"2000cc Challenge ~~2019-2020~~2020-2021" Technical Regulations

1. **Introduction**:

1.1. **It should be clearly understood that if the following texts do not clearly specify that you can make a modification you should work on the principle that you cannot. Competitors are advised to seek clarifications relating to technical regulations prior to the event. Such clarification should be submitted by the Competitor in writing, and must be made to the CRC Office for the attention of the Race Director in writing. All queries will be answered in writing and all such answers will be published in Official Bulletins. Competitors should note that such advice may only be obtained from designated personnel within the CRC, and as such Competitors must seek written rulings from such members in order to minimize disputes.**

1.2. The Organizers reserve the right to carry out necessary or required changes to these regulations which are due to "force majeure", safety reasons, non-competitiveness, or if requested by the authorities, by means of BMF Approved Official Bulletins.

1.3. **Standard:** the word 'standard' used within these technical regulations as a description of components is to be interpreted as: - 'the specified component from the manufacturers parts list for the model / engine shown on the entry form or registration form. No modifications permitted beyond the repair or adjustment processes specifically specified by the manufacturers' workshop manual or microfiche.' Checking will be by comparison to OEM spare parts supplied by the manufacturer's official agent or by any other means necessary to ensure compliance.

1.4. **Standard pattern:** the words 'standard pattern' used within these technical regulations as a description of components is to be interpreted as: - 'the replacement part has the same form, shape and features as the standard part and is constructed using the same materials and manufacturing processes.

1.5. References to Sporting Regulation Articles will be by the acronym "SR". References to Technical Regulation Articles will be by the acronym "TR".

2. **General description: the "2000cc Challenge" is a national championship catered for front or rear wheel drive vehicles of the form of hatchbacks, saloons, coupés, roadsters, convertibles, and T-Tops/Targas (provided that conversion is made to fix roof) with engine capacity up to 2000cc and restricted to front mounted engines. Homologation specials, open-wheelers, monocoque shell vehicles, space frame chassis, and kit cars not permitted. Roadsters, convertibles, and T-Tops/Targas must have a permanently fixed hard-top/roof. Scrutineers will have full discretion in approving such modifications in order to ensure that modifications have been carried out safely.**

2.1. Cars must be presentable, clean and in good order. The Championship Organizer reserves the right to either apply a penalty or forbid cars not meeting this requirement from taking part.

2.2. All vehicles must be of safe and sound construction and mechanical condition and be well maintained.

2.3. There is no requirement for Traffic Directorate registration (road legal), or insurance.

2.4. There are no restrictions on towing or trailering of cars to/from the circuit.

2.5. Alteration of driving configuration may be permitted on a case-by-case basis (i.e. switching from right hand drive to left hand drive and vice versa). Competitors must seek the approval of the organizer prior to conducting any retrofit. OEM parts must be used.

2.6. Four-wheel drive to two-wheel drive conversions are not permitted.

2.7. Cars will run in with weight limits as per TR15.1 of these regulations.

3. **Safety requirements:**

3.1. **Vehicle:** All Cars are required to comply with the following safety prescriptions as per Article 253 of FIA Appendix J (available from the BMF and/or CRC)

3.1.1. Driver's seat: The original driver's seat must be replaced by an FIA-homologated competition bucket seat (8855/1999 or 8862/2009 standard) with five (5) passages for the safety harness straps. The limit for use of a seat is 5 years from the date of manufacture indicated on the mandatory label. An extension of 2 further years may be authorized by the manufacturer and must be indicated by an additional label. The seat must be mounted by means of at least four (4) M8 bolts. Seat attachments homologated on a safety cage homologation extension form are authorized and recommended. The original seat mountings may be removed. The use of the competition seat mountings homologated with the bucket seat is recommended.

3.1.2. Safety harness: A safety harness equipped with a turn buckle release system and having a minimum of five (5) anchorage points, homologated by the FIA in accordance with Article 253-6 of Appendix J, is compulsory.

3.1.3. Safety cage: A safety cage complying with Article 253-8 of FIA Appendix J is compulsory. Protective padding must comply with article 253-8.3.5.

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3.1.4. Extinguishers: Hand-operated extinguishers homologated in accordance with Article 253-7 of Appendix J, of a minimum capacity of four (4) liters, are compulsory. Automatic extinguishers, homologated in accordance with Article 253-7 of Appendix J, are authorized and recommended. Extinguisher must have at least two outlets in engine compartment and two in driver's compartment. External trigger switch must be clearly marked with appropriate label. Extinguisher nozzles must be suitable for the extinguishant and be installed in such a way that they are not directly pointed at the occupants' heads.

