships (Eugene, OR) (TV Analysis)***Henson (2020) - Athlete First: 2018 year end hurdle report*

date 08-Jun-18 time 5.96 13.53 17.30 21.13 25.16 25.16 33.60 38.13 42.80 48.12 4 / 2  
 reaction time interval 7.57 3.77 3.83 4.03 4.03 8.44 4.53 4.67 5.32 **PB** 11.34  
 velocity 7.55 9.25 9.28 9.14 8.68 8.29 7.73 7.49 7.52 8.31 9.26  
 H1 lead leg R strides 13 13 13 14 15 17.5 85.5

**Serres, Jean-Michel (FRA) (1961)**

**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**

**FINAL - 1986 French National Championships (Aix les Bains, FRA)***Veney - split times from PJ*

date 10-Aug-86 time 6.00 10.10 14.26 18.33 22.50 26.72 30.98 35.60 40.25 44.97 51.03 / 6  
 reaction time interval 4.10 4.16 4.07 4.17 4.22 4.26 4.62 4.65 4.72 6.06 **PB** 12.33 12.65 13.99  
 velocity 7.50 8.54 8.41 8.60 8.39 8.29 8.22 7.58 7.53 7.42 6.60 7.84 8.52 8.30 7.51  
 H1 lead leg strides

**Seymour, Jim (USA) (1949)**

**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**

**FINAL - 1972 Olympic Games (Munich, FRG)***Le Masurier (1977) - die olympischen 400-m-hürdenlauf vom Mexico City, München und Montreal*

date 03-Sep-72 time 6.1 9.9 13.8 17.7 21.7 23.4 25.9 30.2 34.5 39.1 43.5 48.64 4 / 4  
 reaction time interval 3.80 3.90 3.90 4.00 4.20 4.30 4.30 4.60 4.40 5.14 11.60 12.50 13.30  
 velocity 7.38 9.21 8.97 8.97 8.75 8.55 8.33 8.14 8.14 7.61 7.95 7.78 8.22 9.05 8.40 7.89  
 H1 lead leg L strides 21 13 13 13 13 14 14 15 15 15 17.2 163.2

**Shang Shou (CHN) (1995)**

**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**

**FINAL - 2021 Chinese National Championships (Chongqing, CHN)***CAA Hurdle Development (2021)*

date 26-Jun-21 time 6.46 10.53 14.63 18.83 23.08 27.47 31.82 36.28 40.82 45.38 50.38 5 / 1  
 reaction time 0.212 interval 4.07 4.10 4.20 4.25 4.39 4.35 4.46 4.54 4.56 5.00 12.37 12.99 13.56  
 velocity 6.97 8.60 8.54 8.33 8.24 7.97 8.05 7.85 7.71 7.68 8.00 7.94 8.49 8.08 7.74  
 H1 lead leg L strides 22 14 14 14 14 14 14 15 15 15 18 169

**Heat 1 - 2021 Chinese National Championships (Chongqing, CHN)***CAA Hurdle Development (2021)*

date 26-Jun-21 time 6.42 10.65 14.88 19.19 23.54 28.02 32.51 37.07 41.66 46.27 51.31 6 / 2  
 reaction time 0.236 interval 4.23 4.23 4.31 4.35 4.48 4.49 4.56 4.59 4.61 5.04 12.77 13.32 13.76  
 velocity 7.01 8.27 8.27 8.12 8.05 7.81 7.80 7.68 7.63 7.59 7.94 7.80 8.22 7.88 7.63  
 H1 lead leg L strides 22 14 14 14 14 14 14 15 15 15 18 169

**FINAL - 2020 Chinese Olympic Trials (Shaoxing, CHN)***CAA Hurdle Development (2021)*

date 13-Jun-21 time 6.41 10.53 14.73 19.02 23.29 27.74 32.26 36.79 41.41 46.06 51.40 7 / 5  
 reaction time 0.185 interval 4.12 4.20 4.29 4.27 4.45 4.52 4.53 4.62 4.65 5.34 12.61 13.24 13.80  
 velocity 7.02 8.50 8.33 8.16 8.20 7.87 7.74 7.73 7.58 7.53 7.49 7.78 8.33 7.93 7.61  
 H1 lead leg L strides 22 14 14 14 14 14 14 15 15 15 18 169

**FINAL - 2020 Chinese National Championships (Shaoxing, CHN)***CAA Hurdle Development (2020)*

date 17-Sep-20 time 6.21 10.17 14.29 18.46 22.75 27.21 31.58 36.08 40.67 45.25 50.65 4 / 2  
 reaction time interval 3.96 4.12 4.17 4.29 4.46 4.37 4.50 4.59 4.58 5.40 12.25 13.12 13.67  
 velocity 7.25 8.84 8.50 8.39 8.16 7.85 8.01 7.78 7.63 7.64 7.41 7.90 8.57 8.00 7.68  
 H1 lead leg L strides 22 14 14 14 14 14 14 15 15 15 18 169

**FINAL - 2019 Chinese National Grand Prix Final (Daqing, CHN)***CAA Hurdle Development (2019)*

date 23-Aug-19 time 6.55 10.56 14.78 19.05 23.41 27.89 32.33 36.88 41.44 46.01 51.02 5 / 3  
 reaction time 0.320 interval 4.01 4.22 4.27 4.36 4.48 4.44 4.55 4.56 4.57 5.01 12.50 13.28 13.68  
 velocity 6.87 8.73 8.29 8.20 8.03 7.81 7.88 7.69 7.68 7.66 7.98 7.84 8.40 7.91 7.68  
 H1 lead leg L strides 22 14 14 14 14 14 14 15 15 15 18 169

**Heat 2 - 2019 Chinese National Grand Prix Final (Daqing, CHN)***CAA Hurdle Development (2019)*

date 22-Aug-19 time 6.49 10.63 14.80 19.05 23.36 27.83 32.30 36.84 41.42 46.16 51.62 6 / 1  
 reaction time 0.275 interval 4.14 4.17 4.25 4.31 4.47 4.47 4.54 4.58 4.74 5.46 12.56 13.25 13.86  
 velocity 6.93 8.45 8.39 8.24 8.12 7.83 7.83 7.71 7.64 7.38 7.33 7.75 8.36 7.92 7.58  
 H1 lead leg L strides 22 14 14 14 14 14 14 15 15 15 18 169

**Heat 1 - 2019 Chinese National Championships (Shenyang, CHN)**

date	09-Jul-19	time	6.54	10.71	14.92	19.04	23.11	27.54	32.06	36.75	41.49	46.46	52.22	CAA Hurdle Development (2019)	8 / 7			
reaction time	0.225	interval		4.17	4.21	4.12	4.07	4.43	4.52	4.69	4.74	4.97	5.76			12.50	13.02	14.40
		velocity	6.88	8.39	8.31	8.50	8.60	7.90	7.74	7.46	7.38	7.04	6.94	7.66		8.40	8.06	7.29
H1 lead leg	L	strides	22	15	15	15	14	15	14	15	15	15	18	173				

**FINAL - 2019 Chinese National Grand Prix 4 (Luoyang, CHN)**

date	29-May-19	time	6.50	10.61	14.68	18.88	23.25	27.71	32.16	36.67	41.22	45.77	50.82	CAA Hurdle Development (2019)	4 / 1			
reaction time	0.267	interval		4.11	4.07	4.20	4.37	4.46	4.45	4.51	4.55	4.55	5.05			12.38	13.28	13.61
		velocity	6.92	8.52	8.60	8.33	8.01	7.85	7.87	7.76	7.69	7.69	7.92	7.87		8.48	7.91	7.71
H1 lead leg	L	strides	22	14	14	14	14	14	14	15	15	15	17.7	168.7				

**FINAL - 2019 Chinese National Grand Prix 1 (Zhaoqing, CHN)**

date	08-Apr-19	time	6.35	10.47	14.53	18.68	22.97	27.41	31.84	36.47	41.06	45.68	50.75	CAA Hurdle Development (2019)	7 / 2			
reaction time	0.213	interval		4.12	4.06	4.15	4.29	4.44	4.43	4.63	4.59	4.62	5.07			12.33	13.16	13.84
		velocity	7.09	8.50	8.62	8.43	8.16	7.88	7.90	7.56	7.63	7.58	7.89	7.88		8.52	7.98	7.59
H1 lead leg	L	strides	22	15	16	16	16	16	16	15	15	15	18	180				

**FINAL - 2017 Chinese National Games (Tianjin, CHN)**

date	04-Sep-17	time	5.84	9.75	13.72	17.81	22.02	26.32	30.72	35.21	39.79	44.44	49.79	Wang (2020) - comparative analysis of pre-competitoin training of finalist in 400m hurdlers at 13th national games	/ 2			
reaction time		interval		3.91	3.97	4.09	4.21	4.30	4.40	4.49	4.58	4.65	5.35			11.97	12.91	13.72
		velocity	7.71	8.95	8.82	8.56	8.31	8.14	7.95	7.80	7.64	7.53	7.48	8.03		8.77	8.13	7.65
H1 lead leg		strides	22	14	14	14	14	14	14	15	15	15	19	170				

**Shao Yi (CHN) (1979)**

date	14-Sep-03	time	6.14	9.94	13.84	17.90	22.02	26.30	30.64	35.12	39.68	44.40	49.75	Zhou (2003) - training of Shao Yi, national champion of men's 400m hurdles	/ 1			
reaction time		interval		3.80	3.90	4.06	4.12	4.28	4.34	4.48	4.56	4.72	5.35			11.76	12.74	13.76
		velocity	7.33	9.21	8.97	8.62	8.50	8.18	8.06	7.81	7.68	7.42	7.48	8.04		8.93	8.24	7.63
H1 lead leg		strides		13	13	14	14	14	14	14	14	15	125					

**Heat 1 - 2003 ??? (Shanghai, CHN)**

date	13-Jun-03	time	6.12	9.88	13.72	17.76	21.84	26.08	30.51	35.08	39.70	44.64	50.23	Zhou (2003) - training of Shao Yi, national champion of men's 400m hurdles	/ 1			
reaction time		interval		3.76	3.84	4.04	4.08	4.24	4.43	4.57	4.62	4.94	5.59			11.64	12.75	14.13
		velocity	7.35	9.31	9.11	8.66	8.58	8.25	7.90	7.66	7.58	7.09	7.16	7.96		9.02	8.24	7.43
H1 lead leg		strides		13	13	14	14	14	14	15	15	15	127					

**FINAL - 2002 Chinese National Grand Prix Final (Tiantai, CHN)**

date	27-Oct-02	time	6.19	10.15	14.05	18.12	22.31	26.56	30.94	35.60	40.41	45.37	51.21	Zhou (2003) - training of Shao Yi, national champion of men's 400m hurdles	/ 2			
reaction time		interval		3.96	3.90	4.07	4.19	4.25	4.38	4.66	4.81	4.96	5.84			11.93	12.82	14.43
		velocity	7.27	8.84	8.97	8.60	8.35	8.24	7.99	7.51	7.28	7.06	6.85	7.81		8.80	8.19	7.28
H1 lead leg		strides		14	14	14	14	14	14	15	15	15	129					

**Sharpe, Fred (USA) (1978)**

date	21-Jun-07	time	6.20	10.09	14.19	18.30	22.54	26.91	31.48	36.08	40.79	45.51	51.00	USATF Men's Hurdle Development (2007)	3 / 6			
reaction time		interval		3.89	4.10	4.11	4.24	4.37	4.57	4.60	4.71	4.72	5.49			12.10	13.18	14.03
		velocity	7.26	9.00	8.54	8.52	8.25	8.01	7.66	7.61	7.43	7.42	7.29	7.84		8.68	7.97	7.48
H1 lead leg	R	strides	23	15	15	15	15	15	16	16	16	16	162					

**FINAL - 2003 USATF National Championships (Palo Alto, CA)**

date	22-Jun-03	time	6.09	10.13	14.26	18.30	22.67	27.03	31.50	36.02	40.61	45.20	50.41	USATF Women's Sprint Development (2003)	2 / 6			
reaction time		interval		4.04	4.13	4.04	4.37	4.36	4.47	4.52	4.59	4.59	5.21			12.21	13.20	13.70
		velocity	7.39	8.66	8.47	8.66	8.01	8.03	7.83	7.74	7.63	7.63	7.68	7.93		8.60	7.95	7.66
H1 lead leg		strides																

**Shen Kunhao (CHN) (2004)**

date	25-Apr-21	time	6.42	10.54	14.72	19.05	23.54	28.26	33.05	37.85	42.83	47.78	53.19	CAA Hurdle Development (2021)	5 / 4			
reaction time	0.198	interval		4.12	4.18	4.33	4.49	4.72	4.79	4.80	4.98	4.95	5.41			12.63	14.00	14.73
		velocity	7.01	8.50	8.37	8.08	7.80	7.42	7.31	7.29	7.03	7.07	7.39	7.52		8.31	7.50	7.13
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	18	170				

**Sherman, Alex (USA) (2003)**

date	28-Jun-24	time	6.14	9.99	14.04	18.14	22.16	24.16	26.56	31.14	35.97	40.85	45.73	51.33	USATF and Karmarush (2024) - USA Olympic trials results and race analysis	4 / 5		
reaction time		interval		3.85	4.05	4.10	4.02	4.40	4.58	4.83	4.88	4.88	5.60			12.00	13.00	14.59
		velocity	7.33	9.09	8.64	8.54	8.71	8.28	7.95	7.64	7.25	7.17	7.17	7.14	7.79	8.75	8.08	7.20
H1 lead leg	R	strides	22	14	14	14	14	15	15	15	15	15	18.5	171.5				

**Heat 5 - 2024 USA Olympic Trials (Eugene, OR)**

date	27-Jun-24	time	6.04	9.91	13.80	17.88	22.00	23.89	26.34	30.92	35.65	40.47	45.26	50.76	USATF and Karmarush (2024) - USA Olympic trials results and race analysis	5 / 4		
reaction time		interval		3.87	3.89	4.08	4.12	4.34	4.58	4.73	4.82	4.79	5.50			11.84	13.04	14.34
		velocity	7.45	9.04	9.00	8.58	8.50	8.37	8.06	7.64	7.40	7.26	7.31	7.27	7.88	8.87	8.05	7.32
H1 lead leg	R	strides	22	14	14	14	14	14	14	15	15	15	15	18.7	170.7			

**Sherwood, John (GBR) (1945)**

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
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**FINAL - 1968 Olympic Games (Mexico City, MEX) (Altitude)***Dessons (1982) - traite d'athletisme - volume 1: les courses*

date	15-Oct-68	time	6.0	9.8	13.7	17.7	21.8	23.7	26.0	30.2	34.7	39.4	43.9	49.0	8 / 3				
reaction time		interval		3.80	3.90	4.00	4.10		4.20	4.20	4.50	4.70	4.50	5.10	(49.03)	11.70	12.50	13.70	
		velocity	7.50	9.21	8.97	8.75	8.54	8.44	8.33	8.33	7.78	7.45	7.78	7.84	8.16	8.97	8.40	7.66	
H1 lead leg	L	strides	21	13	13	13	13		13	15	15	15	15	146					

**Shikota, Ryomi (JPN)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****Heat 2 - 2016 Japanese National Youth Championships (Mizuho, JPN)***(2016.11.17) - https://twitter.com/touchdown\_time/media?lang=en&lang=en&lang=en&lang=en*

date	23-Oct-16	time					23.93							38.96	55.84	3 / 3			
reaction time		interval												15.03					
		velocity					7.73							6.99					7.16
H1 lead leg		strides																	

**Shimada, Kazuya (JPN)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2024 Shimane High School Championships (Izumo, JPN)***Shimizu (2024) - shimane high school championships 2024 - biomechanics data analysis*

date	25-May-24	time	7.20	12.10	17.00	21.87	26.78		31.87	36.93	42.02	47.42	53.10	59.39	9 / 5				
reaction time		interval		4.90	4.90	4.87	4.91		5.09	5.06	5.09	5.40	5.68	6.29		14.67	15.06	16.17	
		velocity	6.25	7.14	7.14	7.19	7.13		6.88	6.92	6.88	6.48	6.16	6.36	6.74	7.16	6.97	6.49	
H1 lead leg		strides	23	17	17	17	17		17	17	17	17	18	22	199				

**Shimoda, Hayato (JPN) (2005)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2023 Japanese National High School Championships (Sapporo, JPN)***Takashima (2023) - national high school sports festival - biomechanics data*

date	04-Aug-23	time	6.04	9.81	13.66	17.47	21.42		25.61	29.96	34.52	39.36	44.36	50.14	7 / 1				
reaction time	0.187	interval		3.77	3.85	3.81	3.95		4.19	4.35	4.56	4.84	5.00	5.78		11.43	12.49	14.40	
		velocity	7.45	9.28	9.09	9.19	8.86		8.35	8.05	7.68	7.23	7.00	6.92	7.98	9.19	8.41	7.29	
H1 lead leg		strides	21	15	15	15	15		15	15	15	17	17	21	181				

**FINAL - 2023 Japanese U20 National Championships (Osaka, JPN)***Kishima (2022) - national high school championships biomechanics data collection*

date	03-Jun-23	time	6.21	10.09	13.91	17.92	22.06		26.48	31.08	35.99	41.34	46.38	51.72	5 / 3				
reaction time	0.189	interval		3.88	3.82	4.01	4.14		4.42	4.60	4.91	5.35	5.04	5.34		11.71	13.16	15.30	
		velocity	7.25	9.02	9.16	8.73	8.45		7.92	7.61	7.13	6.54	6.94	7.49	7.73	8.97	7.98	6.86	
H1 lead leg	L	strides	22	15	15	15	15		15	15	17	17	17	20	183				

**Shimura, Takeshi (JPN) (2005)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2023 Japanese National High School Championships (Sapporo, JPN)***Takashima (2023) - national high school sports festival - biomechanics data*

date	04-Aug-23	time	6.14	10.24	14.71	19.00	23.39		27.84	32.37	36.90	41.61	46.40	51.93	9 / 4				
reaction time	0.217	interval		4.10	4.47	4.29	4.39		4.45	4.53	4.53	4.71	4.79	5.53		12.86	13.37	14.03	
		velocity	7.33	8.54	7.83	8.16	7.97		7.87	7.73	7.73	7.43	7.31	7.23	7.70	8.16	7.85	7.48	
H1 lead leg		strides	21	15	15	15	15		15	15	15	15	15	19	175				

**FINAL - 2022 Japanese National High School Championships (Naruto, JPN)***Kishima (2022) - national high school championships biomechanics data collection*

date	05-Aug-22	time	6.17	10.12	14.40	18.80	23.33		28.10	32.93	37.88	42.85	47.88	53.35	2 / 7				
reaction time	0.138	interval		3.95	4.28	4.40	4.53		4.77	4.83	4.95	4.97	5.03	5.47		12.63	14.13	14.95	
		velocity	7.29	8.86	8.18	7.95	7.73		7.34	7.25	7.07	7.04	6.96	7.31	7.50	8.31	7.43	7.02	
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	15	15	157					

**Shinagawa, Yuto (JPN) (2005)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2023 Shimane High School Championships (Izumo, JPN)***Shimizu (2023) - shimane high school championships 2023 - biomechanics data analysis*

date	27-May-23	time	6.57	10.95	15.37	19.92	24.57		29.42	34.33	39.28	44.65	49.92	55.86	5 / 1				
reaction time		interval		4.38	4.42	4.55	4.65		4.85	4.91	4.95	5.37	5.27	5.94		13.35	14.41	15.59	
		velocity	6.85	7.99	7.92	7.69	7.53		7.22	7.13	7.07	6.52	6.64	6.73	7.16	7.87	7.29	6.74	
H1 lead leg		strides	22	15	15	15	15		15	15	15	17	17	19.3	180.3				

**FINAL - 2022 Shimane High School Championships (Izumo, JPN)***Shimizu (2022) - shimane high school championships 2022 - biomechanics data analysis*

date	27-May-22	time	6.58	10.83	15.15	19.48	24.07		28.82	33.92	39.33	44.53	49.68	55.81	5 / 2				
reaction time		interval		4.25	4.32	4.33	4.59		4.75	5.10	5.41	5.20	5.15	6.13		12.90	14.44	15.76	
		velocity	6.84	8.24	8.10	8.08	7.63		7.37	6.86	6.47	6.73	6.80	6.53	7.17	8.14	7.27	6.66	
H1 lead leg		strides	22	15	15	15	15		15	17	17	17	17	20.7	185.7				

**Shine, Mike (USA) (1953)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 1976 Olympic Games (Montreal, CAN)***Le Masurier (1977) - die olympischen 400-m-hürdenlauf vom Mexico City, München und Montreal*

date	25-Jul-76	time	6.1	9.9	13.8	17.7	21.7	23.4	25.9	30.2	34.5	38.9	43.4	48.69	1 / 2				
reaction time		interval		3.80	3.90	3.90	4.00		4.20	4.30	4.30	4.40	4.50	5.29		11.60	12.50	13.20	
		velocity	7.38	9.21	8.97	8.97	8.75	8.55	8.33	8.14	8.14	7.95	7.78	7.56	8.22	9.05	8.40	7.95	
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	15	15	18.7	175.7				

**Shirahige, Reiji (JPN) (2006)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2024 Japanese National High School Championships (Fukuoka, JPN)***Takashima (2024) - national high school sports festival - biomechanics data*

date	30-Jul-24	time	6.21	10.19	14.31	18.60	22.87		27.16	31.65	36.37	41.27	46.26	51.72	5 / 4				
reaction time	0.186	interval		3.98	4.12	4.29	4.27		4.29	4.49	4.72	4.90	4.99	5.46		12.39	13.05	14.61	
		velocity	7.25	8.79	8.50	8.16	8.20		8.16	7.80	7.42	7.14	7.01	7.33	7.73	8.47	8.05	7.19	
H1 lead leg		strides	21	15	15	15	15		15	15	15	15	15	19	175				

**Shirao, Yusuke (JPN) (1999)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2017 Japanese National High School Championships (Yamagata, JPN)***Kota (2017) - 70th high school championships: JAF scientific committee- biomechanics data*

date	31-Jul-17	time	6.26	10.11	14.13	18.25	22.64		27.08	31.55	36.12	40.89	45.78	51.44	6 / 1				
reaction time	0.172	interval		3.85	4.02	4.12	4.39		4.44	4.47	4.57	4.77	4.89	5.66		11.99	13.30	14.23	

H1 lead leg	velocity	7.19	9.09	8.71	8.50	7.97		7.88	7.83	7.66	7.34	7.16	7.07	7.78		8.76	7.89	7.38	
	strides		13	13	13	14		14	15	15	15	15		127					
<b>FINAL - 2017 Gunma High School Athletics Meeting (Maebashi, JPN)</b>																			
<i>(2017) - tfdata-store.com/2017/05/20/post-584/</i>																			
date	21-May-17	time	6.15	9.89	13.73	17.72	21.85	26.07	30.42	34.99	39.74	44.70		50.42		5 / 1			
reaction time		interval		3.74	3.84	3.99	4.13	4.22	4.35	4.57	4.75	4.96	5.72	<b>PB</b>		11.57	12.70	14.28	
		velocity	7.32	9.36	9.11	8.77	8.47	8.29	8.05	7.66	7.37	7.06	6.99	7.93		9.08	8.27	7.35	
H1 lead leg	R	strides	21	13	13	14	14	14	14	15	15	15	18.5	166.5					
<b>FINAL - 2016 Japanese National High School Championships (Okayama, JPN)</b>																			
<i>Kota (2016) - 69th high school championships: JAF scientific committee- biomechanics data</i>																			
date	31-Jul-16	time	6.31	10.28	14.45	18.77	23.21	27.71	32.23	36.79	41.42	46.11		51.40		7 / 1			
reaction time	0.192	interval		3.97	4.17	4.32	4.44	4.50	4.52	4.56	4.63	4.69	5.29			12.46	13.46	13.88	
		velocity	7.13	8.82	8.39	8.10	7.88	7.78	7.74	7.68	7.56	7.46	7.56	7.78		8.43	7.80	7.56	
H1 lead leg		strides		13	13	14	14	15	15	15	15	15		129					
<b>Shirley, Aaron (USA) (2001)</b>																			
<b>H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10</b>																			
<b>Semi-Final 3 - 2024 USA Olympic Trials (Eugene, OR)</b>																			
<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>																			
date	28-Jun-24	time	5.95	9.69	13.57	17.40	21.48	23.31	25.60	30.05	34.59	39.49	44.26		49.58		9 / 5		
reaction time		interval		3.74	3.88	3.83	4.08		4.12	4.45	4.54	4.90	4.77	5.32	<b>PB</b>		11.45	12.65	14.21
		velocity	7.56	9.36	9.02	9.14	8.58	8.58	8.50	7.87	7.71	7.14	7.34	7.52	8.07		9.17	8.30	7.39
H1 lead leg	L	strides		14	14	14	14		14	14	14	16	15	18	147				
<b>Heat 1 - 2024 USA Olympic Trials (Eugene, OR)</b>																			
<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>																			
date	27-Jun-24	time	6.10	9.90	13.85	17.84	21.86	23.64	25.99	30.39	34.93	40.17	45.03		50.44		4 / 4		
reaction time		interval		3.80	3.95	3.99	4.02		4.13	4.40	4.54	5.24	4.86	5.41			11.74	12.55	14.64
		velocity	7.38	9.21	8.86	8.77	8.71	8.46	8.47	7.95	7.71	6.68	7.20	7.39	7.93		8.94	8.37	7.17
H1 lead leg	L	strides	21	14	14	14	14		14	14	16	16	15	18	170				
<b>Shiryayev, Vladislav (RUS) (1973)</b>																			
<b>H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10</b>																			
<b>Heat 8 - 2000 Olympic Games (Sydney, AUS)</b>																			
<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																			
date	24-Sep-00	time	6.26	10.18	14.10	18.10	22.14		26.26	30.62	35.26	40.06	44.70		50.39		4 / 3		
reaction time	0.179	interval		3.92	3.92	4.00	4.04		4.12	4.36	4.64	4.80	4.64	5.69			11.84	12.52	14.08
		velocity	7.19	8.93	8.93	8.75	8.66		8.50	8.03	7.54	7.29	7.54	7.03	7.94		8.87	8.39	7.46
H1 lead leg		strides	20	13	13	13	13		13	14	14	15	15	18.2	161.2				
<b>FINAL - 1998 European Championships (Budapest, HUN)</b>																			
<i>Sanchez (1998) - Budapest '98: análisis de la carreras con villas</i>																			
date	20-Aug-98	time	5.95				21.50						44.89		50.94		1 / 8		
reaction time		interval					15.55						23.39	6.05					
		velocity	7.56				9.00						7.48	6.61	7.85				
H1 lead leg	L	strides	20	13	13	13	13		13	14	14	15	15	19	162				
<b>Shoaib, Mohamed (SUD) (1998)</b>																			
<b>H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10</b>																			
<b>B FINAL - 2021 Doha Diamond League (Doha, QAT) (TV Analysis)</b>																			
<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>																			
date	28-May-21	time	6.10	10.10	14.27	18.57	23.10	25.1	27.53	31.97	36.40	41.00	45.70		51.16		8 / 2		
reaction time	0.191	interval		4.00	4.17	4.30	4.53		4.43	4.44	4.43	4.60	4.70	5.46			12.47	13.40	13.73
		velocity	7.38	8.75	8.39	8.14	7.73	7.97	7.90	7.88	7.90	7.61	7.45	7.33	7.82		8.42	7.84	7.65
H1 lead leg	R	strides	21	13	13	14	14		14		14	14	14	17.2	148.2				
<b>FINAL - 2017 Doha Diamond League (Doha, QAT) (TV Analysis)</b>																			
<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>																			
date	05-May-17	time	6.03	9.86	13.80	17.70	21.70		25.86	30.16	34.66	39.26	44.16		50.37		2 / 6		
reaction time	0.206	interval		3.83	3.94	3.90	4.00		4.16	4.30	4.50	4.60	4.90	6.21			11.67	12.46	14.00
		velocity	7.46	9.14	8.88	8.97	8.75		8.41	8.14	7.78	7.61	7.14	6.44	7.94		9.00	8.43	7.50
H1 lead leg	R	strides	21	13	13	13	13		13	13	13	14	14	18	158				
<b>FINAL - 2017 North-West University Pukke Invitational (Sasolburg, RSA) (TV Analysis)</b>																			
<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>																			
date	28-Mar-17	time	5.96	9.72	13.52	17.36	21.28		25.40	29.68	34.12	38.76	43.60		49.93		1 / 2		
reaction time		interval		3.76	3.80	3.84	3.92		4.12	4.28	4.44	4.64	4.84	6.33	<b>NJR PB</b>		11.40	12.32	13.92
		velocity	7.55	9.31	9.21	9.11	8.93		8.50	8.18	7.88	7.54	7.23	6.32	8.01		9.21	8.52	7.54
H1 lead leg	R	strides		13	13	13	13		13	13	13	14	14	18.5	137.5				
<b>Shogata, Kazuya (JPN) (1983)</b>																			
<b>FINAL - 2005 Seiko Super Grand Prix (Yokohama, JPN)</b>																			
<i>Yasunori (2006) - race pattern analysis of top Japanese 400m hurdlers</i>																			
date	19-Sep-05	time	5.94	9.81	13.80	17.82	21.89		26.03	30.30	34.69	39.18	43.75		48.95		1 / 5		
reaction time		interval		3.87	3.99	4.02	4.07		4.14	4.27	4.39	4.49	4.57	5.20	<b>PB</b>		11.88	12.48	13.45
		velocity	7.58	9.04	8.77	8.71	8.60		8.45	8.20	7.97	7.80	7.66	7.69	8.17		8.84	8.41	7.81
H1 lead leg		strides		14	14	14	14		15	15	15	15	15		131				
<b>Skomorokhov, Vyacheslav (URS) (1967) (Leninakan, URS) (Altitude)</b>																			
<i>Jonath (1969) - wie gerhard hennige trainiert</i>																			
date	02-Oct-67	time	5.8	10.0	13.9	18.1	22.2		26.6	31.1	35.6	40.1	44.7		50.1		1 / 1		
reaction time		interval		4.2	3.9	4.2	4.1		4.4	4.5	4.5	4.5	4.6	5.4			12.3	13.0	13.6
		velocity	7.76	8.33	8.97	8.33	8.54		7.95	7.78	7.78	7.78	7.61	7.41	7.98		8.54	8.08	7.72
H1 lead leg		strides																	
<b>Sibilio, Alessandro (ITA) (1999)</b>																			
<b>Semi-Final 2 - 2024 Olympic Games (Paris, FRA)</b>																			
<i>Paris 2024 Olympc Games - Results Book (2024)</i>																			
date	07-Aug-24	time	5.87	9.60	13.36	17.19	21.12		25.25	29.67	34.20	38.77	43.38		48.79		9 / 6		

reaction time	0.151	interval	3.73	3.76	3.83	3.93	4.13	4.42	4.53	4.57	4.61	5.41	11.32	12.48	13.71		
		velocity	7.67	9.38	9.31	9.14	8.91	8.47	7.92	7.73	7.66	7.59	7.39	8.20	9.28	8.41	7.66
H1 lead leg	R	strides	21	13	13	13	13	14			15	19	134				
<b>Heat 4 - 2024 Olympic Games (Paris, FRA)</b>													<i>Paris 2024 Olympc Games - Results Book (2024)</i>				
date	05-Aug-24	time	5.93	9.72	13.56	17.48	21.44	25.54	29.83	34.27	38.82	43.36	48.43	4 / 4			
reaction time	0.157	interval	3.79	3.84	3.92	3.96	4.10	4.29	4.44	4.55	4.54	5.07		11.55	12.35	13.53	
		velocity	7.59	9.23	9.11	8.93	8.84	8.54	8.16	7.88	7.69	7.71	7.89	8.26	9.09	8.50	7.76
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	18	162				
<b>FINAL - 2024 European Athletics Championships (Roma, ITA)</b>													<i>European Athletics (2024) - 2024 european athletics championships - results book</i>				
date	11-Jun-24	time	5.78	9.49	13.20	16.96	20.86	24.78	28.91	33.23	37.78	42.21	47.50	7 / 2			
reaction time	0.174	interval	3.71	3.71	3.76	3.90	3.92	4.13	4.32	4.55	4.43	5.29	NR PB	11.18	11.95	13.30	
		velocity	7.79	9.43	9.43	9.31	8.97	8.93	8.47	8.10	7.69	7.90	7.56	8.42	9.39	8.79	7.89
H1 lead leg	R	strides	21	13	13			13	14	14	15	15	18	136			
<b>Semi-Final 3 - 2024 European Athletics Championships (Roma, ITA)</b>													<i>European Athletics (2024) - 2024 european athletics championships - results book</i>				
date	10-Jun-24	time	5.83	9.59	13.45	17.20	20.98	24.92	29.18	33.44	38.08	42.69	48.07	7 / 1			
reaction time	0.161	interval	3.76	3.86	3.75	3.78	3.94	4.26	4.26	4.64	4.61	5.38		11.37	11.98	13.51	
		velocity	7.72	9.31	9.07	9.33	9.26	8.88	8.22	8.22	7.54	7.59	7.43	8.32	9.23	8.76	7.77
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	15	15	18	162			
<b>Semi-Final 3 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>													<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>				
date	21-Aug-23	time	5.99	9.94	17.55	21.45	29.83	34.30	43.79	48.43	2 / 5						
reaction time	0.152	interval	3.95	7.61	3.90	8.38	4.47	9.49	4.64	11.56	12.28	13.96					
		velocity	7.51	8.86	9.20	8.97	8.35	7.83	7.38	8.62	8.26	9.08	8.55	7.52			
H1 lead leg	R	strides	21	13	13			15	18	80							
<b>Heat 3 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>													<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>				
date	20-Aug-23	time	6.10	10.06	13.93	17.86	21.74	25.86	30.30	34.83	39.39	44.06	49.50	5 / 4			
reaction time	0.178	interval	3.96	3.87	3.93	3.88	4.12	4.44	4.53	4.56	4.67	5.44		11.76	12.44	13.76	
		velocity	7.38	8.84	9.04	8.91	9.02	8.50	7.88	7.73	7.68	7.49	7.35	8.08	8.93	8.44	7.63
H1 lead leg	R	strides	21	13	13	13	13	13	15	15	15	18	164				
<b>FINAL - 2023 Herculis Meeting International d'Athlétisme (Monaco, MON)</b>													<i>Omega Timing (2023) - diamond league race analysis</i>				
date	21-Jul-23	time	5.76	9.43	13.21	17.00	dnf	3 / --									
reaction time	0.126	interval	3.67	3.78	3.79	11.24											
		velocity	7.81	9.54	9.26	9.23	9.34										
H1 lead leg	R	strides	21	13	13	13	60										
<b>FINAL - 2023 Bauhaus Galan (Stockholm, SWE)</b>													<i>Omega Timing (2023) - diamond league race analysis</i>				
date	02-Jul-23	time	5.90	9.71	13.60	17.45	21.41	25.44	29.81	34.33	38.88	43.38	49.11	5 / 4			
reaction time	0.150	interval	3.81	3.89	3.85	3.96	4.03	4.37	4.52	4.55	4.50	5.73		11.55	12.36	13.57	
		velocity	7.63	9.19	9.00	9.09	8.84	8.68	8.01	7.74	7.69	7.78	6.98	8.14	9.09	8.50	7.74
H1 lead leg	R	strides	21	13	13	13	13	13	15	15	15	18.7	136.7				
<b>FINAL - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>													<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>				
date	03-Aug-21	time	6.04	9.84	13.76	17.68	21.64	25.84	34.84	39.24	43.68	48.77	2 / 8				
reaction time	0.144	interval	3.80	3.92	3.92	3.96	4.20	9.00	4.40	4.44	5.09		11.64				
		velocity	7.45	9.21	8.93	8.93	8.84	8.33	7.78	7.95	7.88	7.86	8.20	9.02			
H1 lead leg	R	strides	21	13	13	13	13	13	13	14	14	17	157				
<b>Semi-Final 2 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>													<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>				
date	01-Aug-21	time	6.03	9.82	13.68	17.50	21.36	25.50	29.80	38.63	43.03	47.93	4 / 3				
reaction time	0.123	interval	3.79	3.86	3.82	3.86	4.14	4.30	8.83	4.40	4.90	PB		11.47	12.30	13.23	
		velocity	7.46	9.23	9.07	9.16	9.07	8.45	8.14	7.93	7.95	8.16	8.35	9.15	8.54	7.94	
H1 lead leg	R	strides	21	13	13	13	13	14	14		15	17	133				
<b>Heat 3 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>													<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>				
date	30-Jul-21	time	6.13	9.87	13.83	17.80	26.30	30.70	35.20	39.63	44.20	49.11	3 / 3				
reaction time	0.126	interval	3.74	3.96	3.97	8.50	4.40	4.50	4.43	4.57	4.91		11.67	12.90	13.50		
		velocity	7.34	9.36	8.84	8.82	8.24	7.95	7.78	7.90	7.66	8.15	8.14	9.00	8.14	7.78	
H1 lead leg	R	strides	21	13	13	13		14	15	15	15	17.5	149.5				
<b>FINAL - 2017 European U20 Championships (Grosseto, ITA) (TV Analysis)</b>													<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>				
date	23-Jul-17	time	6.16	10.20	14.24	18.44	22.72	27.00	31.48	35.96	40.44	45.04	50.34	5 / 2			
reaction time	0.191	interval	4.04	4.04	4.20	4.28	4.28	4.48	4.48	4.48	4.60	5.30	PB	12.28	13.04	13.56	
		velocity	7.31	8.66	8.66	8.33	8.18	8.18	7.81	7.81	7.81	7.61	7.55	7.95	8.55	8.05	7.74
H1 lead leg	R	strides		15	15	15	15	15	15	15	15	18	153				
<b>Silva, Carlos (POR) (1974)</b>																	
<b>Semi-Final 2 - 1999 IAAF World Championships (Sevilla, ESP)</b>													<i>Sanchez (1999) - Sevilla '99: análisis de la carreras con villas</i>				
date	25-Aug-99	time	5.66	9.35	13.11	17.25	21.28	25.44	29.67	34.02	38.54	43.31	49.45	2 / 7			
reaction time	0.165	interval	3.69	3.76	4.14	4.03	4.16	4.23	4.35	4.52	4.77	6.14		11.59	12.42	13.64	
		velocity	7.95	9.49	9.31	8.45	8.68	8.41	8.27	8.05	7.74	7.34	6.51	8.09	9.06	8.45	7.70
H1 lead leg	L	strides	20	13	13	15	14	14	15	15	15	20	169				



**FINAL - 1998 European Championships (Budapest, HUN)***Behm (1998) - analyse et commentaries: le 400m haies: Pavel la surprise!*

date	20-Aug-98	time	6.1	9.8	13.6	17.5	21.5	25.6	29.7	34.0	38.5	43.3	49.02	6 / 4				
reaction time		interval		3.7	3.8	3.9	4.0	4.1	4.1	4.3	4.5	4.8	5.72		11.40	12.20	13.60	
		velocity	7.38	9.46	9.21	8.97	8.75	8.54	8.54	8.14	7.78	7.29	6.99	8.16	9.21	8.61	7.72	
H1 lead leg	L	strides	20	13	13	13	14	14	15	15	15	15	19.5	166.5				

**Sinčukovs, Maksims (LAT) (1998)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2017 European U20 Championships (Grosseto, ITA) (TV Analysis)***Henson (2020) - Athlete First: 2017 year end hurdle report*

date	23-Jul-17	time	5.84	9.56	13.40	17.28	21.48	25.84	30.36	34.92	39.84	44.80	50.98	4 / 6				
reaction time	0.178	interval		3.72	3.84	3.88	4.20	4.36	4.52	4.56	4.92	4.96	6.18	<b>NJR PB</b>	11.44	13.08	14.44	
		velocity	7.71	9.41	9.11	9.02	8.33	8.03	7.74	7.68	7.11	7.06	6.47	7.85	9.18	8.03	7.27	
H1 lead leg	L	strides		14	14	13	15	15	15	15	16	16	20	153				

**Siwemuke, Marcus (USA) (1984)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2003 USATF National Junior Championships (Palo Alto, CA)***USATF Women's Sprint Development (2003)*

date	22-Jun-03	time	6.17	10.12	14.21	18.42	22.87	27.41	32.20	37.15	42.22	47.48	53.44	9 / 7				
reaction time		interval		3.95	4.09	4.21	4.45	4.54	4.79	4.95	5.07	5.26	5.96		12.25	13.78	15.28	
		velocity	7.29	8.86	8.56	8.31	7.87	7.71	7.31	7.07	6.90	6.65	6.71	7.49	8.57	7.62	6.87	
H1 lead leg		strides																

**Sjöstedt, Carl (SWE) (1994)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2011 Fridrott (Stockholm, SWE) (84cm)***Blomkvist (2011) - www.elitlandslag.se/SprintHäck/LängSprintHäck.aspx*

date	07-Jun-11	time	6.80	11.20	15.58	20.10	24.74	29.54	34.54	39.58	44.86	50.08	55.82	/ 3				
reaction time		interval		4.40	4.38	4.52	4.64	4.80	5.00	5.04	5.28	5.22	5.74		13.30	14.44	15.54	
		velocity	6.62	7.95	7.99	7.74	7.54	7.29	7.00	6.94	6.63	6.70	6.97	7.17	7.89	7.27	6.76	
H1 lead leg	L	strides		15	15	15	15	15	16	16	17	17	19	160				

**Skomorokhov, Vyacheslav (URS) (1968)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 1968 Olympic Games (Mexico City, MEX) (Altitude)***Dessons (1982) - traite d'athletisme - volume 1: les courses*

date	15-Oct-68	time	6.1	9.9	13.7	17.5	21.5	23.4	25.6	30.0	34.6	39.2	43.8	49.1	5 / 5			
reaction time		interval		3.80	3.80	3.80	4.00	4.10	4.40	4.60	4.60	4.60	5.30	(49.12)	11.40	12.50	13.80	
		velocity	7.38	9.21	9.21	9.21	8.75	8.55	8.54	7.95	7.61	7.61	7.61	7.55	8.15	9.21	8.40	7.61
H1 lead leg	L	strides	21	13	13	13	13	13	15	15	15	15	18	164				

**Heat ?? - 1967 (Leninakan, URS) (Altitude)***Jonath (1969) - wie gerhard hennige trainiert*

date	02-Oct-67	time	5.8	10.0	13.9	18.1	22.2	26.6	31.1	35.6	40.1	44.7	50.1	/ 1				
reaction time		interval		4.2	3.9	4.2	4.1	4.4	4.5	4.5	4.5	4.6	5.4		12.3	13.0	13.6	
		velocity	7.76	8.33	8.97	8.33	8.54	7.95	7.78	7.78	7.78	7.61	7.41	7.98	8.54	8.08	7.72	
H1 lead leg		strides																

**Small, Javonie (USA) (1982)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****Heat 3 - 2007 USATF National Championships (Indianapolis, IN)***USATF Men's Hurdle Development (2007)*

date	21-Jun-07	time	5.96	9.83	13.84	17.91	22.07	26.66	31.28	35.85	40.47	45.30	50.96	7 / 5				
reaction time		interval		3.87	4.01	4.07	4.16	4.59	4.62	4.57	4.62	4.83	5.66		11.95	13.37	14.02	
		velocity	7.55	9.04	8.73	8.60	8.41	7.63	7.58	7.66	7.58	7.25	7.07	7.85	8.79	7.85	7.49	
H1 lead leg	R	strides	22	15	14	14	14	15	14	15	15	15	153					

**Smidt, Nick (NED) (1997)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****Semi-Final 1 - 2024 Olympic Games (Paris, FRA)***Paris 2024 Olympic Games - Results Book (2024)*

date	07-Aug-24	time	5.85	9.50	13.25	17.03	20.93	25.05	29.36	33.80	38.64	43.64	49.61	4 / 6				
reaction time	0.215	interval		3.65	3.75	3.78	3.90	4.12	4.31	4.44	4.84	5.00	5.97		11.18	12.33	14.28	
		velocity	7.69	9.59	9.33	9.26	8.97	8.50	8.12	7.88	7.23	7.00	6.70	8.06	9.39	8.52	7.35	
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	14	15	18	160				

**Heat 4 - 2024 Olympic Games (Paris, FRA)***Paris 2024 Olympic Games - Results Book (2024)*

date	05-Aug-24	time	5.93	9.70	13.50	17.39	21.37	25.47	29.72	34.15	38.63	43.24	48.64	9 / 6				
reaction time	0.168	interval		3.77	3.80	3.89	3.98	4.10	4.25	4.43	4.48	4.61	5.40		11.46	12.33	13.52	
		velocity	7.59	9.28	9.21	9.00	8.79	8.54	8.24	7.90	7.81	7.59	7.41	8.22	9.16	8.52	7.77	
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	14	14	17.5	158.5				

**FINAL - 2024 European Athletics Championships (Roma, ITA)***European Athletics (2024) - 2024 european athletics championships - results book*

date	11-Jun-24	time	5.74	9.43	13.23	17.05	21.01	25.10	29.39	33.79	38.61	43.55	49.43	4 / 8				
reaction time	0.182	interval		3.69	3.80	3.82	3.96	4.09	4.29	4.40	4.82	4.94	5.88		11.31	12.34	14.16	
		velocity	7.84	9.49	9.21	9.16	8.84	8.56	8.16	7.95	7.26	7.09	6.80	8.09	9.28	8.51	7.42	
H1 lead leg	L	strides	21	13	13	13	13	14	14	14	15	15	18	150				

