Specific Regulations for Cross Country Cars - Group T3

(BASED ON FIA REGULATIONS – APPENDIX J – ARTICLE 286)

Mechanically propelled single-engine land vehicles with 4 to 8 wheels (if the vehicle has more than 4 wheels, it requires FIA approval), propelled by their own means, and of which the propelling device and steering are controlled by a driver on board the vehicle. These cars may be unit-built, but must be registered in one country and must comply with the International Convention on Road Traffic with regard to lighting.
(National Entries – all vehicles lighting need not conform the International Convention on road traffic as long as it conforms to the Indian Motor Vehicles Act)
The 4-wheel drive vehicles are designated 4x4 and the 2-wheel drive vehicles are designated 4x2 in the articles below.

Automobile make
An "automobile make" corresponds to a complete car.
When the car manufacturer fits an engine that it does not manufacture, the car is considered as a hybrid and the name of the engine manufacturer may be associated with that of the car manufacturer.

ART. 1 OBLIGATIONS

Group T3 cars must comply with the general prescriptions and with the safety equipment defined in Articles 282 and 283 respectively.

Any tank containing oil or fuel must be situated in the main structure of the vehicle.
Only fuel tanks conforming to the FT3-1999, FT3.5-1999 or FT5-1999 standards are permitted.
(National Entries – all fuel tanks need not be FIA Homologated so long as they are from an Indian Car/ Fuel tank manufacturer.
Any OE fuel lines / pipes from the vehicles manufacturers Parts Catalogue is allowed.)

The protective housing of the tank (cf. Article 283-14.2) must be situated to the rear of the back of the main rollbar tube.

No part of this housing may be situated less than 40 mm above the reference surface.
Reference surface :

Plane defined by the lower face of the lowest tubes of the chassis that are situated within the vertical projection of the fuel tank (Drawing 286-1).

All vehicles must have a shielding (aluminium alloy or steel plate of 6 mm minimum thickness) fitted directly onto the chassis underneath any part of the tank(s) situated less than 200 mm above
the reference surface.

The number of suction points is limited to 2 and the pressure of the suction pumps must not be more than 1 bar.
The number of fuel exits is limited to 2.
Outside this tank, the maximum fuel capacity is 6 litres.
For National Entries the maximum capacity may exceed 6 litres

FOR 4x2 – FIA TECHNICAL PASSPORT VALIDATED BEFORE 31.12.2014

Several fuel tanks are permitted and they may extend forward below the level of the mounting points of the seats to the chassis.

No part of the protective housing of the tank (cf. Article 283-14.2) may be situated less than 1100 mm rearward of the front axle centreline.

FOR 4X2 – FIA TECHNICAL PASSPORT VALIDATED AS FROM 01.01.2015

Fuel tanks may be situated forward of the main rollbar.
Parts ahead of the back of the seats must be situated below the mounting points of the seats to the chassis.
The tank must be contained in a leakproof housing attached to the chassis/safety cage, the minimum specifications of which are as follows :

Sandwich construction "Glass Reinforced Plastic + Kevlar or Carbon + Kevlar with an intermediate layer of absorbent material"

Minimum wall thickness 10 mm except for the areas for mounting to the chassis.
The housing must not be :
Longitudinally less than 1100 mm rearward of the front axle centreline,
Transversally less than 50 mm (inwards) from the outer part of the main rollbar feet
Vertically less than 200 mm from any point of the upper part of the main rollbar.

ART. 2 CHASSIS AND SAFETY CAGE

Only tubular frame chassis in iron-based alloys are authorised.
The thickness of the tubes forming the structural part of the chassis must not be less than 1.5 mm.
All tubes of the safety cage defined in Article 283-8.3.1 (Drawings 253-1, 253-2, 253-3) must have a minimum section of :

50x2 mm (2.0''x0.083'') or 45x2.5 mm (1.75''x0.095'').

National Entries – Safety Roll Cages fabricated by a competent facility as per FMSCI specifications are permitted

The back of the main rollbar tube at its anchorage foot level must not be positioned more than 980 mm (1150 mm for 4 x 2) from the centre of the rear wheel (see Drawing 286-1).
For cars built with a safety cage having a second main rollbar (see Article 283-3.2.3 and Drawing 283-3), the second main rollbar must be considered as the reference.

