

## 2023 LAS VEGAS GRAND PRIX

16 - 18 November 2023

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<b>From</b>	The FIA Formula One Technical Delegate	<b>Document</b>	58
<b>To</b>	The Stewards	<b>Date</b>	19 November 2023
		<b>Time</b>	01:28

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### Technical Delegate's Report

#### Before the Race:

The following parts have been replaced today after 19:55 and before the start of the race:

#### Red Bull Racing RBPT:

Car 01: Circlip of the DRS actuator pin

A vertical rear wing mainplane deflection test was carried out on car numbers 77 and 20.

An angled rear wing mainplane deflection test was carried out on car numbers 77 and 20.

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, 16, 55, 63, 44, 31, 10, 81, 04, 77, 24, 14, 20, 27, 03, 23 and 02.

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:

<b>Number</b>	<b>Car</b>	<b>Driver</b>
01	Red Bull Racing RBPT	Max Verstappen

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

The following aerodynamic component or bodywork areas were checked on car numbers 11, 44 and 18:

- 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
- 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 aerodynamic seal between the LHS and RHS front and rear wheel cover and wheel rim was checked on car numbers 01, 16 and 44.

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

The oil consumption was checked on car numbers 01, 11, 16, 55, 63, 44, 31, 81, 18 and 14.

The plenum temperature was checked on all cars.

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 torque coordinator demands were checked on car numbers 01, 11, 16, 55, 63, 44, 31, 81, 18 and 14.

The torque control was checked on car numbers 01, 11, 16, 55, 63, 44, 31, 81, 18 and 14.

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.

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.

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.

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 all cars 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**