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IMSA TECHNICAL BULLETIN IWSC #19-02

To: All IMSA WeatherTech Sportscar Championship LMP2 Participants
From: IMSA Competition
Date: 2 November 2018
Re: IWSC LMP2 2019 Technical Regulations

IMSA has published the Technical Regulations for the IMSA WeatherTech Sportscar Championship as of today's date in Blackline and Redline forms for the LMP2 Class.

All cars will be held to these Technical Regulations for IMSA events.

After this date, changes to the IMSA WeatherTech Sportscar Championship Technical Regulations are issued via Technical Bulletin and an updated edition of the affected Technical Regulation(s) published, with an additional document showing the changes in red. The Blackline version is the official Regulations.

[2019 IWSC Technical Regulations LMP2 11/02/18](#)

[2019 IWSC Technical Regulations LMP2 REDLINE 11/02/18](#)

For 2019 the LMP2 class has unique Technical Regulations. Notable changes from the 2018 Prototype Regulations (previously combined DPi and LMP2) are as follows.

2.2. Balance of Performance Adjustment

2.2.1. To maintain ~~competitive equivalency between Cars within the Class, and stratification~~ between Classes, IMSA uses the Balance of Performance process as outlined in Article 6 to mandate adjustments to the Specification.

- a. Performance is evaluated using observed performance data; including, but not limited to, the IMSA Scrutineering data logger and official Timing and Scoring.

6.1. Balance of Performance

6.1.1. IMSA may, at its discretion, utilize an adjustment method to maintain ~~competitive equivalency between Cars within each Class, and stratification~~ between Classes.

6.3. Adjustment Parameters

6.3.1. The following adjustments may apply:

- a. Minimum mass
- b. Engine ~~restrictor and/or boost ratio change~~ performance
- c. Maximum fuel ~~cell~~ capacity
- ~~d. Assigned refueling restrictor diameter~~
- e. Aerodynamic elements and/or settings
- f. Other parameters as designated by IMSA

7.7. Fire Suppression

7.7.2. Extinguishing media must be compatible with all aspects and accessories of the fire suppression system.

- ~~a. Compliance with FIA 8865-2016 is mandatory.~~

9.1. General (Vehicle Systems)

9.1.1. All Vehicle Systems and associated sub-systems are listed in this Article.

- a. Where change to the ~~se Homologated~~ Vehicle Systems is permitted, regulatory text is **bold and underlined**.
- b. Where change to the ~~se Homologated~~ Vehicle Systems is prohibited, regulatory text is light grey.
- c. Advisory statements are in normal text.

9.4. Dimensions

9.4.1. General

- a. ~~IMSA's measurement instruments are the official measurement instruments.~~

9.6. Driver Interface

9.6.5. Driver Adjustable Components

- a. ~~Driver adjustable anti-roll bars are permitted.~~

9.9. Engine System

9.9.1. General

- a. ~~Manufacturer seals must be respected~~

9.9.3. Lambda

- a. ~~The minimum lambda value for all Car Models is defined via Balance of Performance Tables and associated Technical Bulletins.~~

9.9.5. Intake

- a. ~~The assigned inlet air restrictor diameter(s) for all Car Models is defined via Balance of Performance Tables and associated Technical Bulletins.~~
 - i. ~~The assigned air restrictor diameter must be maintained at least 3 mm axially in the throat~~
 - ii. ~~The IMSA Restrictor Throat Pressure Sensor measurement tap must be 1 mm diameter and centered axially in the restrictor throat~~
 - iii. ~~All air entering the engine must pass through the restrictor.~~
- b. ~~Intake air restrictors are sealed by IMSA Technical Officials during Pre-Event Technical Inspection.~~
 - i. ~~Entrants must receive approval from IMSA to remove seals following inspection, and seals must be replaced by IMSA Technical Officials prior to on-track activity.~~
- c. ~~**Manufacturers may declare an alternative air filter via the Technical Eligibility Form**~~
 - i. ~~Declared filter must be approved by IMSA in writing at least seven (7) days before first use.~~
 - ii. ~~Entrants must use the manufacturer declared air filter.~~

9.11. Drive System

9.11.1. General

- a. Manufacturer seals must be respected

9.11.5. Gears

- ~~a. In addition to the FIA Homologated final drive ratio LMP2 Constructors may declare two (2) final drive ratios via the Technical Eligibility Form.~~
 - ~~i. Entrants may use any of the declared final drive ratios.~~
 - ~~ii. Declared units must be commercially available to all Manufacturers, Constructors, and relevant Entrants.~~
- ~~b. Change ratios are unrestricted.~~
 - ~~i. Change gears must be sourced from the original homologated gearbox manufacturer.~~

9.16. Suspension System

9.16.6. Anti-Roll Bar

- ~~a. Each Constructor must declare a common anti-roll bar cockpit adjustment mechanism available to Entrants as part of the Technical Eligibility Form.~~
 - ~~i. Anti-roll bar cockpit adjustment mechanism must connect to the suspension by a solid link.~~
- ~~b. Entrants may install either the approved anti-roll bar cockpit adjustment mechanism or install the anti-roll bar system as homologated.~~

9.22. Wheels & Tires

9.22.1. Tires

- a. The approved tire supplier for this Class is Michelin

10.4. X2 Transponder System

10.4.1. Cars must be equipped with the X2 Transponder System Kit (Qty 2) to transmit scrutineering data from the car ~~and serve as a backup to the primary Driver ID Transponder.~~

- a. X2 Transponder Kit contains the following component(s):
 - i. Transponder.
 - ii. Isolation Mounts.

