



## 2018 NATIONAL TECHNICAL REGULATIONS FOR PRE-1980 HISTORIC SALOON CARS

### MSA NORTHERN REGIONS CIRCULAR NR33/18 (161390/144)

#### CONTROL

These regulations are drafted by the Historic Motorsport Commission Technical Working Group (HMC) in consultation with Historic Racing South Africa, Midvaal Historic Car Club, 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. These regulations will remain unchanged from 01 January 2018 until 31 December 2022 subject to regulations of safety and or FIA amendments.

#### 1. ELIGIBILITY

- 1.1 Historic Saloon Cars are production saloon cars marketed before 31st December 1979. Cars must be out of production for 20 years.
- 1.2 Cars must have a signed and valid MSA stamped and registered Historic Technical Passport available for inspection at all events.
- 1.3 The responsibility to prove eligibility is that of the entrant at all times.
- 1.4 Any aspect of a car not detailed as permitted is deemed not to be permitted.
- 1.5 Competitors wanting to build a “recreation” racing car must first submit a detailed pre build sheet to the HMC for approval before commencing the build. The recreation must be an exact copy of the original in every respect.

#### TECHNICAL SPECIFICATIONS

#### 2. BODYWORK

- 2.1 The exterior bodywork must remain in plan and profile, from all angles, exactly as produced by the vehicle manufacturer for the model in the period. No holes may be cut into the bodywork front and rear valances (unless homologated or provided for within the regulations and valances may not be removed. Where any aftermarket body panels and aerodynamic aids are to be used, an authentic picture of the original car and the intended modification need to be submitted to the controllers of the series before the intended modification is done. The controllers reserve the right to disallow the intended modification at their sole discretion, should it not be deemed to be of the correct period.
- 2.2 “Recreations/Replicas” may use the period correct aerodynamic spoilers, air ducts, scoops and blisters, period type Group 2 wheel spat may be fitted to the appropriate car. For Group 4 & 5 cars, the period homologated wheel arch and width is permitted.
- 2.3 Replacement of original wheel arch interiors or transmission tunnels with box structures is not permitted, unless homologated.
- 2.4 The wheel arch fender pressing may be flared to a maximum of 50mm The wheel arch must cover the upper third of the wheel (measured horizontally above the hub centerline) when viewed from above.
- 2.5 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.
- 2.6 Bumpers and embellishers may be removed, but headlamps and rims, tail lamps and radiator grilles must remain as standard for the model.
- 2.7 Paint work must be of the era and no day glow base colours, patterned paint or patterned vinyl is allowed.
- 2.8 Works team colours are reserved for the “recreation/replicas” of that team’s car

- 2.9 Headlights, tail lights, 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 may be used within the original light fitting.
- 2.10 Cars must be fitted with at least one internal mounted and one externally mounted rear view mirror.
- 2.11 Rear engine cars with front mounted radiators may modify the front lower valance to accommodate the radiator.
- 2.12 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.
- 2.13 All rear engine cars may have raised bonnets to aid engine cooling.
- 2.14 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 AND GLASSWORK**

- 3.1 Windscreens and side windows may be replaced with polycarbonate (Lexan) providing the front windscreen is not less than 5mm thick.
- 3.2 Original dashboards or a TWG approved replica must be retained and instrumentation may have analogue or digital display.
- 3.3 Door panels must remain; however original material may be replaced with aluminium.
- 3.4 Carpets, under felt, sound deadening material, headlining, interior trim, front and rear parcel shelves, centre consoles, heaters, interior ventilation systems, front and rear passenger seats and boot compartment trim may be removed.
- 3.5 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.

### **4. SUSPENSION**

- 4.1 Front suspension:
  - 4.1.1 Suspensions may be modified providing the original type and one of the manufactures' original mounting points per wheel on the body is retained. Remote reservoir shocks are not permitted.
- 4.2 Rear suspension:
  - 4.2.1 Suspensions may be modified providing the original type and the manufacture's original mounting points per wheel on the body are retained.
  - 4.2.2 Additional mounting points for the adding of roll bars, radius arms, tramp rods and lateral control rods (Panhard Rod & Watts linkage) may be fitted.
  - 4.2.3 Shock absorber make and type are free and coil over units are permitted. Remote reservoir shocks are not permitted.
  - 4.2.4 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.
- 4.3 Steering:
  - 4.3.1 Steering boxes may be replaced with a steering rack.
  - 4.3.2 Wheel base datum points must remain within 25mm of the standard specification.

