



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



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## 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 **10<sup>th</sup> March 2017**.
- 2) These rules have been drawn up for the proper and equitable conduct of motor sports and are based on the International Sporting Code of the FIM 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 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, Technical Regulations 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.



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## CHAPTER 1 : CLASSIFICATION

### 1.1 Groups

All two wheelers shall be grouped as follows :

#### 1.1.1 Group SUPER SPORT

All solo two-wheelers whether series production, specials or otherwise, Indian or imported.

#### 1.1.2 Group SUPER SPORT INDIAN

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

#### 1.1.3 Group PRO STOCK

All solo two - wheelers manufactured / assembled in India, homologated with the FMSCI but modified within the framework of the regulation listed.

#### 1.1.4 Group STOCK

All Solo two-wheelers manufactured / assembled in India, homologated with the FMSCI

### 1.2 Classes

All Indian two - wheelers other than SUPER SPORT, will be divided into the following classes according to the Cubic Capacity of their engines.

#### 1.2.1 Mopeds

| Class     | Engine Capacity |
|-----------|-----------------|
| Class P-0 | Up to 75 cc     |

#### 1.2.2 Motorcycles

##### 1.2.2.1 Motorcycles - 2 stroke & 4 stroke

| Class     | Engine Capacity           |
|-----------|---------------------------|
| Class M-1 | Up to 130 cc              |
| Class M-2 | Above 130 cc up to 165 cc |
| Class M-3 | Above 165 cc up to 200 cc |
| Class M-4 | Above 200 cc up to 300 cc |
| Class M-5 | Above 300 cc up to 400 cc |

#### 1.2.3. Scooters

| Class     | Engine Capacity          |
|-----------|--------------------------|
| Class S-0 | Up to 80 cc              |
| Class S-1 | Above 80 cc up to 110 cc |

|           |                           |
|-----------|---------------------------|
| Class S-2 | Above 110 cc up to 160 cc |
| Class S-3 | Above 160 cc up to 210 cc |

**1.2.4. Motorcycles Group SUPER SPORT only**

**Class M-6**

600 cc to 675 cc (Single or Twin Cylinders)

**Class M-7**

1000 cc +

**1.2.5** A vehicle may be homologated and entered only in the class under which it falls, as detailed above.

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.

NO CLASS CAN BE SUB-DIVIDED.



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## 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.

#### 2.1.3 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.

#### 2.1.4 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.

#### 2.1.5 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.

#### 2.1.6 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.

#### 2.1.7 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.

### **2.1.8 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.

## **2.2 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.

### **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 twowheeler 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).

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## 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
- e) Its construction material

Gussets or tubes may be added

### 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.

#### 3.2.1 Number Plates

Number plates (Where Applicable) must be three in number and may be oval or rectangular in shape They may be made from rigid and solid material (plastic or fiberglass) and should measure not less than 285 mm x 235mm. The plates must not be curved more than 50 mm out of the true plane. One plate must be fixed to the front, inclined not more than 30 degrees rearwards from the vertical. The others must be placed vertically on each side of the machine, facing outward. They must be fixed in such a manner as to be clearly visible and they must not be masked by any part of the machine or by the rider / pillion rider when seated in the riding manner. In case of separate plates, a space of equivalent size of the bodywork can be painted with matt colors or fixed. The figures must be clearly legible and the background painted with matt colors to avoid reflection from sunlight. The minimum dimensions of the number letters are:

|                      |        |
|----------------------|--------|
| Height of the figure | 140 mm |
| Width of the figure  | 080 mm |

|                               |        |
|-------------------------------|--------|
| Width of the Stroke           | 025 mm |
| Space between the two figures | 015 mm |

The English form of letters should be used. The space of a least 5 cms must be left free all round the number plates in which no advertising may appear. Any other number or marking on the machine that may be confused with the competition number plate must be removed before the start of the competition. The side number plate must be positioned above a horizontal line drawn through the rear wheel spindle and front edge of the plate must be behind a vertical line drawn 200 mm to the rear of the rider's footrest. The space between the numbers may be perforated on the number plate. Machines with number plates which do not conform to the above listed specifications shall not be passed by the Technical Steward. The Chief Time Keeper may direct the removal of any other number not connected with the competition number, if in his opinion, the presence of the number could prejudice the operation of timing and scoring. The color of the number and background must be of light and dark contrasting colours respectively. The competition numbers may be painted on the bike and must be clearly legible/visible. No design fonts are allowed. The size of numerals must conform to Art.3.2.1

### **3.2.2 Starting Devices**

Starting devices are not obligatory for two wheelers in races or for machines used for world record attempts. Engine Kill Switch is mandatory.