3.1.5. Protective nets: A protective net is mandatory and must cover 80% of the driver window (when window is measured from the widest horizontal points). Nets must meet the following specifications:

a) **Net:** The net must be made up of woven strips at least 19 mm (3/4") wide. The meshes must be a minimum of 25 x 25 mm and a maximum of 60x60 mm. The woven strips must be non-flammable and sewn together at each point of crossing. The net must not be of a temporary nature.

b) **Fixation:** The net must be attached to the safety cage, above the driver's window, and be affixed by means of a rapid release system, even if the car turns over. It must be possible to detach the net with one hand. To this end, the handle or lever must have colored markings (orange "dayglo"). A push button release system is authorized provided that it respects the prescriptions of this article. The push buttons must be visible from the outside, be of a contrasting color and be marked "press". For the attachment of the net or of its safety cage support, only screw-in connections are authorized. No modifications to the safety cage are authorized.

~~b)~~c) Judges of Fact will report any car driving on track with the net not correctly installed. A drive through penalty may be imposed and not subject to appeal.

3.1.6. Central power cut-off triggered from cockpit and outside. External cut-off switch must be clearly marked with appropriate label. Internal cut-off must be easily reachable by Driver when normally seated irrespective of whether a safety harness is worn or not. The circuit breaker must cut all electrical circuits (battery, fuel pump, alternator or dynamo, lights, ignition, electrical controls, etc.) and must also stop the engine.

3.1.7. All cars must be fitted with towing eyes/hooks/straps (front and rear). Towing eyes must be painted Yellow, Orange or Red and if located within the vehicle periphery the location must be clearly marked. Tow hooks must not protrude outside the standard body work of the car.

3.2. Driver Safety:

3.2.1. Helmets: All drivers must wear crash helmets compatible with FIA (Frontal Head Restraint) protection and listed in FIA Technical list N° 41, 33, or 49. Drivers are requested to consult the BMF or CRC for further clarifications.

3.2.2. Flame-resistant clothing: all drivers must wear overalls as well as gloves, long underwear, a balaclava, socks and shoes homologated to the FIA 8856-2000 or 8856-2018 standard. Users must ensure that garments are not too tight, as this reduces the level of protection. Substances which may circulate in any cooling system worn by a driver are restricted to water, or air at atmospheric pressure. Water systems must not require the saturation of a garment in order to function. Embroidery sewn directly onto the overall shall be stitched onto the outermost layer only, for better heat insulation. Backing material of badges and thread used for affixing them to the overalls must be flameproof (see Appendix 1 of the FIA 8856-2000 Standard for detailed requirements and instructions for use).

3.2.3. Forward Head Restraints (FHR): The use of a FHR device is mandatory as of January 2019, and shall: (a) Comply with an approved standard, and (b) Be a good fit on the wearer, and (c) Be of the correct type/angle for the vehicle being driven, and (d) Be in good condition, free of cracks or signs of damage, and (e) Not be modified, except as specifically permitted by the manufacturer, and (f) Only be used with helmets bearing listed in FIA Technical list N° 41, 33, or 49.

Approved Forward Head Restraint devices are listed in FIA Technical List No 29.

Inspection: A Scrutineer may check Forward Head Restraints at any time during an Event for condition and correct use. Where there is doubt about the compliance/condition, the Chief Scrutineer may impound the device for the duration of the Event.

4. **General technical requirement:** vehicles must be of sound construction and mechanical condition and be well maintained; vehicles must pass scrutinizing checks to compete.
5. **Chassis:** no chassis stiffening is permitted except that derived from the fitting of the roll cage and seam welding. Extensions to the roll cage are permitted through the front bulkhead but may not extend further forward than the centerline of the front wheels. A bolt-on strut brace may be fitted to the standard top strut mountings; if no suitable

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holes are available in the standard strut tower, up to 4 holes may be drilled in the inner strut tower to allow fitment or a mounting may be welded onto the inner strut tower. Rear strut braces are permitted.

6. Bodywork:

6.1. Modifications permitted:

6.1.1. General: replacement of side & rear windows with non-brittle plastic (e.g. Lexan, polycarbonate, or similar) of minimum thickness 4mm. The front windshield must be laminated. All other non-laminated windows as well as side mirrors, must be covered with a transparent and colorless safety film in order to avoid the shattering and spraying of glass in the event of an accident.

