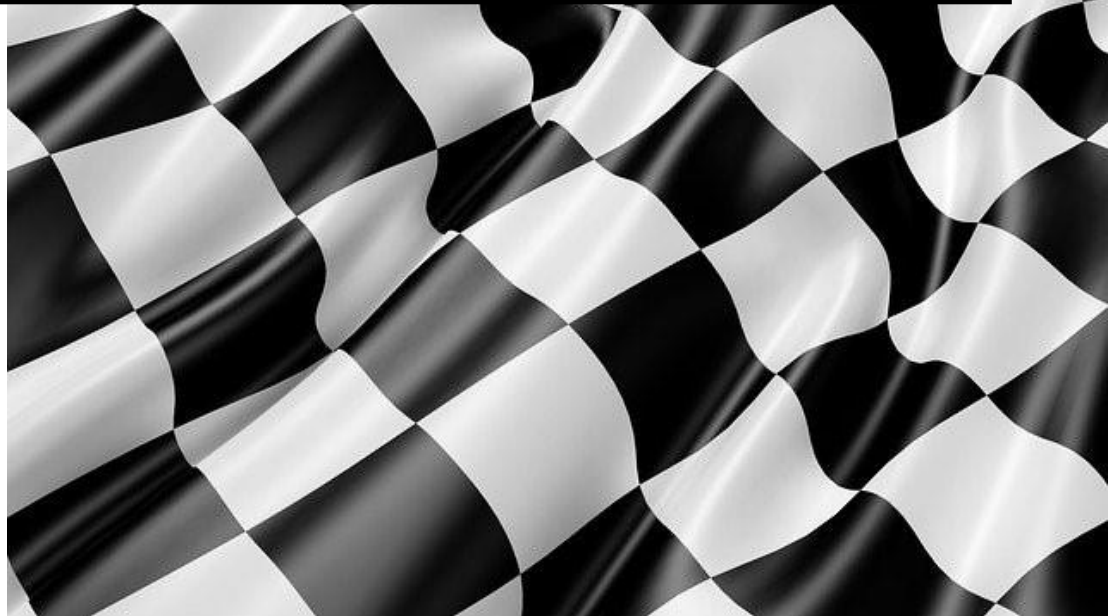




2023

Technical Regulations

Northern Regions HRSA Pre 90 Historic Cars Technical Regulations



Version 1

8 May 2023

Ref: 163023

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

<i>Modified SSR / Art</i>	<i>Date Applicable</i>	<i>Date of Publication</i>	<i>Clarifications</i>

These Classic/Historic Cars shall be defined as production type cars raced, registered and produced post 1 January 1980 but prior to 31 December 1989. These cars and any derivative thereof must be out of production for at least 20 years after this cut-off date pre- 1990.

The HRSA Racing Non-Technical Rules will be applicable to this Pre-90 Class with vehicles competing in timed Classes A to H.

Cars must have an MSA stamped and registered Historic Technical Passport available for inspection at all events.

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

(GCR 226)

Historic Touring Cars Pre-1990

1. Category Specifications:

- 1.1 The HRSA Historic Cars Pre 90 Category will compete within HRSA Racing in the same Class Time Brackets from Class A to H.
- 1.2 Historic Touring Cars Pre 90 are Production Cars launched before 31 December 1989.
- 1.3 Vehicles may be brought up to any series production specifications for that model prior to 31 December 1989.
- 1.4 Only period (pre 31 December 1989) type modifications will be permitted unless otherwise stated. Any modifications must be proven to be in this period as stated. Where applicable, mechanical parts may be replaced by electronic parts.
- 1.5 Production cars fitted with OEM forced induction will be limited to a maximum of one turbo charger.
- 1.6 The responsibility to prove eligibility is that of the entrant at all times.
- 1.7 HRSA reserve the right to at their sole discretion to include or exclude any vehicle.

Technical Specifications:

2. Chassis:

- 2.1 Chassis and Chassis members must remain as originally manufactured and lightning or reducing of chassis or chassis members strength is prohibited.
- 2.2 Addition of material to strengthen the chassis and seam welding is permitted.
- 2.3 Steering wheels and steering columns are free.
- 2.4 Foot controls and their linkages are free except that the foot operated surface of the brake pedal must be located no more than 100mm forward or rearward of the original production position.