### **5. BRAKES**

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

### **6. WHEELS & TYRES**

- 6.1 Wheels comprise the rim and tyre assembly and must fit within the bodywork as described in Regulation 2.4 Bodywork.

- 6.2 Any period style wheel rim that has a diameter within one inch either way of what was fitted as original equipment by the manufacturer.
- 6.3 Rim and tyre widths are free but must fit within the confines of the bodywork as described in Regulation 2.4 Bodywork.
- 6.4 Tyre make and type are free of restriction other than as specified in Clause 6.6.
- 6.5 No mixing of rim diameters is permitted.
- 6.6 V8 Competitors wishing to run a 15" or 16" or 18" rim where it falls outside the ambit of Clause 6.2 must apply to the relevant Technical Consultant for relaxation and this must be noted in the HTP.
- Where relaxation is approved, only the following locally available 16" tyres can be used for competition cars:
- Avon: 23.5x10x16, 23.5x11x16, 25x12.5x16, 25x13.5x16  
 Goodyear: 23.5x10.5x16, 25x13x16  
 Hoosier: 22x10x16, 23.5x11.5x16, 25x13x16  
 Bridgestone: 18" semi-slick tyre
- A 16" or 18" rim may be used only on V8's as per the permissions in clause 6.6 but must use a period correct rim design. No modern rims will be permitted.
- A 15" rim is permitted for cars that originally ran a 13" rim and they may use any make of any road rated semi-slick tyre. The only slick that may be used is the locally produced 18x58x15 "Continental slick" while still available as previously used by the Polo Cup. It is permitted to use a larger disc and caliper to fit within the 15" rim.
- DOT rated semi-slicks must have a treaded/grooved pattern throughout the entire surface of the tyre. Cut-slicks are prohibited.

## 7. ENGINES

- 7.1 Production cars must use an engine produced by the vehicle manufacturer that conforms to the same basic configuration as the original engine fitted to the model in the period.
- 7.2 Original cars and "recreations" of cars homologated for competition must use an engine that conforms in all respects to the engine fitted to the car as homologated in the period.
- 7.3 Engine configuration:
1. In-Line – V – Flat – Rotary
  2. Number of cylinders or rotors
  3. Camshaft position: Block or Over Head Camshaft / Camshafts
  4. Camshaft drive: Gear Chain or Belt
  5. Number of valves per cylinder
  6. Number of camshafts
- 7.4 Block: The engine block must be the manufacturer's standard production block of the period. Manufacturer's blocks manufactured post period may be used providing they are identical to the period block.
1. Engine to bell housing bolt pattern.
  2. Cylinder head to block bolt pattern.
  3. Block material cast Iron or aluminium.
- 7.5 Cylinder Heads: Cylinder heads must be the manufacturer's standard production or an aftermarket direct replacement for the original of the period. Cylinder head material may be cast iron or Aluminium.
1. Cylinder head to block bolt pattern.
  2. Cylinder head valve angle.
  3. Number of spark plugs.
  4. Number of camshafts
- 7.6 The following is to address potential confusion regarding the eligibility of two specific cylinder heads in replacing the original head supplied by the vehicle manufacturer.
- 7.6.1 **16v YB cylinder head** It is confirmed that the YB cylinder head may only be used as a replacement for the Holbay cylinder head which was homologated for use in the RS2000 Escort mk1 in 1974. It may only be used in an exact replica of this Group2 Ford Escort and may not be used in any production based variant.
- 7.6.2 **16v Schnitzer cylinder head** It is confirmed that the BMW M3 cylinder head is deemed eligible

to be used as a replacement for the period 16v Schnitzer cylinder head. It may only be used in an exact replica of the Group 2 BMW 2002 and may not be used in any production based variant.

- 7.7 Oil system: Dry sump systems are permitted..
- 7.8 Ignition: Electronic systems are permitted providing that the distributor and its function are retained. No programmable electronic ignition system may be used. The 123 "Tune" or similar distributor is permitted.
- 7.9 Intake and exhaust manifolds are free.
- 7.10 Induction system: Period type carburettors and fuel injection systems only. Cars in the era that were produced with electronic fuel injection will be permitted to run the electronic fuel injection with the standard manifold or aftermarket throttle bodies if raced like that in the period. The original ECU can be replaced with the Powermods MFI-H and DFI-H aftermarket ECU. Only period correct functions will be permitted to be enabled and this will have to be indicated on the HTP ECU Certificate by the installer. No wires may go to the wheels and no traction control is permitted. No crankshaft position sensor is permitted.
- 7.11 Induction system: Fuel Pump: Any fuel pump/s may be used.
- 7.12 The engine must be mounted in the original position.
- 7.13 All other engine modifications are free of restriction.