6.1.2. Interior: All interior trim may be removed. AC/Heater assembly may be removed. Driver's seat must be replaced with an FIA approved bucket seat. Standard Passenger and rear seats must be removed. If inner door trim panels are removed, the inside of the door must be neatly covered with solid sheets. The driver's door window must remain operable by the driver whilst normally seated or, if plastic windows are fitted, must contain an aperture that enables the driver to make hand signals. Instruments may be changed or added to. An interior rear view mirror must be fitted to the right of the driver (or left if the car is right hand drive).

6.1.3. Exterior:

a) Fog, spot, or auxiliary lights may be removed as may any manufacturer provided 'knock-out' panels below front bumpers for the fitting of auxiliary lights and the apertures may be used for ducting. For standard bumpers: ~~A~~ a maximum of five holes of up to 50mm diameter each or equivalent area if not circular, may be made in the bodywork below the top line of the front and/or rear bumpers and may be used for ducting. Headlights, sidelights, and indicators must remain as standard pattern. Bonnet may be modified to include one or more intake/cooling ducts, covering a total surface area not exceeding 297mm x 420mm (A3 paper), and the height of which must not exceed 100mm above the bonnet.

b) The standard side mirror/s may be replaced by non-standard items provided each mirror has an area of at least 90 cm^2. Both driver and passenger mirrors are required.

c) Bonnet and rear hatch locks/latches must be removed along with any auxiliary latch; the bonnet and rear hatch must be fitted with surface mounted securing pins. At least one (1) windscreen wiper ~~arms/blades~~arm/blade must be fully functioning. Tailgate wiper and mechanism must be removed. Front washer systems may be removed.

d) In case of roadsters, convertibles, T-Top or Targa, roof must be secured permanently.

e) A fireproof bulkhead must be provided which may entail the blanking of heater ducts (i.e. Interior compartment must be sealed from engine compartment).

f) Cut-out or cockpit cooling vent of max surface area 25cm^2.

6.1.4. Silhouette: Alterations to standard is permitted only if in line with TR 6.2.5, including raising of the rear edge of the bonnet by up to 25mm in a secure fashion. Overall bodywork width ~~(from side mirror to side mirrors)~~ may not exceed 1950mm

6.1.5. Ground clearance: it is permitted to alter the ride height. Under no circumstance can any part of the bodywork, or of the suspended part of the car with the exception of the exhaust system, be below a horizontal plane passing 75mm above the ground, the car being in normal racing trim with the driver aboard. A gauge of 75mm may be used by scrutineers before or after races or qualification sessions to check the ground clearance.

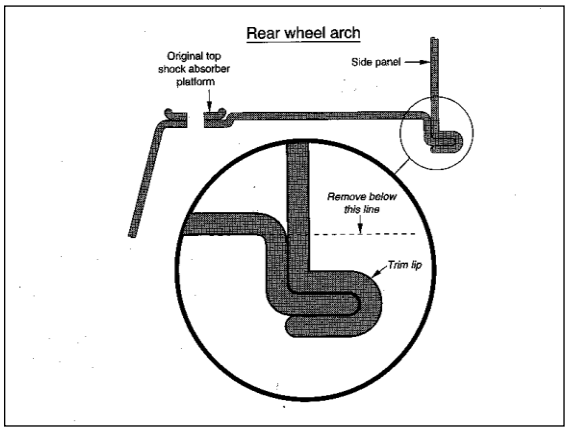
6.2. Modifications prohibited:

6.2.1. General: Plastic front windscreen is not permitted. Replacement of body panels is limited to TR 6.2.5 Removal of material from anything other than hinged panels (i.e. doors, bonnet & hatch), and bumper carriers/support is prohibited.

6.2.2. Interior: Standard dashboard may not be removed. The trimmings situated below the dashboard and which are not parts of it may be removed. It is permitted to remove the parts of the center console, provided that empty area(s) are neatly covered. The instruments are free. However, the installation should not present any risk. Standard switches may be replaced by switches of different design and may be fitted at different locations on the dashboard or on the center console. Any openings that result from this must be covered. ~~The turn signal control must remain in its original location~~.

6.2.3. Exterior: Non-standard diffusers and underbody aerodynamics are prohibited. Standard wheel arch lips/outer edges maybe rolled (as per diagram below).