Padding in the form of 60-240 g/m^2 material, with a minimum thickness of 40 mm, must be fitted on the steering wheel over a minimum surface of 20 000 mm^2 (200 cm^2) to protect the driver's face.

The car must have a structure immediately behind the driver's seat that is wider than his shoulders and extends above them when he is seated normally in the car with his seat belt fastened.

ART. 3 BODYWORK

3.1 Exterior

The chassis must be a steel tubular frame chassis.
The maximum overall length is 3550 mm.
The maximum width of the bodywork is 2100 mm without rear view mirrors.
A windscreen is optional.
However, should there be one, it must be made of laminated glass regardless of its shape and surface.
If the windscreen is glued, it must be possible to remove the front doors or the windows of the front doors from inside the cockpit without using tools.
All parts of the bodywork must be carefully and fully finished, with no temporary or makeshift parts and no sharp corners.

No part of the bodywork may present sharp edges or points.

The bodywork of each car must be made from a hard, non- transparent material extending upwards to at least the centre of the steering wheel without being less than 420 mm above the plane determined by the mounting plane of the driver's seat, and it must provide protection against loose stones.

No mechanical component may be visible from above with the exception of shock absorbers, radiators, fans, wheels and spare wheels, including their anchorage points and attachments (see Drawing 286-1).
The bodywork must reach, or be extended rearwards at least to the level of the upper edge of the rim.
All parts having an aerodynamic influence and all parts of the bodywork must be secured rigidly to the completely sprung part of the car (chassis/body unit), must not have any degree of freedom, must be securely fixed and must remain immobile in relation to this part when the car is in motion except the driver's and/or co-driver's ventilation sliders / scoops.

The car must be fitted with two rear view mirrors, one on each side of the car, to provide efficient views to the rear. Each mirror must have a minimum area of 90 cm^2.
The Scrutineers must be assured, by means of a practical demonstration, that the driver, when seated normally, can clearly see the vehicles following him.
To this end, the driver must identify letters or figures, 15 cm high and 10 cm wide, displayed at random on boards placed behind the car according to the following instructions :

-	Height	Between 40 cm and 100 cm from the ground.
-	Width	2 m either side of the centreline of the car.
-	Position	10 metres behind the centreline of the rear axle of the car.

Rear view cameras are permitted provided they are not moveable.

3.2 Interior

The dimension between the floor of the cockpit and the bottom of the seat must not be less than 100 mm.
The axis of the pedal box must be situated behind or directly above the axis of the front wheels.
The bodywork must be designed to ensure the comfort and safety of driver and possible co-drivers.
No part of the bodywork may present sharp edges or points.

No mechanical part may protrude into the interior of the cockpit.

Inspection hatches are authorised in the bulkheads of the cockpit. The total surface of the inspection hatches is limited to 750 cm^2 (inspection hatches for air filters, air conditioning system, cooling ducts for the occupants excluded).
They must allow the cockpit to remain leakproof and flameproof.

Any equipment that could involve a risk must be protected or insulated and must not be situated in the cockpit.
The cars must have lateral openings allowing the exit of the driver and possible co-drivers.
The dimensions of these openings must be such that it is possible to fit into them a rectangle at least 500 mm wide and 500 mm high, measured vertically, the corners of which may be rounded with a maximum radius of 150 mm.
Doors with windows must have an opening made of transparent material and into which it is possible to fit a parallelogram with horizontal sides measuring at least 400 mm.

The height measured on the surface of the window perpendicularly to the horizontal sides must be at least 250 mm.
The angles may be rounded, with a maximum radius of 50 mm. The measurements are taken across the chord of the arc.

Cars without side windows must be fitted with lateral protection nets in accordance with Article 283-11.
The cockpit must be designed so as to allow an occupant to exit it from his normal position in the vehicle within 7 seconds through the door on his side and within 9 seconds through the door on the other side.

For the purpose of the above tests, the occupant must be wearing all his normal equipment, the seat belts must be fastened, the steering wheel must be in place and in the most inconvenient position and the doors must be closed.
These tests must be repeated for all the occupants of the car. For both Single- and Two-seater cars

The minimum vertical height of the safety cage is 1050 mm between the cockpit floor (at seat location) measured at a point 300 mm forward of the B pillar bottom and a line joining (on the outside) the two main rollbars (front rollbar and main rollbar) (see Drawing 286- 1).
The minimum width of the footwell must be 250 mm, maintained to a height of 250 mm, measured horizontally and perpendicularly to the longitudinal axis of the chassis, directly above the pedals.

