

## 2022 TECHNICAL REGULATIONS 1987-1996 CLASSIC YOUNGTIMER TOURING CARS

### Control:

These regulations were compiled by Historic Racing South Africa (HRSA) as a Club Series for final publication by Motorsport South Africa (MSA).

### Classic Youngtimer Touring Cars 1987-1996

These Classic Touring Cars shall be defined as production type cars, front wheel drive (FWD), four door saloons, registered and produced post 1 January 1987 but prior to 31 December 1996. These cars are nominated by the Club.

The Category will run with a weight adjustment Formula which will be identical in Class A and B.

#### **RACE FORMAT**

The Race format will be 1 x 25/35 Minute + 1 Lap Race with a compulsory pit stop. This is to encourage a Driver Change in order to allow the possibility of sharing costs both in development, and running costs. The maximum seat time in each race for an individual driver will be 55 % of race time. There will be a timed Pit Stop in each event. Should any competitor nominate to drive "Alone" their pit stop will be an additional 10 seconds as they will be considered "in the groove" as compared to a Driver change.

The Starting Grid will be determined by Championship Points including Index of Performance in reverse order. The Index of Performance will be calculated across the whole field, Class A and B. The starting Grid for the first race of the season will be in Numerical Order, Class A in front. Any Competitor/ s joining the category during the season will start at the back of the grid in numerical order.

#### **PLEASE NOTE**

Until such time as there are enough cars to justify the above Format with Race Organisers/ Promoters Classic Youngtimers will race as a separate Group starting behind Pre80s/Pre90s. One Driver will race in Heat 1 and the other in Heat 2. The combined race time of both heats will determine the Race Results in Youngtimers.

#### **1. Achievement Weight**

- 1.1 An additional weight will be added to the cars finishing in 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> places in each heat.
- 1.2 This weight must be placed on the "weight bracket" as instructed by the Club.
- 1.3 The weight bracket shall be placed in the centre of the spare wheel well in the boot of the car.
  - 1.3.1 should any model not have a spare wheel well in the boot of the car it shall be placed in the centre of the boot floor.

#### **2. The achievement weight is as follows;**

- 3<sup>rd</sup> Place 5kg
- 2<sup>nd</sup> Place 10kg
- 1<sup>st</sup> Place 15kg

#### Standard Car Base weight

1. Nissan Sentra	960kg
2. Nissan Primera	1185kg
3. Honda Ballade	1036kg
4. Alfa 155	1207kg
5. Ford Escort Mk 5/6	989kg
6. Ford Telstar	1075kg
7. Mazda Etude	980kg
8. Mazda 626	1075kg
9. Opel Monza	978kg
10. Opel Astra	1040kg
11. VW Jetta	2/935kg& 3 1180kg
12 Audi A4	1185 kg
13. Toyota Corolla	1015kg
14. Toyota Camry	1180kg
15. Renault Megane	1060kg

**Minimum Weight Class A**

1. The Minimum weight of any vehicle will be dependent on the kW output of the nominated engine using the nominated middle engine kW as a base of 1000kg Car and driver. (see Clause 8.4)
2. A penalty or credit in kg will be allocated to engines either producing more or less kW than the 'Middle' Engine

**Minimum Weight Class B**

1. The minimum Weight for all cars in Class B will be 987Kg **(Car and Driver)**

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. (Refer GCR 226)

**Category Specifications:****Eligibility**

1. Vehicles may be brought up to any series production specifications for that model prior to 31st December 1996.
2. No Forced Induction Cars will be permitted.
3. The Nominated Vehicles may only use the HRSA Nominated Engine and Gearbox for that specific brand.
4. The engines may not be modified in any way for performance.
5. There will be a "Claimer" rule for all engines.
  - 5.1 The "Claimer" amount will be the average retail price of the "Claimed" engine from three acknowledged Engine Importers, plus R5000.00 to cover 'Service' Rings, Bearings Oils etc and R5000.00 Administration to HRSA.
  - 5.2 The "Claimant" must be racing with the identical Engine.
  - 5.3 No "Claims" may be entered in the 14-day period before a Youngtimer Calendar race date.
6. A Full Roll cage must be fitted to MSA approved standards
7. The responsibility to prove eligibility is that of the entrant at all times and all prospective entrants must confirm the model selected conforms to the regulations.
8. The Controllers reserve the right at their sole discretion to include or exclude any vehicle.