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6.2.4. Ground clearance: Any in contravention of TR6.1.5

6.2.5. Styling and Aerodynamic Devices: Notwithstanding contrary provisions in TR 6:

a) Body panels (front/rear fenders, bonnet, door outer shell, boot lid, front/rear bumpers) may be replaced with (plastic, fiber glass, or carbon fiber) material while maintaining standard mounting points for the model being raced.

b) Front (chin) spoilers/air dams/splitters may be used provided they are either bolted or riveted to the vehicle (not glued or taped). Such devices must be manufactured from non-metallic material preferably plastic or composite material.

c) Front (chin) spoilers/air dams/splitters may not extend rearward more than the front of the front wheel well opening nor should it extend upwards further than the front bumper center line.

d) Front (chin) spoilers/air dams/splitters may protrude by 100mm beyond the overall outline of the body when viewed perpendicular to the ground above the part.

e) Front (chin) spoilers/air dams/splitters may have a minimum of 50mm ground clearance.

f) Canards, side-skirts, or any other aerodynamic devices that attach to the body are permitted.

g) Any rear deck single element spoiler/wing that attaches to bodywork is allowed. Rear spoiler/wing may not protrude beyond 150mm off the overall outline of the body when viewed perpendicular to the ground above the part. Rear spoiler/wing may not exceed the height of the roofline beyond 150mm when viewed perpendicular to the highest roofline. Rear spoiler/wing for hatchbacks will be reviewed on a case by case basis.

h) Cockpit and/or remote adjustable spoiler controls are prohibited.

7. Engine: Piston engines only (i.e. no rotary engines). Retrofitted engines are permitted as long as they meet technical regulations below and are from the same manufacturer as the car chassis. Scrutineers will have the right to reject any retrofit that is deemed unsafe or unsuitable.

7.1. Modifications permitted:

7.1.1. Engine capacity may be increased to the maximum permitted capacity of 2000cc.

7.1.2. It is permitted to reclaim engine blocks by fitting liners or by reboring up to 0.5mm oversize pistons.

7.2. Modifications prohibited:

7.2.1. Use of aftermarket blocks and heads is not allowed. All methods of forced induction is prohibited (turbo chargers and super chargers). Use of Nitrous Oxide is prohibited.

7.2.2. Dry sumping is not permitted.

7.3. Location: the position and mounting method must conform to original model being raced.

7.4. Oil/water cooling: oil and water-cooling systems are free, provided that radiators remain within the overall periphery of the vehicle.

7.5. Induction systems: Limited to single throttle body. Manifolds are free provided manifolds fit directly to the original port faces of the cylinder head.

7.6. Exhaust systems: free, but exhaust systems must exit at the rear of the vehicle and may not pass through the driver/passenger compartment. All vehicles must be equipped with a complete manifold back exhaust system, through pipes permitted.

7.6.1. Vehicles must comply to a prescribed sound level limit of 100 dB(A) at 4500 rpm.

7.6.2. Measurements will be made at 0.5m from the end of the exhaust pipe with the microphone at an angle of 45° with the exhaust outlet and at a height of 0.5 to 1.0m above the ground.

8. Suspension:

8.1. Permitted modifications: it is permitted to alter the ride height within the constraints of TR6.1.5. Springs and dampers are free, provided they utilize the standard pick-up points on the chassis. Separate springs and dampers may be replaced by coil-over dampers using the standard damper mountings. Adjustable spring platforms are permitted. Non-standard anti-roll bars are permitted. Offset and/or adjustable suspension strut mounts are permitted provided they utilize the standard mounting points on the body shell. Suspension bushes are free. Rear suspension axle or beam may be modified but the type of suspension and chassis pick-up points may not be changed.

8.2. Prohibited modifications: no modifications are permitted to the suspension pick-up points. Cockpit adjustable anti-roll bars are not permitted. Shock absorbers utilizing an external/remote reservoir, or similar functioning setups, are not permitted. Wishbone and rear

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suspension arms must be standard (except where required for camber adjustments or toe correction) and mount to standard pickup points.