**Semi-Final 1 - 2024 European Athletics Championships (Roma, ITA)***European Athletics (2024) - 2024 european athletics championships - results book*

date	10-Jun-24	time	5.88	9.63	13.48	17.28	21.31	25.55	29.95	34.44	39.28	44.05	49.57	5 / 2				
reaction time	0.171	interval		3.75	3.85	3.80	4.03	4.24	4.40	4.49	4.84	4.77	5.52		11.40	12.67	14.10	
		velocity	7.65	9.33	9.09	9.21	8.68	8.25	7.95	7.80	7.23	7.34	7.25	8.07	9.21	8.29	7.45	
H1 lead leg	L	strides	21	13	13	13	13	14	14			15	18	134				

**FINAL - 2024 Seashore Doha Meeting (Doha, QAT)***Omega Timing (2024) - diamond league race analysis*

date	10-May-24	time	5.97	9.76	13.66	17.65	21.80	26.17	30.54	35.10	39.80	44.50	49.97	1 / 6				
reaction time	0.194	interval		3.79	3.90	3.99	4.15	4.37	4.37	4.56	4.70	4.70	5.47		11.68	12.89	13.96	
		velocity	7.54	9.23	8.97	8.77	8.43	8.01	8.01	7.68	7.45	7.45	7.31	8.00	8.99	8.15	7.52	
H1 lead leg	L	strides	20	13	13	13	13	14			15	15	18	134				

**FINAL - 2023 Herculis Meeting International d'Athlétisme (Monaco, MON)** *Omega Timing (2023) - diamond league race analysis*

date	21-Jun-23	time	5.83	9.53	13.26	17.07	21.03	25.16	29.40	33.80	38.34	43.04	48.57	8 / 6				
reaction time	0.167	interval		3.70	3.73	3.81	3.96	4.13	4.24	4.40	4.54	4.70	5.53		11.24	12.33	13.64	
		velocity	7.72	9.46	9.38	9.19	8.84	8.47	8.25	7.95	7.71	7.45	7.23	8.24	9.34	8.52	7.70	
H1 lead leg	L	strides	21	13	13	13	13	14	14	14	14	14	143					

**FINAL - 2023 FBK Games (Hengelo, NED)** *Omega Timing (2023) - continental tour race analysis*

date	04-Jun-23	time	5.83	9.55	13.35	17.17	21.08	25.11	29.38	33.82	38.49	43.40	49.17	5 / 2				
reaction time	0.186	interval		3.72	3.80	3.82	3.91	4.03	4.27	4.44	4.67	4.91	5.77		11.34	12.21	14.02	
		velocity	7.72	9.41	9.21	9.16	8.95	8.68	8.20	7.88	7.49	7.13	6.93	8.14	9.26	8.60	7.49	
H1 lead leg	L	strides	21	13				13	14	14	14	15	18	122				

**Semi-Final 1 - 2022 European Athletics Championships (Munich, GER)** *European Athletics (2022) - european athletics championships race analysis*

date	18-Aug-22	time	5.91	9.76	13.64	17.61	21.77	23.57	25.95	30.25	34.80	39.42	44.21	50.29	6 / 6			
reaction time	0.177	interval		3.85	3.88	3.97	4.16	4.18	4.30	4.55	4.62	4.79	6.08		11.70	12.64	13.96	
		velocity	7.61	9.09	9.02	8.82	8.41	8.49	8.37	8.14	7.69	7.58	7.31	6.58	7.95	8.97	8.31	7.52
H1 lead leg	L	strides	20	13	13	13	13	14	14	14	14	15	18	161				

**Heat 4 - 2022 European Athletics Championships (Munich, GER)** *European Athletics (2022) - european athletics championships race analysis*

date	17-Aug-22	time	5.93	9.70	13.55	17.42	21.52	23.35	25.76	30.20	34.80	39.53	44.42	50.06	6 / 2			
reaction time	0.223	interval		3.77	3.85	3.87	4.10	4.24	4.44	4.60	4.73	4.89	5.64		11.49	12.78	14.22	
		velocity	7.59	9.28	9.09	9.04	8.54	8.57	8.25	7.88	7.61	7.40	7.16	7.09	7.99	9.14	8.22	7.38
H1 lead leg	L	strides	20	13	13	13	13	14	14	14	14	15	17.5	160.5				

**FINAL - 2022 Silesia Kamila Skolimowska Memorial (Chorzów, POL) (TV Analysis)** *Henson (2022) - Athlete First: 2022 year end hurdle report*

date	06-Aug-22	time	5.93	9.70	13.53	17.53	21.56	23.28	25.73	30.03	38.90	43.56	49.07	9 / 7				
reaction time	0.154	interval		3.77	3.83	4.00	4.03	4.17	4.30	4.30	4.60	4.66	5.51	PB	11.60	12.50	13.53	
		velocity	7.59	9.28	9.14	8.75	8.68	8.59	8.39	8.14	7.89	7.51	7.26	8.15	9.05	8.40	7.76	
H1 lead leg	L	strides	20	13	13	13	13	14	14			14	101					

**Semi-Final 3 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)** *Henson (2022) - Athlete First: 2022 year end hurdle report*

date	17-Jul-22	time	5.86	9.57	13.50	17.30	21.40	23.25	25.70	30.00	34.47	39.13	43.93	49.56	8 / 5			
reaction time	0.145	interval		3.71	3.93	3.80	4.10	4.30	4.30	4.47	4.66	4.80	5.63		11.44	12.70	13.93	
		velocity	7.68	9.43	8.91	9.21	8.54	8.60	8.14	8.14	7.83	7.51	7.29	7.10	8.07	9.18	8.27	7.54
H1 lead leg	L	strides	20	13	13	13	14	14	14	14	14	15	18	162				

**Heat 2 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)** *Henson (2022) - Athlete First: 2022 year end hurdle report*

date	16-Jul-22	time	5.93	9.73	13.70	17.77	21.93	23.78	26.13	30.50	35.00	39.60	44.33	49.80	8 / 4			
reaction time	0.180	interval		3.80	3.97	4.07	4.16	4.20	4.37	4.50	4.60	4.73	5.47		11.84	12.73	13.83	
		velocity	7.59	9.21	8.82	8.60	8.41	8.41	8.33	8.01	7.78	7.61	7.40	7.31	8.03	8.87	8.25	7.59
H1 lead leg	L	strides	20	13	13	13	13	14	14	14	14	14	17.7	159.7				

**FINAL - 2022 Bislett Games (Oslo, NOR) (TV Analysis)** *Henson (2022) - Athlete First: 2022 year end hurdle report*

date	16-Jun-22	time	5.92	9.72	13.64	17.68	23.70	26.28	30.62	34.92	39.56	44.28	49.77	1 / 6				
reaction time	0.172	interval		3.80	3.92	4.04	4.44	8.60	4.34	4.30	4.64	4.72	5.49		11.76	12.94	13.66	
		velocity	7.60	9.21	8.93	8.66	8.44	8.14	8.06	8.14	7.54	7.42	7.29	8.04	8.93	8.11	7.69	
H1 lead leg	L	strides	21	13	13	14	14			14	15	15	18	137				

**Semi-Final 2 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)** *Henson (2024) - Athlete First: 2021 year end hurdle report*

date	01-Aug-21	time	6.06	9.80	13.56	17.50	21.43	25.46	29.73	39.00	43.80	49.35	2 / 7					
reaction time	0.164	interval		3.74	3.76	3.94	3.93	4.03	4.27	9.27	4.80	5.55		11.44	12.23	14.07		
		velocity	7.43	9.36	9.31	8.88	8.91	8.68	8.20	7.55	7.29	7.21	8.11	9.18	8.59	7.46		
H1 lead leg	L	strides	20	13	13	13	13	13	14			15	18	132				

**Heat 5 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)** *Henson (2024) - Athlete First: 2021 year end hurdle report*

date	30-Jul-21	time	6.03	9.80	13.73	17.76	21.93	26.23	30.60	35.13	39.66	44.26	49.55	7 / 4				
reaction time	0.181	interval		3.77	3.93	4.03	4.17	4.30	4.37	4.53	4.53	4.60	5.29		11.73	12.84	13.66	
		velocity	7.46	9.28	8.91	8.68	8.39	8.14	8.01	7.73	7.73	7.61	7.56	8.07	8.95	8.18	7.69	
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	14	14	17.5	157.5				

**FINAL - 2020 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)** *Henson (2020) - Athlete First: 2020 year end hurdle report*

date	17-Sep-20	time	5.91	9.81			22.05	24.0	31.06	35.67	40.34	45.11	50.67	3 / 8					
reaction time	0.144	interval		3.90			12.24		9.01	4.61	4.67	4.77	5.56					14.05	
		velocity	7.61	8.97			8.58	8.33	7.77	7.59	7.49	7.34	7.19	7.89	8.14	14	14	17.2	7.47
H1 lead leg	L	strides	20	13							14	14	17.2	92.2					

**Smith, James (USA) (2000)** *USATF and Karmarush (2024) - USA Olympic trials results and race analysis*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
date	30-Jun-24	time	5.91	9.70	13.65	17.62	21.70	23.49	25.91	30.18	34.54	39.13	43.67	49.18	1 / 5				
reaction time		interval		3.79	3.95	3.97	4.08	4.21	4.27	4.36	4.59	4.54	5.51				11.71	12.56	13.49
		velocity	7.61	9.23	8.86	8.82	8.58	8.51	8.31	8.20	8.03	7.63	7.71	7.26	8.13		8.97	8.36	7.78
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	18	164					

**Semi-Final 1 - 2024 USA Olympic Trials (Eugene, OR)** *USATF and Karmarush (2024) - USA Olympic trials results and race analysis*

date	28-Jun-24	time	5.99	9.75	13.58	17.49	21.48	23.34	25.54	30.03	34.57	39.23	43.83	49.43	6 / 3				
reaction time		interval		3.76	3.83	3.91	3.99	4.06	4.49	4.54	4.66	4.60	5.60				11.50	12.54	13.80

H1 lead leg	L	velocity	7.51	9.31	9.14	8.95	8.77	8.57	8.62	7.80	7.71	7.51	7.61	7.14	8.09	9.13	8.37	7.61
		strides	21	13	13	13	13		13	14	14	15	15	18	162			
<b>Heat 1 - 2024 USA Olympic Trials (Eugene, OR)</b>															<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>			
date	27-Jun-24	time	6.10	9.96	13.87	17.86	21.91	23.79	26.10	30.53	35.08	39.73	44.39		50.28	6 / 2		
reaction time		interval		3.86	3.91	3.99	4.05		4.19	4.43	4.55	4.65	4.66	5.89		11.76	12.67	13.86
		velocity	7.38	9.07	8.95	8.77	8.64	8.41	8.35	7.90	7.69	7.53	7.51	6.79	7.96	8.93	8.29	7.58
H1 lead leg	L	strides	21	13	13	13	13		14	14	15	15	15	18	164			
<b>FINAL - 2023 USATF National Championships (Eugene, OR) (TV Analysis)</b>															<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>			
date	09-Jul-23	time	6.17	10.01	13.91	17.85	21.89		26.09		34.90	39.50	44.18		49.56	3 / 6		
reaction time		interval		3.84	3.90	3.94	4.04		4.20		8.81	4.60	4.68	5.38		11.68		
		velocity	7.29	9.11	8.97	8.88	8.66		8.33		7.95	7.61	7.48	7.43	8.07	8.99		
H1 lead leg	L	strides	21	13	13	13	13					15	15		103			
<b>FINAL - 2023 NCAA Championships (Austin, TX) (TV Analysis)</b>															<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>			
date	09-Jun-23	time	5.99	9.76	13.60	17.48	21.50		25.74	30.03	34.47	39.00	43.76		49.21	4 / 8		
reaction time		interval		3.77	3.84	3.88	4.02		4.24	4.29	4.44	4.53	4.76	5.45	PB	11.49	12.55	13.73
		velocity	7.51	9.28	9.11	9.02	8.71		8.25	8.16	7.88	7.73	7.35	7.34	8.13	9.14	8.37	7.65
H1 lead leg	L	strides	21	13	13	13	13		14	14	15	15	15	18.2	164.2			
<b>Smith, Willie (NAM) (1977)</b>																		
<b>Heat 1 - 2000 Olympic Games (Sydney, AUS)</b>															<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>			
date	24-Sep-00	time	6.06	9.78	13.66	17.62	21.66		25.82	30.34	35.02	39.90		50.89	5 / 5			
reaction time	0.156	interval		3.72	3.88	3.96	4.04		4.16	4.52	4.68	4.88			11.56	12.72		
		velocity	7.43	9.41	9.02	8.84	8.66		8.41	7.74	7.48	7.17		7.86	9.08	8.25		
H1 lead leg		strides	22	15	15	15	15		17	17	17	17		150				
<b>Smolka, Adam (CZE) (1998)</b>																		
<b>Heat 2 - 2024 European Athletics Championships (Roma, ITA)</b>															<i>European Athletics (2024) - 2024 european athletics championships - results book</i>			
date	09-Jun-24	time	5.96	9.79	13.69	17.71	21.85		26.20	30.69	35.17	39.88	44.66		50.48	5 / 5		
reaction time	0.208	interval		3.83	3.90	4.02	4.14		4.35	4.49	4.48	4.71	4.78	5.82		11.75	12.98	13.97
		velocity	7.55	9.14	8.97	8.71	8.45		8.05	7.80	7.81	7.43	7.32	6.87	7.92	8.94	8.09	7.52
H1 lead leg		strides												0				
<b>Song Haotian (CHN) (1999)</b>																		
<b>Heat 4 - 2021 Chinese National Championships (Chongqing, CHN)</b>															<i>CAA Hurdle Development (2021)</i>			
date	26-Jun-21	time	6.31	10.37	14.43	18.67	23.12		27.73	32.34	37.18	42.05	47.12		52.72	7 / 4		
reaction time	0.209	interval		4.06	4.06	4.24	4.45		4.61	4.61	4.84	4.87	5.07	5.60		12.36	13.67	14.78
		velocity	7.13	8.62	8.62	8.25	7.87		7.59	7.59	7.23	7.19	6.90	7.14	7.59	8.50	7.68	7.10
H1 lead leg	L	strides	22	14	14	14	15		15	15	15	15	16	19	174			
<b>FINAL - 2021 Philippe Cup Athletics Invitational (Wuhan, CHN)</b>															<i>CAA Hurdle Development (2021)</i>			
date	20-May-21	time	6.29	10.29	14.31	18.42	22.62		27.04	31.68	36.32	41.11	46.18		51.66	5 / 2		
reaction time	0.242	interval		4.00	4.02	4.11	4.20		4.42	4.64	4.64	4.79	5.07	5.48	PB	12.13	13.26	14.50
		velocity	7.15	8.75	8.71	8.52	8.33		7.92	7.54	7.54	7.31	6.90	7.30	7.74	8.66	7.92	7.24
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	15	15	19.5	172.5			
<b>FINAL - 2021 National Grand Prix (Chengdu, CHN)</b>															<i>CAA Hurdle Development (2021)</i>			
date	02-Apr-21	time	6.31	10.38	14.38	18.58	22.91		27.46	32.22	37.00	42.10	47.17		52.54	8 / 3		
reaction time	0.250	interval		4.07	4.00	4.20	4.33		4.55	4.76	4.78	5.10	5.07	5.37	PB	12.27	13.64	14.95
		velocity	7.13	8.60	8.75	8.33	8.08		7.69	7.35	7.32	6.86	6.90	7.45	7.61	8.56	7.70	7.02
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	16	16	19	174			
<b>Heat 1 - 2021 National Grand Prix (Chengdu, CHN)</b>															<i>CAA Hurdle Development (2021)</i>			
date	01-Apr-21	time	6.40	10.60	14.88	19.20	23.70		28.30	33.00	37.76	42.62	47.48		52.85	7 / 3		
reaction time	0.192	interval		4.20	4.28	4.32	4.50		4.60	4.70	4.76	4.86	4.86	5.37	PB	12.80	13.80	14.48
		velocity	7.03	8.33	8.18	8.10	7.78		7.61	7.45	7.35	7.20	7.20	7.45	7.57	8.20	7.61	7.25
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	15	15	18.5	175.5			
<b>Song Jiahui (CHN) (2002)</b>																		
<b>FINAL - 2024 Chinese National Championships (Quzhou, CHN)</b>															<i>Shandong Athletics Sport Science (2024)</i>			
date	16-Sep-24	time	6.07	9.86	13.68	17.58	21.60		25.72	29.96	34.38	39.00	43.86		49.29	6 / 1		
reaction time	0.197	interval		3.79	3.82	3.90	4.02		4.12	4.24	4.42	4.62	4.86	5.43	PB	11.51	12.38	13.90
		velocity	7.41	9.23	9.16	8.97	8.71		8.50	8.25	7.92	7.58	7.20	7.37	8.12	9.12	8.48	7.55
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	14	14	18.2	157.2			
<b>FINAL - 2024 Chinese National Grand Prix Final (Rizhao, CHN)</b>															<i>Shandong Athletics Sport Science (2024)</i>			
date	29-Jun-24	time	6.04	9.77	13.64	17.65	21.77		26.02	30.33	34.98	39.62	44.28		49.67	8 / 3		
reaction time	0.206	interval		3.73	3.87	4.01	4.12		4.25	4.31	4.65	4.64	4.66	5.39		11.61	12.68	13.95
		velocity	7.45	9.38	9.04	8.73	8.50		8.24	8.12	7.53	7.54	7.51	7.42	8.05	9.04	8.28	7.53
H1 lead leg	L	strides	20	13	13	13	13		13	13	14	14	14	18	158			
<b>FINAL - 2021 Chinese National Championships (Chongqing, CHN)</b>															<i>CAA Hurdle Development (2021)</i>			
date	26-Jun-21	time	6.31	10.33	14.44	18.66	22.91		27.23	31.61	36.23	40.99	45.82		51.32	7 / 2		
reaction time	0.191	interval		4.02	4.11	4.22	4.25		4.32	4.38	4.62	4.76	4.83	5.50	PB	12.35	12.95	14.21
		velocity	7.13	8.71	8.52	8.29	8.24		8.10	7.99	7.58	7.35	7.25	7.27	7.79	8.50	8.11	7.39



H1 lead leg	L	strides	20	13	13	13	13	13	13	13	14	14	15	18	159					
<b>Heat 3 - 2021 Chinese National Championships (Chongqing, CHN)</b>																	<i>CAA Hurdle Development (2021)</i>			
date	26-Jun-21	time	6.36	10.36	14.45	18.62	22.83	27.10	31.68	36.26	41.01	45.87			51.44	8 / 1				
reaction time	0.234	interval	4.00	4.09	4.17	4.21	4.27	4.58	4.58	4.75	4.86	5.57			<b>PB</b>		12.26	13.06	14.19	
		velocity	7.08	8.75	8.56	8.39	8.31	8.20	7.64	7.64	7.37	7.20	7.18	7.78			8.56	8.04	7.40	
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	15	15	18.5	161.5						
<b>FINAL - 2020 Chinese Olympic Trials (Shaoxing, CHN)</b>																	<i>CAA Hurdle Development (2021)</i>			
date	13-Jun-21	time	6.24	10.34	14.46	18.55	22.77	27.08	31.53	36.07	40.89	45.83			51.57	8 / 6				
reaction time	0.198	interval	4.10	4.12	4.09	4.22	4.31	4.45	4.54	4.82	4.94	5.74					12.31	12.98	14.30	
		velocity	7.21	8.54	8.50	8.56	8.29	8.12	7.87	7.71	7.26	7.09	6.97	7.76			8.53	8.09	7.34	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	14	14	18	157						
<b>Song Weiwei (CHN) (2002)</b>																	<i>CAA Hurdle Development (2019)</i>			
<b>U18 FINAL - 2019 Chinese National Youth Games (Taiyuan, CHN) (84cm)</b>																	<i>CAA Hurdle Development (2019)</i>			
date	17-Aug-19	time	6.63	10.82	15.18	19.54	24.20	29.28	34.48	39.80	45.12	50.68			56.87	3 / 8				
reaction time	0.186	interval	4.19	4.36	4.36	4.66	5.08	5.20	5.32	5.32	5.56	6.19					12.91	14.94	16.20	
		velocity	6.79	8.35	8.03	8.03	7.51	6.89	6.73	6.58	6.58	6.29	6.46	7.03			8.13	7.03	6.48	
H1 lead leg	L	strides	22	15	15	15	15	17	17	17	17	17	21	188						
<b>Song Xuanrui (CHN)</b>																	<i>Shandong Athletics Sport Science (2022)</i>			
<b>U18 FINAL - 2022 Shandong Provincial Games (Rizhao, CHN) (84cm)</b>																	<i>Shandong Athletics Sport Science (2022)</i>			
date	03-Sep-22	time	6.58	11.18	15.82	20.58	25.56	30.75	36.02	41.26	46.55	51.92			58.06	8 / 5				
reaction time	0.202	interval	4.60	4.64	4.76	4.98	5.08	5.27	5.24	5.29	5.37	6.14					14.00	15.44	15.90	
		velocity	6.84	7.61	7.54	7.35	7.03	6.89	6.64	6.68	6.62	6.52	6.51	6.89			7.50	6.80	6.60	
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	18	175						
<b>Sota, Yamane (JPN)</b>																	<i>Shimizu (2024) - shimane high school championships 2024 - biomechanics data analysis</i>			
<b>FINAL - 2024 Shimane High School Championships (Izumo, JPN)</b>																	<i>Shimizu (2024) - shimane high school championships 2024 - biomechanics data analysis</i>			
date	25-May-24	time	6.88	11.45	15.95	20.52	25.28	30.15	35.30	40.57	46.12	52.18			58.49	8 / 3				
reaction time		interval	4.57	4.50	4.57	4.76	4.87	5.15	5.27	5.55	6.06	6.31					13.64	14.78	16.88	
		velocity	6.54	7.66	7.78	7.66	7.35	7.19	6.80	6.64	6.31	5.78	6.34	6.84			7.70	7.10	6.22	
H1 lead leg		strides	23	15	15	15	15	15	17	17	16	18	20	186						
<b>Sotono, Haru (JPN) (2004)</b>																	<i>Shimizu (2020) - shimane high school championships 2020 - biomechanics data analysis</i>			
<b>FINAL - 2020 Shimane High School Championships (Izumo, JPN)</b>																	<i>Shimizu (2020) - shimane high school championships 2020 - biomechanics data analysis</i>			
date	12-Jul-20	time	6.75	11.37	16.20	21.03	26.10	31.27	36.60	42.37	48.48	54.65			61.63	3 / 4				
reaction time		interval	4.62	4.83	4.83	5.07	5.17	5.33	5.77	6.11	6.17	6.98					14.28	15.57	18.05	
		velocity	6.67	7.58	7.25	7.25	6.90	6.77	6.57	6.07	5.73	5.67	5.73	6.49			7.35	6.74	5.82	
H1 lead leg		strides	22	15	15	15	15	15	15	17	17	17	20	183						
<b>Southern, Eddie (USA) (1938)</b>																	<i>Quercentani (2000). Athletics: A history of modern track and field athletics (1860-2000)</i>			
<b>FINAL - 1956 Olympic Games (Melbourne, AUS)</b>																	<i>Quercentani (2000). Athletics: A history of modern track and field athletics (1860-2000)</i>			
date	24-Nov-56	time					22.5								50.8	2 / 2				
reaction time		interval					8.22								(50.94)					
		velocity					8.22								7.87					
H1 lead leg	R	strides	22	15	15	13	15	15	15	15	15	15	18	173						
<b>Spencer, William (USA) (2001)</b>																	<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
<b>Semi-Final 2 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)</b>																	<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	25-Jun-21	time	6.03	9.81	13.64	17.62	21.79	26.19	30.76	35.40	40.07	44.81			50.53	4 / 8				
reaction time	0.174	interval	3.78	3.83	3.98	4.17	4.40	4.57	4.64	4.67	4.74	5.72					11.59	13.14	14.05	
		velocity	7.46	9.26	9.14	8.79	8.39	7.95	7.66	7.54	7.49	7.38	6.99	7.92			9.06	7.99	7.47	
H1 lead leg	R	strides		13	13	13	13		14	14	14	14	17.2	125.2						
<b>Stigler, Michael (USA) (1992)</b>																	<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>			
<b>FINAL - 2017 Müller's Anniversary Games (London, GBR) (TV Analysis)</b>																	<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>			
date	09-Jul-17	time	6.04	9.72	13.56	17.40	21.40	25.64	29.96	34.36	38.72	43.16			48.32	4 / 4				
reaction time	0.199	interval	3.68	3.84	3.84	4.00	4.24	4.32	4.40	4.36	4.44	5.16					11.36	12.56	13.20	
		velocity	7.45	9.51	9.11	9.11	8.75	8.25	8.10	7.95	8.03	7.88	7.75	8.28			9.24	8.36	7.95	
H1 lead leg	R	strides	22	13	13	13	13	13	15	15	15	15	18	165						
<b>FINAL - 2017 Athletissima (Lausanne, SUI) (TV Analysis)</b>																	<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>			
date	06-Jul-17	time	6.00	9.80	13.72	17.68	21.76	26.04	30.36	34.72	39.32	44.12			49.86	6 / 6				
reaction time	0.224	interval	3.80	3.92	3.96	4.08	4.28	4.32	4.36	4.60	4.80	5.74					11.68	12.68	13.76	
		velocity	7.50	9.21	8.93	8.84	8.58	8.18	8.10	8.03	7.61	7.29	6.97	8.02			8.99	8.28	7.63	
H1 lead leg	R	strides	22	13	13	13	13	15	15	15	15	15	18	167						
<b>FINAL - 2017 USATF Championships (Sacramento, CA) (TV Analysis)</b>																	<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>			
date	25-Jun-17	time	6.10	9.79	13.58	17.38	21.31		29.89	34.20	38.55	43.07			48.26	8 / 2				
reaction time		interval	3.69	3.79	3.80	3.93		4.58	4.31	4.35	4.52	5.19			<b>PB</b>		11.28	12.51	13.18	
		velocity	7.38	9.49	9.23	9.21	8.91		8.16	8.12	8.05	7.74	7.71	8.29			9.31	8.39	7.97	
H1 lead leg	R	strides	22	13	13	13	13		15	15	15	15	18.2	137.2						
<b>Strohmayr-Dangl, Niklas (AUT) (200)</b>																	<i>European Athletics (2022) - european athletics championships race analysis</i>			
<b>Heat 3 - 2022 European Athletics Championships (Munich, GER)</b>																	<i>European Athletics (2022) - european athletics championships race analysis</i>			

date	17-Aug-22	time	5.96	10.04	14.11	18.35	22.54	24.45	26.94	31.45	36.18	40.91	45.72	51.21	2 / 4				
reaction time	0.211	interval		4.08	4.07	4.24	4.19		4.40	4.51	4.73	4.73	4.81	5.49		12.39	13.10	14.27	
		velocity	7.55	8.58	8.60	8.25	8.35	8.18	7.95	7.76	7.40	7.40	7.28	7.29	7.81	8.47	8.02	7.36	
H1 lead leg	R	strides	22	14		14		15	15	15	15	15	15	18.2	143.2				
<b>Stukalov, Dmitriy (URS) (1951)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 1971 European Championships (Helsinki, FIN)</b>																			
<i>Behm (1995) - la tactique du 400 haies</i>																			
date	12-Aug-71	time	6.0	10.2	14.3	18.3	22.4		26.6	31.0	35.5	40.2	44.8	50.0	1 / 3				
reaction time		interval		4.20	4.10	4.00	4.10		4.20	4.40	4.50	4.70	4.60	5.20	<b>PB</b>	12.30	12.70	13.80	
		velocity	7.50	8.33	8.54	8.75	8.54		8.33	7.95	7.78	7.45	7.61	7.69	8.00	8.54	8.27	7.61	
H1 lead leg		strides		13	13	13	13		15	15	15	15	15	127					
<b>Sugai, Mitsuru (JPN) (1994)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>B FINAL - 2020 Michitaka Kinami Memorial (Osaka, JPN)</b>																			
<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>																			
date	24-Oct-20	time	6.07	9.94	13.86	17.83	21.99		26.36	30.81	35.39	40.12	44.99	50.86	6 / 3				
reaction time		interval		3.87	3.92	3.97	4.16		4.37	4.45	4.58	4.73	4.87	5.87		11.76	12.98	14.18	
		velocity	7.41	9.04	8.93	8.82	8.41		8.01	7.87	7.64	7.40	7.19	6.81	7.86	8.93	8.09	7.40	
H1 lead leg	R	strides	21	13	13	13	13		14	14	15	15	15	19	165				
<b>FINAL - 2019 Japanese National Championships (Fukuoka, JPN)</b>																			
<i>Yamanaka (2019) - research on athlete performance and technique- 2019 data book</i>																			
date	29-Jun-19	time	6.06	9.76	13.66	17.58	20.60		25.86	30.23	34.80	39.46	44.43	50.27	5 / 7				
reaction time	0.168	interval		3.70	3.90	3.92	3.02		5.26	4.37	4.57	4.66	4.97	5.84		11.52	12.65	14.20	
		velocity	7.43	9.46	8.97	8.93	11.59		6.65	8.01	7.66	7.51	7.04	6.85	7.96	9.11	8.30	7.39	
H1 lead leg	R	strides	21	13	13	13	13		14	14	15	15	15	146					
<b>B FINAL - 2019 Kinami Memorial (Osaka, JPN)</b>																			
<i>Matsubayashi (2019) - research on athlete performance and technique- 2019 data book</i>																			
date	06-May-19	time	6.09	9.91	13.90	17.85	21.94		26.23	30.50	35.07	39.72	44.54	50.16	3 / 1				
reaction time		interval		3.82	3.99	3.95	4.09		4.29	4.27	4.57	4.65	4.82	5.62		11.76	12.65	14.04	
		velocity	7.39	9.16	8.77	8.86	8.56		8.16	8.20	7.66	7.53	7.26	7.12	7.97	8.93	8.30	7.48	
H1 lead leg	R	strides	21	13	13	13	13		14	14	15	15	15	19	165				
<b>C FINAL - 2019 Shizuoka International Athletics Meeting (Fukuoka, JPN)</b>																			
<i>Kobayashi (2019) - research on athlete performance and technique- 2019 data book</i>																			
date	03-May-19	time	6.09	9.83	13.73	17.77	21.89		26.28	30.75	35.44	40.19	45.08	50.56	7 / 2				
reaction time		interval		3.74	3.90	4.04	4.12		4.39	4.47	4.69	4.75	4.89	5.48		11.68	12.98	14.33	
		velocity	7.39	9.36	8.97	8.66	8.50		7.97	7.83	7.46	7.37	7.16	7.30	7.91	8.99	8.09	7.33	
H1 lead leg	R	strides	22	13	13	13	13		14	14	15	15	15	18.5	165.5				
<b>Sugimati, Mahau (BRA) (1984)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2021 Ready Steady Tokyo (Tokyo, JPN)</b>																			
<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>																			
date	09-May-21	time	6.09	9.86	13.76	17.82	21.99		26.38	30.78	35.26	39.87	44.64	50.11	3 / 8				
reaction time	0.130	interval		3.77	3.90	4.06	4.17		4.39	4.40	4.48	4.61	4.77	5.47		11.73	12.96	13.86	
		velocity	7.39	9.28	8.97	8.62	8.39		7.97	7.95	7.81	7.59	7.34	7.31	7.98	8.95	8.10	7.58	
H1 lead leg		strides		13	13	13	13		13	13	13	13	14	118					
<b>FINAL - 2020 Seiko Golden Grand Prix (Tokyo, JPN)</b>																			
<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>																			
date	23-Aug-20	time	6.16	9.96	13.86	17.83	21.91		26.16	30.51	35.15	40.04	45.08	50.99	8 / 7				
reaction time	0.152	interval		3.80	3.90	3.97	4.08		4.25	4.35	4.64	4.89	5.04	5.91		11.67	12.68	14.57	
		velocity	7.31	9.21	8.97	8.82	8.58		8.24	8.05	7.54	7.16	6.94	6.77	7.84	9.00	8.28	7.21	
H1 lead leg		strides		12	12	13	13		13	13	13	14	14	117					
<b>FINAL - 2019 Seiko Golden Grand Prix (Osaka, JPN)</b>																			
<i>Hirokawa (2019) - research on athlete performance and technique- 2019 data book</i>																			
date	19-May-19	time	6.06	9.84	13.73	17.76	21.92		26.28	30.78	35.60	40.44	45.33	50.87	2 / 3				
reaction time	0.160	interval		3.78	3.89	4.03	4.16		4.36	4.50	4.82	4.84	4.89	5.54		11.70	13.02	14.55	
		velocity	7.43	9.26	9.00	8.68	8.41		8.03	7.78	7.26	7.23	7.16	7.22	7.86	8.97	8.06	7.22	
H1 lead leg	R	strides	20	13	13	13	13		13	13	14	14	14	17.5	157.5				
<b>D FINAL - 2019 Shizuoka International Athletics Meeting (Fukuoka, JPN)</b>																			
<i>Kobayashi (2019) - research on athlete performance and technique- 2019 data book</i>																			
date	03-May-19	time	6.09	9.86	13.68	17.58	21.60		25.83	30.20	34.72	39.57	44.63	50.19	5 / 1				
reaction time		interval		3.77	3.82	3.90	4.02		4.23	4.37	4.52	4.85	5.06	5.56		11.49	12.62	14.43	
		velocity	7.39	9.28	9.16	8.97	8.71		8.27	8.01	7.74	7.22	6.92	7.19	7.97	9.14	8.32	7.28	
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	15	15	17.2	158.2				
<b>Sugimati, Mahau (JPN) (1984)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2006 Japanese National Championships (Kobe, JPN)</b>																			
<i>Yasunori (2007) - race pattern analysis of top Japanese 400m hurdlers</i>																			
date	01-Jul-06	time	6.25	10.12	13.96	17.95	22.00		26.27	30.62	35.12	39.71	44.31	49.63	1 / 2				
reaction time		interval		3.87	3.84	3.99	4.05		4.27	4.35	4.50	4.59	4.60	5.32	<b>PB</b>	11.70	12.67	13.69	
		velocity	7.20	9.04	9.11	8.77	8.64		8.20	8.05	7.78	7.63	7.61	7.52	8.06	8.97	8.29	7.67	
H1 lead leg		strides		12	12	12	12		13	13	13	13	13	113					
<b>Sun Ke (CHN) (2001)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>U20 Heat 1 - 2019 Chinese National Youth Games (Taiyuan, CHN)</b>																			
<i>CAA Hurdle Development (2019)</i>																			
date	17-Aug-19	time	6.14	10.18	14.28	18.44	22.80		27.26	31.90	36.82	42.16	47.68	54.20	4 / 5				
reaction time	0.176	interval		4.04	4.10	4.16	4.36		4.46	4.64	4.92	5.34	5.52	6.52		12.30	13.46	15.78	
		velocity	7.33	8.66	8.54	8.41	8.03		7.85	7.54	7.11	6.55	6.34	6.13	7.38	8.54	7.80	6.65	
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	15	15	20	177				
<b>Sun Wanhao (CHN) (2001)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>U20 Heat 1 - 2019 Chinese National Youth Games (Taiyuan, CHN)</b>																			
<i>CAA Hurdle Development (2019)</i>																			



date	17-Aug-19	time	6.54	10.76	15.08	19.42	23.85	28.50	33.38	38.40	43.62	49.12	55.04	8 / 6					
reaction time	0.216	interval		4.22	4.32	4.34	4.43	4.65	4.88	5.02	5.22	5.50	5.92	<b>PB</b>	12.88	13.96	15.74		
		velocity	6.88	8.29	8.10	8.06	7.90	7.53	7.17	6.97	6.70	6.36	6.76	7.27	8.15	7.52	6.67		
H1 lead leg	L	strides	22	15	15	15	15	15	16	16	16	17	20	182					
<b>Sun Yao (CHN) (2002)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>U18 FINAL - 2019 Chinese National Youth Games (Taiyuan, CHN) (84cm)</b>			<i>CAA Hurdle Development (2019)</i>																
date	17-Aug-19	time	6.11	10.04	14.18	18.30	22.47	26.83	31.36	36.14	41.24	46.45	52.20	4 / 2					
reaction time	0.223	interval		3.93	4.14	4.12	4.17	4.36	4.53	4.78	5.10	5.21	5.75				12.19	13.06	15.09
		velocity	7.36	8.91	8.45	8.50	8.39	8.03	7.73	7.32	6.86	6.72	6.96	7.66			8.61	8.04	6.96
H1 lead leg	L	strides		14	14	14	14	15	15	15	17	17	135						
<b>Suzuki, Taiga (JPN) (2002)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2021 Japanese U20 National Championships (Osaka, JPN)</b>			<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>																
date	26-Jun-21	time	6.12	10.03	13.95	17.93	22.02	26.28	30.71	35.35	40.37	45.66	51.95	3 / 6					
reaction time	0.190	interval		3.91	3.92	3.98	4.09	4.26	4.43	4.64	5.02	5.29	6.29				11.81	12.78	14.95
		velocity	7.35	8.95	8.93	8.79	8.56	8.22	7.90	7.54	6.97	6.62	6.36	7.70			8.89	8.22	7.02
H1 lead leg	L	strides	21	14	14	14	15	15	15	15	16	16	155						
<b>FINAL - 2020 Japanese High School National Championships (Hiroshima, JPN)</b>			<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>																
date	25-Oct-20	time	6.11	10.04	14.18	18.30	22.47	26.83	31.36	36.14	41.24	46.45	52.20	4 / 2					
reaction time	0.173	interval		3.93	4.14	4.12	4.17	4.36	4.53	4.78	5.10	5.21	5.75				12.19	13.06	15.09
		velocity	7.36	8.91	8.45	8.50	8.39	8.03	7.73	7.32	6.86	6.72	6.96	7.66			8.61	8.04	6.96
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	17	17	19.2	175.2					
<b>FINAL - 2020 Seiko Golden Grand Prix (Tokyo, JPN)</b>			<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>																
date	23-Aug-20	time	6.01	9.86	13.78	17.85	22.02	26.44	31.05	35.79	40.74	45.90	52.19	1 / 9					
reaction time	0.152	interval		3.85	3.92	4.07	4.17	4.42	4.61	4.74	4.95	5.16	6.29				11.84	13.20	14.85
		velocity	7.49	9.09	8.93	8.60	8.39	7.92	7.59	7.38	7.07	6.78	6.36	7.66			8.87	7.95	7.07
H1 lead leg		strides		14	14	14	14	15	15	15	15	15	131						
<b>Takada, Kazunari (JPN) (1997)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2020 World Athletics Trials (Fuji, JPN)</b>			<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>																
date	06-Sep-20	time	6.04	9.81	13.71	17.77	21.92	26.16	30.56	35.14	39.94	45.10	51.11	/ 3					
reaction time		interval		3.77	3.90	4.06	4.15	4.24	4.40	4.58	4.80	5.16	6.01				11.73	12.79	14.54
		velocity	7.45	9.28	8.97	8.62	8.43	8.25	7.95	7.64	7.29	6.78	6.66	7.83			8.95	8.21	7.22
H1 lead leg		strides		13	13	14	14	14	14	15	15	16	128						
<b>FINAL - 2020 Seiko Golden Grand Prix (Tokyo, JPN)</b>			<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>																
date	23-Aug-20	time	6.04	9.84	13.71	17.67	21.86	26.13	30.53	35.07	39.87	44.84	50.53	2 / 4					
reaction time	0.191	interval		3.80	3.87	3.96	4.19	4.27	4.40	4.54	4.80	4.97	5.69				11.63	12.86	14.31
		velocity	7.45	9.21	9.04	8.84	8.35	8.20	7.95	7.71	7.29	7.04	7.03	7.92			9.03	8.16	7.34
H1 lead leg		strides		13	13	14	14	14	14	15	15	15	127						
<b>B FINAL - 2019 Kinami Memorial (Osaka, JPN)</b>			<i>Matsubayashi (2019) - research on athlete performance and technique- 2019 data book</i>																
date	06-May-19	time	5.89	9.79	13.66	17.48	21.60	25.88	30.21	34.80	39.56	44.63	50.50	7 / 3					
reaction time		interval		3.90	3.87	3.82	4.12	4.28	4.33	4.59	4.76	5.07	5.87				11.59	12.73	14.42
		velocity	7.64	8.97	9.04	9.16	8.50	8.18	8.08	7.63	7.35	6.90	6.81	7.92			9.06	8.25	7.28
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	20	172					
<b>FINAL - 2015 Japanese National High School Championships (Wakayama, JPN)</b>			<i>Enomoto (2015) - 68th high school championships: JAF scientific committee- biomechanics data</i>																
date	31-Jul-15	time	6.12	10.03	14.08	18.13	22.34	26.66	31.10	35.69	40.27	44.91	50.27	6 / 1					
reaction time		interval		3.91	4.05	4.05	4.21	4.32	4.44	4.59	4.58	4.64	5.36	<b>PB</b>			12.01	12.97	13.81
		velocity	7.35	8.95	8.64	8.64	8.31	8.10	7.88	7.63	7.64	7.54	7.46	7.96			8.74	8.10	7.60
H1 lead leg		strides		14	14	14	15	14	15	15	15	15	131						
<b>Takahashi, Rui (JPN) (1997)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2015 Japanese National High School Championships (Wakayama, JPN)</b>			<i>Enomoto (2015) - 68th high school championships: JAF scientific committee- biomechanics data</i>																
date	31-Jul-15	time	6.32	10.44	14.75	19.04	23.34	27.64	32.12	36.60	41.21	46.33	53.24	5 / 7					
reaction time		interval		4.12	4.31	4.29	4.30	4.30	4.48	4.48	4.61	5.12	6.91				12.72	13.08	14.21
		velocity	7.12	8.50	8.12	8.16	8.14	8.14	7.81	7.81	7.59	6.84	5.79	7.51			8.25	8.03	7.39
H1 lead leg		strides		15	15	15	15	15	17	15	17	16	140						
<b>Takahashi, Ryosuke (JPN) (2003)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2021 Japanese High School National Championships (Fukui, JPN)</b>			<i>Shibayama (2021) - national high school and U20 national championships</i>																
date	30-Jul-21	time	6.17	10.14	14.41	18.64	22.97	27.46	32.02	36.72	41.57	46.46	51.69	6 / 1					
reaction time	0.161	interval		3.97	4.27	4.23	4.33	4.49	4.56	4.70	4.85	4.89	5.23				12.47	13.38	14.44
		velocity	7.29	8.82	8.20	8.27	8.08	7.80	7.68	7.45	7.22	7.16	7.65	7.74			8.42	7.85	7.27
H1 lead leg		strides		14	15	14	14	15	15	16	16	16	135						
<b>FINAL - 2019 Japanese National High School Championships (Okinawa, JPN)</b>			<i>Kota (2019) - 72nd high school championships: JAF scientific committee - biomechanics data</i>																
date	06-Aug-19	time	6.25	10.43	14.70	19.06	23.65	28.43	33.22	38.12	43.20	48.56	55.14	7 / 7					
reaction time		interval		4.18	4.27	4.36	4.59	4.78	4.79	4.90	5.08	5.36	6.58				12.81	14.16	15.34
		velocity	7.20	8.37	8.20	8.03	7.63	7.32	7.31	7.14	6.89	6.53	6.08	7.25			8.20	7.42	6.84
H1 lead leg		strides		14	14	14	14	15	15	15	15	15	131						
<b>Takahashi, Yuma (JPN) (1995)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>



**FINAL - 2022 Japanese National Championships (Osaka, JPN)**

date	11-Jun-22	time	6.12	10.04	14.06	18.15	22.36	26.63	31.04	35.62	40.22	44.91	50.35	8 / 5			
reaction time	0.197	interval		3.92	4.02	4.09	4.21	4.27	4.41	4.58	4.60	4.69	5.44		12.03	12.89	13.87
		velocity	7.35	8.93	8.71	8.56	8.31	8.20	7.94	7.64	7.61	7.46	7.35	7.94	8.73	8.15	7.57
H1 lead leg	L	strides	21	14	14	14	14	14	15	15	15	15	15				

Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season

**Takeda, Kai (JPN)**

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>Heat 1 - 2016 Japanese National Youth Championships (Mizuho, JPN)</b>																	
<i>(2016.11.17) - https://twitter.com/touchdown_time/media?lang=en&amp;lang=en&amp;lang=en&amp;lang=en</i>																	
date	23-Oct-16	time				24.21							38.17	55.10	7 / 2		
reaction time		interval											13.96				
		velocity				7.64							7.52	7.26			
H1 lead leg		strides															

**Tamesue, Dai (JPN) (1978)**

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>Race B - 2011 Shizuoka International Athletics Meeting (Fukuroi, JPN)</b>																	
<i>Yasunori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>																	
date	03-May-11	time	6.03	9.77	13.71	17.75	21.84	26.06	30.40	34.94	39.63	44.40	49.89	/ 1			
reaction time		interval		3.74	3.94	4.04	4.09	4.22	4.34	4.54	4.69	4.77	5.49		11.72	12.65	14.00
		velocity	7.46	9.36	8.88	8.66	8.56	8.29	8.06	7.71	7.46	7.34	7.29	8.02	8.96	8.30	7.50
H1 lead leg		strides	13	13	13	13	13	14	14	15	15	15	125				

**FINAL - 2008 Japanese National Championships (Kawasaki, JPN)**

<i>Yasunori (2009) - race pattern analysis of prestigious Japanese 400m hurdlers</i>																	
date	27-Jun-08	time	5.82	9.49	13.38	17.32	21.31	25.45	29.69	34.13	38.78	43.65	49.17	/ 1			
reaction time		interval		3.67	3.89	3.94	3.99	4.14	4.24	4.44	4.65	4.87	5.52		11.50	12.37	13.96
		velocity	7.73	9.54	9.00	8.88	8.77	8.45	8.25	7.88	7.53	7.19	7.25	8.14	9.13	8.49	7.52
H1 lead leg		strides	13	13	13	13	13	14	14	15	15	15	125				

