



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

**2024**  
**Two-Wheeler Technical Regulations**  
**DRAG RACING**

## INTRODUCTION

- 1) These rules including the technical regulations, schedules and appendices contained herein, shall govern all competitions in which a two-wheeler (as hereinafter defined) may take part, organized in the territory of the FMSCI under an organizing permit issued by it for other than FIM Championship events. These rules shall be valid from **30<sup>th</sup> Jan 2024**.
- 2) 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. Some of the text comprises additions and adoptions drawn up in India to suit local conditions local competitions and local two-wheelers.
- 3) 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.
- 4) 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.
- 5) 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.
- 6) Unless otherwise stated, compliance with all regulations in this publication governing groups and classes, safety requirements, lists, technical specifications and definitions is MANDATORY.
- 7) 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.
- 8) Approval of a two-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.
- 9) 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.
- 10) 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.
- 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 classes are the approved classes which 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.

### **1.1 Groups**

All two wheelers shall be grouped as follows:

#### **1.1.1 Group SUPER SPORT**

All solo two-wheelers manufactured / assembled in India/ Sold officially in India, but modified within the frame work of the regulations listed.

#### **1.1.2 Group SUPER SPORT Indian**

All solo two-wheelers manufactured / assembled in India/ Sold officially in India, **homologated with FMSCI** but modified within the frame work of the regulations listed.

#### **1.1.3 Group SUPER STOCK Indian**

All solo two-wheelers manufactured / assembled in India/ Sold officially in India, **homologated with FMSCI** but modified within the frame work of the regulations listed.

### **1.2 Classes**

All two - wheelers will be divided into the following classes according to the Cubic Capacity of their engines.

#### **1.2.1 Scooters Super Sport**

a) upto 80 cc ( b) 81cc to 110cc (c)111cc to 160cc (d)161cc and above

#### **1.2.2 Motorcycles**

##### **A) 2 Stroke Super Sport**

- up to 130 cc
- 131 – 165 cc
- 350 cc and above

##### **B) 4 Stroke: Super Sport/ SuperSport Indian/ Super Stock Indian**

- up to 165 cc
- 166 – 225 cc
- 226 – 360 cc
- 361 – 550 cc
- 551 – 850 cc
- Single / Twin 551 – 750 cc
- Single/Twin 751 cc and above

##### **C) 4 Stroke Super sport**

- 851 – 1050 cc
- 1051 cc - 1650cc
- 1651cc and Above

##### **D) Unrestricted**

All solo two-wheelers whether series production, specials or otherwise, Indian or imported are permitted, provided they meet the safety regulations as defined in Technical Regulations.

- up to 395 cc
- 396cc to 550cc
- 551cc and above

### **NO CLASS CAN BE SUB-DIVIDED.**

Unless otherwise specified in special provisions imposed by the FMSCI for a certain category of events, organizers are not bound to include all the above-mentioned classes in the supplementary regulations.

**CHAPTER 1.3: SPECIFIC TECHNICAL REGULATIONS- SUPER SPORT/SUPER SPORTINDIAN/SUPER STOCK INDIAN**

This chapter describes the specific Technical Regulations and permitted modifications as applicable to different groups for two wheelers as defined in Chapter 1. – Whatever modifications have been carried out, the rider must at all times have easy access to all controls without having to remove his hands and feet from the handlebar and footrest respectively.

**Weight**

**NOTE- A MAXIMUM WEIGHT REDUCTION OF 40% +/-2%, UNDER THE HOMOLOGATED WEIGHT IS ALLOWED.**

**The Absolute Minimum weight inclusive of tolerance (40% + 2%) is given below in ready to run condition with all fluids and fuel. The weight will be checked either pre race or post race. Vehicles not meeting this spec will be disqualified.**

CURB WEIGHT		
VEHICLE	WEIGHT in KG	MIN. WEIGHT in KG
Bajaj Dominar 400	184	107
Bajaj Pulsar 150	150	87
Bajaj Pulsar NS160	151	88
Bajaj Pulsar 180	156	91
Bajaj Pulsar 220	160	93
Bajaj Pulsar NS200	156	91
BMW 310	164	96
Hero CBZ	148	86
Hero Karizma	154	90
Honda CBR 150	138	80
Honda CBR 250	167	97
Husqvarna Svartpilen 250	154	90
Husqvarna Vitpilen 250	153	89
Kawasaki Ninja 400	168	97
KTM 200	148	86
KTM 250	157	91
KTM 390	167	97
Royal Enfield Interceptor	202	117
TVS Apache RTR 160	140	82
TVS Apache RTR 180	139	81
TVS Apache RTR 200	153	89
TVS Apache RTR 310	174	101
TVS Fiero	115	67
Yamaha RD 350	155	90
Yamaha RX 135 5 Speed	116	68
Yamaha RX Z 4 Speed	115	68
Yamaha RX Z 5 Speed	115	68
Yamaha R15	142	83
Yamaha R3	173	101
Yamaha RX 100	103	60
Yamaha RX 135	116	68
Yamaha RX G	106	62