### **3.2.3 Exhaust Pipes**

The extremity of the exhaust pipes for all two wheelers must not pass the vertical tangent of the rear tyre. The end to the exhaust pipe, over a minimum distance of 30mm must be horizontal and parallel to the central axis of the two wheeler with a tolerance of +/- 10 degrees. Exhaust fumes must be discharged, towards the rear, but not in the manner as to raise dust, foul the tyres or brakes or inconvenience other riders.

### **3.2.4 Control Levers**

For all type of two wheeler all handlebar levers (Clutch, Brake etc.,) must be in principle ball-ended. The diameter of this ball should be at least 19 mm. This ball can also be flattened, but in that case the edges must be rounded with minimum thickness of this flattened part being 14mm. These ends must be permanently fixed and form an integral part of the lever. The maximum length of control levers measured from the pivot point to the extremity of the ball must not exceed 200mm. Each control lever if pivoted on the footrest axis must work under all circumstances, such as the footrest being bent or deformed. The handlebar lever must be mounted to swivel, so that at no time can the rider's fingers be trapped between the lever and the handlebars. Each lever must be mounted on an independent pivot. The end of the levers when closed must not be situated closer than 40mm to the furthest extremity of the handlebar.

Gear levers are allowed to be cut.

### **3.2.5 Throttle controls**

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

### **3.2.6 Handlebars**

The minimum angle of rotation of the handlebar on each side of the centerline or mid position must be 20 degrees. Stops, other than steering dampers must be fitted to ensure a minimum clearance of 30mm between the handlebar with levers and the tank when on full lock to prevent trapping the rider's fingers. The handlebar grips must be not longer than 150mm and must be attached to the ends of the handlebars. Exposed handlebar end must be plugged with a solid material or they be rubber covered.

Handlebar clamps must be very carefully chamfered and engineered so as to avoid fracture points in the bar.

Handle bar or neck lock system must be removed or dismantled completely.

#### **3.2.6.1 For Circuit Racing**

The extreme width of the handlebars shall not be less than 500 mm. Whatever the position of the handlebars, the front wheel should not make contact with any part of the streamlining.

### **3.2.7 Footrests**

The footrests of the rider must be placed in front of the vertical line passing through the centre of the rear wheel. They must be positioned to give easy access to any control pedal without the rider having to lift his foot off the footrest in order to operate the pedal. The ends of the footrests must be rubber covered or rounded off with a spherical radius of not less than 8 mm. Strengthening of OE footrest is allowed. The decision of the scrutineer is final.

**3.2.7.1 For Circuit Racing** 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.

#### **3.2.7.2 Radiator coolant**

Any glycol coolants are prohibited, plain water without any additives has to be used.

3.2.7.3 All motorcycle to be fitted with front brake & clutch lever protectors.

### **3.2.8 Chains**

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

### **3.2.9 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 in to accidental contact with the primary transmission part.

#### **3.2.9.1 For Circuit Racing**

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 may be fitted.

### **3.2.10 Inclination and Suspension**

It must be possible for all two wheelers not being loaded to be inclined to an angle of 50 degrees from the vertical without any part of it other than the tyres coming in to contact with the ground.

### **3.2.11 Streamlining**

Streamlining may be used for events and must comply with the following regulations:

- a) The front wheel, with the exception of the tyre must be visible from either side
- b) There must be no streamlining forward of a straight line drawn vertically through the front edge of the front tyre.
- c) There must be no streamlining to the rear of a straight line drawn vertically through the rear edge of the rear tyre. The rim of the rear wheel must be clearly visible for the 180 degrees of its circumference to a vertical line through the rear axle. No part of the machine other than the mudguard, may project to the rear of a straight line drawn vertically through the exterior edge of the rear tyre.
- d) Normal mudguards are not considered as streamlining.
- e) No part of the seat or saddle or anything to the rear of these must be more than 900 mm above ground when the motorcycle is not loaded.
- f) There must be a working clearance between the streamlining and extremities of the handlebar, whatever the position of the handlebar.

### **3.2.12 Stands**

For circuit racing fitting of stands of any kind is not permitted.

### **3.2.13 Rear view mirrors**

Rear view mirrors shall not be permitted for all circuit racing.

### **3.2.14 Mudguards**

Mudguards may be removed for circuit racing only. If it is not removed then the following rules will apply. Mudguards must project laterally beyond the tyres on each side.