**Heat 3 - 2007 IAAF World Championships (Osaka, JPN)**

<i>Yasunori (2008) - race pattern analysis of the world and Japanese top 400m hurdlers</i>																	
date	25-Aug-07	time	5.87	9.59	13.44	17.43	21.48	25.68	29.98	34.53	39.23	44.08	49.67	7 / 6			
reaction time	0.197	interval		3.72	3.85	3.99	4.05	4.20	4.30	4.55	4.70	4.85	5.59		11.56	12.55	14.10
		velocity	7.67	9.41	9.09	8.77	8.64	8.33	8.14	7.69	7.45	7.22	7.16	8.05	9.08	8.37	7.45
H1 lead leg		strides	13	13	13	13	13	14	14	15	15	15	125				

**FINAL - 2007 Japanese National Championships (Osaka, JPN)**

<i>Yasunori (2008) - race pattern analysis of the world and Japanese top 400m hurdlers</i>																	
date	30-Jun-07	time	5.86	9.53	13.32	17.22	21.16	25.26	29.51	34.00	38.62	43.36	48.87	/ 1			
reaction time		interval		3.67	3.79	3.90	3.94	4.10	4.25	4.49	4.62	4.74	5.51		11.36	12.29	13.85
		velocity	7.68	9.54	9.23	8.97	8.88	8.54	8.24	7.80	7.58	7.38	7.26	8.18	9.24	8.54	7.58
H1 lead leg		strides	13	13	13	13	13	14	14	15	15	15	125				

**FINAL - 2007 Osaka Grand Prix (Osaka, JPN)**

<i>Yasunori (2008) - race pattern analysis of the world and Japanese top 400m hurdlers</i>																	
date	05-May-07	time	5.82	9.52	13.31	17.18	21.17	25.26	29.45	33.85	38.44	43.23	48.73	/ 3			
reaction time		interval		3.70	3.79	3.87	3.99	4.09	4.19	4.40	4.59	4.79	5.50		11.36	12.27	13.78
		velocity	7.73	9.46	9.23	9.04	8.77	8.56	8.35	7.95	7.63	7.31	7.27	8.21	9.24	8.56	7.62
H1 lead leg		strides	13	13	13	13	13	14	14	15	15	15	125				

**FINAL - 2005 IAAF World Championships (Helsinki, FIN)**

<i>Yasunori (2006) - race pattern analysis of top Japanese 400m hurdlers</i>																	
date	09-Aug-05	time	5.79	9.38	13.08	16.92	20.82	24.87	29.01	33.35	37.94	42.68	48.10	7 / 3			
reaction time	0.189	interval		3.59	3.70	3.84	3.90	4.05	4.14	4.34	4.59	4.74	5.42		11.13	12.09	13.67
		velocity	7.77	9.75	9.46	9.11	8.97	8.64	8.45	8.06	7.63	7.38	7.38	8.32	9.43	8.68	7.68
H1 lead leg		strides	13	13	13	13	13	14	14	15	15	15	17.5	143			

**FINAL - 2005 Japanese Championships (Tokyo, JPN)**

<i>Yasunori (2006) - race pattern analysis of top Japanese 400m hurdlers</i>																	
date	04-Jun-05	time	5.83	9.53	13.40	17.34	21.43	25.58	29.87	34.39	39.04	43.83	49.27	/ 1			
reaction time		interval		3.70	3.87	3.94	4.09	4.15	4.29	4.52	4.65	4.79	5.44		11.51	12.53	13.96
		velocity	7.72	9.46	9.04	8.88	8.56	8.43	8.16	7.74	7.53	7.31	7.35	8.12	9.12	8.38	7.52
H1 lead leg		strides	13	13	13	13	13	14	14	15	15	15	125				

**FINAL - 2005 Osaka Grand Prix (Osaka, JPN)**

<i>Yasunori (2006) - race pattern analysis of top Japanese 400m hurdlers</i>																	
date	07-May-05	time	5.84	9.51	13.25	17.09	21.01	25.11	29.33	33.78	38.38	43.17	48.72	/ 4			
reaction time		interval		3.67	3.74	3.84	3.92	4.10	4.22	4.45	4.60	4.79	5.55		11.25	12.24	13.84
		velocity	7.71	9.54	9.36	9.11	8.93	8.54	8.29	7.87	7.61	7.31	7.21	8.21	9.33	8.58	7.59
H1 lead leg		strides	13	13	13	13	13	14	14	15	15	15	125				

**FINAL - 2004 Seiko Super Grand Prix (Yokohama, JPN)**

<i>Yasunori (2005) - race pattern analysis of top Japanese 400m hurdlers</i>																	
date	23-Sep-04	time	5.86	9.48	13.27	17.16	21.16	25.31	29.51	33.93	38.50	43.15	48.59	/ 1			
reaction time		interval		3.62	3.79	3.89	4.00	4.15	4.20	4.42	4.57	4.65	5.44		11.30	12.35	13.64
		velocity	7.68	9.67	9.23	9.00	8.75	8.43	8.33	7.92	7.66	7.53	7.35	8.23	9.29	8.50	7.70
H1 lead leg		strides	13	13	13	13	13	14	14	15	15	15	125				

**FINAL - 2004 Japanese National Championships (Tottori, JPN)**

<i>Yasunori (2005) - race pattern analysis of top Japanese 400m hurdlers</i>																	
date	05-Jun-04	time	5.82	9.49	13.19	17.04	21.04	25.21	29.46	33.88	38.50	43.22	48.74	/ 1			
reaction time		interval		3.67	3.70	3.85	4.00	4.17	4.25	4.42	4.62	4.72	5.52		11.22	12.42	13.76
		velocity	7.73	9.54	9.46	9.09	8.75	8.39	8.24	7.92	7.58	7.42	7.25	8.21	9.36	8.45	7.63
H1 lead leg		strides	13	13	13	13	13	14	14	15	15	15	125				

**FINAL - 2004 Osaka Grand Prix (Osaka, JPN)**

<i>Yasunori (2005) - race pattern analysis of top Japanese 400m hurdlers</i>																	
date	08-May-04	time	5.77	9.41	13.20	17.07	21.06	25.25	29.45	33.87	38.51	43.31	48.87	/ 1			
reaction time		interval		3.64	3.79	3.87	3.99	4.19	4.20	4.42	4.64	4.80	5.56		11.30	12.38	13.86

H1 lead leg	velocity	7.80	9.62	9.23	9.04	8.77	8.35	8.33	7.92	7.54	7.29	7.19	8.18	9.29	8.48	7.58	
	strides		13	13	13	13	14	14	15	15	15	15	125				
<b>FINAL - 2001 IAAF World Championships (Edmonton, CAN)</b>							<i>Kota (2016) - 69th high school championships: JAF scientific committee- biomechanics data</i>										
date	10-Aug-01	time	5.85	9.50	13.22	17.04	20.94	24.94	29.09	33.42	37.89	42.56	47.89	3 / 3			
reaction time	0.222	interval	3.65	3.72	3.82	3.90	4.00	4.15	4.33	4.47	4.67	5.33	NR / PB	11.19	12.05	13.47	
		velocity	7.69	9.59	9.41	9.16	8.97	8.75	8.43	8.08	7.83	7.49	7.50	8.35	9.38	8.71	7.80
H1 lead leg	L	strides	20	13	13	13	13	14	14	15	15	15	19	164			
<b>Heat 8 - 2000 Olympic Games (Sydney, AUS)</b>							<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>										
date	24-Sep-00	time	5.78	9.38	13.14	16.98	20.98	25.18	29.66	34.30	fell down		61.81	1 / 8			
reaction time	0.256	interval	3.60	3.76	3.84	4.00	4.20	4.48	4.64					11.20	12.68		
		velocity	7.79	9.72	9.31	9.11	8.75	8.33	7.81	7.54			6.47	9.38	8.28		
H1 lead leg		strides	13	13	13	13	13	14	14	15	17		112				
<b>FINAL - 1996 ??? (Hiroshima, JPN)</b>							<i>Kishima (2022) - national high school championships biomechanics data collection</i>										
date	14-Aug-96	time	6.18	9.92	13.76	17.63	21.63	25.87	30.14	34.71	39.31	43.95	49.09	/ 1			
reaction time		interval	3.74	3.84	3.87	4.00	4.24	4.27	4.57	4.60	4.64	5.14	PB	11.45	12.51	13.81	
		velocity	7.28	9.36	9.11	9.04	8.75	8.25	8.20	7.66	7.61	7.54	7.78	8.15	9.17	8.39	7.60
H1 lead leg		strides	13	13	13	13	13	14	14	15	15	15	125				
<b>Tan Chunhua (CHN) (1977)</b>																	
<b>FINAL - 2001 Chinese National Games (Guangzhou, CHN)</b>																	
<i>Gong (2003) - discussion on technique of gold and silver medallist of men's 400m hurdles of the 9th National Games</i>																	
date	22-Nov-01	time	6.08	10.05	14.10	18.16	22.27	26.52	30.89	35.36	39.86	44.50	49.85	/ 1			
reaction time		interval	3.97	4.05	4.06	4.11	4.25	4.37	4.47	4.50	4.64	5.35		12.08	12.73	13.61	
		velocity	7.40	8.82	8.64	8.62	8.52	8.24	8.01	7.83	7.78	7.54	7.48	8.02	8.69	8.25	7.71
H1 lead leg		strides	14	14	14	14	14	14	14	14	15	15	19	147			
<b>Tanabe, Jo (JPN) (1999)</b>																	
<b>FINAL - 2017 Japanese National High School Championships (Yamagata, JPN)</b>																	
<i>Kota (2017) - 70th high school championships: JAF scientific committee - biomechanics data collection</i>																	
date	31-Jul-17	time	6.41	10.43	14.53	18.75	23.14	27.64	32.25	37.05	41.89	46.88	52.41	8 / 3			
reaction time	0.187	interval	4.02	4.10	4.22	4.39	4.50	4.61	4.80	4.84	4.99	5.53		12.34	13.50	14.63	
		velocity	7.02	8.71	8.54	8.29	7.97	7.78	7.59	7.29	7.23	7.01	7.23	7.63	8.51	7.78	7.18
H1 lead leg		strides	15	14	15	14	15	15	15	15	15	15	133				
<b>Tanabe, Shotaro (JPN) (1994)</b>																	
<b>FINAL - 2016 Kinan Memorial (Osaka, JPN)</b>																	
<i>(2016.05.24) - https://twitter.com/touchdown_time/media?lang=en&amp;lang=en&amp;lang=en&amp;lang=en</i>																	
date	08-May-16	time	5.99	9.78	13.71	17.68	21.75	25.97	30.42	34.97	39.61	44.39	49.64	8 / 1			
reaction time		interval	3.79	3.93	3.97	4.07	4.22	4.45	4.55	4.64	4.78	5.25	PB	11.69	12.74	13.97	
		velocity	7.51	9.23	8.91	8.82	8.60	8.29	7.87	7.69	7.54	7.32	7.62	8.06	8.98	8.24	7.52
H1 lead leg		strides															
<b>Tanaka, Rui (JPN) (2000)</b>																	
<b>FINAL - 2018 Shimane High School Championships (Izumo, JPN)</b>																	
<i>Shimizu (2018) - shimane high school championships 2018 - biomechanics data analysis</i>																	
date	26-May-18	time	6.47	10.65	14.90	19.23	23.72	28.30	33.00	37.92	42.95	48.02	53.66	4 / 1			
reaction time		interval	4.18	4.25	4.33	4.49	4.58	4.70	4.92	5.03	5.07	5.64		12.76	13.77	15.02	
		velocity	6.96	8.37	8.24	8.08	7.80	7.64	7.45	7.11	6.96	6.90	7.09	7.45	8.23	7.63	6.99
H1 lead leg		strides	22	15	15	15	15	15	15	17	17	17	19	182			
<b>Tanaka, Tenjiro (JPN) (2001)</b>																	
<b>B FINAL - 2020 Japanese U20 National Championships (Hiroshima, JPN)</b>																	
<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>																	
date	25-Oct-20	time	6.47	10.66	14.83	19.19	23.61	28.06	32.68	37.50	42.51	47.60	53.43	6 / 2			
reaction time	0.199	interval	4.19	4.17	4.36	4.42	4.45	4.62	4.82	5.01	5.09	5.83		12.72	13.49	14.92	
		velocity	6.96	8.35	8.39	8.03	7.92	7.87	7.58	7.26	6.99	6.88	6.86	7.49	8.25	7.78	7.04
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	19.5	171.5			
<b>Tashiro, Masahito (JPN) (1997)</b>																	
<b>FINAL - 2015 Japanese National High School Championships (Wakayama, JPN)</b>																	
<i>Enomoto (2015) - 68th high school championships: JAF scientific committee- biomechanics data</i>																	
date	31-Jul-15	time	6.12	10.01	14.03	18.13	22.37	26.74	31.21	35.85	40.76	46.15	51.92	8 / 5			
reaction time		interval	3.89	4.02	4.10	4.24	4.37	4.47	4.64	4.91	5.39	5.77		12.01	13.08	14.94	
		velocity	7.35	9.00	8.71	8.54	8.25	8.01	7.83	7.54	7.13	6.49	6.93	7.70	8.74	8.03	7.03
H1 lead leg		strides	14	15	15	15	15	15	15	15	15	17	136				
<b>Tateno, Tetsuya (JPN) (1991)</b>																	
<b>FINAL - 2014 Japanese National Championships (Fukushima, JPN)</b>																	
<i>Yasunori (2014) - race pattern analysis of Japanese top 400m hurdlers for major domestic competitions</i>																	
date	08-Jun-14	time	6.04	9.81	13.63	17.55	21.59	25.79	30.23	34.77	39.57	44.47	49.98	6 / 4			
reaction time		interval	3.77	3.82	3.92	4.04	4.20	4.44	4.54	4.80	4.90	5.51		11.51	12.68	14.24	
		velocity	7.45	9.28	9.16	8.93	8.66	8.33	7.88	7.71	7.29	7.14	7.26	8.00	9.12	8.28	7.37
H1 lead leg	R	strides	22	14	14	14	14	15	15	15	16	16	19.2	174			
<b>FINAL - 2012 Japanese National Championships (Osaka, JPN)</b>																	
<i>Yasunori (2013) - race pattern analysis for the top Japanese 400m hurdlers in major domestic competitions</i>																	
date	09-Jun-12	time	6.12	9.96	13.81	17.80	21.85	26.09	30.43	34.83	39.48	44.20	49.49	7 / 3			
reaction time		interval	3.84	3.85	3.99	4.05	4.24	4.34	4.40	4.65	4.72	5.29	=PB	11.68	12.63	13.77	
		velocity	7.35	9.11	9.09	8.77	8.64	8.25	8.06	7.95	7.53	7.42	7.56	8.08	8.99	8.31	7.63
H1 lead leg	R	strides	22	14	14	14	14	15	15	15	16	16	19.5	175			
<b>B FINAL - 2012 Shizuoka International Athletics Meeting (Fukuroi, JPN)</b>																	
<i>Yasunori (2013) - race pattern analysis for the top Japanese 400m hurdlers in major domestic competitions</i>																	





H1 lead leg strides 20 13 13 13 13 13 13 13 13 13 13 137

**Teles, Marcio (BRA) (1994)**

**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**  
**Heat 3 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)** *Henson (2024) - Athlete First: 2021 year end hurdle report*

date 30-Jul-21 time 6.17 9.93 13.90 18.03 22.18 26.50 30.76 35.20 39.67 44.26 49.70 6 / 6  
reaction time 0.154 interval 3.76 3.97 4.13 4.15 4.32 4.26 4.44 4.47 4.59 5.44 11.86 12.73 13.50  
velocity 7.29 9.31 8.82 8.47 8.43 8.10 8.22 7.88 7.83 7.63 7.35 8.05 8.85 8.25 7.78

H1 lead leg L strides 21 13 14 14 14 14 14 15 15 15 18 167

**FINAL - 2020 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)***Henson (2020) - Athlete First: 2020 year end hurdle report*

date 17-Sep-20 time 6.04 9.91 13.81 17.75 21.95 23.8 30.73 35.27 40.00 44.95 51.04 8 / 9  
reaction time 0.150 interval 3.87 3.90 3.94 4.20 8.78 4.54 4.73 4.95 6.09 11.71 12.98 14.22  
velocity 7.45 9.04 8.97 8.88 8.33 8.40 7.97 7.71 7.40 7.07 6.57 7.84 8.97 8.09 7.38

H1 lead leg L strides 23 14 14 14 14 15 15 15 18.5 142.5

**Tesarik, Štěpán (CZE) (1978)**

**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**  
**FINAL - 2002 European Championships (Munich, GER)** *Graubner (2009) - <http://www.fgs.uni-halle.de>*

date 09-Aug-02 time 6.20 10.02 13.84 17.74 21.70 25.80 30.08 34.58 39.14 43.87 49.41 / 6  
reaction time 0.175 interval 3.82 3.82 3.90 3.96 4.10 4.28 4.50 4.56 4.73 5.54 11.54 12.34 13.79  
velocity 7.26 9.16 9.16 8.97 8.84 8.54 8.18 7.78 7.68 7.40 7.22 8.10 9.10 8.51 7.61

H1 lead leg strides

**Thid, David (SWE) (2003)**

**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**  
**Semi-Final 3 - 2024 European Athletics Championships (Roma, ITA)** *European Athletics (2024) - 2024 european athletics championships - results book*

date 10-Jun-24 time 5.86 9.63 13.63 17.66 21.73 25.91 30.19 34.65 39.31 43.91 49.52 2 / 8  
reaction time 0.150 interval 3.77 4.00 4.03 4.07 4.18 4.28 4.46 4.66 4.60 5.61 PB 11.80 12.53 13.72  
velocity 7.68 9.28 8.75 8.68 8.60 8.37 8.18 7.85 7.51 7.61 7.13 8.08 8.90 8.38 7.65

H1 lead leg L strides 21 13 14 14 14 14 14 15 15 19 153

**Heat 3 - 2024 European Athletics Championships (Roma, ITA)***European Athletics (2024) - 2024 european athletics championships - results book*

date 09-Jun-24 time 5.87 9.68 13.79 17.95 22.12 26.43 30.82 35.29 39.97 44.57 49.81 7 / 2  
reaction time 0.198 interval 3.81 4.11 4.16 4.17 4.31 4.39 4.47 4.68 4.60 5.24 PB 12.08 12.87 13.75  
velocity 7.67 9.19 8.52 8.41 8.39 8.12 7.97 7.83 7.48 7.61 7.63 8.03 8.69 8.16 7.64

H1 lead leg strides 0

**Thomas, Eric (USA) (1973)**

**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**  
**FINAL - 2003 USATF National Championships (Palo Alto, CA)** *USATF Women's Sprint Development (2003)*

date 22-Jun-03 time 6.01 9.83 13.66 17.53 21.54 25.66 29.93 34.28 38.76 43.33 48.76 5 / 4  
reaction time interval 3.82 3.83 3.87 4.01 4.12 4.27 4.35 4.48 4.57 5.43 DV 11.52 12.40 13.40  
velocity 7.49 9.16 9.14 9.04 8.73 8.50 8.20 8.05 7.81 7.66 7.37 8.20 9.11 8.47 7.84

H1 lead leg strides

**Semi-Final 1 - 2000 Olympic Games (Sydney, AUS)***Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games*

date 25-Sep-00 time 6.02 9.86 13.74 17.62 21.58 23.14 25.66 30.04 34.42 39.02 43.74 49.25 2 / 5  
reaction time 0.188 interval 3.84 3.88 3.88 3.96 4.08 4.38 4.38 4.60 4.72 5.51 11.60 12.42 13.70  
velocity 7.48 9.11 9.02 9.02 8.84 8.64 8.58 7.99 7.99 7.61 7.42 7.26 8.12 9.05 8.45 7.66

H1 lead leg strides 21 13 13 13 13 13 14 14 15 17.8 161.8

**Heat 4 - 2000 Olympic Games (Sydney, AUS)***Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games*

date 24-Sep-00 time 6.08 9.88 13.72 17.64 21.60 25.72 30.20 34.76 39.64 44.60 50.16 6 / 2  
reaction time 0.170 interval 3.80 3.84 3.92 3.96 4.12 4.48 4.56 4.88 4.96 5.56 11.56 12.56 14.40  
velocity 7.40 9.21 9.11 8.93 8.84 8.50 7.81 7.68 7.17 7.06 7.19 7.97 9.08 8.36 7.29

H1 lead leg strides 21 13 13 13 13 13 14 14 15 17.4 161.4

**FINAL - 2000 ISTAF (Berlin, GER)***Graubner (2009) - <http://www.fgs.uni-halle.de>*

date 01-Sep-00 time 6.09 9.86 13.66 17.48 21.44 25.47 29.76 34.04 38.60 43.23 48.55 / 4  
reaction time interval 3.77 3.80 3.82 3.96 4.03 4.29 4.28 4.56 4.63 5.32 11.39 12.28 13.47  
velocity 7.39 9.28 9.21 9.16 8.84 8.68 8.16 8.18 7.68 7.56 7.52 8.24 9.22 8.55 7.80

H1 lead leg strides

**FINAL - 1996 USA Olympic Trials (Atlanta, GA)***McNichols - Hurdle technique study through video analysis*

date 16-Jun-96 time 5.98 9.83 13.67 17.53 21.47 22.18 25.41 29.59 33.90 38.39 43.09 48.54 4 / 4  
reaction time interval 3.85 3.84 3.86 3.94 3.94 4.18 4.31 4.49 4.70 5.45 =PB 11.55 12.06 13.50  
velocity 7.53 9.09 9.11 9.07 8.88 9.02 8.88 8.37 8.12 7.80 7.45 7.34 8.24 9.09 8.71 7.78

H1 lead leg R strides 20 13 13 14 13 13 14 14 15 15 144

**Thompson, Kemel (JAM) (1974)**

**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**  
**FINAL - 2003 IAAF World Championships (Paris, FRA)** *Behm (2003) - Paris 2003:Le quatrache masculin - féminin*

date 29-Aug-03 time 5.8 9.5 13.4 17.3 21.4 25.4 29.6 33.9 38.4 43.0 48.51 3 / 5  
reaction time 0.168 interval 3.70 3.90 3.90 4.10 4.00 4.20 4.30 4.50 4.60 5.51 11.50 12.30 13.40  
velocity 7.76 9.46 8.97 8.97 8.54 8.75 8.33 8.14 7.78 7.61 7.26 8.25 9.13 8.54 7.84

H1 lead leg L strides 22 14 14 14 14 14 14 14 15 15 15 18 169

**Heat 7 - 2000 Olympic Games (Sydney, AUS)***Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games*

date 24-Sep-00 time 6.08 9.88 13.96 18.04 22.28 26.52 30.98 35.32 39.80 44.52 50.40 7 / 4  
reaction time 0.241 interval 3.80 4.08 4.08 4.24 4.24 4.46 4.34 4.48 4.72 5.88 11.96 12.94 13.54  
velocity 7.40 9.21 8.58 8.58 8.25 8.25 7.85 8.06 7.81 7.42 6.80 7.94 8.78 8.11 7.75

H1 lead leg strides 22 14 14 14 14 14 14 14 15 15 16 152

**Semi-Final 1 - 1999 IAAF World Championships (Sevilla, ESP)**

Sanchez (1999) - Sevilla '99: análisis de la carreras con villas

date 25-Aug-99 time 5.62 9.40 13.27 17.19 21.30 25.44 29.68 33.99 38.36 42.99 48.95 5 / 4

reaction time 0.153 interval 3.78 3.87 3.92 4.11 4.14 4.24 4.31 4.37 4.63 5.96 11.57 12.49 13.31

velocity 8.01 9.26 9.04 8.93 8.52 8.45 8.25 8.12 8.01 7.56 6.71 8.17 9.08 8.41 7.89

H1 lead leg L strides 22 14 14 14 14 14 15 15 15 15 19.5 171.5

**Tille, Fritz (FRG) (1951)**

**FINAL - 1975 West German National Championships (Gelsenkirchen, FRG)**

date 28-Jun-75 time 6.2 10.2 14.4 18.5 22.7 24.7 27.0 31.7 36.5 41.1 46.1 51.96 1 / 5

reaction time interval 4.03 4.13 4.12 4.19 4.36 4.65 4.78 4.66 5.00 5.84 12.28 13.20 14.44

velocity 7.26 8.68 8.47 8.50 8.35 8.11 8.03 7.53 7.32 7.51 7.00 6.85 7.70 8.55 7.95 7.27

H1 lead leg strides

**Tinsley, Michael (USA) (1984)**

**FINAL - 2016 London Anniversary Games (London, GBR) (TV Analysis)**

date 23-Jul-16 time 5.80 9.60 13.28 17.16 21.32 25.68 30.12 34.60 39.32 44.28 50.72 4 / 8

reaction time 0.188 interval 3.80 3.68 3.88 4.16 4.36 4.44 4.48 4.72 4.96 6.44 11.36 12.96 14.16

velocity 7.76 9.21 9.51 9.02 8.41 8.03 7.88 7.81 7.42 7.06 6.21 7.89 9.24 8.10 7.42

H1 lead leg L strides 21 13 13 13 14 14 14 14 14 15 145

**FINAL - 2016 USA Olympic Trials (Eugene, OR) (TV Analysis)**

Henson (2020) - Athlete First: 2016 year end hurdle report

date 10-Jul-16 time 5.84 9.47 13.18 16.98 20.99 25.12 29.36 33.77 38.40 43.28 48.82 6 / 3

reaction time 0.180 interval 3.63 3.71 3.80 4.01 4.13 4.24 4.41 4.63 4.88 5.54 11.14 12.38 13.92

velocity 7.71 9.64 9.43 9.21 8.73 8.47 8.25 7.94 7.56 7.17 7.22 8.19 9.43 8.48 7.54

H1 lead leg L strides 21 13 13 13 14 14 14 15 16 18.7 165.7

**FINAL - 2016 Bislett Games (Oslo, NOR) (TV Analysis)**

Henson (2021) - Athlete First: 2016 year end hurdle report

date 09-Jun-16 time 5.84 9.52 13.28 17.20 21.32 25.64 29.96 34.40 38.92 43.60 49.02 5 / 3

reaction time 0.121 interval 3.68 3.76 3.92 4.12 4.32 4.32 4.44 4.52 4.68 5.42 11.36 12.76 13.64

velocity 7.71 9.51 9.31 8.93 8.50 8.10 8.10 7.88 7.74 7.48 7.38 8.16 9.24 8.23 7.70

H1 lead leg L strides 21 13 13 13 14 14 14 15 15 18 164

**FINAL - 2016 Prefontaine Classic (Eugene, OR) (TV Analysis)**

(H8.5m short)

Henson (2020) - Athlete First: 2016 year end hurdle report

date 28-May-16 time 5.92 9.56 13.44 17.44 21.64 25.88 30.12 33.88 39.00 43.60 48.74 3 / 1

reaction time interval 3.64 3.88 4.00 4.20 4.24 4.24 3.76 5.12 4.60 5.14 11.52 12.68 13.48

velocity 7.60 9.62 9.02 8.75 8.33 8.25 8.25 7.98 7.81 7.61 7.78 8.21 9.11 8.28 7.79

H1 lead leg L strides 21 13 13 13 14 14 14 17 15 18 138

**FINAL - 2016 Shanghai Golden Grand Prix (Shanghai, CHN)**

Henson (2020) - Athlete First: 2016 year end hurdle report

date 14-May-16 time 5.84 9.52 13.28 17.20 21.24 25.48 29.88 34.36 38.92 43.52 48.90 1 / 1

reaction time 0.198 interval 3.68 3.76 3.92 4.04 4.24 4.40 4.48 4.56 4.60 5.38 11.36 12.68 13.64

velocity 7.71 9.51 9.31 8.93 8.66 8.25 7.95 7.81 7.68 7.61 7.43 8.18 9.24 8.28 7.70

H1 lead leg L strides 21 13 13 13 13 14 14 14 15 15 18.2

**FINAL - 2015 IAAF World Championships (Beijing, CHN) (TV Analysis)**

Henson (2021) - Athlete First: major championships report

date 25-Aug-15 time 5.72 9.32 13.08 16.88 20.88 25.04 29.16 33.48 38.20 43.04 50.02 5 / 8

reaction time 0.134 interval 3.60 3.76 3.80 4.00 4.16 4.12 4.32 4.72 4.84 6.98 11.16 12.28 13.88

velocity 7.87 9.72 9.31 9.21 8.75 8.41 8.50 8.10 7.42 7.23 5.73 8.00 9.41 8.55 7.56

H1 lead leg L strides 21 13 13 13 14 14 14 16 15 15 133

**FINAL - 2013 IAAF World Championships (Moscow, RUS) (TV Analysis)**

Henson (2021) - Athlete First: major championships report

date 15-Aug-13 time 5.63 9.13 12.80 16.57 20.43 24.50 28.67 33.03 37.57 42.20 47.70 3 / 2

reaction time 0.133 interval 3.50 3.67 3.77 3.86 4.07 4.17 4.36 4.54 4.63 5.50 **PB** 10.94 12.10 13.53

velocity 7.99 10.00 9.54 9.28 9.07 8.60 8.39 8.03 7.71 7.56 7.27 **PB** 8.39 9.60 8.68 7.76

H1 lead leg L strides 21 13 13 13 13 14 14 15 15 15 18.5 164.5

**FINAL - 2012 Olympic Games (London, GBR)**

Hillier (2012) - uka 2012 olympic games report: 400m hurdles

date 06-Aug-12 time 5.79 9.39 13.06 16.87 20.87 22.67 25.08 29.26 33.49 37.97 42.43 47.91 6 / 2

reaction time 0.184 interval 3.60 3.67 3.81 4.00 4.21 4.18 4.23 4.48 4.46 5.48 **PB** 11.08 12.39 13.17

velocity 7.77 9.72 9.54 9.19 8.75 8.82 8.31 8.37 8.27 7.81 7.85 7.30 8.35 9.48 8.47 7.97

H1 lead leg L strides 21 13 13 13 14 14 14 14 15 15 18 164

**Heat 4 - 2007 USATF National Championships (Indianapolis, IN)**

USATF Men's Hurdle Development (2007)

date 21-Jun-07 time 6.11 9.89 13.78 17.78 22.02 26.46 30.90 35.29 39.72 44.24 49.32 6 / 2

reaction time interval 3.78 3.89 4.00 4.24 4.44 4.44 4.39 4.43 4.52 5.08 11.67 13.12 13.34

velocity 7.36 9.26 9.00 8.75 8.25 7.88 7.88 7.97 7.90 7.74 7.87 8.11 9.00 8.00 7.87

H1 lead leg L strides 21 13 13 13 14 14 14 14 14 15 145

**FINAL - 2006 USATF National Championships (Indianapolis, IN)**

USATF Men's Hurdle Development (2006)

date 24-Jun-06 time 6.01 9.76 12.48 17.42 21.49 25.79 30.18 34.75 39.34 44.06 49.68 8 / 6

reaction time interval 3.75 2.72 4.94 4.07 4.30 4.39 4.57 4.59 4.72 5.62 11.41 12.76 13.88

velocity 7.49 9.33 12.87 7.09 8.60 8.14 7.97 7.66 7.63 7.42 7.12 8.05 9.20 8.23 7.56

H1 lead leg R strides 22 14 14 14 14 14 14 15 15 15 151

**Tokuda, Hayao (JPN)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

**FINAL - 2023 Japanese National High School Championships (Sapporo, JPN)**

										<i>Takashima (2023) - national high school sports festival - biomechanics data</i>							
date	04-Aug-23	time	6.21	10.16	14.26	18.44	22.77	27.28	31.98	36.80	41.76	46.58	51.94	5 / 5			
reaction time	0.227	interval		3.95	4.10	4.18	4.33	4.51	4.70	4.82	4.96	4.82	5.36		12.23	13.54	14.60
		velocity	7.25	8.86	8.54	8.37	8.08	7.76	7.45	7.26	7.06	7.26	7.46	7.70	8.59	7.75	7.19
H1 lead leg		strides	20	14	14	14	14	15	15	15	15	15	18	169			

**Tokutake, Rikiya (JPN) (2005)**

										<i>Takashima (2023) - national high school sports festival - biomechanics data</i>							
date	04-Aug-23	time	6.27	10.34	14.63	19.00	23.49	28.04	32.60	37.39	42.31	47.25	52.54	8 / 6			
reaction time	0.251	interval		4.07	4.29	4.37	4.49	4.55	4.56	4.79	4.92	4.94	5.29		12.73	13.60	14.65
		velocity	7.18	8.60	8.16	8.01	7.80	7.69	7.68	7.31	7.11	7.09	7.56	7.61	8.25	7.72	7.17
H1 lead leg		strides	21	15	15	15	15	15	15	15	15	15	19	175			

**Tomov, Toma (BUL) (1958)**

										<i>Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988</i>							
date	24-Sep-88	time	5.96	9.77	13.65	17.64	21.70	25.90	30.14	34.61	39.23	43.84	48.90	3 / 5			
reaction time		interval		3.81	3.88	3.99	4.06	4.20	4.24	4.47	4.62	4.61	5.06		11.68	12.50	13.70
		velocity	7.55	9.19	9.02	8.77	8.62	8.33	8.25	7.83	7.58	7.59	7.91	8.18	8.99	8.40	7.66
H1 lead leg		strides	21	14	14	14	14	14	14	15	15	15	17.8	167.8			

**Tomoyama, Ryohei (JPN) (2003)**

										<i>Shibayama (2021) - national high school and U20 national championships</i>							
date	30-Jul-21	time	6.07	10.09	14.38	18.75	23.22	27.86	32.55	37.29	42.03	46.86	52.36	3 / 3			
reaction time	0.190	interval		4.02	4.29	4.37	4.47	4.64	4.69	4.74	4.74	4.83	5.50		12.68	13.80	14.31
		velocity	7.41	8.71	8.16	8.01	7.83	7.54	7.46	7.38	7.38	7.25	7.27	7.64	8.28	7.61	7.34
H1 lead leg		strides		15	15	15	15	15	15	15	15	15	135				

**FINAL - 2021 Japanese U20 National Championships (Osaka, JPN)**

										<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>							
date	26-Jun-21	time	6.26	10.23	14.25	18.45	22.77	27.28	31.90	36.65	41.47	46.61	52.55	2 / 7			
reaction time	0.202	interval		3.97	4.02	4.20	4.32	4.51	4.62	4.75	4.82	5.14	5.94		12.19	13.45	14.71
		velocity	7.19	8.82	8.71	8.33	8.10	7.76	7.58	7.37	7.26	6.81	6.73	7.61	8.61	7.81	7.14
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	17	159				

**FINAL - 2020 Japanese High School National Championships (Hiroshima, JPN)**

										<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>							
date	25-Oct-20	time	6.17	10.31	14.46	18.70	23.01	27.54	32.45	37.72	42.93	48.15	53.99	1 / 8			
reaction time	0.155	interval		4.14	4.15	4.24	4.31	4.53	4.91	5.27	5.21	5.22	5.84		12.53	13.75	15.70
		velocity	7.29	8.45	8.43	8.25	8.12	7.73	7.13	6.64	6.72	6.70	6.85	7.41	8.38	7.64	6.69
H1 lead leg	L	strides	23	15	15	15	15	15	17	17	17	17	166				

**Touati, Mohamed Amin (TUN) (1998)**

										<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>							
date	30-Jul-21	time	6.17	10.03	13.95	17.82	21.90	26.13	30.50		40.03	44.95	50.58	2 / 6			
reaction time	0.152	interval		3.86	3.92	3.87	4.08	4.23	4.37		9.53	4.92	5.63		11.65	12.68	14.45
		velocity	7.29	9.07	8.93	9.04	8.58	8.27	8.01		7.35	7.11	7.10	7.91	9.01	8.28	7.27
H1 lead leg	L	strides	21	14	14	13	13	14	14		15	15	17.5	137.5			

**B FINAL - 2021 Doha Diamond League (Doha, QAT) (TV Analysis)**

										<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>								
date	28-May-21	time	5.93	9.73	13.60	17.67	21.77	23.7	26.13	30.60	35.17	39.77	45.67	52.11	6 / 4			
reaction time	0.155	interval		3.80	3.87	4.07	4.10	4.36	4.47	4.57	4.60	5.90	6.44		11.74	12.93	15.07	
		velocity	7.59	9.21	9.04	8.60	8.54	8.44	8.03	7.83	7.66	7.61	5.93	6.21	7.68	8.94	8.12	6.97
H1 lead leg	L	strides	21	14	13	14	14	14	14	14	14	16	18	166				

**Semi-Final 1 - 2019 IAAF World Championships (Doha, QAT)**

										<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>							
date	28-Sep-19	time	6.20	10.04	13.92	17.80	21.88	26.06	30.28	34.63	39.11	43.76	49.14	4 / 5			
reaction time	0.179	interval		3.84	3.88	3.88	4.08	4.18	4.22	4.35	4.48	4.65	5.38	PB	11.60	12.48	13.48
		velocity	7.26	9.11	9.02	9.02	8.58	8.37	8.29	8.05	7.81	7.53	7.43	8.14	9.05	8.41	7.79
H1 lead leg	R	strides	22	14	14	13	14	14	14	14	15	15	17.7	166.7			

**Toyoda, Ken (JPN) (2002)**

										<i>Paris 2024 Olympic Games - Results Book (2024)</i>							
date	05-Aug-24	time	5.89	9.78	13.81	17.85	21.98	26.39	30.95	35.68	40.64	45.86	53.62	4 / 6			
reaction time	0.136	interval		3.89	4.03	4.04	4.13	4.41	4.56	4.73	4.96	5.22	7.76		11.96	13.10	14.91
		velocity	7.64	9.00	8.68	8.66	8.47	7.94	7.68	7.40	7.06	6.70	5.15	7.46	8.78	8.02	7.04
H1 lead leg	R	strides	20	13	13	13	13	13	15	15	15	15	130				

**A FINAL - 2023 Michitaka Kinami Memorial (Osaka, JPN)**

										<i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>							
date	07-May-23	time	5.86	9.54	13.35	17.18	21.14	25.33	29.75	34.32	39.11	44.04	49.95	7 / 2			
reaction time	0.156	interval		3.68	3.81	3.83	3.96	4.19	4.42	4.57	4.79	4.93	5.91		11.32	12.57	14.29
		velocity	7.68	9.51	9.19	9.14	8.84	8.35	7.92	7.66	7.31	7.10	6.77	8.01	9.28	8.35	7.35
H1 lead leg		strides		13	13	13	13	13	13	13	13	15	15	121			

**FINAL - 2020 Japanese High School National Championships (Hiroshima, JPN)**

										<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>							
date	25-Oct-20	time	6.12	10.06	14.13	18.23	22.46	26.94	31.68	36.64	41.71	46.91	52.96	3 / 5			
reaction time	0.175	interval		3.94	4.07	4.10	4.23	4.48	4.74	4.96	5.07	5.20	6.05		12.11	13.45	15.23
		velocity	7.35	8.88	8.60	8.54	8.27	7.81	7.38	7.06	6.90	6.73	6.61	7.55	8.67	7.81	6.89
H1 lead leg	R	strides	20	13	13	13	13	14	14	15	15	15	18.7	163.7			



## Toyoda, Masaki (JPN) (1998)

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL - 2022 Japanese National Championships (Osaka, JPN)</b>													<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>				
date	11-Jun-22	time	6.14	10.06	14.08	18.23	22.46	26.64	30.88	35.25	39.77	44.48	49.85	9 / 3			
reaction time	0.211	interval		3.92	4.02	4.15	4.23	4.18	4.24	4.37	4.52	4.71	5.37		12.09	12.65	13.60
		velocity	7.33	8.93	8.71	8.43	8.27	8.37	8.25	8.01	7.74	7.43	7.45	8.02	8.68	8.30	7.72
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	18.7	168.7			
<b>FINAL - 2022 Seiko Golden Grand Prix (Tokyo, JPN)</b>													<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>				
date	08-May-22	time	6.09	10.09	14.21	18.37	22.56	26.78	31.03	35.42	39.89	44.49	49.76	4 / 4			
reaction time	0.183	interval		4.00	4.12	4.16	4.19	4.22	4.25	4.39	4.47	4.60	5.27		12.28	12.66	13.46
		velocity	7.39	8.75	8.50	8.41	8.35	8.29	8.24	7.97	7.83	7.61	7.59	8.04	8.55	8.29	7.80
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	18	168			
<b>FINAL - 2022 Michitaka Kinami Memorial (Osaka, JPN)</b>													<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>				
date	01-May-22	time	6.11	9.98	13.95	18.05	22.12	26.24	30.46	34.87	39.49	44.34	49.87	4 / 5			
reaction time	0.183	interval		3.87	3.97	4.10	4.07	4.12	4.22	4.41	4.62	4.85	5.53		11.94	12.41	13.88
		velocity	7.36	9.04	8.82	8.54	8.60	8.50	8.29	7.94	7.58	7.22	7.23	8.02	8.79	8.46	7.56
H1 lead leg		strides		14	14	14	14	14	14	15	15	15	129				
<b>FINAL - 2021 Japanese National Championships (Osaka, JPN)</b>													<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>				
date	26-Jun-21	time	6.01	9.81	13.63	17.60	21.60	25.73	29.96	34.48	39.17	44.11	49.89	4 / 5			
reaction time	0.227	interval		3.80	3.82	3.97	4.00	4.13	4.23	4.52	4.69	4.94	5.78		11.59	12.36	14.15
		velocity	7.49	9.21	9.16	8.82	8.75	8.47	8.27	7.74	7.46	7.09	6.92	8.02	9.06	8.50	7.42
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	16	19	170			
<b>B FINAL - 2021 Michitaka Kinami Memorial (Osaka, JPN)</b>													<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>				
date	01-Jun-21	time	6.14	10.09	14.13	18.28	22.49	26.76	31.01	35.42	40.02	44.69	49.94	8 / 1			
reaction time	0.214	interval		3.95	4.04	4.15	4.21	4.27	4.25	4.41	4.60	4.67	5.25		12.14	12.73	13.68
		velocity	7.33	8.86	8.66	8.43	8.31	8.20	8.24	7.94	7.61	7.49	7.62	8.01	8.65	8.25	7.68
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	18.5	168.5			
<b>FINAL - 2021 Ready Steady Tokyo (Tokyo, JPN)</b>													<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>				
date	09-May-21	time	5.92	9.74	13.66	17.75	21.82	26.03	30.31	34.67	39.14	43.69	48.87	4 / 3			
reaction time	0.158	interval		3.82	3.92	4.09	4.07	4.21	4.28	4.36	4.47	4.55	5.18	<b>PB</b>	11.83	12.56	13.38
		velocity	7.60	9.16	8.93	8.56	8.60	8.31	8.18	8.03	7.83	7.69	7.72	8.18	8.88	8.36	7.85
H1 lead leg		strides		14	14	14	14	14	14	15	15	15	18.5	147.5			
<b>FINAL - 2021 Shizuoka International Athletics Meeting (Fukuroi, JPN)</b>													<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>				
date	03-May-21	time	5.97	9.83	13.86	17.97	22.19	26.53	30.85	35.35	40.06	44.99	50.82	8 / 4			
reaction time	0.197	interval		3.86	4.03	4.11	4.22	4.34	4.32	4.50	4.71	4.93	5.83		12.00	12.88	14.14
		velocity	7.54	9.07	8.68	8.52	8.29	8.06	8.10	7.78	7.43	7.10	6.86	7.87	8.75	8.15	7.43
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	19	169			
<b>FINAL - 2020 Japanese National Championships (Niigata, JPN)</b>													<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>				
date	02-Oct-20	time	6.09	9.94	13.85	17.92	22.06	26.36	30.63	35.09	39.72	44.48	49.96	9 / 3			
reaction time	0.203	interval		3.85	3.91	4.07	4.14	4.30	4.27	4.46	4.63	4.76	5.48		11.83	12.71	13.85
		velocity	7.39	9.09	8.95	8.60	8.45	8.14	8.20	7.85	7.56	7.35	7.30	8.01	8.88	8.26	7.58
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	18.7	168.7			
<b>FINAL - 2020 All Japan Corporate Championships (Kumagaya, JPN)</b>													<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>				
date	20-Sep-20	time	6.22	10.16	14.18	18.42	22.66	26.91	31.10	35.64	40.34	45.05	50.63	7 / 3			
reaction time	0.242	interval		3.94	4.02	4.24	4.24	4.25	4.19	4.54	4.70	4.71	5.58		12.20	12.68	13.95
		velocity	7.23	8.88	8.71	8.25	8.25	8.24	8.35	7.71	7.45	7.43	7.17	7.90	8.61	8.28	7.53
H1 lead leg		strides		14	14	14	14	14	14	15	15	15	129				
<b>FINAL - 2020 World Athletics Trials (Fuji, JPN)</b>													<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>				
date	06-Sep-20	time	6.09	9.96	13.91	18.07	22.17	26.38	30.56	34.93	39.52	44.23	49.63	/ 1			
reaction time		interval		3.87	3.95	4.16	4.10	4.21	4.18	4.37	4.59	4.71	5.40		11.98	12.49	13.67
		velocity	7.39	9.04	8.86	8.41	8.54	8.31	8.37	8.01	7.63	7.43	7.41	8.06	8.76	8.41	7.68
H1 lead leg		strides		14	14	14	14	14	14	15	15	15	129				
<b>FINAL - 2020 Seiko Golden Grand Prix (Tokyo, JPN)</b>													<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>				
date	23-Aug-20	time	6.01	9.91	13.85	17.90	21.97	26.21	30.46	34.83	39.52	44.29	49.82	5 / 2			
reaction time	0.146	interval		3.90	3.94	4.05	4.07	4.24	4.25	4.37	4.69	4.77	5.53		11.89	12.56	13.83
		velocity	7.49	8.97	8.88	8.64	8.60	8.25	8.24	8.01	7.46	7.34	7.23	8.03	8.83	8.36	7.59
H1 lead leg		strides		14	14	14	14	14	14	15	15	15	129				
<b>Semi-Final 2 - 2019 IAAF World Championships (Doha, QAT)</b>													<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>				
date	28-Sep-19	time	6.00	9.80	13.60	17.57	21.70	26.03	30.44	35.05	39.84	44.69	50.30	2 / 8			
reaction time	0.207	interval		3.80	3.80	3.97	4.13	4.33	4.41	4.61	4.79	4.85	5.61		11.57	12.87	14.25
		velocity	7.50	9.21	9.21	8.82	8.47	8.08	7.94	7.59	7.31	7.22	7.13	7.95	9.08	8.16	7.37
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	18	168			
<b>FINAL - 2019 Japanese National Championships (Fukuoka, JPN)</b>													<i>Yamanaka (2019) - research on athlete performance and technique- 2019 data book</i>				
date	29-Jun-19	time	5.92	9.74	13.61	17.65	21.69	25.88	30.16	34.53	38.99	43.68	49.05	7 / 2			
reaction time	0.172	interval		3.82	3.87	4.04	4.04	4.19	4.28	4.37	4.46	4.69	5.37	<b>PB</b>	11.73	12.51	13.52
		velocity	7.60	9.16	9.04	8.66	8.66	8.35	8.18	8.01	7.85	7.46	7.45	8.15	8.95	8.39	7.77

