



**The Federation of Motor Sports Clubs of India**

**2021**

**Four-Wheeler Technical Regulations**

**DRAG RACING**

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The Federation of Motor Sports Clubs of India  
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## INTRODUCTION

These rules including the technical regulations, schedules and appendices contained herein, shall govern all competitions in which a 4-wheeler may take part, organized in the territory of the FMSCI under an organizing permit issued by it. These rules shall be valid from **1st March 2021**.

1. These rules have been drawn up for the proper and equitable conduct of motor sports and are based on the International Sporting Code and the Sporting Code of the FMSCI. The text comprises additions and adoptions drawn up in India to suit local conditions local competitions and local four-wheelers.
2. In so far as they do not conflict with these rules, the supplementary regulations and official instructions applicable to a competition shall be deemed to form part of these rules.
3. The FMSCI has the right to grant an exemption from these rules to suit special conditions or to enable unusual features to be included in the competition and must be specified in the supplementary regulations.
4. International events run under an International Permit issued by the FMSCI must comply with the International Sporting Code as usual. Only refer to these rules in respect of any matter not covered by the Code.
5. Unless otherwise stated, compliance with all regulations in this publication governing groups and classes, safety requirements, lists, technical specifications and definitions is MANDATORY.
6. Changes on consideration of SAFETY MAY BE IMPLEMENTED IMMEDIATELY. All other changes will be implemented after a notice period, which will be decided by the FMSCI council on a case-to-case basis. The council of the FMSCI, may in its own discretion, authorize immediate implementation if deemed necessary or advisable.
7. Approval of a four-wheeler or a component or its homologation is an indication of its acceptance solely for the purpose of these regulations and is not to be taken as a guarantee or warranty as to the standard of its design or manufacture or its fitness or suitability for any use to which it may be put.
8. Questions or requests for clarification or advice on these technical regulations should be made in writing to the Chairman, Drag Racing commission and forwarded to him through the Secretariat. Only those replies / interpretations signed by him will be valid.
9. These technical regulations have been compiled for both safety and eligibility and form the basis of all motor sports in the territory of the FMSCI. They must be studied by Constructors, Tuners, Competitors, Organizers, Scrutineers, Stewards and all others involved with the administration and conduct of motor sports in the territory of the FMSCI in order to ensure total compliance.
10. Definition of free: Wherever the word "FREE" is used in these regulations, without any attached conditions, it is permitted to use any Indian or imported component which may be specially made, the specifications of which are unrestricted in any manner, subject only to conditions of general prescriptions.
11. Read these regulations carefully. Unless these regulations specifically permit variations and/or modifications and/or additional work of any type to be carried out, the same is expressly forbidden. In other words, unless these regulations state that you can do it... YOU CANNOT.

## CHAPTER 1: CLASSIFICATION

The following groups and classes are approved by the FMSCI and can be technically scrutineered by the FMSCI and protests on technical grounds can be investigated. Organizers are free to run any other classes on closed basis only called as **Promoter classes** (a **Maximum of 4 classes**). These promoter classes will not be technically scrutineered and protests will not be entertained.

Cars prepared to circuit racing categories (TC1, TC2, TC3, TC4 & TC5) can participate in any of the Drag Racing categories PROVIDED they meet the requirements of that particular category. In addition, organizers are permitted to run one or more of these categories (TC1-TC5) as a separate Drag Racing category.

Open wheeled Indian Formula cars built for circuit racing are permitted to run WITHOUT any modifications (i.e., In identical homologated form).

All times mentioned in this document refer to elapsed times for 1/4 mile (402 m) unless otherwise specified. The figures mentioned in brackets with an asterisk e.g., “(\*4.50)” refers to 1/8 mile (201 m) run distance.

No merging of classes even if there are less entries in the case of a Championship.

In the case of a Championship where points are awarded for each round, then full points will be given if there are 6 or more entries in each class and half points will be given if there are less than 6 entries in any class.

