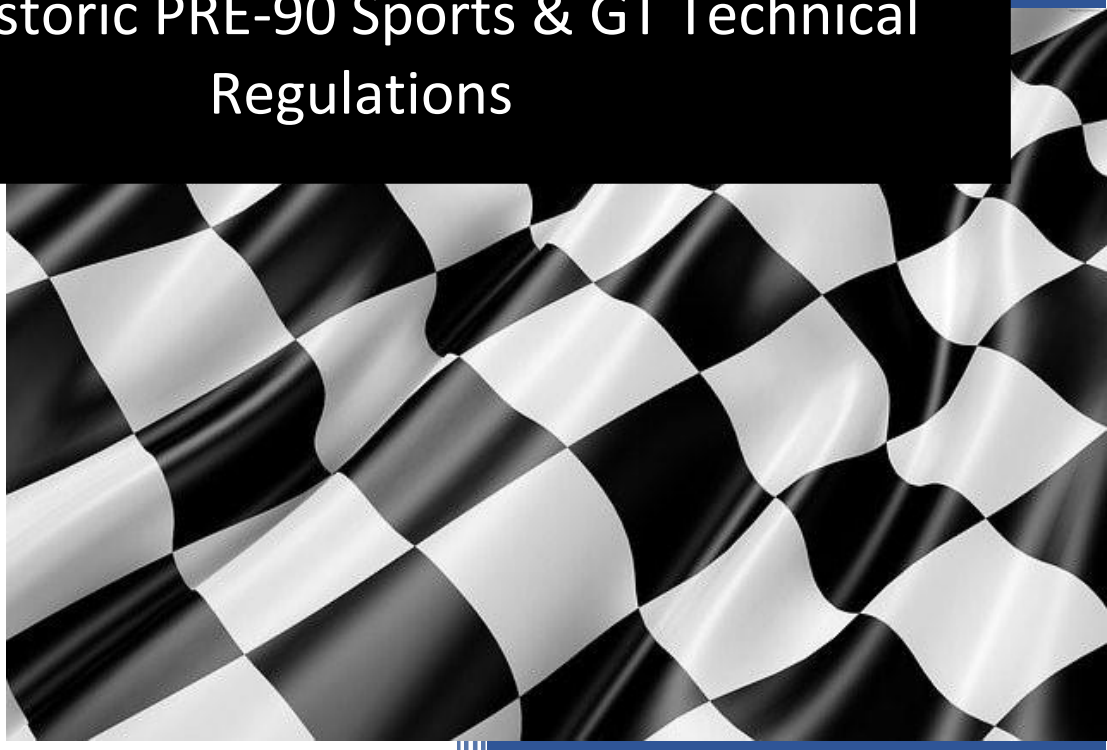
MOTORSPORT SOUTH AFRICA

2021

Club Standing Supplementary Regulations

National Historic PRE-90 Sports & GT Technical Regulations



Version 1

1 January 2021

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REVIEW AND AMENDMENTS

Motorsport South Africa (MSA) will periodically review these rules and will present the revised version to all members for agreement to publish the updated version.

Amendments and updates to the rules will be recorded in the Amendment Record, detailing the updated version, date of approval of the amendment and a short summary of the amendment.

AMENDMENT RECORD

Modified SSR / Art	*Date Applicable*	*Date of Publication*	*Clarifications*

CONTROL

These regulations are drafted by the Historic Motorsport Commission Technical Working Group (HMC) in consultation with Historic Racing South Africa, Retro Racing South Africa, Border Motorsport Club, Algoa Motorsport Club, and Western Province Motor Club for final publication by Motorsport South Africa (MSA) and for use by all the above mentioned clubs.

1. ELIGIBILITY

1.1 Cars must comply with period classification ending 31st December 1989. Herein after referred to as “the period”

1.2 Chassis that were constructed as Sports car, GT car or purpose built Sports racing car are eligible.

1.3 Cars must have an authorized and valid MSA stamped and registered Historic Technical Passport which must be available for inspection at all events.

1.4 The responsibility to prove eligibility is that of the entrant at all times.

1.5 Any aspect of a car not detailed as permitted is deemed not to be permitted.

TECHNICAL SPECIFICATIONS

2 BODYWORK

2.1. The bodywork of the car must be totally representative of the car, from all angles, as raced in the period and must be representative of the car as originally manufactured and not as modified before the end of the period. South African manufactured replica cars must utilize bodywork approved by the HMC for competition which conforms exactly to their customer cars manufactured and sold before 31st December 2009.

2.2 No aerodynamic components are permitted on the bodywork or on the underside of the car unless fitted to the car as manufactured by the original manufacturer in the period.