8.3. Wheelbase/track: the wheelbase must be ± 5% of standard for the model being raced. No restriction to the track, subject to the limitations of TR6.2.3. Spacers must meet the following requirements:

8.3.1. Should be of a bolt through type only.

8.3.2. Hub centered on both the wheel and the original hub.

8.3.3. The offset of the wheel and the width of the spacer when added together must not exceed 30% of the wheels width.

9. Transmissions: the transmission configuration must remain standard for the vehicle e.g. front engine & rear wheel drive, front engine & drive etc.; the engine and transmission must remain in the same position relative to each other as the manufacturer's original specification. Four-wheel drive not permitted. Driveshafts may be from any variation of the manufacturer of the car being raced. Sequential transmission and dog boxes (and their variants) not allowed. ~~Hubs must remain standard to the model of the car being raced.~~ Automatic transmission permitted (steering mounted shifts not allowed – unless fitted as standard).

9.1. Permitted modifications: The fitting of a limited slip differential is permitted. Clutch is free of restrictions.

9.2. Prohibited modifications: drive arrangement must remain standard for the model being raced (e.g. if originally front wheel drive, then must remain so). Gearbox internals, casing, bell housing and tail shaft (if applicable) must be from same chassis/engine manufacturer. Final drive housing (if applicable) must be from same chassis/engine manufacturer. The use of any electronic traction control, electronic torque biasing system or electronic/electro hydraulic adjustment of the differential is prohibited. In case of retro-fitted engine, gearbox must be of same manufacturer of the car being raced.

9.3. Transmissions & drive ratios: no restrictions on gear ratios and on final drive ratios; the corresponding gear sets must be of standard pattern and/or from same chassis/engine manufacturer. The use of any electronic traction control, electronic torque biasing system or electronic/electro hydraulic adjustment of the differential is prohibited.

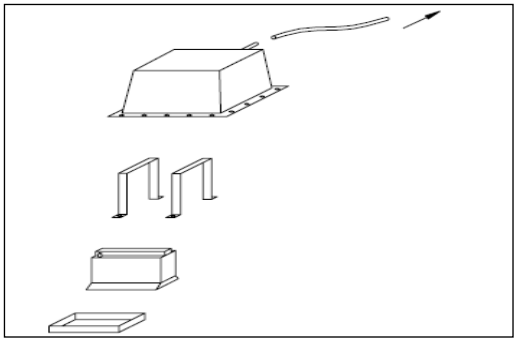
10. Electrics: wiring harness is free. Electrical cutoff system to be retro-fitted if not already present.

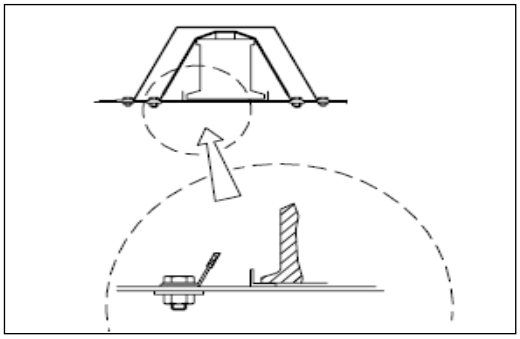
10.1. Exterior lighting: brake/stop lights, indicators and headlights, either full or dip beam, must work and be clearly visible to other drivers. Lights must be taped or laminated with clear film for added safety.

10.2. Rear Warning Light: FIA homologated LED rear light, as specified in the Championship Technical Bulletin. The light must within 10cm of the center line of the vehicle and be clearly visible from the rear. The warning light may be operated (manually) by a dedicated switch easily accessible by the driver when normally seated irrespective of whether a safety harness is worm or not. It must be switched on when visibility conditions are reduced or when so instructed by the Clerk of the Course. Drivers may also utilize the light for indicating: off track situation, stalled on the grid, driving slowly due to technical issue, and/or during safety car deployment or a red flag situation.

10.3. Batteries: no restrictions on type or position. If placed in cockpit, battery must be in an enclosed box that is made of non-conductive material. A battery and electric starter motor must be fitted and be capable of repetitive starts. The make and capacity of the battery(ies) are free.

10.4. Should the battery be moved from its original position, it must be attached to the body using a metal seat and two metal clamps with an insulating covering, fixed to the floor by bolts and nuts. For attaching these clamps, bolts with a diameter of at least 10 mm must be used, and under each bolt, a counterplate at least 3 mm thick and with a surface of at least 20 cm² beneath the metal of the bodywork. The battery must be covered by a leak-proof plastic box, attached independently of the battery. Its location is free; however, if in the cockpit it will only be possible behind the front seats. In this case, the protection box must include an air intake with its exit outside the cockpit (see diagrams below)





10.5. Generators: a fully working alternator/generator must be fitted and electrically connected so that the standard battery charging function is providing a charge to the onboard battery.