## **8. TRANSMISSION**

- 8.1 The gearbox or transaxle must be the original make and type or a substitute derived from a standard production car unit with a maximum of five forward speeds.
- 8.2 Gearboxes and transaxle units must be mounted in the original position.
- 8.3 Rear axle casings are free but the original type may not be substituted for another and must remain in the original position.
- 8.4 Sequential type gearboxes, sequential shift mechanisms and traction control devices are prohibited.
- 8.5 The clutch and the method of operation are unrestricted.
- 8.6 Gear ratios and final drive ratios are free and any type of limited slip differential unit may be used.
- 8.7 Cars with V8 engines are permitted to use JERICO, RICHMOND T10 and G-FORCE transmissions.

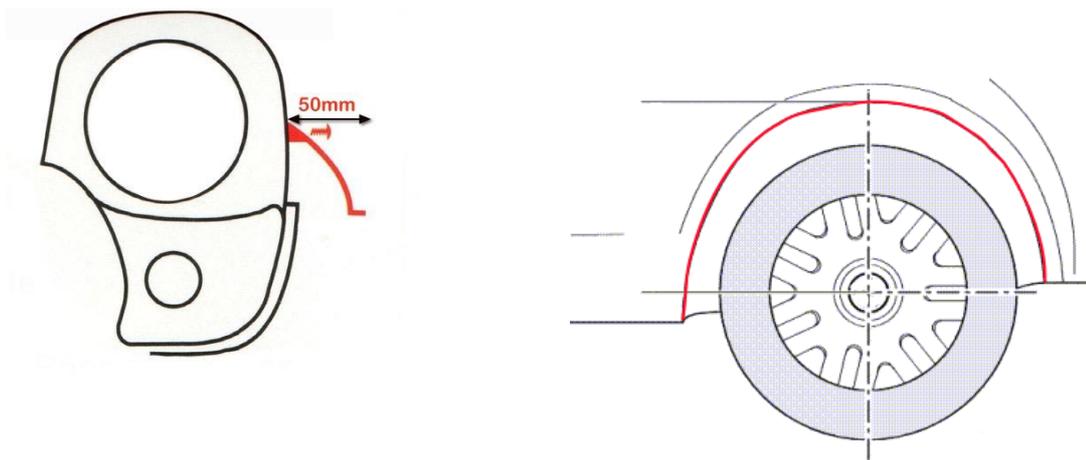
## **9. GENERAL TECHNICAL SPECIFICATIONS**

- 9.1 Minimum weight for original and "recreation" cars may not be less than the homologated weight of the period race car. Minimum weight for cars which conform to the current regulations may not be less than 10% below the manufacturer's stated kerb weight for the model raced. The weight of all cars must be recorded in the HTP document.
- 9.2 Cars must be fitted with a roll cage in compliance with MSA GCR 239 requirements.
- 9.3 Cars must be fitted with seatbelts that comply with MSA GCR 239 specifications. There must be a minimum of 4 separate mounting points excluding the use of any additional crotch belt and shoulder belts must not cross over.
- 9.4 Cars must carry a 1.5 kg fire extinguisher as approved for use by MSA this can be supplemented by a Fire Stryker.
- 9.5 Cars must have an electrical cut-off switch that can be operated from inside and outside the vehicle.
- 9.6 Tow hooks must be fitted to the front and rear of the car and clearly marked. (Tow)
- 9.7 The exhaust system is free subject to MSA GCR 245 Silencing of Vehicles.
- 9.8 Fuel must conform to the specifications as described in GCR240.
- 9.9 In car timing devices other than the official transponder type are not permitted.
- 9.10 Cars must comply with General Competition Rules and Regulations (GCR's) as specified in the MSA Handbook 2018.
- 9.11 Data logging may not be functional on a Race weekend, which includes Friday practice.
- 9.12 No computers/laptops are allowed to interface with cars on Race weekend, which includes Friday practice.

## **Bodywork**

The following guideline will be applicable on a national level in order to determine the correct bodywork rule application regarding the flaring of the standard production fender pressing.