**IF A PARTICULAR VEHICLE IS NOT LISTED ABOVE, THE ONUS OF DEMONSTRATING A VERIFIABLE WEIGHT RESTS WITH THE COMPETITOR/TEAM.**

**WEIGHT**

**IN ORDER TO HAVE FAIR RACING THE MIN RACING WEIGHT WILL BE THE MIN WEIGHT OF VEHICLE + A NOTIONAL RIDER WEIGHT OF 55 KG. THE DETAILS ARE AS GIVEN BELOW.**

**THIS RULE WILL BE APPLICABLE TO ALL TWO WHEELERS BELOW 550 CC**

**THE MINIMUM WEIGHT AFTER 42% WEIGHT REDUCTION IS GIVEN IN THE TABLE UNDER CHAPTER 1.3**

**UNDER NO CIRCUMSTANCES CAN THE WEIGHT OF THE VEHICLE BE LOWER THAN THIS WEIGHT.**

**A NOTIONAL RIDER WEIGHT OF 55KG ( RIDER IN FULL RACING GEAR VIZ HELMETS +GLOVES + SHOES +RACING SUIT)**

**HENCE THE MINIMUM RACING WEIGHT OF THE VEHICLE INCLUSIVE OF ALL FLUIDS AND RIDER WILL BE MIN WEIGHT OF VEHICLE AS PER TABLE + 55KG**

IF THE COMBINATION OF MIN VEHICLE WEIGHT + RIDER IS LOWER THAN THE MINIMUM RACING WEIGHT , IT IS PERMITTED TO ADD BALLAST WEIGHTS TO BRING IT UPTO MINIMUM VEHICLE WEIGHT.

**THESE BALLASTS MUST BE SHOWN TO THE SCRUTINEER AND MUST BE FITTED AND SECURED WITH A BOLT THROUGH THE WEIGHTS AND SECURED WITH A NYLOC NUT . A 3 MM HOLE MUST BE DRILLED AT A POSITION AFTER THE NYLOC NUT ON THE BOLT SUCH THAT THE SCRUTINEER CAN PASS A LOCK WIRE AND SEAL THE SAME.**

**FOR THE SAKE OF CLARITY AND EASY UNDERSTANDING , PLEASE REFER THE TABLE BELOW**

*EG. BAJAJ DOMINAR 400* MIN WT AS PER TABLE IS 107 KG.

MIN RACINGWEIGHT OF VEHICLE INCLUSIVE OF ALL FLUIDS AND RIDER IS 107 + 55 = 162KG

MIN WT AS PER TABLE	ACTUAL VEHICLE WEIGHT	NOTIONAL RIDER WT/ RIDER WEIGHT	TOTAL VEHICLE + RIDER	BALLAST WEIGHT	MINIMUM RACING WEIGHT	PERMITTED AS PER REGS.	REMARKS
107 KG	107 KG	55KG	162 KG		162 KG	YES	
107 KG	107KG	35KG	142KG	20KG	162KG	YES	
107 KG	107 KG	75KG	182 KG		162 KG	YES	
107 KG	127 KG	35KG	162KG		162KG	YES	
107 KG	87 KG	75KG	162 KG		162 KG	NO	**SEE REASON BELOW

**\*\*VEHICLE WEIGHT LOWER THAN MIN WEIGHT AS PER TABLE**

## **COMMON PERMITTED MODIFICATIONS FOR SUPERSPORT/SUPERSPORT INDIAN**

### **1.3.1 FRAME/CHASSIS**

**NOTE-THE FRONT AND REAR SUSPENSION SHOULD HAVE A MINIMUM TRAVEL OF 15MM, WHEN THE VEHICLE IS PRESSED DOWN BY HAND**

The frame/Chassis should be as supplied by the manufacturer (OEM). The following modifications are permitted.

**The original sub frame which is the extended part after the rider seat till below the passenger seat which serves no purpose in supporting the rider weight can be cut and removed.** In case of bolt on sub frame the part after the rider seat and below the passenger seat may be removed/cut . The definition of sub frame is given in Chapter 2.1.8

Struts, clamps for attachment of components such as air filters, tool boxes, mudguards, battery carriers etc. which as a result of strip down to racing trim, having become totally unloaded and stress free, may be removed. Additional members required for fitment of different seat / fuel tank /gear lever and other accessories are permitted **Drilling of holes in other parts of the motorcycle's structural components (Frame/Chassis) is prohibited.**

### **1.3.2 Wheels / Tyres- FREE . They must also conform to Art.3.2.9, Art.3.2.10 and Art.3.2.11**

Drilling of holes on any part of the front wheel, brake, drum, hub or its component parts is permitted provided such modifications do not compromise the structural integrity of the components.

**1.3.3 Cooling:** Method of cooling free and may be altered from air cooling to liquid cooling **or vice versa**, Radiators and oil coolers free . Coolant is Free

**1.3.4 Fuel Tanks:** Free. As long as they are made out of metal (Any metal). And positioned between the handle bar and the rider's seat. The Technical Delegate/Scrutineer shall check the safety and welds and will not compromise on safety, when the fuel tank is not an OE fuel tank. Vehicles with fuel tanks that are not considered safe will not be allowed to start.