11. Brakes

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11.1. Permitted modifications: No restrictions, other than in 11.2. Brake bias may be adjustable by the driver. Free choice of material for brake pads.

11.2. Prohibited modifications:

11.2.1. The maximum number of pistons per wheel is four (4)

11.2.2. Deleted

11.2.3. The brake discs must be made from ferrous metallic material

11.2.4. ABS may not be utilized unless standard for the vehicle being raced.

12. Steering

12.1. Permitted options: non-standard internals may be fitted to the standard steering rack housing.

12.1.1. Steering lock: if fitted with a steering lock, this must be rendered inoperative, unless the vehicle is driven to the circuit on the roads or highways.

12.2. Prohibited options: Four-wheel steering is not permitted.

13. Wheels:

13.1. Permitted options: The maximum permitted diameter of the wheels (rims) is 17". The complete wheel inflated to a pressure of 2 bars must fit into a box of a diameter of 640 mm and a thickness of 250 mm. The diameters measured at the level of the inner and outer rim edges of a wheel must be identical, with a tolerance of +/- 1.5 mm. In all other respects the wheels are free provided that they are made of aluminum or ferrous compound, and that they are made in a single unit. The upper part of the complete wheel (flange + rim + tire), located vertically over the wheel hub center, must be covered by the bodywork when measured vertically.

13.2. Prohibited options: Foam or any other system enabling the car to be driven without air in the tires is prohibited. All pressure regulations systems are prohibited. The fitting of air extractors on the wheels is prohibited.

14. Tires: The use of tire heating/heat retention devices, tire treatments, and compounds is prohibited.

14.1. Permitted options: Standard road legal DOT and/or E mark tires with treadwear rating of 140 or above. Drivers are advised to seek the approval of the organizer prior to acquiring tires or forego the risk of denial of entry into the round.

14.2. Prohibited options: Slicks, Street Slicks, Two-line Specials, R-Compound or similar specification tires developed for competition/track use.

14.3. Drivers may use a maximum of ~~FOUR~~ THREE (3) sets of tires per season.

14.4. Drivers must present the set of tires to be used to Scrutineers prior to start of initial practice session.

14.5. Drivers must use ONE set of marked tires per round (during qualifying session, Race 1, and Race 2). A set is defined as FOUR (4) tires bearing same Scruinteering mark(s).

14.6. Failure to comply with the limits set in TR 14.3 will result to the award of "half-points penalty" where the excess is used.

14.7. Failure to comply with TR 14.5 (inclusive of cases of change of tire due to damage and wear/tear) will result in a "Start from Pit Lane" penalty where the excess is used.

15. Vehicle weight:

15.1. The minimum weight of the car, including the driver and his full equipment:

15.1.1. 1801cc – 2000cc:

a) FWD: 1100kg

b) RWD: 1130kg

15.1.2. 1601cc - 1800cc:

a) FWD: 1000kg

b) RWD: 1030kg

15.1.3. 1600cc and below:

a) FWD: 950kg

b) RWD: 980kg

15.2. It is permitted to complete the weight of the car by one or several ballasts, provided that they are strong and unitary blocks/plates, placed on the floor of the cockpit or the luggage compartment, and clearly visible to the Scrutineers. The ballast must be attached to the shell/the chassis via at least 4 mounting points using 8.8 class bolts, with a minimum diameter of 8 mm, and two (2) steel counterplates with minimum thickness of 3mm should sandwich (fit above and below) the shell/chassis. The minimum area of contact between shell/chassis and counterplate is 40 cm^2 for each fixing point. A bolt securing multiple plates must pass through the entire ballast plates. Any movable ballast system is for bidden. The ballast must be designed such, that tools are required for its removal. Scrutineers will have the right to reject any added ballast that is deemed unsafe, unstable, or unsuitable.

15.3. In consideration of safety, maximum allowable ballast (stack/unit/set) should not exceed ~~50kg~~ 25kg.

16. Fuel Tank/Fuel

16.1. Types: a safety tank or the standard tank is permitted. If the standard fuel tank is fitted; it may not be modified in any way except for the addition of foam filling. A non-return valve must be incorporated in the vent system. FIA approved safety fuel tanks complying with FIA Specifications FT3-1999, FT3.5 or FT5-1999 are authorized. FT3 1999, FT3.5 or FT5-1999 tanks must be filled with safety foam. They must be placed in the luggage compartment or in their original location. The total capacity of all the tanks may not exceed 100 liters.
Each safety fuel tank must have a marking with the following information :

- Name of the FIA standard
- FIA homologation number
- Name of the manufacturer

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- Serial number
- Date of end of validity

No bladder may be used more than 5 years after the date of manufacture, unless inspected and recertified by the manufacturer for a period of up to another two years.
A leak-proof cover, made from non-flammable material, easily accessible and removable only with the use of tools, must be installed in the protection for tanks, in order to allow the checking of the validity expiry date.

