



The Federation of Motor Sports Clubs of India

2017

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

Member of



Federation Internationale
de l' Automobile



Federation Internationale
de Motocyclisme



Indian Olympic Association

2017 Specific Technical Regulations for Indian Touring Cars (TC-1)

The following Articles of 2017 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)

Classes

Up to 1799cc

Above 1800 up to 2200cc

Two classes of ITC can be run, one with cubic capacity restricted to 1799cc and 2nd category 1800cc to 2200cc. The events may be run concurrently for both the classes.

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

1.1 Eligible Vehicle

Any Vehicles manufactured / Assembled in India and licensed for use on public roads only.

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.

2.1 Weights

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.

3.1 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 fibre allowed for these components.

4.1 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 esteem 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 can be used.

5.1 Compression Ratio

Compression Ratio is free

6.1 ECU & Ignition

Free

7.1 Flywheel & Clutch Assembly

Free

8.1 Induction

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

9.1 Exhaust

Free

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

The exit of the exhaust pipe shall be at the rear of the car.

Side exit of the exhaust pipe is also allowed but it should be behind the driver's door.

10.1 Lubricants

Free

Dry sump lubrication is permitted.

11.1 Cooling System

Free

12.1 Engine and Gear Box Mounting and Linkages

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

13.1 Braking System

Free

But must be Dual circuit Brakes

14.1 Steering System

Free

15.1 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.

16.1 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

Shock absorbers 2 way damping to control bump and rebound only. Complex Hi-speed/slow speed controlling not allowed. GPS controlled and manipulated shock settings not allowed as also electronic manipulation and control. Mechanical / Hydraulic control or selection of settings on the fly allowed. Adjustments can control only one parameter of bump and one parameter of rebound.

17.1 Rims and Tyres

Maximum of 17 inch is allowed
Specified by the Organizer
Rim Free

18.1 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.

19.1 Safety Equipment

As per 2017 FMSCI Group N Technical Regulations (Art.253).
Use of AFFF plumbed fire extinguisher system is recommendatory.

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

Rearward 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 for that a firewall should be provided to separate the luggage compartment and passenger area.

20.1 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.

21.1 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.

22.1 Driver Equipment

All drivers must be equipped with any FMSCI or FIA race approved fire retardant race suit, gloves and boots.

FIA Approved Helmets are mandatory.

The driver equipment and helmet must be presented to the series scrutineers or race officials for eligibility.

Drivers will be required to wear safety attire during all practices and races.

HANS device is mandatory.

23.1 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.

24.1 Roll cage

Basic Structure

Only for Racing

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

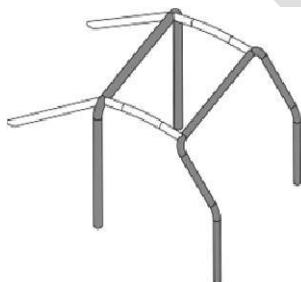
1 main rollbar + 1 front rollbar + 2 longitudinal members + 2 backstays + 6 mounting feet (Drawing 253-1)

or

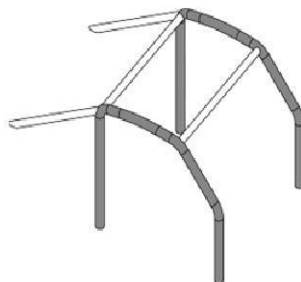
2 lateral rollbars + 2 transverse members + 2 backstays + 6 mounting feet (Drawing 253-2)

or

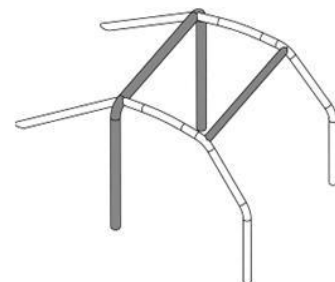
1 main rollbar + 2 lateral half-rollbars + 1 transverse member + 2 backstays + 6 mounting feet (Drawing 253-3)



253-1



253-2



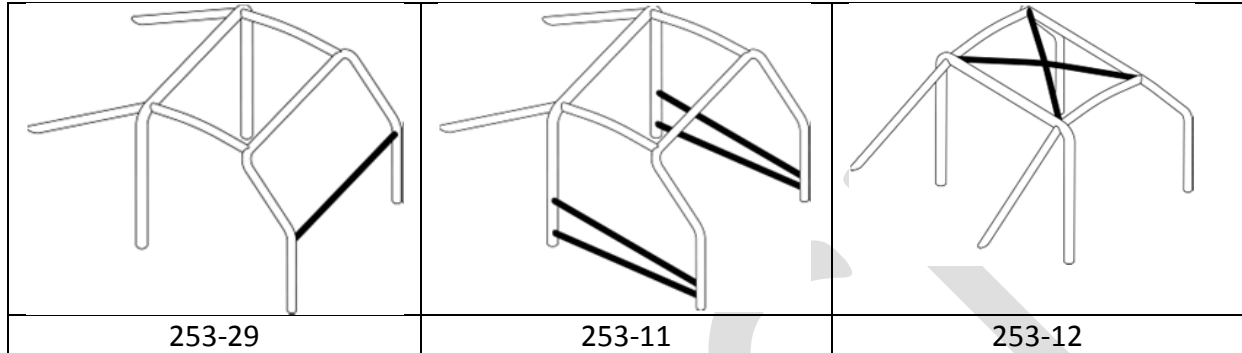
253-3

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).



25.1 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.