

## FIA FORMULA 1 WORLD CHAMPIONSHIP



# 2024 SPANISH GRAND PRIX 21 - 23 June 2024

From The FIA Formula One Technical Delegate Document 51

To The Stewards Date 23 June 2024

**Time** 18:40

### **Technical Delegate's Report**

#### Before the Race:

A floor edge deflection test was carried on car number 01.

The minimum distance between the adjacent rear wing sections at any longitudinal vertical plane was checked on car numbers 77 and 24.

The uppermost rear wing element adjustable positions were checked on car numbers 77 and 24.

A symmetric and asymmetric front wing deflection test was carried out on car numbers 01, 44 and 04.

A front wing flap deflection test was carried out on car numbers 01, 44 and 04.

Clutch paddle linearity checks have been carried out on cars 16 and 04.

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, 16, 55, 04, 18, 14, 31, 10, 22 and 77.

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<br>Honda RBPT | Max Verstappen   |
|----|-------------------------------|------------------|
| 11 | Red Bull Racing<br>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     |
| 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 Hülkenberg  |

The following aerodynamic component or bodywork areas were checked on car numbers 01, 63 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
Rear Wing Profiles
Rear Wing Beam
Rear Wing Endplate Body
Rear Wing Tip
Rear Wing Endplate
TR Article 3.10.3
TR Article 3.10.4
TR Article 3.10.5
TR Article 3.10.5
TR Article 3.10.7

A front floor deflection test was carried on car numbers 44 and 81.

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, 31 and 10.

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 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 ave 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