



The Federation of Motor Sports Clubs of India

2018

**Technical Regulation
for
Indian Touring Cars (TC-1)**

Member of



Federation Internationale
de l' Automobile



Federation Internationale
de Motocyclisme



Indian Olympic Association

2018 Specific Technical Regulations for Indian Touring Cars (TC-1)

The following Articles of 2018 FMSCI Appendix J is applicable

Art.251 – Classification and Definitions

Art.252 – General Prescriptions for Production Cars (Group N), Touring Cars (Group A)

Art.253 – Safety Equipment (Groups N, A)

Art.254 – Specific Regulations for Production Cars (Group N)

Art.255 – Specific Regulation for Touring Cars (Group A)

Any modifications are forbidden unless expressly authorized by the regulations specific to the group as mentioned below.

Series Part (SP)

Series Part being original parts or replacement parts identical to the original parts as fitted to the car / engine at the time of manufacture or subsequently replaced due to use or accident. All such parts shall be available through the original car manufacturer's dealer network. All relevant specifications shall be referenced from the manufacturers' official data or applicable FIA/FMSCI homologation form or TDF form.

Free Part (FP)

Free Part being parts that may be freely sourced. Such parts may be removed or replaced with another part on condition that the substitute part has no additional function relative to the part it replaces. These parts may have other conditions imposed under these technical regulations.

Eligible Vehicles

Any large scale series production Touring car manufactured / assembled in India.

Only vehicles with Homologation / TDF (Technical Data Form) are allowed.

The engine and the power train cannot be shifted from the front to the rear or vice versa.

Space frame type of chassis with body bolted on is NOT permitted. The original subframe cannot be removed. The original subframe can be modified to accommodate brackets, mounts for suspension, engine, gearbox etc. Additional frames of any kind can be bolted / welded on to strengthen, or to locate suspension arms and components thereof.

Drilling is allowed for weight reduction.

Rear spare wheel well can be removed.

Classes

Up to 1805cc

Weight

The minimum weight of the cars with water, oil, fuel and the driver (Wearing Racing gear and Helmet) shall be the declared cubic capacity of the engine divided by 1.65. (Eg. 1300cc / 1.65 = 788 kg. rounded down to nearest kg).

In order to maximize equality of performance, the FMSCI reserves the right to adjust the minimum weight of a class.

These minimum weights must be respected at all times during the event.

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 scrutiny. Holes in the mounting points must be provided for sealing.

The organisers have the right to weigh the cars at any time during the event.

Failing to meet the required weight regulations will result in exclusion of the relevant car.

1.1 Engine

The Engines generic to the make of the donor chassis from the same family of the manufacturer only can be used, e.g. an esteem can be fitted with any Maruti engine only. Cylinder Head with Block as a unit or individual may be used. Internals are free but the crankshaft and connecting rods are limited to be made out of steel and No exotic materials such as Titanium or carbon fiber are allowed for these components.

2.1 Cylinder Head

All modifications are permitted to the Cylinder Head including addition and removal of material.

Modifications such as drilling, welding, larger valves, machining, porting, manifolding etc are free. Only the donor engine including the cylinder head may be used. For example: the Maruti engines with imported dual overhead cams are not allowed. Any sub assembly /assembly which is available from the donor engine from a car marketed in India only can be used.

3.1 Compression Ratio

Compression Ratio is Free

4.1 Fly Wheel & Clutch Assembly

Free

5.1 Engine & Gearbox Mounting and Linkages

Adaptor plates and modification to output flanges, drive shafts hubs and other attachments and spacers free. Engine mount and gear box mount free.

6.1 Exhaust

Free

Fitment does not entail the modification of other components except floor pan as per bodysell approval.

The exit of the exhaust may be on the right or left side of the car, behind the mid-point of the wheelbase and below the door sill.

The noise level must respect the stated maximum prescribed by the ASN where the car competes.

7.1 Transmission

Any Racing Gear box is permitted. Mechanical Shift mechanism including sequential shift mechanism are allowed but electronic assistance/control selection not allowed. The internals are completely free. LSD's are allowed and the type, make and functions is free. Modification to Shift mechanism permitted. No microprocessor based mechanism or electrical or electro magnetic solenoids can be used. GPS based command module not permitted. Carbon fibre axles not permitted.