Single-seater cars
The location provided for the seat must have a minimum width of 450 mm maintained over the complete depth of the seat.

Two-seater cars
Each location provided for each seat must have a minimum width of 450 mm maintained over the complete depth of the seat.

The distance between the lengthwise centrelines of the two seats of the car must not be less than 600 mm.
If the two centrelines are not parallel, the measurement must be taken from the hollow of each of the two seats.
The minimum interior width for the front seats is 1130 mm (975 mm for 4x2) over 400 mm in length. This 1130 x 400 mm rectangle (975 x 400 mm for 4x2) must fit inside the safety cage above the heads of the driver and co-driver.

ART. 4 MINIMUM WEIGHT

4.1 The minimum weight is set at 800 kg
National Entries – minimum weight shall be 750kgs

4.2 This is the weight of the car without fuel at any time during the competition, with one spare wheel.
The engine cooling fluid and lubrication oil as well as the brake fluid must be at their normal levels.

The other tanks for consumable liquids must be drained and the following elements must be removed from the car :
Occupants, their equipment and luggage
Tools, portable jack and spare parts
Survival equipment
Provisions
etc.
If three spare wheels are carried on board a 4x2 that has front and rear complete wheels with different diameters, this vehicle may be weighed with its three spare wheels.
The weight of the car may be completed by adding one or several ballasts provided that they are strong and unitary blocks, fixed by means of tools, capable of having seals affixed and of being placed on the floor of the cockpit, visible and sealed by the Scrutineers.

ART. 5 ENGINE

5.1 The location of the engine is free.
The maximum cylinder capacity is set at 1050 cm^3; only normally aspirated petrol engines are authorised.
The entire engine-transmission assembly, including the front axle, must come from a vehicle that is available for sale.
National Entries – Supercharged petrol engines are permitted provided they install an air restrictor (34mm for 2 valves and 32mm for more than 2 valves per cylinder)
Supercharged diesel engines will be as per FIA guidelines

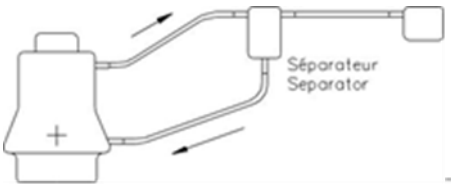
5.2 Exhaust system

Variable systems are allowed.
Each section for the passage of gases may have a diameter no lower than 40 mm.
The exits of the exhaust system must be visible from outside.

5.3 Lubrication

National Entries – any OE and lube lines / pipes from the vehicle manufacturers parts catalogues are allowed/ BIS certified

Radiator, oil/water exchanger, lines, thermostat, sump and pump strainers are free.
The use of a system of lubrication by dry sump is authorised. The oil chamber together with the lines must not be located in the cockpit or in the baggage compartment.
Oil pressure may be increased by changing the discharge valve spring.
If the lubrication system includes an open type sump breather, it must be equipped in such a way that the oil flows into a catch tank (minimum capacity : 2 dm^3 (litres)).
This container must either be made of translucent plastic or include a transparent panel.
An air/oil separator may be mounted outside the engine (maximum capacity 1 litre unless integrated into the catch tank) in accordance with Drawing 255-3.



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The oil must flow from the oil catch tank towards the engine by the force of gravity alone. The fitting of one or several ventilators for cooling the engine oil is authorised, provided that this does not have any aerodynamic effect.

5.4 Fuel cooling

The fitting of fuel coolers is authorised on the return circuit to the tank.

ART. 6 TRANSMISSION

The transmission system must be activated and controlled only by the driver.
A modification is allowed, in order to de-activate the active systems if necessary.
A differential coming from a commercial catalogue of competition parts may be used for a 4X2 vehicle, as well as a reverse gear system, provided that they are regularly available for sale.

All the parts must be available, as spare parts, through the Manufacturer's commercial network.
Only CVT type or manual transmissions are authorised.

CVT Type
The belt is free provided that it is available as a spare part (reinforced or not) through the Manufacturer's commercial network.

Manual
It must come from the same vehicle/motorcycle as the engine and must be coupled to the engine in the same manner as in the production vehicle/motorcycle.

