

# **2022 HUNGARIAN GRAND PRIX**

28 - 31 July 2022

From The FIA Formula One Technical Delegate Document 44

To The Stewards Date 31 July 2022

**Time** 19:28

## **Technical Delegate's Report**

### Before the race:

The following parts have been replaced today after 12:40 and before the start of the race:

#### Alfa Romeo Racing Ferrari:

Car 24: RHS rear wing endplate light

The floor of car number 03 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 compliance with the 2022 Formula One Technical Regulations.

A front floor deflection test was carried out on car number 18.

The uppermost rear wing element adjustable positions were checked on car numbers 44 and 04.

The minimum distance between the adjacent rear wing sections at any longitudinal vertical plane was checked on car numbers 44 and 04.

A fuel sample was taken from car numbers 16, 22 and 05 and analysed during the race.

An engine oil sample was taken from car numbers 22 and 05.

On the grid it was checked that all cars had fitted their tyres 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 03, 31, 18, 77 and 47.

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           |
|--------|---------------------------|------------------|
| 63     | Mercedes                  | George Russell   |
| 44     | Mercedes                  | Lewis Hamilton   |
| 01     | Red Bull Racing RBPT      | Max Verstappen   |
| 11     | Red Bull Racing RBPT      | Sergio Perez     |
| 16     | Ferrari                   | Charles Leclerc  |
| 55     | Ferrari                   | Carlos Sainz     |
| 03     | McLaren Mercedes          | Daniel Ricciardo |
| 04     | McLaren Mercedes          | Lando Norris     |
| 14     | Alpine Renault            | Fernando Alonso  |
| 31     | Alpine Renault            | Esteban Ocon     |
| 10     | AlphaTauri RBPT           | Pierre Gasly     |
| 22     | AlphaTauri RBPT           | Yuki Tsunoda     |
| 18     | Aston Martin Mercedes     | Lance Stroll     |
| 05     | Aston Martin Mercedes     | Sebastian Vettel |
| 23     | Williams Mercedes         | Alexander Albon  |
| 06     | Williams Mercedes         | Nicholas Latifi  |
| 77     | Alfa Romeo Racing Ferrari | Valtteri Bottas  |
| 24     | Alfa Romeo Racing Ferrari | Zhou Guanyu      |
| 20     | Haas Ferrari              | Kevin Magnussen  |
| 47     | Haas Ferrari              | Mick Schumacher  |

The steering wheel of all cars has been checked.

The following aerodynamic component or bodywork areas were checked on car numbers 63, 16, 31 and 05:

| - | Floor Body               | <ul> <li>TR Article 3.5.1</li> </ul> |
|---|--------------------------|--------------------------------------|
| - | 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                   |
| - | 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 Beam - TR Article 3.10.3 Rear Wing Endplate Body - TR Article 3.10.4 - TR Article 3.10.5 Rear Wing Tip - TR Article 3.10.7 Rear Wing Endplate

The minimum distance between the adjacent rear wing sections at any longitudinal vertical plane was checked on all cars.

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

The oil consumption was checked on car numbers 63, 44, 01, 11, 16, 55, 14 and 31.

The plenum temperature was 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 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 car numbers 63, 44, 01, 11, 16, 55, 14 and 31.

The torque control was checked on car numbers 63, 44, 01, 11, 16, 55, 14 and 31.

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.

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 car numbers 63, 44, 01, 11, 16, 55, 03, 04, 14, 31, 10, 18, 05, 23, 06, 77, 24, 20 and 47 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 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 car all cars was 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 Event.

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

An engine oil sample was taken from car number 04.

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 Event.

All car weights and the items checked were found to be in conformity with the 2022 FIA Formula One Technical Regulations.

#### Jo Bauer

The FIA Formula One Technical Delegate