



MACAU ROADSPORT CHALLENGE

TECHNICAL REGULATIONS

ARTICLE 1: REGULATIONS

1.1 Regulation and eligibility amendments

The Organiser reserves the right to adjust the Technical Regulations throughout the Competition. All such changes will come into effect after their publication.

Changes for safety reasons may be made without notice.

1.2 Compliance with the regulations

It is the duty of each competitor to satisfy the Scrutineers and the Stewards that his car always complies with these regulations in them entirely during a Competition.

A car, the construction of which is deemed to be dangerous, may be excluded by the Stewards of the meeting.

1.3 Measurements

All measurements must be taken while the car is stationary on an assigned location or as stated in the Sporting Regulations or supplementary regulation of the relevant Competition.

Before the start of a Competition, the Chief Scrutineer stipulate the place where the ride height and weights will be checked.

The competitor has the possibility, during the time set up by the organiser, to ensure the conformity of his car by using the official control equipment, at the official place of scrutineering.

1.4 MODIFICATIONS AND ADJUNCTIONS ALLOWED OR OBLIGATORY

All the modifications which are not allowed by the present regulations are expressly forbidden.

The only work which may be carried out on the car is that necessary for its normal servicing, or for the replacements of parts worn through use or accident.

The limits of the modifications and fittings allowed are specified hereinafter.

Apart from these, any part worn through use or accident can only be replaced by an original part identical to the damaged one.

The cars must be strictly series production models identifiable by the homologation form data.

ARTICLE 2: Eligible Vehicles

This Competition is reserved exclusively for Toyota GR86(ZN8) / Subaru BRZ (ZD8).

ARTICLE 3: ENGINE

No car may use more than one engine during the Competition. Engine must be original and be registered in the technical passport. All engines must be sealed after scrutineering, any porting is prohibited.



Each engine must be sealed by the Chief Scrutineer before being used by the competitor for the first time. It will be sealed to prevent the dismantling of the cylinder head, and oil sump and camshaft driving system covers.

It is strictly prohibited to remove the engine seals. Any breaking of one or more seals must be approved beforehand by the Chief Scrutineer on pain of a sanction which may go as far as disqualification. The breaking of any seal will be considered as a change of engine.

An engine will be considered as having been used once the car's timing transponder has indicated that it has left the pit lane.

The repairs performed by removing the engine seals is prohibited. It is only permitted after granting the permission by the Chief Scrutineer. The repaired engine will be sealed again after re-scrutineering.

Replacing of an engine by a competitor must be requested in writing to the Chief Scrutineer. Any change of engine will entail a penalty, except in a case of force majeure recognised as such by the Stewards, the onus of proof being on the competitor.

Air intake must keep as original, the air cleaner is original and the location, shape and function must be original.

Engine oil cooler is free.

Engine oil pan protection panel can be changed.

Engine mounts can only be changed the materials not the number.

Oil Filter is free to change. However, changing the mounting position is not permitted.

Modification and alteration of flywheel are free.

ARTICLE 4: TRANSMISSION

Transmission fluid cooler is allowed.

Transmission mounting material is free and the location and number must be remained original.

4.1 Gearbox

The gearbox must be original. All transmission must be sealed at the initial scrutineering.

The number of teeth and ratios homologated must be retained.

The gear selection grid pattern homologated on the series model must be retained.

4.2 LSD

Racing LSD is allowed.

Differential oil cooler is allowed.

Differential cooling cover is allowed.

4.3 Clutch

Change of clutch disc/clutch cover is free. However, changes are permitted only for the single type. Racing type clutch is allowed.

ARTICLE 5: BODYWORK

5.1 Doors, Bonnet and Boot lids Operation

- a) Doors - Must be possible to open all doors from outside (original handles) and the front doors from the inside. Controls for opening the rear door from inside may be removed.
- b) All doors, bonnet and boot lids must be possible to open from outside without use of tools.
- c) Original material doors must be retained.

5.2 Interior door panels

Neither the front nor rear door panels may be removed. These may be the original ones or be made from metal sheeting at least 0.5 mm thick or from another solid and non-combustible material at least 2 mm thick.

5.3 Windscreen and Windows

The Windscreen must be made of laminated glass.

The driver and passenger side windows must remain as fitted to the original manufactured car and must be coated with clear safety film -maximum thickness 100 microns.