### **A) Street Stock Petrol**

- Up to 1150 cc
- 1151 – 1450 cc
- 1451 – 1650 cc
- 1651 – 2050 cc
- 2051 – 2550 cc
- 2551 – 3060 cc
- 3061 cc - 4000cc
- 4001 cc - 5100cc
- 5101 cc and above

### **B) Street Stock Diesel**

- Up to 1150 cc
- 1151 – 1450 cc
- 1451 – 1650 cc
- 1651 – 2050 cc
- 2051 – 2550 cc
- 2551 – 3060 cc
- 3061 cc - 4000cc
- 4001 cc - 5100cc
- 5101cc and above

### **C) Pro Stock Petrol**

- Up to 1150 cc
- 1151 – 1450 cc
- 1451 – 1650 cc
- 1651 – 2050 cc
- 2051 – 2550 cc
- 2551 – 3060 cc
- 3061 cc - 4000cc
- 4001 cc -5100cc
- 5101cc and above

### **D) Pro Stock Diesel**

- Up to 1150 cc
- 1151 – 1450 cc
- 1451 – 1650 cc
- 1651 – 2050 cc
- 2051 – 2550 cc
- 2551 – 3060 cc
- 3061 cc - 4000cc
- 4001 cc -5100cc
- 5101 cc and above

### **E) Indian Open**

### **F) Unrestricted**

## Chapter 2

### 2.1 Specific Regulations

#### **For groups (A&B)**

**Street Stock Diesel and Petrol, the car must be as supplied by the manufacturer and sold commercially in India, CBU /CKD cars permitted.**

**Roll cage is as defined under the heading roll cages in the General Safety Regulations**

**Only the following modifications are permitted**

1. The Engine block, cylinder head and gearbox casing should be as supplied by the manufacturer. Internals are free  
Cylinder head machining free. ECU and necessary wiring is Free.
2. Clutch and flywheel : Free
3. Only seats, floor mats, spare wheel and tool kit /jack may be removed.
4. Turbo charging / Super charging / Nitrous oxide or a combination of any are allowed, with a multiplication factor of 1.5 on the cubic capacity for Diesel and 1.7 for Petrol. **The same multiplication factor applies to OEM forced induction cars.**
5. Body kits like lip spoiler, side skirts, rear spoiler are permitted, provided they are fitted on the OE part without the OE part being cut/altered.
6. Alloy wheels and wider tyres permitted provided they are within the framework of the OE body when viewed from the top.
7. **All DOT/ARAI approved street legal tyres permitted. Drag racing slicks/slick tyres/cut/grooved slicks are NOT permitted.**
8. Exhaust System FREE.

### 2.2 Specific Regulations

#### **For groups (C &D)**

**Pro-stock Diesel and Petrol, the shell should be a production shell from a car sold commercially in India. The chassis or unitary construction must remain as supplied by the manufacturer. CBU /CKD cars permitted.**

**Roll cage is as defined under the heading roll cages in the General Safety Regulations**

**Only the following modifications are permitted.**

1. The engine block, head and gearbox casing should be of production type. All internals are free. ECU is Free.
2. Turbo charging / Super charging / Nitrous oxide or a combination of any are allowed, with a multiplication factor of 1.5 on the cubic capacity for Diesel and 1.7 for Petrol. The same multiplication factor applies to OEM forced induction cars.
3. The front bonnet, bumpers front and rear and front fenders may be replaced with fiberglass, steel, aluminum or carbon fiber with modifications like wheel flares, ducts or vents for intake or exhaust.
4. The rear doors, front passenger door, and the rear boot lid/hatch may be replaced with a copy of the OE part made of fiberglass/composite/steel/ aluminum, or a combination and may be securely fastened and/or bonded to the body, however the front passenger door should be open-able from inside and outside. Ducts are permitted on the rear door for entry/exit of air so long as the identity of the original shape is not compromised. **Driver door should remain as original.** Rear windscreen and door glasses may be replaced with clear Perspex/Lexan.
5. Headlights may be removed. However, the opening must be covered with fiberglass/metal unless the opening is used as an air intake duct.
6. Clutch and Flywheel :Free
7. Wheels and tyres Free
8. Exhaust System Free
9. Intake system Free

10. All other main systems like brakes, driveshafts , cooling, wiring and electronics, shock absorbers/dampers/struts and instrumentation are Free
11. All fiberglass should be a minimum thickness of 2 mm.