10.4.2. X2 transponder may be purchased via the IMSA Accessories Order Form. ~~is provided by IMSA during Safety Checks at each Event, and:~~

- ~~a. Remains the property of IMSA~~
- ~~b. Entrants must surrender the transponder when required by IMSA~~
- ~~c. Entrants is responsible for replacing a lost or damaged X2 transponder, per the IMSA Accessories Order Form.~~

10.9. In-Car Camera

Not applicable

11.1. Fuel Transfer

11.1.2. Fuel transferred to the autonomous supply tank must be delivered by means of a hose fitted with a self-sealing connector (e.g. dry break, cam-lock) connected to the autonomous supply tank.

11.2. Pit Tank

- 11.2.3. Refueling tank height is measured from the top surface of the vessel, not including vent, cover, cover plate, or fasteners, at a distance of 1.25 meters from the outermost face of the pit wall.
- The required refueling tank height is ~~2.4~~ 2.0 meters with a tolerance of +0/-1.0 cm.
 - Once inspected by an IMSA Official the Autonomous Supply Tank and Trolley may not be moved until the conclusion of the Race **or upon an approved retirement via TIMS.**

11.3. Peripheral Connections

- 11.3.1. Tanks must be equipped with the IMSA-specified peripheral connections between the tank outlet and the refueling hose.
- Parts must be purchased from RPXpress and used unmodified:

Part Number	Part	Description
BSR-FR FN40	Outlet Flange	Bottom Tank 12-bolt housing
ATL-TF 147	12-Bolt Gasket	
BSR.FR.R.36GOLD	36.0mm Restrictor	Upper Restrictor (for positive seal to Elbow)
BSR-FR 1981	Bottom 80 deg. Elbow	Female Camlock x 2" Male
BSR-FR R003	Deadman Valve	Stainless Deadman Valve
BSR.P.5K.RPX.SS	Adapter	Adapter 2" Male to 1 1/2" Camlock
BSR.P.5K56.SS	Restrictor Housing	Deadman Outlet, 2" Male to 1 1/2" Camlock

11.4. Refueling Hoses

- 11.4.1. Refueling/vent hoses must have one end equipped with a self-sealing connector to fit the autonomous supply tank outlet.
- 11.4.2. Refueling/vent hoses may be protected for the sole purpose of resisting abrasion damage.
- Cover must be easily removable by means of full-length Velcro or zipper.
 - Cover must be non-reflective
- 11.4.3. Hose maximum inside diameter
- Dual-Port systems must be less than 1.5 inches for all hoses.
 - Single-Port (coaxial) systems must be less than 1.5 inches for Refueling Hose and less than 75.0mm for the vent hose
- 11.4.6. Cars employing an approved offside refueling system, must have a **refueling vent** hose with a minimum length of six (6) meters, connectors included.

11.5. Trolley Pit Tank Support Stand

- 11.5.1. The tank must be attached to one of the following:
- Scissor style (X-brace) stand
 - Through a tower, to a trolley meeting the following requirements:
 - All tower components must be assembled without any degree of freedom in relation to the trolley.

~~11.5.2. The base of the trolley must:~~

- Have a surface area greater than two (2) square meters.
- ~~Be installed with~~ Utilize four (4) self-braking casters.
- Be ballasted with a weight exceeding that of the tank when filled with fuel.

11.7. Refueling Restrictor

11.7.2. Refueling Restrictor must meet the following criteria:

- a. Material must be an aluminum alloy.
- b. Must ~~be in compliance~~ comply with the ~~restrictor part drawing~~ **IMSA Fuel Restrictor Part Drawing** at the end of these Technical Regulations.
- c. Restrictor size varies from 22.0 mm to 34.0 mm by discrete increments 0.25 mm
- d. Bore tolerance (+0.00 mm / -0.05 mm)

11.7.4. Refueling Restrictors are sealed by IMSA Technical Officials.

- b. The following items must be drilled for safety-wire sealing of the restrictor
 - i. Two (2) adjacent Bolt heads of the Restrictor Housing
 - ii. Two (2) Hinge Bolts (threaded section) of the Outlet Pipe Cam Lock
 - iii. Two (2) Lock Lever Arms of the Refueling Hose Cam Lock