3. Bodywork:

- 3.1 Bodywork must be complete and standard in shape and silhouette, material and thickness on all exterior surfaces. Plan and profile to remain. Where original materials are unobtainable, local repairs of adequate strength may be made using non original material but, will be limited to the use of glass fibre only. Replacement of panels with non-original material is limited to the bonnet and boot lid. The removal of exterior decorative strips and bumpers is permitted. Reworking or modification to exterior body work is prohibited but, any part of the arch/wing pressing folded into the wheel arch may be deformed to give clearance to the tyres.
- 3.2 Strengthening is permitted.
- 3.3 Interior: These regulations require the retention of the complete dashboard. Door panels may be replaced by alternative material. In the cabin, floor carpets, underfelt, sound deadening, headlining, front and rear parcel shelves, centre console, the front passenger and rear seats as well as trim in the boot/luggage compartment may be removed.
 - 3.3.1 Instrumentation is free although the original complete dashboard must remain.
 - 3.3.2 Windscreens and side windows may be replaced with polycarbonate (Lexan) providing the front windscreen is not less than 5mm thick.
 - 3.3.3 Driver's seat is free subject to MSA Requirements, and the driver must be located entirely to one side of the centre line of the car.
 - 3.3.4 Heaters and interior ventilation systems may be removed.
- 3.4 The original boot and bonnet fasteners may be removed. The bonnet And boot shut lines must be as in production.
- 3.5 No holes made be cut into front and rear valances and no valances may be removed.
- 3.6 No hole or air scoops may be cut into bonnets, or any other part of the bodywork.
- 3.7 Bumpers and embellishers may be removed, but headlamps and headlamp rims, tail lamps and radiator grills must remain as standard for the model.

4. Engine:

- 4.1 The engine must be located in the original position. Cars fitted with ECU in the period, which are now no longer serviceable, may fit an alternative ECU. ECU that can be manipulated from inside the cockpit is prohibited.
- 4.2 The original standard production cylinder block for the model must be used.
- 4.3 Although they may be modified, the cylinder head (s) must be the standard production component or a replacement alternative manufactured by the same manufacturer as the original production component of that era. The number of valves as well as the number of sparkplugs must remain the same as the original replace head for the model/type.
- 4.4 The Crankshaft is free.
- 4.5 Camshafts, camshaft bearings and drive systems are free, provided that, they remain in their original positions and remain the sole means of operating the valves.

- 4.6 Induction: fuel injection systems may be replaced with carburettors. Where fuel injection is being retained, only the original type of induction may be used, and the number of throttle bodies may not exceed the standard production number of throttle bodies.
- 4.7 Carburettors are free.
- 4.8 Radiators are free but, must remain in their original location.
- 4.9 Oil coolers and additional water radiators are permitted provided they are located within the periphery of the body work.
- 4.10 The exhaust system is free provided it is not routed within the cockpit area and is also subject to MSA requirements as regards decibel levels.
- 4.11 The Distributor may be fitted with an after-market spark triggering device, but the distributor must remain in its original position and must maintain its original function. Any additional system which processes information acquired from the ambient condition and / or the engine is not permitted. The distributor must be the only means of determining ignition advance and retard and must continue to distribute the high-tension spark. The firing order must not be changed. The remainder of the ignition system is free.
- 4.12 Forced induction is not permitted unless either fitted in production or homologated. Boost pressure may not be adjustable from within the cabin. Only period components may be used. Boost Pressure is limited to a maximum of 100 kPa or 1 Bar above atmospheric pressure.
- 4.13 Inlet and exhaust manifolds are free.
- 4.14 It is permissible to remove metal from original cylinder blocks and heads.
- 4.15 Fuel pumps and fuel tanks are free subject to MSA requirements.
- 4.16 All other engine components are free. Engine capacity may be increased within the confines of the manufacturers original production engine block.
- 4.17 Water coolant to be circulated via a pulley driven pump.

