



## NATIONAL TECHNICAL REGULATIONS 2015 PRE-79 HISTORIC SALOON CARS

### CONTROL

These regulations are drafted by the Historic Motorsport Commission (HMC) in consultation with Historic Racing South Africa (HRSA, the Administrators) for final publication by Motorsport South Africa (MSA).

### 1. ELIGIBILITY

- 1.1 Historic Saloon Cars are production saloon cars marketed before 31st December 1978. Cars must be out of production for at least 20 years.
- 1.2 Cars must have an MSA stamped and registered Historic Technical Passport which must be 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” must first submit a detailed pre build sheet to the committee for approval before commencing the build.

### 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 front and rear valances (unless homologated) 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” may use the period correct aerodynamic spoilers, air ducts, scoops and blisters.
- 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 or a 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. The wheel arch extension must cover the upper third of the wheel 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 “recreation” cars must be painted like the original was raced.
- 2.8 Headlights, tail lights, indicators and stop lights must be in full working order.  
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 All rear engine cars may have raised bonnets to aid engine 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 must be retained and instrumentation must be analogue display. (Digital display instruments are not permitted). Door panels must remain however original material may be replaced with aluminium.

- 3.3 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.
- 3.4 Drivers 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 Suspensions may be modified providing the original type and one of the manufactures' original mounting points per wheel on the body is retained.
- 4.2 Additional mounting points for the adding of roll bars, radius arms, tramp rods and lateral control rods (Panhard rod & Watts linkage) may be fitted.
- 4.3 Shock absorber make and type are free and coil over units are permitted. Remote reservoir shocks are not permitted.
- 4.4 Spring rates are free but the original type of spring must be retained. Original spring type may be supplemented by the use of coil over type shock absorbers.
- 4.5 The original spring must be capable of supporting the weight of the car.
- 4.6 Steering boxes may be replaced with a steering rack.
- 4.7 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 other switching device.

#### 6. WHEELS & TYRES

- 6.1 Wheels comprise the rim and tyre assembly and must fit within the bodywork as described in Regulation 2.2 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 2.2 Bodywork.
- 6.4 Tyres are free of restriction however relaxation has been granted to all Pre'79 Saloon cars that are currently permitted under 6.2 to run 15" rims. They will be permitted to run 16" rims with the following restrictions :
- Only the following locally available 16" tyres can be used :

Avon : 23.5x10x16, 23.5x11x16, 25x12.5x16, 25x13.5x16

Hoosier : 22x10x16, 23.5x11.5x16, 25x13x16

Goodyear : 23.5x10.5x16, 25x13x16

The brake disc size is limited to 310mm and a 15" test rim will be used to check conformance at the track.

No mixing of rim diameters is permitted.

All cars taking advantage of the relaxation will automatically be classified as a class B car, irrespective of their lap times.

A 15" rim is permitted for cars that originally ran a 13" rim, however they can only use the locally produced 18x58x15 "Continental slick" used in Polo Cup. Bridgestone RE55 Potenza semi-slicks will also be permitted. The brake disc size is limited to 270mm and a 13" test rim will be used to check conformance at the track.

#### 7. ENGINES

- 7.1 Cylinder blocks by make and model (including optional alternatives). These cylinder block regulations must be read in conjunction with the clause 7.2 Cubic Capacity allowances. Cylinder blocks with the same number of cylinders may be substituted for a similar type from the same manufacturer produced in the period as detailed below:
- 7.1.1.1 Alfa GT Junior: the 105 block used for the 1300, 1600, 1750 and 2000 may be used. The Alfa 75 Twinspark head may be used on a GTAm "wide body" or GTA replica. (The Twinspark 8v aluminium block may be used as a replacement for the 105 block.)
- 7.1.1.2 Alfa Giulia: the 105 block used for the 1300, 1600 and 2000 may be used. The Alfa 75 Twinspark head may not be used. (The Twinspark 8v aluminium block may be used as a replacement for the 105 block.)
- 7.1.1.3 Alfetta GTV: the 105 block used for the 1750 and 2000 may be used. The Alfa 75 Twinspark head may not be used. (The Twinspark 8v aluminium block may be used as a replacement for the 105 block.)
- 7.1.2.1 BMW 2002: only M10 blocks may be used. (The M3 16v head is allowed as a replacement for the

