

Document Details

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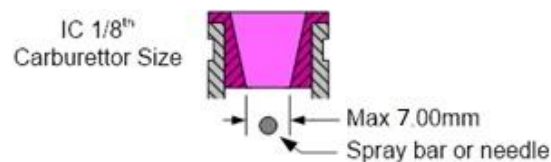
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1. General

- 1.1. The class run will be the AARCMCC IC Onroad 1/8th GT
- 1.2. The official measurements in these Technical Specifications are the metric measurements.
- 1.3. All measurements referred to in these rules are maximum or minimum values.
- 1.4. It is the object of these rules to ensure that the AARCMCC IC 1/8th GT On road Championship be a test of driver skill.
- 1.5. It is the responsibility of the driver to ensure that their car complies with the rules and regulations at all times it is on the track. The organiser may check any car at any time during the championship for compliance with the regulations. On checking immediately after a race, if a car is found to be under the minimum weight or has incorrect dimensions, positive proof of race damage may prevent disqualification.
- 1.6. AARCMCC may use any method deemed necessary to implement these technical rules.

2. Engine

- 2.1. The engine shall have a total capacity of not more than 3.5cc (0.21 Cu.In).
- 2.2. The engine shall be air-cooled, with front rotary valve, two-stroke induction.
- 2.3. The engine on or off road based shall have a maximum of Five (5) inlet ports in the liner, seen with the piston at its lowest position. Additional slits or openings in the liner are allowed as long as they do not reach the top of the piston at its lowest position.
- 2.4. The carburetor size is to be a maximum diameter of 7mm, as measured directly above the spray bar or needle of the carburetor.



- 2.5. A mechanical or electrical starting mechanism is optional.
- 2.6. Clutch must be a buggy style throw clutch of 2 or more clutch shoes. Single shoe or thrust (aka centax) type clutches are not permitted.

3. Exhaust

- 3.1. Homologated mufflers, of a 3 chamber type, and a homologated INS box, must be used.
- 3.2. The muffler and INS box must be IFMAR listed as homologated by IFMAR, ROAR, EFRA, FEMCA or FAMAR, and must bear its homologation number during the entire competition.
- 3.3. With a fitted INS box, the muffler may not produce more than eighty five (85) decibels (dBA) measured at ten (10) metres distance and one (1) metre high. AARCMCC's definition of a noise level is always final.
- 3.4. Muffler and INS box measurements and design, both internally and externally, may be checked for compliance with homologation drawings and/or samples at the completion of a qualifying heat and/or final.
- 3.5. The IFMAR Muffler and Inlet Noise Silencer Box Lists, where possible with detailed drawings, should be available in Technical Control.
- 3.6. The outlet or tailpipe of the muffler must project horizontally or downward. No upward or vertical muffler outlet or tailpipe is allowed.
- 3.7. Extensions to the outlet or tailpipe are permitted. Where the extension protrudes through the body, it must be within the maximum width of the car.

4. Body

- 4.1. Bodies are to be any commercially available 1/8th scale GT1, GT2, Super GT, DTM, or V8 Supercar cars. Prototype (LM) P1, (LM) P2 and open cockpit bodies are not permitted.
- 4.2. The entire chassis, wheels, engine and exhaust must be covered by the body when mounted to the car as viewed from above.
- 4.3. The body must be made from a flexible material and painted. Where used, the gurney strip must remain transparent.
- 4.4. Bodies must include full front and rear fascia's, and conform to the rules herein that limit openings in the body for the purposes of re-fuelling, starting, engine tuning, and antenna holes.
- 4.5. Front side windows and the rear window may be removed. They may not be reshaped to provide any advantage.
- 4.6. Bodies must be reasonably detailed. The body must have visible window, body panel and trim markings. Light tinting of the windows is permitted.
- 4.7. Cut-outs in the body that were not in the original full scale version will be allowed for the following:
 - 4.7.1 Bodies are not to be cut above the lower bumper line at the front or the back, or above the bottom line of the doors. Maximum 70mm cutout at rear on 20mm blocks.
 - 4.7.2 The aerial hole will be no larger than 10.0mm in diameter.
 - 4.7.3 An opening with a maximum diameter of 25.0mm is allowed above the cooling head, for easy glow plug access.
 - 4.7.4 The cut-out for the exhaust outlet or tailpipe must be no greater than 35mm in any direction. Where the exhaust opening cuts through the side lower edge of the body, a slotted opening is allowed.

- 4.7.5 All bodies must have the front and rear sides cut out for the wheels, the radius of the cut-out must not exceed the tyre by more than 20mm.
- 4.7.6 One opening may be made in the front windscreen/roof/bonnet with a maximum dimension of 110.0mm in any direction for refueling and engine cooling.
- 4.8. Bodies may have either an integrated rear spoiler or a single affixed rear wing or spoiler, but not both. Side dams on integrated spoilers must not extend forwards beyond the lower line of the rear window
- 4.9. Gurney strips may only be used on bodies with an integrated spoiler.
- 4.10. Maximum width of body and wing/spoiler is 330 mm.
- 4.11. Wing or spoiler, must have a chord of no more than 79 mm.
- 4.12. Additional cut-outs in rear built-in spoilers are not allowed.
- 4.13. No additional items may be fastened to the body exterior other than the rear gurney strip, or rear wing/spoiler.
- 4.14. Maximum height for the body, including the wing/spoiler/gurney strip is 200mm with the chassis raised on a 20.0mm spacer.
- 4.15. If body stiffeners are used they cannot cause the body to be wider than 330mm across the lower edges of the body. Body or wheel flares are not allowed.