**1.3.5 Seats-** SHOULD BE MADE UP OF A RIGID MATERIAL. THE SEAT SHOULD HAVE A NON-SLIP MATERIAL/ PADDING WHERE THE RIDER SITS ON. STOPBOX BEHIND THE RIDER IS MANDATORY.

**1.3.6 Fuel :**Free. Only petrol may be used.

**ALL FASTENERS AND HOSES THROUGHOUT THE VEHICLE ARE FREE.**

## **1.4 PERMITTED MODIFICATIONS SUPERSPORT**

### **1.4.1 Suspension**

1. Front suspension **Free**

2. Rear suspension **Free**. However, the pivot point of the swinging arm with respect to the frame shall not be altered. **For clarity sake mono shock may be converted to dual shock or vice versa. The mounting points of the shock absorber/shock absorbers are Free.**

### **1.4.2 Brakes:** Free

**Front Brake:** The fitment of disc brakes is permitted and highly recommended for non-OEM motorcycles. Any combination disc brake assembly may be used in original or modified form. **Disc brake assemblies are FREE, however minimum diameter of front disc is 200mm.**

The OE drum brake may be replaced by another drum brake **not smaller than the OE drum brake. Imported Drum assemblies are permitted.**

**Rear Brake:** The fitment of disc brakes is permitted and highly recommended for non-OEM motorcycles. Any combination disc brake assembly may be used in original or modified form. **Disc brake assemblies are FREE, however minimum diameter of disc is 180mm.** Any combination brake assembly may be used in original or modified form. It is permitted to change from disc brake to drum brake or vice versa. In case of a drum brake, The OE drum brake or a **drum brake of minimum 130mm diameter** must be used. **Imported Drum assemblies are permitted.**

**1.4.3 Engine:** The original engine casting including cylinder bore and cylinder head casting must be used, however they may be modified by adding or removing material, so long as the identity of the original part can be ascertained. **All the internals are completely Free**, the number of valves free. Throttle bodies, carburetors, reed valves etc. are free Electronics and ignition control free. Cylinder head modifications free. Exhaust system free. Supercharging / turbo charging/Nitrous or a combination of any is permitted, **However, a multiplication factor of 1.7 will be applied to determine the CC classification. These forced induction/Nitrous machines will NOT be eligible to participate in lower CC classification categories by removing or disconnecting components of the forced induction/Nitrous system.**

#### **1.4.4 Gearbox:**

The Original Gearbox casting must be used, however they may be modified by adding or removing material, so long as the identity of the original part can be ascertained. Internals are Free, Ratios Free, Method of drive internally/externally free, No. of speeds Free, Method of gear shift Free, Pneumatic or electronic shift Permitted.

#### **1.4.5 Clutch: FREE**

#### **1.4.6 Fuel system.**

Fuel lines ,fuel hoses and fuel filters are free but must be fitted in such a way not to endanger the safety of the vehicle and should be protected from crash damage. Quick release connectors(dry break connectors ) suitable for high pressure fuel may be used. **Fuel pump and its location free.**

#### **1.4.7 Specific regulations regarding Chassis for two stroke supersport**

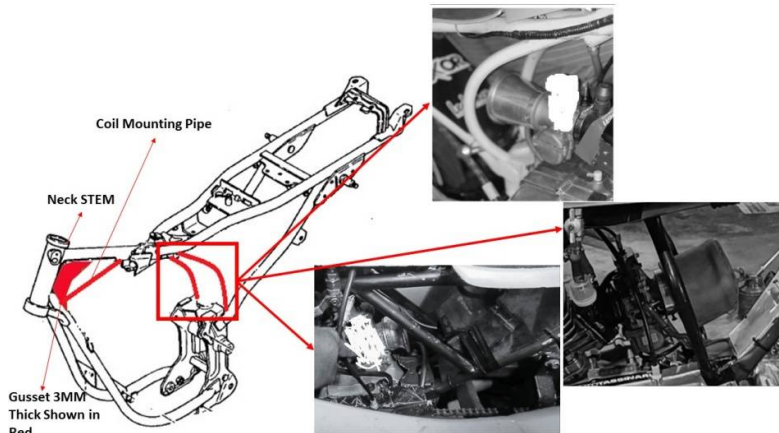
**This class will be restricted to the Yamaha RX and the Yamaha RD 350**

**The front neck stem 1( portion where steering cones fit ) and engine mounts should remain as original. and in addition to the modifications permitted under 1.3.1 , the following modifications are permitted as shown below .**