- Schnitzer head)
- 7.1.2.2 BMW 3.0 CSL: only 2.8l, 3.0l, 3.2l and 3.5l engines may be used.
- 7.1.3 British Leyland Mini: any A series and A-Plus series block may be used.
- 7.1.4.1 Chev Camaro: only Chev 302 (3" stroke crank), 350 (3.48" stroke crank) small block production block or 396 (3.76" stroke crank) big block production block from the period may be used.
- 7.1.4.2 Chev Can Am: only Chev 302 or 350 small block production block from the period may be used. (A 3" stroke crank must be used.)
- 7.1.5.1 Datsun 1200 series cars: the A12 and A14 blocks may be used. (A15 crankshafts are not permitted)
- 7.1.5.2 Datsun 1600SS: only L16 and L18 blocks may be used.
- 7.1.5.3 Datsun 140/160Y: only L14 and L16 blocks may be used.
- 7.1.5.4 Datsun 140/160Z: only L14 and L16 blocks may be used.
- 7.1.5.5 Datsun 240/260Z/280Z: only L24, L26 and L28 blocks may be used in the appropriate car.
- 7.1.6.1 Fiat 124: the 1300, 1600 pushrod and 1800 8 valve twin cam motor may be used.
- 7.1.6.2 Fiat 131: the 1300, 1600 pushrod, 1800 OHC and 2000 Twin cam 8 valve motor may be used. (The 2000 16 valve Twin cam motor may be used in the 131 Abarth)
- 7.1.7.1 Ford Prefect: any Kent 1300 block may be used. (The 1600 block may be used with no overbore and will be subject to balance of performance criteria.)
- 7.1.7.2 Ford Anglia: any Kent 1300 block may be used. (The 1600 block may be used with no overbore and will be subject to balance of performance criteria.)
- 7.1.7.3 Ford Corsair: any Kent, V4 block may be used.
- 7.1.7.4 Ford Cortina: any Kent, V4 block may be used. (Essex 3000cc V6 block for MKII Perana or MKIII may be used)
- 7.1.7.5 Ford Capri Mk I: any Kent, V4, Köln 2.0l, Essex 3000cc V6 or Windsor 302 V8 Ford block from the period may be used. (A 3" stroke crank must be used with the 302 V8.)
- 7.1.7.6 Ford Escort Mk1 two door body: any Kent, Lotus Twin Cam or BDA cast iron block may be used. (Köln 2.0l may be used in the RS2000, Cosworth YB head is allowed) (BDG engine may be used in a Zakspeed Grp 2 replica)
- 7.1.7.7 Ford Escort Mk1 four door body: any Kent block may be used.
- 7.1.7.8 Ford Escort Mk2 two door body: any Kent, BDA cast iron block may be used. (Köln 2.0l may be used in the RS2000, Cosworth YB head is allowed) (BDG engine may be used in a Zakspeed Grp 2, Grp 4 and Grp 5 replica)
- 7.1.7.9 Ford Escort Mk2 four door body: any Kent block may be used.
- 7.1.7.10 Ford 20M two or four door body: Essex 2500cc or 3000cc V6 block from the period may be used.
- 7.1.7.11 Ford Mustang (1964-1966): a Windsor 289 V8 may be used. (A 2.870" crank must be used)
- 7.1.7.12 Ford Mustang (1967-1970): a Windsor 289 or 302 V8 may be used. (A Windsor 350 may be used in a Shelby 350 GT "recreation") (A 429 "Big Block" may be used in a Boss 429 "recreation") The standard crankshaft strokes for all the above engines must be used.
- 7.1.8.1 Jaguar MkII: a 3.4 or 3.8 6 cylinder engine from the period may be used.
- 7.1.8.2 Jaguar E-Type S1 & S2: a 3.8 or 4.2 6 cylinder engine from the period may be used.
- 7.1.8.3 Jaguar E-Type S3: a 5.3 V12 cylinder engine from the period may be used.
- 7.1.8.4 Jaguar XJS: a 5.3 V12 cylinder engine from the period may be used.
- 7.1.8.5 Jaguar XJ6: a 3.8 or 4.2 6 cylinder or 5.3 V12 cylinder engine from the period may be used.
- 7.1.9.1 Mazda R100: the 10A, 12A, 13A and 13B double rotor engines may be used. Only bridge porting is allowed on the 12A, 13A and 13B engines.
- 7.1.9.2 Mazda RX2/Capella: the 12A, 13A and 13B double rotor engines may be used. Bridge or peripheral porting is allowed.
- 7.1.9.3 Mazda RX7: the 12A, 13A and 13B double rotor engines may be used. Bridge or peripheral porting is allowed.
- 7.1.10.1 Mercedes W123: M123 and M110 blocks may be used.