8.1 Induction

Any naturally aspirated engines only ex. Carburetor, Fuel Injection. Cold Air Intakes are allowed. Turbo Chargers / Super Chargers are not allowed. Use of NOS is not permitted.

9.1 Lubricants

Free

Dry sump Lubrication is permitted

10.1 Cooling System

Free

11.1 Braking System

Free

But must be Dual circuit Brakes

12.1 Suspension

Free. Ride height free. 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

Dampers Free

3 way dampers are permitted - (One way, two way and three way dampers are allowed)

13.1 Steering System

Free

14.1 Rims and Tyres

Maximum of 17 inch is allowed

Specified by the Organizer

Rim Free

15.1 ECU & Ignition

Free

16.1 Fuel & Fuel Tank

Free

Only Petrol may be used

The fuel tank may be modified / altered or be newly made with alternate materials but must be placed at the original location. The Fuel filler must be at the original location. The spare wheel well behind the fuel tank must adequately protect the cockpit from spillage / leakages if the same has been altered or removed.

17.1 Interior

- i. The use of a fixed back-with headrest-securely mounted seat is mandatory. FIA homologated racing seats are mandatory.
- ii. The fitment of a 5-point harness with a 5-point mounting or more point's harness with turn buckle is mandatory. FIA homologated harness is mandatory.
THE TECHNICAL DELEGATE (in his absence the Chief Scrutineer) 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.
- ix. Scoops/Air vents can be incorporated anywhere on the body work.
- x. Rear wings, front skirting, side skirting are permitted. Change of bumper shape is permitted.
- xi. Body work modifications are permitted to accommodate larger wheel and tyre size. No portion of the tyre should be visible when viewed from the top.

18.1 Exterior

- i. Only the rear doors, front passenger door, front bonnet, front fenders and the rear boot may be made of fiberglass or carbon fiber. In place of the rear doors, a fiberglass / carbon fiber filler section may be securely fixed. Driver door can be of fiber glass if side impact cage is installed in the cars roll cage assembly. Rear windscreen and door glasses may be replaced with clear Perspex. Original bumpers may be replaced by Fiberglass bumpers.
- ii. Headlights can be removed. However the opening must be covered with a fiberglass / metal plate and be safely secured, unless used as air intake ducts.
- iii. No part of the car must touch the ground when all the tyres on one side are deflated. This test shall be carried out on a flat surface under race conditions (occupants on board).

Fiberglass Specification

3mm thickness of Fiberglass is Recommended.
 Fire Retardant Resin (FRR) is Recommended in Fiberglass making
 Ribs in the Fiberglass Bonnet is Recommended.

THE TECHNICAL DELEGATE (in his absence the Chief Scrutineer) IS THE FINAL AUTHORITY ON THE CONDITION, STRUCTURE AND SAFTY OF THE MODIFIED PARTS.

19.1 Data acquisition

Data acquisition permitted provided Live Telemetry is not used. Onboard cameras permitted and if used should be made available to Stewards on demand.

20.1 Safety Equipment

As per 2018 FMSCI Group N Technical Regulations (Art.253).
 Use of AFFF plumbed fire extinguisher system is recommended.

Fire Extinguisher Systems Mounted

The minimum Quantity of Extinguishant for system mounted must be 3kg.

Manual Extinguishers

Minimum Quantity of Extinguishant:

AFFF	2.4 liters
FX G-TEC	2.0 kg
Viro 3	2.0 kg
Zero 360	2.0 kg
Powder	2.0 kg

Fire Extinguishers to be rigidly fastened with a quick release clamps (minimum 2 nos.) fitted in an easily accessible and a visible position. The mounting bracket of the fire extinguisher must be bolted to the floor with a bolt of minimum 10 mm diameter

Protective Padding

Where the occupant's bodies could come into contact with the safety cage, flame retardant padding must be provided for protection.