16.2. Location: The connections between the filler holes and the tank ventilation holes must be shielded by a fireproof and liquid-proof protective device. If the petrol tank and/or reservoir is located in the luggage compartment of a car with a tailgate, the tank must be shielded by a fireproof and liquidproof protective device. If the original tank is replaced with an FT3 1999, FT3.5 or FT5-1999 tank, the new assembly must not generate an aerodynamic surface or protrude further below the vehicle than the original tank. In all cases, there must be a fireproof and liquid-proof bulkhead between the cockpit and the luggage compartment. The location of the filler holes is free, apart from in the window panels, and they must not protrude beyond the perimeter of the bodywork. Cars fitted with a safety fuel tank with filler neck passing through the cockpit must be equipped with a non-return valve homologated by the FIA. This valve, of the type "with one or two flaps", must be installed in the filler neck on the tank side." The filler neck is defined as being the means used to connect the fuel filler hole of the vehicle to the fuel tank itself. If the filler hole is not used, it must be sealed. An original carbon filter in the tank air vent, as well as its control unit, may be removed. In the case of a fuel tank being fitted below the floor of the car, it must be contained in a close-fitting flameproof housing that adds no aerodynamic advantage and has no other mechanical function. This housing must include a crushable structure on all external surfaces and be secured by using a minimum of two metal clamps 30 mm x 3 mm fixed to the floor pan by bolts and nuts. For attaching these clamps, bolts with a diameter of at least 10 mm must be used, and under each bolt a counter plate at least 3 mm thick and with a surface of at least 20 cm^2 above the metal of the floor pan. The crushable structure must be a honeycomb sandwich construction based on a fire-resistant core of a minimum crushing strength of 18N/cm^2 (25lb/in^2). It shall be permitted to pass water pipes through this core, but not fuel, lubricating oil or electrical lines. The sandwich construction must include two skins of 1.5 mm thickness having a tensile strength of minimum 225N/mm^2 (14tons/in^2). The minimum thickness of the sandwich construction must be 1 cm. The opening remaining after the removal of the original tank may be closed by the installation of a panel of the same dimensions as the fuel tank aperture.

16.3. Fuel: Pump grade gasoline or racing fuel only. Fuel must be within the density 0.69-0.76 kg/L @ 15°C. At the end of practice and the race at least 3 liters of fuel from the tank of the competing car must be available to the Scrutineers for analysis. Cars must have a method for easy access to fuel samples, as no siphoning of fuel will be allowed. Compliance with minimum weight for the car will be taken before the fuel is removed.

16.4. Fuel lines must be changed for aviation type (steel or braided) lines, they must be routed in a safe location away from exhaust system or moving parts.

17. Telemetry & Two-way Communications: All forms of data and video transmission to and to and from the moving car are forbidden including two-way radio communications (including use of mobile phones). An on-board data logging system is authorized.

18. Numbers & championship decals:

18.1. Positions: ~~race numbers must be displayed on each side of the vehicle alongside the cockpit/driver and as far forward on the front of the vehicle as possible championship/sponsors decals must be affixed prominently near all number backgrounds~~Refer to sporting regulations for details. Championship sponsor's decals (where applicable) must be affixed in or near the positions detailed on the diagram supplied with those decals. CRC and championship sponsor's decals must take preference to any other decals. Failure to comply will render the vehicle and driver ineligible to race.

19. Sealing Requirements:

19.1. BMF approved seals may be applied to the following components:

19.1.1. Cylinder Head to cylinder block - by external means (bolt / casting flange etc.)

19.1.2. Sump pan to cylinder block – by two adjoining bolts/studs

19.1.3. Inlet manifold to cylinder head - by two adjoining bolts/studs

19.1.4. Gearbox casing/cover - by two adjoining bolts/studs

19.2. It is the Competitor's responsibility to ensure that the above detailed assemblies have bolts studs / flanges pre-drilled with 3mm holes, to enable wire seals to be affixed as and when required, that will prevent the assemblies from being dismantled.

