






F1 | BRAKE CIRCUIT IDENTITY CARDS







2015 FORMULA 1 SINGAPORE
AIRLINES SINGAPORE GRAND PRIX

18-20 SEP 2015

MARINA BAY STREET CIRCUIT (SINGAPORE)

TYPE OF CIRCUIT	 HARD
TIME SPENT BRAKING	 24%
AVERAGE DECELERATION	 3.3 g
BRAKING ENERGY PRODUCED BY A CAR DURING THE GP	 143 kWh
TOTAL PEDAL LOAD DURING THE GP	 81,435 Kg

HARDER BRAKING

	STOPPING DISTANCE	MAXIMUM PEDAL LOAD
07	 132 m	 155 Kg
01	 113 m	 151 Kg
14	 122 m	 134 Kg

CIRCUIT DATA

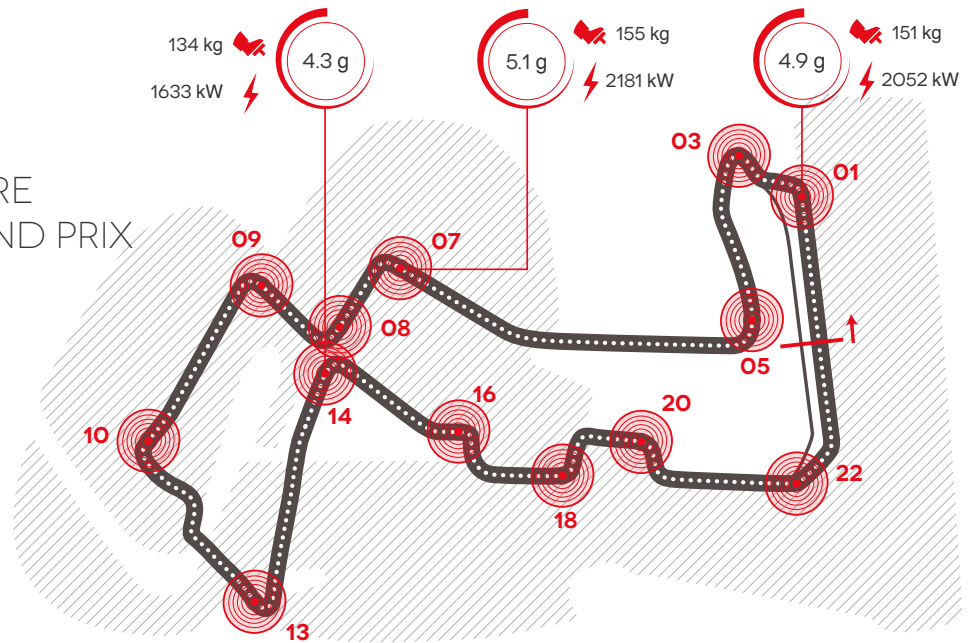
Length: 5,073 m
Number of laps: 61
Number of brake zones/lap: 13

COMMENT

As they pick their way through the turns and chicanes on the Singapore Street Circuit the drivers are well aware that they will need to put a lot of stress on their single-seater's brakes with almost a full fourth of the time spent on them.

Of the 13 braking sections that characterise this circuit, non of them are particularly demanding, but the heated pace and the lack of adequate space for cooling make it one of the hardest on the braking systems. Friction material wear is one of the things that need to be monitored constantly in telemetry during each lap of the race.

*** Turn 07 is considered the most demanding for the braking system.**



01

Initial speed	311	(Km/h)
Final speed	126	(Km/h)
Stopping distance	113	(m)
Braking time	1.22	(sec)
Maximum deceleration	4.9	(g)
Maximum pedal load	151	(Kg)
Braking power	2052	(Kw)

03

Initial speed	138	(Km/h)
Final speed	83	(Km/h)
Stopping distance	57	(m)
Braking time	0.96	(sec)
Maximum deceleration	1.6	(g)
Maximum pedal load	56	(Kg)
Braking power	197	(Kw)

05

Initial speed	261	(Km/h)
Final speed	121	(Km/h)
Stopping distance	95	(m)
Braking time	1.15	(sec)
Maximum deceleration	3.8	(g)
Maximum pedal load	118	(Kg)
Braking power	1320	(Kw)

07*

Initial speed	319	(Km/h)
Final speed	99	(Km/h)
Stopping distance	132	(m)
Braking time	1.43	(sec)
Maximum deceleration	5.1	(g)
Maximum pedal load	155	(Kg)
Braking power	2181	(Kw)