#### **3.2.14.1 Front Mudguard**

The front mudguard must cover at least 100 degrees of the circumference of wheel. The angle formed by a line drawn from the front edge of the mudguard to the centre

of the wheel and one drawn horizontally through the centre of the wheel must be between 45 degrees and 60 degrees. The angle formed by two lines, one drawn from the rear edge of the mudguard to the centre of the wheel and one drawn horizontally through the centre of the wheel shall not exceed 20 degrees. It is permitted to strengthen the existing front mudguard and / or brackets.

### **3.2.14.2 Rear Mudguard**

#### **(a) For other events**

The rear mudguard must cover at least 120 degrees of the circumference of the wheel and the angle contained by a line drawn from the rear edge of the mudguard to the centre of the wheel and a line drawn horizontally through the centre of the wheel shall not exceed 20 degrees when measured with the crew sitting on the machine.

### **3.2.15 Horns**

For circuit racing any kind of horns not permitted, if fitted must be disconnected / non-functional.

### **3.2.16 Brakes**

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

### **3.2.17 Wheel rims / discs spokes**

Any modification (see Art. 4.2.5.7) 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.

### **3.2.18 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. In controlled tyre events where tyres are supplied by the organizers, tyre regulations as specified in event supplementary regulation shall be followed.

### **3.2.19 For Road 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 upto 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 atleast 2.5 mm at the pre-event

scrutiny. In the class upto 80cc this minimum depth is 1.5 mm. When atleast two of these hollows become worn on different parts of the periphery, the tyre must no longer be used.

### 3.3 Fuel

The use of the following listed fuels is permitted.

- (a) Any commercially available fuel at regular fuel outlets (petrol pumps)
- (b) Commercial aviation fuel conforming to 100/130 AV gas or race fuel provided the same is made available by the organizers.

The use of aromatic or alcoholic fuel is prohibited. Power boosters and octane boosters are prohibited. Only air shall be used as an oxidizing agent. Nitrous oxide and water injection are prohibited.

A sample of the fuel of the first three finishers or of any other rider selected at random who finishes may be tested at the event or sent for testing with FMSCI approved / accredited laboratory

### 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. The decision of the scrutineer is final.

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Helmets must be of the full face type and conform to one of the recognized international standards as mentioned below :

- Europe: ECE 22-05 'P'
- Japan: JIS T 8133:2000, JIS T 8133:2007 JIS T 8133:2015 (Only Type 2 Full face)
- USA: SNELL M 2005, SNELL M 2010 ", SNELL M 2015

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.

#### **3.4.2 Gloves**

The rider must wear full leather competition gloves meant for circuit racing

#### **3.4.3 Footwear**

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

#### **3.4.4. Clothing**

##### **3.4.4.1 For Road Racing**

The rider must wear a one piece/two piece complete suit of leather of at least 1.2 mm in thickness (on all parts of the suit) or of similar material or suit able thickness. 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 separately or built into the leather suit is compulsory

. The use of chest protector is highly recommended.

#### **3.4.5 Ponchos**

Ponchos of any kind shall not be worn for 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 Minimum weight

For the Group STOCK bikes, the minimum weight will be the homologated weight less 10%. No other weights like RC book, tested, kerb weight will be considered.

For all other Classes/groups except Super Sport Indian the minimum weights are as follows.

For Super Sport Indian the following weights shall be reduced by 5 kgs

|                                      |  |
|--------------------------------------|--|
| Class M-1 Up to 130 cc               | Weight of Motorcycle + rider 145 Kgs.            |
| Class M-2 Above 130 cc up to 165 cc  | Weight of Motorcycle + rider 165 Kgs.            |
| Class M-3 Above 165 cc up to 200 cc. | Weight of Motorcycle + rider 175 Kgs             |
| Class M-4 Above 200 cc up to 300 cc  | Weight of Motorcycle only. 110 Kgs.              |
| Class M-5 Above 300 cc up to 400 cc  | Weight of Motorcycle only. 120 Kgs.              |
| Class M-6 and M-7                    | Motorcycle minimum weight as per FIM guidelines. |

Weight of the bike + rider constitutes the rider with shoes, helmet, gloves etc. as rider returns to scrutiny bay after every session on the track with fluids in the Motorcycle.

The use of ballast is allowed to attain/stay over the minimum weight limit. The fasteners/bolts used to secure the ballast should have minimum specification of 8 mm diameter and 8.8 torque strength or above. Fuel in the fuel tank can be used as ballast.

