



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

**2022**

**Technical Regulations Two-Wheeler  
RACING**

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The Federation of Motor Sports Clubs of India

## **GENERAL TECHNICAL REGULATIONS FOR TWO-WHEELER 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 15<sup>th</sup> March, 2022.*
- 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 Technical commission on a case to case basis. The Technical Commission 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 Head, 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.*

**Note: Changes for 2022 Regulations are Highlighted in Yellow, Bold and Italic**

## CHAPTER 1: CLASSIFICATION

### 1.1 Groups

All two wheelers shall be grouped as follows:

- a) **(GROUP- A) – SUPER SPORT**  
All solo two-wheelers whether series production, specials or otherwise, Indian or imported.
- b) **(GROUP- B) – SUPER SPORT INDIAN**  
All solo two-wheelers manufactured / assembled in India, homologated with FMSCI but modified within the frame work of the regulations listed.
- c) **(GROUP – C) – PRO STOCK**  
All solo two - wheelers manufactured / assembled in India, homologated with the FMSCI but modified within the framework of the regulation listed.
- d) **(GROUP – D) - STOCK**  
All Solo two-wheelers manufactured / assembled in India, homologated with the FMSCI

### 1.2 Classes

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

#### Motorcycles with 4 stroke engines.

Class	Engine Capacity
<b>M-1</b>	Up to 165 cc
<b>M-2</b>	166 cc up to 200 cc
<b>M-3</b>	201 cc up to 300 cc
<b>M-4</b>	301 cc up to 400 cc
<b>M-5</b>	401 cc up to 600 cc – 4 cylinder 501 cc up to 675 cc – 3 cylinder 601 cc up to 750 cc – 2 cylinder
<b>M-6</b>	751 cc up to 1000 cc – 3 and 4 cylinder 851 cc up to 1200 cc – 2 cylinder

- b) 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.**

## **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.*

### **2.2 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 step less) between engine and rear wheel.*

### **2.3 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.*

### **2.4 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.*

### **2.5 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.*

### **2.6 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.*

### **2.7 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.*

### **2.8 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 200 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.*

### **2.9 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 or may be specially made, the specifications of which are unrestricted in any manner, subject only to conditions of general prescriptions.*

## 2.10 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.*

## 2.11 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 scrutinizer 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, scrutinizers may carry out direct scrutinizing by comparison with the said part obtained from the manufacturer or his authorized dealer.*

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

- i. A basic form giving technical specifications of the basic model*
- ii. 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.*

*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*
- 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.*

### **3.3 Competition Number**

- a) The background colours and figures (numbers) are white background with black numbers or vice versa.*
- b) Number must be two digits.*
- c) Only English form of letters should be used.*
- d) Background may be oval or rectangular in shape.*
- e) Numbers cannot overlap.*
- f) All digits must be of standard form. No design fonts are allowed.*
- g) They must be fixed on bodywork 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 when seated in the riding manner.*
- h) The figures must be clearly legible and the background with matt colors to avoid reflection from sunlight.*
- i) The minimum dimensions of the number letters are:
 
  - i. The size for all the front numbers is:  
Minimum height: 140 mm  
Minimum width: 80 mm  
Minimum stroke: 25 mm  
Minimum space between numbers: 15 mm*
  - ii. The sizes for all the side numbers are:  
Minimum height: 120 mm  
Minimum width: 70 mm  
Minimum stroke: 20 mm Minimum space between numbers: 10 mm**
- j) The space of a least 5 cm must be left free all around the number (not background) in which no advertising may appear.*
- k) 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.*
- l) Machines with number which do not conform to the above listed specifications shall not be passed by the Technical Steward.*
- m) 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.*

- n) No machine may enter the circuit if it does not meet the above regulations. If the rider does enter the circuit then no lap times will be recorded and Race Direction will at their discretion black flag the rider.*
- o) In case of a dispute concerning the legibility of numbers, the decision of the FMSCI Technical delegate will be final.*

### **3.4 Starting Devices**

*Starting devices are not obligatory for two wheelers in races unless it is specified. Engine Kill Switch is mandatory.*

### **3.5 Exhaust Pipes**

*For groups where exhaust can be replaced, shall follow the the following regulations :*

*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 inconvenience other riders.*

### **3.6 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. The length of the Gear levers is free. All motorcycle must be fitted with front brake lever protectors.*

### **3.7 Throttle controls**

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

### **3.8 Handlebars**

- a) The minimum angle of rotation of the handlebar on each side of the centerline or mid position must be 20 degrees.*
- b) 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.*
- c) The handlebar grips must be no longer than 150mm and must be attached to the ends of the handlebars.*
- d) Exposed handlebar end must be plugged with a solid material or they are rubber covered.*
- e) Handlebar clamps must be very carefully chamfered and engineered so as to avoid fracture points in the bar.*
- f) Handle bar or neck lock system must be removed or dismantled completely.*
- g) The extreme width of the handlebars shall not be less than 500 mm.*
- h) Whatever the position of the handlebars; the front wheel should not make contact with any part of the streamlining.*

### **3.9 Foot rests**

*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.*

*Footrests may be relocated & must not be positioned more than 100 above a straight line passing*



through the centre of the wheels when the motorcycle is normally loaded. (However, the foot rest may be higher if Article on Inclination and Suspension, below is not accomplished) Passenger/Rear foot peg and assembly's, clamps must be removed.

