

FIA FORMULA 1 WORLD CHAMPIONSHIP



2024 HUNGARIAN GRAND PRIX 19 - 21 July 2024

From The FIA Formula One Technical Delegate Document 41

To The Stewards Date 21 July 2024

Time 18:38

Technical Delegate's Report

Before the Race:

The following parts have been replaced today after 12:55 and before the start of the race:

McLaren Mercedes:

Car 04: Throttle pedal assembly

Parameter changes associated with the throttle pedal assembly replacement

The rear wing of car number 01 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 2024 Formula One Technical Regulations.

The front wing flap adjustable range of car number 81 was digitally checked.

The minimum distance between the adjacent rear wing sections at any longitudinal vertical plane was checked on car numbers 01, 44, 16, 04, 14, 31, 23, 03, 77 and 20.

The uppermost rear wing element adjustable positions were checked on car numbers 01, 44, 16, 04, 14, 31, 23, 03, 77 and 20.

The inclination, the diameter and the position of the last 150 mm of the exhaust tailpipes were checked on car numbers 01, 44, 16, 04, 14, 31, 23, 03, 77 and 20.

The pressure relief valve of car numbers 55, 81, 31 and 03 was checked.

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, 63, 44, 55, 04, 14, 23, 03 and 27.

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 Honda RBPT	Max Verstappen
11	Red Bull Racing Honda RBPT	Sergio Perez
63	Mercedes	George Russell
44	Mercedes	Lewis Hamilton
16	Ferrari	Charles Leclerc
55	Ferrari	Carlos Sainz
81	McLaren Mercedes	Oscar Piastri
04	McLaren Mercedes	Lando Norris
18	Aston Martin Aramco	Lance Stroll
	Mercedes	
14	Aston Martin Aramco	Fernando Alonso
	Mercedes	
31	Alpine Renault	Esteban Ocon
23	Williams Mercedes	Alexander Albon
02	Williams Mercedes	Logan Sargeant
03	RB Honda RBPT	Daniel Ricciardo
22	RB Honda RBPT	Yuki Tsunoda
77	Kick Sauber Ferrari	Valtteri Bottas
24	Kick Sauber Ferrari	Zhou Guanyu
20	Haas Ferrari	Kevin
		Magnussen
27	Haas Ferrari	Nico Hülkenberg

The following aerodynamic component or bodywork areas were checked on car numbers 11, 55 and 23:

-	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 Tail - TR Article 3.8.1 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

The plank and skid wear was checked on car numbers 16 and 81.

A front floor deflection test was carried on car numbers 16 and 81.

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

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

The engine high rev limit bands were 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 partial load fuel mass flow of all cars was checked.

The fuel temperature of all cars was checked.

The plenum temperature was checked on all cars.

The oil consumption was checked on car numbers 01, 11, 63, 44, 16, 55, 81, 04, 18 and 22.

The exhaust fluid mass flow 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 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 torque coordinator demands were checked on all cars.

The torque control 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 rear brakes pressure control was checked on all cars.

The brake temperature warnings were checked on all cars.

The steering wheel of all cars has been checked.

The race start data of all cars have been checked.

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

It was checked that no car exceeded 80 km/h when leaving the formation grid prior to the start of the race.

It was verified on all cars 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.

All car weights and the items checked were found to be in conformity with the 2024 FIA Formula One Technical Regulations.

Jo Bauer

The FIA Formula One Technical Delegate