



## Bosch Hockenheim Historic (BHH), 27 – 29 August 2021 Group C/GTP Racing 2021 TECHNICAL REGULATIONS

All vehicles must comply with the **original technical data of the respective time period and the original paintwork**. The technical data of the respective time period and compliance form the basis for these races. Checks on weight, displacement and ground clearance may be carried out in order to ensure equal sporting opportunities for all competitors.

### **Eligibility to participate**

Group C/GTP Racing 2021 is an invitation-only race and participation is at the sole discretion of the organisation. The organisation reserves the right to accept or refuse any registration and to assign each vehicle to its class.

### **A/ Vehicles eligible to participate**

The event is open to all vehicles in group C and IMSA GTP that meet the 1982-1993 specifications.

### **B/ Classes**

Classes are assigned as follows:

- C1 class a: - For all vehicles in groups C C1, IMSA, GTP that meet the 1987-1990 specification.
- C1 class b: - For all vehicles in groups C C1, IMSA, GTP that meet the pre-1987 specification (i.e. 1982-1986).
- C2 class a: - For all vehicles in groups C C2, Junior, IMSA Light that meet the 1986-1990 specification.
- C2 class b: - For all vehicles in groups C C2, Junior, IMSA Light that meet the pre-1986 specification (i.e. 1982-1985).
- C3 class a: - For Japanese sports cars, IMSA, group C vehicles that meet the 1991-1993 specification.
- C3 class b invitation: - For all vehicles with a special invitation.

An invitation to start in class C3b is at the discretion of the organisation. The special invitation class refers to all Group C/GTP vehicles or all vehicles that the organisation considers:

- Of particular historical interest for the organisation
- Of particular value for the organisation

The organisation reserves the right to apply any performance-compensating factors that it deems appropriate. It will also determine the starting fee for all vehicles admitted to the race. Vehicles that start in C3 class b 'special invitation' will not be entitled to awards or points.

The decision as to whether or not a vehicle is eligible to participate in the competition and the class to which it is assigned are at the discretion of the organisation and the decision is final.

All vehicles must be in possession of a current FIA HTP or technical passport for Group C/GTP Racing, Tech Pass, issued by the organisation for the event at which the race is due to take place. The fee for the Tech Pass will be determined by the organisation.

For a vehicle to be eligible to participate, the vehicle specification provided in the Tech Pass application must be consistent with the specification for the respective time period in which that vehicle type was driven. These include, inter alia, the aero package and driveline. Changes to the original specification may be permitted by the organisation if the participant is able to demonstrate that the service life or reliability or safety have been improved or that spare parts are not available. Approvals for these changes over the original specification must be agreed with the organisation before registering for an event.

Vehicles without racing history from the respective time period may be considered for a Tech Pass and an invitation to participate in Group C/GTP Racing races if their technical specifications, the aero package and paintwork are consistent with the year in which the vehicle was introduced.

*In the event of registration for an event for which more applications have been submitted than there are places available to start, priority will always be given as follows:*

- Vehicles in classes C1 and C2 with demonstrable history*
- Vehicles in classes C1 and C2 without demonstrable history*
- Vehicles in class C3*
- 

*The organisation reserves the right to revoke a vehicle's invitation to participate at any time if the organisation deems that the vehicle has not been prepared to the very highest technical standards.*

*All vehicles must be in good external condition and have bodywork that is consistent with the paintwork for the respective time period as specified in the Tech Pass or FIA HTP (i.e. with paintwork and sponsors' logos that would have been on the vehicle while the car was being raced in the respective time period). Bodywork accident damage that occurs during an event must be repaired to the very highest standard before the next start.*

## **ARTICLE 4 – TECHNICAL REGULATIONS**

### **4.1 Tyres and wheels**

*Only Avon tyres may be used. The specification of these tyres will be agreed by the Organization and Avon on a season by season basis. For all cars, the Slick tyre compounds are AA24. When weather conditions dictate wet weather tyres, the wet weather tyres with compound W534 will be mandatory.*

*Exceptions to this are when Avon is unable to supply a suitable size tyre for a particular car and this must be pre-agreed with the Organization prior to the race event the competitor wishes to compete in.*

*AVON contact details: +44 (0) 1225 357 694 / [DLacey@coopertire.com](mailto:DLacey@coopertire.com)*

*Only two sets of new slick tyres per car may be introduced during each event. Previously used tyres may also be run without limitation. Each set of used tyres must be identified and will be checked by the technical scrutineers before the qualifying session.*