#### **For Yamaha RX**

a) **The original coil mounting pipe may be removed, provided a 3mm thick gusset similar to the pic shown is provided.**

b) **The chassis tube in front of the carburetor if cut must be replaced by two tubes welded in the same area to provide spacing for use of a carburetor bell mouth. The shape is free and the pic shows a few options. The pipe used must be minimum 18mm dia and 1.5mm wall thickness. It is permitted to remove all original fuel tank mountings, centre stand brackets and other original brackets not being used. All welds and fabrication must be of good quality. The scrutineers decision will be final on the acceptance of the same.**

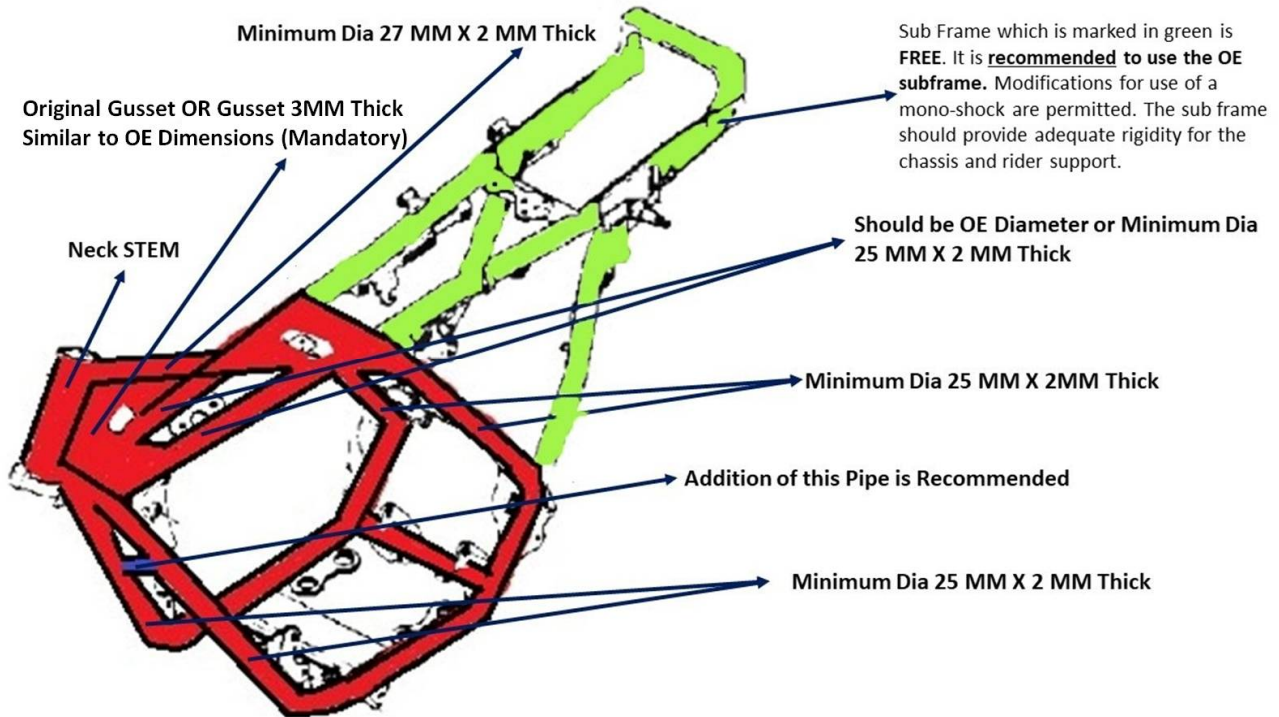


## FOR YAMAHA RD 350

The OE chassis frame for the portions marked in red should be used.. It is permitted to remove the stand bracket and replace with an additional tube. For clarity sake the minimum dimensions of the tubes are provided in the pic below.

It is permitted to remove stand bracket and replace with a tube connecting both sides.

We have also given a recommendation regarding reinforcing the front portion with a tube shown in blue. **Any additional reinforcement is permitted.** All welds and fabrication must be of good quality. The scrutineers decision will be final on the acceptance of the same.



## 1.5 PERMITTED MODIFICATIONS SUPERSPORT INDIAN

### 1.5.1 Suspension:

**Front Fork, Tstem and triple clamp assembly Free** . Piston rod bolt is FREE. In case of Earls suspension, the length of the swinging arm may be altered, the shock absorber mounting points may be altered.

#### Rear

The swinging arm may be strengthened by addition of material only. The length of the swinging arm may be altered. The shock absorber mounting points may be altered. The **pivot point of the swinging arm with respect to the frame shall not be altered.** **It is permitted to use a fabricated swing arm made of aluminum or other metals provided the welds etc are of good quality.** The scrutineers decision will be final on the acceptance of this swing arm. **Shock absorbers are Free.**

### 1.5.2 Brakes

**Front Brake:** The fitment of disc brakes is permitted and highly recommended for non-OEM motorcycles. Any combination disc brake assembly may be used in original or modified form. **Disc brake assemblies are FREE,** however **minimum diameter of front disc is 200mm.**



The OE drum brake may be replaced by another drum brake **not smaller than the OE drum brake. Imported Drum assemblies are permitted.**