7.1.10.2 Mercedes C107: M117 blocks may be used.

7.1.11.1 Opel Manta: 1.6, 1.9 4 cylinder, 2.8 6 cylinder and 1.9 turbo engines may be used.

7.1.12.1 Renault: the R8, R10 cast iron blocks and 16TS blocks may be used in R8 and R10 bodies.

7.1.13.1 Toyota Corolla: only 2T blocks may be used.

7.1.13.2 Toyota Celica: only 2T, 18 R or 20R blocks may be used.

7.1.14.1 Volvo: the B16, B18 and B20 blocks may be used.

7.1.15.1 Volkswagen Beetle: all type 1, 2 and 3 air-cooled blocks may be used.

7.1.15.2 Volkswagen Scirocco: 1600cc Golf blocks with twin drain hole may be used. (The Oettinger 16v head may be used).

7.2 Cubic capacity allowances (over boring and/or stroking the motor) :

These cubic capacity regulations must be read in conjunction with the clause 7.1 Cylinder blocks by make and model (including optional alternatives).

7.2.1 For cars with an original capacity below 1000cc a 50% increase in capacity through over boring, or stroking over the original capacity for the car model is allowed.

7.2.2 For cars with an original capacity between 1001cc and 1300cc a 25% increase in capacity through over boring, or stroking over the original capacity for the car model is allowed.

7.2.3 For cars with an original capacity of between 1301cc and 1600cc a 15% increase in capacity through over boring, or stroking over the original capacity for the car model is allowed.

7.2.4 For cars with an original capacity of between 1601cc and 2000cc a 10% increase in capacity through over boring, or stroking over the original capacity for the car model is allowed.

7.2.5 For cars with an original capacity of over 2001cc a 5% increase in capacity through overboring, or stroking over the original capacity for the car model is allowed.

7.3 Crankshafts may be replaced by steel alternatives; however the original phasing must be maintained.

7.4 Cylinder heads may be substituted for another type manufactured by the same manufacturer providing the camshaft position, number of camshafts, number of valves and spark plugs remains the same as the original of the period. Aluminium cylinder heads may be used provided they are a direct replacement for a head of the period and the original valve angles and inlet and exhaust port positions must be maintained.

7.5 Oil system: Dry sump systems are permitted.

7.6 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" distributor is permitted.

7.7 Intake and exhaust manifolds are free.

7.8 Induction system: Period type carburetors 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 a Domingos MFI-H and DFI-H 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 permitted. No crankshaft position sensor is permitted.

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

7.10 The engine must be mounted in the original position.

7.11 All other engine modifications are free of restriction.

7.12 Balance of Performance :

Balance of performance criteria can be applied at the HMC/HRSA committee's discretion to limit the performance of a particular car to more period correct performance when it does not comply with the capacity limitations in 7.2. This will be achieved through the application of restrictor plates on V8's or choke tubes on other configurations.

7.13 Cubic capacity or Balance of Performance disputes :

If a dispute regarding engine capacity or the application of "balance of performance criteria" arises it must first be brought to the relevant HRSA committee's attention. If it can't be resolved the HMC will make the final decision.

## 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.

#### **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 manufactures 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.
- 9.4 Cars must carry a fire extinguisher as approved for use by MSA.
- 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 2015.
- 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.