### **2.3 Specific Regulations**

#### **For group(E)**

#### **Indian Open**

#### **Roll cage is as defined under the heading roll cages in the General Safety Regulations**

This class is open to all cars sold commercially in India / Custom cars built in India . **INTERNAL COMBUSTION ONLY**  
Engine must be from any vehicle commercially sold in India (eg. Car, Bus, Truck, Motorcycle, etc.), internals are free.

Number of engines: One. Location: Free

Gearbox: Free.

Number of gearboxes: One. Location: Free

Where a production body shell is modified for fitment of the engine in the rear, the shell must be integrated with the roll cage and all safety precautions should be taken. In such cases a firewall separating the driver from the engine compartment is mandatory.

Custom built space frame chassis are permitted provided all safety norms are met. Firewall is mandatory, Body work is compulsory, but shape and contours are Free.

Exhaust System: Free Intake system : Free. Clutch and Flywheel :Free

Turbo charging / Super charging / Nitrous oxide or a combination of any is permitted Fuel: Free

Brakes, wheels, tyres, suspension & steering are Free

Fuel tank and fuel lines **not** permitted in the driver compartment. In case of hatch back vehicles if the fuel tank is in the spare tyre wheel well, a firewall separating the driver is mandatory.

**Minimum weight for cars is 600kg with all fluids and fuel.**

The driver's equipment will have to comply with the FMSCI Racing Safety Regulations.

### **2.4 Specific Regulations**

#### **For Group (F)**

#### **Unrestricted**

#### **Roll cage is as defined under the heading roll cages in the General Safety Regulations**

This class is open to all cars with **Indian /Foreign engines , Foreign cars / Hybrids and Electric** vehicles

Engine: Free; Number of engines: Free; Location: Free.

Gearbox: Free; Number of gearboxes: Free; Location: Free.

Where a production body shell is modified for fitment of the engine in the rear, the shell must be integrated with the roll cage and all safety precautions should be taken. In such cases a firewall separating the driver from the engine compartment is mandatory.

Custom built space frame chassis are permitted provided all safety norms are met.

Firewall is mandatory.

Body work is compulsory, but shape and contours are Free

Fuel: Free; Fuel tank and fuel lines not permitted in the driver compartment.

Brakes ,wheels, tyres ,suspension ,steering are Free.

**Minimum weight for cars is 700kg with all fluids and fuel.**

The driver's equipment will have to comply with the FMSCI Racing Safety Regulations attached separately

## **GENERAL SAFETY REGULATIONS**

Please note that **these are minimum safety regulations for ALL 4-wheel vehicles**. Specific requirements for classes will take precedence over these general regulations.

## **DRIVER COMPARTMENT**

Driver compartment must be totally sealed from engine, transmission and fuel tank. All holes in firewall must be sealed with aluminum or steel. Openings around all linkages, lines, wires, hoses, etc. must be minimized. Battery and its cables are not permitted in the drivers compartment.

## **FIREWALLS**

Each car in competition must be equipped with a minimum .032-inch (.8 mm) aluminum or .024-inch (.6 mm) steel firewall, extending from side to side of the body and from the top of the engine compartment's upper seal (hood, cowl, or deck) to the bottom of the floor and/or belly pan. Firewall must provide a bulkhead between the engine and/or fuel tank and driver compartment. All holes in firewall must be sealed with aluminum or steel. Use of magnesium prohibited.

## **SAFETY HARNESS**

Any cars with roll cages - 4-point harness is mandatory. For all other cars, 3-point harness is mandatory, however a 4 point harness is recommended.