The gearbox casing must be standard apart from the machining of apertures for oil supply only.
The number of ratios can be reduced to enable the fitting of wider gears.
The gear change mechanism must be manual, linked to a gear change lever directly by rods or cables only.

No air, electrical or hydraulic assisted gear change system is allowed. The rear differential mechanism is free, but must not be active and must be available for sale on the commercial market.

Transmission shafts

Transmission shafts are free but must be made of steel.
In addition, they must be solid one piece and the joints must come from a series vehicle.

Lubrication

An additional lubrication and oil cooling device is allowed (circulation pump, radiator, and air intakes) under the same conditions as for Article 286-5.3.
For production components, the original lubrication principle must be retained.
The only modification authorised on the gearbox / differential housing is the one intended for adapting the additional lubrication system.

ART.7 SUSPENSION

7.1 The suspension is free but it is forbidden to use active suspension (any system which allows control of flexibility, damping, height and/or attitude of the suspension when the car is in motion).

7.2 **Springs and shock absorbers**

Only one shock absorber per wheel is authorised.
The adjustment of the springs and/or shock absorbers from the cockpit is forbidden.
It must only be possible when the car is not in motion and only with the use of tools.
The adjustment device must be situated on the shock absorber or its gas reserve.
Any connections between dampers are forbidden. The only connections permitted are the damper fixing points passing through the frame; these must have no other function.

7.3 Antiroll bars

Only one antiroll bar per axle is permitted.
The adjustment of the antiroll bars from the cockpit is forbidden. The antiroll bar systems must be exclusively mechanical, with no activation or deactivation possible.
Any connections between front and rear antiroll bars are forbidden.

ART. 8 WHEELS AND TYRES

Complete wheels must be housed within the bodywork (cf. Article 3.1).
The diameter of the rim is set at a maximum of 14 inches, with a maximum tyre width of 300 mm.
The minimum weight of the rim is set at: 3.5 kg

The use of tyres intended for motor cycles is forbidden.

The fitting of intermediate parts between the wheels and the tyres is forbidden.
The wheels do not have to be of the same diameter.
National Entries – In T3 vehicles, intermediate attachment parts between wheel & tyre are allowed

Central nut wheel fixing is forbidden.

The use of the anti-puncture systems approved by the Cross-Country Technical Working Group is authorised.

The use of any system for inflating / deflating the tyres when the car is in motion is forbidden.

The inflating / deflating operation must only be carried out while the car is not in motion.
The only system authorised is a system connected to the wheels through a flexible tube during the operation and connected to one valve per wheel.
In order to adjust the tyre pressure, any air going in or out must pass through a conventional type of valve coming from a series light utility vehicle and having a VG5 type screw thread.

Only one valve is allowed per wheel and it must be fixed to the rim by a single hole, which has a maximum diameter of 12 mm and is positioned on the outer face of the rim.
The tube and its inflating manometer may be situated in the cockpit on condition that the operating pressure is lower than 10 bars.

The compressed air bottles feeding the system :
Must not have a capacity greater than 15 litres each
Must have mountings able to withstand a deceleration of 25 g Must not be situated in the cockpit.

It is compulsory that these bottles be positioned transversally in the vehicle and be secured by at least two metal straps.
The vehicle must be fitted with at least one spare wheel.
A maximum of 3 spare wheels per car is authorised.

ART. 9 BRAKING SYSTEM

The braking system is free, provided that :
It is activated and controlled only by the driver
It includes at least two independent circuits operated by the same pedal (between the brake pedal and the callipers, the two circuits must be separately identifiable, without any interconnection other than the mechanical braking force balancing device)
The pressure is identical on the wheels of the same axle, with the exception of the pressure generated by the handbrake.
The callipers must come from a series vehicle or from a catalogue of competition parts with a maximum of 4 pistons.
The discs must come from a series vehicle or from a catalogue of competition parts.
Their maximum diameter is set at 330 mm.

ART. 10 MISCELLANEOUS

10.1 Sensors

Any radar system, vehicle speed measurement system (except pulse ring on the gearbox), gyroscope, load sensor (except sensor for engine ignition and/or injection cut-off) or restraining gauge is forbidden.
Accelerometers are authorized for data logging only on condition they are built-in dashboard equipment.

