

# **VEHICLE REGULATIONS**

RXA has 3 primary groupings of vehicles – with classes for 4wd, 2wd and a Hyundai Excel class.

These regulations advise the requirements for all groupings & general regulations applying to all groupings.

Competitors in all groupings must read and comply with the general regulations contained in this document.

## 4wd & 2wd

#### 1. ENGINE

- 1.1 Free apart from the following limitation.
  - 1.1.1 45mm turbo air inlet restrictor to be fitted within 50mm of the turbocharger compressor wheel. It will be measured over a 3mm distance. The maximum outside dimension 50mm from the compressor wheel shell be 51mm
- 1.2 The engine must be in the same general location. i.e. if the engine was fitted in the front of the vehicle it must remain there.
- 1.3 Aspiration is free
- 1.4 The engine must be the same cylinder configuration as the base production unit, except for 2wd where this is free.

## 2. TRANSMISSION

- 2.1 Free apart front the following limitation
  - 2.1.1 The transmission must be in the same general location as the stock vehicle

## 3. CHASSIS

- 3.1 The chassis must be a production base unit
- 3.2 Strictly no tube chassis
- 3.3 Suspension points are free providing the suspension type remains the same as the production base vehicle.
- 3.4 The Maximum Width of the body, measured from the widest points of the panels shall be no wider the 1850mm
- 3.5 The chassis rails may be modified forward of the front strut towers or last suspension point and rearward of the rear strut towers or last suspension point.

#### 4. FUEL TANK AND FUEL SUPPLY SYSTEM

- 4.1 FUEL PUMP/S: The fuel pump/s is free, but may not be fitted in the cockpit. Should this be an original fitting, the pump/s may remain in place but must be well protected. A petrol filter with a maximum capacity of 0.5 litres may be added to the fuel inlet pipe.
- 4.2 FUEL TANK/S:
  - 4.2.1 The total capacity of all fuel tanks must not exceed 95 litres.
  - 4.2.2 One or more additional or replacement fuel tank/s of free but safe design may be fitted. The use of a safety fuel bladder homologated to the FIA FT3 standard is highly recommended. If the design of the car makes the fitment of the tank outside the cockpit impractical it is permitted to fit the tank in that compartment provided:
    - 4.2.2.1 The filling orifice and breather are outside that compartment and the tank vents to the outside, regardless of car construction;
    - 4.2.2.2 No part of the bodywork may be removed and/or altered to accommodate any petrol tank (save for the filling orifice which may be located in the window glass);
    - 4.2.2.3 In all cases the tank is separated from the driver by a flame proof and liquid proof bulkhead, which may be transparent.
  - 4.2.3 On cars on which the fuel tank is in the passenger compartment or the luggage compartment, the fuel filler must be fitted so that spilled fuel will drain away safely to the outside of the car. If fitted with a filler catch tray, its design must be to the satisfaction of the scrutineers for each event.
  - 4.2.4 Fuel lines may be replaced.
  - 4.2.5 Should the fuel tank be installed in the boot and the rear seats be removed, a flame and liquid-proof bulk-head must separate the cockpit from the fuel tank. Should the fuel tank be installed in the boot/luggage area of a two volume car, a flame and liquid-proof bulkhead must separate the cockpit from the fuel tank. A non-structural partition made from transparent, non-flammable material between the fuel tank and the driver's compartment is allowed.

## 5. WEIGHT

- 5.1The minimum dry weight for any 4wd car is 1150kg without driver
- 5.2 The minimum dry weight for any 2wd car is 1000kg without driver

#### 6. AERODYNAMICS

- 6.1 The rear aerodynamic device shall be no wider than the widest part of the coach work.
- 6.2 The rear aerodynamic device shall be no higher the 100mm above the roof.
- 6.3 Front devices shall not extend any further than 50mm past the front body work.

## 7.COOLING SYSTEM

7.1 If the radiator is mounted anywhere but in the original location it must be fully sealed from the cockpit.

#### 8. WINDOWS

- 8.1 The front windscreen must be laminated glass.
- 8.2 All other windows may be constructed from 2.5+mm polycarbonate
- 8.2 All windows other than the windscreen must have a tint/protective film fitted

## 9. LIGHTS

9.1 All vehicles must have operational Brake lights.

#### 10. EXHAUST

- 10.1 The exhaust must exit no earlier than the front half of the vehicle, and must not impede the cockpit.
- 10.2 Waste-gate exit may exit earlier than the primary exhaust system but must exit underneath the vehicle in a safe position.