H1 lead leg L strides 21 14 14 14 14 14 14 14 15 15 15 18.5 168.5

**FINAL - 2019 Seiko Golden Grand Prix (Osaka, JPN)***Hirokawa (2019) - research on athlete performance and technique- 2019 data book*

date 19-May-19 time 6.14 9.94 13.81 17.85 22.02 26.39 30.86 35.50 40.22 44.98 50.38 3 / 1  
 reaction time 0.349 interval 3.80 3.87 4.04 4.17 4.37 4.47 4.64 4.72 4.76 5.40 11.71 13.01 14.12  
 velocity 7.33 9.21 9.04 8.66 8.39 8.01 7.83 7.54 7.42 7.35 7.41 7.94 8.97 8.07 7.44  
 H1 lead leg L strides 21 14 14 14 14 14 14 15 15 15 18.5 168.5

**C FINAL - 2019 Shizuoka International Athletics Meeting (Fukuuroi, JPN)***Kobayashi (2019) - research on athlete performance and technique- 2019 data book*

date 03-May-19 time 5.94 9.69 13.45 17.42 21.42 25.58 29.90 34.42 39.32 44.34 49.94 3 / 1  
 reaction time interval 3.75 3.76 3.97 4.00 4.16 4.32 4.52 4.90 5.02 5.60 **PB** 11.48 12.48 14.44  
 velocity 7.58 9.33 9.31 8.82 8.75 8.41 8.10 7.74 7.14 6.97 7.14 8.01 9.15 8.41 7.27  
 H1 lead leg strides 14 14 14 14 15 15 15 16 16 19 152

**FINAL - 2015 Japanese National Junior Championships (Nagoya, JPN)***Yasunori (2015) - race pattern analysis of the top 400m hurdlers in Japan*

date 18-Oct-15 time 6.28 10.32 14.42 18.76 23.10 27.40 31.58 35.98 40.45 45.02 50.16 4 / 2  
 reaction time interval 4.04 4.10 4.34 4.34 4.30 4.18 4.40 4.47 4.57 5.14 **PB** 12.48 12.82 13.44  
 velocity 7.17 8.66 8.54 8.06 8.06 8.14 8.37 7.95 7.83 7.66 7.78 7.97 8.41 8.19 7.81  
 H1 lead leg strides 14 14 14 14 15 15 15 15 15 15 131

**FINAL - 2015 Japanese National High School Championships (Wakayama, JPN)***Enomoto (2015) - 68th high school championships: JAF scientific committee- biomechanics data*

date 31-Jul-15 time 6.12 10.04 14.01 18.15 22.32 26.74 31.30 35.82 40.52 45.28 50.85 9 / 2  
 reaction time interval 3.92 3.97 4.14 4.17 4.42 4.56 4.52 4.70 4.76 5.57 12.03 13.15 13.98  
 velocity 7.35 8.93 8.82 8.45 8.39 7.92 7.68 7.74 7.45 7.35 7.18 7.87 8.73 7.98 7.51  
 H1 lead leg strides 14 14 14 15 15 15 15 15 15 132

**Traversini, Stéphane (FRA) (1969)**

**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**

**FINAL - 1992 French National Championships (Narbonne, FRA)***Veney - split times from PJ*

date 28-Jun-92 time 6.48 10.48 14.64 18.84 23.06 27.44 31.82 36.26 40.80 45.50 50.96 / 2  
 reaction time interval 4.00 4.16 4.20 4.22 4.38 4.38 4.44 4.54 4.70 5.46 12.36 12.98 13.68  
 velocity 6.94 8.75 8.41 8.33 8.29 7.99 7.99 7.88 7.71 7.45 7.33 7.85 8.50 8.09 7.68  
 H1 lead leg strides 21 14 14 14 14 15 15 15 15 17.8 169.8

**Tsuzumi, Takuto (JPN)**

**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**

**FINAL - 2023 Shimane High School Championships (Izumo, JPN)***Shimizu (2023) - shimane high school championships 2023 - biomechanics data analysis*

date 27-May-23 time 6.75 11.10 15.57 20.15 25.00 30.22 35.52 40.95 47.10 52.97 59.04 6 / 3  
 reaction time interval 4.35 4.47 4.58 4.85 5.22 5.30 5.43 6.15 5.87 6.07 13.40 15.37 17.45  
 velocity 6.67 8.05 7.83 7.64 7.22 6.70 6.60 6.45 5.69 5.96 6.59 6.78 7.84 6.83 6.02  
 H1 lead leg strides 22 15 15 15 15 17 17 17 18 18 21.2 190.2

**Tsutsue, Kaito (JPN) (1998)**

**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**

**Heat 3 - 2024 Olympic Games (Paris, FRA)***Paris 2024 Olympic Games - Results Book (2024)*

date 05-Aug-24 time 5.83 9.61 13.39 17.25 21.32 25.61 30.06 34.79 39.74 44.73 50.50 7 / 7  
 reaction time 0.149 interval 3.78 3.78 3.86 4.07 4.29 4.45 4.73 4.95 4.99 5.77 11.42 12.81 14.67  
 velocity 7.72 9.26 9.26 9.07 8.60 8.16 7.87 7.40 7.07 7.01 6.93 7.92 9.19 8.20 7.16  
 H1 lead leg R strides 21 13 13 13 13 14 14 14 15 15 116

**FINAL - 2023 Japanese National Championships (Osaka, JPN)***Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season*

date 03-Jun-23 time 6.01 9.73 13.46 17.30 21.32 25.53 29.95 34.60 39.41 44.41 50.07 8 / 5  
 reaction time 0.189 interval 3.72 3.73 3.84 4.02 4.21 4.42 4.65 4.81 5.00 5.66 11.29 12.65 14.46  
 velocity 7.49 9.41 9.38 9.11 8.71 8.31 7.92 7.53 7.28 7.00 7.07 7.99 9.30 8.30 7.26  
 H1 lead leg R strides 21 13 13 13 13 14 14 15 15 19 165

**FINAL - 2023 Seiko Golden Grand Prix (Yokohama, JPN)***Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season*

date 21-May-23 time 6.01 9.69 13.46 17.37 21.49 25.68 29.90 34.37 39.04 43.86 49.35 9 / 4  
 reaction time 0.219 interval 3.68 3.77 3.91 4.12 4.19 4.22 4.47 4.67 4.82 5.49 **PB** 11.36 12.53 13.96  
 velocity 7.49 9.51 9.28 8.95 8.50 8.35 8.29 7.83 7.49 7.26 7.29 8.11 9.24 8.38 7.52  
 H1 lead leg R strides 21 13 13 13 14 14 14 14 15 15 18.5 164.5

**A FINAL - 2023 Michitaka Kinami Memorial (Osaka, JPN)***Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season*

date 07-May-23 time 6.02 9.86 13.71 17.68 21.82 26.03 30.38 34.73 39.36 44.14 49.54 6 / 1  
 reaction time 0.151 interval 3.84 3.85 3.97 4.14 4.21 4.35 4.35 4.63 4.78 5.40 **PB** 11.66 12.70 13.76  
 velocity 7.48 9.11 9.09 8.82 8.45 8.31 8.05 8.05 7.56 7.32 7.41 8.07 9.01 8.27 7.63  
 H1 lead leg strides 13 13 14 14 14 14 14 14 15 125

**B FINAL - 2023 Shizuoka International Meeting (Fukuuroi, JPN)***Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season*

date 03-May-23 time 6.08 9.84 13.75 17.69 21.67 25.80 30.24 34.80 39.48 44.25 49.77 1 / 4  
 reaction time 0.185 interval 3.76 3.91 3.94 3.98 4.13 4.44 4.56 4.68 4.77 5.52 11.61 12.55 14.01  
 velocity 7.40 9.31 8.95 8.88 8.79 8.47 7.88 7.68 7.48 7.34 7.25 8.04 9.04 8.37 7.49  
 H1 lead leg R strides 21 13 13 13 13 13 14 14 15 15 19 163

**FINAL - 2021 Japanese National Championships (Osaka, JPN)***Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season*

date 26-Jun-21 time 6.04 9.84 13.73 17.68 21.81 26.11 30.41 35.00 39.77 44.83 50.69 2 / 6  
 reaction time 0.195 interval 3.80 3.89 3.95 4.13 4.30 4.30 4.59 4.77 5.06 5.86 11.64 12.73 14.42  
 velocity 7.45 9.21 9.00 8.86 8.47 8.14 8.14 7.63 7.34 6.92 6.83 7.89 9.02 8.25 7.28  
 H1 lead leg R strides 23 13 13 13 14 14 14 15 15 15 19 168



**B FINAL - 2021 Denka Athletics Challenge Cup (Niigata, JPN)***Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season*

date	06-Jun-21	time	6.02	9.74	13.56	17.43	21.54	25.78	30.16	34.68	39.37	44.26	49.98	7 / 1			
reaction time		interval		3.72	3.82	3.87	4.11	4.24	4.38	4.52	4.69	4.89	5.72		11.41	12.73	14.10
		velocity	7.48	9.41	9.16	9.04	8.52	8.25	7.99	7.74	7.46	7.16	6.99	8.00	9.20	8.25	7.45
H1 lead leg	R	strides	22	13	13	13	14	14	14	15	15	15	19.7	167.7			

**Tuček, Martin (CZE) (1995)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**

<b>Heat 3 - 2024 European Athletics Championships (Roma, ITA)</b>															<i>European Athletics (2024) - 2024 european athletics championships - results book</i>		
date	09-Jun-24	time	6.09	9.96	13.92	18.00	22.14	26.45	30.91	35.47	40.34	45.34	51.27	9 / 7			
reaction time	0.216	interval		3.87	3.96	4.08	4.14	4.31	4.46	4.56	4.87	5.00	5.93		11.91	12.91	14.43
		velocity	7.39	9.04	8.84	8.58	8.45	8.12	7.85	7.68	7.19	7.00	6.75	7.80	8.82	8.13	7.28
H1 lead leg		strides											0				

**Semi-Final 2 - 2022 European Athletics Championships (Munich, GER)***European Athletics (2022) - european athletics championships race analysis*

date	18-Aug-22	time	5.98	9.97	13.94	17.90	21.98	23.81	26.24	30.68	35.29	39.93	44.81	50.32	2 / 7			
reaction time	0.204	interval		3.99	3.97	3.96	4.08	4.26	4.44	4.61	4.64	4.88	5.51		11.92	12.78	14.13	
		velocity	7.53	8.77	8.82	8.84	8.58	8.40	8.22	7.88	7.59	7.54	7.17	7.26	7.95	8.81	8.22	7.43
H1 lead leg	L	strides	22	14		14		15	15	15	15	16	19.2	145.2				

**Heat 4 - 2022 European Athletics Championships (Munich, GER)***European Athletics (2022) - european athletics championships race analysis*

date	17-Aug-22	time	6.07	9.95	13.80	17.76	21.89	23.71	26.12	30.49	35.07	39.72	44.51	50.09	3 / 4		
reaction time	0.263	interval		3.88	3.85	3.96	4.13	4.23	4.37	4.58	4.65	4.79	5.58		11.69	12.73	14.02
		velocity	7.41	9.02	9.09	8.84	8.44	8.27	8.01	7.64	7.53	7.31	7.17	7.99	8.98	8.25	7.49
H1 lead leg	L	strides	22	14		14		15	15	15	16	16	19.5	146.5			

**Tucker, Paul (GUY) (1976)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**

<b>Heat 7 - 2000 Olympic Games (Sydney, AUS)</b>															<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>		
date	24-Sep-00	time	6.00	9.80	13.76	17.76	21.88	26.04	30.48	35.04	39.92	44.22	50.92	6 / 6			
reaction time	0.354	interval		3.80	3.96	4.00	4.12	4.16	4.44	4.56	4.88				11.76	12.72	
		velocity	7.50	9.21	8.84	8.75	8.50	8.41	7.88	7.68	7.17		7.86		8.93	8.25	
H1 lead leg		strides	22	14	14	14	14	14	15	15	16		138				

**Tverdokhle, Oleg (UKR) (1969)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**

<b>FINAL - 1994 European Championships (Helsinki, FIN)</b>															<i>Behm (1995) - la tactique du 400 haies</i>		
date	10-Aug-94	time	5.9	9.6	13.4	17.3	21.2	25.3	29.3	33.6	38.0	42.6	48.06	1 / 1			
reaction time		interval		3.70	3.80	3.90	3.90	4.10	4.00	4.30	4.40	4.60	5.46	NR	11.40	12.00	13.30
		velocity	7.63	9.46	9.21	8.97	8.97	8.54	8.75	8.14	7.95	7.61	7.33	8.32	9.21	8.75	7.89
H1 lead leg		strides	20	13	13	13	13	13	13	15	15	15	143				

**Tziortzis, Stavros (GRE) (1949)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**

<b>FINAL - 1972 Olympic Games (Munich, FRG)</b>															<i>Le Masurier (1977) - die olympischen 400-m-hürdenlauf vom Mexico City, München und Montreal</i>			
date	03-Sep-72	time	6.2	9.9	13.8	17.7	21.8	23.5	26.1	30.3	34.8	39.4	44.2	49.66	8 / 6			
reaction time		interval		3.70	3.90	3.90	4.10	4.30	4.20	4.50	4.60	4.80	5.46	NR	11.50	12.60	13.90	
		velocity	7.26	9.46	8.97	8.97	8.54	8.51	8.14	8.33	7.78	7.61	7.29	7.33	8.05	9.13	8.33	7.55
H1 lead leg	R	strides	22	15	15	15	15	16	16	16	16	17	163					

**Urbaniak, Sebastian (POL) (2001)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**

<b>Heat 2 - 2022 European Athletics Championships (Munich, GER)</b>															<i>European Athletics (2022) - european athletics championships race analysis</i>			
date	17-Aug-22	time	5.81	9.58	13.48	17.45	21.45	23.23	25.57	30.05	34.70	39.61	44.55	50.69	6 / 4			
reaction time	0.202	interval		3.77	3.90	3.97	4.00	4.12	4.48	4.65	4.91	4.94	6.14		11.64	12.60	14.50	
		velocity	7.75	9.28	8.97	8.82	8.75	8.61	8.50	7.81	7.53	7.13	7.09	6.51	7.89	9.02	8.33	7.24
H1 lead leg	L	strides	21	14	14			15	15	15	15	16	19.7	129.7				

**FINAL - 2022 Silesia Kamila Skolimowska Memorial (Chorzów, POL) (TV Analysis)***Henson (2022) - Athlete First: 2022 year end hurdle report*

date	06-Aug-22	time	5.96	9.83	13.70	17.73	21.73	23.48	25.96	30.36	35.33	40.33	45.33	50.33	8 / 8		
reaction time	0.160	interval		3.87	3.87	4.03	4.00	4.23	4.40	4.40	4.60	4.77	4.88	5.70		11.77	12.63
		velocity	7.55	9.04	9.04	8.68	8.75	8.52	8.27	7.95	7.63			8.02		8.92	8.31
H1 lead leg	L	strides	21	14	14	14	14	14	14	14	14	14	14	105			

**Valentian, Jean-Pascal (FRA) (1960)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**

<b>FINAL - 1987 French National Championships (Annecy, FRA)</b>															<i>Veney - split times from PJ</i>		
date	09-Aug-87	time	6.25	10.22	14.27	18.54	22.81	26.99	31.59	36.14	40.91	45.79	51.49	1 / 5			
reaction time		interval		3.97	4.05	4.27	4.27	4.18	4.60	4.55	4.77	4.88	5.70		12.29	13.05	14.20
		velocity	7.20	8.82	8.64	8.20	8.20	8.37	7.61	7.69	7.34	7.17	7.02	7.77	8.54	8.05	7.39
H1 lead leg		strides		14	14	14	14	14	14	14	14	14	126				

**Valle, Emilio (CUB) (1967)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**

<b>FINAL - 1986 IAAF World Junor Championships (Athens, GRE)</b>															<i>Miskos (1986) - IAAF biomechanical research - Athens 1986 - hurdle races</i>		
date	18-Jul-86	time	6.06	9.96	13.87	17.92	21.86	26.50	31.12	35.64	40.22	44.92	50.02	1 / 1			
reaction time		interval		3.90	3.91	4.05	3.94	4.64	4.62	4.52	4.58	4.70	5.10	CR	11.86	13.20	13.80
		velocity	7.43	8.97	8.95	8.64	8.88	7.54	7.58	7.74	7.64	7.45	7.84	8.00	8.85	7.95	7.61
H1 lead leg		strides	21	14	14	14	14	14	15	15	15	15	18	169			

**Valliant, Ludvy (FRA) (1995)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**

<b>FINAL - 2023 Prefontaine Classic (Eugene, OR)</b>															<i>Omega Timing (2023) - diamond league race analysis</i>		
date	16-Sep-23	time	5.85	9.49	13.18	16.88	20.67	24.61	28.73	33.04	37.54	42.26	47.93	1 / 6			
reaction time	0.138	interval		3.64	3.69	3.70	3.79	3.94	4.12	4.31	4.50	4.72	5.67		11.03	11.85	13.53



H1 lead leg	R	velocity	7.69	9.62	9.49	9.46	9.23		8.88	8.50	8.12	7.78	7.42	7.05	8.35		9.52	8.86	7.76
		strides	21			13	13		13	14	14	14	14	18	134				
<b>Semi-Final 2 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>															<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>				
date	21-Aug-23	time	5.90	9.64	13.31	16.85	20.68		24.69	28.87	33.35	37.94	42.88		48.48		6 / 3		
reaction time	0.194	interval		3.74	3.67	3.54	3.83		4.01	4.18	4.48	4.59	4.94	5.60			10.95	12.02	14.01
		velocity	7.63	9.36	9.54	9.89	9.14		8.73	8.37	7.81	7.63	7.09	7.14	8.25		9.59	8.74	7.49
H1 lead leg	R	strides	21	13	13	13	13		13	14	14	14	15	18	161				
<b>Heat 1 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>															<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>				
date	20-Aug-23	time	5.83	9.60	13.23	16.80	20.63		24.60	28.80	33.23	37.76	42.60		48.27		3 / 2		
reaction time	0.182	interval		3.77	3.63	3.57	3.83		3.97	4.20	4.43	4.53	4.84	5.67			10.97	12.00	13.80
		velocity	7.72	9.28	9.64	9.80	9.14		8.82	8.33	7.90	7.73	7.23	7.05	8.29		9.57	8.75	7.61
H1 lead leg	R	strides	21	13	13	13	13		13	14	14	14	14	17.7	159.7				
<b>FINAL - 2023 Herculis Meeting International d' Athlétisme (Monaco, MON)</b>															<i>Omega Timing (2023) - diamond league race analysis</i>				
date	21-Jul-23	time	5.73	9.32	12.98	16.74	20.61		24.63	28.82	33.23	37.76	42.39		47.85		2 / 4		
reaction time	0.158	interval		3.59	3.66	3.76	3.87		4.02	4.19	4.41	4.53	4.63	5.46	<b>PB</b>		11.01	12.08	13.57
		velocity	7.85	9.75	9.56	9.31	9.04		8.71	8.35	7.94	7.73	7.56	7.33	8.36		9.54	8.69	7.74
H1 lead leg	R	strides	21	13	13	13				14	14	14	14	18	134				
<b>FINAL - 2023 Bauhaus Galan (Stockholm, SWE)</b>															<i>Omega Timing (2023) - diamond league race analysis</i>				
date	02-Jul-23	time	5.85	9.54	13.26	17.03	20.92		25.02	29.34	34.01	38.83	43.78		49.91		4 / 6		
reaction time	0.199	interval		3.69	3.72	3.77	3.89		4.10	4.32	4.67	4.82	4.95	6.13			11.18	12.31	14.44
		velocity	7.69	9.49	9.41	9.28	9.00		8.54	8.10	7.49	7.26	7.07	6.53	8.01		9.39	8.53	7.27
H1 lead leg	R	strides	21	13		13	13		13	14		14	15		116				
<b>FINAL - 2023 Bislett Games (Oslo, NOR)</b>															<i>Omega Timing (2023) - diamond league race analysis</i>				
date	15-Jun-23	time	5.69	9.23	12.88	16.65	20.57		24.66	28.94	33.43	38.09	42.89		48.59		2 / 4		
reaction time	0.155	interval		3.54	3.65	3.77	3.92		4.09	4.28	4.49	4.66	4.80	5.70			10.96	12.29	13.95
		velocity	7.91	9.89	9.59	9.28	8.93		8.56	8.18	7.80	7.51	7.29	7.02	8.23		9.58	8.54	7.53
H1 lead leg	R	strides	21			13	13		13			14	14	17.7	105.7				
<b>FINAL - 2023 Meeting de Paris (Paris, FRA)</b>															<i>Omega Timing (2023) - diamond league race analysis</i>				
date	09-Jun-23	time	5.74	9.33	12.98	16.76	20.61		24.56	28.70	33.19	37.88	42.72		48.60		2 / 4		
reaction time	0.153	interval		3.59	3.65	3.78	3.85		3.95	4.14	4.49	4.69	4.84	5.88			11.02	11.94	14.02
		velocity	7.84	9.75	9.59	9.26	9.09		8.86	8.45	7.80	7.46	7.23	6.80	8.23		9.53	8.79	7.49
H1 lead leg	R	strides	21	13	13	13	13		13	14	14	14	14	18	160				
<b>FINAL - 2022 ISTAF (Berlin, GER) (TV Analysis)</b>															<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	04-Sep-22	time	5.88				21.04		25.08	29.40	33.84	38.40	43.04		48.26		6 / 2		
reaction time	0.120	interval				15.16		4.04	4.32	4.44	4.56	4.64	5.22		<b>PB</b>				13.64
		velocity	7.65			9.23		8.66	8.10	7.88	7.68	7.54	7.66		8.29				7.70
H1 lead leg	R	strides	21					13	14	14	14	14	17		107				
<b>FINAL - 2022 European Athletics Championships (Munich, GER)</b>															<i>European Athletics (2022) - european athletics championships race analysis</i>				
date	19-Aug-22	time	5.79	9.51	13.38	17.30	21.23	22.99	25.30	29.61	34.07	38.61	43.38		48.79		5 / 4		
reaction time	0.193	interval		3.72	3.87	3.92	3.93		4.07	4.31	4.46	4.54	4.77	5.41			11.51	12.31	13.77
		velocity	7.77	9.41	9.04	8.93	8.91	8.70	8.60	8.12	7.85	7.71	7.34	7.39	8.20		9.12	8.53	7.63
H1 lead leg	R	strides	21	13	13	13	13		13	14	14	14	14	17	159				
<b>Semi-Final 2 - 2022 European Athletics Championships (Munich, GER)</b>															<i>European Athletics (2022) - european athletics championships race analysis</i>				
date	18-Aug-22	time	5.83	9.57	13.35	17.15	21.06	22.81	25.15	29.44	33.78	38.42	43.13		48.52		6 / 2		
reaction time	0.191	interval		3.74	3.78	3.80	3.91		4.09	4.29	4.34	4.64	4.71	5.39			11.32	12.29	13.69
		velocity	7.72	9.36	9.26	9.21	8.95	8.77	8.56	8.16	8.06	7.54	7.43	7.42	8.24		9.28	8.54	7.67
H1 lead leg	R	strides	21	13			13		13	14	14	14	14	17	133				
<b>FINAL - FINAL - 2022 Prefontaine Classic (Eugene, OR) (TV Analysis)</b>															<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	05-Jun-22	time	5.83	9.53	13.30	17.20	21.20	22.87	25.27	29.63	34.10	38.90	43.83		49.74		3 / 6		
reaction time	0.141	interval		3.70	3.77	3.90	4.00		4.07	4.36	4.47	4.80	4.93	5.91			11.37	12.43	14.20
		velocity	7.72	9.46	9.28	8.97	8.75	8.75	8.60	8.03	7.83	7.29	7.10	6.77	8.04		9.23	8.45	7.39
H1 lead leg	R	strides	21	13	13	13	13		13	14	14	15	15		144				
<b>Semi-Final 1 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>															<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>				
date	01-Aug-21	time	5.90	9.56	13.36	17.17	21.17		25.26	29.62		38.63	43.50		49.02		3 / 7		
reaction time	0.162	interval		3.66	3.80	3.81	4.00		4.09	4.36		9.01	4.87	5.52			11.27	12.45	13.88
		velocity	7.63	9.56	9.21	9.19	8.75		8.56	8.03		7.77	7.19	7.25	8.16		9.32	8.43	7.56
H1 lead leg	R	strides	21	13	13	13	13		13	14		14	14	17.7	145.7				
<b>Heat 1 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>															<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>				
date	30-Jul-21	time	5.83	9.53	13.40	17.30	21.40		25.57	29.90	34.40	38.98	43.78		49.23		5 / 5		
reaction time	0.152	interval		3.70	3.87	3.90	4.10		4.17	4.33	4.50	4.58	4.80	5.45			11.47	12.60	13.88
		velocity	7.72	9.46	9.04	8.97	8.54		8.39	8.08	7.78	7.64	7.29	7.34	8.13		9.15	8.33	7.56
H1 lead leg	R	strides	21	13	13	13	13		13	14	14	14	14	17	159				
<b>FINAL - 2021 Bislett Games (Oslo, NOR) (TV Analysis)</b>															<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>				
date	01-Jul-21	time	5.96	9.66	13.44	17.40	21.46		25.68		34.62				dnf		8 / --		

reaction time	0.245	interval	3.70	3.78	3.96	4.06	4.22	8.94	11.44	
		velocity	7.55	9.46	9.26	8.84	8.62	8.29	7.83	9.18
H1 lead leg	R	strides	21	13	13	13	13	13	86	

**FINAL - 2020 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)***Henson (2020) - Athlete First: 2020 year end hurdle report*

date	17-Sep-20	time	5.87	9.58	21.15	22.9	29.53	33.90	38.54	43.28	48.69	6 / 2	
reaction time	0.185	interval	3.71	11.57	8.38	4.37	4.64	4.74	5.41	13.75			
		velocity	7.67	9.43	9.08	8.73	8.35	8.01	7.54	7.38	7.39	8.22	7.64
H1 lead leg	R	strides	21	13	14	14	14	14	17.2	93.2			

**FINAL - 2020 Golden Spike (Ostrava, CZE) (TV Analysis)***Henson (2020) - Athlete First: 2020 year end hurdle report*

date	08-Sep-20	time	5.97	9.71	17.41	21.35	25.49	29.83	38.94	43.68	49.14	6 / 2			
reaction time	0.192	interval	3.74	7.70	3.94	4.14	4.34	9.11	4.74	5.46	11.44	12.42	13.85		
		velocity	7.54	9.36	9.09	8.88	8.45	8.06	7.68	7.38	7.33	8.14	9.18	8.45	7.58
H1 lead leg	R	strides	21	13	13	14	14	14	14	17.7	92.7				

**FINAL - 2020 Bauhaus Galan (Stockholm, SWE) (TV Analysis)***Henson (2020) - Athlete First: 2020 year end hurdle report*

date	23-Aug-20	time	5.86	13.58	17.68	21.90	23.7	26.14	34.86	39.36	43.92	49.18	3 / 3	
reaction time	0.169	interval	7.72	4.10	4.22	4.24	8.72	4.50	4.56	5.26	11.82			
		velocity	7.68	9.07	8.54	8.29	8.44	8.25	8.03	7.78	7.68	7.60	8.13	8.88
H1 lead leg	R	strides	21	13	13	14	14	14	14	14	17	134		

**FINAL - 2020 Herculis Meeting International d'Athletisme (Monaco, MON) (TV Analysis)***Henson (2020) - Athlete First: 2020 year end hurdle report*

date	14-Aug-20	time	5.84	9.47	13.35	17.32	21.39	25.66	30.06	34.53	39.20	43.98	49.35	6 / 4			
reaction time	0.173	interval	3.63	3.88	3.97	4.07	4.27	4.40	4.47	4.67	4.78	5.37	11.48	12.74	13.92		
		velocity	7.71	9.64	9.02	8.82	8.60	8.20	7.95	7.83	7.49	7.32	7.45	8.11	9.15	8.24	7.54
H1 lead leg	R	strides	21	13	13	13	13	14	14	14	14	14	143				

**Semi-Final 2 - 2019 IAAF World Championships (Doha, QAT)***Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships*

date	28-Sep-19	time	6.00	9.59	13.30	17.08	21.03	25.17	29.52	33.98	38.66	43.45	49.10	5 / 4			
reaction time	0.209	interval	3.59	3.71	3.78	3.95	4.14	4.35	4.46	4.68	4.79	5.65	11.08	12.44	13.93		
		velocity	7.50	9.75	9.43	9.26	8.86	8.45	8.05	7.85	7.48	7.31	7.08	8.15	9.48	8.44	7.54
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	14	14	17.7	159.7			

**FINAL - 2019 The Match - Europe v USA (Minsk, BLR) (TV Analysis)***Henson (2020) - Athlete First: 2019 year end hurdle report*

date	10-Sep-19	time	6.06	9.80	13.63	17.50	21.56	25.70	30.03	34.53	39.13	43.73	49.20	5 / 3			
reaction time	0.199	interval	3.74	3.83	3.87	4.06	4.14	4.33	4.50	4.60	4.60	5.47	11.44	12.53	13.70		
		velocity	7.43	9.36	9.14	9.04	8.62	8.45	8.08	7.78	7.61	7.61	7.31	8.13	9.18	8.38	7.66
H1 lead leg	R	strides	13	13	13	13	13	13	14	14	14	14	17.5	138.5			

**FINAL - 2019 Meeting de Paris (Paris, FRA) (TV Analysis)***Henson (2020) - Athlete First: 2019 year end hurdle report*

date	24-Aug-19	time	5.86	9.48	13.18	16.94	20.80	22.5	24.88	29.12	33.52	38.14	42.86	48.30	2 / 2			
reaction time	0.155	interval	3.62	3.70	3.76	3.86	4.08	4.24	4.40	4.62	4.72	5.44	<b>PB</b>	11.08	12.18	13.74		
		velocity	7.68	9.67	9.46	9.31	9.07	8.89	8.58	8.25	7.95	7.58	7.42	7.35	8.28	9.48	8.62	7.64
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	14	14	18	160				

**FINAL - 2019 Prefontaine Classic (Stanford, CA) (TV Analysis)***Henson (2020) - Athlete First: 2019 year end hurdle report*

date	30-Jun-19	time	5.90	9.66	13.50	17.43	21.53	25.76	30.26	34.86	39.63	44.46	50.23	2 / 8			
reaction time	0.218	interval	3.76	3.84	3.93	4.10	4.23	4.50	4.60	4.77	4.83	5.77	11.53	12.83	14.20		
		velocity	7.63	9.31	9.11	8.91	8.54	8.27	7.78	7.61	7.34	7.25	6.93	7.96	9.11	8.18	7.39
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	14	14	115				

**van Nieuwenhove, Dries (BEL) (1998)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****Semi-Final 1 - 2022 European Athletics Championships (Munich, GER)***European Athletics (2022) - european athletics championships race analysis*

date	18-Aug-22	time	5.97	9.91	13.92	18.07	22.25	24.13	26.60	31.15	35.95	40.71	45.50	51.14	1 / 8			
reaction time	0.191	interval	3.94	4.01	4.15	4.18	4.35	4.55	4.80	4.76	4.79	5.64	12.10	13.08	14.35			
		velocity	7.54	8.88	8.73	8.43	8.37	8.29	8.05	7.69	7.29	7.35	7.31	7.09	7.82	8.68	8.03	7.32
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	15	18	164			

**Heat 3 - 2022 European Athletics Championships (Munich, GER)***European Athletics (2022) - european athletics championships race analysis*

date	17-Aug-22	time	6.05	9.94	13.92	17.96	22.22	24.12	26.59	31.01	35.57	40.23	45.17	50.85	5 / 3			
reaction time	0.226	interval	3.89	3.98	4.04	4.26	4.37	4.42	4.56	4.66	4.94	5.68	11.91	13.05	14.16			
		velocity	7.44	9.00	8.79	8.66	8.22	8.29	8.01	7.92	7.68	7.51	7.09	7.04	7.87	8.82	8.05	7.42
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	15	18.5	138.5			

**van Zyl, L.J. (RSA) (1985)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2017 Weltklasse (Zürich, SUI) (TV Analysis)***Henson (2020) - Athlete First: 2017 year end hurdle report*

date	24-Aug-17	time	5.96	9.68	13.56	21.60	25.80	30.12	34.60	39.20	44.24	49.92	1 / 7	
reaction time	0.188	interval	3.72	3.88	8.04	4.20	4.32	4.48	4.60	5.04	5.68	14.12		
		velocity	7.55	9.41	9.02	8.71	8.33	8.10	7.81	7.61	6.94	7.04	8.01	7.44
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	16	19	129	

**FINAL - 2017 Athletissima (Lausanne, SUI) (TV Analysis)***Henson (2020) - Athlete First: 2017 year end hurdle report*

date	06-Jul-17	time	5.92	9.68	13.64	17.68	21.80	25.96	30.28	34.68	39.28	44.12	50.04	2 / 7			
reaction time	0.152	interval	3.76	3.96	4.04	4.12	4.16	4.32	4.40	4.60	4.84	5.92	11.76	12.60	13.84		
		velocity	7.60	9.31	8.84	8.66	8.50	8.41	8.10	7.95	7.61	7.23	6.76	7.99	8.93	8.33	7.59
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	16	16	19.2	174.2			

**FINAL - 2017 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)**

date	18-Jun-17	time	5.88	9.64	17.40	21.44	25.60	30.00	39.04	43.88	<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>					
reaction time	0.143	interval		3.76	7.76	4.04	4.16	4.40	9.04	4.84	7.54	51.42	2 / 8			
		velocity	7.65	9.31	9.02	8.66	8.41	7.95	7.74	7.23	5.31	7.78		11.52	12.60	13.88
H1 lead leg	L	strides	22	14		14	14	15		16		95		9.11	8.33	7.56

**FINAL - 2017 Bislett Games (Oslo, NOR) (TV Analysis)**

date	15-Jun-17	time	5.96	9.66	13.43	17.46	21.60	25.86	30.30	34.73	39.30	44.06	<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>					
reaction time	0.158	interval		3.70	3.77	4.03	4.14	4.26	4.44	4.43	4.57	4.76	5.83	49.89	8 / 7			
		velocity	7.55	9.46	9.28	8.68	8.45	8.22	7.88	7.90	7.66	7.35	6.86	8.02		11.50	12.84	13.76
H1 lead leg	L	strides	22	14	14	14	14	14	15	15	15	15	152		9.13	8.18	7.63	

**FINAL - 2017 Shanghai Diamond League (Shanghai, CHN) (TV Analysis)**

date	13-May-17	time	5.88	9.64	13.52	17.52	21.60	25.80	30.16	34.60	39.12	43.76	<i>Henson (2021) - Athlete First: 2017 year end hurdle report</i>					
reaction time	0.155	interval		3.76	3.88	4.00	4.08	4.20	4.36	4.44	4.52	4.64	5.59	49.35	7 / 2			
		velocity	7.65	9.31	9.02	8.75	8.58	8.33	8.03	7.88	7.74	7.54	7.16	8.11		11.64	12.64	13.60
H1 lead leg	L	strides	22	14	14	14	14	15	14	15	15	15	19	171		9.02	8.31	7.72

**FINAL - 2017 Doha Diamond League (Doha, QAT) (TV Analysis)**

date	05-May-17	time	5.96	9.83	13.70	17.80	21.96	26.16	30.53	34.90	39.43	44.06	<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>					
reaction time	0.156	interval		3.87	3.87	4.10	4.16	4.20	4.37	4.37	4.53	4.63	5.43	49.49	8 / 3			
		velocity	7.55	9.04	9.04	8.54	8.41	8.33	8.01	8.01	7.73	7.56	7.37	8.08		11.84	12.73	13.53
H1 lead leg	L	strides	22	14	14	14	14	14	15	15	15	15	18.7	170.7		8.87	8.25	7.76

**FINAL - 2017 North-West University Pukke Invitational (Sasolburg, RSA) (TV Analysis)**

date	28-Mar-17	time	6.08	10.04	13.96	18.00	22.04	26.24	30.56	35.00	39.64	44.56	<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>					
reaction time		interval		3.96	3.92	4.04	4.04	4.20	4.32	4.44	4.64	4.92	5.92	50.48	4 / 4			
		velocity	7.40	8.84	8.93	8.66	8.66	8.33	8.10	7.88	7.54	7.11	6.76	7.92		11.92	12.56	14.00
H1 lead leg	L	strides	22	14	14	14	14	14	15	15	15	15	152		8.81	8.36	7.50	

**FINAL - 2016 Weltklasse (Zürich, SUI) (TV Analysis)**

date	01-Sep-16	time	5.88	9.56	13.40	17.40	21.44	25.60	29.84	34.24	38.72	43.40	<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>					
reaction time	0.147	interval		3.68	3.84	4.00	4.04	4.16	4.24	4.40	4.48	4.68	5.40	48.80	1 / 3			
		velocity	7.65	9.51	9.11	8.75	8.66	8.41	8.25	7.95	7.81	7.48	7.41	8.20		11.52	12.44	13.56
H1 lead leg	L	strides	22	14	14	14	14	14	15	15	15	15	19	171		9.11	8.44	7.74

**FINAL - 2016 London Anniversary Games (London, GBR) (TV Analysis)**

date	23-Jul-16	time	5.88	9.60	13.36	17.28	21.36	25.60	29.92	34.28	38.76	43.40	<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>					
reaction time	0.153	interval		3.72	3.76	3.92	4.08	4.24	4.32	4.36	4.48	4.64	5.52	48.92	2 / 4			
		velocity	7.65	9.41	9.31	8.93	8.58	8.25	8.10	8.03	7.81	7.54	7.25	8.18		11.40	12.64	13.48
H1 lead leg	L	strides	22	14	14	14	14	14	15	15	15	15	19	171		9.21	8.31	7.79

**FINAL - 2016 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)**

date	16-Jun-16	time	5.93	9.77	17.63	21.77	26.07	30.33	34.70	39.37	44.23	<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>						
reaction time	0.159	interval		3.84	7.86	4.14	4.30	4.26	4.37	4.67	4.86	5.98	50.21	3 / 4				
		velocity	7.59	9.11	8.91	8.45	8.14	8.22	8.01	7.49	7.20	6.69	7.97		11.70	12.70	13.90	
H1 lead leg	L	strides	22	14		14	14	15	15	15	15	20	144		8.97	8.27	7.55	

**FINAL - 2016 Shanghai Golden Grand Prix (Shanghai, CHN)**

date	14-May-16	time	5.92	9.60	13.48	17.52	21.64	25.92	30.24	34.56	39.04	43.60	<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>					
reaction time	0.168	interval		3.68	3.88	4.04	4.12	4.28	4.32	4.32	4.48	4.56	5.53	49.13	8 / 4			
		velocity	7.60	9.51	9.02	8.66	8.50	8.18	8.10	8.10	7.81	7.68	7.23	8.14		11.60	12.72	13.36
H1 lead leg	L	strides	22	14	14	14	14	14	15	15	15	15	19	171		9.05	8.25	7.86

**FINAL - 2011 IAAF World Championships (Daegu, KOR)**

date	01-Sep-11	time	5.8	9.5	13.1	17.0	21.0	24.9	29.1	33.5	38.1	43.0	<i>Behm (2011) - Le quatrache: Démus enfin!</i>					
reaction time	0.177	interval		3.70	3.60	3.90	4.00	3.90	4.20	4.40	4.60	4.90	5.80	48.80	8 / 3			
		velocity	7.76	9.46	9.72	8.97	8.75	8.97	8.33	7.95	7.61	7.14	6.90	8.20		11.20	12.10	13.90
H1 lead leg	L	strides	21	14	14	14	14	14	15	15	16	16	20	173		9.38	8.68	7.55

**Semi-Final 1 - 2009 IAAF World Championships (Berlin, GER)**

date	16-Aug-09	time	5.96	9.70	13.46	17.34	21.36	25.54	29.92	34.30	38.70	43.34	<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>					
reaction time	0.168	interval		3.74	3.76	3.88	4.02	4.18	4.38	4.38	4.40	4.64	5.46	48.80	6 / 6			
		velocity	7.55	9.36	9.31	9.02	8.71	8.37	7.99	7.99	7.95	7.54	7.33	8.20		11.38	12.58	13.42
H1 lead leg	L	strides	22	14	14	14	14	14	15	15	15	15	19.2	171.2		9.23	8.35	7.82

**Heat 4 - 2009 IAAF World Championships (Berlin, GER)**

date	15-Aug-09	time	5.98	9.79	13.67	17.64	21.66	25.83	30.26	34.78	39.43	44.18	<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>					
reaction time	0.171	interval		3.81	3.88	3.97	4.02	4.17	4.43	4.52	4.65	4.75	5.30	49.48	3 / 2			
		velocity	7.53	9.19	9.02	8.82	8.71	8.39	7.90	7.74	7.53	7.37	7.55	8.08		11.66	12.62	13.92
H1 lead leg		strides														9.01	8.32	7.54

**FINAL - 2008 IAAF World Athletics Final (Stuttgart, GER)**

date	13-Sep-08	time	6.01	9.86	13.81	17.79	21.80	25.97	30.32	34.81	39.36	44.12	<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>					
reaction time	0.158	interval		3.85	3.95	3.98	4.01	4.17	4.35	4.49	4.55	4.76	5.83	49.95	3 / 5			
		velocity	7.49	9.09	8.86	8.79	8.73	8.39	8.05	7.80	7.69	7.35	6.86	8.01		11.78	12.53	13.80
																8.91	8.38	7.61



H1 lead leg strides

**FINAL - 2008 Olympic Games (Beijing, CHN)**

													<i>Behm (2008) - Pekin 2008: Le quatrache masculin - féminin</i>				
date	18-Aug-08	time	5.7	9.6	13.3	17.5	21.6	25.7	29.9	34.2	38.6	43.3	48.42	8 / 5	11.80	12.40	13.40
reaction time	0.253	interval		3.90	3.70	4.20	4.10	4.10	4.20	4.30	4.40	4.70	5.12				
		velocity	7.89	8.97	9.46	8.33	8.54	8.54	8.33	8.14	7.95	7.45	7.81	8.26	8.90	8.47	7.84
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	18	170			

**FINAL - 2007 IAAF World Athletics Final (Stuttgart, GER)**

													<i>Graubner (2007) - http://www.fgs.uni-halle.de</i>				
date	22-Sep-07	time	5.95	9.72	13.58	17.54	21.66	26.02	30.37	34.85	39.46	44.25	49.62	1 / 8	11.59	12.83	13.88
reaction time	0.189	interval		3.77	3.86	3.96	4.12	4.36	4.35	4.48	4.61	4.79	5.37				
		velocity	7.56	9.28	9.07	8.84	8.50	8.03	8.05	7.81	7.59	7.31	7.45	8.06	9.06	8.18	7.56
H1 lead leg		strides															

**Vanderstock, Geoff (USA) (1946)**

													<i>Dessons (1982) - traite d'athletisme - volume 1: les courses</i>					
													<i>Behm (1995) - la tactique du 400 haies</i>					
date	15-Oct-68	time	5.9	9.7	13.8	17.8	21.8	23.7	25.9	30.2	34.5	38.9	43.5	49.0	3 / 4	11.90	12.40	13.30
reaction time		interval		3.80	4.10	4.00	4.00	4.10	4.30	4.30	4.40	4.60	5.50	(49.07)				
		velocity	7.63	9.21	8.54	8.75	8.75	8.44	8.54	8.14	8.14	7.95	7.61	7.27	8.16	8.82	8.47	7.89
H1 lead leg	R	strides	21	15	15	15	15	15	15	15	15	15	15	18.7	175			

**Vasilyev, Aleksandr (URS) (1961)**

													<i>Behm (1995) - la tactique du 400 haies</i>				
date	28-Aug-86	time	5.9	9.8	13.7	17.7	21.9	26.1	30.3	34.7	39.0	43.5	48.76	1 / 2	11.80	12.60	13.20
reaction time		interval		3.90	3.90	4.00	4.20	4.20	4.20	4.40	4.30	4.50	5.26				
		velocity	7.63	8.97	8.97	8.75	8.33	8.33	8.33	7.95	8.14	7.78	7.60	8.20	8.90	8.33	7.95
H1 lead leg		strides		13	13	13	14	14	14	14	15	15	125				