### 3.4.8 Engine Sealing

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

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## CHAPTER 4 : SPECIFIC TECHNICAL REGULATIONS FOR GROUPS

This chapter describes the specific technical regulations and permitted modifications as applicable to different groups for two wheelers as defined in Chapter 1. They are listed starting with Group Stock which permits minimum modification / alteration. 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.

### 4.1 Specific technical regulations for Group Stock

- 4.1.1 The two wheelers shall compete in an event without having undergone any preparation likely to improve their performance or their condition of use. The only working authorized is normal maintenance or the replacement of parts damaged through wear or accident and the modifications and additions explicitly authorized hereafter. Except for what is explicitly authorized, any part damaged through wear or accident may only be replaced by a part which must be exactly the same as the one for which it is substituted.
- 4.1.2 Where the manufacturer has freely used more than one make of component, the same may be freely interchanged.
- 4.1.3 No components shall be removed from the two wheeler as supplied by the manufacturer, in order to effect a reduction in weight or for any other reasons, except as later laid down in these regulations.

GROUP STOCK BIKES SHOULD HAVE ENGINE NUMBER / CHASSIS NUMBER / RC BOOK OR AN INVOICE FROM MANUFACTURER / DEALER MENTIONING THE CHASSIS NUMBER / ENGINE NUMBER

#### 4.1.4 Permitted modifications for Group STOCK

##### 1. Engine

Over boring up to 1 mm O/s from the homologated size permitted provided the maximum capacity of the class is not exceeded. Only oversize pistons supplied by the manufacturer as OE replacement may be used.

CDI/ECU shall be OE as supplied by the manufacturer.

##### 2. Induction

**Carburetors:** Metering devices such as jets, needles, slides etc are FREE.

**Fuel Injection:** The Throttle body must remain original. The butterfly assembly and the shaft can be modified provided the diameter of the butterfly remains unchanged.

**3. Handlebars**

Any Indian component handlebar may be fitted provided the original method of fitting is retained. Welding of stay across the handle bar is permitted for all events. The specifications are: The stay on the crossbar must be soft-padded to avoid impact on chest in case of fall. The bar / tube should be minimum 12mm in diameter and shall not exceed the handlebar diameter.

**4. Streamlining**

No fairing or windscreen may be fitted unless it is a part of the original specification Replacement of original bodywork from plastic to composite material is permitted provided it is a replica of the original bodywork (design and dimension). The original head light opening in the bodywork can be covered with the same composite material.

**5. Exhaust pipes and Silencers**

Detachable silencer baffles, heat shields, aesthetic add-ons if fitted originally may be removed for circuit racing.

**6. Seats**

Seat cushions and covers are FREE. The original equipment seat plate and fitment shall be retained. Seat retaining strap or additional devices to hold the seat in place are permitted.

**7. Wheels**

The original equipment rims as supplied by the manufacturer shall be retained. Tyre catching device is permitted. Only the homologated size of tyres are permitted for the particular brand/model of motorcycle. All tyres should be manufactured in India or as supplied by OEM.

**8.** To provide for increased power required for headlight and / or additional lighting, necessary modifications may be made to the electrical system including the change over to higher voltage. The battery and regulator / rectifier must be Indian component. Lighting coil is FREE.

**9.** O.E. Speedometer are allowed to be removed and fitting of odometer / navigational instruments is permitted.

**10. Reduction in the Weight.**

For Group STOCK, the following may be removed:

- h) Any clamps that may be required to be removed on safety grounds may be removed.
- 1) Chain guards along with fitment brackets.

**11.** Mudguards are FREE as long as they conform to the general prescriptions of the NCR.

**12.** The height of the front fork tubes may be raised or lowered in relationship to the triple clamps. Fork braces are FREE and fitment is allowed.

- 13.** Any Indian Component chain may be used. The secondary drive sprockets must remain as OE and as homologated with respect to the make/model of the motorcycle.

**4.1.5 The following must be removed for Circuit Racing**

- 1) Front and rear registration plates
- 2) Any extra badges, transfers and stickers may be removed.
- 3) Luggage carriers, crash-bars, seat bars, rear view mirrors and any other extra fittings.
- 4) Secondary (rear) chain cases / guards
- 5) The stop lamps switch must be disconnected or removed
- 6) Headlight assembly, tail light assembly, side indicators
- 7) - Rear foot peg and assemblies, clamps must be removed  
In the event of Rear foot peg and assemblies, clamps being welded to the chassis / frame of the motorcycle the same to be cut without damaging / reducing the strength of the main frame and the edges to be rounded off in radius without sharp edges.
- 8) All instruments may be removed
- 9) Auto lube equipment may be disconnected but not removed.
- 10) Battery may be removed

- 4.1.6** Overflow or breather pipes to existing outlets / ports may be added, which must be so fitted that they do not enter the exhaust gas stream, or impinge upon the tyres and do not inconvenience a following rider. Security bolts may also be added.