#### 11. ROLL CAGE

- 11.1 AASA or CAMS log booked ROPS will be accepted.
- 11.2 6-point minimum with dual side intrusion on the driver's side.

## Other eligible vehicles for 4wd & 2wd

## 12. OTHER ELIGIBLE VEHICLES FOR 4WD:

S2000

Group N

**PRC** 

AP4

G4

Group A

R5

R4

## 13. OTHER ELIGIBLE VEHICLES FOR 2WD:

**PRC** 

Classic

G2

**CRC** 

R3

R2

## **Hyundai Excel**

Hyundai Excels must remain unmodified apart from the following exceptions:

#### 14. SAFETY CAGE

15.1 All vehicles must have a minimum of a 6-point roll cage with a single side intrusion bar on the driver's side.

## **15. SUSPENSION**

- 16.1 All bushings are free providing the pivot point and/or suspension components are unmodified.
- 16.2 Dampers are free

#### 16. ENGINE

- 17.1 The exhaust must exit from the rear of the car
- 17.2 The exhaust system is free only after the first connection (exhaust manifold)
- 17.3 The air cleaner element is free

#### 17. WHEELS

19.1 The maximum wheel size is 15 x 7

### **18. SEATS**

- 19.1 The driver's seat rails may be modified appropriately to fit a race seat and harness mounting points
- 19.2 All other seat brackets may be removed

## 19. BODY/CHASSIS

- 20.1 Head lights may be removed and replaced with a fiberglass or similar material cover
- 20.2 All vehicles must have an appropriate tow point / strap front and rear
- 20.3 A minimum of a 1kg fire extinguisher must be in the cabin
- 20.4 Cars must be in a clean and presentable condition

# **General Vehicle Regulations (apply to all classes)**

### **20. NUMBERS & SIGNAGE**

- 21.1 All cars must have competition numbers on the rear side window's 200mm high and PMS 804 in color. (Fluoro orange).
- 21.2 The driver's surname will be placed above the competition number in a non-conflicting color, lettering 100mm high.
- 21.3 All cars must have a competition number on the front passenger side 100mm high and PMS 804 in color (fluoro orange)
- 21.4 All cars must have a competition number in the lower middle rear window 100mm high and PMS 804 in color (fluoro orange)
- 21.5 RXA reserves the right to the top 150mm of the front windscreen for series sponsorship.
- 21.6 RXA may assign competition numbers.

## 21. WHEELS & TYRES

- 22.1 Strictly no bead locking system
- 22.2 Maximum rim width is 8" (or 205mm tyre mounting surface)
- 22.3 Maximum rim diameter is 17"
- 22.4 All tyres must be commercially available
- 22.5 Maximum tyre tread width is 225mm
- 22.6 Strictly no "R" spec tyres, minimum tread wear of 180, tread wear information must be commercially available from the tyre manufacturer.
- 22.7 Maximum of 6 tyres per event, new or used.
- 22.8 Automatic inflation/deflation systems are forbidden.
- 22.9 Strictly no tyre grooving
- 22.10 Suitable tyres:
  - -Yokohama AD08R
  - -Hankook RS-3
  - -Dunlop Direzza ZII
  - -Nankang NS-2R (street)
  - -Nitto NT05
  - -Dmack track day tyre

#### 22. GENERAL VEHICLE AND APPAREL REGULATIONS

## Important notes:

- (a) Some safety harnesses may not comply with public road laws. Where the car is to be driven on a public road, it is the competitor's responsibility to ensure that the car complies with the law.
- **(b)** A safety harness damaged in any way, including in a collision, shall be subject to inspection by a scrutineer. If appropriate, the automobile's log book shall be endorsed with a requirement that the belt / harness be replaced.
- 23.1 All vehicles must comply with the requirements of RACERS Appendix B which is available on the RXA website in the "competitor" section
  - 23.1.1 RXA events are a Category 3 Racing event under RACERS appendix B
  - 23.1.2 Vehicles must comply with RACERS Category 3 vehicle requirements.
  - 23.1.3 Racing Apparel must comply with RACERS Appendix B requirements.
  - 23.1.4 All competitors must complete the RACERS Car & Equipment checklist contained in Appendix B and provide the check list at sign-on at RXA events.