## **ROLL CAGES :**

**Roll cage as per drawing 1 is recommended for all cars, however the regulations given below will apply .**  
**If a car clocks a timing and not adhering to the specification below will be disqualified.**

### **Super Cars**

Any production car where **the top speed specified by the Manufacturer exceeds 300 kmph** shall be categorised as a Supercar.

- Super Cars running at 9.5 seconds and slower : Roll cage not mandatory.
- Super Cars running at 9.49 secs. to 8.50secs : Roll Cage is mandatory as per Group N specification or **Drawing1**
- Super Cars running at 8.49 seconds and faster: Must be equipped with a safety parachute and roll cage as per **Drawing 2**
- **Super cars running at 8 secs. and faster : Must be equipped with a safety parachute and roll cage as per Drawing 3**

### **Saloon Cars**

- Cars running at 12 seconds and slower: Roll cage not mandatory unless otherwise specified.
- Cars running at 11.99 seconds and faster: Roll Cage as per Group N specification or **Drawing No.1** is mandatory.
- Cars running at 10 seconds and faster : Roll Cage as per **Drawing No.2** is mandatory
- **Cars running at 8 secs. and faster : Must be equipped with a safety parachute and roll cage as per Drawing 3**

### **Custom open wheel racing cars /specials and convertibles**

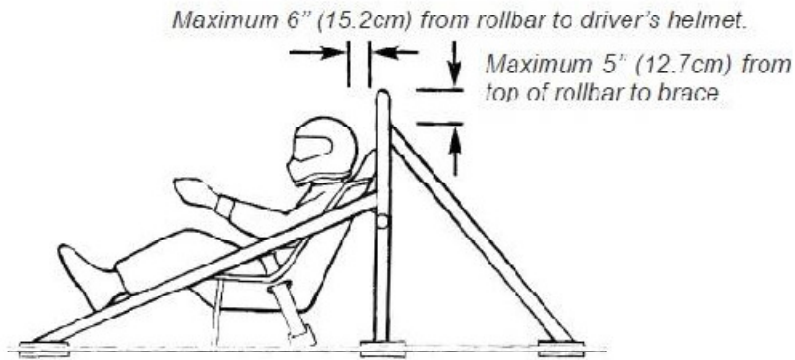
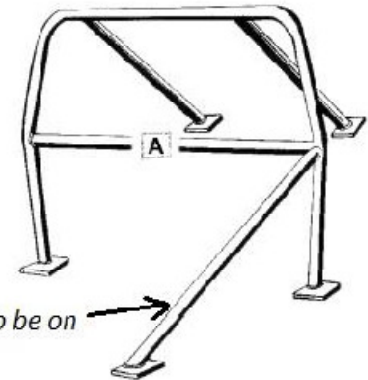
- Cars running at 11.01 secs and slower : Roll Cage as per Group N specification or drawing No.1 is mandatory.
- Cars running at 11 seconds and faster : Roll Cage as per Drawing No.2 is mandatory

- All single seater open wheel cars : Roll cage as per Drawing 3 is mandatory
- Cars running at 8 secs. and faster : Must be equipped with a safety parachute and roll cage as per Drawing 3

All cars with an OEM frame must have rollbar attached to frame.

Cars without frame use 6" (152mm) square 1/8" (3.2mm) steel plates on top and bottom of floor, securely bolted together with at least four 3/8" (9.53mm) bolts, or top plate welded to rocker sill.

All materials must be 1.75" OD x .118" (44.5 x 3.02mm) mild steel or .083" (2.11mm) 4130 chrome moly tubing, except for **A** which is 1.25" OD x .118" (31.8 x 3.02mm) mild steel or .083" (2.11mm) 4130 chrome moly tubing.



