



# 2016 UNITED STATES GRAND PRIX

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| <b>From</b> | The FIA Formula One Technical Delegate | <b>Document</b> | 22              |
| <b>To</b>   | The FIA Stewards of the Meeting        | <b>Date</b>     | 22 October 2016 |
|             |  | <b>Time</b>     | 16:43           |

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## Technical Delegate's Report

### During the third free practice session:

The tyre starting pressures of all cars during P3 were checked.

The instantaneous fuel flow of all cars was checked.

### Before the qualifying practice session:

It was confirmed for all cars that the gear ratios used during the remainder of this Event belong to the gear ratios declared to the FIA technical delegate at or before the first Event of the 2016 Championship.

### During the qualifying practice session:

Car numbers 44, 06, 03, 11, 26, 09 and 08 were weighed.

The weight distribution was checked on car numbers 44, 06, 03, 11, 26, 09 and 08.

Car numbers 26 and 08 were checked for the following:

- 1) Bodywork around the front wheels
- 2) Front wing height and overhang
- 3) Rear wing height and overhang
- 4) Front and rear wing width
- 5) Rear wing configuration
- 6) Rear bodywork area
- 7) Rear winglet height
- 8) Stepped bottom
- 9) Diffuser height
- 10) Diffuser width

- 11) Overall height
- 12) Overall width

The profile of the prescribed front wing section in Article 3.7.3 of the 2016 Formula One Technical Regulations was checked on car numbers 26 and 08.

The minimum distance between the adjacent rear wing sections at any longitudinal vertical plane was checked on car numbers 26 and 08.

It was confirmed for car numbers 26 and 08 that any vertical cross section of bodywork normal to the car centre line and situated in the volumes defined in Article 3.8.4 form one tangent continuous curve on its external surface with a radius no less than 75mm.

The concave radius of sections of the two rear wing elements which are in contact with the external air stream was checked on car numbers 26 and 08.

The front and rear brake air duct dimensions were checked on car number 26.

The tyre starting pressures of all cars during the qualifying sessions were checked.

Fuel samples were taken from car numbers 12 and 14.

#### **After the qualifying practice session:**

Car numbers 44, 06, 05, 07, 19, 77, 03, 33, 27 and 55 were weighed.

Car numbers 06, 05, 19, 77, 33, 27 and 55 were checked for the following:

- 1) Bodywork around the front wheels
- 2) Front wing height and overhang
- 3) Rear wing height and overhang
- 4) Front and rear wing width
- 5) Rear wing configuration
- 6) Rear bodywork area
- 7) Rear winglet height
- 8) Stepped bottom
- 9) Diffuser height
- 10) Diffuser width
- 11) Overall height
- 12) Overall width

The chassis identification transponders have been confirmed for car numbers 44, 06, 05, 19, 33, 27 and 55.

The profile of the prescribed front wing section in Article 3.7.3 of the 2016 Formula One Technical Regulations was checked on car numbers 06, 05, 19, 77, 33, 27 and 55.

The minimum distance between the adjacent rear wing sections at any longitudinal vertical plane was checked on car numbers 06, 05, 19, 77, 33, 27 and 55.

It was confirmed for car numbers 06, 05, 19, 77, 33, 27 and 55 that any vertical cross section of bodywork normal to the car centre line and situated in the volumes defined in Article 3.8.4 form one tangent continuous curve on its external surface with a radius no less than 75mm.

The concave radius of sections of the two rear wing elements which are in contact with the external air stream was checked on car numbers 06, 05, 19, 77, 33, 27 and 55.

A front floor deflection test was carried on car numbers 44, 07 and 03.

The front and rear brake air duct dimensions were checked on car numbers 06, 05, 19, 77, 33, 27 and 55.

It was confirmed for all drivers taking part in the qualifying session that they have used their sealed power unit.

The units locking status was checked on all cars.

The session type has been confirmed for all cars.

Software version checks have been carried out on all cars.

Torque sensor software version checks have been carried out on all cars.

Torque sensor calibration checks have been carried out on all cars.

Chassis FIA checksum was checked on all cars taking part in the qualifying sessions.

Gear shift data checks have been carried out for car numbers 05, 07, 19 and 77.

The torque coordinator demands were checked on car numbers 44, 05, 77, 03, 27, 55 and 14.

The torque control was checked on car numbers 44, 05, 77, 03, 27, 55 and 14.

The rear brakes pressure control was checked on all car numbers 44, 05, 77, 03, 27, 55, 14 and 08.

The ES state of charge on-track limits were checked on car numbers 44, 05, 77, 03, 27, 55, 14 and 08.

The lap energy release and recovery limits were checked on car numbers 44, 05, 77, 03, 27, 55, 14 and 08.

The MGU-K power limits were checked on car numbers 44, 05, 77, 03, 27, 55, 14 and 08.

The maximum MGU-K torque was checked on car numbers 44, 05, 77, 03, 27, 55, 14 and 08.

The maximum MGU-K speed was checked on car numbers 44, 05, 77, 03, 27, 55, 14 and 08.

The maximum MGU-H speed was checked on car numbers 44, 05, 77, 03, 27, 55, 14 and 08.

The ERS lap energy limits were checked on all cars.

It was checked that all cars did not exceed 15000 rpm during the qualifying practice session.

The fuel pressure of all cars during the qualifying session was checked.

The logged pressure within the engine cooling system during the qualifying session was checked on all cars.

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

The fuel temperature of all cars was checked.

The instantaneous fuel flow of all cars was checked.

Fuel samples were taken from car numbers 44, 77 and 27.

All the fuel samples have been checked for density and analysed by gas chromatography.

The results of 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.

The following software versions have been used by the teams during the qualifying sessions:

| <b>Team</b> | <b>FIA Standard ECU system version</b> |
|-------------|--|
| Mercedes    | SR818                                  |
| Ferrari     | SR818                                  |
| Williams    | SR818                                  |
| Red Bull    | SR818                                  |
| Force India | SR818                                  |
| Renault     | SR818                                  |
| Toro Rosso  | SR818                                  |
| Sauber      | SR818                                  |
| McLaren     | SR818                                  |
| Manor       | SR818                                  |
| Haas        | SR818                                  |

All the above items were found to be in conformity with the 2016 FIA Formula One Technical Regulations.

**Jo Bauer**

**The FIA Formula One Technical Delegate**