

## **MAI Touring Car Championship Technical Regulations - 2008** **Super1400; Super1600; Super2000 & Turbo2000**

### **1. Eligible Vehicles & Classes to Run**

- 1.1 Any production car of the following engine capacities & offered for official sale in India:
- |                                              |                       |
|----------------------------------------------|-----------------------|
| Super 1400 - Naturally Aspirated Indian Cars | – 1450cm <sup>3</sup> |
| Super 1600 - Naturally Aspirated Indian Cars | – 1650cm <sup>3</sup> |
| Super 2000 - Naturally Aspirated Indian Cars | – 2050cm <sup>3</sup> |
| Turbo 2000 - Turbocharged Indian Cars        | – 2050cm <sup>3</sup> |
- 1.2 Lower specification models may be upgraded to meet with the technical requirements. E.g.: 1500cc engine may be bored to 1650cc.
- 1.3 Forced induction (Turbocharged) eligible only in the Turbo 2000 category.
- 1.4 Only two-wheel drive (FWD or RWD) are eligible.
- 1.5 Engines from other makes or model other than the manufacturers are not allowed. (Example: A Maruti Zen cannot be fitted with a Maruti Baleno engine).
- 1.6 The organizers decision to accept or decline a car's application for inclusion shall be final.

### **2. Weights**

- 2.1 The minimum weight of the cars with water, oil and fuel and the driver is:-
- |              |        |
|--------------|--------|
| Super 1400 : | 900kg  |
| Super 1600 : | 1100kg |
| Super 2000 : | 1185kg |
| Turbo 2000 : | 1200kg |
- In order to maximize equality of performance, the MAI reserves the right to adjust the minimum weight of a class.
- 2.2 These minimum weights must be respected at all times during the event.
- 2.3 It is permitted to complete the weight of the vehicle by one or several ballasts, provided that they are safely secured, visible and approved by the scrutineers. Holes in the mounting points must be provided for sealing.
- 2.4 The organisers have the right to weigh the cars at any time during the event.
- 2.5 Failing to meet the required weight regulations will result in exclusion of the relevant car.

### **3. Engine**

#### **3.1 Engine Block as supplied by the manufacturer**

- 3.1.1 The cylinder capacity must not exceed the cubic capacity of that class.
- 3.1.2 Type and material of the piston assembly, con rods, crankshaft(s) and bearings are free.
- 3.1.3 The crankshaft(s) stroke may not be altered.
- 3.1.4 The number of cylinders is free.

#### **3.2 Cylinder Head**

- 3.2.1 Modifications to the original cylinder head are free,
- 3.2.2 The camshaft(s) may be modified or replaced.
- 3.2.3 The camshaft(s) timing gear(s) may be modified or replaced. The materials of these items are free.
- 3.2.4 The cylinder head valves, valve springs, seats and guides are free.
- 3.2.5 The material and thickness of the cylinder head gasket are free.

#### **3.3 Compression Ratio**

- 3.3.1 The compression ratio of the engine is free.

#### **3.4 Ignition**

- 3.4.1 The make and type of the spark plugs, rev. limiter and high- tension leads are free.
- 3.4.2 The electronic control unit and the ignition components in the electronic control unit are free.
- 3.4.3 The wiring loom is free.
- 3.4.3 Sensors and actuators on the input side are free
- 3.4.4 The data logging system is free.

#### **3.5 Flywheel**

- 3.5.1 The original flywheel may be lightened/modified.

### **3.6 Induction**

- 3.6.1 The injection or carburetion systems are free.
- 3.6.2 The air filter box and the air filter is free.

### **3.7 Exhaust**

- 3.7.1 The exhaust system is free but the exit of the exhaust pipe must be within the perimeter of the car.

### **3.8 Lubricants**

- 3.8.1 Choice of lubricant type and amount is free.
- 3.8.2 The oil sump may be baffled and the oil pump may be modified or replaced. Dry sump system is permitted so long as it is fitted within the engine compartment.
- 3.8.3 The oil filter is free.
- 3.8.5 Breather pipes must purge into a securely fastened catch tank. These catch tanks must be heat and fire resistant.
- 3.8.6 Oil cooler for the engine is permitted. Care must be taken for the system as to avoid any spillage on the circuit.

### **3.9 Cooling System**

- 3.9.1 The thermostat may be changed or removed.
- 3.9.2 Larger radiator is permitted.

## **4. Engine and Gearbox Mountings**

- 4.1 Engine and gearbox mountings position cannot be changed.
- 4.2 The material used for mountings is free.

## **5. Braking System**

- 5.1 The size of the brake rotors and calipers are free.
- 5.2 The ABS System if available, may be disconnected or removed.
- 5.3 Brake hoses and fluids are free. The type and material of the brake pads are free.
- 5.4 Brake cooling ducts are permitted but it may not protrude outside the car's dimension and above the bumper's line.