Rear Brake: The fitment of disc brakes is permitted and highly recommended for non-OEM motorcycles. Any combination disc brake assembly may be used in original or modified form. **Disc brake assemblies are FREE, however minimum diameter of disc is 180mm** .Any combination brake assembly may be used in original or modified form. It is permitted to change from disc brake to drum brake or vice versa. In case of a drum brake, The OE drum brake or a drum **brake of minimum 130mm diameter must be used .Imported Drum Assemblies are permitted.**

**1.5.3 Engine:** The original engine casting including cylinder bore and cylinder head casting must be used, however they may be modified by adding or removing material (Except cyl head which is given below ) , so long as the identity of the original part can be ascertained. Throttle bodies, carburetors, reed valves and injectors are free Electronics and ignition control free. Exhaust system free ..Crankshaft assembly free, Cam shaft and rocker arms are free. Piston and piston rings free, re-boring permitted to the maximum cc rating of class entered.

**1.5.4 Cylinder Head.** The original cylinder head must be used, however machining the deck , porting and polishing is permitted. The shape and size of ports are free. No addition of material by welding or otherwise permitted. Valve seats may be modified to change the valve size. The number of valves must remain as homologated. Valve springs are free but type and number to remain as homologated. Valve clearance shims are free. The head gasket is free.

#### **1.5.5 Gearbox:**

The Original Gearbox casting must be used, however they may be modified by adding or removing material, so long as the identity of the original part can be ascertained. Gear Ratios Free , No. of speeds should remain as homologated. Front and rear drive chain sprockets are free Method of gear shift Free, Pneumatic or electronic shift Permitted.

#### **1.5.6 Clutch**

The clutch system (wet or dry type) should remain as homologated. Lightening and balancing permitted on primary gear and clutch basket and clutch centre. Clutch springs free ( shims to increase preload free). Clutch plates and drive discs are free.

#### **1.5.7 Fuel system.**

Fuel lines ,fuel hoses and fuel filters are free but must be fitted in such a way not to endanger the safety of the vehicle and should be protected from crash damage. Quick release connectors(dry break connectors ) suitable for high pressure fuel may be used.

Only Indian component fuel pump in original or modified form may be used. Additional fuel pump and sensors are not permitted.

## **1.6 PERMITTED MODIFICATIONS SUPER STOCK INDIAN**

**1.6 Chassis :** The chassis must remain as supplied by the manufacturer ( **OEM**)

#### **1.6.1 Suspension:**

**Front** The front fork must remain as originally supplied by the manufacturer.

## **Rear**

The original swing arm must be retained. The only modifications permitted are brackets or fixtures for mounting of wheel stands.

### **1.6.2 Brakes Both front and rear brakes should be as supplied by the manufacturer..**

**1.6.3 Engine:** The original engine casting including cylinder bore and cylinder head casting must be used, however. Throttle bodies, carburetors, reed valves and injectors are free, Electronics and ignition control free. Exhaust system free. Cam shaft and rocker arms are free. Piston and piston rings free, re-boring permitted to the maximum cc rating of class entered.

**1.6.4 Cylinder Head.** The original cylinder head must be used, however machining the deck, porting and polishing is permitted. The shape and size of ports are free. No addition of material by welding or otherwise permitted. The number of valves and size must remain as homologated. Valve springs are free but type and number to remain as homologated. Valve clearance shims are free.

### **1.6.5 Front and rear chain sprockets: Free**

**1.6.6 Wheels :** As supplied by the manufacturer, **Tyres** must be the same size as supplied , **Make of tyres Free**

**1.6.7 Bodywork :** **Must be as supplied by the manufacturer. Mudguards and chain guard as supplied by the manufacturer.**

**1.6.8 Seats . Free** A rear seat stop behind the rider is recommended

**1.6.9 Foot pegs and gear and brake control levers are free .** However their mounting should be OE. **Quick shift gear change mechanism permitted**

## **1.7 Specific regulations for two wheelers Group UNRESTRICTED**

Provided it complies with regulations listed under Classification of two wheelers and common technical regulations, there is no restriction on the make, design or type of two-wheeler that may be driven in competition held under these regulations, save as may be provided in the Supplementary Regulations

**Supercharging/Turbo-charging/NitrousOxide or a combination of any is allowed. However a multiplication factor of 1.7 will be applied to determine cc classification.**

## **CHAPTER 2: DEFINITIONS**

### **2.1 Two-Wheeler**

A two-wheeler is a two wheeled vehicle making only one track on the ground, propelled by an engine and designed essentially to carry one rider and may be another passenger.

#### **2.1.1 Motorcycle**

A two-wheeler with both the wheel-rims having a diameter not less than 400mm and using a clutch (centrifugal or manual) and a gearbox (manual, variomatic or auto gear) which offers more than a single speed transmission ratio (stepped or stepless) between engine and rear wheel.

#### **2.1.2 Scooter**

A two-wheeler with both wheel-rims having a diameter less than 400mm and having a free/open space in front of the seat for the passage of rider's legs.

