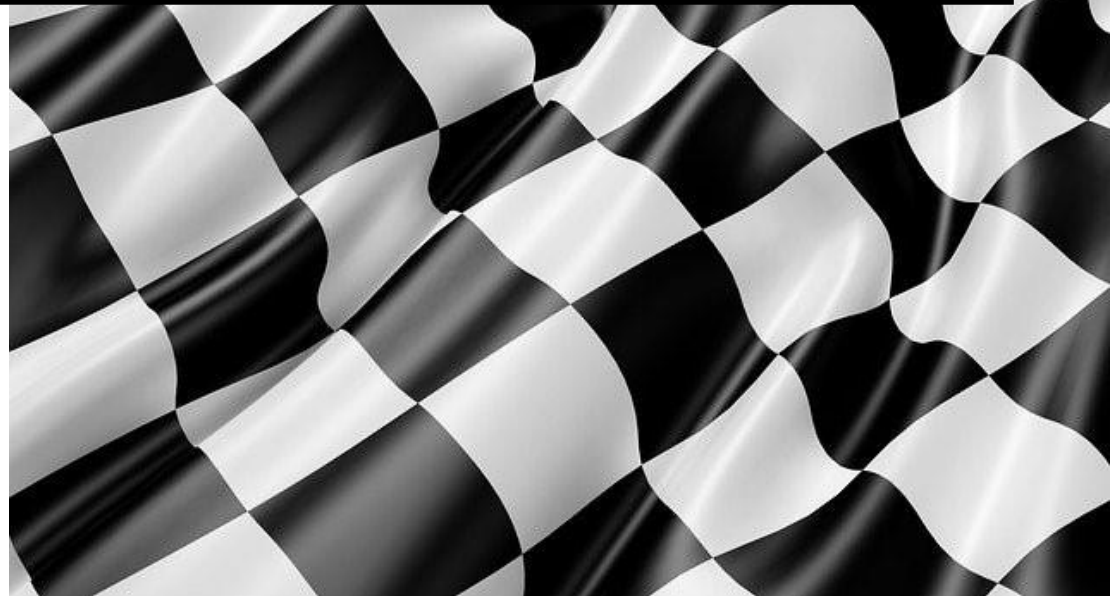




2024

## Technical Regulations

# Northern Regions HRSA Historic Production Car Group 1 Saloon Car Club Championship



Version 1

1 January 2024

Ref: 163114

## 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>

### Permissions:

With the exception of the under mentioned allowance, no other additions or modifications whatsoever are permitted to cars entered in Group 1 races and nothing that forms part of the standard vehicle may be removed. Modifications to any component are prohibited even though that component may still comply with the specifications of the original component. Variations from the original due to fair wear and tear will be accepted provided that they give no advantage to the competitor. However, sagging of the springs and or leaf springs that result in a lower than standard ride height at the front and or rear will not be accepted. In all cases **GCR 226** will apply.

### 1. Engine:

- 1.1 Any camshaft may be used
- 1.2 Cam followers may be changed and modified. However the rocker ratio must remain as standard
- 1.3 Valve spring may be changed and modified
- 1.4 Machining of the cylinder head is permitted
- 1.5 Machining of the cylinder head face is permitted
- 1.6 Fitting of baffle plates within the oil sump to reduce oil surge is permitted
- 1.7 Sump plugs must be wire locked
- 1.8 Cylinder block reboring is permitted to a maximum of 0.25 thou or 0.6mm

- 1.9 Air cleaner elements may be removed
- 1.10 Oil coolers for engine, gearbox and differential may be fitted
- 1.11 Oil filters must be clamped and lock wired
- 1.12 Spark plugs are free
- 1.13 The clutch and flywheel are free however the original flywheel weight and diameter must remain unchanged
- 1.14 The clutch and flywheel are free however the original flywheel weight and diameter must remain unchanged
- 1.15 Fan belts and hoses are free
- 1.16 The water radiator may be changed however the replacement unit must be mounted in the same position as the original and the number and size of hoses must be identical to the original
- 1.17 Normally aspirated cars with more than 2 valves per cylinder will be permitted to race based on the classification of cubic capacity multiplied by a factor of 1.3
- 1.18 Turbo charged engine will be permitted provided the car complies in all aspects with these regulations and no extra cooling modifications will be permitted
  - 1.18.1 No standard inlet or outlet turbo manifold may be modified, ported, changed or reshaped
  - 1.18.2 The classes for any manufacturers turbo charged car will be cubic capacity multiplied by 1.5
  - 1.18.3 No turbo charged car with more than 2 valves per cylinder will be permitted
  - 1.18.4 No water injection is permitted
  - 1.18.5 The entire outside of the turbo may not differ from the manufacturers specifications
  - 1.18.6 Inter-coolers will be permitted only if was fitted as standard original equipment to the model concerned
  - 1.18.7 No boosting control will be permitted from inside of the car
- 1.19 The engine power output may not exceed the power output plus 10% of the original engine as used during the period. Auto Data Digest will be used to ascertain the manufacturers original power output figures
- 1.20 The controllers reserve the right to check the power output at anytime