08

Initial speed	205	(Km/h)
Final speed	69	(Km/h)
Stopping distance	93	(m)
Braking time	1.31	(sec)
Maximum deceleration	2.7	(g)
Maximum pedal load	85	(Kg)
Braking power	670	(Kw)

09

Initial speed	191	(Km/h)
Final speed	115	(Km/h)
Stopping distance	63	(m)
Braking time	0.94	(sec)
Maximum deceleration	2.4	(g)
Maximum pedal load	73	(Kg)
Braking power	524	(Kw)

10

Initial speed	276	(Km/h)
Final speed	115	(Km/h)
Stopping distance	106	(m)
Braking time	1.24	(sec)
Maximum deceleration	4.1	(g)
Maximum pedal load	128	(Kg)
Braking power	1506	(Kw)

13

Initial speed	167	(Km/h)
Final speed	110	(Km/h)
Stopping distance	58	(m)
Braking time	0.92	(sec)
Maximum deceleration	2.0	(g)
Maximum pedal load	65	(Kg)
Braking power	356	(Kw)

14

Initial speed	285	(Km/h)
Final speed	78	(Km/h)
Stopping distance	122	(m)
Braking time	1.42	(sec)
Maximum deceleration	4.3	(g)
Maximum pedal load	134	(Kg)
Braking power	1633	(Kw)

16

Initial speed	239	(Km/h)
Final speed	86	(Km/h)
Stopping distance	99	(m)
Braking time	1.25	(sec)
Maximum deceleration	3.3	(g)
Maximum pedal load	100	(Kg)
Braking power	1031	(Kw)

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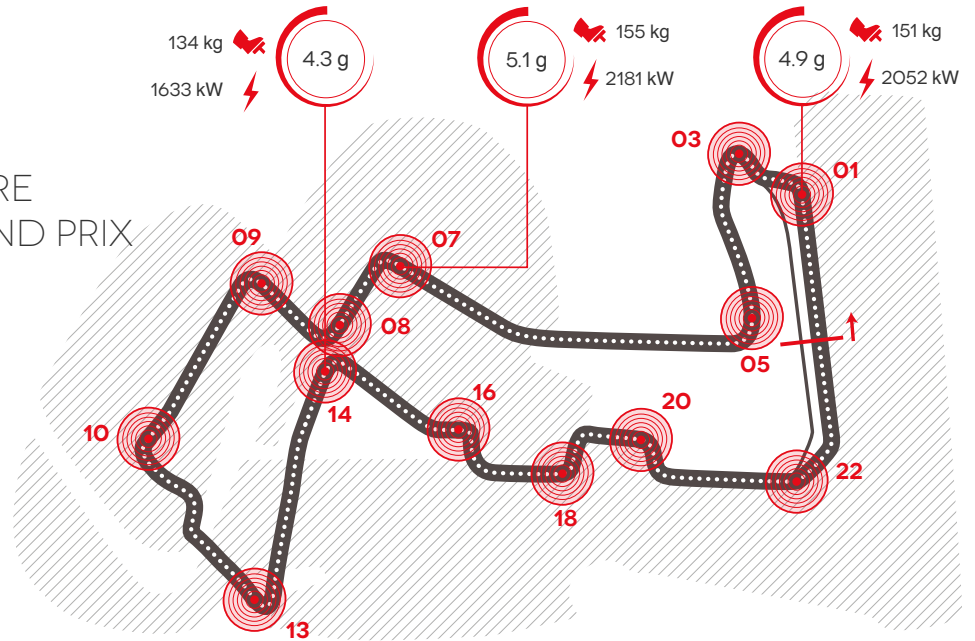
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*** Turn 07 is considered the most demanding for the braking system.**



18

Initial speed	216	(Km/h)
Final speed	80	(Km/h)
Stopping distance	90	(m)
Braking time	1.22	(sec)
Maximum deceleration	2.9	(g)
Maximum pedal load	90	(Kg)
Braking power	763	(Kw)

20

Initial speed	171	(Km/h)
Final speed	96	(Km/h)
Stopping distance	68	(m)
Braking time	1.04	(sec)
Maximum deceleration	2.1	(g)
Maximum pedal load	68	(Kg)
Braking power	385	(Kw)

22

Initial speed	254	(Km/h)
Final speed	162	(Km/h)
Stopping distance	63	(m)
Braking time	0.87	(sec)
Maximum deceleration	3.6	(g)
Maximum pedal load	115	(Kg)
Braking power	1233	(Kw)