

2018 SPANISH GRAND PRIX

10 - 13 May 2018

From	The FIA Formula One Technical Delegate	Document	40
To	The Stewards	Date	13 May 2018
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Technical Delegate's Report

Before the race:

The following parts have been replaced today after 14:05 and before the start of the race:

Red Bull Racing TAG Heuer:

Car 03: Steering wheel

A front wing deflection test was carried out on car numbers 44, 33, 20 and 14.

A front wing flap deflection test was carried out on car numbers 44, 33, 20 and 14.

A fuel sample was taken from car numbers 18 and 08 and analysed during the race.

An engine oil sample was taken from car numbers 77, 05, 18 and 08.

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 31 and 55.

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:

Number	Car	Driver
44	Mercedes	Lewis Hamilton
77	Mercedes	Valtteri Bottas
05	Ferrari	Sebastian Vettel
03	RBR TAG Heuer	Daniel Ricciardo
33	RBR TAG Heuer	Max Verstappen
11	Force India Mercedes	Sergio Perez
18	Williams Mercedes	Lance Stroll
55	Renault	Carlos Sainz
28	Toro Rosso Honda	Brendon Hartley
20	Haas Ferrari	Kevin Magnussen
14	McLaren Renault	Fernando Alonso
16	Sauber Ferrari	Charles Leclerc

The steering wheel of all classified cars has been checked.

Car numbers 11 and 16 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 in Article 3.3.2 of the 2018 Formula One Technical Regulations prescribed front wing section was checked on car numbers 11 and 16.

The minimum distance between the adjacent rear wing sections at any longitudinal vertical plane was checked on car numbers 11 and 16.

It was confirmed for car numbers 11 and 16 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 numbers 11 and 16.

The front and rear brake air duct dimensions were checked on car numbers 11 and 16.

It was confirmed for car number 28 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 all cars.

The race start data of all cars have been checked.

The plenum temperature was checked on all cars.

The oil consumption was checked on car numbers 77, 05, 33, 11, 20 and 16.

The brake temperature warnings were checked on car numbers 44, 05, 03, 11, 35, 55, 20, 20 and 14.

It was checked on car numbers 44, 77, 05, 03, 33, 11, 18, 35, 55, 20, 14, 09 and 16 that the MGU-K was not used below 100 km/h at the start.

The tyre starting pressures of all cars during the race were checked.

The tyres used by all drivers during the race today have been checked.

The fuel temperature of all cars was checked.

The instantaneous fuel flow of car numbers 44, 77, 05, 03, 33, 11, 18, 35, 55, 28, 20, 14, 09 and 16 was checked.

Fuel flow meter calibration checksums were checked on car numbers 44, 77, 05, 03, 33, 11, 18, 35, 55, 28, 20, 14, 09 and 16.

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

A fuel sample was taken from car number 33.

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.

The engine oil samples have been analysed by FTIR spectroscopy and viscometry.

The results of the FTIR analyses show that the sampled oils were consistent with reference engine oil samples which had been approved for use by the relevant competitors prior to the Event.

All car weights and the items checked were found to be in conformity with the 2018 FIA Formula One Technical Regulations.

Jo Bauer

The FIA Formula One Technical Delegate