



2013 HUNGARIAN GRAND PRIX

From	The FIA Formula 1 Technical Delegate	Document	45
To	All Teams, All Officials	Date	28 July 2013
		Time	18:39

Technical Report

Before the race:

The following parts have been replaced today after 12:55 and before the start of the race:

Red Bull Racing Renault:

Car 01: Mask noisy KERS pressure sensor

Force India Mercedes:

Car 14: RHS brake calliper duct

An asymmetric front wing deflection test was carried out on car numbers 03, 08, 10 and 15.

A fuel sample was taken from car numbers 02, 08 and 23 and analysed during the race.

On the grid it was checked that all cars had fitted their tyres when the 3-Minutes board was shown.

After the race:

The following cars were weighed:

<i>Number</i>	<i>Car</i>	<i>Driver</i>
01	Red Bull Racing Renault	Sebastian Vettel
02	Red Bull Racing Renault	Mark Webber
03	Ferrari	Fernando Alonso
04	Ferrari	Felipe Massa
05	McLaren Mercedes	Jenson Button
06	McLaren Mercedes	Sergio Perez Mendoza
07	Lotus Renault	Kimi Räikkönen
08	Lotus Renault	Romain Grosjean

09	Mercedes	Nico Rosberg
10	Mercedes	Lewis Hamilton
11	Sauber Ferrari	Nico Hülkenberg
14	Force India Mercedes	Paul Di Resta
16	Williams Renault	Pastor Maldonado
18	Toro Rosso Ferrari	Jean-Eric Vergne
19	Toro Rosso Ferrari	Daniel Ricciardo
20	Caterham Renault	Charles Pic
21	Caterham Renault	Giedo van der Garde
22	Marussia Cosworth	Jules Bianchi
23	Marussia Cosworth	Max Chilton

The steering wheel of all classified cars has been checked.

Car numbers 05 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

It was confirmed for car number 07 that a one litre sample of fuel could be taken from the car at the end of the race.

The minimum distance between the adjacent rear wing sections at any longitudinal vertical plane was checked on car numbers 05 and 16.

It was confirmed for car numbers 05 and 16 that any vertical cross section of bodywork normal to the car centre line and situated in the volumes defined in Article 3.8.4 form one tangent continuous curve on its external surface with a radius no less than 75mm.

The concave radius of sections of the three rear wing elements which are in contact with the external air stream was checked on car numbers 05 and 16.

The front and rear brake air duct dimensions were checked on car numbers 05 and 16.

An asymmetric RHS front floor deflection test was carried on car numbers 08 and 10 according to Article 3.17.5.

It was checked that no classified car exceeded 100 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 checksums were checked on car numbers 01, 02, 04, 05, 06, 07, 08, 09, 10, 11, 14, 16, 18, 19, 20, 21, 22 and 23.

The start data of car number 07 have been checked.

The base ignition map range was checked on all cars.

The cylinder ignition offsets range was checked on all cars.

The KERS control was checked for car numbers 10 and 16.

It was checked that car numbers 01, 02, 03, 07, 08 and 10 did not exceed 18000 rpm during the race.

The fuel pressure of car numbers 01, 02, 03, 07, 08 and 10 during the race was checked.

The logged pressure within the engine cooling system during the race was checked on car numbers 01, 02, 03, 07, 08 and 10.

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

A fuel sample was taken from car numbers 05, 10 and 16.

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.

All car weights and the items checked were found to be in conformity with the 2013 FIA Formula One Technical Regulations.

Jo Bauer

The FIA Formula 1 Technical Delegate

