



The Federation of Motor Sports Clubs of India



**2011 Technical Regulations for
Indian Junior Touring Car**

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**Specific Regulations for Indian Junior Touring Car
Classification & Definitions, General Prescriptions
and Safety Equipment**

All matters regarding the above, not specifically covered by these Regulations should be read as per FMSCI 4W Technical Regulations I, II, III and IV - 2011.

ARTICLE 1: DEFINITION

Large scale series production touring cars; Maruti Esteem 1300cc carburetted versions only.

ARTICLE 2: HOMOLOGATION

Maruti Esteem 1300cc carburetted versions only. Type I and Type II.

The brakes, steering and engines and / or their internal components could be freely interchanged in the different models of the Maruti Esteem (Type I / Type II) applicable to carburetted versions only.

ARTICLE 3: NUMBER OF SEATS

The rear seats & the front passenger seat may be removed.

SEATS WITH HEAD RESTS ARE MANDATORY

-FIA HOMOLOGATED SEATS ARE RECOMMENDED

THE TECHNICAL DELEGATE IS THE FINAL AUTHORITY ON THE
CONDITION AND SAFETY OF THE SEATS USED

ARTICLE 4: MODIFICATIONS AND ADJUNCTIONS ALLOWED OR OBLIGATORY

All the modifications which are not allowed by the present Regulations are expressly forbidden.

The only work which may be carried out on the car is that necessary for its normal servicing, or for the replacements of parts worn through use or accident.

The limits of the modifications and fittings allowed are specified hereinafter.

Blue printing of engines is not permitted.

However it is permitted to machine the following parts.

1). It is permitted to machine the gasket plane of the cylinder block, so long as Article 311 and Article 317 of the homologation form is respected. **It is also permitted to bore the cylinder block and replace the pistons with 1st and 2nd oversize. However, only OE Indian components available in the market are permitted.**

The cars must be strictly series production models identifiable by the homologation form data.

ARTICLE 5: MINIMUM WEIGHT

The minimum weight of all **India Junior Touring Cars** will be **770kg. WITH DRIVER.** This is the real weight of the car **WITH DRIVER (without persons or luggage aboard) without tools, jack.**

All the liquid tanks (lubrication, cooling, braking, heating where applicable) must be at the normal level foreseen by the manufacturer, with the exception of the windscreen wiper, which shall be empty.

(As per FMSCI Regulations 2011)

As far as rollcages which cannot be removed from the car, and which were manufactured in accordance with FMSCI Technical Regulations Group N – III Articles 8.2 and 8.3, are concerned, the following weights will be taken as a basis:

- Rollcage according to drawings 253-3/4: 30 kg
- Rollcage according to drawings 253-5 to 17C: 35 kg

ARTICLE 6:

6.1 Engine

- Cylinder Head

LG SPORTS WILL PROVIDE CYLINDER HEADS FREE OF COST TO THE FIRST 24 COMPETITORS, ON REQUEST BY THE COMPETITOR AND ALL WORK ON THE HEAD IS FREE. MACHINING POLISHING ETC CAN BE DONE BUT NO ADDITION OF METAL IS ALLOWED. AT THE END OF THE YEAR THE HEADS SHALL BE DEPOSITED WITH LGS.

- CAM :

Identical CAM will also be provided FREE OF COST for use and return for the year. The CAM dimensions, Lifts etc. shall be as specified by L.G. Sports. No further modification to the CAM is permitted.

- Engine shields made of plastic material, the purpose of which is to hide mechanical components in the engine compartment, may be removed if they have a solely aesthetic function.
- The accelerator cable may be replaced or doubled by another one regardless of whether it comes from the manufacturer or not.
- The screws and bolts may be changed, provided that the replacements are made from ferrous material.
- **Ignition:** The make and type of the spark plugs and high-tension leads are free.

-**Cooling system:** The thermostat is free, as is the control system and the temperature at which the fan cuts in. Locking system for the radiator cap is free.

A fabricated shield may be incorporated in place of the AC condenser.

- **Carburettors:**

Use of multiple Carburettors is permitted. The Carburettors must be of Indian make. Ucal thru LGS will supply renewed and paired carbs and LGS will provide twin carburettors & manifolds for the first 24 entrants. Linkages for the throttle is free and must be made by the preparers.

The components of the carburettor which control the quantity of petrol entering the combustion chamber may be modified, provided that they do not have any influence over the quantity of air admitted.

