

2023 LAS VEGAS GRAND PRIX

16 - 18 November 2023

From	The FIA Formula One Technical Delegate	Document	45
To	The Stewards	Date	18 November 2023
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Technical Delegate's Report

During the third free practice session:

The tyre starting pressures of all cars during P3 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 fuel pressure of all cars during the second free practice session was checked.

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

The plenum temperature of all cars was checked.

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.

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

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

SECU custom software versions were checked on all cars.

Before the Qualifying practice session:

The thickness of the brake discs of car numbers 01, 11, 16, 55, 63, 44, 31, 10, 81 and 04 was checked.

During the Qualifying practice session:

Car numbers 55, 31, 04, 14, 20, 03, 22, 23 and 02 were weighed.

The weight distribution was checked on car numbers 55, 31, 04, 14, 20, 03, 22, 23 and 02.

The uppermost rear wing element adjustable positions were checked on car numbers 44, 31, 04 and 18.

The minimum distance between the adjacent rear wing sections at any longitudinal vertical plane was checked on car numbers 44, 31, 04 and 18.

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

After the Qualifying practice session:

Car numbers 01, 16, 55, 63, 10, 77, 14, 20, 23 and 02 were weighed.

The following aerodynamic component or bodywork areas were checked on car numbers 16, 10 and 02:

- | | |
|-------------------|--------------------|
| - 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 |
| - Mirror Housing | - TR Article 3.6.4 |
| - Sidepod | - TR Article 3.7.1 |

- Coke Panel - TR Article 3.7.2
- Engine Cover - TR Article 3.7.3
- Front Wing Profiles - TR Article 3.9.1
- 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
- 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 uppermost rear wing element adjustable positions were checked on car numbers 01, 16, 55, 63, 10, 77, 14, 20, 23 and 02.

The minimum distance between the adjacent rear wing sections at any longitudinal vertical plane was checked on car numbers 01, 16, 55, 63, 10, 77, 14, 20, 23 and 02.

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.

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 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.

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.

SECU 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.

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

Team	FIA Standard ECU system version
Oracle Red Bull Racing	SR1511
Scuderia Ferrari	SR1512
Mercedes-AMG PETRONAS Formula One Team	SR1512
BWT Alpine F1 Team	SR1512
McLaren Formula 1 Team	SR1512
Alfa Romeo F1 Team Stake	SR1512
Aston Martin Aramco Cognizant Formula One Team	SR1512
MoneyGram Haas F1 Team	SR1512
Scuderia AlphaTauri	SR1511
Williams Racing	SR1512

All the above items were found to be in conformity with the 2023 FIA Formula One Technical Regulations.

Jo Bauer

The FIA Formula One Technical Delegate