

2023 SINGAPORE GRAND PRIX

15 - 17 September

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Technical Delegate's Report

Before the race:

Components of all cars were checked and compared with the information supplied by the relevant team's **Used Inventory Incremental List (UIIL)**.

The spare front corner of car numbers 31 and 10 was digitally scanned and the scanned data were compared with the team declared CAD drawings. Further the team declared CAD drawings were also compared with previously submitted versions and checked for conformance with the 2023 Formula One Technical Regulations.

The front wing adjustability of car number 55 was digitally scanned and checked.

The spare left rear corner of car numbers 77 and 24 was digitally scanned and the scanned data were compared with the team declared CAD drawings. Further the team declared CAD drawings were also compared with previously submitted versions and checked for conformance with the 2023 Formula One Technical Regulations.

Clutch paddle linearity checks have been carried out on cars 11, 55, 44, 10, 4, 77, 24, 14, 20, 40, 23 and 02.

A front floor deflection test was carried on car numbers 63, 20 and 40.

The uppermost rear wing element adjustable positions were checked on car number 40.

The minimum distance between the adjacent rear wing sections at any longitudinal vertical plane was checked on car number 40.

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, 14, 20, 27, 40 and 23.

On the grid the minimum tyre starting pressure 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, 24, 14, 20, 27, 40, 22, 23 and 02.

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
44	Mercedes	Lewis Hamilton
10	Alpine Renault	Pierre Gasly
81	McLaren Mercedes	Oscar Piastri
04	McLaren Mercedes	Lando Norris
24	Alfa Romeo Racing Ferrari	Zhou Guanyu
14	Aston Martin Mercedes	Fernando Alonso
20	Haas Ferrari	Kevin Magnussen
27	Haas Ferrari	Nico Hülkenberg
40	AlphaTauri RBPT	Liam Lawson
23	Williams Mercedes	Alexander Albon
02	Williams Mercedes	Logan Sargeant

The steering wheel of car numbers 01, 11, 16, 55, 63, 44, 31, 10, 81, 04, 77, 24, 14, 20, 27, 40, 22, 23 and 02 has been checked.

The following aerodynamic component or bodywork areas were checked on car numbers 16, 44 and 24:

- 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
- 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

A physical floor and a plank wear inspection was carried out on car numbers 01 and 14.

It was confirmed for car numbers 10 and 81 that after the race there was enough fuel on board the car for the 1 litre fuel sample.

The engine high rev limit bands were checked on car numbers 01, 11, 16, 55, 63, 44, 31, 10, 81, 04, 77, 24, 14, 20, 27, 40, 22, 23 and 02.

The oil consumption was checked on car numbers 01, 11, 16, 55, 63, 44, 31, 10, 81, 04, 77, 24, 14, 20, 27, 40, 22, 23 and 02.

The plenum temperature was checked on car numbers 01, 11, 16, 55, 63, 44, 31, 10, 81, 04, 77, 24, 14, 20, 27, 40, 22, 23 and 02.

The IVT temperatures were checked on car numbers 01, 11, 16, 55, 63, 44, 31, 10, 81, 04, 77, 24, 14, 20, 27, 40, 22, 23 and 02.

The ES state of charge on-track limits were checked on car numbers 01, 11, 16, 55, 63, 44, 31, 10, 81, 04, 77, 24, 14, 20, 27, 40, 22, 23 and 02.

The lap energy release and recovery limits were checked on car numbers 01, 11, 16, 55, 63, 44, 31, 10, 81, 04, 77, 24, 14, 20, 27, 40, 22, 23 and 02.

The MGU-K power limits were checked on car numbers 01, 11, 16, 55, 63, 44, 31, 10, 81, 04, 77, 24, 14, 20, 27, 40, 22, 23 and 02.

The maximum MGU-K speed was checked on car numbers 01, 11, 16, 55, 63, 44, 31, 10, 81, 04, 77, 24, 14, 20, 27, 40, 22, 23 and 02.