The remainder of the side windows and the rear window may be replaced with at minimum of 3.85mm thick polycarbonate.

If originally the rear door windows have no frame, a frame may be added to the door in order to secure the polycarbonate window.

The internal face of side and rear glass windows as well as that of glass rear-view mirrors must be covered with a transparent and colourless plastic safety film with a maximum thickness of 100 microns in order to avoid the shattering and spraying of glass in Competition of an accident. It must be fitted in a manner that facilitates checking.

ARTICLE 6: EXHAUST SYSTEM

The center and rear mufflers can be used a racing version, provided that the prescribed sound levels of 110 dB(A) at 4000 r.p.m. measured in conformity with the FIA noise-measuring method are not exceeded. The measurement is taking at a distance of 0.5 meter and at a 45-degree angle to the point of exit of the exhaust.

ARTICLE 7: FUEL CELL AND FUEL FEED SYSTEM

Only the original manufactured petrol tank is acceptable, and modification is not allowed.

Fuel Feed System complying with the following:

Fuel circuit

Flexibles lines must be of aviation quality. The installation is free provided that the prescriptions of Article 253-3 of Appendix J are respected. The automatic fuel cut-off system described in Article 253-3.3 is compulsory.

The car must be fitted with a self-sealing connector for sampling fuel. This connector must be FIA approved (Technical list n°5) and be fitted on the feed line to, and immediately before the high-pressure pump on the engine. The connector must be placed in a non-lockable area inside the engine compartment. It must be possible for a pipe to be fitted to this connector.

ARTICLE 8: ELECTRICAL SYSTEM

8.1 Cables

The electric cable assembly of the engine must be original.

8.2 Battery

Number: one Type: Dry

Make and Capacity:

It must be always possible to start the engine with the energy of the battery transported on board the vehicle.

Location:

It must be in its original position in the engine compartment.

8.3 Lighting

The lighting system must keep the original location of each function. All functions must be operational at all times during the competition and must be able to be switched by the driver when seated in racing condition. No function may have a frontal surface of less than 400mm².

Minimum functions which must be ensured by the system:

- *Headlights low beam (2)
- * Tail lights (2)
- * Brake lights (2)
- * Indicators (2 Front + 2 Rear)
- * Rain light (1)

Maximum functions provided by the system: Those of the original equipment.

Taillight units

Reverse light and rear fog light functions must be removed.

LED units are authorised.

Rain light

Rain light One unit is compulsory and must be approved by the FIA (Technical List n°19) or according to the ECE R38 road standard (or equivalent or stricter standard from another country).

Location: Tail gate, boot lid or replacing the 3rd brake light.

ARTICLE 9: SUSPENSION

Use of specified below parts* is obligatory. Reinforcement of the suspension and its mounting parts is not permitted. In addition, the upper limit of camber on one side of the cars will be -3.0° for both front and rear.

*Specified Parts (TRD CLUBMAN SERIES) (BLTZ DAMPER ZZ-R) (STI CLUBMAN SERIES) (ENDLESS FUNCTION-GRCUP) (CUSCO CUSCO SPORT R) (K-ONE OHLINS Racing DAMPER) (TEIN MONO RACING DAMPER SPEC R)

Spring certified parts are allowed.

Stabilizer Modification or modification is not permitted.

Front stabilizers link the use of certified parts is permitted. However, if used, it should be the same manufacturer's parts as the suspension or genuine parts.

Arms and rods

The bushing of certified parts can be changed, but any other modification such as processing or change is not allowed.

ARTICLE 10: BRAKES

The brakes, including brake discs, callipers and brake pads must be original.

The authorisation of changing the brake disc and calliper is only given, in the case of the material of the disc and calliper be the same as original, and provided that those brake disc and calliper can fit into the 17 inches rims. Any change to carbon or ceramic materials is prohibited.

Brake hoses are free.

If the anti-lock braking system (ABS) is disconnected, the use of a mechanical rear braking distributor homologated by the manufacturer is authorised.

ARTICLE 11: WHEELS AND TYRES

A set of tyres must comprise two front tyres and two rear tyres.

The Tyre brand is free. All the wheels that can be used are the same, and the size is "17 inches / 7.5J (JJ) inset 35-48mm". Tyre should be installed in a 17 inches rim and the tyre width is no larger than 225mm.