Replacement air filter cartridges are accepted in the same way as the original ones. Removal of all elements between Air Filter Box and Resonator is permitted. Any ducting may be added to the front of the entry point of the air filter and must be within the Engine Compartment.

- **Fuel Pumps:** A secondary fuel pump may be fitted for which the electrical wiring is free.

- **Lubrication:** The fitting of baffles in the oil sump is authorised.

Replacement oil filter cartridges are accepted in the same way as the original ones.

- The material of the elastic part of the engine and gearbox mountings is free, but not the number of mountings.

- **Exhaust:**

FREE

6.2 Transmission

6.2.1) Clutch:

Only OE Components permitted.

6.2.2) Gearbox:

No modifications permitted.

6.2.3) Differential:

FMSCI Rally Star Cup approved Differential Gear cages are permitted.

Pinion Differential case is permitted, so long as it fits in the original housing. Locking methods of the differential pin is free. **WELDING PERMITTED.**

6.2.4) Half-shafts:

Only Original Equipment or FMSCI Rally Star Cup approved Half Shafts is permitted.

6.3 Suspension

The reinforcing of the structural parts of the suspension (with the exception of anti-roll bars) and its anchorage points by the addition of material is allowed.

- Springs:

Springs AND RIDE HEIGHT IS 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: DROOP IS FREE AND CAN BE MODIFIED BY THE USE OF SPHERICAL BEARINGS AND AN ADJUSTABLE BEARING MOUNT FITTED ON THE OE MOUNTING POINT. THE MOUNTING POINTS CANNOT BE MOVED OR CHANGED.

OE SHOCKS AND SPRINGS,

OR

KONI SHOCK ABSORBERS (STRUTS) ARE PERMITTED
 FRONT – SUZUKI SWIFT - KONI SPORT – (YELLOW IN COLOR – ADJUSTABLE) PART NUMBER – 86 – 2588 (INSERTS)

REAR - SUZUKI SWIFT – KONI SPORT–(YELLOW IN COLOR – ADJUSTABLE) – PART NUMBER – 87 - 2429

NO MODIFICATIONS ARE PERMITTED ON THE KONI SHOCK ABSORBERS OR FMSCI APPROVED SHOCK ABSORBERS.

6.3.1 FMSCI Approved Shock absorbers are

I) Shock absorbers form J.A.Motor Sport with the following Specifications :

JA MOTOR SPORT Rally Star Cup Strut		Front	Rear
Damper	Identification Model No	RSC F***	RSC R ***
	Damper Tube Diameter	40 mm	40 mm
	Piston Rod Diameter	16 mm	16 mm
	Top Mounting	Original OE	Original OE
	Travel - Stroke	140 mm	140 mm
	Base Damper Setting	Gravel	Gravel
	Height Setting	Adjustable	Non Adjustable

	Damper Setting	Single way Adjustable	Single way Adjustable
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Note to Scrutineers: Increase of Top Mounting bore to 16mm is permitted

JA MOTOR SPORT Rally Star Cup Strut		Front	Rear
Springs	Spring Rating	275-Lbs FREE	Original OE

II) Hotbits Shock absorbers form Spitfire Performance - with the following Specifications

Hotbits		Front	Rear
Damper	Identification Model No	HB-RSC	HB-RSC
	Damper Tube Diameter	45 mm	45 mm
	Piston Rod Diameter	12 mm	12 mm
	Top Mounting	Original OE	Original OE
	Travel - Stroke	150 mm	150 mm
	Setting	Dirt / gravel / Tarmac	Dirt / Gravel / Tarmac
	Damping Adjustment	One Way	One Way

Hotbits	Front	Rear
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Springs	Spring Rating	FREE	Original OE
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III) TEIN DAMPERS WITH THE FOLLOWING SPECIFICATIONS

TEIN		Front	Rear
Damper	Identification Model No	11-C0081	
	Damper Tube Diameter (mm)	40	32
	Piston Rod Diameter (mm)	12.5	25
	Top Mounting	Original Equipment	Original Equipment
	Stroke (mm)	150	163
	Base Damper Setting	Gravel	Gravel
	Height Setting	Adjustable	Non Adjustable
	Damper Setting	Single way Adjustable	Single way Adjustable

TEIN		Front	Rear
Springs	Spring Rating	FREE	Original Equipment

- Spacers:

The use of spacers for the front and rear suspension is allowed so long as it forms a part of the strut and the mounting points of the strut remain unchanged (the spacer can not be a separate component) provided:

Front Strut spacer (for increasing ride height) - maximum 25mm

Rear Strut Spacer (for increasing ride height) - maximum 25mm

6.4 Wheels and tyres

6.4.1) Wheels:

The wheels are free, respecting the homologated maximum diameter. One inch oversize width from the homologated maximum width will be permitted provided the entire contour of wheels form within the coach work / body work of the car.