**Vega, Fernando (MEX) (1998)**

													<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>				
date	28-Sep-19	time	5.93	9.78	13.64	17.62	21.62	25.80	30.20	34.68	39.35	44.25	49.96	2 / 6	11.69	12.58	14.05
reaction time	0.220	interval		3.85	3.86	3.98	4.00	4.18	4.40	4.48	4.67	4.90	5.71				
		velocity	7.59	9.09	9.07	8.79	8.75	8.37	7.95	7.81	7.49	7.14	7.01	8.01	8.98	8.35	7.47
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	19	176			

**Viarshynin, Leanid (BLR) (1977)**

													<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>				
date	24-Sep-00	time	6.08	9.92	13.84	17.80	21.80	25.96	30.28	34.92	40.28	45.64	51.84	4 / 5	11.72	12.48	15.36
reaction time	0.151	interval		3.84	3.92	3.96	4.00	4.16	4.32	4.64	5.36	5.36	6.20				
		velocity	7.40	9.11	8.93	8.84	8.75	8.41	8.10	7.54	6.53	6.53	6.45	7.72	8.96	8.41	6.84
H1 lead leg		strides	21	13	13	13	13	14	14	15	17	17	20	170			

**Vimbert, Gilies (FRA) (1966)**

													<i>Behm (1988) - 45-39</i>				
date	16-Aug-87	time	6.0	9.8	13.8	17.5	22.2	26.6	30.7	35.3	39.9	44.6	49.96	1 / 1	11.50	13.20	13.90
reaction time		interval		3.80	4.00	3.70	4.70	4.40	4.10	4.56	4.64	4.70	5.36	PB			
		velocity	7.50	9.21	8.75	9.46	7.45	7.95	8.54	7.68	7.54	7.45	7.46	8.01	9.13	7.95	7.55
H1 lead leg		strides															

**FINAL - 1987 French National Championships (Annecy, FRA)**

													<i>Veney - split times from PJ</i>				
date	09-Aug-87	time	5.98	9.83	13.76	17.88	22.18	26.46	30.70	35.26	39.87	44.61	49.98	1 / 1	11.90	12.82	13.91
reaction time		interval		3.85	3.93	4.12	4.30	4.28	4.24	4.56	4.61	4.74	5.37				
		velocity	7.53	9.09	8.91	8.50	8.14	8.18	8.25	7.68	7.59	7.38	7.45	8.00	8.82	8.19	7.55
H1 lead leg		strides	20	13	13	13	14	14	14	14	15	15	145				

**Walker, Adrian (USA) (1984)**

													<i>USATF Women's Sprint Development (2003)</i>				
date	22-Jun-03	time	6.09	9.96	13.91	17.92	22.09	26.39	31.00	35.70	40.44	45.56	51.73	4 / 2	11.83	13.08	14.56
reaction time		interval		3.87	3.95	4.01	4.17	4.30	4.61	4.70	4.74	5.12	6.17				
		velocity	7.39	9.04	8.86	8.73	8.39	8.14	7.59	7.45	7.38	6.84	6.48	7.73	8.88	8.03	7.21
H1 lead leg		strides															

**Wallenind, Niklas (SWE) (1968)**

													<i>Behm (1995) - la tactique du 400 haies</i>				
date	29-Aug-90	time	6.1	9.9	13.8	17.7	21.7	25.8	30.2	34.6	39.0	43.4	48.52	4 / 3	11.60	12.50	13.20
reaction time		interval		3.80	3.90	3.90	4.00	4.10	4.40	4.40	4.40	4.40	5.12	PB			
		velocity	7.38	9.21	8.97	8.97	8.75	8.54	7.95	7.95	7.95	7.95	7.81	8.24	9.05	8.40	7.95
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	15	18	161		

**Wällgren, Karl (SWE) (2001)**

													<i>European Athletics (2024) - 2024 european athletics championships - results book</i>				
date	09-Jun-24	time	5.96	9.93	13.96								dnf	3 / --			
reaction time	0.216	interval		3.97	4.03												
		velocity	7.55	8.82	8.68												
H1 lead leg		strides												0			

**Wang Daojun (CHN) (2000)**

H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
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**FINAL - 2024 Chinese National Championships (Quzhou, CHN)**

Shandong Athletics Sport Science (2024)

date	16-Sep-24	time	5.98	9.86	13.88	17.98	22.22		26.54	30.96	35.52	40.17	44.89		50.32		2 / 4			
reaction time	0.204	interval		3.88	4.02	4.10	4.24		4.32	4.42	4.56	4.65	4.72	5.43				12.00	12.98	13.93
		velocity	7.53	9.02	8.71	8.54	8.25		8.10	7.92	7.68	7.53	7.42	7.37	7.95			8.75	8.09	7.54
H1 lead leg	L	strides	21	14	14	14	14		15	15	15	15	15	18	170					

**FINAL - 2024 Chinese National Grand Prix Final (Rizhao, CHN)**

Shandong Athletics Sport Science (2024)

date	29-Jun-24	time	6.00	9.93	13.93	18.02	22.25		26.59	31.00	35.72	40.51	45.38		50.76		7 / 5			
reaction time	0.191	interval		3.93	4.00	4.09	4.23		4.34	4.41	4.72	4.79	4.87	5.38				12.02	12.98	14.38
		velocity	7.50	8.91	8.75	8.56	8.27		8.06	7.94	7.42	7.31	7.19	7.43	7.88			8.74	8.09	7.30
H1 lead leg	L	strides	21	14	14	14	14		14	14	15	15	15	18	168					

**Heat 2 - 2021 Chinese National Championships (Chongqing, CHN)**

CAA Hurdle Development (2021)

date	26-Jun-21	time	6.18	10.21	14.31	18.57	22.91		27.41	32.05	36.67	41.34	46.06		51.42		5 / 1			
reaction time	0.201	interval		4.03	4.10	4.26	4.34		4.50	4.64	4.62	4.67	4.72	5.36				12.39	13.48	14.01
		velocity	7.28	8.68	8.54	8.22	8.06		7.78	7.54	7.58	7.49	7.42	7.46	7.78			8.47	7.79	7.49
H1 lead leg	L	strides	21	14	14	14	14		15	15	15	15	15	18	170					

**FINAL - 2020 Chinese National Championships (Shaoying, CHN)**

CAA Hurdle Development (2020)

date	17-Sep-20	time	5.96	10.00	14.08	18.29	22.58		26.92	31.42	35.96	40.71	45.54		51.41		5 / 5			
reaction time		interval		4.04	4.08	4.21	4.29		4.34	4.50	4.54	4.75	4.83	5.87				12.33	13.13	14.12
		velocity	7.55	8.66	8.58	8.31	8.16		8.06	7.78	7.71	7.37	7.25	6.81	7.78			8.52	8.00	7.44
H1 lead leg	L	strides	21	14	14	14	14		15	15	15	15	15	18.5	170.5					

**FINAL - 2019 Chinese National Grand Prix Final (Daqing, CHN)**

CAA Hurdle Development (2019)

date	23-Aug-19	time	6.08	10.12	14.18	18.40	22.76		27.40	32.18	37.04	41.98	46.98		52.58		8 / 8			
reaction time	0.178	interval		4.04	4.06	4.22	4.36		4.64	4.78	4.86	4.94	5.00	5.60				12.32	13.78	14.80
		velocity	7.40	8.66	8.62	8.29	8.03		7.54	7.32	7.20	7.09	7.00	7.14	7.61			8.52	7.62	7.09
H1 lead leg	L	strides	21	14	14	14	14		15	15	15	15	15	18.5	170.5					

**Heat 2 - 2019 Chinese National Grand Prix Final (Daqing, CHN)**

CAA Hurdle Development (2019)

date	22-Aug-19	time	6.24	10.38	14.52	18.71	23.08		27.52	32.07	36.69	41.54	46.66		52.31		9 / 4			
reaction time	0.219	interval		4.14	4.14	4.19	4.37		4.44	4.55	4.62	4.85	5.12	5.66				12.47	13.36	14.59
		velocity	7.21	8.45	8.45	8.35	8.01		7.88	7.69	7.58	7.22	6.84	7.07	7.65			8.42	7.86	7.20
H1 lead leg	L	strides	21	14	14	14	14		15	15	15	15	15	18.5	170.5					

**U20 FINAL - 2019 Chinese National Youth Games (Taiyuan, CHN)**

CAA Hurdle Development (2019)

date	17-Aug-19	time	6.18	10.26	14.32	18.55	22.90		27.46	32.20	36.92	41.64	46.35		51.64		5 / 3			
reaction time	0.188	interval		4.08	4.06	4.23	4.35		4.56	4.74	4.72	4.72	4.71	5.29				12.37	13.65	14.15
		velocity	7.28	8.58	8.62	8.27	8.05		7.68	7.38	7.42	7.42	7.43	7.56	7.75			8.49	7.69	7.42
H1 lead leg	L	strides	21	14	14	14	14		15	15	15	15	15	18	170					

**U20 Heat 1 - 2019 Chinese National Youth Games (Taiyuan, CHN)**

CAA Hurdle Development (2019)

date	17-Aug-19	time	6.20	10.34	14.40	18.58	22.98		27.50	32.14	36.96	41.85	46.80		52.72		6 / 1			
reaction time	0.181	interval		4.14	4.06	4.18	4.40		4.52	4.64	4.82	4.89	4.95	5.92				12.38	13.56	14.66
		velocity	7.26	8.45	8.62	8.37	7.95		7.74	7.54	7.26	7.16	7.07	6.76	7.59			8.48	7.74	7.16
H1 lead leg	L	strides	21	14	14	14	14		15	15	15	15	15	18	170					

**Heat 1 - 2019 Chinese World Championship Trials (Shenyang, CHN)**

CAA Hurdle Development (2019)

date	03-Aug-19	time	6.28	10.47	14.61	18.78	23.00		27.38	31.86	36.42	42.82	50.44		58.75		5 / 5			
reaction time	0.229	interval		4.19	4.14	4.17	4.22		4.38	4.48	4.56	6.40	7.62	8.31				12.50	13.08	18.58
		velocity	7.17	8.35	8.45	8.39	8.29		7.99	7.81	7.68	5.47	4.59	4.81	6.81			8.40	8.03	5.65
H1 lead leg	L	strides	21	14	14	14	14		15	15	15	17	19	21.5	179.5					

**FINAL - 2019 Chinese National Championships (Shenyang, CHN)**

CAA Hurdle Development (2019)

date	10-Jul-19	time	6.12	10.17	14.25	18.40	22.59		26.96	31.56	36.22	40.94	45.70		51.23		2 / <del>7</del> 6			
reaction time	0.216	interval		4.05	4.08	4.15	4.19		4.37	4.60	4.66	4.72	4.76	5.53				12.28	13.16	14.14
		velocity	7.35	8.64	8.58	8.43	8.35		8.01	7.61	7.51	7.42	7.35	7.23	7.81			8.55	7.98	7.43
H1 lead leg	L	strides	22	15	15	14	14		15	15	15	15	15	18.3	173.3					

**Heat 1 - 2019 Chinese National Championships (Shenyang, CHN)**

CAA Hurdle Development (2019)

date	09-Jul-19	time	6.14	10.18	14.18	18.30	22.51		26.90	31.48	36.05	40.79	45.61		51.20		2 / 5			
reaction time	0.218	interval		4.04	4.00	4.12	4.21		4.39	4.58	4.57	4.74	4.82	5.59	<b>PB</b>			12.16	13.18	14.13
		velocity	7.33	8.66	8.75	8.50	8.31		7.97	7.64	7.66	7.38	7.26	7.16	7.81			8.63	7.97	7.43
H1 lead leg	L	strides	21	14	14	14	14		15	15	15	15	15	18.5	170.5					

**Wang Di (CHN) (2004)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****U20 FINAL - 2022 Shandong Provincial Games (Rizhao, CHN)**

Shandong Athletics Sport Science (2022)

date	03-Sep-22	time	6.41	10.48	14.63	18.90	23.31		27.76	32.17	36.66	41.31	46.15		51.75		6 / 1			
reaction time	0.195	interval		4.07	4.15	4.27	4.41		4.45	4.41	4.49	4.65	4.84	5.60				12.49	13.27	13.98
		velocity	7.02	8.60	8.43	8.20	7.94		7.87	7.94	7.80	7.53	7.23	7.14	7.73			8.41	7.91	7.51
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	16	16	20.5	180					

**Wang Gouzhong (CHN) (1995)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2021 Chinese National Championships (Chongqing, CHN)**

CAA Hurdle Development (2021)

date	26-Jun-21	time	6.25	10.35	14.56	18.87	23.30		27.78	32.35	37.04	41.84	46.87		52.51		8 / <del>6</del> 5			
reaction time	0.217	interval		4.10	4.21	4.31	4.43		4.48	4.57	4.69	4.80	5.03	5.64				12.62	13.48	14.52

H1 lead leg	L	velocity	7.20	8.54	8.31	8.12	7.90	7.81	7.66	7.46	7.29	6.96	7.09	7.62	8.32	7.79	7.23
		strides	21	15	15	15	15	15	15	15	15	15	17.5	173.5			
<b>Heat 1 - 2021 Chinese National Championships (Chongqing, CHN)</b>																	
CAA Hurdle Development (2021)																	
date	26-Jun-21	time	6.10	10.11	14.26	18.52	22.90	27.37	31.96	36.58	41.28	46.05	51.43	7 / 3			
reaction time	0.152	interval		4.01	4.15	4.26	4.38	4.47	4.59	4.62	4.70	4.77	5.38		12.42	13.44	14.09
		velocity	7.38	8.73	8.43	8.22	7.99	7.83	7.63	7.58	7.45	7.34	7.43		8.45	7.81	7.45
H1 lead leg	L	strides	21	15	15	15	15	15	15	15	15	15	18.5	174.5			
<b>FINAL - 2021 East China District Meeting (Zhaoqing, CHN)</b>																	
CAA Hurdle Development (2021)																	
date	25-Apr-21	time	5.96	9.98	14.11	18.35	22.71	27.14	31.83	36.64	41.53	46.53	52.22	2 / 4			
reaction time	0.177	interval		4.02	4.13	4.24	4.36	4.43	4.69	4.81	4.89	5.00	5.69		12.39	13.48	14.70
		velocity	7.55	8.71	8.47	8.25	8.03	7.90	7.46	7.28	7.16	7.00	7.03		8.47	7.79	7.14
H1 lead leg	L	strides	21	15	15	15	15	15	15	15	15	15	18	174			
<b>Heat 1 - 2021 East China District Meeting (Zhaoqing, CHN)</b>																	
CAA Hurdle Development (2021)																	
date	25-Apr-21	time	5.99	9.96	14.20	18.62	23.16	27.76	32.45	37.17	42.01	47.00	52.63	3 / 3			
reaction time	0.185	interval		3.97	4.24	4.42	4.54	4.60	4.69	4.72	4.84	4.99	5.63		12.63	13.83	14.55
		velocity	7.51	8.82	8.25	7.92	7.71	7.61	7.46	7.42	7.23	7.01	7.10		8.31	7.59	7.22
H1 lead leg	L	strides	21	15	15	15	15	15	15	15	15	15	18	174			
<b>FINAL - 2019 Chinese National Grand Prix 2 (Huangshi, CHN)</b>																	
CAA Hurdle Development (2019)																	
date	12-Apr-19	time	6.24	10.38	14.71	19.19	23.77	28.31	33.00	37.70	42.43	47.26	52.79	8 / 2			
reaction time	0.208	interval		4.14	4.33	4.48	4.58	4.54	4.69	4.70	4.73	4.83	5.53		12.95	13.81	14.26
		velocity	7.21	8.45	8.08	7.81	7.64	7.71	7.46	7.45	7.40	7.25	7.23		8.11	7.60	7.36
H1 lead leg	L	strides	21	15	15	15	15	15	15	15	15	15	19.5	175.5			
<b>Wang Hongwen (CHN) (2000)</b>																	
<b>Heat 3 - 2021 Chinese National Championships (Chongqing, CHN)</b>																	
CAA Hurdle Development (2021)																	
date	26-Jun-21	time	6.27	10.25	14.26	18.40	22.61	27.03	31.49	36.15	40.99	45.97	51.56	6 / 3			
reaction time	0.242	interval		3.98	4.01	4.14	4.21	4.42	4.46	4.66	4.84	4.98	5.59		12.13	13.09	14.48
		velocity	7.18	8.79	8.73	8.45	8.31	7.92	7.85	7.51	7.23	7.03	7.16		8.66	8.02	7.25
H1 lead leg	L	strides	21	14	14	14	14	14	14	14	15	15	18	168			
<b>FINAL - 2021 East China District Meeting (Zhaoqing, CHN)</b>																	
CAA Hurdle Development (2021)																	
date	25-Apr-21	time	6.29	10.37	14.50	18.76	23.18	27.70	32.46	37.25	42.15	47.10	52.41	9 / 6			
reaction time	0.202	interval		4.08	4.13	4.26	4.42	4.52	4.76	4.79	4.90	4.95	5.31		12.47	13.70	14.64
		velocity	7.15	8.58	8.47	8.22	7.92	7.74	7.35	7.31	7.14	7.07	7.53		8.42	7.66	7.17
H1 lead leg	L	strides	21	14	14	14	14	14	15	15	15	15	17.5	168.5			
<b>Heat 1 - 2021 East China District Meeting (Zhaoqing, CHN)</b>																	
CAA Hurdle Development (2021)																	
date	25-Apr-21	time	6.22	10.19	14.23	18.50	22.87	27.36	31.95	36.69	41.53	46.55	52.39	4 / 2			
reaction time	0.242	interval		3.97	4.04	4.27	4.37	4.49	4.59	4.74	4.84	5.02	5.84		12.28	13.45	14.60
		velocity	7.23	8.82	8.66	8.20	8.01	7.80	7.63	7.38	7.23	6.97	6.85		8.55	7.81	7.19
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	18	168			
<b>FINAL - 2020 Chinese National Championships (Shaoying, CHN)</b>																	
CAA Hurdle Development (2020)																	
date	17-Sep-20	time	6.08	10.08	14.08	18.25	22.54	26.96	31.42	36.00	40.75	45.58	51.15	7 / 3			
reaction time		interval		4.00	4.00	4.17	4.29	4.42	4.46	4.58	4.75	4.83	5.57		12.17	13.17	14.16
		velocity	7.40	8.75	8.75	8.39	8.16	7.92	7.85	7.64	7.37	7.25	7.18		8.63	7.97	7.42
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	18	168			
<b>FINAL - 2019 Chinese National Grand Prix Final (Daqing, CHN)</b>																	
CAA Hurdle Development (2019)																	
date	23-Aug-19	time	6.34	10.33	14.27	18.40	22.69	27.07	31.58	36.27	41.01	45.80	51.18	2 / 4			
reaction time	0.270	interval		3.99	3.94	4.13	4.29	4.38	4.51	4.69	4.74	4.79	5.38		12.06	13.18	14.22
		velocity	7.10	8.77	8.88	8.47	8.16	7.99	7.76	7.46	7.38	7.31	7.43		8.71	7.97	7.38
H1 lead leg	R	strides	21	14	14	14	14	14	15	15	15	15	18	169			
<b>Heat 2 - 2019 Chinese National Grand Prix Final (Daqing, CHN)</b>																	
CAA Hurdle Development (2019)																	
date	22-Aug-19	time	6.39	10.44	14.58	18.85	23.27	27.79	32.40	37.12	41.96	46.90	52.37	5 / 5			
reaction time	0.246	interval		4.05	4.14	4.27	4.42	4.52	4.61	4.72	4.84	4.94	5.47		12.46	13.55	14.50
		velocity	7.04	8.64	8.45	8.20	7.92	7.74	7.59	7.42	7.23	7.09	7.31		8.43	7.75	7.24
H1 lead leg	R	strides	21	14	14	14	14	14	15	15	15	15	17.5	168.5			
<b>U20 FINAL - 2019 Chinese National Youth Games (Taiyuan, CHN)</b>																	
CAA Hurdle Development (2019)																	
date	17-Aug-19	time	6.30	10.22	14.20	18.28	22.46	26.76	31.20	35.76	40.44	45.28	50.80	7 / 2			
reaction time	0.252	interval		3.92	3.98	4.08	4.18	4.30	4.44	4.56	4.68	4.84	5.52		11.98	12.92	14.08
		velocity	7.14	8.93	8.79	8.58	8.37	8.14	7.88	7.68	7.48	7.23	7.25		8.76	8.13	7.46
H1 lead leg	R	strides	21	14	14	14	14	14	15	15	15	15	17.3	168.3			
<b>U20 Heat 3 - 2019 Chinese National Youth Games (Taiyuan, CHN)</b>																	
CAA Hurdle Development (2019)																	
date	17-Aug-19	time	6.40	10.32	14.42	18.62	22.95	27.39	31.99	36.67	41.49	46.50	52.86	6 / 1			
reaction time		interval		3.92	4.10	4.20	4.33	4.44	4.60	4.68	4.82	5.01	6.36		12.22	13.37	14.51
		velocity	7.03	8.93	8.54	8.33	8.08	7.88	7.61	7.48	7.26	6.99	6.29		8.59	7.85	7.24
H1 lead leg	R	strides	21	14	14	14	14	14	15	15	15	15	18.3	169.3			
<b>FINAL - 2019 Chinese World Championship Trials (Shenyang, CHN)</b>																	
CAA Hurdle Development (2019)																	



date	03-Aug-19	time	6.27	10.22	14.21	18.27	22.42	26.82	31.36	36.00	40.74	45.63	51.31	2 / 4			
reaction time	0.217	interval		3.95	3.99	4.06	4.15	4.40	4.54	4.64	4.74	4.89	5.68	<b>PB</b>	12.00	13.09	14.27
		velocity	7.18	8.86	8.77	8.62	8.43	7.95	7.71	7.54	7.38	7.16	7.04	7.80	8.75	8.02	7.36
H1 lead leg	R	strides	21	14	14	14	14	14	15	15	15	15	18	169			

**Heat 2 - 2019 Chinese World Championship Trials (Shenyang, CHN)**

CAA Hurdle Development (2019)

date	03-Aug-19	time	6.71	11.06	15.48	19.96	24.50	29.11	33.98	38.87	43.70	48.54	53.92	6 / 4			
reaction time	0.268	interval		4.35	4.42	4.48	4.54	4.61	4.87	4.89	4.83	4.84	5.38		13.25	14.02	14.56
		velocity	6.71	8.05	7.92	7.81	7.71	7.59	7.19	7.16	7.25	7.23	7.43	7.42	7.92	7.49	7.21
H1 lead leg	R	strides	21	14	14	14	14	14	15	15	15	15	18	169			

**Heat 2 - 2019 Chinese National Championships (Shenyang, CHN)**

CAA Hurdle Development (2019)

date	09-Jul-19	time	6.47	10.41	14.43	18.55	22.76	27.09	31.78	36.50	41.36	46.33	52.00	1 / <del>5</del> 4			
reaction time	0.256	interval		3.94	4.02	4.12	4.21	4.33	4.69	4.72	4.86	4.97	5.67		12.08	13.23	14.55
		velocity	6.96	8.88	8.71	8.50	8.31	8.08	7.46	7.42	7.20	7.04	7.05	7.69	8.69	7.94	7.22
H1 lead leg	R	strides	21	14	14	14	14	14	15	15	15	15	18	169			

**Wang Qi (CHN)****U18 FINAL - 2022 Shandong Provincial Games (Rizhao, CHN) (84cm)**

Shandong Athletics Sport Science (2022)

date	03-Sep-22	time	6.63	10.86	15.15	19.64	24.43	29.65	35.21	41.20	47.05	53.31	60.58	7 / 7			
reaction time	0.276	interval		4.23	4.29	4.49	4.79	29.65	5.56	5.99	5.85	6.26	7.27		13.01	15.57	18.10
		velocity	6.79	8.27	8.16	7.80	7.31	1.18	6.29	5.84	5.98	5.59	5.50	6.60	8.07	6.74	5.80
H1 lead leg	L	strides	23	14	15	15	15	16	17	18	17	18	22	190			

**Wang Siqing (CHN) (1999)****FINAL - 2021 Chinese National Championships (Chongqing, CHN)**

CAA Hurdle Development (2021)

date	26-Jun-21	time	6.40	10.54	14.78	19.07	23.51	28.03	32.56	37.22	42.09	47.11	52.84	2 / <del>7</del> 6			
reaction time	0.214	interval		4.14	4.24	4.29	4.44	4.52	4.53	4.66	4.87	5.02	5.73		12.67	13.49	14.55
		velocity	7.03	8.45	8.25	8.16	7.88	7.74	7.73	7.51	7.19	6.97	6.98	7.57	8.29	7.78	7.22
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	16	16	19	178			

**Heat 3 - 2021 Chinese National Championships (Chongqing, CHN)**

CAA Hurdle Development (2021)

date	26-Jun-21	time	6.30	10.35	14.46	18.65	22.97	27.33	31.78	36.31	41.03	45.87	51.44	7 / 2			
reaction time	0.222	interval		4.05	4.11	4.19	4.32	4.36	4.45	4.53	4.72	4.84	5.57	<b>PB</b>	12.35	13.13	14.09
		velocity	7.14	8.64	8.52	8.35	8.10	8.03	7.87	7.73	7.42	7.23	7.18	7.78	8.50	8.00	7.45
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	16	16	19.5	178.5			

**FINAL - 2021 Philippe Cup Athletics Invitational (Wuhan, CHN)**

CAA Hurdle Development (2021)

date	20-May-21	time	6.30	10.38	14.50	18.70	23.04	27.39	31.86		41.32	46.36	51.96	3 / 4			
reaction time	0.201	interval		4.08	4.12	4.20	4.34	4.35	4.47		9.46	5.04	5.60	<b>PB</b>	12.40	13.16	14.50
		velocity	7.14	8.58	8.50	8.33	8.06	8.05	7.83		7.40	6.94	7.14	7.70	8.47	7.98	7.24
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	16	16	20	179			

**Heat 3 - 2021 East China District Meeting (Zhaoqing, CHN)**

CAA Hurdle Development (2021)

date	25-Apr-21	time	6.30	10.30	14.34	18.52	22.80	27.14	31.64	36.38	41.26	46.36	52.32	8 / 1			
reaction time	0.230	interval		4.00	4.04	4.18	4.28	4.34	4.50	4.74	4.88	5.10	5.96		12.22	13.12	14.72
		velocity	7.14	8.75	8.66	8.37	8.18	8.06	7.78	7.38	7.17	6.86	6.71	7.65	8.59	8.00	7.13
H1 lead leg	L	strides	22	15	15	15	15	15	15	16	16	16	20.5	180.5			

**FINAL - 2020 Chinese National Championships (Shaoxing, CHN)**

CAA Hurdle Development (2020)

date	17-Sep-20	time	6.25		14.67	19.04	23.50	28.12	32.79	37.75	42.50	47.50	53.38	1 / 7			
reaction time		interval			8.42	4.37	4.46	4.62	4.67	4.96	4.75	5.00	5.88		12.79	13.75	14.71
		velocity	7.20		8.31	8.01	7.85	7.58	7.49	7.06	7.37	7.00	6.80	7.49	8.21	7.64	7.14
H1 lead leg	L	strides	22			15	15	15	16	16	16	16	19	150			

**Heat 2 - 2019 Chinese National Championships (Shenyang, CHN)**

CAA Hurdle Development (2019)

date	09-Jul-19	time	6.37	10.41	14.65	18.94	23.31	27.79	32.32	36.99	41.76	46.58	52.12	4 / <del>5</del> 5			
reaction time	0.197	interval		4.04	4.24	4.29	4.37	4.48	4.53	4.67	4.77	4.82	5.54	<b>PB</b>	12.57	13.38	14.26
		velocity	7.06	8.66	8.25	8.16	8.01	7.81	7.73	7.49	7.34	7.26	7.22	7.67	8.35	7.85	7.36
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	16	19.2	177.2			

**Wang Yang (CHN) (1996)****FINAL - 2017 Chinese National Games (Tianjin, CHN)**

Wang (2020) - comparative analysis of pre-competitoin training of finalist in 400m hurdlers at 13th national games

date	04-Sep-17	time	5.90	9.85	13.81	17.96	22.16	26.56	30.99	35.44	40.01	44.64	50.00	/ 3			
reaction time		interval		3.95	3.96	4.15	4.20	4.40	4.43	4.45	4.57	4.63	5.36		12.06	13.03	13.65
		velocity	7.63	8.86	8.84	8.43	8.33	7.95	7.90	7.87	7.66	7.56	7.46	8.00	8.71	8.06	7.69
H1 lead leg		strides	21	15	15	15	15	15	15	15	15	15	156				

**Wang Yijie (CHN) (1997)****Heat 4 - 2021 Chinese National Championships (Chongqing, CHN)**

CAA Hurdle Development (2021)

date	26-Jun-21	time	6.48	11.11	15.79	20.77	25.86		36.19				59.46	6 / 6			
reaction time	0.162	interval		4.63	4.68	4.98	5.09		10.33				6.73		14.29	15.42	
		velocity	6.94	7.56	7.48	7.03	6.88		6.78				92		7.35	6.81	
H1 lead leg	L	strides	24	17	17	17	17										

**FINAL - 2019 Chinese National Grand Prix Final (Daqing, CHN)**

CAA Hurdle Development (2019)

date	23-Aug-19	time	6.12	10.05	13.95	18.03	22.27	26.64	31.16	35.70	40.35	45.11	50.70	4 / 1			
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reaction time	0.218	interval	3.93	3.90	4.08	4.24	4.37	4.52	4.54	4.65	4.76	5.59	11.91	13.13	13.95			
		velocity	7.35	8.91	8.97	8.58	8.25	8.01	7.74	7.71	7.53	7.35	7.16	7.89	8.82	8.00	7.53	
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	15	15	18.3	171.3				
<b>Heat 2 - 2019 Chinese National Grand Prix Final (Daqing, CHN)</b>																		
date	22-Aug-19	time	6.24	10.28	14.41	18.64	23.07	27.61	32.18	36.82	41.64	46.59	52.26	CAA Hurdle Development (2019)				
reaction time	0.222	interval	4.04	4.13	4.23	4.43	4.54	4.57	4.64	4.82	4.95	5.67	12.40	13.54	14.41			
		velocity	7.21	8.66	8.47	8.27	7.90	7.71	7.66	7.54	7.26	7.07	7.05	8.47	7.75	7.29		
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	15	15	18.5	171.5				
<b>Heat 1 - 2019 Chinese World Championship Trials (Shenyang, CHN)</b>																		
date	03-Aug-19	time	6.85	11.40	16.12	20.75	25.58	30.50	35.52	40.58	45.70	51.28	58.62	CAA Hurdle Development (2019)				
reaction time	0.318	interval	4.55	4.72	4.63	4.83	4.92	5.02	5.06	5.12	5.58	7.34	13.90	14.77	15.76			
		velocity	6.57	7.69	7.42	7.56	7.25	7.11	6.97	6.92	6.84	6.27	5.45	7.55	7.11	6.66		
H1 lead leg	L	strides	23	15	15	15	15	15	15	15	15	21	179					
<b>FINAL - 2019 Chinese National Championships (Shenyang, CHN)</b>																		
date	10-Jul-19	time	6.02	9.93	13.84	17.92	22.08	26.44	30.85	35.39	39.97	44.69	50.04	CAA Hurdle Development (2019)				
reaction time	0.175	interval	3.91	3.91	4.08	4.16	4.36	4.41	4.54	4.58	4.72	5.35	DQ	11.90	12.93	13.84		
		velocity	7.48	8.95	8.95	8.58	8.41	8.03	7.94	7.71	7.64	7.42	7.48	8.82	8.12	7.59		
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	15	15	17.5	170.5				
<b>Heat 1 - 2019 Chinese National Championships (Shenyang, CHN)</b>																		
date	09-Jul-19	time	6.08	10.05	13.99	18.07	22.19	26.54	30.95	35.50	40.21	45.06	50.72	CAA Hurdle Development (2019)				
reaction time	0.166	interval	3.97	3.94	4.08	4.12	4.35	4.41	4.55	4.71	4.85	5.66	PB	11.99	12.88	14.11		
		velocity	7.40	8.82	8.88	8.58	8.50	8.05	7.94	7.69	7.43	7.22	7.07	8.76	8.15	7.44		
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	15	15	18.8	171.8				
<b>FINAL - 2019 Chinese National Grand Prix 4 (Luoyang, CHN)</b>																		
date	29-May-19	time	6.20	10.14	14.18	18.35	22.68	27.14	31.66	36.22	41.04	45.86	51.60	CAA Hurdle Development (2019)				
reaction time	0.260	interval	3.94	4.04	4.17	4.33	4.46	4.52	4.56	4.82	4.82	5.74	12.15	13.31	14.20			
		velocity	7.26	8.88	8.66	8.39	8.08	7.85	7.74	7.68	7.26	6.97	7.75	8.64	7.89	7.39		
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	15	15	18.5	171.5				
<b>FINAL - 2019 Chinese National Grand Prix 1 (Zhaoqing, CHN)</b>																		
date	08-Apr-19	time	6.20	10.22	14.28	18.44	22.64	26.96	31.46	36.10	40.88	45.78	51.60	CAA Hurdle Development (2019)				
reaction time	0.280	interval	4.02	4.06	4.16	4.20	4.32	4.50	4.64	4.78	4.90	5.82	12.24	13.02	14.32			
		velocity	7.26	8.71	8.62	8.41	8.33	8.10	7.78	7.54	7.32	7.14	6.87	8.58	8.06	7.33		
H1 lead leg	L	strides	21	16	16	16	16	15	15	15	15	15	18.5	178.5				
<b>FINAL - 2017 Chinese National Games (Tianjin, CHN)</b>																		
date	04-Sep-17	time	5.96	10.11	14.36	18.64	22.94	27.44	31.91	36.49	40.90	45.36	50.73	CAA Hurdle Development (2019)				
reaction time		interval	4.15	4.25	4.28	4.30	4.50	4.47	4.58	4.41	4.46	5.37	PB	12.68	13.27	13.45		
		velocity	7.55	8.43	8.24	8.18	8.14	7.78	7.83	7.64	7.94	7.85	7.45	8.28	7.91	7.81		
H1 lead leg		strides	21	14	14	14	14	15	15	15	15	15	152					
<b>Wang Ziming (CHN) (1994)</b>																		
		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-in	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL - 2019 Chinese National Grand Prix 2 (Huangshi, CHN)</b>																		
date	12-Apr-19	time	6.37	10.51	14.75	19.09	23.66	28.48	33.44	38.54	43.81	49.30	56.18	CAA Hurdle Development (2019)				
reaction time	0.242	interval	4.14	4.24	4.34	4.57	4.82	4.96	5.10	5.27	5.49	6.88	12.72	14.35	15.86			
		velocity	7.06	8.45	8.25	8.06	7.66	7.26	7.06	6.86	6.64	6.38	5.81	8.25	7.32	6.62		
H1 lead leg	L	strides	21	16	16	16	16	15	16	16	16	16	18.7	182.7				
<b>Warholm, Karsten (NOR) (1996)</b>																		
		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-in	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL - 2024 Kamila Skolimowska Memorial (Silesia, POL)</b>																		
date	25-Aug-24	time	5.64	9.26	12.93	16.66	20.49	24.44	28.54	32.71	37.00	41.58	46.95	Omega Timing (2023) - diamond league race analysis				
reaction time	0.154	interval	3.62	3.67	3.73	3.83	3.95	4.10	4.17	4.29	4.58	5.37	11.02	11.88	13.04			
		velocity	7.98	9.67	9.54	9.38	9.14	8.86	8.54	8.39	8.16	7.64	7.45	9.53	8.84	8.05		
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	13	15	17.7	156.7				
<b>FINAL - 2024 Olympic Games (Paris, FRA)</b>																		
date	09-Aug-24	time	5.51	9.09	12.73	16.41	20.18	24.03	27.99	32.15	36.58	41.44	47.06	Paris 2024 Olympc Games - Results Book (2024)				
reaction time	0.152	interval	3.58	3.64	3.68	3.77	3.85	3.96	4.16	4.43	4.86	5.62	10.90	11.58	13.45			
		velocity	8.17	9.78	9.62	9.51	9.28	9.09	8.84	8.41	7.90	7.20	7.12	9.63	9.07	7.81		
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	13	15	18	157				
<b>Semi-Final 1 - 2024 Olympic Games (Paris, FRA)</b>																		
date	07-Aug-24	time	5.69	9.22	12.84	16.54	20.39	24.33	28.41	32.68	37.34	42.11	47.67	Paris 2024 Olympc Games - Results Book (2024)				
reaction time	0.279	interval	3.53	3.62	3.70	3.85	3.94	4.08	4.27	4.66	4.77	5.56	10.85	11.87	13.70			
		velocity	7.91	9.92	9.67	9.46	9.09	8.88	8.58	8.20	7.51	7.34	7.19	9.68	8.85	7.66		
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	15	15	17.2	158.2				
<b>Heat 2 - 2024 Olympic Games (Paris, FRA)</b>																		
date	05-Aug-24	time	5.62	9.14	12.80	16.55	20.41	24.38	28.47	32.76	37.47	42.24	47.57	Paris 2024 Olympc Games - Results Book (2024)				
reaction time	0.148	interval	3.52	3.66	3.75	3.86	3.97	4.09	4.29	4.71	4.77	5.33	10.93	11.92	13.77			
		velocity	8.01	9.94	9.56	9.33	9.07	8.82	8.56	8.16	7.43	7.34	7.50	9.61	8.81	7.63		
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	15	15	17	158				

<b>FINAL - 2024 Herculis Meeting International d'Athlétisme (Monaco, MON)</b>														<i>Omega Timing (2024) - diamond league race analysis</i>					
date	12-Jul-24	time	5.66	9.20	12.79	16.48	20.31	24.25	28.30	32.50	36.88	41.41		46.73	7 / 2				
reaction time	0.164	interval		3.54	3.59	3.69	3.83	3.94	4.05	4.20	4.38	4.53	5.32			10.82	11.82	13.11	
		velocity	7.95	9.89	9.75	9.49	9.14	8.88	8.64	8.33	7.99	7.73	7.52	8.56		9.70	8.88	8.01	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	13	15	18	157					
<b>FINAL - 2024 European Athletics Championships (Roma, ITA)</b>														<i>European Athletics (2024) - 2024 european athletics championships - results book</i>					
date	11-Jun-24	time	5.62	9.12	12.81	16.51	20.35	24.24	28.21	32.36	36.93	41.56		46.98	8 / 1				
reaction time	0.184	interval		3.50	3.69	3.70	3.84	3.89	3.97	4.15	4.57	4.63	5.42	CR		10.89	11.70	13.35	
		velocity	8.01	10.00	9.49	9.46	9.11	9.00	8.82	8.43	7.66	7.56	7.38	8.51		9.64	8.97	7.87	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	14	14	18	157					
<b>Semi-Final 1 - 2024 European Athletics Championships (Roma, ITA)</b>														<i>European Athletics (2024) - 2024 european athletics championships - results book</i>					
date	10-Jun-24	time	5.65	9.20	12.96	16.75	20.71	24.83	28.99	33.27	37.97	42.74		48.75	8 / 1				
reaction time	0.185	interval		3.55	3.76	3.79	3.96	4.12	4.16	4.28	4.70	4.77	6.01			11.10	12.24	13.75	
		velocity	7.96	9.86	9.31	9.23	8.84	8.50	8.41	8.18	7.45	7.34	6.66	8.21		9.46	8.58	7.64	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	14	14	17	156					
<b>FINAL - 2024 Bislett Games (Oslo, NOR) (TV Analysis)</b>														<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>					
date	30-May-24	time	5.70	9.21	12.81	16.45	20.22	24.19	28.19	32.40	36.83	41.37		46.70	7 / 2				
reaction time	0.157	interval		3.51	3.60	3.64	3.77	3.97	4.00	4.21	4.43	4.54	5.33			10.75	11.74	13.18	
		velocity	7.89	9.97	9.72	9.62	9.28	8.82	8.75	8.31	7.90	7.71	7.50	8.57		9.77	8.94	7.97	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	14	14	18	157					
<b>FINAL - 2024 Trond Mohn Games (Bergen, NOR) (300m Hurdles) (TV Analysis)</b>														<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>					
date	22-May-24	time	6.21	9.61	13.20	16.83	20.60	24.53	28.56					33.28	7 / 1				
reaction time		interval		3.40	3.59	3.63	3.77	3.93	4.03				4.72			10.62	11.73		
		velocity	7.25	10.29	9.75	9.64	9.28	8.91	8.68				8.47	9.01		9.89	8.95		
H1 lead leg	L	strides	22	13	13	13	13	13	13				17	117					
<b>FINAL - 2023 Prefontaine Classic (Eugene, OR)</b>														<i>Omega Timing (2023) - diamond league race analysis</i>					
date	16-Sep-23	time	5.59	9.17	12.80	16.46	20.22	24.10	28.12	32.37	36.62	41.18		46.53	7 / 2				
reaction time	0.135	interval		3.58	3.63	3.66	3.76	3.88	4.02	4.25	4.25	4.56	5.35			10.87	11.66	13.06	
		velocity	8.05	9.78	9.64	9.56	9.31	9.02	8.71	8.24	8.24	7.68	7.48	8.60		9.66	9.01	8.04	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	13	15	18	157					
<b>FINAL - 2023 Weltklasse (Zürich, SUI)</b>														<i>Omega Timing (2023) - diamond league race analysis</i>					
date	31-Aug-23	time	5.63	9.23	12.94	16.69	20.55	24.50	28.55	32.78	37.30	41.91		47.30	7 / 2				
reaction time	0.169	interval		3.60	3.71	3.75	3.86	3.95	4.05	4.23	4.52	4.61	5.39			11.06	11.86	13.36	
		velocity	7.99	9.72	9.43	9.33	9.07	8.86	8.64	8.27	7.74	7.59	7.42	8.46		9.49	8.85	7.86	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	15	15	18	159					
<b>FINAL - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>														<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>					
date	23-Aug-23	time	5.81	9.46	12.90	16.52	20.29	24.25	28.29	32.50	36.93	41.61		46.89	7 / 1				
reaction time	0.171	interval		3.65	3.44	3.62	3.77	3.96	4.04	4.21	4.43	4.68	5.28			10.71	11.77	13.32	
		velocity	7.75	9.59	10.17	9.67	9.28	8.84	8.66	8.31	7.90	7.48	7.58	8.53		9.80	8.92	7.88	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	13	15	18	157					
<b>Semi-Final 3 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>														<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>					
date	21-Aug-23	time	5.77	9.44	13.08	16.61	20.42	24.36	28.42	32.63	37.25	41.97		47.09	5 / 1				
reaction time	0.162	interval		3.67	3.64	3.53	3.81	3.94	4.06	4.21	4.62	4.72	5.12			10.84	11.81	13.55	
		velocity	7.80	9.54	9.62	9.92	9.19	8.88	8.62	8.31	7.58	7.42	7.81	8.49		9.69	8.89	7.75	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	15	15	17	158					
<b>Heat 3 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>														<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>					
date	20-Aug-23	time	5.86	9.66	13.40	17.20	20.93	24.93	29.13	33.44	38.20	43.13		48.76	3 / 2				
reaction time	0.166	interval		3.80	3.74	3.80	3.73	4.00	4.20	4.31	4.76	4.93	5.63			11.34	11.93	14.00	
		velocity	7.68	9.21	9.36	9.21	9.38	8.75	8.33	8.12	7.35	7.10	7.10	8.20		9.26	8.80	7.50	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	15	15	17	158					
<b>FINAL - 2023 Herculis Meeting International d'Athlétisme (Monaco, MON)</b>														<i>Omega Timing (2023) - diamond league race analysis</i>					
date	21-Jul-23	time	5.55	9.05	12.62	16.26	20.02	23.95	28.03	32.24	36.65	41.21		46.51	7 / 1				
reaction time	0.146	interval		3.50	3.57	3.64	3.76	3.93	4.08	4.21	4.41	4.56	5.30			10.71	11.77	13.18	
		velocity	8.11	10.00	9.80	9.62	9.31	8.91	8.58	8.31	7.94	7.68	7.55	8.60		9.80	8.92	7.97	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	13	15	17.7	156.7					
<b>FINAL - 2023 Bauhaus Galan (Stockholm, SWE)</b>														<i>Omega Timing (2023) - diamond league race analysis</i>					
date	02-Jul-23	time	5.61	9.17	12.77	16.43	20.24	24.22	28.33	32.70	37.28	42.02		47.57	8 / 1				
reaction time	0.156	interval		3.56	3.60	3.66	3.81	3.98	4.11	4.37	4.58	4.74	5.55			10.82	11.90	13.69	
		velocity	8.02	9.83	9.72	9.56	9.19	8.79	8.52	8.01	7.64	7.38	7.21	8.41		9.70	8.82	7.67	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	13	15	17.7	156.7					
<b>FINAL - 2023 Bislett Games (Oslo, NOR)</b>														<i>Omega Timing (2023) - diamond league race analysis</i>					
date	15-Jun-23	time	5.59	9.16	12.76	16.41	20.17	24.05	28.07	32.27	36.63	41.20		46.52	7 / 1				
reaction time	0.162	interval		3.57	3.60	3.65	3.76	3.88	4.02	4.20	4.36	4.57	5.32			10.82	11.66	13.13	
		velocity	8.05	9.80	9.72	9.59	9.31	9.02	8.71	8.33	8.03	7.66	7.52	8.60		9.70	9.01	8.00	