#### **2.1.2 a Moped**

A two wheeler with both the wheel-rims having a diameter not less than 400 mm and having a single fixed transmission ratio between engine and rear wheel. It may have auxiliary pedals or a kick start.

#### **2.1.3 Indian Two-Wheeler**

A two-wheeler manufactured in India and is available for sale to the public through the normal commercial outlets of the manufacturer in a minimum of two hundred (200) numbers of identical examples within a period of twelve (12) consecutive months. The two-wheeler may be wholly or partially manufactured and / or assembled in India from Indian and/ or imported components.

#### **2.1.4 Model of two – wheeler**

A two-wheeler belonging to a production series distinguishable by a specific conception and external general lines of body work and by an identical mechanical construction of the engine and the transmission to the wheels.

#### **2.1.5 Original Equipment of Manufacturer (OEM)**

All components of a motorcycle that are supplied by the manufacturer as original fitment and homologated with the FMSCI. Wherever "OE" is mentioned, it pertains to the make/model of the motorcycle entered.

#### **2.1.6 Indian component**

A component manufactured in India and / or a component imported by the manufacturer of an Indian two-wheeler and fitted as 'original equipment' (OE) on the vehicle. This definition also includes any component not fitted by the manufacturer as Original Equipment (OE) provided such component is manufactured in India in a minimum of 2500 nos. within a period of 12 consecutive months and is freely available for sale to the public as an aftermarket direct replacement through normal commercial outlets. It shall have the same function as that of the OE component it replaces.

The FMSCI may waive the minimum production requirement should circumstances so warrant.

#### **2.1.7 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.

#### **2.1.8 Definition of Sub Frame**

This is the triangular and twin parallel steel tubes beneath the seat ,the rear seat cowl and the rear part of the fuel tank attached or welded into the main frame near the shock absorber top mount .

### **2.2 Homologation**

It is the official certification made by the FMSCI that a minimum number of two hundred (200) Indian two-wheelers of specific model have been made on series production basis to justify classification. All two-wheelers that conform to the definition of Indian two-wheeler will be required to be homologated with the FMSCI to be eligible to compete in any National event in India. Once homologated the vehicle's homologation will continue to stay valid up to 5 years after the discontinuation of that model. Indian two wheelers which have been homologated with FIM will automatically be homologated with the FMSCI. All FIM homologated two wheelers are automatically accepted by the FMSCI.

### **2.2.1 Homologation Form**

A form containing all technical data required for homologation and identification of the said two-wheeler.

(i) The presentation of homologation form at scrutiny and / or at the start may be required by the organizers who will be entitled to refuse the participation of the entrant in the event of non-presentation.

(ii) In case of any doubt remaining after checking of a competing two-wheeler against its homologation form, the scrutineer may refer to either the workshop manual or the spare parts catalogue published by the manufacturer of the two-wheeler

(iii) In case of lack of sufficient technical specifications, scrutineers may carry out direct scrutineering by comparison with the said part obtained from the manufacturer or his authorized dealer.

#### **The FMSCI homologation form consists of the following:**

1. A basic form giving technical specifications of the basic model

2. Additional sheets describing 'homologation extensions' which can be variants, errata or evolutions which may be issued from time to time.

##### **(a) Variants (VF)**

These are supply variants (more than one supplier providing the same part to the Manufacturer, where the purchaser does not have any choice).

##### **(b) Variants (VO)**

These are options offered by the Manufacturer through the normal commercial outlets.

##### **(c) Interchange of parts within Variants**

Where the manufacturer has used similar parts in their variants, it is permitted to interchange the parts between variants as long as they are dimensionally and functionally the same.

##### **(d) Erratum (ER)**

Cancels an incorrect piece of information previously furnished by the manufacturer / constructor and replaces it by a corrected one.

##### **(e) Evolution (ET)**

Characterizes modifications made on a permanent basis to the basic model where there is complete cessation of the production of the two-wheeler in its old form.

##### **(f) Evolution (ES)**

Sporting evolution characterized by modification made on a permanent basis intended to render a model more competitive.

**2.2.2** For Evolution (ET) changes, any component which is homologated as ET evolution is freely interchangeable within the same model without any modification, as allowed for Variant (VF) or Variant (VO).

## **CHAPTER 3: COMMON TECHNICAL REGULATIONS**

### **3.1 General Conditions**

In respect of all two wheelers, the drive shall be transmitted to the ground only through the rear wheel of the machine.

To reduce the torque in the steering, it is allowed to displace the front wheel and rear wheel leaving a maximum width of 75 mm between them (refer definition of two-wheeler 'One Track').

**The following items shall not be altered from a homologated two wheelers unless otherwise stated.**

a) Type of engine.

b) Numbers of cylinder(s).

c) The material and casting of the crankcase, cylinder, cylinder-head and the gear box shell.

d) Position of the cylinder/s and head/s relative to the crankcase and its construction material.