**Roll cage specifications:**  
**Drawing No.1**

**Roll cage specifications:**

**Drawing No. 2**

*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 2-A

Or

2 lateral rollbars + 2 transverse members + 2 backstays + 6 mounting feet; Drawing 2-B

Or

1 main rollbar + 2 lateral half roll bars + 1 transverse member + 2 back stays + six mounting feet; Drawing 2-C 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/mm<sup>2</sup>

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

The basic minimum structural requirement as per Drawing 2-D with side impact bars as in Drawing 2-E and roof reinforcement Drawing as in 2-F (Single Cross member is also allowed in Drawing 2-F).



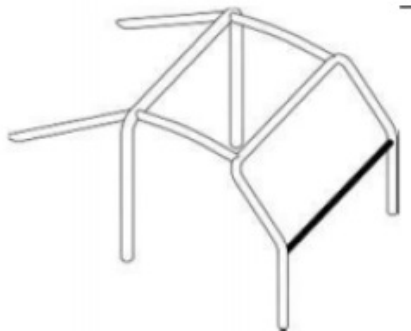
2-A



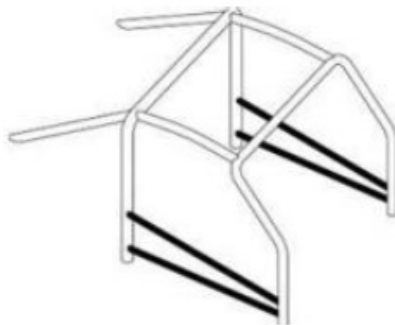
2-B



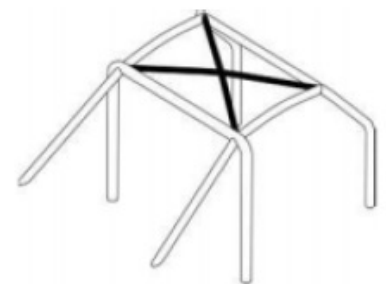
2-C



2-D



2-E



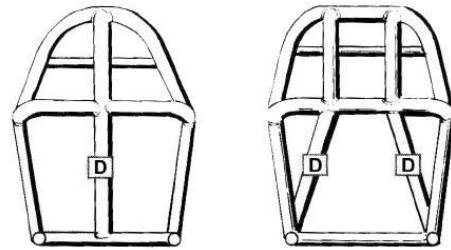
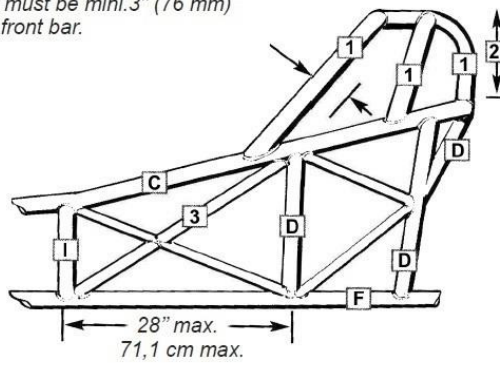
2-F



**Roll cage specifications:  
Drawing No.3**

**ALTEREDS**  
7.50 seconds (\*4.50) E.T. and slower  
(tubing dim. according to table 1)

Helmet must be mini.3" (76 mm)  
behind front bar.



Rear views

- 1 5 point attachment, use tube code B. For 6 point attachment use tube code A1. If using 5 point attachment, C will become tubing code A1
- 2 If over 18" (45.7cm), dimension C becomes A1
- 3 If an X or K is used then G, otherwise E