2.3 Gurney flaps fitted to the rear bodywork of Sports Racing Cars are limited to a maximum height of 2.5" (63.5mm). This is to be measured in the angled plane of the Gurney Flap, from the top point on the car's original bodywork where the flap is mounted.

Extending the car's rear bodywork in any dimension will not be accepted.
Gurney Flaps exceeding this measurement will only be accepted where an FIA Homologation document for the car in question clearly states a greater maximum dimension.

2.4 Headlights, brake lights and rear indicators where originally fitted must be in working order.

2.5 Notwithstanding Regulation 2.4, the sporting regulations detailing lighting requirements for races scheduled to run in darkness must be adhered to.

2.6 Panels of a glass fibre material, if approved on application to the controllers, may be used to replace metal panels, however the panel must be panel for panel from all angles the same as the original. Panels manufactured from other composite material are specifically excluded.

2.7 Headlights, taillights, indicators (front and back) and stop lights must be in full working order. Where standard headlights and additional LED type spotlights are used in a race, they must be angled so as to not interfere with view of the drivers in the cars in front. No LED type strip lighting is allowed. LED lights maybe used within the original light fitting.

2.8 Cars must be fitted with at least one internal mounted and one externally mounted rear view mirror.

2.9 Rear engine cars with front mounted radiators may modify the front lower valance to accommodate the radiator.

2.10 Front engine cars may have openings in the front lower valance directly ahead of the radiator to aid cooling providing that the air flow through the openings is directed through the water and/or oil cooler radiator and serves no other purpose.

2.11 All rear engine cars may have raised bonnets to aid engine cooling.

2.12 Front engine cars may raise the rear section of the bonnet to a maximum of 25mm above the shut line to aid cooling.

3. INTERIOR

3.1 Cars must retain an interior and dashboard representative of the period. All instrumentation must be of the style of the period. No digital systems are permitted that replace the original style instruments. Warning lights are permitted.

3.2 The driver's seat may be replaced with a modern style racing seat.

3.3 Windscreens and side windows may be replaced with polycarbonate (Lexan) but the front windscreen may not be less than 5mm thick.

a. SUSPENSION

4.1 Suspensions may be modified providing the original type and one of the manufacturers' original mounting points per wheel on the chassis/body is retained.

4.2 Additional mounting points for the adding of roll bars, radius arms, tramp rods and Panhard bar may be fitted.

4.3 Shock absorber make, and type are free but coil over units are not permitted unless fitted as standard by the manufacturer.

4.4 Spring rates are free but the original type of spring must be retained and one type may not be used to supplement another type.

4.5 Steering boxes may be replaced with a steering rack

4.6 Power steering is permitted

4.7 Suspension design for replica cars must be based on the following: Rear: Live axle. IRS or De-Dion as fitted to the original car in period.
Front: Upper and lower wishbone or McPherson strut may be utilized.

4.8 Wheelbase and track for South African manufactured replica cars must conform to the manufactures specifications for the standard customer cars as sold before 31st December 2009.

5. BRAKES

5.1 Brake system modifications are free save that carbon type brake systems and ABS systems are prohibited.

5.2 Brake lights must be operational and operated only by the brake pedal.

6. WHEELS & TYRES

6.1 Wheel rim diameter may be increased by one size over the original wheel diameter fitted to the car in the period.

6.2 Wheels must be representative of the style of racing rims used in the period.

6.3 Wheel rim width is not restricted providing the wheel is covered by the fender when viewed from above and Regulation 2.1 Bodywork is respected.

6.4 Tyre make and type are free of restriction.

6.5 No mixing of rim diameters is permitted

7. ENGINES

7.1 Unless otherwise regulated below or as specified in Appendix 1 engines must be from the same manufacturer as in the original car in period and be of the same configuration as the original engine.

7.2 Engine configuration:

Cylinders: In-Line - V - Flat - Rotary

Number of cylinders:

Camshaft/s position: Block - OHC

Number of valves per cylinder:

Number of rotors and port configuration:

7.3 Block: The engine block must be the manufacturers' standard production, or an aftermarket direct replacement manufactured from the same material as the original block of the period.

7.4 Cylinder Head/s: Cylinder heads must be the manufacturers' standard production or an aftermarket direct replacement for the original type of the period. Head material may be cast iron or aluminium.

7.5 Intake and exhaust manifolds are free.

7.6 Oil system: Wet or Dry sump systems may be used.

7.7 Ignition: Electronic systems are permitted but programmable systems are prohibited.

7.8 Induction: Period type carburettors and fuel injection may only be used

7.9 Fuel Pump: Any fuel pump/s may be used.

7.10 All other engine modifications are free of restriction.

7.11 Turbocharged engines approved as an alternate for the original normally aspirated engine may not exceed the capacity of the original engine when actual turbo charged engine capacity is multiplied by 1.4.

