2019 CHINESE GRAND PRIX
11 - 14 April 2019

From	The FIA Formula One Technical Delegate	**Document**	24
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Technical Delegate's Report

Before the third free practice session:

An engine oil sample was taken from car number 04.

During the third free practice session:

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

The plenum temperature was checked on all cars.

The instantaneous fuel flow of all cars was checked.

The fuel temperature of all cars was checked.

Before the qualifying practice session:

An engine oil sample was taken from car numbers 20 and 11.

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 2019 Championship.

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

During the qualifying practice session:

Car numbers 08, 07 and 88 were weighed.

The weight distribution was checked on car numbers 08, 07 and 88.

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

Fuel samples were taken from car numbers 18 and 07.

After the qualifying practice session:

Car numbers 44, 77, 05, 16, 33, 10, 03, 27, 08 and 20 were weighed.

Car numbers 44, 77, 05, 16, 33, 10, 03, 27, 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 profile of the prescribed front wing section in Article 3.3.2 of the 2019 Formula One Technical Regulations was checked on car numbers 44, 77, 05, 16, 33, 10, 03, 27, 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, 16, 33, 10, 03, 27, 08 and 20.

It was confirmed for car numbers 44, 77, 05, 16, 33, 10, 03, 27, 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, 16, 33, 10, 03, 27, 08 and 20.

The front and rear brake air duct dimensions were checked on car numbers 44, 77, 05, 16, 33, 10, 03, 27, 08 and 20.

A horizontal rear wing deflection test was carried out on car numbers 77, 05 and 33.

The uppermost rear wing element adjustable positions were checked on car numbers 44, 16, 10, 27 and 08.

The units locking status was checked on all cars.

The session type has been confirmed for car numbers 44, 77, 05, 16, 33, 10, 03, 27, 08, 20, 55, 04, 11, 18, 07, 99, 26, 63 and 88.

Software version checks have been carried out on all cars.

Chassis FIA checksum was checked on car numbers 44, 77, 05, 16, 33, 10, 03, 27, 08, 20, 55, 04, 11, 18, 07, 99, 26, 63 and 88.

Torque sensor software version checks have been carried out on car numbers 44, 77, 05, 16, 33, 10, 03, 27, 08, 20, 55, 04, 11, 18, 07, 99, 26, 63 and 88.

Torque sensor calibration checks have been carried out on car numbers 44, 77, 05, 16, 33, 10, 03, 27, 08, 20, 55, 04, 11, 18, 07, 99, 26, 63 and 88.

The torque coordinator demands were checked on car numbers 77, 05, 33, 03, 18 and 63.

The torque control was checked on car numbers 77, 05, 33, 03, 18 and 63.

The rear brakes pressure control was checked on car numbers 77, 05, 33, 03, 18 and 63.

The oil consumption was checked on car numbers 44, 77, 05, 16, 33, 27 and 08.

The plenum temperature was checked on car numbers 44, 77, 05, 16, 33, 10, 03, 27, 08, 20, 55, 04, 11, 18, 07, 99, 26, 63 and 88.

The IVT code and calibration checksums were checked on car numbers 44, 77, 05, 16, 33, 10, 03, 27, 08, 20, 55, 04, 11, 18, 07, 26, 63 and 88..

The IVT temperatures were checked on all cars.

The ES state of charge on-track limits were checked on car numbers 44, 77, 05, 16, 33, 10, 03, 27, 08, 20, 55, 04, 11, 18, 07, 26, 63 and 88.

The lap energy release and recovery limits were checked on car numbers 44, 77, 05, 16, 33, 10, 03, 27, 08, 20, 55, 04, 11, 18, 07, 26, 63 and 88.

The maximum MGU-K speed was checked on car numbers 44, 77, 05, 16, 33, 10, 03, 27, 08, 20, 55, 04, 11, 18, 07, 26, 63 and 88.

The maximum MGU-K torque was checked on car numbers 44, 77, 05, 16, 33, 10, 03, 27, 08, 20, 55, 04, 11, 18, 07, 26, 63 and 88.

The MGU-K power limits were checked on car numbers 44, 77, 05, 16, 33, 10, 03, 27, 08, 20, 55, 04, 11, 18, 07, 26, 63 and 88.

The MGU-K power model was checked on car numbers 44, 77, 05, 16, 33, 10, 03, 27, 08, 20, 55, 04, 11, 18, 07, 26, 63 and 88.

The maximum MGU-H speed was checked on car numbers 44, 77, 05, 16, 33, 10, 03, 27, 08, 20, 55, 04, 11, 18, 07, 26, 63 and 88.

Gear shift data checks have been carried out for car numbers 44, 77, 05 and 16.

Fuel flow meter calibration checksums were checked on car numbers 44, 77, 05, 16, 33, 10, 03, 27, 08, 20, 55, 04, 11, 18, 07, 99, 26, 63 and 88.

The instantaneous fuel flow of car numbers 44, 77, 05, 16, 33, 10, 03, 27, 08, 20, 55, 04, 11, 18, 07, 99, 26, 63 and 88 was checked.

The fuel temperature of car numbers 44, 77, 05, 16, 33, 10, 03, 27, 08, 20, 55, 04, 11, 18, 07, 99, 26, 63 and 88 was checked.

Fuel samples were taken from car numbers 44, 16 and 10.

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 AMG Petronas Motorsport	SR1112 + B108
Scuderia Ferrari	SR1112 + B108
Aston Martin Red Bull Racing	SR1112 + B108
Renault F1 Team	SR1112 + B108
Rich Energy Haas F1 Team	SR1112 + B108
McLaren F1 Team	SR1112 + B108
SportPesa Racing Point F1 Team	SR1112 + B108
Alfa Romeo Racing	SR1112 + B108
Red Bull Toro Rosso Honda	SR1112 + B108
ROKiT Williams Racing	SR1112 + B108

All the above items were found to be in conformity with the 2019 FIA Formula One Technical Regulations.

Jo Bauer

The FIA Formula One Technical Delegate