The number of sets to be used is free. Dry (Slick) tyres are used in the competition, except when the race is under rain and the race is declared "wet".

Any chemical and/or mechanical treatment of the tyres is prohibited, except the use of water and detergents for washing and the removal of debris picked up from the track (only after the end of the session in which the tyres have been used). The original tyre tread and profile may not be modified or cut.

No warm-up, cool-down or solvent application is permitted.

The upper part of the complete wheel (rim + tyre), located vertically over the wheel hub centre must be covered by the bodywork when measured vertically.

The complete wheel definition does not permit the wheel to be wider than the tyre or protrude outside the tyre profile.

Wheel nut may be changed, but it must not protrude beyond the outermost part of the tire or wheel.

The use of wheel spacers is not allowed.

ARTICLE 12: SAFETY REQUIREMENTS

12.1 The FIA International Sporting Code, Appendix J, Article 253 remains applicable, but the articles set out in present regulations have predominance.

12.2 Additional fasteners

In accordance with Appendix J, Article 253-5 applies in full.

Two additional safety fasteners must be fitted for each of the bonnet and boot lids. The original locking mechanisms must be rendered inoperative or removed.

12.3 Driver's seat

The original driver's seat must be replaced by a FIA-homologated competition bucket seat in accordance with Article 253 – 16 of Appendix J, is compulsory.

12.4 Safety harnesses

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.

12.5 Safety cage

A safety cage complying with FIA Article 253-8 of Appendix J is compulsory.

A hole of 8mm in diameter is drilled on the left rear tube of the safety cage. The hole is for the check of the thickness of the tube.

12.6 Extinguishers – extinguishing systems

Hand – operated Manual extinguishers homologated in accordance with article 253-7.3 of Appendix J, of a minimum capacity of four (4) kgs (2kgs x 2) are compulsory.

12.7 Protective nets

12.7.1 Protective nets: Compulsory.

It must meet the following specifications:

Net:

It must be made up of woven strips at least 19 mm (3/4") wide;

The meshes must be minimum of 25 x 25 mm and maximum of 60 x 60 mm;

The woven strips must be non-flammable and sewn together at each point of crossing;

It must not be of a temporary nature.

Installation:

Viewed from the side, it must extend from the centre of the steering wheel to the B-pillar;

The net must be attached above the driver's window, either to the safety cage or to a fixed part of the bodyshell by means of a quick release system that must function even if the car turns over;

It must be possible to detach the net with one hand only.

The handle or lever must have coloured markings ("dayglo" orange). A push-button release system is authorised provided that it respects the prescriptions of this article. The push-buttons must be visible from the outside, be of a contrasting colour and be marked "press".

12.7.2 Racing nets: Compulsory.

Net:

They must be homologated according to FIA 8863-2013 standard (Technical list n°48).

Installation:

They must be attached to the homologated mounting points (see the homologation form of the car) and must be installed in accordance with the installation specifications published by the FIA.

12.8 Towing device

One front and one rear towing devices are compulsory. They must:

- * Be clearly visible and painted in yellow, red or orange.
- * Allow the passage of a cylinder with a diameter of 60mm.
- * Allow the car to be towed on a dry surface (concrete or asphalt).

12.9 Steering

The steering lock must be dismantled and the column adjusting system must be locked. The steering wheel must be fitted with a Quick Release mechanism.

ARTICLE 13: RIDE HEIGHT

The minimum ride height is 90mm.

ARTICLE 14: WEIGHT

The minimum weight is 1200 kg without driver.

ARTICLE 15: ICE

Except for the sole purpose of cooling the driver, the transporting and/or use of natural or chemical ice, whether inside or outside the car, is prohibited throughout the entire duration of the meeting.

ARTICLE 16: WATER TANKS

Water tanks, lines and hoses are not permitted in the cockpit.

ARTICLE 17: DATALOG SYSTEM

The competitors must use the datalogging and ECU system as defined by the Official Provider. The sensors must be in their homologated position.

The data may be checked at any time during the Competition. Race officials will collect the data after qualifying and race.

It is the Competitor's responsibility to ensure that the logger is on the position installed by the Organiser and operated in good condition.

For any damage of the logger may arise due to the crash or any incident during the Competition, will be claimed to the Competitor.

Any car failing to comply (no data logger, logger of wrong type, logger cannot work properly) is not permitted to join the Competition and will be disqualified during the practice sessions or the races.