6.4.2) Tyres:

Single Make Tyres **specified** by the organizers.

6.4.3) Spare wheel:

The spare wheel shall not be carried in the car even as a ballast.

6.5 Braking system

No modification permitted

6.5.1) Handbrake:

Fly-off hand brake is permitted.

6.6 Bodywork

6.6.1) Exterior :

A fabricated shield may be incorporated in place of an AC condenser.

Hubcaps must be removed.

The bumpers, body skirts, OE spoilers, fog lamps, head lights & front bonnet & fenders and mesh of Maruti Esteem Type 1, Type 2 or Type 3 may be interchanged or used.

6.6.2) Interior :

The front seats may be moved backwards but not beyond the vertical plane defined by the front edge of the original rear seat.

The limit relating to the front seat is formed by the height of the seat without the headrest, and if the headrest is incorporated into the seat, by the rearmost point of the driver's shoulders.

The rear seats may be removed.

The rear safety belts may be removed.

6.6.2.1) Dashboard:

The dashboard must remain original.

6.6.2.2) Doors

BONNET AND BOOT /REAR DOOR EXCEPT THE DRIVERS SIDE DOOR MAY BE REPLACED WITH FIBREGLAS DOORS , BONNET AND BOOT LID.- IN ORDER TO COMPLY WITH THE MINIMUM WEIGHTS.

6.6.2.3) Floor

Carpets are free and may thus be removed.

6.6.3) Additional accessories:

All those which have no influence on the car's behaviour, for example equipment which improves the aesthetics or comfort of the car interior (lighting, heating, radio, etc.), are allowed without restriction.

In no case may these accessories increase the engine power or influence the steering, transmission, brakes, or roadholding, even in an indirect fashion.

All controls must retain the role laid down for them by the manufacturer. They may be adapted to facilitate their use and accessibility, for example a longer handbrake lever, an additional flange on the brake pedal, etc.

The following is allowed:

- 1) Measuring instruments such as speedometers etc. may be installed or replaced, and possibly have different functions. Such installations must not involve any risk.
- 2) The handbrake locking mechanism may be removed in order to obtain instant unlocking (fly-off handbrake).

3) The steering wheel is free.

The locking system of the anti-theft steering lock may be rendered inoperative.

4) Additional compartments may be added to the glove compartment and additional pockets in the door pads.

5) Insulating material may be added to the existing bulkheads to protect the passengers from fire.

6.6.4) Reinforcements :

Reinforcement bars may be fitted on the suspension mounting points to the bodyshell or chassis of the same axle, on each side of the car's longitudinal axis, on condition that they are removable and are attached by means of bolts.

6.7 Electrical system

- **Battery:** The make, capacity, and battery cables are free. The tension and the site of the battery must be retained.

- **Generator:** May be replaced by a more powerful one. A dynamo may not be replaced by an alternator and vice-versa.

The original headlights **must be present and operative**

- Fuses may be added to the electrical system.

6.8 Fuel circuit

An additional fuel pump may be fitted.

ARTICLE 7: Roll Cages

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 253-3 and FMSCI Regulations 2011.

ARTICLE 8: Seat Belts

Minimum required is a four point harness and following the technical drawings regarding mounting points (Article 253 – 42 to 45, 52 and 53 of Appendix J – FIA Regulations)

ARTICLE 9: Fire Extinguishers

Fire Extinguishers to be rigidly fastened with a quick release clamp FITTED IN AN EASILY ACCESSIBLE AND A VISIBLE POSITION.

Specifications - as per FMSCI Regulations

As per FMSCI Regulations 2011

ARTICLE 10: Side and Rear Windows

The use of transparent or colourless anti shatter film on the side windows is mandatory.

ARTICLE 11: Laminated Windshield

Laminated windshield is mandatory.

ARTICLE 12: Presentability of Cars

All cars taking the ramp should be presentable in appearance.

ARTICLE 13: A/C and Heating

The components relating to the A/C and Heating may be removed so long as the homologated weight of the car is maintained.

ARTICLE 14: Reinforcement of Aprons (Front)

It is permitted to add a member between the front aprons above the front cross member (the front jacking point) provided it is removable and mounted only by means of bolt & nuts.