**4.2 Specific technical regulations for Group PRO STOCK**

Two wheelers in Group PRO STOCK are eligible to compete with the modifications and conditions authorized as listed below, in addition to those permitted in Group STOCK but within the limits laid down in Chapter 2 Common Technical Regulations.

- 4.2.1** Any permitted modification carried out on the existing component/s, shall be carried out in India. All components of these two wheelers, unless otherwise stated, must be Indian components.
- 4.2.2** In the event of the promoters of an event having any doubts whatsoever, as to the origin of any motorcycle or its component/s the onus of the proof shall rest with the competitor and team.

GROUP PRO STOCK BIKES SHOULD HAVE ENGINE NUMBER / CHASSIS NUMBER / RC BOOK OR AN INVOICE FROM MANUFACTURER / DEALER MENTIONING THE CHASSIS NUMBER / ENGINE NUMBER.

IF THERE IS NO ENGINE NUMBER / CHASSIS NUMBER, THE MANUFACTURER HAS TO CERTIFY IN WRITING THAT THE ENGINE / CHASSIS IS A SERIES PRODUCTION AS PER HOMOLOGATION.

#### 4.2.3 List of free items for Group PRO STOCK in addition to those allowed in Group STOCK

1. Controls, control cables, Mudguards, Handlebars and mounting points, foot rests and mountings, pedals, fasteners, hoses.
2. Spark plugs, holders, ignition cables, batteries, rectifiers, CDI/ECU and wiring harness.
3. All bearings, bushings and spacers
4. Steering dampers
5. Tachometers (Rev-counters), Navigation instruments, Temperature gauge.
6. All gaskets, oil seals
7. All Springs
8. Fuel filters, petrol cocks
9. All manifolds
10. Resonators
11. Secondary drive sprockets,
12. Exhaust system
13. Seats
14. Streamlining
15. Fuel Tanks: As long as they are made out of metal.
16. CAM & CAM shaft/s drive sprockets
17. Valves
18. Throttle Body
19. Injectors
20. Chains
21. Carburettor

#### 4.2.4 Permitted additional engine modifications for Pro Stock

- 1) For Two Strokes: The shapes and sizes of the ports are FREE. The number of ports per cylinder/s shall not be altered. The bridge separating the bridged ports shall not be removed. The disc valves and inlet ports may be modified.
- 2) For four strokes: The shapes and sizes of the ports are FREE. The number of valves shall not be altered. The shape of the valve may be altered by removal of material only.
- 3) All engines are permitted to be over-bored to a maximum of 1mm over the standard size, and they must remain within the cubic capacity of the class entered. It is permitted to insert a cast iron sleeve or hard coat the cylinder for the purpose of re-use only
- 4) Only pistons conforming to the definition of **Indian component** are permitted in original or modified form. Modification is allowed by way of removal of material only. The onus of proof lies with the competitor & team.
- 5) The cylinder/s, cylinder head/s shall be as supplied by the manufacturer. Material may be removed by machining only. Addition of material is prohibited. The method of cooling shall not be altered.
- 6) For 2 strokes: It is permitted to match the entry points from the crankcase to the transfer ports by removal of material only. Dowell pins to locate the cylinder to the crankcase is permitted.

- 7) No modifications is permitted on the crankshaft assembly, except for normal maintenance which includes replacement of connecting rods, pins, bearing etc.  
A change in weight (+/- 3%) of the crankshaft assembly, due to replacement of bearings, is permitted.
- 8) Supercharging / turbo charging is forbidden.
- 9) Modification to the Cam chain tensioner and its components is permitted.
- 10) Any Indian component radiator may be used in original or modified form.
- 11) fuel pump, and sensors: Any Indian component in original or modified form, NO additional fuel pump & sensors permitted.
- 12) Any combination of Indian component ignition assembly (includes contact breakers, ignition coils, magnetos, alternators, stator plates, electronic ignitions) may be used in original or modified form. Magneto flywheel assemblies may be lightened and balanced.
- 13) The clutch basket including primary gear and clutch centre may be lightened and balanced. Any Indian component clutch plates (pressure and friction) may be used.
- 14) The secondary drive ratio may be altered.
- 15) Auto lube equipment / battery may be removed.
- 16) Reed valves are FREE.
- 17) For Two & four Strokes the Cylinder barrel and head may be interchanged between different model variants of the homologated vehicles from the same manufacturer.