*Competitors will have the obligation to fill the marking sheet for tires used during the test, and to give back this sheet to the Technical Scrutineer before the start of the qualifying sessions. Any failure to this rule may result in the application of penalties under Steward's decision*

*Tyre warmers and tyre heating tents are permitted but may only be used in the immediate vicinity of the garage area (i.e. not on the grid or pre-grid assembly area).*

*Wheel diameters are free but are subject for prior approval by the Organisation.*

*Only one G-sensor and one wheel speed sensor fitted to a front undriven wheel is allowed..*

### **4.2 Engine and displacement**

*The engine of all vehicles must be of the same general size, the same type and the same dimensions as was used during the respective time period. All parts that were generally available in the respective time period may be used to improve the engine. Components from the same engine family and modern, commercially available pistons, con rods, valves, etc. may be used to modernise the engine, although these parts must be of the same general type as components from the respective time period. The burden of proof rests with the participant at all times.*

*All C2 vehicles equipped with a Cosworth DFV engine may only use the engine sizes that were used in the respective time period. However, only engines with 3.0 l, 3.3 l, 3.5 l or 3.9 l displacement are recognised by the organisation.*

The maximum engine speed limits for each of these engines are determined as follows:

- 3.0 l engine – 10,600 rpm
- 3.3 l engine – 10,200 rpm
- 3.5 l engine – 9,500 rpm
- 3.9 l engine – 8,200 rpm

The maximum bore size for all Cosworth engines is 90.00 mm.

At the request of the organisation, all participants must provide log data clearly showing compliance with the speed limits required by the organisation for all laps. Repeatedly exceeding the speed limits or a failure to provide the aforementioned data will result in disqualification of the lap time(s) in qualification or disqualification from the race.

Restrictor plates can be removed.

If the engine configuration of the registered vehicle type has been changed to a different engine type that was also installed during the respective time period, the vehicle will not be approved for use until its specification has been approved by the organisation and a Tech Pass or valid FIA HTP has been issued.

The motor management system may be upgraded to a modern version (e.g. Life, Motec).

#### **4.3 Turbochargers**

All vehicles concerned must be equipped with a turbocharger system (exhaust manifold, turbocharger and boost pressure control valve) consistent with the system used in the respective time period. In the event that components from the respective time period are no longer available or where reliability can be improved, later alternatives may be used, provided that the overall appearance of the system remains unchanged.

#### **4.4 Exhaust system**

The use of a catalytic converter is optional.

#### **4.5 Transmission**

All vehicles must be fitted with a transmission that is consistent with the specification of the respective time period of the vehicle presented.

#### **4.6 Fuel, fuel tanks and refuelling**

##### **4.6.1 Fuel and fuel tanks**

The fuel approved for the series must not contain hydrocarbons, octane rating booster additives or chemicals outside of the FIA fuel regulations. Only commercially available and approved fuels are permissible.

The technical inspector may request a fuel sample at any time during the event for testing purposes.

Non-compliance may result in a penalty being imposed on the affected vehicle.

The capacity of the fuel system including the fuel lines, collection tanks and reserve tanks for all vehicles must not exceed 100 l or 80 l for class C1 and class C2 vehicles respectively.

The fuel system must be equipped with a drain with fuel dry-break valve and participants must be able to demonstrate that the vehicle does not contain any fuel and that the system is completely filled if this is required to test the capacity. The inspectors may verify the capacity of the tank at any time.

Fuel tanks that are older than five years must be replaced or recertified by the manufacturer. Certificates must be presented to the organisation's technical representative on request.

The fuel tank must be equipped with a 200 mbar rollover/bleed value in accordance with the current FIA specification.

Fuel system components located in the cockpit, e.g. fuel pumps, must be covered either by a passenger seat or an aluminium cover.

#### **4.6.2 Refuelling (prohibited during races)**

The engine must be switched off before any maintenance is carried out on the vehicle or before refuelling. The driver may not remain in the vehicle during refuelling and no other work may be carried out on the vehicle.

A 'fireman' must be present and a suitable fire extinguisher must be at hand (this can be the driver or an assistant).

Refuelling equipment, venting cylinders and corresponding fittings approved by the FIA must be used. Open caps on venting cylinders are not permitted for refuelling. All refuelling equipment must be checked at the racetrack to ensure proper functionality before use in the race. The organisation's technical delegate may verify the refuelling equipment at any time. If the technical representative is of the opinion that the refuelling equipment is not consistent with the standard, the equipment must not be used.

