

2023 ABU DHABI GRAND PRIX

24 - 26 November 2023

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| From | The FIA Formula One Technical Delegate | Document | 59 |
| To | The Stewards | Date | 26 November 2023 |
| | | Time | 20:08 |

Technical Delegate's Report

Before the Race:

An asymmetric and symmetric front wing deflection test was carried out on car numbers 81, 27 and 22.

A front wing flap deflection test was carried out on car numbers 81, 27 and 22.

The uppermost rear wing element adjustable positions were checked on car numbers 44 and 03.

The minimum distance between the adjacent rear wing sections at any longitudinal vertical plane was checked on car numbers 44 and 03.

A fuel sample was taken from car numbers 01, 63 and 18.

An engine oil sample was taken from car numbers 01 and 18.

On the grid it was checked that all cars had fitted their tyres and the tyre heating blankets were disconnected, when the 5-Minutes signal was given.

On the grid the temperature of the LHS and RHS front and rear tyre was checked on car numbers 01, 11, 16, 55, 63, 44, 31, 10, 81, 04, 77, 18, 14, 03, 22 and 23.

On the grid the minimum tyre starting pressure of the LHS and RHS front and rear tyre was checked on all cars.

After the Race:

The following cars were weighed:

| Number | Car | Driver |
|---------------|------------------------------|---------------------|
| 01 | Red Bull Racing RBPT | Max Verstappen |
| 11 | Red Bull Racing RBPT | Sergio Perez |
| 16 | Ferrari | Charles Leclerc |
| 55 | Ferrari | Carlos Sainz |
| 63 | Mercedes | George Russell |
| 44 | Mercedes | Lewis Hamilton |
| 31 | Alpine Renault | Esteban Ocon |
| 10 | Alpine Renault | Pierre Gasly |
| 81 | McLaren Mercedes | Oscar Piastri |
| 04 | McLaren Mercedes | Lando Norris |
| 77 | Alfa Romeo Racing Ferrari | Valtteri Bottas |
| 24 | Alfa Romeo Racing Ferrari | Zhou Guanyu |
| 18 | Aston Martin Mercedes | Lance Stroll |
| 14 | Aston Martin Mercedes | Fernando Alonso |
| 20 | Haas Ferrari | Kevin Magnussen |
| 27 | Haas Ferrari | Nico H lkenberg |
| 03 | AlphaTauri RBPT | Daniel Ricciardo |
| 22 | AlphaTauri RBPT | Yuki Tsunoda |
| 23 | Williams Mercedes | Alexander Albon |
| 02 | Williams Mercedes | Logan Sargeant |

The steering wheel of all classified cars has been checked.

The following aerodynamic component or bodywork areas were checked on car numbers 16, 81 and 22:

- | | |
|----------------------------|--------------------|
| - 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 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 Endplate Body - TR Article 3.10.4
- Rear Wing Tip - TR Article 3.10.5
- Rear Wing Endplate - TR Article 3.10.7

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

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 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 MGU-K power model was checked on all cars.

The ES power model 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 race.

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 brake temperature warnings were checked on all cars.

The race start data of all cars have been checked.

Single clutch paddle use for the race start has been checked on all cars.

The MGU-K use at the race start was checked on all cars.

It was checked on all cars that the ES was not charged while the car was stationary in the pits.

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

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

The fuel pressure of all cars during the race was checked.

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

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 number 11.

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

The results of all the fuel analyses show that the fuels were the same as ones, which had been approved for use by the relevant competitors prior to the Competition.

Further the density change of the fuel samples taken today was within the permitted limits.

An engine oil sample was taken from car number 63.

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 Competition.

All car weights and the items checked were found to be in conformity with the 2023 FIA Formula One Technical Regulations.

After the race car number 14 was randomly chosen among the top ten cars for more extensive physical inspections.

Subject to these physical inspections were all front and rear outboard suspension fairings and outboard suspension layout.

All inspected components were found to be in conformance with the 2023 Formula One Technical Regulations.

Jo Bauer

The FIA Formula One Technical Delegate