Wheel speed sensors are authorised on one single wheel.

ADDITIONAL REGULATIONS

National entries

- fuel used in Competition Cars must comply to the Government Of India Regulations and is freely available in fuel stations.
- Nom FIA standard but BIS approved, fire proof Roll Cage safety padding is permitted
- The non-return valve on the fuel tank filler neck need not be FIA homologated BUT can be an OE part from an Indian car manufacturer

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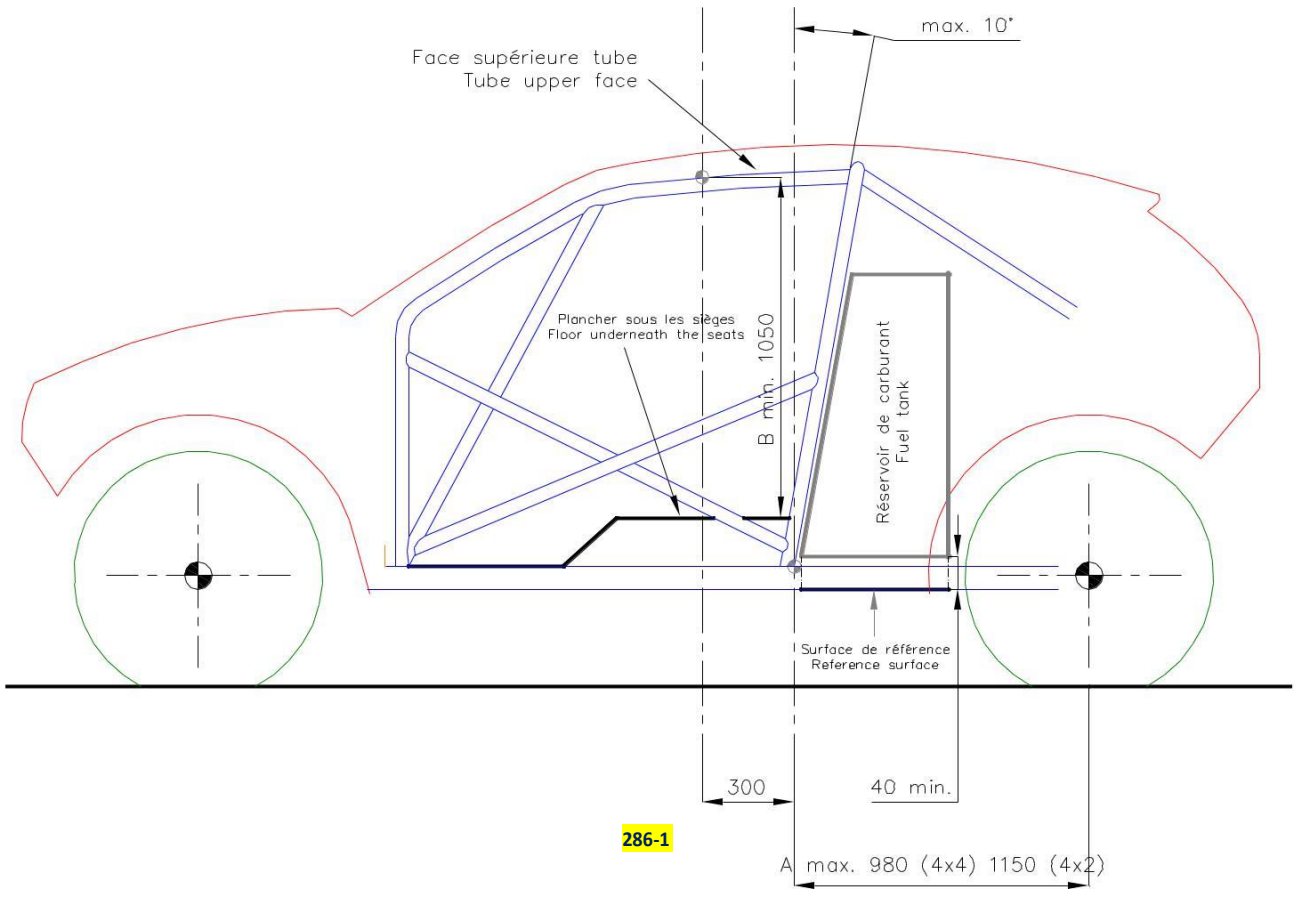

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