Non-compliance may lead to the offender's invitation being revoked and the offender being disqualified from the competition.

#### **4.7 Lighting and electrical equipment**

All vehicles must be equipped with working lighting from the respective time period.

All vehicles in classes C1 and C3 must start each race with their headlights switched on; the headlights must remain on for the duration of the race.

Vehicles in class C2 must switch their lights on in the event of poor visibility or darkness.

Brake lights must be fitted and fully functional.

**If a race takes place in the rain, all vehicles must be equipped with fully functional headlights and with a rain light approved by the FIA.**

#### **4.8 Weight**

The weight of each vehicle will be determined by the organisation if there is a deviation from the original 'standard' specification.

All weights refer to the vehicle without driver, without fuel but with engine oil and coolant.

If the vehicle is checked, the weight must not fall below the following weights at any time during the event:

C1 vehicles	Minimum weight 900 kg
C1 vehicles with 3.5 l naturally aspirated engines	Minimum weight 750 kg
C2 vehicles	Minimum weight 750 kg

#### **4.9 Brakes**

The brake systems must have the same specification as was used for this particular vehicle type in the respective race time period.

Participants must submit proof of this together with the technical passport or FIA HTP for the vehicle.

#### **4.10 Ground clearance**

The prescribed static minimum ground clearance must be 40 mm at all times, with or without driver and with full tanks.

The ground clearance takes into account all areas of the vehicle (front spoiler, flat floor, exhaust and silencer).

Progressive springs are permissible only if they were originally installed, and all auxiliary springs must be fully compressed when the vehicle is stationary.

Any shock absorbers may be used, however every effort must be made to ensure that the shock absorbers installed are as consistent as possible with the original appearance in the respective time period.

#### **4.11 Body and aero package**

*The aero package must be consistent with the package that was used during racing in the year of the selected specification and that is approved in the Tech Pass or FIA HTP.*

*All additional front spoilers, side skirts, etc. must be consistent with the elements available in the respective time period.*

*The maximum width is 2000 mm and the maximum length is 4800 mm; the maximum wing heights must not be higher than the highest point of the roof.*

#### **4.12 Radios**

*Communication between drivers and teams is permissible.*

#### **4.13 Transponders**

*All vehicles must be equipped with a transponder and number that must be communicated to the organisation before each event.*

#### **4.14 Safety**

*The provisions of Article 277 of Appendix J to the FIA ISG apply.*

#### **4.15 Cracking and X-ray testing of components**

*Teams and participants are expected to take into account the possibility of age-related failure of vehicle components and, consequently, to ensure that their vehicles are maintained to the very highest standard by carrying out detailed component tests at regular intervals throughout the duration of the vehicle's competitive use.*

*Teams/participants are responsible for ensuring that their vehicles are maintained to a high technical standard. They must be in possession of sufficient evidence to be able to satisfy the organisation's technical inspectors or officials at all times.*

*The organisation IS NOT responsible for providing guidelines for crack testing procedures and assumes no liability in this respect.*

*The following points must be checked for structural integrity and corrosion by carrying out non-destructive testing.*

- *Tubular frame wishbone*
- *Suspension part of light alloy*
- *Steering columns*
- *Manufactured beams*
- *Brake pedals*
- *Wheels*

*The aforementioned components must be tested and certified using a method that is suitable for the material and design of the respective component. Certificates must be presented to the organisation's technical representative or official on request. Each component must be clearly listed on the certificate, although there is no requirement to mark the components. In the event of an accident, an additional certificate will be required for the newly installed component. Certificates are valid for a period of two years from the date of testing (unless there is approval from the technical representative).*

*It is strongly recommended that similar inspections be carried on components that are critical to the safety of the vehicle but that may not be included in the list above.*

*The tests must be carried out in accordance with the following standards: BSI; DIN; ISO; ASTM*

*\* Penetration testing: BS 6443 and BSM 39; DIN 54152; ISO 3452*

*\* Magnetic particle testing: BSM 34; ASTM 709*

*\* Radiographic testing: BS 6072 and BSM 35; DIN 54111-1; ISO 557*

#### **Recognition of regulations**

*All drivers and Group C/GTP Racing participants confirm by registering/submitting a registration form that they accept the existing rules of the organisation, the provisions of the FIA Sporting Regulations and the supporting ASN.*

*Hockenheim, 27 May 2021*