#### **4.2.5 Permitted modification to Chassis / Suspension / Brakes Group PRO STOCK.**

##### **1. Front suspension**

Any Indian component fork/triple clamp assembly may be used in original or modified form. Fork travel / damping may be altered. 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. All shock absorbers shall be Indian components in original or modified form. T-Stem and Triple clamp may be freely modified.

##### **2. Rear suspension**

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. All shock absorbers shall be Indian components in original or modified form.

##### **3. Brakes**

Front Brake: The fitment of disc brakes is permitted. Any combination of Indian component brake assembly may be used in original or modified form

Rear Brake: Any combination of Indian component brake assembly may be used in original or modified form. It is permitted to change from disc brake to drum brake or vice versa.

#### 4. Wheels / Tyres

The size and type of the wheels are free. Only Indian component wheels, rims, hubs and spokes may be used in original or modified form. The size of the tyres are free. Only Indian component tyres that are manufactured in India are permitted.

Where the manufacturer has used imported tyres as OE in a certain class of motorcycle, the same (Brand, Size, Tread pattern and Compound) may be used for that class of Motorcycles only.

#### 5. Frame

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. Reinforcement of the frame by the addition of extra frame members will be permitted without compromising its basic structural design and rigidity / integrity. Modifications required for fitment of different seat / fuel tank are allowed subject to the above.

6. Any component of chassis, suspension, brakes and bodywork deemed to be unnecessary for racing / competition and eligibility may be freely removed, provided that the removal of such component/s does not endanger the safety of the two wheeler or the rider.
7. 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.

#### 4.3 Specific technical regulations for Group SUPER SPORT INDIAN

Two wheelers in group SUPER SOPRT INDIAN are eligible to compete with the modifications and conditions authorized as listed below, in addition to those permitted in group PRO STOCK but within the limits laid down under chapter 3 "Common Technical Regulations". Articles 4.2.1 and 4.2.2 are applicable in this group also.

##### 4.3.1 List of Free items for Group SUPER SPORT INDIAN in addition to those allowed in Group PRO STOCK

1. Wheels, tyres, hubs, axles
2. Chains and chain adjusters
3. All types of ignitions (including coils, contact - breakers, magnetos, alternators, capacitor discharge & transistorized ignitions)
4. Fuel tanks
5. Shock absorbers, all dampers
6. All instruments
7. Crank shaft assemblies (includes crankshaft, connecting rod/s, crank pins).  
Piston/s, Pin/s, Lock/s, Ring/s.
8. Components of the braking system (includes brake pads, brake linings, shoes, master cylinders, rotors, calipers)
9. Gears and gear ratios are FREE. The maximum number of speeds shall be six(6).

10. Valves, number of valves, valve springs, retainers, locks, rocker arms, push-rods, cam-shaft/s and timing gear.
11. The components of the primary drive (crank pinion gears or sprockets and ratios)./ The method of drive shall not be altered from chain to gear or belt or vice versa.
12. The components of the clutch system (includes clutch basket, pressure and friction plates). The type of clutch shall not be altered from wet to dry or vice versa).
13. The method and components of the front suspension (includes fork assemblies, steering head assemblies, rake and trail)
14. The method and components of the rear suspension (includes swinging arm). However, the pivot point of the swinging arm with respect to the frame shall not be altered.
15. Method of induction.
16. Chassis - Indian Component only. The onus of proof lies with the competitor & TEAM .
17. Radiator

#### **4.3.2 Permitted additional engine modifications for Group SUPER SPORT INDIAN**

- 1) The number of ports per cylinder/s, cylinder head/s may be altered.
- 2) The material and castings of the cylinder/s and cylinder head/s are FREE, as long as they are made in India. Additional studs on the cylinder/s cylinder head/s are permitted. The PCD of the crank case may be altered.
- 3) Crankcase / gearbox shell: Material may be added by welding or removed by machining only. For 2 strokes, primary compression ratio may be altered.
- 4) The bore & stroke of the engine may be altered
- 5) The method of cooling may be altered from air cooling to liquid cooling.

#### **4.4 Specific regulations for two wheelers Group SUPER SPORT**

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.

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