H1 lead leg	L	strides	20	13	13	13	13	13	13	13	13	13	15	17.7	156.7				
<b>FINAL - 2022 ISTAF (Berlin, GER) (TV Analysis)</b>																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>			
date	04-Sep-22	time	5.76	9.28	12.88	16.60	20.36		24.32	28.48	32.76	37.24	41.96		47.24	7 / 1			
reaction time	0.139	interval		3.52	3.60	3.72	3.76		3.96	4.16	4.28	4.48	4.72	5.28			10.84	11.88	13.48
		velocity	7.81	9.94	9.72	9.41	9.31		8.84	8.41	8.18	7.81	7.42	7.58	8.47		9.69	8.84	7.79
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	13	15	18	157				
<b>FINAL - 2022 European Athletics Championships (Munich, GER)</b>																<i>European Athletics (2022) - european athletics championships race analysis</i>			
date	19-Aug-22	time	5.61	9.12	12.81	16.57	20.41	22.14	24.38	28.41	32.79	37.12	41.82		47.12	4 / 1			
reaction time	0.215	interval		3.51	3.69	3.76	3.84		3.97	4.03	4.38	4.33	4.70	5.30	CR		10.96	11.84	13.41
		velocity	8.02	9.97	9.49	9.31	9.11	9.03	8.82	8.68	7.99	8.08	7.45	7.55	8.49		9.58	8.87	7.83
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	13	15	17.2	156.2				
<b>Semi-Final 2 - 2022 European Athletics Championships (Munich, GER)</b>																<i>European Athletics (2022) - european athletics championships race analysis</i>			
date	18-Aug-22	time	5.65	9.32	12.98	16.74	20.60	22.29	24.57	28.71	33.13	37.83	42.77		48.38	3 / 1			
reaction time	0.225	interval		3.67	3.66	3.76	3.86		3.97	4.14	4.42	4.70	4.94	5.61			11.09	11.97	14.06
		velocity	7.96	9.54	9.56	9.31	9.07	8.97	8.82	8.45	7.92	7.45	7.09	7.13	8.27		9.47	8.77	7.47
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	14	16	17	158				
<b>FINAL - 2022 World Athletics Championships (Eugene, OR)</b>																<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>			
date	19-Jul-22	time	5.71	9.19	12.71	16.32	19.99	21.50	23.81	27.96	32.48	37.35	42.38		48.42	4 / 7			
reaction time	0.140	interval		3.48	3.52	3.61	3.67		3.82	4.15	4.52	4.87	5.03	6.04			10.61	11.64	14.42
		velocity	7.88	10.06	9.94	9.70	9.54	9.30	9.16	8.43	7.74	7.19	6.96	6.62	8.26		9.90	9.02	7.28
H1 lead leg	L	strides	20	13	13	13	13		13	13	15	15	15	18.5	161.5				
<b>Semi-Final 3 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)</b>																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>			
date	17-Jul-22	time	5.63	9.10	12.86	16.40	20.20	21.83	24.13	28.30	32.66	37.40	42.20		48.00	5 / 1			
reaction time	0.169	interval		3.47	3.76	3.54	3.80		3.93	4.17	4.36	4.74	4.80	5.80			10.77	11.90	13.90
		velocity	7.99	10.09	9.31	9.89	9.21	9.16	8.91	8.39	8.03	7.38	7.29	6.90	8.33		9.75	8.82	7.55
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	15	17.7	158.7				
<b>Heat 3 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)</b>																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>			
date	16-Jul-22	time	5.66	9.27	13.03	16.90	20.86	22.47	24.90	29.20	33.63	38.46	43.46		49.34	3 / 1			
reaction time	0.164	interval		3.61	3.76	3.87	3.96		4.04	4.30	4.43	4.83	5.00	5.88			11.24	12.30	14.26
		velocity	7.95	9.70	9.31	9.04	8.84	8.90	8.66	8.14	7.90	7.25	7.00	6.80	8.11		9.34	8.54	7.36
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	15	17.5	158.5				
<b>FINAL - FINAL - 2022 Prefontaine Classic (Eugene, OR) (TV Analysis)</b>																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>			
date	05-Jun-22	time	5.67												dnf	7 / --			
reaction time	0.163	interval																	
		velocity	7.94																
H1 lead leg	L	strides	20												20				
<b>FINAL - 2021 ISTAF (Berlin, GER) (TV Analysis)</b>																<i>Henson (2021) - Athlete First: 2021 Karsten Warholm 400m Hurdles World Record Season</i>			
date	12-Sep-21	time	5.76	9.28	12.96	16.70	20.56		24.56	28.76	33.12	37.80	42.54		48.08	7 / 1			
reaction time	0.189	interval		3.52	3.68	3.74	3.86		4.00	4.20	4.36	4.68	4.74	5.54			10.94	12.06	13.78
		velocity	7.81	9.94	9.51	9.36	9.07		8.75	8.33	8.03	7.48	7.38	7.22	8.32		9.60	8.71	7.62
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	15	18.5	159.5				
<b>FINAL - 2021 Weltklasse (Zürich, SUI) (TV Analysis)</b>																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	09-Sep-21	time	5.72	9.28	12.96	16.72	20.56	22.1	24.56	28.68	32.88	37.44	42.08		47.35	7 / 1			
reaction time	0.150	interval		3.56	3.68	3.76	3.84		4.00	4.12	4.20	4.56	4.64	5.27			11.00	11.96	13.40
		velocity	7.87	9.83	9.51	9.31	9.11	9.05	8.75	8.50	8.33	7.68	7.54	7.59	8.45		9.55	8.78	7.84
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	15	18	159				
<b>FINAL - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	03-Aug-21	time	5.60	9.08	12.62	16.28	19.96		23.86	27.92	32.04	36.32	40.76		45.94	6 / 1			
reaction time	0.145	interval		3.48	3.54	3.66	3.68		3.90	4.06	4.12	4.28	4.44	5.18	WR		10.68	11.64	12.84
		velocity	8.04	10.06	9.89	9.56	9.51		8.97	8.62	8.50	8.18	7.88	7.72	8.71		9.83	9.02	8.18
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	13	15	18	157				
<b>Semi-Final 1 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>																<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>			
date	01-Aug-21	time	5.73	9.30	12.93	16.63	20.56		24.56	28.73	33.02	37.40	42.20		47.30	7 / 1			
reaction time	0.156	interval		3.57	3.63	3.70	3.93		4.00	4.17	4.29	4.38	4.80	5.10			10.90	12.10	13.47
		velocity	7.85	9.80	9.64	9.46	8.91		8.75	8.39	8.16	7.99	7.29	7.84	8.46		9.63	8.68	7.80
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	13	15	17.5	156.5				
<b>Heat 3 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>																<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>			
date	30-Jul-21	time	5.73	9.42	13.26	17.26	21.20		25.33	29.55	33.83	38.37	43.12		48.65	8 / 1			
reaction time	0.157	interval		3.69	3.84	4.00	3.94		4.13	4.22	4.28	4.54	4.75	5.53			11.53	12.29	13.57
		velocity	7.85	9.49	9.11	8.75	8.88		8.47	8.29	8.18	7.71	7.37	7.23	8.22		9.11	8.54	7.74
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	15	17	158				
<b>FINAL - 2021 Herculis Meeting International d'Athletisme (Monaco, MON) (TV Analysis)</b>																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	09-Jul-21	time	5.62	9.12	12.74	16.51	20.38	22.0	24.36	28.49	32.74	37.17	41.87		47.08	7 / 1			
reaction time	0.150	interval		3.50	3.62	3.77	3.87		3.98	4.13	4.25	4.43	4.70	5.21			10.89	11.98	13.38

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

H1 lead leg	L	velocity	8.01	10.00	9.67	9.28	9.04	9.09	8.79	8.47	8.24	7.90	7.45	7.68	8.50	9.64	8.76	7.85	
		strides	20	13	13	13	13		13	13	13	13	15	18	157				
<b>FINAL - 2021 Bislett Games (Oslo, NOR) (TV Analysis)</b>																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	01-Jul-21	time	5.58	9.10	12.70	16.34	20.16		24.08	28.18	32.38	36.78	41.44		46.70	7 / 1			
reaction time	0.163	interval		3.52	3.60	3.64	3.82		3.92	4.10	4.20	4.40	4.66	5.26	<b>WR</b>		10.76	11.84	13.26
		velocity	8.06	9.94	9.72	9.62	9.16		8.93	8.54	8.33	7.95	7.51	7.60	8.57		9.76	8.87	7.92
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	13	13	18	155				
<b>FINAL - 2021 Bislett Night of Highlights (Oslo, NOR) (TV Analysis) (300m Hurdles)</b>																<i>Henson (2021) - Athlete First: 2021 Karsten Warholm 400m Hurdles World Record Season</i>			
date	04-Jun-21	time	6.12	9.60	13.16	16.78	20.60		24.52	28.58					33.26	7 / 1			
reaction time		interval		3.48	3.56	3.62	3.82		3.92	4.06				4.68	<b>WB PB</b>		10.66	11.80	
		velocity	8.17	10.06	9.83	9.67	9.16		8.93	8.62				8.55	9.02		9.85	8.90	
H1 lead leg	L	strides	23	13	13	13	13		13	13				17	118				
<b>FINAL - 2020 Norwegian National Championships (Bergen, NOR) (TV Analysis)</b>																<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>			
date	20-Sep-20	time	5.73	9.33	13.07	16.87	20.80		24.83	29.03	33.30	37.93	42.67		48.23	7 / 1			
reaction time		interval		3.60	3.74	3.80	3.93		4.03	4.20	4.27	4.63	4.74	5.56			11.14	12.16	13.64
		velocity	7.85	9.72	9.36	9.21	8.91		8.68	8.33	8.20	7.56	7.38	7.19	8.29		9.43	8.63	7.70
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	15	17.5	158.5				
<b>FINAL - 2020 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)</b>																<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>			
date	17-Sep-20	time	5.64	9.24	12.95	16.75	20.65	22.3	24.66	28.80	33.07	37.47	41.91		47.07	7 / 1			
reaction time	0.158	interval		3.60	3.71	3.80	3.90		4.01	4.14	4.27	4.40	4.44	5.16			11.11	12.05	13.11
		velocity	7.98	9.72	9.43	9.21	8.97	8.97	8.73	8.45	8.20	7.95	7.88	7.75	8.50		9.45	8.71	8.01
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	13	15	18	157				
<b>FINAL - 2020 ISTAF (Berlin, GER) (TV Analysis)</b>																<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>			
date	13-Sep-20	time	5.64	9.24	12.88	16.64	20.56		24.56	28.68	32.92	37.24	41.88		47.08	7 / 1			
reaction time	0.190	interval		3.60	3.64	3.76	3.92		4.00	4.12	4.24	4.32	4.64	5.20			11.00	12.04	13.20
		velocity	7.98	9.72	9.62	9.31	8.93		8.75	8.50	8.25	8.10	7.54	7.69	8.50		9.55	8.72	7.95
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	13	15	18	157				
<b>FINAL - 2020 Golden Spike (Ostrava, CZE) (TV Analysis)</b>																<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>			
date	08-Sep-20	time	5.77	9.37	13.05	16.82	20.65		24.69	28.89	33.13	37.77	42.37		47.62	8 / 1			
reaction time	0.168	interval		3.60	3.68	3.77	3.83		4.04	4.20	4.24	4.64	4.60	5.25			11.05	12.07	13.48
		velocity	7.80	9.72	9.51	9.28	9.14		8.66	8.33	8.25	7.54	7.61	7.62	8.40		9.50	8.70	7.79
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	15	18	159				
<b>FINAL - 2020 Bauhaus Galan (Stockholm, SWE) (TV Analysis)</b>																<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>			
date	23-Aug-20	time	5.58	9.14	12.80	16.60	20.44	22.2	24.42	28.48	32.64	36.94	41.48		46.87	8 / 1			
reaction time	0.161	interval		3.56	3.66	3.80	3.84		3.98	4.06	4.16	4.30	4.54	5.39	<b>AR PB</b>		11.02	11.88	13.00
		velocity	8.06	9.83	9.56	9.21	9.11	9.01	8.79	8.62	8.41	8.14	7.71	7.42	8.53		9.53	8.84	8.08
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	13	15	18	157				
<b>FINAL - 2020 Herculis Meeting International d'Athletisme (Monaco, MON) (TV Analysis)</b>																<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>			
date	14-Aug-20	time	5.60	9.27	13.11	16.98	20.92		25.02	29.23	33.47	37.80	42.17		47.10	7 / 1			
reaction time	0.132	interval		3.67	3.84	3.87	3.94		4.10	4.21	4.24	4.33	4.37	4.93			11.38	12.25	12.94
		velocity	8.04	9.54	9.11	9.04	8.88		8.54	8.31	8.25	8.08	8.01	8.11	8.49		9.23	8.57	8.11
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	13	13	17	154				
<b>FINAL - 2020 Impossible Games (Oslo, NOR) (TV Analysis) (300m Hurdles)</b>																<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>			
date	11-Jun-20	time	6.24	9.74	13.38	17.15	21.02		25.02	29.13					33.78	7 / 1			
reaction time	0.182	interval		3.50	3.64	3.77	3.87		4.00	4.11				4.65	<b>WB PB</b>		10.91	11.98	
		velocity	8.01	10.00	9.62	9.28	9.04		8.75	8.52				8.60	8.88		9.62	8.76	
H1 lead leg	L	strides	20	13	13	13	13		13	13				16.5	114.5				
<b>FINAL - 2019 IAAF World Championships (Doha, QAT)</b>																<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>			
date	30-Sep-19	time	5.75	9.29	12.93	16.68	20.56		24.56	28.68	32.91	37.40	42.01		47.42	4 / 1			
reaction time	0.164	interval		3.54	3.64	3.75	3.88		4.00	4.12	4.23	4.49	4.61	5.41			10.93	12.00	13.33
		velocity	7.83	9.89	9.62	9.33	9.02		8.75	8.50	8.27	7.80	7.59	7.39	8.44		9.61	8.75	7.88
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	13	15	18.2	157.2				
<b>Semi-Final 2 - 2019 IAAF World Championships (Doha, QAT)</b>																<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>			
date	28-Sep-19	time	5.73	9.33	13.00	16.74	20.60		24.68	28.91	33.24	37.88	42.61		48.28	4 / 1			
reaction time	0.154	interval		3.60	3.67	3.74	3.86		4.08	4.23	4.33	4.64	4.73	5.67			11.01	12.17	13.70
		velocity	7.85	9.72	9.54	9.36	9.07		8.58	8.27	8.08	7.54	7.40	7.05	8.29		9.54	8.63	7.66
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	15	17.2	158.2				
<b>Heat 1 - 2019 IAAF World Championships (Doha, QAT) (TV Analysis)</b>																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	27-Sep-19	time	5.72	9.48	13.28	17.16	21.24		29.68	34.04	38.76	43.64		49.27	4 / 1				
reaction time	0.161	interval		3.76	3.80	3.88	4.08		8.44	4.36	4.72	4.88	5.63				11.44	12.52	13.96
		velocity	7.87	9.31	9.21	9.02	8.58		8.29	8.03	7.42	7.17	7.10	8.12			9.18	8.39	7.52
H1 lead leg	L	strides	20	13	13	13	13				13	15	15	17	132				
<b>FINAL - 2019 Weltklasse (Zürich, SUI) (TV Analysis)</b>																<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>			
date	29-Aug-19	time	5.66	9.16	12.76	16.40	20.22	21.9	24.18	28.32	32.56	37.08	41.62		46.92	7 / 1			

reaction time	0.140	interval	3.50	3.60	3.64	3.82		3.96	4.14	4.24	4.52	4.54	5.30	<b>AR PB</b>	10.74	11.92	13.30		
		velocity	7.95	10.00	9.72	9.62	9.16	9.13	8.84	8.45	8.25	7.74	7.71	7.55	8.53	9.78	8.81	7.89	
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	15	18.2	159.2				
<b>FINAL - 2019 Meeting de Paris (Paris, FRA) (TV Analysis)</b>															<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>				
date	24-Aug-19	time	5.64	9.24	12.86	16.59	20.42	22.1	24.48	28.66	32.92	37.35	41.96		47.26	7 / 1			
reaction time	0.157	interval		3.60	3.62	3.73	3.83		4.06	4.18	4.26	4.43	4.61	5.30			10.95	12.07	13.30
		velocity	7.98	9.72	9.67	9.38	9.14	9.05	8.62	8.37	8.22	7.90	7.59	7.55	8.46		9.59	8.70	7.89
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	13	13	18	155				
<b>FINAL - 2019 Norwegian National Championships (Hamar, NOR) (TV Analysis)</b>															<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>				
date	02-Aug-19	time	5.76	9.40	13.16	17.02	21.00		25.08	29.28	33.56	37.96	42.36		47.43	7 / 1			
reaction time		interval		3.64	3.76	3.86	3.98		4.08	4.20	4.28	4.40	4.40	5.07			11.26	12.26	13.08
		velocity	7.81	9.62	9.31	9.07	8.79		8.58	8.33	8.18	7.95	7.95	7.89	8.43		9.33	8.56	8.03
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	13	13	17.2	154.2				
<b>FINAL - 2019 Müller Anniversary Games (London, GBR) (TV Analysis)</b>															<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>				
date	20-Jul-19	time	5.72	9.24	12.84	16.56	20.40	22.0	24.44	28.56	32.88	37.28	41.92		47.12	7 / 1			
reaction time	0.160	interval		3.52	3.60	3.72	3.84		4.04	4.12	4.32	4.40	4.64	5.20	<b>AR PB</b>		10.84	12.00	13.36
		velocity	7.87	9.94	9.72	9.41	9.11	9.09	8.66	8.50	8.10	7.95	7.54	7.69	8.49		9.69	8.75	7.86
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	13	14	18	156				
<b>FINAL - 2019 Bislett Games (Oslo, NOR) (TV Analysis)</b>															<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>				
date	13-Jun-19	time	5.58	9.14	12.84	16.64	20.61	22.3	24.64	28.88	33.12	37.52	42.03		47.33	7 / 1			
reaction time	0.148	interval		3.56	3.70	3.80	3.97		4.03	4.24	4.24	4.40	4.51	5.30	<b>AR PB</b>		11.06	12.24	13.15
		velocity	8.06	9.83	9.46	9.21	8.82	8.97	8.68	8.25	8.25	7.95	7.76	7.55	8.45		9.49	8.58	7.98
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	13	15	18	157				
<b>FINAL - 2019 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)</b>															<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>				
date	30-May-19	time	5.73	9.33	13.10	17.00	20.93	22.5	25.00	29.16	33.40	37.86	42.48		47.85	7 / 1			
reaction time	0.146	interval		3.60	3.77	3.90	3.93		4.07	4.16	4.24	4.46	4.62	5.37			11.27	12.16	13.32
		velocity	7.85	9.72	9.28	8.97	8.91	8.89	8.60	8.41	8.25	7.85	7.58	7.45	8.36		9.32	8.63	7.88
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	13	15	17.7	156.7				
<b>FINAL - 2018 IAAF Continental Cup (Ostrava, CZE) (TV Analysis)</b>															<i>Henson (2021) - Athlete First: 2018 year end hurdle report</i>				
date	08-Sep-18	time	5.76	9.40	13.12	17.00	21.00		25.08	29.32	33.76	38.48	43.24		48.56	4 / 3			
reaction time	0.175	interval		3.64	3.72	3.88	4.00		4.08	4.24	4.44	4.72	4.76	5.32			11.24	12.32	13.92
		velocity	7.81	9.62	9.41	9.02	8.75		8.58	8.25	7.88	7.42	7.35	7.52	8.24		9.34	8.52	7.54
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	15	18	159				
<b>FINAL - 2018 Weltklasse (Zürich, SUI) (TV Analysis)</b>															<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>				
date	30-Aug-18	time	5.64	9.28	13.00	16.84	20.84	22.6	24.92	29.16	33.52	38.12	42.80		48.10	5 / 2			
reaction time	0.135	interval		3.64	3.72	3.84	4.00		4.08	4.24	4.36	4.60	4.68	5.30			11.20	12.32	13.64
		velocity	7.98	9.62	9.41	9.11	8.75	8.85	8.58	8.25	8.03	7.61	7.48	7.55	8.32		9.38	8.52	7.70
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	15	18	159				
<b>FINAL - 2018 Müller Anniversary Games (London, GBR) (TV Analysis)</b>															<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>				
date	21-Jul-18	time	5.72	9.36	13.12	17.00	20.92		24.92	29.04	33.28	37.68	42.32		47.65	7 / 1			
reaction time	0.149	interval		3.64	3.76	3.88	3.92		4.00	4.12	4.24	4.40	4.64	5.33	<b>NR PB</b>		11.28	12.04	13.28
		velocity	7.87	9.62	9.31	9.02	8.93		8.75	8.50	8.25	7.95	7.54	7.50	8.39		9.31	8.72	7.91
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	13	15	17.5	156.5				
<b>FINAL - 2018 Athletissima (Lausanne, SUI) (TV Analysis)</b>															<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>				
date	05-Jul-18	time	5.72	9.32	13.00	16.84	20.76		24.84	29.04	33.32	37.88	42.52		47.94	6 / 2			
reaction time	0.133	interval		3.60	3.68	3.84	3.92		4.08	4.20	4.28	4.56	4.64	5.42			11.12	12.20	13.48
		velocity	7.87	9.72	9.51	9.11	8.93		8.58	8.33	8.18	7.68	7.54	7.38	8.34		9.44	8.61	7.79
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	15	18	159				
<b>FINAL - 2018 Meeting de Paris (Paris, FRA) (TV Analysis)</b>															<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>				
date	30-Jun-18	time	5.72	9.32	13.04	16.84	20.72	22.5	24.76	28.84	33.08	37.44	42.44		48.06	7 / 3			
reaction time	0.158	interval		3.60	3.72	3.80	3.88		4.04	4.08	4.24	4.36	5.00	5.62			11.12	12.00	13.60
		velocity	7.87	9.72	9.41	9.21	9.02	8.89	8.66	8.58	8.25	8.03	7.00	7.12	8.32		9.44	8.75	7.72
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	13	15	17.7	156.7				
<b>FINAL - 2018 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)</b>															<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>				
date	10-Jun-18	time	5.68	9.36	13.20	17.08	21.12		25.20	29.36	33.68	38.00	42.44		47.81	7 / 2			
reaction time	0.134	interval		3.68	3.84	3.88	4.04		4.08	4.16	4.32	4.32	4.44	5.37	<b>NR PB</b>		11.40	12.28	13.08
		velocity	7.92	9.51	9.11	9.02	8.66		8.58	8.41	8.10	8.10	7.88	7.45	8.37		9.21	8.55	8.03
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	15	18	159				
<b>FINAL - 2018 Bislett Games (Oslo, NOR) (TV Analysis)</b>															<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>				
date	07-Jun-18	time	5.68	9.24	12.96	16.80	20.80	22.6	24.88	29.16	33.48	37.92	42.64		48.22	7 / 2			
reaction time	0.165	interval		3.56	3.72	3.84	4.00		4.08	4.28	4.32	4.44	4.72	5.58			11.12	12.36	13.48
		velocity	7.92	9.83	9.41	9.11	8.75	8.85	8.58	8.18	8.10	7.88	7.42	7.17	8.30		9.44	8.50	7.79
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	13	14	17.5	155.5				
<b>FINAL - 2018 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)</b>															<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>				



date	31-May-18	time	5.68	9.24	12.92	16.76	20.68	24.80	28.96	33.24	37.68	42.40	47.82	7 / 2			
reaction time	0.155	interval		3.56	3.68	3.84	3.92	4.12	4.16	4.28	4.44	4.72	5.42	<b>NR PB</b>	11.08	12.20	13.44
		velocity	7.92	9.83	9.51	9.11	8.93	8.50	8.41	8.18	7.88	7.42	7.38	8.36	9.48	8.61	7.81
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	13	14	17.5	155.5			

**FINAL - 2017 Weltklasse (Zürich, SUI) (TV Analysis)**

Henson (2020) - Athlete First: 2017 year end hurdle report

date	24-Aug-17	time	5.76	9.32	13.00	16.80	20.76	24.84	29.08	33.52	38.28	43.00	48.22	6 / 2			
reaction time	0.164	interval		3.56	3.68	3.80	3.96	4.08	4.24	4.44	4.76	4.72	5.22	<b>NR PB</b>	11.04	12.28	13.92
		velocity	7.81	9.83	9.51	9.21	8.84	8.58	8.25	7.88	7.35	7.42	7.66	8.30	9.51	8.55	7.54
H1 lead leg	L	strides	20	13	13	13	13	13	13	15	15	17.7	145.7				

**FINAL - 2017 IAAF World Championships (London, GBR) (TV Analysis)**

Henson (2020) - Athlete First: 2017 year end hurdle report

date	09-Aug-17	time	5.68	9.32	13.04	16.80	20.64	24.72	28.96	33.40	38.04	42.84	48.35	5 / 1			
reaction time	0.175	interval		3.64	3.72	3.76	3.84	4.08	4.24	4.44	4.64	4.80	5.51		11.12	12.16	13.88
		velocity	7.92	9.62	9.41	9.31	9.11	8.58	8.25	7.88	7.54	7.29	7.26	8.27	9.44	8.63	7.56
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	15	15	18.5	159.5			

**FINAL - 2017 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)**

Henson (2020) - Athlete First: 2017 year end hurdle report

date	18-Jun-17	time	5.76	9.48	13.24	17.04	21.00	25.20	29.44	33.92	38.68	43.44	48.82	7 / 1			
reaction time	0.139	interval		3.72	3.76	3.80	3.96	4.20	4.24	4.48	4.76	4.76	5.38		11.28	12.40	14.00
		velocity	7.81	9.41	9.31	9.21	8.84	8.33	8.25	7.81	7.35	7.35	7.43	8.19	9.31	8.47	7.50
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	15	15	17.7	158.7			

**FINAL - 2017 Bislett Games (Oslo, NOR) (TV Analysis)**

Henson (2020) - Athlete First: 2017 year end hurdle report

date	15-Jun-17	time	5.86	9.46	13.06	16.93	20.86	25.00	29.30	33.56	38.20	42.90	48.25	7 / 1			
reaction time	0.149	interval		3.60	3.60	3.87	3.93	4.14	4.30	4.26	4.64	4.70	5.35	<b>NR PB</b>	11.07	12.37	13.60
		velocity	7.68	9.72	9.72	9.04	8.91	8.45	8.14	8.22	7.54	7.45	7.48	8.29	9.49	8.49	7.72
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	15	15	17.5	158.5			

**FINAL - 2016 European Championships (Amsterdam, NED) (TV Analysis)**

Henson (2020) - Athlete First: 2016 year end hurdle report

date	08-Jul-16	time	5.88	9.52	13.36	17.36	21.40	25.60	29.76	34.16	39.04	44.08	49.82	4 / 6			
reaction time	0.153	interval		3.64	3.84	4.00	4.04	4.20	4.16	4.40	4.88	5.04	5.74		11.48	12.40	14.32
		velocity	7.65	9.62	9.11	8.75	8.66	8.33	8.41	7.95	7.17	6.94	6.97	8.03	9.15	8.47	7.33
H1 lead leg	L	strides	20	13	13	13	13	13		13	14	15	18	145			

**FINAL - 2016 Bislett Games (Oslo, NOR) (TV Analysis)**

Henson (2021) - Athlete First: 2016 year end hurdle report

date	09-Jun-16	time	5.92	9.72	13.64	17.60	21.80	26.00	30.36	34.96	39.76	44.60	49.80	7 / 5			
reaction time	0.163	interval		3.80	3.92	3.96	4.20	4.20	4.36	4.60	4.80	4.84	5.20		11.68	12.76	14.24
		velocity	7.60	9.21	8.93	8.84	8.33	8.33	8.03	7.61	7.29	7.23	7.69	8.03	8.99	8.23	7.37
H1 lead leg	L	strides	20	13	13	13	13	13	13	15	15	15	143				

**Watanabe, Shun (JPN) (2006)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

<b>FINAL - 2024 Japanese National High School Championships (Fukuoka, JPN)</b>																	
Takashima (2024) - national high school sports festival - biomechanics data																	
date	30-Jul-24	time	6.36	10.39	14.50	18.75	23.09	27.46	32.13	37.05	42.09	47.18	52.87	2 / 7			
reaction time	0.277	interval		4.03	4.11	4.25	4.34	4.37	4.67	4.92	5.04	5.09	5.69		12.39	13.38	15.05
		velocity	7.08	8.68	8.52	8.24	8.06	8.01	7.49	7.11	6.94	6.88	7.03	7.57	8.47	7.85	6.98
H1 lead leg		strides	23	15	15	15	15	15	15	17	17	17	20	184			

**Watanabe, Yoshihiro (JPN) (1997)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

<b>FINAL - 2015 Japanese National Junior Championships (Nagoya, JPN)</b>																	
Yasunori (2015) - race pattern analysis of the top 400m hurdlers in Japan																	
date	18-Oct-15	time	6.01	9.75	13.64	17.68	21.78	26.08	30.52	35.02	39.66	44.50	49.97	5 / 1			
reaction time		interval		3.74	3.89	4.04	4.10	4.30	4.44	4.50	4.64	4.84	5.47	<b>PB</b>	11.67	12.84	13.98
		velocity	7.49	9.36	9.00	8.66	8.54	8.14	7.88	7.78	7.54	7.23	7.31	8.00	9.00	8.18	7.51
H1 lead leg		strides		14	14	14	14	15	15	15	15	15	15	131			

**Watrin, Julien (BEL) (1992)**

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

<b>Semi-Final 1 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)</b>																	
Henson (2023) - Athlete First: 2023 year end hurdle report																	
date	21-Aug-23	time	5.90	9.66	13.43	17.13	21.00	25.13	29.46	34.16	38.83	43.55	48.94	3 / 5			
reaction time	0.205	interval		3.76	3.77	3.70	3.87	4.13	4.33	4.70	4.67	4.72	5.39		11.23	12.33	14.09
		velocity	7.63	9.31	9.28	9.46	9.04	8.47	8.08	7.45	7.49	7.42	7.42	8.17	9.35	8.52	7.45
H1 lead leg	R	strides	20	13	13	13	13	13		14	15	15	18	147			

**Heat 4 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)**

Henson (2023) - Athlete First: 2023 year end hurdle report

date	20-Aug-23	time	5.93	9.70	13.46	17.30	21.06	25.07		33.63	38.27	43.10	48.72	6 / 5			
reaction time	0.230	interval		3.77	3.76	3.84	3.76	4.01		8.56	4.64	4.83	5.62		11.37		
		velocity	7.59	9.28	9.31	9.11	9.31	8.73		8.18	7.54	7.25	7.12	8.21	9.23		
H1 lead leg	R	strides	20	13	13	13	13	13			14	14	19	132			

**FINAL - 2023 Bislett Games (Oslo, NOR)**

Omega Timing (2023) - diamond league race analysis

date	15-Jun-23	time	5.80	9.44	13.24	17.10	21.04	25.21	29.58	34.10	38.87	43.71	49.45	1 / 8			
reaction time	0.209	interval		3.64	3.80	3.86	3.94	4.17	4.37	4.52	4.77	4.84	5.74		11.30	12.48	14.13
		velocity	7.76	9.62	9.21	9.07	8.88	8.39	8.01	7.74	7.34	7.23	6.97	8.09	9.29	8.41	7.43
H1 lead leg	R	strides	20			13	13	15			14	15	90				

**FINAL - 2023 FBK Games (Hengelo, NED)**

Omega Timing (2023) - continental tour race analysis

date	04-Jun-23	time	5.94	9.66	13.50	17.37	21.40	25.58	30.04	34.64	39.41	44.28	49.92	4 / 7			
reaction time	0.242	interval		3.72	3.84	3.87	4.03	4.18	4.46	4.60	4.77	4.87	5.64		11.43	12.67	14.24







H1 lead leg strides

**FINAL - 2010 European Championships (Barcelona, ESP)**

date	31-Jul-10	time	6.20	10.06	13.96	17.78	21.72	25.72	29.86	34.12	38.62	43.36	48.96	<i>Arnold (2010) - 400mH planning and peaking</i>			
reaction time	0.195	interval	3.86	3.90	3.82	3.94	4.00	4.14	4.26	4.50	4.74	5.60	<b>PB</b>	5 / 2	11.58	12.08	13.50
		velocity	7.26	9.07	8.97	9.16	8.88	8.75	8.45	8.22	7.78	7.38	7.14	8.17	9.07	8.69	7.78
H1 lead leg	R	strides	22	14	14	14	14	14	15	15	15	15	19.5	171.5			

**Semi-Final 2 - 2010 European Championships (Barcelona, ESP)**

date	29-Jul-10	time	6.32	10.18	14.08	18.14	22.28	26.48	30.80	35.20	39.72	44.40	49.61	<i>Arnold (2010) - 400mH planning and peaking</i>			
reaction time	0.223	interval	3.86	3.90	4.06	4.14	4.20	4.32	4.40	4.52	4.68	5.21	8.06	4 / 1	11.82	12.66	13.60
		velocity	7.12	9.07	8.97	8.62	8.45	8.33	8.10	7.95	7.74	7.48	7.68	8.06	8.88	8.29	7.72
H1 lead leg	R	strides															

**Heat 2 - 2010 European Championships (Barcelona, ESP)**

date	28-Jul-10	time	6.22	10.00	13.82	17.68	21.72	25.90	30.26	34.76	39.42	44.16	49.35	<i>Arnold (2010) - 400mH planning and peaking</i>			
reaction time	0.208	interval	3.78	3.82	3.86	4.04	4.18	4.36	4.50	4.66	4.74	5.19	8.11	5 / 1	11.46	12.58	13.90
		velocity	7.23	9.26	9.16	9.07	8.66	8.37	8.03	7.78	7.51	7.38	7.71	8.11	9.16	8.35	7.55
H1 lead leg	R	strides															

**FINAL - 2006 European Championships (Göteborg, SWE)**

date	10-Aug-06	time	5.9	9.7	13.5	17.7	21.8	26.0	30.2	34.6	39.2	43.8	49.12	<i>Behm (2006) - Göteborg 2006: Le quatrache</i>			
reaction time		interval	3.80	3.80	4.20	4.10	4.20	4.20	4.40	4.60	4.60	5.32	49.12	/ 3	11.80	12.50	13.60
		velocity	7.63	9.21	9.21	8.33	8.54	8.33	8.33	7.95	7.61	7.61	7.52	8.14	8.90	8.40	7.72
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	19	171			

**Williams, Robert (USA) (2001)**

<b>Heat 4 - 2024 USA Olympic Trials (Eugene, OR)</b>																		
<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>																		
date	27-Jun-24	time	6.09	9.80	13.73	17.70	21.70	23.58	26.01	30.84	35.95	41.43	46.85	53.52	4 / 4			
reaction time		interval	3.71	3.93	3.97	4.00		4.31	4.83	5.11	5.48	5.42	6.67			11.61	13.14	16.01
		velocity	7.39	9.43	8.91	8.82	8.75	8.48	8.12	7.25	6.85	6.39	6.46	6.00	7.47	9.04	7.99	6.56
H1 lead leg	R	strides	20	13	13	13	13		14	15	16	16	15	148				

**Willis, Matthew (USA) (1984)**

<b>FINAL - 2003 USATF National Junior Championships (Palo Alto, CA)</b>																		
<i>USATF Women's Sprint Development (2003)</i>																		
date	22-Jun-03	time	6.09	10.06	14.31	18.52	22.79		27.34	32.10	36.87	41.59	46.46	51.89	2 / 3			
reaction time		interval	3.97	4.25	4.21	4.27		4.55	4.76	4.77	4.72	4.87	5.43			12.43	13.58	14.36
		velocity	7.39	8.82	8.24	8.31	8.20		7.69	7.35	7.34	7.42	7.19	7.37	7.71	8.45	7.73	7.31
H1 lead leg		strides																

**Woodell, Jameson (USA) (2000)**

<b>Semi-Final 2 - 2024 USA Olympic Trials (Eugene, OR)</b>																		
<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>																		
date	28-Jun-24	time	6.09	9.98	14.03	18.22	22.62	24.60	27.20	31.93	36.85	41.98	46.98	52.77	2 / 8			
reaction time		interval	3.89	4.05	4.19	4.40		4.58	4.73	4.92	5.13	5.00	5.79			12.13	13.71	15.05
		velocity	7.39	9.00	8.64	8.35	7.95	8.13	7.64	7.40	7.11	6.82	7.00	6.91	7.58	8.66	7.66	6.98
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	15	15	138				

**Heat 3 - 2024 USA Olympic Trials (Eugene, OR)**

<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>																		
date	27-Jun-24	time	6.18	10.05	14.02	18.22	22.54	24.51	27.01	31.50	36.29	41.06	45.63	50.90	5 / 4			
reaction time		interval	3.87	3.97	4.20	4.32		4.47	4.49	4.79	4.77	4.57	5.27			12.04	13.28	14.13
		velocity	7.28	9.04	8.82	8.33	8.10	8.16	7.83	7.80	7.31	7.34	7.66	7.59	7.86	8.72	7.91	7.43
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	15	15	18	171			

**Woody, Joey (USA) (1973)**

<b>Heat 1 - 2007 USATF National Championships (Indianapolis, IN)</b>																		
<i>USATF Men's Hurdle Development (2007)</i>																		
date	21-Jun-07	time	6.09	9.99	13.68	17.60	21.62		25.86	30.31	34.82	39.54	44.38	49.92	4 / 2			
reaction time		interval	3.90	3.69	3.92	4.02		4.24	4.45	4.51	4.72	4.84	5.54			11.51	12.71	14.07
		velocity	7.39	8.97	9.49	8.93	8.71		8.25	7.87	7.76	7.42	7.23	7.22	8.01	9.12	8.26	7.46
H1 lead leg	R	strides	21	13	13	13	13		13	14	14	15	15	144				

**FINAL - 2006 USATF National Championships (Indianapolis, IN)**

<i>USATF Men's Hurdle Development (2006)</i>																		
date	24-Jun-06	time	6.09	9.78	13.55	17.38	21.34		25.39	29.70	34.12	38.67	43.47	49.12	5 / 4			
reaction time		interval	3.69	3.77	3.83	3.96		4.05	4.31	4.42	4.55	4.80	5.65			11.29	12.32	13.77
		velocity	7.39	9.49	9.28	9.14	8.84		8.64	8.12	7.92	7.69	7.29	7.08	8.14	9.30	8.52	7.63
H1 lead leg	R	strides	21	13	13	13	13		13	14	14	15	15	19	163			

**FINAL - 2003 IAAF World Championships (Paris, FRA)**

<i>Behm (2003) - Paris 2003:Le quatrache masculin - féminin</i>																		
date	29-Aug-03	time	5.9	9.5	13.4	17.2	21.0		25.3	29.5	33.7	38.2	42.8	48.18	6 / 2			
reaction time	0.167	interval	3.60	3.90	3.80	3.80		4.30	4.20	4.20	4.50	4.60	5.38			11.30	12.30	13.30
		velocity	7.63	9.72	8.97	9.21	9.21		8.14	8.33	8.33	7.78	7.61	7.43	8.30	9.29	8.54	7.89
H1 lead leg	R	strides	21	13	13	13	13		13	14	14	15	15	18	162			

**FINAL - 2003 USATF National Championships (Palo Alto, CA)**

<i>USATF Women's Sprint Development (2003)</i>																		
date	22-Jun-03	time	5.87	9.66	13.50	17.47	21.54		25.68	30.06	34.42	38.96	43.61	49.22	3 / 2			
reaction time		interval	3.79	3.84	3.97	4.07		4.14	4.38	4.36	4.54	4.65	5.61			11.60	12.59	13.55
		velocity	7.67	9.23	9.11	8.82	8.60		8.45	7.99	8.03	7.71	7.53	7.13	8.13	9.05	8.34	7.75
H1 lead leg		strides																

**FINAL - 1999 IAAF World Championships (Sevilla, ESP)**

date	27-Aug-99	time	5.62	9.25	12.89	16.65	20.59	24.59	28.91	33.29	37.84	42.90		Sanchez (1999) - Sevilla '99: análisis de la carreras con villas	48.77	6 / 6			
reaction time	0.175	interval		3.63	3.64	3.76	3.94	4.00	4.32	4.38	4.55	5.06	5.87				11.03	12.26	13.99
		velocity	8.01	9.64	9.62	9.31	8.88	8.75	8.10	7.99	7.69	6.92	6.81	8.20			9.52	8.56	7.51
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	14	15	17.5	160.5					

**Semi-Final 1 - 1999 IAAF World Championships (Sevilla, ESP)**

date	25-Aug-99	time	5.64	9.36	13.14	17.01	20.99	25.06	29.31	33.70	38.24	42.90		Sanchez (1999) - Sevilla '99: análisis de la carreras con villas	48.55	8 / 1			
reaction time	0.214	interval		3.72	3.78	3.87	3.98	4.07	4.25	4.39	4.54	4.66	5.65				11.37	12.30	13.59
		velocity	7.98	9.41	9.26	9.04	8.79	8.60	8.24	7.97	7.71	7.51	7.08	8.24			9.23	8.54	7.73
H1 lead leg	R	strides	21	13	13	13	13	13	13	14	14	15	17.5	159.5					

**FINAL - 1996 USA Olympic Trials (Atlanta, GA)**

date	16-Jun-96	time	6.08	9.82	13.68	17.60	21.58	22.29	25.72	29.99	34.36	38.76	43.52		McNichols - Hurdle technique study through video analysis	48.96	2 / 7			
reaction time		interval		3.74	3.86	3.92	3.98	4.14	4.27	4.37	4.40	4.76	5.44				11.52	12.39	13.53	
		velocity	7.40	9.36	9.07	8.93	8.79	8.97	8.45	8.20	8.01	7.95	7.35	7.35	8.17		9.11	8.47	7.76	
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	14	15	143							

**Woodward, Nathan (GBR) (1989)**

			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>

**Heat 1 - 2010 European Championships (Barcelona, ESP)**

date	28-Jul-10	time	6.22	10.14	14.16	18.16	22.30	26.54	30.88	35.32	40.06	45.02		Arnold (2010) - 400mH planning and peaking	50.45	8 / 3			
reaction time	0.187	interval		3.92	4.02	4.00	4.14	4.24	4.34	4.44	4.74	4.96	5.43				11.94	12.72	14.14
		velocity	7.23	8.93	8.71	8.75	8.45	8.25	8.06	7.88	7.38	7.06	7.37	7.93			8.79	8.25	7.43
H1 lead leg	L	strides																	

**Wu Jinhong (CHN) (2005)**

			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>

**Wu Yuze (CHN) (2002)**

			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>

**Xie Zhiyu (CHN) (2000)**

			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>

**Repechage 3 - 2024 Olympic Games (Paris, FRA)**

date	06-Aug-24	time	6.02	9.86	13.70	17.66	21.68	25.90	30.18	34.65	39.29	44.04		Paris 2024 Olympc Games - Results Book (2024)	49.59	8 / 4			
reaction time	0.224	interval		3.84	3.84	3.96	4.02	4.22	4.28	4.47	4.64	4.75	5.55				11.64	12.52	13.86
		velocity	7.48	9.11	9.11	8.84	8.71	8.29	8.18	7.83	7.54	7.37	7.21	8.07			9.02	8.39	7.58
H1 lead leg	L	strides	21	13	13	13	13	14	14			15	17.5	133.5					

**Heat 2 - 2024 Olympic Games (Paris, FRA)**

date	05-Aug-24	time	5.94	9.64	13.50	17.42	21.46	25.62	29.99	34.60	39.37	44.26		Paris 2024 Olympc Games - Results Book (2024)	49.90	3 / 8			
reaction time	0.191	interval		3.70	3.86	3.92	4.04	4.16	4.37	4.61	4.77	4.89	5.64				11.48	12.57	14.27
		velocity	7.58	9.46	9.07	8.93	8.66	8.41	8.01	7.59	7.34	7.16	7.09	8.02			9.15	8.35	7.36
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	17.2	159.2					

**FINAL - 2024 Chinese National Grand Prix Final (Rizhao, CHN)**

date	29-Jun-24	time	6.00	9.66	13.45	17.33	21.29	25.46	29.88	34.43	39.17	44.00		Shandong Athletics Sport Science (2024)	49.42	5 / 2			
reaction time	0.186	interval		3.66	3.79	3.88	3.96	4.17	4.42	4.55	4.74	4.83	5.42				11.33	12.55	14.12
		velocity	7.50	9.56	9.23	9.02	8.84	8.39	7.92	7.69	7.38	7.25	7.38	8.09			9.27	8.37	7.44
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	18	160					

**Semi-Final 2 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)**

date	21-Aug-23	time	6.14	10.11	13.98	17.82	21.89		30.56	35.07		44.48		Henson (2023) - Athlete First: 2023 year end hurdle report	49.57	2 / 7			
reaction time	0.189	interval		3.97	3.87	3.84	4.07		8.67	4.51		9.41	5.09				11.68	12.74	13.92
		velocity	7.33	8.82	9.04	9.11	8.60		8.07	7.76		7.44	7.86	8.07			8.99	8.24	7.54
H1 lead leg	L	strides	21		13	13	13			14			17	91					

**Heat 1 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)***Henson (2023) - Athlete First: 2023 year end hurdle report*

date	20-Aug-23	time	6.16	10.13	13.96	21.86	26.06	30.46	34.93	39.53	44.23	49.40	8 / 4
reaction time	0.207	interval		3.97	3.83	7.90	4.20	4.40	4.47	4.60	4.70	5.17	13.77
		velocity	7.31	8.82	9.14	8.86	8.33	7.95	7.83	7.61	7.45	7.74	8.10
H1 lead leg	L	strides	21	13	13		13	14	14	14	14	17	119

