

2019 MONACO GRAND PRIX

22 - 26 May 2019

From	The FIA Formula One Technical Delegate	Document	34
To	The Stewards	Date	25 May 2019
		Time	18:48

Technical Delegate's Report

Before the third free practice session:

An engine oil sample was taken from car number 11.

During the third free practice session:

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

The IVT temperatures were checked on all cars.

The plenum temperature was checked on all cars.

The MGU-K power limits were checked on car numbers 44, 77, 16, 33, 03, 27, 20, 55, 11, 07, 23 and 63.

The MGU-K power model was checked on car numbers 44, 77, 16, 33, 03, 27, 20, 55, 11, 07, 23 and 63.

The ES power model was checked on car numbers 44, 77, 16, 33, 03, 27, 20, 55, 11, 07, 23 and 63.

The custom software versions were checked on all cars.

The fuel flow meter calibration checksum was checked on all cars.

The instantaneous fuel mass flow of car numbers 44, 77, 05, 16, 33, 10, 27, 08, 20, 55, 04, 11, 18, 07, 99, 26, 23, 63 and 88 was checked.

The fuel temperature was checked on all cars.

Before the qualifying practice session:

An engine oil sample was taken from car numbers 33 and 04.

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 44, 05, 16, 10, 27 and 11 were weighed.

The weight distribution was checked on car numbers 44, 05, 16, 10, 27 and 11.

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

Fuel samples were taken from car numbers 04 and 88.

After the qualifying practice session:

Car numbers 44, 77, 05, 33, 10, 03, 20, 55, 26 and 23 were weighed.

A front floor deflection test was carried on car numbers 44, 05 and 33.

The flatness of the reference and step plane and their position to each other was checked on car numbers 44, 05 and 33.

The flexibility of bodywork lying on the step plane and visible from above was checked on car numbers 77, 10, 03, 20, 55 and 26.

The units locking status was checked on all cars.

The session type has been confirmed for 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 oil consumption was checked on car numbers 44, 77, 05, 33, 10, 03, 20, 55, 26 and 23.

The plenum temperature was checked on all cars.

The IVT code and calibration checksums were checked on all cars.

The IVT temperatures were checked on all cars.

The ES state of charge on-track limits were checked on car numbers 44, 77, 05, 33, 10, 03, 20, 55, 26 and 23.

The lap energy release and recovery limits were checked on car numbers 44, 77, 05, 33, 10, 03, 20, 55, 26 and 23.

The maximum MGU-K speed was checked on car numbers 44, 77, 05, 33, 10, 03, 55, 26 and 23.

The maximum MGU-K torque was checked on car numbers 44, 77, 05, 33, 10, 03, 20, 55, 26 and 23.

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

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

The MGU-K power model was checked on all cars.

The ES power model was checked on all cars.

Gear shift data checks have been carried out for car numbers 05, 03, 55 and 99.

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 mass flow of all cars was checked.

The fuel temperature of all cars was checked.

Fuel samples were taken from car numbers 77 and 26.

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	SR1114+B108
Scuderia Ferrari Mission Winnow	SR1112+B108
Aston Martin Red Bull Racing	SR1114+B108
Renault F1 Team	SR1114+B108
Rich Energy Haas F1 Team	SR1112+B108
McLaren F1 Team	SR1114+B108
SportPesa Racing Point F1 Team	SR1114+B108
Alfa Romeo Racing	SR1112+B108
Red Bull Toro Rosso Honda	SR1114+B108
ROKiT Williams Racing	SR1114+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