### **3.2 General Prescription**

The General Prescriptions given below must be adhered to while making any modifications / changes in the two-wheeler. The two-wheeler in the form as sold by the manufacturer must undergo necessary changes where its construction is contradictory to the definitions as laid down in Chapter 1. Modification / changes if required for safety purpose as laid down further in this chapter must also be carried out to make the two-wheeler take part in the concerned competition.

#### **Measurement of capacity**

The capacity of each engine cylinder is calculated by the geometric formula which gives the volume of a cylinder, the diameter is represented by the bore, and the height by the space swept by the piston from its highest to lowest point:

$$\text{Capacity} = \frac{D^2 \times 3.1416 \times C}{4}$$

Where, D = Bore (in cm) and C = Stroke (in cm).

#### **3.2.1 Starting Devices**

Starting devices are not obligatory for two wheelers in Drag events.

#### **3.2.2 Exhaust Pipes**

The extremity of the exhaust pipes for all two wheelers must not pass the vertical tangent of the rear tyre. Exhaust fumes must be discharged, towards the rear, but not in the manner as to raise dust, foul the tyres or brakes or directly on the track or cause inconvenience to the other rider.

#### **3.2.3 Throttle controls**

For all two wheelers, throttle controls must be self-closing when not held by the hand.

#### **3.2.4 Footrests**

Footrests may be relocated & must not be positioned more than 100 mm above a straight line passing through the centre of the wheels when the motorcycle is normally loaded. Rear foot peg and assembly's, clamps must be removed.

#### **3.2.5 Chains**

The locking clips on the connecting links, where fitted, must be tight fitting and fitted in the forward correct direction.

#### **3.2.6 Chain Guards**

If the primary transmission is exposed, it must be fitted with a guard as safety measure designed in such a manner that under no circumstances can the rider come into accidental contact with the transmission parts.

No guard shall be permitted over the secondary chain except at the bottom of the secondary Chain where the chain comes in contact with the sprocket. The chain guard is to prevent the rider's foot from contact with the chain and the rear sprocket.

### **3.2.7 Kill Switch**

All motorcycles must be equipped with an electrical contact which disconnects all electricity to the engine.

### **3.2.8 Brakes**

All two wheelers must be equipped with one efficient brake operating on each wheel, operated independently and concentrically with the wheel.

#### **3.2.8.1 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.

### **3.2.9 Wheel rims / discs spokes**

**Unless otherwise stated in the specific regulations the wheel rims are Free .** The wheels may be replaced with wheels of a size between 16-18 inches (both inclusive), if not fitted with the original sized wheels. The rear rim should not be more than 50 mm narrower than the contact surface of the rear tyre. Replacement wheels are permitted front and rear of the same size as homologated/as the specific regulations specify. Any modification to the rim or spokes of an integral wheel (cast, moulded, riveted) as supplied by the manufacturer or of a traditional detachable rim, other than for spokes, valves or security bolts is prohibited except for tyre retention screws sometimes used to prevent tyre movement relative to the rim. If rim is modified for these purposes, bolts, screws, etc. must be fitted.

All wheel spokes should be taut and intact.

### **3.2.10 Tyres**

The tyres should be in sound condition, with no signs of perishing or cracking and with no cuts on the side walls and tread surface. For Motorcycles with top speed exceeding 200 km/h it is recommended to have V'-rating or be of road racing or Drag racing type, however the min speed rating is "S" .For motorcycles with top speed below 200kmph it is recommended to have an "S" rating tyre and a min speed rating of "N" . In controlled tyre events where tyres are supplied by the organizers, tyre regulations as specified in event supplementary regulation shall be followed.

### **3.2.11 For Drag Racing.**

(a) The surface of the tyre can be smooth (i.e., Without treads / grooves-slick) or treaded.

(b) The tread pattern is unrestricted

(c) If treaded, the safe minimum depth of the tyre tread must be at least 2.5 mm at the pre-event scrutiny. In the classes up to 80cc, this minimum depth is 1.5. mm.

(d)The surface of the slick tyre must contain 3 or more hollows at 120 degrees intervals or less, indicating the limit of wear on the centre and shoulder areas of the tyre. The safe minimum depth of the tyre tread must be at least

2.5 mm at the pre-event scrutiny. In the class up to 80cc this minimum depth is 1.5 mm. When at least two of these hollows become worn on different parts of the periphery, the tyre must no longer be used.

### **3.3 Fuel**

Free - Only Petrol may be used. Octane boosting additives are permitted.

### **3.4 Equipment and protective clothing**

#### **3.4.1 Helmets**

Crash Helmets

Crash helmets of standard design and construction must be used by competitors in all events. Competitors must ensure that helmets worn are suitable for the type of the event entered. The user must ensure that the crash helmet is in a serviceable condition, that it fits properly and that is secured properly. Only helmets designed for road racing is permitted, motocross type helmets are forbidden. Repairs of any kind are forbidden including stitching of double "D" rings. Helmets to be maintained as supplied by the manufacturer. The decision of the scrutineer/ Technical delegate is final.

Helmets must be of the full-face type and the recognized international standards as mentioned below are recommended.