**FINAL - 2021 Chinese National Championships (Chongqing, CHN)***CAA Hurdle Development (2021)*

date	26-Jun-21	time	6.15	10.04	14.04	18.07	22.24	26.63	31.25	35.92	40.64	45.34	50.4	3 / 2	(no official time given)
reaction time	0.227	interval		3.89	4.00	4.03	4.17	4.39	4.62	4.67	4.72	4.70	5.06	DQ	11.92 13.18 14.09
		velocity	7.32	9.00	8.75	8.68	8.39	7.97	7.58	7.49	7.42	7.45	7.91	7.94	8.81 7.97 7.45
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	17	159	

**Heat 1 - 2021 Chinese National Championships (Chongqing, CHN)***CAA Hurdle Development (2021)*

date	26-Jun-21	time	6.22	10.03	13.88	17.78	21.79	25.98	30.45	34.94	39.54	44.21	49.40	3 / 1	
reaction time	0.239	interval		3.81	3.85	3.90	4.01	4.19	4.47	4.49	4.60	4.67	5.19	PB	11.56 12.67 13.76
		velocity	7.23	9.19	9.09	8.97	8.73	8.35	7.83	7.80	7.61	7.49	7.71	8.10	9.08 8.29 7.63
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	17.2	159.2	

**FINAL - 2020 Chinese Olympic Trials (Shaoxing, CHN)***CAA Hurdle Development (2021)*

date	13-Jun-21	time	6.22	10.21	14.25	18.28	22.47	26.91	31.38	35.97	40.44	44.98	50.00	6 / 1	
reaction time	0.225	interval		3.99	4.04	4.03	4.19	4.44	4.47	4.59	4.47	4.54	5.02		12.06 13.10 13.60
		velocity	7.23	8.77	8.66	8.68	8.35	7.88	7.83	7.63	7.83	7.71	7.97	8.00	8.71 8.02 7.72
H1 lead leg	L	strides	21	13	13	13	13	14	14	14	14	14	17	160	

**U20 FINAL - 2019 Chinese National Youth Games (Taiyuan, CHN)***CAA Hurdle Development (2019)*

date	17-Aug-19	time	6.42	10.36	14.34	18.39	22.60	26.86	31.20	35.64	40.34	44.92	49.96	6 / 1	
reaction time	0.284	interval		3.94	3.98	4.05	4.21	4.26	4.34	4.44	4.70	4.58	5.04	PB	11.97 12.81 13.72
		velocity	7.01	8.88	8.79	8.64	8.31	8.22	8.06	7.88	7.45	7.64	7.94	8.01	8.77 8.20 7.65
H1 lead leg	L	strides	21	13	13	13	13	13	13	13	14	14	17	157	

**U20 Heat 2 - 2019 Chinese National Youth Games (Taiyuan, CHN)***CAA Hurdle Development (2019)*

date	17-Aug-19	time	6.30	10.32	14.33	18.48	22.70	27.05	31.86	37.19	42.46	47.66	53.98	5 / 1	
reaction time	0.209	interval		4.02	4.01	4.15	4.22	4.35	4.81	5.33	5.27	5.20	6.32		12.18 13.38 15.80
		velocity	7.14	8.71	8.73	8.43	8.29	8.05	7.28	6.57	6.64	6.73	6.33	7.41	8.62 7.85 6.65
H1 lead leg	L	strides	21	13	13	13	13	13	14	15	15	15	17.8	162.8	

**Heat 2 - 2019 Chinese World Championship Trials (Shenyang, CHN)***CAA Hurdle Development (2019)*

date	03-Aug-19	time	6.44	10.63	14.77	19.04	23.42	27.91	32.72	37.45	42.23	47.05	52.42	4 / 1	
reaction time	0.228	interval		4.19	4.14	4.27	4.38	4.49	4.81	4.73	4.78	4.82	5.37		12.60 13.68 14.33
		velocity	6.99	8.35	8.45	8.20	7.99	7.80	7.28	7.40	7.32	7.26	7.45	7.63	8.33 7.68 7.33
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	17	159	

**FINAL - 2019 Chinese National Championships (Shenyang, CHN)***CAA Hurdle Development (2019)*

date	10-Jul-19	time	6.27	10.14	14.03	18.00	22.05	26.26	30.80	35.25	39.97	44.69	50.01	5 / 1	
reaction time	0.304	interval		3.87	3.89	3.97	4.05	4.21	4.54	4.45	4.72	4.72	5.32	PB	11.73 12.80 13.89
		velocity	7.18	9.04	9.00	8.82	8.64	8.31	7.71	7.87	7.42	7.42	7.52	8.00	8.95 8.20 7.56
H1 lead leg	L	strides	22	13	13	13	13	13	14	14	14	14	17.5	160.5	

**Heat 1 - 2019 Chinese National Championships (Shenyang, CHN)***CAA Hurdle Development (2019)*

date	09-Jul-19	time	6.44	10.48	14.50	18.52	22.66	26.94	31.48	35.98	40.62	45.34	50.85	7 / 2	
reaction time	0.293	interval		4.04	4.02	4.02	4.14	4.28	4.54	4.50	4.64	4.72	5.51	PB	12.08 12.96 13.86
		velocity	6.99	8.66	8.71	8.71	8.45	8.18	7.71	7.78	7.54	7.42	7.26	7.87	8.69 8.10 7.58
H1 lead leg	L	strides	22	13	13	13	13	13	14	14	14	14	17.5	160.5	

**Xu Guoyu (CHN) (1997)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2019 Chinese National Grand Prix 2 (Huangshi, CHN)***CAA Hurdle Development (2019)*

date	12-Apr-19	time	6.38	10.59	14.80	19.19	23.71	28.38	33.10	37.90	42.71	47.51	53.06	7 / 4	
reaction time	0.215	interval		4.21	4.21	4.39	4.52	4.67	4.72	4.80	4.81	4.80	5.55		12.81 13.91 14.41
		velocity	7.05	8.31	8.31	7.97	7.74	7.49	7.42	7.29	7.28	7.29	7.21	7.54	8.20 7.55 7.29
H1 lead leg	R	strides	21	15	15	15	15	15	15	15	15	16	21	178	

**Xu Xin (MAC) (2000)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****U20 Heat 2 - 2019 Chinese National Youth Games (Taiyuan, CHN)***CAA Hurdle Development (2019)*

date	17-Aug-19	time	6.34	10.62	15.00	19.52	24.23	29.38	34.80	40.40	46.16	52.40	59.60	4 / 5	
reaction time	0.176	interval		4.28	4.38	4.52	4.71	5.15	5.42	5.60	5.76	6.24	7.20		13.18 15.28 17.60
		velocity	7.10	8.18	7.99	7.74	7.43	6.80	6.46	6.25	6.08	5.61	5.56	6.71	7.97 6.87 5.97
H1 lead leg	L	strides	23	15	15	15	15	15	15	17	17	19	166		

**Xu Xinfeng (CHN) (2005)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2024 Chinese National Championships (Quzhou, CHN)***Shandong Athletics Sport Science (2024)*

date	16-Sep-24	time	6.25	10.24	14.38	18.58	22.84	27.16	31.60	36.20	40.92	45.66	50.90	3 / 6	
reaction time	0.167	interval		3.99	4.14	4.20	4.26	4.32	4.44	4.60	4.72	4.74	5.24		12.33 13.02 14.06
		velocity	7.20	8.77	8.45	8.33	8.22	8.10	7.88	7.61	7.42	7.38	7.63	7.86	8.52 8.06 7.47
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	17.5	167.5	

**Xu Zhihang (CHN) (1997)****H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2021 National Grand Prix (Chengdu, CHN)***CAA Hurdle Development (2021)*



date	02-Apr-21	time	6.41	10.65	15.01	19.43	23.98	28.71	33.61	38.82	44.03	nt	5 / 8				
reaction time	0.264	interval		4.24	4.36	4.42	4.55	4.73	4.90	5.21	5.21			13.02	14.18		
		velocity	7.02	8.25	8.03	7.92	7.69	7.40	7.14	6.72	6.72			8.06	7.40		
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15		135				

**Heat 2 - 2021 National Grand Prix (Chengdu, CHN)**

date	01-Apr-21	time	6.18	10.14	14.18	18.28	22.42	26.80	31.28	36.02	41.00	46.08	51.84	2 / 1			
reaction time	0.217	interval		3.96	4.04	4.10	4.14	4.38	4.48	4.74	4.98	5.08	5.76		12.10	13.00	14.80
		velocity	7.28	8.84	8.66	8.54	8.45	7.99	7.81	7.38	7.03	6.89	6.94	7.72	8.68	8.08	7.09
H1 lead leg	L	strides	21	14	14	14	14	15	15	16	16	16	19.5	174.5			

CAA Hurdle Development (2021)

**Heat 1 - 2019 Chinese World Championship Trials (Shenyang, CHN)**

date	03-Aug-19	time	6.72	11.31									dnf	4 / --			
reaction time		interval		4.59													
		velocity	6.70	7.63													
H1 lead leg	L	strides	22	15													

CAA Hurdle Development (2019)

**FINAL - 2019 Chinese National Championships (Shenyang, CHN)**

date	10-Jul-19	time	6.26	10.26	14.37	18.48	22.65	27.06	31.56	36.17	40.82	45.55	50.81	4 / 3			
reaction time	0.167	interval		4.00	4.11	4.11	4.17	4.41	4.50	4.61	4.65	4.73	5.26		12.22	13.08	13.99
		velocity	7.19	8.75	8.52	8.52	8.39	7.94	7.78	7.59	7.53	7.40	7.60	7.87	8.59	8.03	7.51
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	18	170			

CAA Hurdle Development (2019)

**Heat 2 - 2019 Chinese National Championships (Shenyang, CHN)**

date	09-Jul-19	time	6.22	10.20	14.28	18.39	22.58	26.96	31.42	35.96	40.64	45.56	51.20	7 / 1			
reaction time	0.158	interval		3.98	4.08	4.11	4.19	4.38	4.46	4.54	4.68	4.92	5.64		12.17	13.03	14.14
		velocity	7.23	8.79	8.58	8.52	8.35	7.99	7.85	7.71	7.48	7.11	7.09	7.81	8.63	8.06	7.43
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	16	19	172			

CAA Hurdle Development (2019)

**FINAL - 2017 Chinese National Games (Tianjin, CHN)**

date	04-Sep-17	time	5.95	10.07	14.30	18.56	22.84	27.29	31.75	36.28	40.70	45.13	50.50	/ 5			
reaction time		interval		4.12	4.23	4.26	4.28	4.45	4.46	4.53	4.42	4.43	5.37		PB	12.61	13.19
		velocity	7.56	8.50	8.27	8.22	8.18	7.87	7.85	7.73	7.92	7.90	7.45	7.92		8.33	7.96
H1 lead leg		strides	21	13	13	13	13	15	15	15	15	15	148				

Wang (2020) - comparative analysis of pre-competitoin training of finalist in 400m hurdlers at 13th national games

**Yamada, Atsushi (JPN) (1991)**

<b>B FINAL - 2021 Denka Athletics Challenge Cup (Niigata, JPN)</b>	<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
date	06-Jun-21	time	5.99	9.71	13.48	17.38	21.45	25.76	30.25	34.97	39.76	44.73	50.33	8 / 3			
reaction time		interval		3.72	3.77	3.90	4.07	4.31	4.49	4.72	4.79	4.97	5.60		11.39	12.87	14.48
		velocity	7.51	9.41	9.28	8.97	8.60	8.12	7.80	7.42	7.31	7.04	7.14	7.95	9.22	8.16	7.25
H1 lead leg	L	strides	21	13	13	13	14	14	14	15	15	15	19.2	166.2			

Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season

**FINAL - 2020 Michitaka Kinami Memorial (Osaka, JPN)**

date	24-Oct-20	time	5.96	9.84	13.82	17.85	21.91	26.08	30.36	34.97	39.74	44.73	50.49	3 / 5			
reaction time		interval		3.88	3.98	4.03	4.06	4.17	4.28	4.61	4.77	4.99	5.76		11.89	12.51	14.37
		velocity	7.55	9.02	8.79	8.68	8.62	8.39	8.18	7.59	7.34	7.01	6.94	7.92	8.83	8.39	7.31
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	20	170			

Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season

**FINAL - 2020 All Japan Corporate Championships (Kumagaya, JPN)**

date	20-Sep-20	time	6.10	10.04	14.07	18.23	22.52	26.89	31.38	36.00	40.71	45.55	50.94	4 / 4			
reaction time	0.202	interval		3.94	4.03	4.16	4.29	4.37	4.49	4.62	4.71	4.84	5.39		12.13	13.15	14.17
		velocity	7.38	8.88	8.68	8.41	8.16	8.01	7.80	7.58	7.43	7.23	7.42	7.85	8.66	7.98	7.41
H1 lead leg		strides		14	14	14	14	14	14	15	15	15	129				

Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season

**Yamada, Hiromasa (JPN)**

<b>FINAL - 2017 Japanese National High School Championships (Yamagata, JPN)</b>	<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
date	31-Jul-17	time	6.37	10.43	14.65	19.00	23.66	28.45	33.25	38.10	43.09	47.98	53.24	3 / 7			
reaction time	0.243	interval		4.06	4.22	4.35	4.66	4.79	4.80	4.85	4.99	4.89	5.26		12.63	14.25	14.73
		velocity	7.06	8.62	8.29	8.05	7.51	7.31	7.29	7.22	7.01	7.16	7.60	7.51	8.31	7.37	7.13
H1 lead leg		strides		14	14	14	15	15	15	15	16	16	134				

Kota (2017) - 70th high school championships: JAF scientific committee - biomechanics data collection

**Yamada, Nao (JPN) (2004)**

<b>FINAL - 2023 Japanese U20 National Championships (Osaka, JPN)</b>	<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
date	03-Jun-23	time	6.09	9.96	13.96	18.00	22.16	26.38	30.78	35.39	40.47	45.95	51.67	6 / 2			
reaction time	0.213	interval		3.87	4.00	4.04	4.16	4.22	4.40	4.61	5.08	5.48	5.72		11.91	12.78	15.17
		velocity	7.39	9.04	8.75	8.66	8.41	8.29	7.95	7.59	6.89	6.39	6.99	7.74	8.82	8.22	6.92
H1 lead leg	L	strides	23	15	15	15	15	15	15	15	16	18	20.5	182.5			

Kishima (2022) - national high school championships biomechanics data collection

**FINAL - 2022 Japanese National High School Championships (Naruto, JPN)**

date	05-Aug-22	time	6.18	10.18	14.28	18.40	22.62	26.90	31.33	35.95	40.90	45.85	51.48	3 / 4			
reaction time	0.184	interval		4.00	4.10	4.12	4.22	4.28	4.43	4.62	4.95	4.95	5.63		PB	12.22	12.93
		velocity	7.28	8.75	8.54	8.50	8.29	8.18	7.90	7.58	7.07	7.07	7.10	7.77	8.59	8.12	7.23
H1 lead leg	L	strides	23	15	15	15	15	15	15	15	17	17	20	182			

Kishima (2022) - national high school championships biomechanics data collection

**Yamamoto, Ryo (JPN) (1995)**

<b>C FINAL - 2021 Michitaka Kinami Memorial (Osaka, JPN)</b>	<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
date	01-Jun-21	time	6.24	10.16	14.10	18.17	22.37	26.73	31.11	35.59	40.21	44.94	50.45	8 / 1			

Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season

reaction time	0.177	interval	3.92	3.94	4.07	4.20	4.36	4.38	4.48	4.62	4.73	5.51			11.93	12.94	13.83		
		velocity	7.21	8.93	8.88	8.60	8.33	8.03	7.99	7.81	7.58	7.40	7.26	7.93	8.80	8.11	7.59		
H1 lead leg	R	strides	21	14	14	14	14	15	15	15	15	15	18.5	170.5					
<b>Yamamoto, Takeshi (JPN) (1998)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>B FINAL - 2020 World Athletics Trials (Fuji, JPN)</b>			<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>																
date	06-Sep-20	time	6.09	9.96	13.91	17.95	22.09	26.38	30.75	35.30	40.16	45.40			51.44	3 / 5			
reaction time		interval		3.87	3.95	4.04	4.14	4.29	4.37	4.55	4.86	5.24	6.04				11.86	12.80	14.65
		velocity	7.39	9.04	8.86	8.66	8.45	8.16	8.01	7.69	7.20	6.68	6.62	7.78			8.85	8.20	7.17
H1 lead leg	R	strides	22	14	14	14	14	15	15	15	15	17	20	175					
<b>Yamamoto, Tatsuhiro (JPN) (1997)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>B FINAL - 2023 Michitaka Kinami Memorial (Osaka, JPN)</b>			<i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>																
date	07-May-23	time	6.34	10.29	14.45	18.62	22.86	27.18	31.60	36.12	40.62	45.28			50.45	1 / 2			
reaction time	0.196	interval		3.95	4.16	4.17	4.24	4.32	4.42	4.52	4.50	4.66	5.17				12.28	12.98	13.68
		velocity	7.10	8.86	8.41	8.39	8.25	8.10	7.92	7.74	7.78	7.51	7.74	7.93			8.55	8.09	7.68
H1 lead leg		strides		14	14	14	14	14	15	15	15	15	15	130					
<b>FINAL - 2022 Seiko Golden Grand Prix (Tokyo, JPN)</b>			<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>																
date	08-May-22	time	6.11	10.06	14.06	18.12	22.26	26.51	30.88	35.35	39.86	44.54			49.96	3 / 6			
reaction time	0.134	interval		3.95	4.00	4.06	4.14	4.25	4.37	4.47	4.51	4.68	5.42				12.01	12.76	13.66
		velocity	7.36	8.86	8.75	8.62	8.45	8.24	8.01	7.83	7.76	7.48	7.38	8.01			8.74	8.23	7.69
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	18.7	168.7					
<b>FINAL - 2021 Japanese National Championships (Osaka, JPN)</b>			<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>																
date	26-Jun-21	time	5.97	9.68	13.41	17.25	21.25	25.48	29.90	34.42	39.17	44.39			51.32	9 / 8			
reaction time	0.164	interval		3.71	3.73	3.84	4.00	4.23	4.42	4.52	4.75	5.22	6.93				11.28	12.65	14.49
		velocity	7.54	9.43	9.38	9.11	8.75	8.27	7.92	7.74	7.37	6.70	5.77	7.79			9.31	8.30	7.25
H1 lead leg	R	strides	21	14	14	14	14	14	15	15	15	15	19.7	170.7					
<b>FINAL - 2021 Denka Athletics Challenge Cup (Niigata, JPN)</b>			<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>																
date	06-Jun-21	time	6.09	9.98	13.88	17.88	21.94	26.06	30.40	34.82	39.44	44.23			49.70	4 / 2			
reaction time		interval		3.89	3.90	4.00	4.06	4.12	4.34	4.42	4.62	4.79	5.47				11.79	12.52	13.83
		velocity	7.39	9.00	8.97	8.75	8.62	8.50	8.06	7.92	7.58	7.31	7.31	8.05			8.91	8.39	7.59
H1 lead leg	R	strides	21	14	14	14	14	14	15	15	15	15	18.2	169.2					
<b>B FINAL - 2021 Michitaka Kinami Memorial (Osaka, JPN)</b>			<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>																
date	01-Jun-21	time	6.09	10.03	14.03	17.95	22.04	26.31	30.65	35.04	39.62	44.44			49.99	5 / 2			
reaction time	0.165	interval		3.94	4.00	3.92	4.09	4.27	4.34	4.39	4.58	4.82	5.55				11.86	12.70	13.79
		velocity	7.39	8.88	8.75	8.93	8.56	8.20	8.06	7.97	7.64	7.26	7.21	8.00			8.85	8.27	7.61
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	19	171					
<b>FINAL - 2020 Michitaka Kinami Memorial (Osaka, JPN)</b>			<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>																
date	24-Oct-20	time	6.06	9.99	13.96	17.92	21.96	26.08	30.36	34.87	39.62	44.48			49.93	8 / 2			
reaction time		interval		3.93	3.97	3.96	4.04	4.12	4.28	4.51	4.75	4.86	5.45				11.86	12.44	14.12
		velocity	7.43	8.91	8.82	8.84	8.66	8.50	8.18	7.76	7.37	7.20	7.34	8.01			8.85	8.44	7.44
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	18	170					
<b>FINAL - 2020 Japanese National Championships (Niigata, JPN)</b>			<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>																
date	02-Oct-20	time	6.06	9.91	13.86	17.87	22.01	26.28	30.66	35.12	39.69	44.38			49.79	4 / 2			
reaction time	0.156	interval		3.85	3.95	4.01	4.14	4.27	4.38	4.46	4.57	4.69	5.41				11.81	12.79	13.72
		velocity	7.43	9.09	8.86	8.73	8.45	8.20	7.99	7.85	7.66	7.46	7.39	8.03			8.89	8.21	7.65
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	18.7	170.7					
<b>FINAL - 2020 Seiko Golden Grand Prix (Tokyo, JPN)</b>			<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>																
date	23-Aug-20	time	6.01	9.86	13.80	17.77	21.87	26.16	30.61	35.17	39.92	44.79			50.34	4 / 3			
reaction time	0.137	interval		3.85	3.94	3.97	4.10	4.29	4.45	4.56	4.75	4.87	5.55				11.76	12.84	14.18
		velocity	7.49	9.09	8.88	8.82	8.54	8.16	7.87	7.68	7.37	7.19	7.21	7.95			8.93	8.18	7.40
H1 lead leg		strides		14	14	14	14	15	15	15	15	15	15	131					
<b>B FINAL - 2018 Shizuoka International Athletics Meeting (Fukuoka, JPN)</b>			<i>Morioka (2018) - race pattern analysis of Japan's top 400m hurdlers - main national competitions in 2018</i>																
date	03-May-18	time	6.14	10.04	14.03	18.10	22.27	26.59	31.03	35.60	40.18	44.76			49.94	8 / 2			
reaction time	0.171	interval		3.90	3.99	4.07	4.17	4.32	4.44	4.57	4.58	4.58	5.18	<b>PB</b>			11.96	12.93	13.73
		velocity	7.33	8.97	8.77	8.60	8.39	8.10	7.88	7.66	7.64	7.64	7.72	8.01			8.78	8.12	7.65
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	15	15	18.2	171.2					
<b>FINAL - 2015 Japanese National High School Championships (Wakayama, JPN)</b>			<i>Enomoto (2015) - 68th high school championships: JAF scientific committee- biomechanics data</i>																
date	31-Jul-15	time	6.19	10.13	14.25	18.37	22.62	27.06	31.60	36.14	40.77	45.63			51.32	7 / 3			
reaction time		interval		3.94	4.12	4.12	4.25	4.44	4.54	4.54	4.63	4.86	5.69	<b>PB</b>			12.18	13.23	14.03
		velocity	7.27	8.88	8.50	8.50	8.24	7.88	7.71	7.71	7.56	7.20	7.03	7.79			8.62	7.94	7.48
H1 lead leg		strides		14	14	14	15	15	15	15	15	15	15	132					
<b>Yamamoto, Yuya (JPN) (2006)</b>			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2024 Japanese National High School Championships (Fukuoka, JPN)</b>			<i>Takashima (2024) - national high school sports festival - biomechanics data</i>																
date	30-Jul-24	time	6.44	10.48	14.65	18.97	23.27	27.59	31.93	36.30	40.77	45.51			53.48	9 / 8			
reaction time	0.237	interval		4.04	4.17	4.32	4.30	4.32	4.34	4.37	4.47	4.74	7.97				12.53	12.96	13.58
		velocity	6.99	8.66	8.39	8.10	8.14	8.10	8.06	8.01	7.83	7.38	5.02	7.48			8.38	8.10	7.73



H1 lead leg	strides	21	15	15	15	15	15	15	15	15	15	15	19	175				
<b>Yamane, Yusuke (JPN) (2003)</b>		<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2021 Shimane High School Championships (Izumo, JPN)</b>		<i>Shimizu (2021) - shimane high school championships 2021 - biomechanics data analysis</i>																
date	29-May-21	time	6.40	10.62	15.02	19.52	24.15		28.97	34.15	39.38	44.85	50.23	56.03	3 / 1			
reaction time		interval		4.22	4.40	4.50	4.63		4.82	5.18	5.23	5.47	5.38	5.80		13.12	14.63	16.08
		velocity	7.03	8.29	7.95	7.78	7.56		7.26	6.76	6.69	6.40	6.51	6.90	7.14	8.00	7.18	6.53
H1 lead leg	strides	22	15	15	15	15		15	16	16	17	17	19.7	182.7				
<b>FINAL - 2020 Shimane High School Championships (Izumo, JPN)</b>		<i>Shimizu (2020) - shimane high school championships 2020 - biomechanics data analysis</i>																
date	12-Jul-20	time	6.42	10.65	15.03	19.52	24.12		28.87	33.85	39.18	44.57	50.08	56.41	7 / 2			
reaction time		interval		4.23	4.38	4.49	4.60		4.75	4.98	5.33	5.39	5.51	6.33		13.10	14.33	16.23
		velocity	7.01	8.27	7.99	7.80	7.61		7.37	7.03	6.57	6.49	6.35	6.32	7.09	8.02	7.33	6.47
H1 lead leg	strides	22	15	15	15	15		15	15	16	16	17	20.7	181.7				
<b>Yamaoka, Ryutaro (JPN) (2001)</b>		<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2020 Japanese U20 National Championships (Hiroshima, JPN)</b>		<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>																
date	25-Oct-20	time	6.36	10.54	14.80	19.15	23.59		28.03	32.63	37.34	42.13	47.05	52.52	6 / 2			
reaction time	0.156	interval		4.18	4.26	4.35	4.44		4.44	4.60	4.71	4.79	4.92	5.47		12.79	13.48	14.42
		velocity	7.08	8.37	8.22	8.05	7.88		7.88	7.61	7.43	7.31	7.11	7.31	7.62	8.21	7.79	7.28
H1 lead leg	L	strides	22	15	15	15		15	15	15	16	16	19	178				
<b>Yamashina, Shinnosuke (JPN) (2001)</b>		<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2019 Japanese National High School Championships (Okinawa, JPN)</b>		<i>Kota (2019) - 72nd high school championships: JAF scientific committee - biomechanics data</i>																
date	06-Aug-19	time	6.33	10.56	14.78	19.11	23.70		28.56	33.50	38.49	43.69	49.11	55.20	1 / 8			
reaction time		interval		4.23	4.22	4.33	4.59		4.86	4.94	4.99	5.20	5.42	6.09		12.78	14.39	15.61
		velocity	7.11	8.27	8.29	8.08	7.63		7.20	7.09	7.01	6.73	6.46	6.57	7.25	8.22	7.30	6.73
H1 lead leg		strides		14	14	14	14		15	15	15	15	16	132				
<b>Yamauchi, Hiromu (JPN) (1999)</b>		<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>200m</b>	<b>H6</b>	<b>H7</b>	<b>H8</b>	<b>H9</b>	<b>H10</b>	<b>Run-In</b>	<b>Official Time</b>	<b>Lane / Place</b>	<b>H1-H4</b>	<b>H4-H7</b>	<b>H7-H10</b>
<b>FINAL - 2023 Japanese National Championships (Osaka, JPN)</b>		<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>																
date	03-Jun-23	time	6.21	10.06	13.98	19.07	22.19		26.36	30.65	35.15	39.72	44.44	49.78	6 / 2			
reaction time	0.223	interval		3.85	3.92	5.09	3.12		4.17	4.29	4.50	4.57	4.72	5.34		12.86	11.58	13.79
		velocity	7.25	9.09	8.93	8.88	11.22		8.39	8.16	7.78	7.66	7.42	7.49	8.04	8.16	9.07	7.61
H1 lead leg	L	strides	21	14	14	14	14		14	14	15	15	15	19	169			
<b>A FINAL - 2023 Shizuoka International Meeting (Fukuroi, JPN)</b>		<i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>																
date	03-May-23	time	6.24	10.19	14.21	18.25	22.33		26.53	30.85	35.30	39.90	44.60	49.99	6 / 3			
reaction time	0.206	interval		3.95	4.02	4.04	4.08		4.20	4.32	4.45	4.60	4.70	5.39		12.01	12.60	13.75
		velocity	7.21	8.86	8.71	8.66	8.58		8.33	8.10	7.87	7.61	7.45	7.42	8.00	8.74	8.33	7.64
H1 lead leg	L	strides	21	14	14	14	14		14	14	15	15	15	19	169			
<b>Semi-Final 3 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>		<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>																
date	01-Aug-21	time	6.06	9.90	13.80	17.66	21.76		25.86	30.20	34.60	39.20	43.83	49.35	8 / 6			
reaction time	0.192	interval		3.84	3.90	3.86	4.10		4.10	4.34	4.40	4.60	4.63	5.52		11.60	12.54	13.63
		velocity	7.43	9.11	8.97	9.07	8.54		8.54	8.06	7.95	7.61	7.56	7.25	8.11	9.05	8.37	7.70
H1 lead leg	L	strides	21	14	14	14	14		14	14	15	15	15	19	169			
<b>Heat 2 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)</b>		<i>Henson (2024) - Athlete First: 2021 year end hurdle report</i>																
date	30-Jul-21	time	6.03	9.82	13.73	17.70	21.70		25.87	30.06	34.13	38.80	43.80	49.21	8 / 3			
reaction time	0.184	interval		3.79	3.91	3.97	4.00		4.17	4.19	4.30	4.47	4.67	5.41		11.67	12.36	13.74
		velocity	7.46	9.23	8.95	8.82	8.75		8.39	8.35	8.18	7.72	7.49	7.39	8.13	9.00	8.50	7.64
H1 lead leg	L	strides	21	14	14	14	14		14	14	15	15	18.7	153.7				
<b>FINAL - 2021 Japanese National Championships (Osaka, JPN)</b>		<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>																
date	26-Jun-21	time	6.09	10.01	13.95	17.93	21.97		26.08	30.28	34.67	39.24	43.96	49.48	6 / 4			
reaction time	0.217	interval		3.92	3.94	3.98	4.04		4.11	4.20	4.39	4.57	4.72	5.52		11.84	12.35	13.68
		velocity	7.39	8.93	8.88	8.79	8.66		8.52	8.33	7.97	7.66	7.42	7.25	8.08	8.87	8.50	7.68
H1 lead leg	L	strides	21	14	14	14	14		14	14	15	15	15	19	169			
<b>FINAL - 2021 Ready Steady Tokyo (Tokyo, JPN)</b>		<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>																
date	09-May-21	time	6.01	9.91	13.90	17.90	21.99		26.16	30.30	34.68	39.14	43.68	48.84	7 / 2			
reaction time	0.187	interval		3.90	3.99	4.00	4.09		4.17	4.14	4.38	4.46	4.54	5.16	<b>PB</b>	11.89	12.40	13.38
		velocity	7.49	8.97	8.77	8.75	8.56		8.39	8.45	7.99	7.85	7.71	7.75	8.19	8.83	8.47	7.85
H1 lead leg	L	strides	21	14	14	14	14		14	14	15	15	15	18.5	168.5			
<b>FINAL - 2021 Shizuoka International Athletics Meeting (Fukuroi, JPN)</b>		<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>																
date	03-May-21	time	6.17	10.09	14.21	18.34	22.54		26.79	31.13	35.59	40.15	44.81	50.23	3 / 2			
reaction time	0.224	interval		3.92	4.12	4.13	4.20		4.25	4.34	4.46	4.56	4.66	5.42		12.17	12.79	13.68
		velocity	7.29	8.93	8.50	8.47	8.33		8.24	8.06	7.85	7.68	7.51	7.38	7.96	8.63	8.21	7.68
H1 lead leg	L	strides	21	14	14	14	14		14	14	15	15	15	19.2	169.2			
<b>FINAL - 2020 Japanese National Championships (Niigata, JPN)</b>		<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>																
date	02-Oct-20	time	6.16	10.08	14.16	18.27	22.49		26.78	31.15	35.64	40.26	45.01	50.50	6 / 5			
reaction time	0.185	interval		3.92	4.08	4.11	4.22		4.29	4.37	4.49	4.62	4.75	5.49		12.11	12.88	13.86
		velocity	7.31	8.93	8.58	8.52	8.29		8.16	8.01	7.80	7.58	7.37	7.29	7.92	8.67	8.15	7.58
H1 lead leg	L	strides	21	14	14	14	14		14	14	15	15	15	19.2	169.2			

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation



**FINAL - 2017 Japanese National High School Chamionships (Yamagata, JPN)**

						<i>Kota (2017) - 70th high school championships: JAF scientific committee- biomechanics data</i>											
date	31-Jul-17	time	6.19	10.18	14.30	18.55	22.97	27.59	32.13	36.77	41.56	46.66	51.97	9 / 2			
reaction time	0.168	interval		3.99	4.12	4.25	4.42	4.62	4.54	4.64	4.79	5.10	5.31		12.36	13.58	14.53
		velocity	7.27	8.77	8.50	8.24	7.92	7.58	7.71	7.54	7.31	6.86	7.53	7.70	8.50	7.73	7.23
H1 lead leg		strides		14	14	14	14	15	15	15	15	16	132				

**Yamauka, Yuki (JPN)**

						<i>Shimizu (2024) - shimane high school championships 2024 - biomechanics data analysis</i>											
<b>FINAL - 2024 Shimane High School Championships (Izumo, JPN)</b>																	
date	25-May-24	time	7.43	12.60	17.38	22.12	26.92	32.12	37.13	42.37	47.62	52.95	58.48	7 / 2			
reaction time		interval		5.17	4.78	4.74	4.80	5.20	5.01	5.24	5.25	5.33	5.53		14.69	15.01	15.82
		velocity	6.06	6.77	7.32	7.38	7.29	6.73	6.99	6.68	6.67	6.57	7.23	6.84	7.15	7.00	6.64
H1 lead leg		strides	23	16	15	15	15	16	16	16	17	17	19	185			

**Yamazaki, Kazuhiko (JPN) (1971)**

						<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>											
<b>Heat 2 - 2000 Olympic Games (Sydney, AUS)</b>																	
date	24-Sep-00	time	5.90	9.66	13.58	17.58	21.70	25.98	35.10	39.78	44.54	50.15	50.15	1 / 7			
reaction time	0.177	interval		3.76	3.92	4.00	4.12	4.28	9.12	4.68	4.76	5.61	7.98		11.68		
		velocity	7.63	9.31	8.93	8.75	8.50	8.18	7.68	7.48	7.35	7.13	7.98	8.99	9.15	8.37	7.63
H1 lead leg		strides		20	13	13	13	14	14	15	15	15	18	163			

**Semi-Final 1 - 1999 IAAF World Championships (Sevilla, ESP)**

						<i>Sanchez (1999) - Sevilla '99: análisis de la carreras con villas</i>											
date	25-Aug-99	time	5.69	9.44	13.24	17.16	21.22	25.38	29.70	34.21	38.75	43.47	49.46	4 / 7			
reaction time	0.172	interval		3.75	3.80	3.92	4.06	4.16	4.32	4.51	4.54	4.72	5.99		11.47	12.54	13.77
		velocity	7.91	9.33	9.21	8.93	8.62	8.41	8.10	7.76	7.71	7.42	6.68	8.09	9.15	8.37	7.63
H1 lead leg	L	strides	20	13	13	13	13	14	14	15	15	15	18	163			

**Yanagita, Kiyoto (JPN) (2004)**

						<i>Kishima (2022) - national high school championships biomechanics data collection</i>											
<b>FINAL - 2023 Japanese U20 National Championships (Osaka, JPN)</b>																	
date	03-Jun-23	time	6.14	10.01	14.01	18.10	22.32	26.63	31.18	35.97	40.97	46.33	52.56	8 / 5			
reaction time	0.180	interval		3.87	4.00	4.09	4.22	4.31	4.55	4.79	5.00	5.36	6.23		11.96	13.08	15.15
		velocity	7.33	9.04	8.75	8.56	8.29	8.12	7.69	7.31	7.00	6.53	6.42	7.61	8.78	8.03	6.93
H1 lead leg	L	strides	21	13	14	14	14	14	15	15	15	16	20	171			

**Yang Baichuan (CHN) (1995)**

						<i>CAA Hurdle Development (2021)</i>											
<b>Heat 2 - 2021 Chinese National Championships (Chongqing, CHN)</b>																	
date	26-Jun-21	time	6.25	10.19	14.33	18.50	22.70	27.09	31.61	36.27	41.11	46.34	fell	4 / --			
reaction time	0.176	interval		3.94	4.14	4.17	4.20	4.39	4.52	4.66	4.84	5.23	DQ		12.25	13.11	14.73
		velocity	7.20	8.88	8.45	8.39	8.33	7.97	7.74	7.51	7.23	6.69		8.57	8.01	7.13	
H1 lead leg	L	strides	23	15	15	15	15	15	15	15	15	17	160				

**FINAL - 2020 Chinese National Championships (Shaoxing, CHN)**

						<i>CAA Hurdle Development (2020)</i>											
date	17-Sep-20	time	6.08	10.12	14.25	18.50	22.83	27.25	31.75	36.42	41.12	45.92	51.58	2 / 6			
reaction time		interval		4.04	4.13	4.25	4.33	4.42	4.50	4.67	4.70	4.80	5.66		12.42	13.25	14.17
		velocity	7.40	8.66	8.47	8.24	8.08	7.92	7.78	7.49	7.45	7.29	7.07	7.75	8.45	7.92	7.41
H1 lead leg	L	strides	23	15	15	15	15	15	15	15	15	15	20	178			

**Heat 1 - 2019 Chinese National Grand Prix Final (Daqing, CHN)**

						<i>CAA Hurdle Development (2019)</i>											
date	22-Aug-19	time	6.37	10.48	14.75	19.15	23.59	28.09	32.67	37.32	42.13	46.98	52.44	7 / 5			
reaction time	0.166	interval		4.11	4.27	4.40	4.44	4.50	4.58	4.65	4.81	4.85	5.46		12.78	13.52	14.31
		velocity	7.06	8.52	8.20	7.95	7.88	7.78	7.64	7.53	7.28	7.22	7.33	7.63	8.22	7.77	7.34
H1 lead leg	L	strides	23	15	15	15	15	15	15	15	15	15	20	178			

**FINAL - 2019 Chinese World Championship Trials (Shenyang, CHN)**

						<i>CAA Hurdle Development (2019)</i>											
date	03-Aug-19	time	6.12	10.14	14.30	18.56	22.92	27.25	31.68	36.21	40.78	45.55	50.85	6 / 2			
reaction time	0.186	interval		4.02	4.16	4.26	4.36	4.33	4.43	4.53	4.57	4.77	5.30		12.44	13.12	13.87
		velocity	7.35	8.71	8.41	8.22	8.03	8.08	7.90	7.73	7.66	7.34	7.55	7.87	8.44	8.00	7.57
H1 lead leg	L	strides	23	15	15	15	15	15	15	15	15	15	20	178			

**Heat 2 - 2019 Chinese World Championship Trials (Shenyang, CHN)**

						<i>CAA Hurdle Development (2019)</i>											
date	03-Aug-19	time	6.29	10.36	14.56	18.80	23.21	27.80	32.47	37.23	42.10	47.26	53.14	7 / 2			
reaction time	0.194	interval		4.07	4.20	4.24	4.41	4.59	4.67	4.76	4.87	5.16	5.88		12.51	13.67	14.79
		velocity	7.15	8.60	8.33	8.25	7.94	7.63	7.49	7.35	7.19	6.78	6.80	7.53	8.39	7.68	7.10
H1 lead leg	L	strides	23	15	15	15	15	15	15	15	15	15	20	178			

**FINAL - 2019 Chinese National Championships (Shenyang, CHN)**

						<i>CAA Hurdle Development (2019)</i>											
date	10-Jul-19	time	6.12	9.96	13.97	18.04	22.19	26.44	30.88	35.47	40.24	45.30	50.93	1 / 5-4			
reaction time	0.206	interval		3.84	4.01	4.07	4.15	4.25	4.44	4.59	4.77	5.06	5.63		11.92	12.84	14.42
		velocity	7.35	9.11	8.73	8.60	8.43	8.24	7.88	7.63	7.34	6.92	7.10	7.85	8.81	8.18	7.28
H1 lead leg	L	strides	23	15	15	15	15	15	15	15	15	15	20.5	178.5			

**Heat 1 - 2019 Chinese National Championships (Shenyang, CHN)**

						<i>CAA Hurdle Development (2019)</i>											
date	09-Jul-19	time	6.32	10.36	14.59	18.84	23.11	27.39	31.80	36.27	40.89	45.76	51.20	1 / 4			
reaction time	0.218	interval		4.04	4.23	4.25	4.27	4.28	4.41	4.47	4.62	4.87	5.44		12.52	12.96	13.96
		velocity	7.12	8.66	8.27	8.24	8.20	8.18	7.94	7.83	7.58	7.19	7.35	7.81	8.39	8.10	7.52
H1 lead leg	L	strides	23	15	15	15	15	15	15	15	15	15	20.3	178.3			

**FINAL - 2019 Chinese National Grand Prix 2 (Huangshi, CHN)**

CAA Hurdle Development (2019)

date	12-Apr-19	time	6.27	10.41	14.71	19.05	23.44	27.93	32.47	37.14	42.08	47.46	53.44	5 / 5				
reaction time	0.181	interval		4.14	4.30	4.34	4.39	4.49	4.54	4.67	4.94	5.38	5.98		12.78	13.42	14.99	
		velocity	7.18	8.45	8.14	8.06	7.97	7.80	7.71	7.49	7.09	6.51	6.69	7.49	8.22	7.82	7.00	
H1 lead leg	L	strides	21	15	15	15	15	15	15	15	15	17	20					

**FINAL - 2019 Chinese National Grand Prix 1 (Zhaoqing, CHN)**

CAA Hurdle Development (2019)

date	08-Apr-19	time	6.20	10.12	14.20	18.38	22.60	26.88	31.36	36.10	41.04	46.24	52.06	2 / 4				
reaction time	0.202	interval		3.92	4.08	4.18	4.22	4.28	4.48	4.74	4.94	5.20	5.82		12.18	12.98	14.88	
		velocity	7.26	8.93	8.58	8.37	8.29	8.18	7.81	7.38	7.09	6.73	6.87	7.68	8.62	8.09	7.06	
H1 lead leg	L	strides	23	15	15	15	15	15	15	15	15	16	20.5					

**Yang Pengjun (CHN) (2002)****Heat 3 - 2021 East China District Meeting (Zhaoqing, CHN)**

CAA Hurdle Development (2021)

date	25-Apr-21	time	6.34	10.36	14.58	18.88	23.32	27.78	32.58	37.82	43.53	49.83	55.58	6 / 5				
reaction time	0.230	interval		4.02	4.22	4.30	4.44	4.46	4.80	5.24	5.71	6.30	5.75		12.54	13.70	17.25	
		velocity	7.10	8.71	8.29	8.14	7.88	7.85	7.29	6.68	6.13	5.56	6.96	7.20	8.37	7.66	6.09	
H1 lead leg	L	strides	22	15	15	15	15	15	17	17	19	19	188					

**Yano, Hisho (JPN)****FINAL - 2023 Shimane High School Championships (Izumo, JPN)**

Shimizu (2023) - shimane high school championships 2023 - biomechanics data analysis

date	27-May-23	time	6.87	11.60	16.37	21.28	26.30	31.55	37.08	42.70	48.45	54.13	60.33	7 / 6				
reaction time		interval		4.73	4.77	4.91	5.02	5.25	5.53	5.62	5.75	5.68	6.20		14.41	15.80	17.05	
		velocity	6.55	7.40	7.34	7.13	6.97	6.67	6.33	6.23	6.09	6.16	6.45	6.63	7.29	6.65	6.16	
H1 lead leg		strides	22	15	15	15	15	16	17	17	18	17	20					

**Yates, Richard (GBR) (1986)****FINAL - 2010 Commonwealth Games (Dehli, IND)**

Arnold (2010) - 400mH planning and peaking

date	10-Oct-10	time	6.2	10.1	14.1	18.2	22.4	26.5	30.9	35.3	39.8	44.5	49.84	4 / 5				
reaction time	0.225	interval		3.90	4.00	4.10	4.20	4.10	4.40	4.40	4.50	4.70	5.34		12.00	12.70	13.60	
		velocity	7.26	8.97	8.75	8.54	8.33	8.54	7.95	7.95	7.78	7.45	7.49	8.03	8.75	8.27	7.72	
H1 lead leg	R	strides	21	14	14	14	14	14	14	14	15	15	18					

**Heat 3 - 2010 Commonwealth Games (Dehli, IND)**

Arnold (2010) - 400mH planning and peaking

date	09-Oct-10	time	6.0	9.9	13.8	17.9	22.1	23.9	26.3	30.6	35.0	39.6	44.3	49.83	5 / 1			
reaction time	0.233	interval		3.90	3.90	4.10	4.20	4.20	4.30	4.40	4.60	4.70	5.53		11.90	12.70	13.70	
		velocity	7.50	8.97	8.97	8.54	8.33	8.37	8.33	8.14	7.95	7.61	7.45	8.03	8.82	8.27	7.66	
H1 lead leg		strides																

**Yatsevich, Aleksandr (URS) (1956)****FINAL - 1982 European Championships (Athens, GRE)**

(1982) - XIII championnats d'Europe d'Atletisma, Athens 1982

date	08-Sep-82	time	6.0	9.9	13.8	17.7	21.7	25.9	30.2	34.3	38.7	43.3	48.60	3 / 2				
reaction time		interval		3.90	3.90	3.90	4.00	4.20	4.30	4.10	4.40	4.60	5.30	PB	11.70	12.50	13.10	
		velocity	7.50	8.97	8.97	8.97	8.75	8.33	8.14	8.54	7.95	7.61	7.55	8.23	8.97	8.40	8.02	
H1 lead leg	R	strides	21	15	15	15	15	15	15	15	15	15	18					