The measurement will be taken from the vertical centerline of the wheel hub to the widest part of the fender flare and measured directly to the fender.



The above guideline will assist with the implementing of bodywork rule 2.4 of the 2018 NATIONAL TECHNICAL REGULATIONS FOR PRE-1980 HISTORIC SALOON CARS and is separate to that of bodywork rule 2.2, which is applicable to replicas/recreations.

The follow will apply for all current wide bodied cars that were raced before 01 January 2017.

Any competitor that has previously competed in a 'wide bodied' car where such competition car is making use of any Group 2, 4 or 5 specifications may continue to compete with such vehicle however the follow will apply.

1. Should a competitor who had built his car prior to 01 January 2017 severely damaged or write off the car in an accident, such car may not be rebuilt unless it is rebuilt to the full regulation e.g. either to the 'production based' Pre-80 National Historic Saloon Cars or to the 'replica based' regulations found under Appendix 2 and 3 of the National Technical regulations but may not a mixture of both.
2. In the event that a competitor wishes to sell his or her existing wide-bodied car, the new owner would be required to bring the competition vehicle up to regulation specification requirement before a valid HTP compliance token is afforded in the new owner's name.

All newly built wide body competition cars built post 31 December 2016 making use of any Group 2, 4 or 5 specifications must fully comply to the 'replica' regulation requirements as found under Appendix 2 and 3 of the 2018 National Technical regulations.

### **Annexure 1 to the 2018 National Technical Regulations for Pre 1980 Historic Saloon Cars MSA Historic Technical Passport for Historic Racing Cars**

South African historic motorsport competition is governed by sporting and technical regulations

approved by the Historic Motorsport Commission (HMC) of Motorsport South Africa (MSA). It is the requirement that each race car competing in the historic racing category within South Africa must have a valid HTP (Historic Technical Passport) document. This applies to both regional and club racing.

#### **What is the purpose of the HTP document?**

It is a sporting document, it is intended to capture the technical specification of the car so that MSA officials can ensure that the car is what it purports to be. It is used to ensure that cars competing in the historic category comply with the technical regulations of the relevant category and thus are able to compete fairly and equitably.

**Note:** the HTP says nothing about the authenticity of the car, its provenance and origins and race history.

The onus rests on the competitor to complete the HTP and make sure that it accurately reflects the specification of the car and that the car complies with the relevant technical regulations. The vehicle will be inspected by an MSA appointed Technical Consultant (TC) for the relevant category. The TC will highlight any divergence from the category regulations in a “non-compliance” document. Once the TC is happy that the HTP accurately reflects the specification of the car and that the car complies with the regulations, he/she will sign the last page of the HTP document. The TC will issue a decal indicating eligibility for the category and dated for the season.

**Note:** the TC will not authorize any HTPs on race day. The onus is on the competitor to plan ahead.

The onus is on the competitor to submit the signed HTP to the MSA Sporting Coordinator – Circuit and Karting - Allison Atkinson at MSA [allison@motorsport.co.za](mailto:allison@motorsport.co.za) (scanned and emailed or the hard copy). Allison will issue a unique number, stamp the document with the MSA logo and capture the details in the HMC HTP database and return a scanned copy to the competitor.

The competitor is then responsible for ensuring the unique HTP number is captured on the race meeting entry form and that a hard copy is available for inspection at race meetings.

**Note:** the HTP is only valid once it has been stamped with the MSA logo and issued with a unique HTP number. For subsequent racing seasons, should the car specification remain the same in all respects, the TC will sign and date the last page of the HTP and issue a new compliance decal for that season. Should the car specification change, the competitor would bring this to the attention of the TC who will note the change on the last page of the HTP and should the car continue to comply with the technical regulations, will issue a compliance decal for that season. Should the car have undergone a major specification change, the competitor will be required to complete a new HTP.

**Note:** should the car be sold, it is necessary for the new owner to complete a new HTP and follow the authorization process. However, should the car specification remain unchanged all that is necessary is for the new owner to complete the “Competitors Declaration” on a new back page. This should then be scanned and submitted to Allison Atkinson at MSA.

### **Annexure 2 to the 2018 National Technical Regulations for Pre 1980 Historic Saloon Cars HISTORIC TECHNICAL PASSPORT - EXACT REPLICAR CAR**

The HTP for an Exact Replica Car is required for entrants building a replica of an International or South African recognized car where original dimensions, specifications or components are not provided for in the MSA Technical Regulations for the period. Potential car builders are advised to contact their respective administrating body (HRSA, ZOC or WPMC) prior to commencing the build to initiate the application.

