2022 BRAZILIAN GRAND PRIX
10 - 13 November 2022

From	The FIA Formula One Technical Delegate	**Document**	24
To	The Stewards	**Date**	11 November 2022
		Time	19:20

Technical Delegate's Report

Before the first free practice session:

The exhaust system components of all cars were checked against the declaration submitted by the relevant team before the Event.

During the first free practice session:

The tyre starting pressures of all cars during P1 were checked.

The engine high rev limit bands were checked on all cars.

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

The instantaneous fuel mass flow of all cars was checked.

The fuel temperature of all cars was checked.

The plenum temperature of all cars was checked.

After the first free practice session:

The fuel pressure of all cars during the first free practice session was checked.

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

The IVT temperatures were checked on all cars.

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 MGU-K power 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 maximum MGU-H speed was checked on all cars.

An engine oil sample was taken from car number 63.

Before the qualifying practice session:

A fuel sample was taken from car numbers 23 and 24.

An engine oil sample was taken from car numbers 23 and 24.

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 2022 Championship.

During the qualifying practice session:

Car numbers 44, 01, 03, 04, 10, 18, 06, 24 and 47 were weighed.

The weight distribution was checked on car numbers 44, 01, 03, 04, 10, 18, 06, 24 and 47.

The uppermost rear wing element adjustable positions were checked on car numbers 10 and 23.

The minimum distance between the adjacent rear wing sections at any longitudinal vertical plane was checked on car numbers 10 and 23.

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

After the qualifying practice session:

Car numbers 63, 44, 01, 11, 16, 55, 04, 14, 31 and 20 were weighed.

The following aerodynamic component or bodywork areas were checked on car number 20:

- Floor Body - TR Article 3.5.1
- Floor Fences - TR Article 3.5.2
- Floor Edge Wing - TR Article 3.5.3
- Nose - TR Article 3.6.1
- Forward Chassis - TR Article 3.6.2
- Mid Chassis - TR Article 3.6.3
- Sidepod - TR Article 3.7.1
- Coke Panel - TR Article 3.7.2
- Engine Cover - TR Article 3.7.3
- Front Wing Endplate body - TR Article 3.9.2
- Front Wing Tip - TR Article 3.9.3
- Front Wing Diveplane - TR Article 3.9.4
- Front Wing Endplate - TR Article 3.9.5
- Rear Wing Profiles - TR Article 3.10.1
- Pylons - TR Article 3.10.2
- Rear Wing Beam - TR Article 3.10.3
- Rear Wing Endplate Body - TR Article 3.10.4
- Rear Wing Tip - TR Article 3.10.5
- Rear Wing Endplate - TR Article 3.10.7

The minimum distance between the adjacent rear wing sections at any longitudinal vertical plane was checked on car numbers 44, 01, 55 and 20.

The uppermost rear wing element adjustable positions were checked on car numbers 44, 01, 55 and 20.

The engine high rev limit bands were checked on all cars.

The plenum temperature was checked on all cars.

The IVT temperatures were checked on all cars.

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 MGU-K power 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 maximum MGU-H speed was checked 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 all cars.

The torque control was checked on all cars.

The rear brakes pressure control was checked on all cars.

Gear shift data checks have been carried out for car number 20.

The steering wheel of all cars has been checked.

It was verified on all cars that the PCU dash board display configuration was not changed.

Custom software version checks have been carried out on all cars.

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 mass flow of all cars was checked.

The fuel temperature of all cars was checked.

A fuel sample was taken from car numbers 44, 55 and 04.

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.

An engine oil sample was taken from car number 04.

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

Team	FIA Standard ECU system version
Mercedes-AMG Petronas Formula One Team	SR1418
Oracle Red Bull Racing	SR1417
Scuderia Ferrari	SR1418
McLaren F1 Team	SR1418
BWT Alpine F1 Team	SR1417
Scuderia AlphaTauri	SR1417
Aston Martin Aramco Cognizant Formula One Team	SR1418
Williams Racing	SR1418
Alfa Romeo F1 Team ORLEN	SR1418
Haas F1 Team	SR1418

All the above items were found to be in conformity with the 2022 FIA Formula One Technical Regulations.

Jo Bauer

The FIA Formula One Technical Delegate