



## 2017 BRAZILIAN GRAND PRIX

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<b>From</b>	The FIA Formula One Technical Delegate	<b>Document</b>	49
<b>To</b>	The FIA Stewards of the Meeting	<b>Date</b>	12 November 2017
		<b>Time</b>	17:43

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### Technical Delegate's Report

#### Before the race:

The following part has been replaced today after 12:55 and before the start of the race:

#### Ferrari:

Car 07: Radio antenna

Clutch paddle linearity checks have been carried out on cars 77, 03 and 11.

A fuel sample was taken from car numbers 44, 19 and 14 and analysed during the race.

On the grid it was checked that all cars had fitted their tyres when the "3-Minutes" signal was given.

On the grid it was checked that the top ten cars had fitted the tyres which they had used when doing their fastest lap in Q2.

On the grid the temperature of the LHS and RHS front and rear tyre was checked on car numbers 07, 18, 28 and 09.

On the grid the minimum tyre starting pressure of the LHS and RHS front and rear tyre was checked on all cars.

#### After the race:

The following cars were weighed:

<b>Number</b>	<b>Car</b>	<b>Driver</b>
44	Mercedes	Lewis Hamilton
77	Mercedes	Valtteri Bottas
03	RBR TAG Heuer	Daniel Ricciardo
33	RBR TAG Heuer	Max Verstappen

05	Ferrari	Sebastian Vettel
07	Ferrari	Kimi Räikkönen
11	Force India Mercedes	Sergio Perez
19	Williams Mercedes	Felipe Massa
14	McLaren Honda	Fernando Alonso
10	Toro Rosso	Pierre Gasly
08	Haas Ferrari	Romain Grosjean
27	Renault	Nico Hülkenberg
94	Sauber Ferrari	Pascal Wehrlein

The steering wheel of all classified cars has been checked.

Car number 44 were checked for the following:

- 1) Bodywork around the front wheels
- 2) Front wing height and overhang
- 3) Rear wing height and overhang
- 4) Front and rear wing width
- 5) Rear wing configuration
- 6) Rear bodywork area
- 7) Rear winglet height
- 8) Skidblock thickness
- 9) Stepped bottom
- 10) Diffuser height
- 11) Diffuser area
- 12) Overall height
- 13) Overall width

The profile of the prescribed front wing section in Article 3.3.2 of the 2017 Formula One Technical Regulations was checked on car number 44.

The minimum distance between the adjacent rear wing sections at any longitudinal vertical plane was checked on car number 44.

It was confirmed for car number 44 that any vertical cross section of bodywork normal to the car centre line and situated in the volumes defined in Article 3.5.7 form one tangent continuous curve on its external surface with a radius no less than 75mm.

The concave radius of sections of the two rear wing elements which are in contact with the external air stream was checked on car number 44.

The front and rear brake air duct dimensions were checked on car number 44.

It was confirmed for car number 10 that after the race there was enough fuel on board the car for the 1 litre fuel sample plus the amount of fuel that would have been consumed to drive back to the pits.

It was checked that no classified car exceeded 80 km/h when leaving the formation grid prior to the start of the race.

The units locking status was checked on all cars.

The session type has been confirmed for all cars.

Software version checks have been carried out on all cars.

Chassis FIA checksum was checked on all cars taking part in the race.

Single clutch paddle use for the race start has been checked on car numbers 77, 03, 33, 05, 07, 11, 31, 19, 18, 14, 02, 28, 10, 08, 20, 27, 55, 09 and 94.

The race start data of car numbers 77, 03, 33, 05, 07, 11, 31, 19, 18, 14, 02, 28, 10, 08, 20, 27, 55, 09 and 94 have been checked.

The ES state of charge on-track limits were checked on car numbers 44, 77, 03, 33, 05, 07, 11, 14 and 27.

The lap energy release and recovery limits were checked on car numbers 44, 77, 03, 33, 05, 07, 11, 14 and 27.

The MGU-K power limits were checked on car numbers 44, 77, 03, 33, 05, 07, 11, 14 and 27.

The maximum MGU-K torque was checked on car numbers 44, 77, 03, 33, 05, 07, 11, 14 and 27.

The maximum MGU-K speed was checked on car numbers 44, 77, 03, 33, 05, 07, 11, 14 and 27.

The maximum MGU-H speed was checked on car numbers 44, 77, 03, 33, 05, 07, 11, 14 and 27.

It was checked on car numbers 77, 03, 33, 05, 07, 11, 19, 18, 14, 10, 08, 27, 55, 09 and 94 that the MGU-K was not used below 100 km/h at the start.

It was checked on car numbers 44, 77, 03, 33, 05, 07, 11, 14 and 27 that the ES was not charged while the car was stationary in the pits.

The fuel temperature of all cars was checked.

The instantaneous fuel flow of car numbers 44, 77, 03, 33, 05, 07, 11, 19, 18, 14, 08, 27, 55, 09 and 94 was checked.

Fuel flow meter calibration checksums were checked on car numbers 44, 77, 03, 33, 05, 07, 11, 19, 18, 14, 10, 08, 27, 55, 09 and 94.

The total fuel mass used by every classified car during the race was checked.

A fuel sample was taken from car number 05.

The fuel samples have been checked for density and analysed by gas chromatography.

The results of all the fuel analyses show that the fuels were the same as ones, which had been approved for use by the relevant competitors prior to the Event.

Further the density change of the fuel samples taken today was within the permitted limits.

All car weights and the items checked were found to be in conformity with the 2017 FIA Formula One Technical Regulations.

**Jo Bauer**

**The FIA Formula One Technical Delegate**