Rear View

Reward visibility must be ensured by two external rear-view mirrors (one on the right and one on the left).

An inside rear view mirror is optional.

Battery

The battery must be of the dry type if it is not in the engine compartment.

It can be mounted in the luggage compartment a firewall should be provided to separate the luggage compartment and passenger area.

21.1 Roll Cage

Basic Structure

Only for Racing

The basic structure must be made according to one of the following designs :

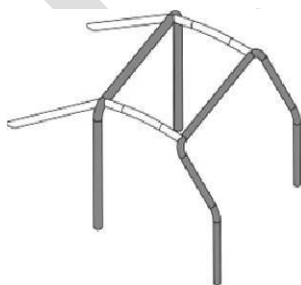
1 main rollbar + 1 front rollbar + 2 longitudinal members + 2 backstays + 6 mounting feet (Drawing 253-1)

or

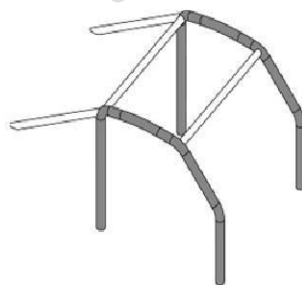
2 lateral rollbars + 2 transverse members + 2 backstays + 6 mounting feet (Drawing 253-2)

or

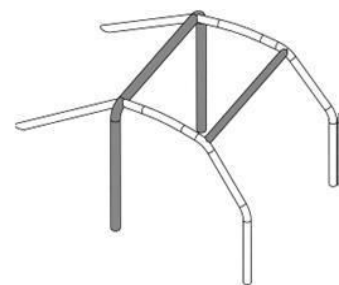
1 main rollbar + 2 lateral half-rollbars + 1 transverse member + 2 backstays + 6 mounting feet (Drawing 253-3)



253-1



253-2



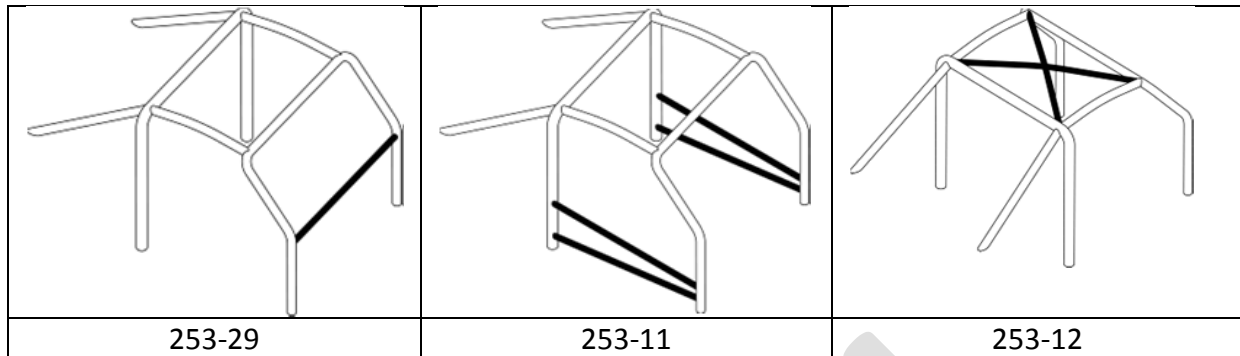
253-3

Compulsory members and reinforcements

Cold drawn seamless unalloyed carbon steel tube (Containing a maximum of 0.3% of carbon) with a minimum tensile strength of 350 N/mm²

The minimum dimensions being 45mm X 2.5mm or 50mm X 2mm.

The basic minimum structural requirement as per Drawing 253-29 with side impact bars as in Drawing 253-11 and roof reinforcement Drawing as in 253-12 (Single Cross member is also allowed in Drawing 253-12).



22.1 Ballast

It is permitted to complete the weight of the car by one several ballast provided that they are strong and unitary blocks, fixed by means of tools with the possibility to fix seals, placed on the floor of the cockpit, visible and sealed by the scrutineers.

Note:

Other than the modifications permitted expressly above should follow Specific Regulations for Production Cars Group N 2018.