The maximum MGU-K torque was checked on car numbers 01, 11, 16, 55, 63, 44, 31, 10, 81, 04, 77, 24, 14, 20, 27, 40, 22, 23 and 02.

The maximum MGU-H speed was checked on car numbers 01, 11, 16, 55, 63, 44, 31, 10, 81, 04, 77, 24, 14, 20, 27, 40, 22, 23 and 02.

The session type has been confirmed for car numbers 01, 11, 16, 55, 63, 44, 31, 10, 81, 04, 77, 24, 14, 20, 27, 40, 22, 23 and 02.

Chassis FIA checksum was checked on car numbers 01, 11, 16, 55, 63, 44, 31, 10, 81, 04, 77, 24, 14, 20, 27, 40, 22, 23 and 02.

The torque coordinator demands were checked on car numbers 01, 11, 16, 55, 63, 44, 31, 10, 81, 04, 77, 24, 14, 20, 27, 40, 22, 23 and 02.

The torque control was checked on car numbers 01, 11, 16, 55, 63, 44, 31, 10, 81, 04, 77, 24, 14, 20, 27, 40, 22, 23 and 02.

The rear brakes pressure control was checked on car numbers 01, 11, 16, 55, 63, 44, 31, 10, 81, 04, 77, 24, 14, 20, 27, 40, 23 and 02.

The brake temperature warnings were checked on car numbers 01, 11, 16, 55, 63, 44, 31, 10, 81, 04, 77, 24, 14, 20, 27, 40, 23 and 02.

The race start data of car numbers 01, 11, 16, 55, 63, 44, 31, 10, 81, 04, 77, 24, 14, 20, 27, 40, 22, 23 and 02 have been checked.

Single clutch paddle use for the race start has been checked on car numbers 01, 11, 16, 55, 63, 44, 31, 10, 81, 04, 77, 24, 14, 20, 27, 40, 22, 23 and 02.

The MGU-K use at the race start was checked on car numbers 01, 11, 16, 55, 63, 44, 31, 10, 81, 04, 77, 24, 14, 20, 27, 40, 22, 23 and 02

It was checked on car numbers 01, 11, 16, 55, 63, 44, 31, 10, 81, 04, 77, 24, 14, 20, 27, 40, 22, 23 and 02 that the ES was not charged while the car was stationary in the pits.

It was checked that car numbers 01, 11, 16, 55, 63, 44, 31, 10, 81, 04, 77, 14, 20, 27, 40, 22, 23 and 02 exceeded 60 km/h when leaving the formation grid prior to the start of the race.

It was verified on car numbers 01, 11, 16, 55, 63, 44, 31, 10, 81, 04, 77, 24, 14, 20, 27, 40, 22, 23 and 02 that the PCU dash display configuration was not changed during Parc Fermé.

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 car numbers 01, 11, 16, 55, 63, 44, 31, 10, 81, 04, 77, 24, 14, 20, 27, 40, 22, 23 and 02 during the race was checked.

The logged pressure within the engine cooling system during the race was checked on car numbers 01, 11, 16, 55, 63, 44, 31, 10, 81, 04, 77, 24, 14, 20, 27, 40, 22, 23 and 02.

Fuel flow meter calibration checksums were checked on car numbers 01, 11, 16, 55, 63, 44, 31, 10, 81, 04, 77, 24, 14, 20, 27, 40, 22, 23 and 02.

The instantaneous fuel mass flow of car numbers 01, 11, 16, 55, 63, 44, 31, 10, 81, 04, 77, 24, 14, 20, 27, 40, 22, 23 and 02 was checked.

The fuel temperature of car 01, 11, 16, 55, 63, 44, 31, 10, 81, 04, 77, 24, 14, 20, 27, 40, 22, 23 and 02 was checked.

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

Jo Bauer

The FIA Formula One Technical Delegate