19.3. The position of sealing holes may be rejected by scrutineers if they do not meet the required purpose and are not clearly visible during regular scrutineering checks. Competitors are to seek the advice of scrutineers for clarification.

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19.4. Championship seals may be applied at any time, at the sole discretion of the Championship Scrutineer.

19.5. All applied seals must remain intact for the duration of their application period. A seal remains valid from date of application until 30 days after the last Round of the Series in which it was applied.

19.6. Should a Competitor require permission to remove a seal for maintenance purposes, it is essential that prior authorization be sought, that the request is put in writing with written approval granted prior to the seal being removed. All requests to be submitted in writing to the Championship Race Director and Scrutineer. Upon approval, written confirmation of 'PERMISSION GRANTED' to remove the specified seal will be given.

19.7. BMF Seals will remain property of the BMF. Removal of official BMF seals without notification of the Race Director and/or scrutineers will result in penalties as per series sporting regulations.

20. Judicial In-car Cameras:

20.1. Race Organizers may require cameras to be fitted in or on vehicles for use to resolve inquiries or any other judicial issue.

20.2. These cameras must be fitted to ensure a clear view forward, showing both front corners and, if possible, the steering wheel.

20.3. These cameras are additional to any cameras fitted by the driver, for private use, or the Championship Promoter. Any additional cameras must not impede the view of judicial cameras which shall have precedence.

21. Engine Change:

21.1. Competitors are allowed a single engine change during the race season effective from registration of the car and after the initial eligibility scruitineering.

21.2. Engine Refreshes are permitted provided that it's performed on the same sealed engine block and head that is presented on the vehicle during the initial scruitineering session. Any unpermitted and undisclosed engine change will result in a penalty are per series sporting regulations. An "Engine Refresh" is defined as any maintenance/repair to an engine within limits of using that same initially sealed head and block.

21.3. This rule also applies to a complete car change and change of the make of engine at any time during the Championship.

21.4. Drivers using more than two engines during a Championship season will be penalized by a six (6) point deduction penalty for the 3rd engine used, and a further 12 points if a 4th (or more) engine(s) is/are used.

22. Disparity Equalization Approval (DEA): With the notion of removing cost and performance part(s) availability obstacles faced with certain vehicle builds, the Championship organizers will grant waivers to certain contraventions of these Technical Regulations.

22.1. Driver/Entrant will apply for a dispensation to the organizers for his/her particular vehicle explaining the issue with the performance/reliability of the vehicle and how he/she intends to resolve it.

22.2. The issue and solution will then be put to a committee made up of the:

22.2.1. CRC technical team: Permanent Steward, Race Director, and ~~Chief Scrutineer~~Technical Delegate.

22.2.2. Three nominated drivers who have a sound technical understanding. Members ~~from drivers~~ are to be selected upon issuance of the regulations. The nominees should:

a) Be taking part in the current season; and

b) Have participated previously in at least one season of 2000cc Challenge; and

c) Demonstrate acceptable technical competence

22.3. Applications may be put forward under one of the following:

22.3.1. An Inherent Design issue which impedes the vehicles competitiveness

22.3.2. An Inherent Design Flaw which impedes reliability and leads to excessive cost

22.3.3. Scarcity or excessive price of original parts Safety

22.4. The committee's feedback will be given within a maximum timeframe of two weeks. This duration is subject to the requirement of additional information or the need for further consultation.

22.5. Once the driver has applied for the dispensation and the committee has met a decision will be given on the application. If the application is approved, a DEA document will be drawn up for that particular modification.

22.6. On approval of modification the driver must re-submit his vehicle for scrutineering to ensure that all modifications have been carried out safely and according to the supplementary regulations applied.

22.7. Organizers reserve the right to restrict vehicles that gain an added and unfair performance advantage, in any way they deem appropriate, to bring the vehicles performance in line with the other vehicles on the grid. This will only apply to vehicles which have gained an advantage through a DEA. Vehicles built to the standard regulations will not be restricted in any way other than the standing regulations.

22.8. The decisions of the committee shall be final and are not subject to protests and/or appeals.

22.9. In cases where a conflict of interest is apparent, an "Abstain" vote will automatically apply to the member in question.

22.10. DEAs expire at the end of each season.

22.11. Should the competitor obtain DEA committee approve regarding his/her dispensation, under no circumstances should the competitor assume to carry out other modification not in-line with the 2000cc Technical Regulations, other than what was stated in the suppled dispensation request.

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