8. TRANSMISSION

8.1 Any make and type of transmission may be used providing it is operated with an "H" pattern shift mechanism. No sequential type transmissions or shift mechanism is permitted. A maximum of 5 forward speeds is permitted.

8.2 The clutch and the method of operation are unrestricted.

8.3 Gear and final drive ratios are free and any type of limited slip differential may be used.

9. GENERAL TECHNICAL SPECIFICATIONS

9.1 The engine, gearbox and rear axle must remain in the original position and the driver must be positioned either right or left of the centre line of the car as defined by the track

9.2 Minimum weight may not be less than the homologated weight of the period car. For non-homologated cars the minimum weight is the manufacturer's kerb weight less 10%. Minimum weight for replica cars which conform to the current regulations may not be less than 10% below the manufactures stated kerb weight for the model raced. Porsche 934 replica cars which are not turbocharged will be allowed to race at the weight of the Porsche 911 RSR 3.0. The weight of all cars must be recorded in the HTP document

9.3 A Balance of Performance mechanism may be introduced at any time at the administrators discretion

9.4 Cars must be fitted with a roll cage in compliance with MSA GCR 239 requirements

9.5 Cars must be fitted with seatbelts that comply with MSA GCR 239 specifications

9.6 Cars must carry a 1.5kg, or larger, fire extinguisher as approved for use by MSA

9.7 Cars must have an electrical cut-off switch that can be operated from inside and outside the vehicle

9.8 Tow hooks must be fitted to the front and rear of the car and clearly marked. (Tow)

9.9 The exhaust system is free subject to MSA GCR 245 Silencing of Vehicles

9.10 Fuel must conform to the specifications as described in GCR240

9.11 In car timing devices other than the official transponder type are not permitted

9.12 Cars must comply with General Competition Rules and Regulations (GCR's) as specified in the MSA Handbook 2021

9.13 Data logging of any type may not be functional on a race weekend, which includes Friday practice

9.14 No computers or laptops are allowed to interface with cars, or any systems in the cars, on race weekend which includes Official practice. This includes cell phones as they are able to act as data logging devices

9.15 Cars registered as Pre-66/68 Sports & GT will be allowed to compete providing that they are registered as Pre-90 Sports& GT and conform to these regulations

APPENDIX 1 – ENGINE SPECIFICATIONS

2. FORD COSWORTH 4 CYLINDER SERIES ENGINES

In cars where these engines were originally fitted and where the car complies with the technical regulations in all other aspects, the engine may be replaced with any 4 cylinder 16 valve engine. This subject to the following conditions:

a. The intake system type originally fitted by the manufacturer to the Cosworth engine is retained (ie. Carburettors or period type fuel injection). No electronic or programmable injection systems are allowed.

b. As there may be no provision for a distributor on these alternative engines, the use of an alternatively triggered ignition system is permitted. provided that the system only controls the advance and retard of the ignition in relation to the engine speed .Where a distributor was fitted to the alternative engine this must be retained and in operation. No other type of engine management is permitted and the ignition system must be a stand alone system which is not in any way linked to the fuel system.

3 PORSCHE 917 REPLICAS

These cars are permitted to use Porsche flat 6 cylinder air cooled engines. Turbo charged engines are permitted provided that regulation 7.11 is respected. As the original capacity of the coupe 917 cars was 4900 cc a turbocharged engine will be limited to 3500 cc.

4. FERRARI V12 ENGINES IN REPLICAS

These engines may be replaced with V 12 BMW engines. This is subject to the following conditions:

b. The intake system type originally fitted by the manufacturer is retained (ie. Carburettors or period type fuel injection). No electronic or programmable injection systems are allowed.

c. As there is no provision for a distributor on these engines, the use of an alternatively triggered ignition system is permitted provided that the system only controls the advance and retard of the ignition in relation to the engine speed. No other type of engine management is permitted and the ignition system must be a stand alone system which is not in any way linked to the fuel system.

4. TWIN SPARK ENGINES

Twin spark ignition systems are permitted provided that they were fitted to the engine originally or homologated by the manufacturer. Twin spark cylinder heads must be a direct fit onto the cylinder block as regulated under clause 7.3 and comply with clause 7.4 of the technical regulations.

Twin spark ignition systems must comply with clause 7.7 of the technical regulations.

APPENDIX 2 - PORSCHE 911 RSR REPLICA BODYWORK

1. The maximum width across the rear wheel arches for the Porsche 911 RSR Replica has been determined as 1970mm.