**Technical Specifications:****1. CHASSIS:****1.1. No modifications may be made to the chassis with the exception of:**

- 1.1.1 A brace may be fitted between the top shock struts.
- 1.1.2 A brace may be fitted between the chassis legs in the front to prevent "stretch" apart which can contribute to CV Joints pulling out.
- 1.1.3 A full roll cage must be fitted.

## **1.2. Steering wheels are free.**

## **2. BODYWORK:**

2.1. Bodywork must be completely standard, with the exception of "rolled" wheel arches to a maximum of 5.0mm.

2.2. No bodywork may be replaced by any other material at all.

### **2.3. All four doors, the bonnet and the boot must remain operable.**

2.4. Interior: The dashboard "crashpad" must remain as well as the instrument binnacle which may be modified to accept the gauges. It is encouraged to utilise a "stack" type instrument cluster in order to compliment the Touring Car era. The interior may be "guttled" to represent the period Touring Cars, and alternative material may be used as internal door trim. It is permitted to remove the internal door trim entirely. SABS or "E" mark Approved Windscreens must be used. The rear window and side windows may be replaced with polycarbonate (Lexan) of not less than 4mm thickness. The Driver's seat is free subject to MSA requirements and the driver must be located entirely to the one side of the centre line of the car. Electric Power Steering may be fitted.

2.5. The original boot and bonnet fasteners may be removed. The bonnet and boot shut lines must be as in production.

2.6. Bumpers and embellishers may be removed, but headlamps and headlamp rims, tail lamps and radiator grilles must remain as standard for the model.

2.6.1. All lights including indicators must be in working order.

2.7 An aftermarket rear wing will be nominated by the Association, any standard Manufactures rear wing may be replaced with this wing, alternatively any model without a standard rear wing may fit this wing. It shall be prohibited to fit two wings.

### **Bodywork Guideline:**

The following guideline will be applicable 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 centreline of the wheel hub to the widest part of the standard production fender flare without any attached trimming fitted.

5.0mm may be added to the standard production fender pressing from such widest point.

## **3. ENGINE: Class A**

### **3. The Engine will be nominated for each manufacture.**

#### **3.1 The Engine Nominations are:**

- |                  |                              |
|------------------|------------------------------|
| <b>1. Nissan</b> | <b>2.0 16v SR20</b>          |
| <b>2. Honda</b>  | <b>2.0 16v B20b vtec</b>     |
| <b>3. Alfa</b>   | <b>2.0 16v RFT</b>           |
| <b>4. Ford</b>   | <b>2.0 16v Zetec</b>         |
| <b>5. Mazda</b>  | <b>2.0 16v "Gold Top" FE</b> |
| <b>5. Opel</b>   | <b>2.0 16v CR20XE</b>        |

<b>6. VW/ Audi</b>	<b>2.0 16v ABF</b>
<b>7. Toyota</b>	<b>2.0 16v 1AZBE</b>
<b>8. Renault</b>	<b>2.0 F7R-0710</b>
<b>9. Hyundai</b>	<b>2.0 16v G4GC</b>

### **3.1.1 Engines Class B**

**3.1.2** Only 1600cc 16v Motors as supplied in the South African version of the original Sedan sold in South Africa may be used.

**3.2 Where necessary engine and gearbox mountings may be changed to accommodate the nominated engine and gearbox.**

**3.3 Any gearbox from either the Nominated Model Range or the Nominated Engine Model Range can be used providing Clause 5.1 is met.**

**3.4.** The standard fuel injectors from the specified engine, must be used in the original location in the manifold.

**3.5 the original ECU can be replaced with one of the following nominated brands,**

Powermods MFI-H and DFI-H

Spitstronic

Gotech PRO V7

Dicktator

**3.6.** Radiators are free but must remain in their original location.

**3.7.** Oil coolers and additional water radiators are permitted provided they are located within the periphery of the bodywork.

**3.8.** The exhaust system must use the original manifold from the nominated engine and the exhaust pipe must follow the original routing under the car. Exhaust silencing is also subject to MSA requirements as regards decibel levels.