TABLE 1 - TUBING CODE / TABLEAU 1 - CODE DES TUBES			
	Outside diameter Diamètre extérieur	Wall thick. (Chrome Moly) Epaisseur (Chrome Molybdène)	Wall thick. (Mild Steel) Epaisseur (Acier doux)
A - 1	1 <sup>1</sup> / <sub>2</sub> " (3.81cm)	.065" (1.65mm)	.118" (3.02mm)
B	1 <sup>5</sup> / <sub>8</sub> " (4.13cm)	.065" (1.65mm)	.118" (3.02mm)
C	1 <sup>3</sup> / <sub>8</sub> " (3.49cm)	.058" (1.47mm)	.118" (3.02mm)
D	1 <sup>1</sup> / <sub>4</sub> " (3.18cm)	.058" (1.47mm)	.118" (3.02mm)
	1 <sup>1</sup> / <sub>8</sub> " (2.86cm)	.065" (1.65mm)	.118" (3.02mm)
E	3 <sup>3</sup> / <sub>4</sub> " (1.91cm)	.058" (1.47mm)	.118" (3.02mm)
	1" (2.54cm)	.049" (1.22mm)	.118" (3.02mm)
F	1 <sup>1</sup> / <sub>4</sub> " (3.18cm)	.058" (1.47mm)	.118" (3.02mm)
	1 <sup>3</sup> / <sub>8</sub> " (3.49cm)	.049" (1.22mm)	.118" (3.02mm)
G	5 <sup>5</sup> / <sub>8</sub> " (1.59cm)	.058" (1.47mm)	.118" (3.02mm)
H	1" (2.54cm)	.058" (1.47mm)	.118" (3.02mm)
I	1 <sup>1</sup> / <sub>4</sub> " (3.18cm)	.049" (1.22mm)	.118" (3.02mm)

### Brake Light

Every competing vehicle shall compulsorily be equipped with at least one functional and clearly visible brake light located at the rear of the vehicle and activated solely on the actuation of the brake pedal/lever and by no other means. Every competitor, on the crossing of the finish line, shall apply brakes to slow the vehicle down.

Any competitor who does not do so, as evidenced by the lack of illumination of the brake light, shall be disqualified from the run and will be reported to the stewards.

The working of brake lights shall be checked at the Start Line and the start shall be refused if the brake lights are found to be non-functional.

### HELMETS

- All cars running at 11.99 seconds and faster, drivers need to wear Helmets as per specifications defined in the FMSCI Racing Regulations.
- All cars running at 12 seconds and slower, drivers need to wear Helmets with either DOT or EC Approvals. Poly Carbonate Helmets are not permitted.

### OVERALLS, GLOVES, SHOES, ETC.

- All cars running at 11.99 seconds and faster, drivers will need to wear overalls, shoes and gloves as specified in the FMSCI Racing Regulations.
- All cars running at 12 seconds and slower, following needs to be adhered to: Full-length pants; short or long-sleeved shirt; closed shoes; and socks. No shorts. No tank tops. No open-toe or open heel shoes or sandals. Synthetic clothing not recommended.

**PLEASE REFER TO THE FMSCI SAFETY REGULATIONS <http://www.fmsci.co.in/safety-requirement-for-4-wheelers/>**

## **PARACHUTES**

As defined in 2020 FIA **Drag Racing: Technical Regulations and Race Procedures** Section 8 of General Regulation - Article 4.8

If outlined in Class Requirements, **mandatory to have a braking parachute produced by a recognized drag racing parachute manufacturer.** Dual parachutes are mandatory for all cars running 200 mph (312.87 km/h) or more or if required by Class Requirements. Scrutineers may observe the proper operation of the parachute and inspect for worn or frayed shroud lines, ripped or dirty canopies, and worn or ragged pilot chutes. Parachute cable housings should be mounted solidly to frame tube or other suitable member no farther back than 1 inch (25.4 mm) from the release handle. If automated push-button release system is used, driver must also be able to use handle to manually release the parachute(s). The release housing must be attached within 12 inches (304.8 mm) of the parachute pack and in a manner that will allow the inner cable to release the parachute. Parachutes must have their own independent mounting with sleeved 3/8-inch (10 mm) minimum steel bolts or steel pins required for all applications. Shroud line(s) mounting brackets must be constructed of minimum 0.090-inch (2.3 mm) steel.

The use of ball-lock pins for parachute mounting prohibited. If Parachute(s) are mandatory, all safety pins must be removed and the system must be armed before entering the designated burn out area.

\*\*\*END\*\*\*