## **2. Exhaust:**

- 2.1 Exhaust manifold must remain standard
- 2.2 The exhaust pipe from the manifold collector may be modified but must be gas tight throughout its entire length
- 2.3 All cars must however, comply with noise level regulations as per GCR 245

## **3. Suspension and bodywork:**

- 3.1 Castor, camber and toe may be modified

- 3.2 Different suspension components may not be used
- 3.3 Welding of / or alteration to the standard suspension components is prohibited
- 3.4 Shock absorbers may be replaced provided that the original mounting points and method of mounting is not changed. In case of strut type suspension replacement, units must be mechanically identical to the original
- 3.5 Any spring diameter and number of coils may be used but the original height of the standard car must be retained
- 3.6 The diameter of the anti-roll bar is unrestricted
- 3.7 No bodywork modifications involving cutting and or welding is permitted
- 3.8 Exterior body trim and bumpers shall remain as originally fitted
- 3.9 Headlights, taillights, stoplights and indicators (front and back) must be in full working condition

#### **4. Gearbox and differential:**

- 4.1 Gearbox must ideally be the standard gearbox used by the manufacturer alternatively a standard production gearbox from an alternative manufacturer with no more forward gears than the original
- 4.2 Gear ratios are free
- 4.3 Limited slip differentials are permitted and modifications may be made within the original casing provided that the original axle casing and type is retained

#### **5. Interior:**

- 5.1 Fire hazard material (i.e. carpets, floor sound deadening material, seats, roof linings, rear parcel shelf and boot mat) may be removed and the loss of weight made up by ballast weight
- 5.2 Spare wheel and tools must be removed
- 5.3 Additional instrumentation may be fitted but they must not be fitted in place of the original instruments, which may not be changed
- 5.4 Seat mounting brackets may be altered
- 5.5 The driver's seat may be replaced with a racing type seat
- 5.6 Windscreens must be of laminated glass
- 5.7 The fitting of an Appendix J compliant roll cage is permitted

#### **6. Wheels & tyres**

- 6.1 DOT rated tyres will be permitted and semi-slick tyres will be permitted provided that they contain a grooved pattern throughout
- 6.2 The rim size will be the standard manufactured rim size

- 6.3 Any wheel width is permitted provided that it fits within the standard non-modified bodywork confinement
- 6.4 Cut slick tyres are prohibited. Application to the HPCC may be made for the use of slick tyres
- 6.5 Wheel studs or wheel bolts are free but wheel studs must be of the open-ended type
- 6.6 The upper part of the wheel (rim and tyre) located vertically over the wheel hub centre must be covered by the standard bodywork. The measurements shall be made in a vertical plane
- 6.7 Hub caps and wheel trims may be removed

**7. Brakes:**

- 7.1 Brakes are free provided they fit within the original rim size as was fitted as OEM standard.
- 7.2 Brake dust covers may be removed
- 7.3 Brake cooling duct may be fitted provided they entail no modifications to the bodywork
- 7.4 Carbon fibre brakes are specifically not permitted

**8. Weights:**

- 8.1 The following minimum net weights will apply to cars in racing trim with oil and water but with empty fuel tanks. (no allowances for the removal of accessories etc.)

Cubic Capacity	Kg
Up to 1400	800
1401 – 1600	850
1601 – 1800	900
1801 – 2000	1000
2001 – 2400	1100
2401 – 2800	1150
2801 – 3000	1200
3001 - 3500	1300
3501 – 5000	1350

- 8.2 Should the weight of the car be less than the above, ballast weight must be bolted or welded to the interior of the boot, passenger or engine compartment to make up the deficiency.

**9. Classes:**

**Class T**

3501cm<sup>3</sup> to 5000 cm<sup>3</sup>

**Class U**

2801cm<sup>3</sup> to 3500cm<sup>3</sup>

**Class V**

2401cm<sup>3</sup> to 2800cm<sup>3</sup>

**Class W**

1701cm<sup>3</sup> to 2400cm<sup>3</sup>

**Class X**

1401cm<sup>3</sup> to 1700cm<sup>3</sup>

**Class Y**

Up to 1400cm<sup>3</sup>

**10. Class Formulas:**

10.1 Turbo: cm<sup>3</sup> x 1.5

10.2 More than 2 valves per cylinder: cm<sup>3</sup> x 1.3

10.3 No V8 engine vehicle or any above 3.5 litre capacity may have more than 4 chokes

10.4 No V8 engine vehicle or any other vehicle in Class T above 3.5 litre capacity may use fuel injection system

**11. General**

11.1 Original lights, globes, fuses and wiring may be replaced with suitable alternatives

11.2 Battery replacement is permitted provided the weight and size is the same as the original

11.3 A minimum of 1.5 kg fire extinguisher must be fitted and accessible with the driver seated

11.4 A minimum of 75mm 4 point seat belt is required, each belt secured separately

**12. Cut off times:**

Will be determined as per pre 90 Saloon car times.

These cut-off lap times may be amended from time to time as deemed fit by the controllers of the series.