**3.9.** If the engine has a distributor fitted as standard, it may only be used to distribute spark, or the distributor may be replaced with a 60-2 "gear" and pick up allowing the use of a wasted spark ECU.

**3.10. The original type fuel tank must be utilised and retained in its original position.**

3.10.1 The fuel pump is free, but must be fitted to the correct safety requirements and may not be fitted in the passenger compartment.

## **. 4. SUSPENSION:**

**4.1 Suspension system must remain standard, but lowering is permitted.**

**4.2.** Shock absorber make is free but must conform to the OEM spec and must be freely available from any “franchised” parts supplier.

**4.3.** Spring rates are free but the original type of spring must be retained made of the original material and remain effective.

**4.4. Suspension bushes are free.**

## **5. TRANSMISSION:**

**5.1.** 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, or the gearbox from the nominated engine. Original H pattern must remain.

**5.2.** Gear ratios may be changed with any standard components used in the gearbox of the selected gearbox.

5.2.1 Gearboxes and transaxles with rapidly interchangeable ratios or proprietary racing gearboxes are prohibited.

5.2.2 no “dog ring” type gearsets are permitted.

**5.3. The rear axle must remain in the original position.**

**5.5. The final drive ratio is free, provided it is from the standard vehicle series or from the specified gearbox series.**

**5.6 LSD/ Traction control devices are prohibited.**

## 6. BRAKES:

- 6.1. Brake systems may only be upgraded to the highest specification of the Standard Model in Period.
- 6.2. ABS will only be permitted on vehicles that came with this feature as standard by the manufacturer at the time.
- 6.3. Brake lights must be operational and operated only by the brake pedal without a delay or another switching device

## 7. ELECTRICAL:

- 7.1. Electrical equipment is free provided that a battery and starter are always fitted and in full working order.
- 7.2. Headlights, tail lights, indicators and stop lights must fitted, brake light must be working as required. Where standard headlights and additional LED type spotlights are used in a race, they must be angled to not interfere with view of the drivers in the cars in front.
- 7.3. **No LED type strip lighting is allowed. LED lights may be used within the original light fitting.**

## 8. WHEELS AND TYRES:

- 8.1. Wheels must fit inside the bodywork as per Section 2.1.
- 8.2. Wheels are limited to 14 x 7 and 15 x 7.
- 8.2.1 Aftermarket wheels are acceptable.
- 8.3. Tyres: Only the approved semi slicks in sizes 195/60 x 14 and 195/55 x 15 may be used.
- 8.3.1 Approved Brands
- Dunlop DZR
  - MRF ZTR
  - Yokohama A048
  - Hankook Z221
  - Bridgestone RE115
  - Toyo R888

8.3.1 Full slicks or cut slicks are strictly prohibited.

The HRSA reserves the right to review the tyre regulation in consultation with all participating Competitors and Historic Clubs.

## General Specifications:

8.4. Minimum weight for cars which conform to the current regulations will be nominated as follows;

Opel	2.0 16v CR20XE	115	1007Kg
VW/ Audi	2.0 16v ABF	112	1004Kg
Honda/ Alfa/ Toyota	2.0 16v R20z/RFT/1AZBE	110	1002Kg
Mazda/Renault	2.0 16v FE/ F7R-0710	108	1000Kg
Nissan	2.0 16v SR20	105	995Kg
Hyundai	2.0 16v G4GC	102	992Kg
Ford	2.0 16v Zetec	97	987Kg

**NB.** These weights will be the minimum for the **Car and Driver**.

The weight of all cars must be recorded in the HTP document.

**8.5.** Cars must be fitted with a roll cage in compliance with MSA GCR 239 requirements. The roll cage must remain within front and rear suspension mounts.

**8.6.** 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.

**8.7.** Cars must carry a 1.5 kg fire extinguisher as approved for use by MSA this can be supplemented by a Fire Stryker.

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

**8.9. Tow eyes must be fitted to the front and rear of the car and clearly marked. (Tow) (Refer SSR 10 iii)**

**8.10. Fuel must conform to the specifications as described in GCR240.**

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

**8.12.** Vehicles may not exceed 108 decibels at any time, for clarity, this includes the stationary measurement as well as the drive by recording.