- Europe: ECE 22-05 'P'
- Japan: JIS T 8133:2000, JIS T 8133:2007
- USA: SNELL M 2005, SNELL M 2010"

#### **SHARING OF HELMETS IS STRICTLY FORBIDDEN.**

Competitors must wear crash helmets at all times during training, practice, qualifying and competition.

Fit and security

To ensure satisfactory fit and security of your helmet, proceed as follows

- a) Obtain correct size by measuring the crown of your head
- b) Check that there is no side-to-side movement; a helmet should fit snugly without causing discomfort.
- c) Tighten straps securely - the chin strap must be under tension at all times; ensure therefore that the strip cannot slip. Chin cups are prohibited.
- d) With head forward, attempt to pull up the back of the helmet to ensure helmet cannot be removed this way. Ensure you can see clearly over each shoulder.
- e) Make sure nothing impedes your breathing in the helmet. And never cover your nose or mouth.
- f) Never wear a scarf, tie or other loose clothing which could come loose and possibly cause an accident.
- g) Ensure that the visor can be opened with one gloved hand.
- h) Satisfy yourself that the back of the helmet provides protection for your neck.

#### **Condition and care of helmets**

- a) The user himself must bear the prime responsibility for ensuring that his helmet is fit for the purpose intended, since significant damage to the helmet may have been sustained without this being apparent to the Scrutineer.
- b) It is strongly recommended that the competitor buy the best possible helmet he can (the best is not necessarily the most expensive). A helmet bag should always be used.
- c) There must be no alteration to the structure of a helmet. Where a radio is fitted this should only be done in accordance with the helmet manufacturer's instructions.
- d) Repainting of helmets, affixing stickers thereon or drilling holes is not advisable as this may weaken the structure of the helmet; such weakening may not be visually apparent.

As there are specialized helmets to suit various disciplines of motor sports, competitors are advised to use the type applicable to the event in which they compete.

It is recommended that the helmets are replaced after three years after purchase, irrespective of use they have been put to. The fastening of the chin strap must only be by buckles / clips.

Use of plastic interlocking connects is prohibited.

e) Use only a weak solution of soft soap and water to clean the interior and exterior of the helmet; do not get the interior too wet.

f) The helmet should be stored, preferably in a helmet bag, in a cool dry place away from sunlight when not in use.

g) A good helmet, properly cared for, is one very important link in a long chain of safety measures. Do not allow it to become the weak link. Do not rely on others. You are responsible for your own safety. Do not, through your own fault, become a grave burden to others.

NOTE: Total protection can never be given by any headgear and the best of crash helmets may not entirely prevent head injury or death in a severe accident. Helmet users must understand that helmets are deliberately constructed so that the energy of severe blow will be absorbed by the helmet and thereby partially destroy it. The damage may not be readily apparent; it is recommended that therefore that any helmet receiving a blow in an accident is replaced. This must be the responsibility of the of the helmet user, who will have been aware of the circumstances under which the helmet was struck. It is neither possible nor reasonable to expect the scrutineer, in every case, to observe significant damage. Where there is any doubt the helmet's fitness, the Chief Scrutineer is empowered to reject the same. It is the competitor himself who must ensure that the helmet which he uses is fully fit for its purpose. It is clear that this is a small insurance to pay for one's life. The competitor must also consider that, should he survive an accident, but receive head injuries having knowingly used a previously damaged helmet, he could be placing enormous burden of care upon his family.

Mounting of camera on the helmet is strictly forbidden. In case of mounting of cameras on the bike, the mounting points, brackets etc. should be specifically mentioned to the Scrutineers during pre-event scrutiny and approved by the Scrutineers.

#### **Unauthorised mounting of foreign objects to helmets**

Under no circumstances may objects (including cameras) be mounted or attached to the helmet of the rider unless express permission has been provided by the manufacturer of the helmet. This permission should be available for inspection by the scrutineer / technical delegate at the Event

#### **3.4.2 Gloves**

The rider must wear full leather competition gloves meant for road racing / drag racing.

#### **3.4.3 Footwear**

The rider must wear footwear of leather meant for road racing / Drag racing to provide complete protection above the ankles.

#### **3.4.4. Clothing**

##### **3.4.4.1 For Drag Racing**

The rider must wear a one piece or two-piece complete suit of leather of at least 1.2 mm in thickness (on all parts of the suit). Two-piece leather suit must have interlocking zip mechanism between the upper and lower suit. Synthetic materials which may melt and which could harm a rider's skin shall not be used. The following areas are recommended to be padded with at least a double layer of leather or enclosed plastic foam of at least 8mm thick; Shoulders, Elbows, both sides of the torso and hip joint, the back of the torso, knees.



Use of a **back protector or spine protector** separately or built into the leather suit is recommended.

#### **3.4.5 Ponchos**

Ponchos of any kind shall not be worn for drag racing.

#### **3.4.6 Locking devices**

Front and rear axle and swing arm should be secured with self-lock nuts or locking pins.

#### **3.4.7 Engine Sealing**

A hole must be made to use wire sealing for the engine.

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