## **6. Steering System**

- 6.1 The power steering system on the car may be disconnected or removed.
- 6.2 The steering rods and steering joints are free.
- 6.3 The steering ratio may be altered or changed.

## **7. Transmission**

- 7.1 The casing must be OE.
- 7.2 The internals of the gearbox are free.
- 7.3 The ratios and the final drive are free.
- 7.4 Limited slip differentials of any type are permitted.
- 7.5 The clutch plate and pressure plate are free.
- 7.6 Type and material of drive shafts and propeller shaft are free.

## **8. Suspension**

- 8.1 The suspension may be modified provided that the system and the original mounting points are not changed.
- 8.2 Type, material and dimension of the shock absorbers and springs are free.
- 8.3 A silent block may be replaced by a "Uniball" joint, provided the mounting points remain the same, and is located in the same position as the original one.
- 8.4 The front and rear anti roll bars may be added or changed.
- 8.5 Fitment of front and rear suspension bracing is permitted.
- 8.6 The geometry of the suspension settings (camber and caster) is free.
- 8.7 Ground clearance must be such that the bodywork does not touch the ground when two tyres on the same side of the car are deflated.

## **9. Rims and Tyres**

- 9.1 Rims are free.
- 9.2 Offset and width of the wheels are free as long as they do not protrude outside of the car's wheels arches and does not exceed 50mm over the OE track width.
- 9.3 Tyre size is free, but tyres have to be of an Indian make, i.e. "Made in India" should be embossed on the tyre.

## 10. Fuel

- 10.1 Fuel is free. NOS or any other gas used as a fuel or oxidant is not permitted.
- 10.2 FIA safety fuel tank fitted in the luggage compartment of the car is permitted.
- 10.3 The petrol lines inboard the car if any, must be of aviation quality.
- 10.4 If the fuel pump(s) are inboards, a fire and liquid proof cover must enclose it.
- 10.5 The fitment of a fuel surge tank is permitted.

## 11. Safety Equipment

- 11.1 A roll cage in accordance with Appendix J of the FIA or as per Article 8 of the 2007 Technical Regulations III concerning safety equipment is mandatory.
- 11.2 A minimum number of 6 points is required. It can be of a bolt on type or a weld on type.
- 11.3 Cars must be fitted with an electrical cut off switch, which must operate from the inside or on the outside. The outside switch must be located beneath the lower part of the windscreen on the driver's side and must be marked by a red spark in a white edged blue triangle with a base of at least 12 cm.
- 11.4 One of the fire extinguishers of the following specifications must be equipped on the vehicle:
  - DCF (CF3 Br) 4.9 kg
  - NAF 83 3.2 kg
  - NAF P 3.2 kg
  - AFF 2.4 kg
  - Powder 2.0 kg

As per MAI technical Regulations, Article 7 - safety equipment.
- 11.4 The fitment of safety window nets is recommended.

## 12. Bodywork (Interior and Exterior)

### 12.1. Interior

- i. The use of a fixed back – with head rest - securely mounted seat is mandatory. FIA homologated racing seat is recommended.
  - ii. The fitment of a 4-point harness with a 4-point mounting, or more point's harness is mandatory. FIA homologated harness is recommended.
- THE TECHNICAL DELEGATE IS THE FINAL AUTHORITY ON THE CONDITION AND SAFETY OF THE SEATS AND SEATBELTS USED**
- iii. The passenger seat and rear seat(s) may be removed.
  - iv. The removal of soundproofing, insulating material and carpeting is permitted.
  - v. The steering wheel is free. The locking anti theft system device must be inoperative.
  - vi. Extra gauges or meters are permitted.
  - vii. Door pads & dashboards may be removed.
  - viii. Spare wheel & AC blower units may be removed

### 12.2. Exterior

- i. Widening of wheel arches/cut-out is permitted where offset wheel rims are used. Changing the steel panel of the bodywork to fiberglass or carbon fiber is prohibited.
- ii. Fitment of aerodynamic aids other than production based is free.
- iii. Cars must be fitted with a laminated front windscreen. All other windows and rear screen may be changed to Perspex.
- iv. Air ducts to the driver are permitted.
- v. The car must have working side mirrors on both sides of the car.
- vi. The car's chassis and body may be seam welded and painted in any colour.
- vii. Strongly fitted and clearly marked towing eye must be fitted to the front and rear of the car.
- viii. OE Headlights and taillights must be present in their original locations. The brake lights must be in operating condition. All lights must be taped over but still be visible. They must be switched on under the instruction by the COC.
- ix. Hood Scoops are allowed.
- x. Bonnet and boot fasteners are mandatory

**13. Driver Equipment**

- 13.1 All drivers must be equipped with any MAI or FIA race approved fire retardant race suit, gloves and boots. A minimum of an ISI approved full face helmet is mandatory.
- 13.2 The driver equipment and helmet must be presented to the series scrutineers or race officials for eligibility.
- 13.3 Drivers will be required to wear safety attire during all practices and races.