5 Suspension:

- 5.1 Front Suspension:
 - 5.1.1 Suspensions may be modified providing the original type and one of the manufacturers original mounting points per wheel on the body is retained. Remote reservoir shocks are not permitted.
- 5.2 Rear Suspension:
 - 5.2.1 Suspensions may be modified providing the original type and the manufacturers original mounting points per wheel on the body are retained.
 - 5.2.2 Additional mounting points for the adding of roll bars, radius arms, tramp rods and lateral control rods (Panhard Rod and Watts Linkage) may be fitted.
 - 5.2.3 Shock absorber make, and type are free and coil over units are permitted. Remote reservoir shocks are not permitted.
 - 5.2.4 Spring rates are free, but the original type of spring must be retained made of the original material and remain effective. Original spring type may be supplemented by the use of coil over type shock absorbers.
 - 5.2.5 Suspension bushes are free.

6 Transmission:

- 6.1 The gearbox must remain in the original position. Vehicles must use an original production type of gearbox with the same number of forward and reverse gears as the original standard production gearbox fitted for that model.
- 6.2 Gear ratios and type are free but gearboxes and trans axles with rapidly interchangeable ratios or proprietary racing gearboxes are prohibited.
- 6.3 The rear axle must remain in the original position.

- 6.4 The rear axle casing is free.
- 6.5 The final drive ratio is free.
- 6.6 Mechanical limited slip or torque biasing differentials are permitted.
- 6.7 Sequential gearboxes and/or traction control devices are prohibited.

7 Brakes:

- 7.1 Brake system modifications are free save that carbon type brake rotors and ABS systems are prohibited.
- 7.2 Break lights must be operational and operated only by the brake pedal without a delay or another switching device.

8 Electrical:

- 8.1 Electrical equipment is free provided that a battery and starter are fitted and in full working order at all times.
- 8.2 Headlights, taillights, indicators and stop lights must be in working order. Where standard headlights and additional LED type spotlights are used in a race, they must be angled so as not to interfere with the view of the drivers of the cars in front. No LED type strip lighting is allowed. LED lights may be used within the original light fitting.

9 Wheels and Tyres:

- 9.1 Wheels must fit inside the bodywork **as per Section 3**
- 9.2 Any period style wheel rim that has a diameter within 1 inch either side of what was fitted as original equipment may be used.
- 9.3 DOT approved semi-slicks or locally manufactured production car tyres.
 - 9.3.1 DOT rated semi-slicks must have a treaded /grooved pattern throughout the entire surface of the tyre.
 - 9.3.2 Full Slicks and Cut-Slicks are prohibited.

10 General Specifications:

- 10.1 Minimum weight for cars which conform to the current regulations may not be less than 10% below the manufacturers stated curb weight for the model raced. The weight of all cars must be recorded in the HDP Document.
- 10.2 Cars must be fitted with a roll cage in compliance with MSA GCR239 requirements. The roll cage must remain within front and rear suspension mounts.
- 10.3 Cars must be fitted with seat belts that comply with MSA GCR239 specifications. There must be a minimum of four separate mounting points excluding the use of any additional crotch belt and shoulder belts must not cross over.
- 10.4 Cars must carry a 1.5KG Fire Extinguisher as approved for use by MSA.
- 10.5 Cars must have an electrical cut-off switch that can be operated from inside and outside the vehicle.
- 10.6 Tow Eyes must be fitted to the front and rear of the car and clearly marked (TOW) (Refer SSR 10 iii)
- 10.7 Fuel must conform to the specifications as described in GCR240
- 10.8 In car timing devices other than the official transponder type are not permitted.
- 10.9 Cars must comply with General Competition Rules and Regulations (GCR,s) as specified by MSA.
- 10.10 Data logging may not be functional on a race weekend which includes Friday practice.
- 10.11 No computers/laptops are allowed to interface with cars on race weekend, which includes Friday practice.
- 10.12 Vehicles may not exceed 108 decibels at any time, for clarity, this includes the stationary measurement as well as the drive by recording.