5. Chassis

- 5.1. The chassis may be any shaft driven 1/8 scale buggy, truggy or GT based nitro powered vehicle.
- 5.2. All cars must have a de-clutching device and operating brake(s) capable of stopping the car and holding the car motionless with the engine running.
- 5.3. The front of the car must be equipped with a bumper in such a manner that it will minimise a wound in the case of it entering into contact with participants or members of the public. The bumper must be made from a flexible material with all corners and sharp edges rounded off. The contour of the bumper will follow the contour of the body with which it is being used. At no point may the bumper protrude in front of the body.
- 5.4. The aerial support must be flexible. Carbon, GRP, steel, etc. are not permitted.
- 5.5. The minimum weight is **3500 grams**. The weight will be checked with an empty fuel tank with the body and a transponder installed.
- 5.6. Overall dimensions:
 - Length Maximum: 590mm
 - Width Maximum: 330mm
 - Height: 200mm (on 20mm blocks)
 - Wheelbase Maximum: 270mm - 380mm
- 5.7. Carbon fibre chassis are not permitted
- 5.8. The car must roll freely between the inspection measuring rails with any steerable wheel set in the straight ahead position, irrespective of the compression or extension of the suspension

6. Transmission and Drivetrain

- 6.1. A shaft-drive system with front and rear differentials is required. Belt driven cars are not permitted.
- 6.2. Single speed or two-speed transmission only.
- 6.3. Single speed configurations must include a solidly mounted spur gear to a standard bevel gear centre differential or a solid spool (no one-way bearing). No other differential types will be permitted.
- 6.4. Two-speed transmissions must use an automatic centrifugal shifting mechanism that is not remotely adjustable or programmable.
- 6.5. One-ways, spools, locking "Torsion-type," or externally adjustable differentials are not permitted. Differentials can only be tuned with the use of silicone-based oils.
- 6.6. Front and Rear differential gear ratios must be identical. Front or rear underdrive or overdrive is not permitted.
- 6.7. Only standard mechanical brakes are permitted. Up to two brake discs are permitted anywhere on the centre driveshaft's. Brakes may not be located on the outboard axles.

7. Tyres and Wheels

- 7.1. Tires must be "production" tires commercially available – hand cut tires or those not available to the general public are not permitted. "Available" is defined as having been sold to consumers a minimum of 30 days prior to the official start of the event. Tires must be molded rubber - no foam tires are permitted in any class.
- 7.2. A controlled tyre is advised, a limit of 2 sets (4 per set) per driver/ competitor per AARCMCC sanctioned event. An optional set will be made available for those that have qualified for the event final. All races must be completed on the same tyres used to start each race (qualifying and finals). Tyre changes are not permitted except when a wheel and/or tyre are determined by the race director or an AARCMCC official, to be damaged. Excessive tyre wear does not constitute damage.
- 7.3. Tyres must be black, except for writing on sidewalls.
- 7.4. Wheels must use a 17mm hex hub consistent with the dimensions and function of the hubs used in 1/8 off road racing. The wheel must be affixed by a 17mm wheel nut, threaded on to the hex hub. Quick change mechanisms are not permitted.
- 7.5. Any materials used in, or on, the tyres must not damage the racing surface.

Competitors found to be using additives will be disqualified from the event. AARCMCC's decision for inspecting tyres is final.

8. Fuel

- 8.1. Fuel may be tested and samples and counter samples taken for testing at any time during the championship. Competitors whose fuel does not pass inspection will be disqualified. Competitors whose fuel samples are found to contain prohibited additives will be stripped of all results and further actions, including bans from future racing will be imposed.
- 8.2. Fuel will only contain methanol (methyl alcohol), lubricating oil, coloring agent and a maximum of 25% nitro-methane in volume. Any other additives are strictly prohibited.
- 8.3. The specific gravity of the mixture may not be heavier than 0.91. An IFMAR approved fuel tester, e.g. Nitromax 25, will be used to verify the fuel's conformity to the rules.
- 8.4. Fuel capacity to be 150.00ml including fuel tank, fuel tubing up to the carburetor, filters, etc.
- 8.5. Any fuel capacity found to be illegal (over 150ml) after a heat or final shall be inspected for a second time after an initial 'cool down' period of fifteen (15) minutes. The fuel tank, fuel tubing up to the carburetor, filters; etc may be removed from the car. This 'cool down' period is only necessary in the case of temperatures above 20°C.

9. Technical Exclusions

- 7.1 It is not allowed to use any electronic devices with the exception of:
 - 7.1.1 Two radio channels of the receiver which will be used to operate steering, throttle and brakes.
 - 7.1.2 No more than two (2) servos.
 - 7.1.3 A passive data recording or information system to record functions of the car can only be used up to the end of controlled practice.
 - 7.1.4 A transponder.
 - 7.1.5 An electronic failsafe.
 - 7.1.6 A voltage regulator and/or battery level indicator.
- 7.2 The use of traction control devices, active suspension devices and any steering control aided by gyroscopes/'G'-force sensors is strictly forbidden. Exemption may be granted for drivers with physical disabilities.
- 7.3 Sensors are only allowed for the purpose of passive data recording and cannot be used for adjusting the performance of the car whilst in motion. Sensors may only be used up to the end of controlled practice.
- 7.4 Not allowed;
 - 7.4.1 4 wheel brakes. Independent controlled braking on the front wheels is not allowed.
 - 7.4.2 Liquid cooled engines.
 - 7.4.3 Hydraulic braking systems.
 - 7.4.4 More than 2-speed transmissions.
 - 7.4.5 Quick change wheel systems are not allowed.
 - 7.4.6 Body extenders or wheel flares
 - 7.4.7 Carbon fibre chassis
 - 7.4.8 Buggy/Truggy type wings
 - 7.4.9 Centex style clutches
 - 7.4.10 Treatment of the tyres with post-manufacturing additives is prohibited