**Ye Anan (CHN) (2004)****FINAL - 2024 Chinese National Grand Prix Final (Rizhao, CHN)**

Shandong Athletics Sport Science (2024)

date	29-Jun-24	time	6.14	10.04	14.03	18.10	22.22	26.51	30.96	35.63	40.26	44.94	50.14	3 / 4				
reaction time	0.210	interval		3.90	3.99	4.07	4.12	4.29	4.45	4.67	4.63	4.68	5.20		11.96	12.86	13.98	
		velocity	7.33	8.97	8.77	8.60	8.50	8.16	7.87	7.49	7.56	7.48	7.69	7.98	8.78	8.16	7.51	
H1 lead leg	L	strides	21	14	14	14	14	14	15	15	15	15	18					

**Heat 1 - 2021 Chinese National Championships (Chongqing, CHN)**

CAA Hurdle Development (2021)

date	26-Jun-21	time	6.37	10.44	14.64	18.83	23.19	27.69	32.22	36.91	41.57	46.24	51.64	5 / 4				
reaction time	0.272	interval		4.07	4.20	4.19	4.36	4.50	4.53	4.69	4.66	4.67	5.40		12.46	13.39	14.02	
		velocity	7.06	8.60	8.33	8.35	8.03	7.78	7.73	7.46	7.51	7.49	7.41	7.75	8.43	7.84	7.49	
H1 lead leg	L	strides	22	14	14	14	14	14	14	15	15	15	18.2					

**FINAL - 2020 Chinese Olympic Trials (Shaoying, CHN)**

CAA Hurdle Development (2021)

date	13-Jun-21	time	6.09	9.98	14.13	18.20	22.49	26.86	31.41	36.02	40.62	45.24	50.73	5 / 4				
reaction time	0.215	interval		3.89	4.15	4.07	4.29	4.37	4.55	4.61	4.60	4.62	5.49	PB	12.11	13.21	13.83	
		velocity	7.39	9.00	8.43	8.60	8.16	8.01	7.69	7.59	7.61	7.58	7.29	7.88	8.67	7.95	7.59	
H1 lead leg	L	strides	22	14	14	14	14	14	15	15	15	15	18.2					

**FINAL - 2021 East China District Meeting (Zhaoqing, CHN)**

CAA Hurdle Development (2021)

date	25-Apr-21	time	6.21	10.21	14.33	18.47	22.82	27.16	31.68	36.24	41.04	45.79	51.15	5 / 2				
reaction time	0.221	interval		4.00	4.12	4.14	4.35	4.34	4.52	4.56	4.80	4.75	5.36	PB	12.26	13.21	14.11	
		velocity	7.25	8.75	8.50	8.45	8.05	8.06	7.74	7.68	7.29	7.37	7.46	7.82	8.56	7.95	7.44	
H1 lead leg	L	strides	22	14	14	14	14	14	14	15	15	15	18.5					

**Heat 1 - 2021 East China District Meeting (Zhaoqing, CHN)**

CAA Hurdle Development (2021)

date	25-Apr-21	time	6.28	10.24	14.48	18.72	23.10	27.61	32.11	36.70	41.47	46.31	51.82	6 / 1				
reaction time	0.299	interval		3.96	4.24	4.24	4.38	4.51	4.50	4.59	4.77	4.84	5.51	PB	12.44	13.39	14.20	
		velocity	7.17	8.84	8.25	8.25	7.99	7.76	7.78	7.63	7.34	7.23	7.26	7.72	8.44	7.84	7.39	
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	15	15	19					

Ye Hongxiang (CHN) (2004)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL - 2024 Chinese National Grand Prix Final (Rizhao, CHN)</b>		<i>Shandong Athletics Sport Science (2024)</i>																
date	29-Jun-24	time	6.04	9.86	13.86	17.97	22.30	26.89	31.55	36.27	41.02	45.81		51.14	9 / 7			
reaction time	0.209	interval		3.82	4.00	4.11	4.33	4.59	4.66	4.72	4.75	4.79	5.33			11.93	13.58	14.26
		velocity	7.45	9.16	8.75	8.52	8.08	7.63	7.51	7.42	7.37	7.31	7.50	7.82		8.80	7.73	7.36
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	18	170				
Yego, Gideon (KEN) (1960)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>Semi-Final 2 - 1988 Olympic Games (Seoul, KOR)</b>		<i>Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988</i>																
date	24-Sep-88	time	6.20	10.14	14.07	18.06	22.17	26.30	30.55	34.93	39.60				8 /			
reaction time		interval		3.94	3.93	3.99	4.11	4.13	4.25	4.38	4.67			<b>DQ</b>		11.86	12.49	
		velocity	7.26	8.88	8.91	8.77	8.52	8.47	8.24	7.99	7.49					8.85	8.41	
H1 lead leg		strides	22	15	15	15	15	15	15	15	15			142				
Yirga, Nahom (SUI) (2001)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>Heat 2 - 2022 European Athletics Championships (Munich, GER)</b>		<i>European Athletics (2022) - european athletics championships race analysis</i>																
date	17-Aug-22	time	5.76	9.49	13.37	17.37	21.44	23.29	25.66	30.22	35.08	40.97	45.25	51.55	7 / 6			
reaction time	0.149	interval		3.73	3.88	4.00	4.07	4.22	4.56	4.86	5.89	4.28	6.30			11.61	12.85	15.03
		velocity	7.81	9.38	9.02	8.75	8.60	8.59	8.29	7.68	7.20	5.94	8.18	6.35	7.76	9.04	8.17	6.99
H1 lead leg	R	strides	21	13	14					15	15	15	15	18.2	126.2			
Yoneda, Taiyo (JPN) (2001)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>B FINAL - 2020 Japanese U20 National Championships (Hiroshima, JPN)</b>		<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>																
date	25-Oct-20	time	6.22	10.28	14.46	18.72	23.09	27.61	32.32	37.14	42.03	47.00		52.56	4 / 1			
reaction time	0.163	interval		4.06	4.18	4.26	4.37	4.52	4.71	4.82	4.89	4.97	5.56			12.50	13.60	14.68
		velocity	7.23	8.62	8.37	8.22	8.01	7.74	7.43	7.26	7.16	7.04	7.19	7.61		8.40	7.72	7.15
H1 lead leg	R	strides	21	14	14	14	14	15	15	15	15	15	19	171				
Yoshida, Kazuaki (JPN) (1987)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL - 2016 Kansai Business Championships (Osaka, JPN)</b>		<i>(2017) - tfdata-store.com/2017/05/22/post-605/</i>																
date	20-May-16	time	6.20	10.12	14.08	18.08	22.27	26.71	31.11	35.58	40.21	44.99		50.60	6 / 2			
reaction time		interval		3.92	3.96	4.00	4.19	4.44	4.40	4.47	4.63	4.78	5.61			11.88	13.03	13.88
		velocity	7.26	8.93	8.84	8.75	8.35	7.88	7.95	7.83	7.56	7.32	7.13	7.91		8.84	8.06	7.56
H1 lead leg		strides		13	13	13	13	15	15	15	15	15	15	127				
<b>FINAL - 2014 Japanese National Championships (Fukushima, JPN)</b>		<i>Yasunori (2014) - race pattern analysis of Japanese top 400m hurdlers for major domestic competitions</i>																
date	08-Jun-14	time	5.96	9.75	13.60	17.55	21.60	25.87	30.27	34.76	39.40	44.27		50.05	9 / 5			
reaction time		interval		3.79	3.85	3.95	4.05	4.27	4.40	4.49	4.64	4.87	5.78			11.59	12.72	14.00
		velocity	7.55	9.23	9.09	8.86	8.64	8.20	7.95	7.80	7.54	7.19	6.92	7.99		9.06	8.25	7.50
H1 lead leg	L	strides	21	13	13	13	13	13	15	15	15	15	18.2	164				
<b>B FINAL - 2014 Shizuoka International Athletics Meeting (Fukuroi, JPN)</b>		<i>Yasunori (2014) - race pattern analysis of Japanese top 400m hurdlers for major domestic competitions</i>																
date	03-May-14	time	6.04	9.91	13.87	17.83	21.92	26.09	30.48	34.95	39.60	44.42		50.15	/ 1			
reaction time		interval		3.87	3.96	3.96	4.09	4.17	4.39	4.47	4.65	4.82	5.73			11.79	12.65	13.94
		velocity	7.45	9.04	8.84	8.84	8.56	8.39	7.97	7.83	7.53	7.26	6.98	7.98		8.91	8.30	7.53
H1 lead leg		strides		13	13	13	13	13	15	15	15	15	15	125				
<b>Heat 2 - 2009 IAAF World Championships (Berlin, GER)</b>		<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>																
date	15-Aug-09	time	6.00	9.79	13.61	17.51	21.55	25.73	30.07	34.49	39.07	43.87		49.45	4 / 3			
reaction time	0.152	interval		3.79	3.82	3.90	4.04	4.18	4.34	4.42	4.58	4.80	5.58	<b>PB</b>		11.51	12.56	13.80
		velocity	7.50	9.23	9.16	8.97	8.66	8.37	8.06	7.92	7.64	7.29	7.17	8.09		9.12	8.36	7.61
H1 lead leg		strides																
Yoshida, Kyohei (JPN) (1997)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>B FINAL - 2020 World Athletics Trials (Fuji, JPN)</b>		<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>																
date	06-Sep-20	time	6.01	9.84	13.75	17.80	21.94	26.21	30.58	35.22	39.97	44.79		50.32	5 / 1			
reaction time		interval		3.83	3.91	4.05	4.14	4.27	4.37	4.64	4.75	4.82	5.53			11.79	12.78	14.21
		velocity	7.49	9.14	8.95	8.64	8.45	8.20	8.01	7.54	7.37	7.26	7.23	7.95		8.91	8.22	7.39
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	19	169				
Yoshikata, Masahira (JPN) (1982)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL - 2009 Japanese National Championships (Hiroshima, JPN)</b>		<i>Yasuori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>																
date	27-Jun-09	time	6.06	9.86	13.75	17.75	21.84	26.04	30.44	34.93	39.55	44.29		49.61	5 / 2			
reaction time		interval		3.80	3.89	4.00	4.09	4.20	4.40	4.49	4.62	4.74	5.32			11.69	12.69	13.85
		velocity	7.43	9.21	9.00	8.75	8.56	8.33	7.95	7.80	7.58	7.38	7.52	8.06		8.98	8.27	7.58
H1 lead leg		strides		13	13	13	13	13	15	15	15	15	15	125				
<b>FINAL - 2009 Osaka Grand Prix (Osaka, JPN)</b>		<i>Yasuori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>																
date	09-May-09	time	6.06	9.85	13.75	17.66	21.76	25.91	30.25	34.62	39.16	43.83		49.34	/ 4			
reaction time		interval		3.79	3.90	3.91	4.10	4.15	4.34	4.37	4.54	4.67	5.51			11.60	12.59	13.58
		velocity	7.43	9.23	8.97	8.95	8.54	8.43	8.06	8.01	7.71	7.49	7.26	8.11		9.05	8.34	7.73
H1 lead leg		strides		14	14	14	14	14	15	15	15	15	15	130				
<b>Race C - 2009 Shizuoka International Athletics Meeting (Fukuroi, JPN)</b>		<i>Yasuori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>																
date	03-May-09	time	6.09	9.86	13.80	17.75	21.85	25.99	30.41	34.90	39.55	44.39		49.95	/ 1			
reaction time		interval		3.77	3.94	3.95	4.10	4.14	4.42	4.49	4.65	4.84	5.56			11.66	12.66	13.98
		velocity	7.39	9.28	8.88	8.86	8.54	8.45	7.92	7.80	7.53	7.23	7.19	8.01		9.01	8.29	7.51



H1 lead leg	strides	14	14	14	14	14	15	15	15	15	15	130						
<b>Heat 2 - 2007 IAAF World Championships (Osaka, JPN)</b>													<i>Yasunori (2008) - race pattern analysis of the world and Japanese top 400m hurdlers</i>					
date	25-Aug-07	time	6.02	9.76	13.61	17.55	21.67	25.92	30.41	34.96	39.70	44.67	50.59	6 / 6				
reaction time	0.187	interval	3.74	3.85	3.94	4.12	4.25	4.49	4.55	4.74	4.97	5.92			11.53	12.86	14.26	
		velocity	7.48	9.36	9.09	8.88	8.50	8.24	7.80	7.69	7.38	7.04	6.76	7.91	9.11	8.16	7.36	
H1 lead leg	L	strides	21	14	14	14	14	14	15	15	15	15	19.7	170.7				
<b>FINAL - 2007 Japanese National Championships (Osaka, JPN)</b>													<i>Yasunori (2008) - race pattern analysis of the world and Japanese top 400m hurdlers</i>					
date	30-Jun-07	time	6.02	9.79	13.73	17.75	21.85	26.07	30.44	34.84	39.38	44.05	49.53	/ 3				
reaction time		interval	3.77	3.94	4.02	4.10	4.22	4.37	4.40	4.54	4.67	5.48			11.73	12.69	13.61	
		velocity	7.48	9.28	8.88	8.71	8.54	8.29	8.01	7.95	7.71	7.49	7.30	8.08	8.95	8.27	7.71	
H1 lead leg		strides	14	14	14	14	14	15	15	15	15	15	130					
<b>FINAL - 2007 Osaka Grand Prix (Osaka, JPN)</b>													<i>Yasunori (2008) - race pattern analysis of the world and Japanese top 400m hurdlers</i>					
date	05-May-07	time	6.07	9.82	13.69	17.61	21.71	25.88	30.27	34.72	39.34	44.13	49.69	/ 5				
reaction time		interval	3.75	3.87	3.92	4.10	4.17	4.39	4.45	4.62	4.79	5.56			11.54	12.66	13.86	
		velocity	7.41	9.33	9.04	8.93	8.54	8.39	7.97	7.87	7.58	7.31	7.19	8.05	9.10	8.29	7.58	
H1 lead leg		strides	14	14	14	14	14	14	15	15	15	15	130					
<b>FINAL - 2006 Seiko Super Grand Prix (Yokohama, JPN)</b>													<i>Yasunori (2007) - race pattern analysis of top Japanese 400m hurdlers</i>					
date	24-Sep-06	time	5.92	9.57	13.31	17.15	21.14	25.31	29.66	34.10	38.75	43.77	49.76	/ 6				
reaction time		interval	3.65	3.74	3.84	3.99	4.17	4.35	4.44	4.65	5.02	5.99			11.23	12.51	14.11	
		velocity	7.60	9.59	9.36	9.11	8.77	8.39	8.05	7.88	7.53	6.97	6.68	8.04	9.35	8.39	7.44	
H1 lead leg		strides	14	14	14	14	14	14	15	15	15	15	130					
<b>FINAL - 2006 Osaka Grand Prix (Osaka, JPN)</b>													<i>Yasunori (2007) - race pattern analysis of top Japanese 400m hurdlers</i>					
date	06-May-06	time	6.00	9.74	13.58	17.45	21.42	25.56	29.81	34.18	38.70	43.42	48.93	/ 6				
reaction time		interval	3.74	3.84	3.87	3.97	4.14	4.25	4.37	4.52	4.72	5.51			11.45	12.36	13.61	
		velocity	7.50	9.36	9.11	9.04	8.82	8.45	8.24	8.01	7.74	7.42	7.26	8.17	9.17	8.50	7.71	
H1 lead leg		strides	14	14	14	14	14	14	15	15	15	15	130					
<b>FINAL - 2005 Seiko Super Grand Prix (Yokohama, JPN)</b>													<i>Yasunori (2006) - race pattern analysis of top Japanese 400m hurdlers</i>					
date	19-Sep-05	time	5.96	9.71	13.63	17.55	21.60	25.72	29.92	34.16	38.53	43.13	48.66	/ 3				
reaction time		interval	3.75	3.92	3.92	4.05	4.12	4.20	4.24	4.37	4.60	5.53	<b>PB</b>		11.59	12.37	13.21	
		velocity	7.55	9.33	8.93	8.93	8.64	8.50	8.33	8.25	8.01	7.61	7.23	8.22	9.06	8.49	7.95	
H1 lead leg		strides	14	14	14	14	14	14	15	15	15	15	130					
<b>FINAL - 2005 Osaka Grand Prix (Osaka, JPN)</b>													<i>Yasunori (2006) - race pattern analysis of top Japanese 400m hurdlers</i>					
date	07-May-05	time	5.99	9.69	13.54	17.49	21.58	25.90	30.32	34.82	39.36	44.00	49.52	/ 6				
reaction time		interval	3.70	3.85	3.95	4.09	4.32	4.42	4.50	4.54	4.64	5.52			11.50	12.83	13.68	
		velocity	7.51	9.46	9.09	8.86	8.56	8.10	7.92	7.78	7.71	7.54	7.25	8.08	9.13	8.18	7.68	
H1 lead leg		strides	14	14	14	14	15	15	15	15	15	15	131					
<b>FINAL - 2004 Osaka Grand Prix (Osaka, JPN)</b>													<i>Yasunori (2005) - race pattern analysis of top Japanese 400m hurdlers</i>					
date	08-May-04	time	5.86	9.71	13.65	17.69	21.84	26.08	30.32	34.64	39.16	43.86	49.37	/ 5				
reaction time		interval	3.85	3.94	4.04	4.15	4.24	4.24	4.32	4.52	4.70	5.51	<b>PB</b>		11.83	12.63	13.54	
		velocity	7.68	9.09	8.88	8.66	8.43	8.25	8.25	8.10	7.74	7.45	7.26	8.10	8.88	8.31	7.75	
H1 lead leg		strides	14	14	14	14	15	15	15	15	15	15	131					
<b>Yoshizawa, Ken (JPN) (1978)</b>													<i>Yasunori (2005) - race pattern analysis of top Japanese 400m hurdlers</i>					
<b>FINAL - 2004 Japanese National Championships (Tottori, JPN)</b>													<i>Yasunori (2005) - race pattern analysis of top Japanese 400m hurdlers</i>					
date	05-Jun-04	time	5.96	9.65	13.45	17.39	21.49	25.78	30.17	34.62	39.21	44.01	49.63	/ 2				
reaction time		interval	3.69	3.80	3.94	4.10	4.29	4.39	4.45	4.59	4.80	5.62			11.43	12.78	13.84	
		velocity	7.55	9.49	9.21	8.88	8.54	8.16	7.97	7.87	7.63	7.29	7.12	8.06	9.19	8.22	7.59	
H1 lead leg		strides	13	13	13	13	14	14	15	15	15	15	125					
<b>Young, Blair (AUS) (1971)</b>													<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>					
<b>Semi-Final 2 - 2000 Olympic Games (Sydney, AUS)</b>													<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>					
date	25-Sep-00	time	6.12	9.96	13.84	17.68	21.60	23.24	25.84	30.16	34.60	39.24	49.20	/ 4				
reaction time	0.255	interval	3.84	3.88	3.84	3.92	4.24	4.24	4.32	4.44	4.64				11.56	12.48		
		velocity	7.35	9.11	9.02	9.11	8.93	8.61	8.25	8.10	7.88	7.54	8.13	9.08	8.41			
H1 lead leg		strides	13	13	13	13	14	14	15	15	15	110						
<b>Heat 2 - 2000 Olympic Games (Sydney, AUS)</b>													<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>					
date	24-Sep-00	time	6.06	9.82	13.74	17.74	21.86	26.18		35.42	39.90	44.50	49.75	/ 4				
reaction time	0.193	interval	3.76	3.92	4.00	4.12	4.32		9.24	4.48	4.60	5.25			11.68			
		velocity	7.43	9.31	8.93	8.75	8.50	8.10		7.58	7.81	7.61	7.62	8.04	8.99			
H1 lead leg		strides	21	13	13	14	14	14	15	15	15	15	18.4	167.4				
<b>Young, Curt (PAN) (1974)</b>													<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>					
<b>Heat 8 - 2000 Olympic Games (Sydney, AUS)</b>													<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>					
date	24-Sep-00	time	6.02	9.74	13.54	17.54	21.74	25.98	30.58	35.50	40.78	46.18	52.46	/ 6				
reaction time	0.164	interval	3.72	3.80	4.00	4.20	4.24	4.60	4.92	5.28	5.40	6.28			11.52	13.04	15.60	
		velocity	7.48	9.41	9.21	8.75	8.33	8.25	7.61	7.11	6.63	6.48	6.37	7.62	9.11	8.05	6.73	
H1 lead leg		strides	21	13	13	13	13	14	15	15	16	16	149					

															H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>Young, Kevin (USA) (1966)</b>																															
															<b>Heat 2 - 1996 USA Olympic Trials (Atlanta, GA)</b>								<i>Lyle - miscellaneous coaching notes</i>								
date	14-Jun-96	time	5.72	9.92	13.46	17.34	21.27		25.47	29.73	34.09	38.57	43.27		49.15	3															
reaction time		interval		4.20	3.54	3.88	3.93		4.20	4.26	4.36	4.48	4.70	5.88			11.62	12.39	13.54												
		velocity	7.87	8.33	9.89	9.02	8.91		8.33	8.22	8.03	7.81	7.45	6.80	8.14		9.04	8.47	7.75												
H1 lead leg		strides																													
															<b>FINAL - 1993 IAAF World Championships (Stuttgart, GER)</b>								<i>Graubner (2008) - http://www.fgs.uni-halle.de</i>								
date	19-Aug-93	time	6.05	9.68	13.43	17.12	20.92		24.86	28.89	33.00	37.34	41.46		47.18	6 / 1															
reaction time	0.267	interval		3.63	3.75	3.69	3.80		3.94	4.03	4.11	4.34	4.12	5.72			11.07	11.77	12.57												
		velocity	7.44	9.64	9.33	9.49	9.21		8.88	8.68	8.52	8.06	8.50	6.99	8.48		9.49	8.92	8.35												
H1 lead leg	L	strides	20	13	13	12	12		13	13	13	13	13	17	152																
															<b>Semi-Final 3 - 1993 IAAF World Championships (Stuttgart, GER)</b>								<i>Letzelter (1995) - schrittgestaltung im 400m-hürdenlauf der jugend</i>								
date	17-Aug-93	time	5.92	9.64	13.42	17.18	20.98		25.04	29.16	33.48	37.86	42.40		47.99	3 / 1															
reaction time		interval		3.72	3.78	3.76	3.80		4.06	4.12	4.32	4.38	4.54	5.59			11.26	11.98	13.24												
		velocity	7.60	9.41	9.26	9.31	9.21		8.62	8.50	8.10	7.99	7.71	7.16	8.34		9.33	8.76	7.93												
H1 lead leg	L	strides	20	13	13	12	12		13	13	13	13	13	16	151																
															<b>FINAL - 1992 Olympic Games (Barcelona, ESP)</b>								<i>Letzelter (1995) - schrittgestaltung im 400m-hürdenlauf der jugend</i>								
date	06-Aug-92	time	5.92	9.58	13.24	16.94	20.72		24.68	28.74	32.88	37.18	41.58		46.78	4 / 1															
reaction time		interval		3.66	3.66	3.70	3.78		3.96	4.06	4.14	4.30	4.40	5.20	WR		11.02	11.80	12.84												
		velocity	7.60	9.56	9.56	9.46	9.26		8.84	8.62	8.45	8.14	7.95	7.69	8.55		9.53	8.90	8.18												
H1 lead leg	L	strides	20	13	13	12	12		13	13	13	13	13	16.7	152																
															<b>FINAL - 1988 Olympic Games (Seoul, KOR)</b>								<i>Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988</i>								
date	25-Sep-88	time	6.07	9.72	13.40	17.20	21.09		25.13	29.25	33.46	37.94	42.61		47.94	2 / 4															
reaction time	0.214	interval		3.65	3.68	3.80	3.89		4.04	4.12	4.21	4.48	4.67	5.33			11.13	12.05	13.36												
		velocity	7.41	9.59	9.51	9.21	9.00		8.66	8.50	8.31	7.81	7.49	7.50	8.34		9.43	8.71	7.86												
H1 lead leg	L	strides	20	12	12	12	12		13	13	13	13	14	17	151																
															<b>Semi-Final 1 - 1988 Olympic Games (Seoul, KOR)</b>								<i>Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988</i>								
date	24-Sep-88	time	6.29	10.21	14.14	18.02	21.86		25.79	29.82	33.95	38.36	43.00		48.56	5 / 2															
reaction time		interval		3.92	3.93	3.88	3.84		3.93	4.03	4.13	4.41	4.64	5.56			11.73	11.80	13.18												
		velocity	7.15	8.93	8.91	9.02	9.11		8.91	8.68	8.47	7.94	7.54	7.19	8.24		8.95	8.90	7.97												
H1 lead leg		strides	20	13	13	13	13		13	13	13	13	14	17	155																
<b>Yu Xianghua (CHN) (2006)</b>																															
															<b>U18 FINAL - 2022 Shandong Provincial Games (Rizhao, CHN) (84cm)</b>								<i>Shandong Athletics Sport Science (2022)</i>								
date	03-Sep-22	time	6.47	10.56	14.80	19.12	23.56		28.10	32.62	37.23	42.03	47.05		53.10	3 / 1															
reaction time	0.215	interval		4.09	4.24	4.32	4.44		28.10	4.52	4.61	4.80	5.02	6.05			12.65	13.50	14.43												
		velocity	6.96	8.56	8.25	8.10	7.88		1.25	7.74	7.59	7.29	6.97	6.61	7.53		8.30	7.78	7.28												
H1 lead leg	R	strides	21	13	15	15	15		15	15	15	15	15	19	173																
<b>Yu Zhiyou (CHN) (2003)</b>																															
															<b>U18 FINAL - 2019 Chinese National Youth Games (Taiyuan, CHN) (84cm)</b>								<i>CAA Hurdle Development (2019)</i>								
date	17-Aug-19	time	6.44	10.56	14.76	19.08	23.54		28.32	33.28	38.40	43.68	49.04		54.92	2 / 6															
reaction time	0.201	interval		4.12	4.20	4.32	4.46		4.78	4.96	5.12	5.28	5.36	5.88			12.64	14.20	15.76												
		velocity	6.99	8.50	8.33	8.10	7.85		7.32	7.06	6.84	6.63	6.53	6.80	7.28		8.31	7.39	6.66												
H1 lead leg	L	strides	23	15	15	15	15		16	16	17	17	17	21	187																
<b>Zadoinov, Vadim (MDA) (1969)</b>																															
															<b>Heat 4 - 2000 Olympic Games (Sydney, AUS)</b>								<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>								
date	24-Sep-00	time	6.04	9.84	13.84	17.84	21.84		26.00	30.44	35.16	40.28		51.08	7 / 5																
reaction time	0.173	interval		3.80	4.00	4.00	4.00		4.16	4.44	4.72	5.12					11.80	12.60													
		velocity	7.45	9.21	8.75	8.75	8.75		8.41	7.88	7.42	6.84		7.83			8.90	8.33													
H1 lead leg		strides	20	13	13	13	13		13	13	14	15		127																	
<b>Zazini, Sokwakhana (RSA) (2000)</b>																															
															<b>FINAL - 2023 Doha Diamond League (Doha, QAT)</b>								<i>Omega Timing (2023) - diamond league race analysis</i>								
date	05-May-23	time	5.83	9.46	13.25	17.13	21.12		25.58	30.07	34.69	39.36	44.01		49.74	1 / 6															
reaction time	0.170	interval		3.63	3.79	3.88	3.99		4.46	4.49	4.62	4.67	4.65	5.73			11.30	12.94	13.94												
		velocity	7.72	9.64	9.23	9.02	8.77		7.85	7.80	7.58	7.49	7.53	6.98	8.04		9.29	8.11	7.53												
H1 lead leg	L	strides	23	14	14	14	14		15				16	16	126																
															<b>Semi-Final 3 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)</b>								<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>								
date	17-Jul-22	time	5.87	9.66	13.56	17.30	21.26	23.04		29.90	34.57	39.50	44.37		50.22	2 / 7															
reaction time	0.153	interval		3.79	3.90	3.74	3.96		8.64	4.67	4.93	4.87	5.85				11.43	12.60	14.47												
		velocity	7.67	9.23	8.97	9.36	8.84	8.68		8.10	7.49	7.10	7.19	6.84	7.96		9.19	8.33	7.26												
H1 lead leg	L	strides	23	15	15	15	15					16	17	17	20.2	153.2															
															<b>FINAL - 2022 Bauhaus Galan (Stockholm, SWE) (TV Analysis)</b>								<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>								
date	30-Jun-22	time	5.92	9.76	13.60	17.46	21.44	23.11	25.56		29.90	34.34	39.02	43.94		49.80	1 / 8														
reaction time	0.171	interval		3.84	3.84	3.86	3.98		4.12	4.34	4.44	4.68	4.92	5.86			11.54	12.44	14.04												
		velocity	7.60	9.11	9.11	9.07	8.79	8.65		8.50	8.06	7.88	7.48	7.11	6.83	8.03		9.10	8.44	7.48											
H1 lead leg	L	strides	23	15	15	15	15		15	16	16	17	17	21	185																





Zhang Shibao (CHN) (1984)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>FINAL - 2001 Chinese National Games (Guangzhou, CHN)</b>		<i>Gong (2003) - discussion on technique of gold and silver medalist of men's 400m hurdles of the 9th National Games</i>																
date	22-Nov-01	time	6.09	9.93	13.77	17.77	21.97	26.25	30.65	35.07	39.69	44.57		50.33	1/2			
reaction time		interval		3.84	3.84	4.00	4.20	4.28	4.40	4.42	4.62	4.88	5.76	<b>NYR</b>		11.68	12.88	13.92
		velocity	7.39	9.11	9.11	8.75	8.33	8.18	7.95	7.92	7.58	7.17	6.94	7.95		8.99	8.15	7.54
H1 lead leg		strides		13	13	15	15	15	15	15	15	15	15	18.5				
Zhang Xiaotao (CHN) (2004)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>U20 FINAL - 2022 Shandong Provincial Games (Rizhao, CHN)</b>		<i>Shandong Athletics Sport Science (2022)</i>																
date	03-Sep-22	time	6.51	10.68	15.02	19.42	24.05	28.80	33.65	38.61	43.65	48.64		54.14	3/5			
reaction time	0.217	interval		4.17	4.34	4.40	4.63	4.75	4.85	4.96	5.04	4.99	5.50			12.91	14.23	14.99
		velocity	6.91	8.39	8.06	7.95	7.56	7.37	7.22	7.06	6.94	7.01	7.27	7.39		8.13	7.38	7.00
H1 lead leg	R	strides	22	15	15	15	15	15	15	15	16	16	19	178				
Zheng Hao (CHN) (2001)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>U20 Heat 2 - 2019 Chinese National Youth Games (Taiyuan, CHN)</b>		<i>CAA Hurdle Development (2019)</i>																
date	17-Aug-19	time	6.40	10.61	14.95	19.36	23.89	28.56	33.51	38.76	44.17	49.76		55.58	3/4			
reaction time	0.208	interval		4.21	4.34	4.41	4.53	4.67	4.95	5.25	5.41	5.59	5.82	<b>PB</b>		12.96	14.15	16.25
		velocity	7.03	8.31	8.06	7.94	7.73	7.49	7.07	6.67	6.47	6.26	6.87	7.20		8.10	7.42	6.46
H1 lead leg	R	strides	23	15	15	15	15	15	15	16	16	17	19.5	181.5				
Zheng Pan (CHN) (2001)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>Heat 2 - 2021 Chinese National Championships (Chongqing, CHN)</b>		<i>CAA Hurdle Development (2021)</i>																
date	26-Jun-21	time	6.38	10.34	14.33	18.38	22.61	27.11	31.73	36.48	41.49	46.59		52.36	7/4			
reaction time	0.203	interval		3.96	3.99	4.05	4.23	4.50	4.62	4.75	5.01	5.10	5.77			12.00	13.35	14.86
		velocity	7.05	8.84	8.77	8.64	8.27	7.78	7.58	7.37	6.99	6.86	6.93	7.64		8.75	7.87	7.07
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	16	16	19	174				
<b>FINAL - 2021 National Grand Prix (Chengdu, CHN)</b>		<i>CAA Hurdle Development (2021)</i>																
date	02-Apr-21	time	6.15	10.08	14.06	18.11	22.33	26.69	31.27	36.05	41.17	46.40		52.27	7/2			
reaction time	0.187	interval		3.93	3.98	4.05	4.22	4.36	4.58	4.78	5.12	5.23	5.87			11.96	13.16	15.13
		velocity	7.32	8.91	8.79	8.64	8.29	8.03	7.64	7.32	6.84	6.69	6.81	7.65		8.78	7.98	6.94
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	16	16	19	178				
<b>Heat 2 - 2021 National Grand Prix (Chengdu, CHN)</b>		<i>CAA Hurdle Development (2021)</i>																
date	01-Apr-21	time	6.46	10.58	14.80	19.00	23.28	27.70	32.22	36.92	41.98	47.14		52.78	3/3			
reaction time	0.203	interval		4.12	4.22	4.20	4.28	4.42	4.52	4.70	5.06	5.16	5.64	<b>PB</b>		12.54	13.22	14.92
		velocity	6.97	8.50	8.29	8.33	8.18	7.92	7.74	7.45	6.92	6.78	7.09	7.58		8.37	7.94	7.04
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	16	16	19	178				
Zhou Chao (CHN) (2000)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>U20 Heat 1 - 2019 Chinese National Youth Games (Taiyuan, CHN)</b>		<i>CAA Hurdle Development (2019)</i>																
date	17-Aug-19	time	6.42	10.56	14.86	19.16	23.64	28.18	32.78	37.84	42.96	48.14		53.90	3/4			
reaction time	0.208	interval		4.14	4.30	4.30	4.48	4.54	4.60	5.06	5.12	5.18	5.76	<b>PB</b>		12.74	13.62	15.36
		velocity	7.01	8.45	8.14	8.14	7.81	7.71	7.61	6.92	6.84	6.76	6.94	7.42		8.24	7.71	6.84
H1 lead leg	L	strides	22	15	15	15	15	15	15	16	16	16	19	179				
Zhu Yizheng (CHN) (2000)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>U20 FINAL - 2019 Chinese National Youth Games (Taiyuan, CHN)</b>		<i>CAA Hurdle Development (2019)</i>																
date	17-Aug-19	time	6.41	10.46	14.54	18.74	23.11	27.70	32.44	37.34	42.46	47.66		53.54	4/7			
reaction time	0.223	interval		4.05	4.08	4.20	4.37	4.59	4.74	4.90	5.12	5.20	5.88			12.33	13.70	15.22
		velocity	7.02	8.64	8.58	8.33	8.01	7.63	7.38	7.14	6.84	6.73	6.80	7.47		8.52	7.66	6.90
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	16	16	19	174				
<b>U20 Heat 1 - 2019 Chinese National Youth Games (Taiyuan, CHN)</b>		<i>CAA Hurdle Development (2019)</i>																
date	17-Aug-19	time	6.47	10.50	14.56	18.74	23.04	27.54	32.10	36.90	41.96	47.10		52.90	5/2			
reaction time	0.209	interval		4.03	4.06	4.18	4.30	4.50	4.56	4.80	5.06	5.14	5.80	<b>PB</b>		12.27	13.36	15.00
		velocity	6.96	8.68	8.62	8.37	8.14	7.78	7.68	7.29	6.92	6.81	6.90	7.56		8.56	7.86	7.00
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	16	16	19	174				
Zhuang Linfei (CHN) (1996)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
<b>Heat 2 - 2021 Chinese National Championships (Chongqing, CHN)</b>		<i>CAA Hurdle Development (2021)</i>																
date	26-Jun-21	time	6.24	10.23	14.33	18.59	22.97	27.61	32.34	37.27	42.46	47.98		54.37	4/5			
reaction time	0.183	interval		3.99	4.10	4.26	4.38	4.64	4.73	4.93	5.19	5.52	6.39			12.35	13.75	15.64
		velocity	7.21	8.77	8.54	8.22	7.99	7.54	7.40	7.10	6.74	6.34	6.26	7.36		8.50	7.64	6.71
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	17	20	174				
<b>FINAL - 2019 Chinese National Grand Prix Final (Daqing, CHN)</b>		<i>CAA Hurdle Development (2019)</i>																
date	23-Aug-19	time	6.20	10.04	14.03	18.18	22.48	27.00	31.60	36.24	41.11	46.02		51.67	7/5			
reaction time	0.220	interval		3.84	3.99	4.15	4.30	4.52	4.60	4.64	4.87	4.91	5.65			11.98	13.42	14.42
		velocity	7.26	9.11	8.77	8.43	8.14	7.74	7.61	7.54	7.19	7.13	7.08	7.74		8.76	7.82	7.28
H1 lead leg	L	strides	13	13	14	14	14	14	15	15	15	15	18.5	160.5				
<b>Heat 2 - 2019 Chinese National Grand Prix Final (Daqing, CHN)</b>		<i>CAA Hurdle Development (2019)</i>																
date	22-Aug-19	time	6.33	10.28	14.34	18.55	22.94	27.51	32.08	36.85	41.69	46.55		52.04	8/2			
reaction time	0.233	interval		3.95	4.06	4.21	4.39	4.57	4.57	4.77	4.84	4.86	5.49			12.22	13.53	14.47

H1 lead leg	L	velocity	7.11	8.86	8.62	8.31	7.97	7.66	7.66	7.34	7.23	7.20	7.29	7.69	8.59	7.76	7.26	
		strides	21	13	13	14	14	14	14	15	15	15	18	166				
<b>FINAL - 2019 Chinese World Championship Trials (Shenyang, CHN)</b>																		
date	03-Aug-19	time	6.28	10.20	14.22	18.38	22.66	27.12	31.65	36.31	41.06	45.98	51.60	81	CAA Hurdle Development (2019)			
reaction time	0.256	interval	3.92	4.02	4.16	4.28	4.46	4.53	4.66	4.75	4.92	5.62	DQ	12.10	13.27	14.33		
		velocity	7.17	8.93	8.71	8.41	8.18	7.85	7.73	7.51	7.37	7.11	7.12	7.75	8.68	7.91	7.33	
H1 lead leg	L	strides	21	13	13	14	14	14	14	15	15	15	18.5	166.5				
<b>Heat 2 - 2019 Chinese World Championship Trials (Shenyang, CHN)</b>																		
date	03-Aug-19	time	6.57	10.76	15.16	19.67	24.36	29.29	34.18	38.94	43.72	48.45	53.76	51	CAA Hurdle Development (2019)			
reaction time	0.260	interval	4.19	4.40	4.51	4.69	4.93	4.89	4.76	4.78	4.73	5.31	5.31	13.10	14.51	14.27		
		velocity	6.85	8.35	7.95	7.76	7.46	7.10	7.16	7.35	7.32	7.40	7.53	7.44	8.02	7.24	7.36	
H1 lead leg	L	strides	21	13	13	14	14	15	15	15	15	15	17.5	167.5				
<b>FINAL - 2019 Chinese National Championships (Shenyang, CHN)</b>																		
date	10-Jul-19	time	6.20	10.08	14.02	18.06	22.21	26.60	31.08	35.76	40.56	45.45	50.99	71	CAA Hurdle Development (2019)			
reaction time	0.250	interval	3.88	3.94	4.04	4.15	4.39	4.48	4.68	4.80	4.89	5.54	5.54	11.86	13.02	14.37		
		velocity	7.26	9.02	8.88	8.66	8.43	7.97	7.81	7.48	7.29	7.16	7.22	7.84	8.85	8.06	7.31	
H1 lead leg	L	strides	21	13	13	14	14	14	14	15	15	15	17.8	165.8				
<b>Heat 1 - 2019 Chinese National Championships (Shenyang, CHN)</b>																		
date	09-Jul-19	time	6.20	10.09	14.08	18.22	22.43	26.78	31.20	35.75	40.46	45.33	50.98	51	CAA Hurdle Development (2019)			
reaction time	0.199	interval	3.89	3.99	4.14	4.21	4.35	4.42	4.55	4.71	4.87	5.65	PB	12.02	12.98	14.13		
		velocity	7.26	9.00	8.77	8.45	8.31	8.05	7.92	7.69	7.43	7.19	7.08	7.85	8.74	8.09	7.43	
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	19	169				
<b>FINAL - 2019 Chinese National Grand Prix 4 (Luoyang, CHN)</b>																		
date	29-May-19	time	6.42	10.46	14.86	19.34	23.34	27.95	32.64	37.43	42.35	47.28	52.76	81	CAA Hurdle Development (2019)			
reaction time	0.298	interval	4.04	4.04	4.40	4.48	4.61	4.69	4.79	4.92	4.93	5.48	5.48	12.44	13.78	14.64		
		velocity	7.01	8.66	8.33	7.81	7.59	7.46	7.31	7.11	7.10	7.30	7.58	8.44	7.62	7.17		
H1 lead leg	L	strides	21	14	14	14	15	15	15	15	15	18	142					
<b>FINAL - 2019 Chinese National Grand Prix 2 (Huangshi, CHN)</b>																		
date	12-Apr-19	time	6.48	10.54	14.82	19.22	23.76	28.38	33.26	38.18	43.28	48.48	54.17	81	CAA Hurdle Development (2019)			
reaction time	0.225	interval	4.06	4.28	4.40	4.54	4.62	4.88	4.92	5.10	5.20	5.69	5.69	12.74	14.04	15.22		
		velocity	6.94	8.62	8.18	7.95	7.71	7.58	7.17	7.11	6.86	6.73	7.03	7.38	8.24	7.48	6.90	
H1 lead leg	L	strides	21	16	16	16	16	16	16	15	15	16	19	182				
<b>FINAL - 2019 Chinese National Grand Prix 1 (Zhaoqing, CHN)</b>																		
date	08-Apr-19	time	6.32	10.30	14.36	18.48	22.74	27.18	31.82	36.70	41.70	46.84	52.70	81	CAA Hurdle Development (2019)			
reaction time	0.240	interval	3.98	4.06	4.12	4.26	4.44	4.64	4.88	5.00	5.14	5.86	5.86	12.16	13.34	15.02		
		velocity	7.12	8.79	8.62	8.50	8.22	7.88	7.54	7.17	7.00	6.81	6.83	7.59	8.63	7.87	6.99	
H1 lead leg	L	strides	21	16	16	16	16	15	15	15	15	15	19	179				
<b>Zhuang Zhixiong (CHN) (1998)</b>																		
<b>Heat 2 - 2021 East China District Meeting (Zhaoqing, CHN)</b>																		
date	25-Apr-21	time	6.39	10.51	14.76	19.15	23.64	28.33	33.22	38.25	43.56	49.03	55.17	81	CAA Hurdle Development (2021)			
reaction time	0.199	interval	4.12	4.25	4.39	4.49	4.69	4.89	5.03	5.31	5.47	6.14	6.14	12.76	14.07	15.81		
		velocity	7.04	8.50	8.24	7.97	7.80	7.46	7.16	6.96	6.59	6.40	6.51	7.25	8.23	7.46	6.64	
H1 lead leg	L	strides	23	15	15	15	15	15	15	15	17	17	19.5	181.5				
<b>Ziegler, Rolf (FRG) (1951)</b>																		
<b>FINAL - 1975 West German National Championships (Gelsenkirchen, FRG)</b>																		
date	28-Jun-75	time	6.2	10.2	14.2	18.4	22.6	24.6	27.0	31.5	36.1	40.8	45.4	51.47	81	Helbig (1975) - 400-m-hürdenlauf		
reaction time		interval	4.06	4.01	4.14	4.19	4.41	4.41	4.49	4.64	4.71	4.59	6.07	6.07	12.21	13.09	13.94	
		velocity	7.31	8.62	8.73	8.45	8.35	8.14	7.94	7.80	7.54	7.43	7.63	7.77	8.60	8.02	7.53	
H1 lead leg		strides																
<b>Heat 5 - 1972 Olympic Games (Munich, FRG)</b>																		
date	01-Sep-72	time				21.6			30.4			44.5	50.17	81	Schmidt (1973) - vorolympisches training von john akii-bua über 400 hürden			
reaction time		interval							8.80			14.10	5.67	7.3			14.10	
		velocity				8.56			7.95			7.45	7.05	7.97			7.45	
H1 lead leg		strides																
<b>Zorin, Yuriy (URS) (1947)</b>																		
<b>FINAL - 1972 Olympic Games (Munich, FRG)</b>																		
date	03-Sep-72	time	6.0	9.8	13.5	17.4	21.4	25.6	30.0	34.6	39.4	44.4	50.25	81	Letzelter (1973) - schrittgestaltung und geschwindigkeitsverlauf beim 400-m-hürdenlauf der olympischen spiele 1972			
reaction time		interval	3.75	3.75	3.90	4.00	4.20	4.40	4.60	4.80	4.95	5.90	5.90	11.40	12.60	14.35		
		velocity	7.50	9.33	9.33	8.97	8.75	8.33	7.95	7.61	7.29	7.07	6.78	7.96	9.21	8.33	7.32	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	15	15	143					
<b>Zou Haichao (CHN) (2001)</b>																		
<b>U20 Heat 2 - 2019 Chinese National Youth Games (Taiyuan, CHN)</b>																		
date	17-Aug-19	time	6.28	10.42	14.73	19.13	23.62	28.23	32.89	37.72	42.91	48.34	54.46	81	CAA Hurdle Development (2019)			
reaction time	0.181	interval	4.14	4.31	4.40	4.49	4.61	4.66	4.83	5.19	5.43	6.12	6.12	12.85	13.76	15.45		
		velocity	7.17	8.45	8.12	7.95	7.80	7.59	7.51	7.25	6.74	6.45	6.54	7.34	8.17	7.63	6.80	

H1 lead leg R strides 22 15 15 15 15 15 15 15 17 17 19.3 180.3

