

2024 MIAMI GRAND PRIX

03 - 05 May 2024

From	The FIA Formula One Technical Delegate	Document	43
To	The Stewards	Date	04 May 2024
		Time	13:55

Technical Delegate's Report

Before the Sprint:

The following parts have been replaced today after 10:05 and before the start of the Sprint:

Alpine Renault:

Car 31: Front wing/nose assembly

The uppermost rear wing element adjustable positions were checked on car number 16.

It was verified on car number 31 that the car's set-up was as declared on the set-up sheet submission before the start of the Sprint Qualifying.

A fuel sample was taken from car number 10.

An engine oil sample was taken from car number 10.

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, 44, 16, 55, 10, 03, 24 and 27.

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

After the Sprint:

The following cars were weighed:

<i>Number</i>	<i>Car</i>	<i>Driver</i>
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
14	Aston Martin Aramco Mercedes	Fernando Alonso
31	Alpine Renault	Esteban Ocon
10	Alpine Renault	Pierre Gasly
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 H lkenberg

The following aerodynamic component or bodywork areas were checked on car number 03:

- | | | |
|---|--------------------------|---------------------|
| - | 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 Endplate | - TR Article 3.9.5 |
| - | Rear Wing Profiles | - TR Article 3.10.1 |
| - | 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.

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 IVT temperatures were checked on car numbers 01, 11, 63, 44, 16, 55, 81, 04, 18, 14, 31, 23, 02, 03, 22, 77, 24, 20 and 27.

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 car number 10.

The ES power model was checked on car number 10.

The MGU-K use at the Sprint 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 Sprint.

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 Sprint start data of all cars have been checked.

Single clutch paddle use for the Sprint 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 Sprint.

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 Sprint were checked.

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

A fuel sample was taken from car number 55.

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.

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 2024 FIA Formula One Technical Regulations.

Jo Bauer

The FIA Formula One Technical Delegate