Cars approved for competition as an Exact Replica Car must conform in all respects to the original car. The procedure for application and approval to build an Exact Replica Car are as follows:

1. Entrants must submit a detailed proposal including a completed HTP document to the HMC Technical Working Group relevant to the original car.
2. In addition to the HTP document, the proposal must detail the areas (original dimensions, specifications or components) where the original car (and therefore the Exact Replica Car) deviates from the current technical regulations. A full explanation is required justifying the deviation.

3. It is the responsibility of the entrant to provide the relevant documentation to the administering bodies to establish eligibility. In the case of FIA homologated cars the relevant homologation papers must be provided for reference.

4. After consultation with the entrant and administering body responsible for the historic period relevant to the application, the HMC Technical Working Group's decision will be final.

5. Following a successful application an HTP document *HISTORIC EXACT REPLICA* will be issued by the HMC Technical Working Group.

### **Appendix 3. Technical Regulations for Pre 80 Replica Vehicles.**

#### **1. Criteria:**

A replica of a previously raced International or National recognised car only will be allowed. This would be at the discretion of the relevant administering committees. Potential car builders are advised to contact their local administrator (HRSA, MHCC, BMSC, AMSC or WPMC) prior to build commencement.

1.1 Build a production based car to race and comply with the 2018 NATIONAL TECHNICAL REGULATIONS FOR PRE-1980 HISTORIC SALOON CARS, or

1.2 Build an exact replica of the original racing car.

1.3 It is specifically not permitted to pick the best elements from both sets of regulations and combine them to best suit the competitor.

1.4 The Historic Motorsport Commission Technical Working Group (TWG) will make the final decision on eligibility in the event of any dispute.

#### **2. Technical Regulations.**

2.1 The car must be identical in all respects to the original car.

2.2 It is the responsibility of the entrant to provide the relevant documentation to the administering body to establish these parameters prior to build commencement.

2.3 In the case of FIA homologated cars, the relevant homologation papers should be provided for reference.

2.4 The following regulations should be read in conjunction with the 2018 National Technical 2.5 Regulations for Pre 80 Historic Saloon Cars, which will apply.

#### **A. Bodywork.**

This should be identical in dimension to the car being replicated.

Regulation 2.1 is to be respected where this does not conflict with the presented specification of the car being replicated.

#### **B. Suspension.**

1. This should be identical to the car being replicated.

**C. Engine configuration.**

1. This must be the same engine unit as originally fitted to the car.
2. Regulation 7.6 may be applied where applicable to the manufacturer.
3. The use of carburetors in place of period mechanical fuel injection will be allowed.
4. The power output of the engine should not exceed that of the original car and will need to be documented by the competitor for both the original and current engines.
5. Capacity is free but the power output restriction must be respected.
6. **16v YB cylinder head:** It is confirmed that the YB cylinder head may only be used as a replacement for the Holbay cylinder head which was homologated for use in the RS2000 Escort mk1 in 1974. It may only be used in an exact replica of this Group2 Ford Escort and may not be used in any production-based variant.
7. **16v Schnitzer cylinder head:** It is confirmed that the BMW M3 cylinder head is deemed eligible to be used as a replacement for the period 16v Schnitzer cylinder head. It may only be used in an exact replica of the Group 2 BMW 2002 and may not be used in any production-based variant.

**D. Transmission**

1. Regulation 8, 8.1 to 8.6 will apply.
2. Regulation 8.7 will not apply.

**E. Wheel size and rim width.**

1. The wheel size must be that of the original car and Regulation 6.2 may not be applied.
2. Rim widths must not exceed that of the original car.
3. The tyre and rim must fit within the confines of the bodywork as fitted.

**F. Brakes.**

1. Brake calipers must be of the exact same type i.e. 1-pot, 2-pot, 4-pot, 6-pot as it was used on the original car being replicated.
2. Disc rotors must fit within the confines of the original wheel size fitted.
3. Carbon fiber material is not permitted.

**G. Steering wheel position (LHD/RHD)**

1. The steering wheel position may be either left or right hand drive but must be fitted in either form in the original position on the car.

**H. Weight.**

1. The car may not weigh less than the original stipulated weight or in the case of FIA cars, the FIA homologated weight. This is taken as the car with water and oil but without fuel.