2018 HUNGARIAN GRAND PRIX
26 - 29 July

From	The FIA Formula One Technical Delegate	**Document**	26
To	The Stewards	**Date**	28 July 2018
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Technical Delegate's Report

Before the third free practice session:

An engine oil sample was taken from car number 55.

During the third free practice session:

The tyre starting pressures of all cars during P3 were checked.

The instantaneous fuel flow of all cars was checked.

Fuel flow meter calibration checksums were checked on all cars.

Before the qualifying practice session:

An engine oil sample was taken from car numbers 44 and 05.

It was confirmed for all cars that the gear ratios used during the remainder of this Event belong to the gear ratios declared to the FIA technical delegate at or before the first Event of the 2018 Championship.

The thickness of the brake discs of all cars taking part in the qualifying session was checked.

During the qualifying practice session:

Car number 31 was weighed.

The weight distribution was checked on car number 31.

Fuel samples were taken from car numbers 35 and 09.

After the qualifying practice session:

Car numbers 44, 77, 05, 07, 33, 55, 28, 10, 08 and 20 were weighed.

Car numbers 44, 77, 05, 07, 33, 55, 28, 10, 08 and 20 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) Stepped bottom
9) Diffuser height
10) Diffuser width
11) Overall height
12) Overall width

The chassis identification transponders have been confirmed for car numbers 44, 77, 07, 33, 28, 08 and 20.

The profile of the prescribed front wing section in Article 3.3.2 of the 2018 Formula One Technical Regulations was checked on car numbers 44, 77, 05, 07, 33, 55, 28, 10, 08 and 20.

The minimum distance between the adjacent rear wing sections at any longitudinal vertical plane was checked on car numbers 44, 77, 05, 07, 33, 55, 28, 10, 08 and 20.

It was confirmed for car numbers 44, 77, 05, 07, 33, 55, 28, 10, 08 and 20 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 44, 77, 05, 07, 33, 55, 28, 10, 08 and 20.

The front and rear brake air duct dimensions were checked on car numbers 44, 77, 05, 07, 33, 55, 28, 10, 08 and 20.

The inclination, the diameter and the position of the last 150mm of the exhaust tailpipes were checked on car numbers 44, 77, 05, 07, 33, 28, 10, 08 and 20.

A front floor deflection test was carried on car numbers 44, 05, 55 and 10.

The flatness of the reference and step plane and their position to each other was checked on car numbers 55 and 10.

The uppermost rear wing element adjustable positions were checked on car numbers 77, 07, 33, 28 and 20.

The correct function of the front and rear wheel retention devices of car numbers 77, 07, 33, 55, 28 and 20 was checked.

The correct function of the pressure relief valve in the coolant header tank was checked on car numbers 44, 05, 55 and 10.

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 qualifying sessions.

Torque sensor software version checks have been carried out on all cars.

Torque sensor calibration checks have been carried out on all cars.

The torque coordinator demands were checked on car numbers 44, 05, 03, 55, 10, 02 and 16.

The torque control was checked on car numbers 44, 05, 03, 55, 02 and 16.

The rear brakes pressure control was checked on car numbers 44, 05, 03, 55, 10, 02 and 16.

The ES state of charge on-track limits were checked on all cars.

The lap energy release and recovery limits were checked on all cars.

The maximum MGU-K speed was checked on all cars.

The maximum MGU-K torque was checked on all cars.

The MGU-K power limits were checked on all cars.

The maximum MGU-H speed was checked on all cars.

Gear shift data checks have been carried out for car numbers 05, 07 and 55.

The ERS lap energy limits were checked on all cars.

It was checked that all cars did not exceed 15000 rpm during the qualifying practice session.

The fuel pressure of all cars during the qualifying session was checked.

The logged pressure within the engine cooling system during the qualifying session was checked on all cars.

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

Fuel flow meter calibration checksums were checked on all cars.

The instantaneous fuel flow of all cars was checked.

The fuel temperature of all cars was checked.

Fuel samples were taken from car numbers 55 and 08.

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

The results of 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.

The following software versions have been used by the teams during the qualifying sessions:

Team	**FIA Standard ECU system version**
Mercedes	SR1013
Ferrari	SR1013
Force India	SR1013
Red Bull	SR1013
Williams	SR1013
Renault	SR1013
Toro Rosso	SR1013
Haas	SR1013
McLaren	SR1013
Sauber	SR1013

All the above items were found to be in conformity with the 2018 FIA Formula One Technical Regulations.

Jo Bauer

The FIA Formula One Technical Delegate