### 3.10 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.

### 3.11 Chains

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

### 3.12 Chain Guards

a) 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.

b) No guard shall be permitted over the secondary transmission / chain, except it is mandatory at the drive sprocket and at the bottom of the driven sprocket, where the chain comes in contact with the driven sprocket as a safety measure, designed in such a manner that under no circumstances can the rider / riders foot, come in to accidental contact with the secondary transmission parts (Drive and the driven sprockets of the secondary transmission).

### 3.13 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.

**g) No aero dynamic wings are permitted any where in the body work unless it is a part of a Homologated bike.**

### 3.14 Stands

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

### 3.15 Rear view mirrors

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

### 3.16 Mudguards

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

#### 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.

### **Rear Mudguard**

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.

### **3.17 Horns**

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

### **3.18 Brakes**

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

### **3.19 Wheel rims / discs spokes**

Any modification to the rim or spokes of an integral wheel (cast, molded, 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 tight and intact.

### **3.20 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 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 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 center 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.

### **3.21 Fuel**

- a) Must be commercially available to the public. (Unless stated otherwise in the supplementary regulations)
- b) The use of the following listed fuels is permitted.
  - i. Any commercially available fuel at regular fuel outlets (petrol pumps)
- c) The use of aromatic or alcoholic fuel is prohibited.
- d) Power boosters and octane boosters are prohibited.
- e) Only air shall be used as an oxidizing agent.
- f) Nitrous oxide and water injection are prohibited.
- g) 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.

### **3.22 Equipment and protective clothing**

It is compulsory that each rider must begin each race event with at least a complete set of undamaged safety equipment.

A complete set of safety equipment shall contain:

- a) Helmet

- b) *Leather Suit, 1-piece*
- c) *Leather Gloves*
- d) *Boots*
- e) *Back Protector*
- f) *Chest Protector*

The equipment must be worn, correctly fastened, at all times during on-track activity (training, practice, qualifying, warm up and race).

### 3.23 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.

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

- Europe: ECE 22-05 or **ECE 22-06 (Only 'P' type)**
  - Japan: ~~JIS T 8133:2000~~ or ~~JIS T 8133:2007~~ or JIS T 8133:2015 (Only Type 2 Full face)
  - USA: ~~SNELL M 2005~~ or SNELL M 2010 or SNELL M 2015 or **SNELL M2022 D or Snell M2022 R**
- Sharing of helmets is strictly forbidden.

**FIM Helmet standard FRHPhe-01 is Highly recommended**

List of FIM Homologated Helmets is available on [www.frhp.org](http://www.frhp.org)

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

#### 3.23.1 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.

#### 3.23.2 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.
- e) 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.
- f) It is recommended that the helmets are replaced after three years from the date of manufactured, irrespective of use they have been put to. The fastening of the chin strap must only be by Double 'D' rings.

Use of plastic interlocking connects is prohibited.

- g) 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.;

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

**3.23.3 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.*

### **3.24 Gloves**

*The rider must wear full leather competition gloves meant for circuit racing. (a) Shall be constructed from leather.*

*(b) Shall have a cuff length sufficient to overlap the leather suit by at least 50 mm.*

*(c) Shall have a means of fastening to secure them to the hand (an elastic closure alone is not acceptable).*

*(d) Shall have suitable knuckle protection.*

### **3.25 Boots**

*The rider must wear boots meant for circuit racing use. (a) Shall be constructed from leather or an equivalent material.*

*(b) Flexing zones are permitted up to a maximum of 40% of surface area.*

*(c) Shall provide protection above the ankles. (shall have a minimum height sufficient to overlap the leather suit by at least 70 mm).*

*(d) Shall have a means of fastening to secure them to the foot (a slip-on boot is not acceptable).*

### **3.26 Suit**

*The rider must wear a one-piece complete suit of leather of at least 1.2 mm in thickness (on all parts of the suit) or of similar material or suitable thickness. 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.*

### **3.27 Back Protector**

*May be full back or central back configuration.*

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

### **3.28 Chest Protector**

*Full chest protectors (protector designed as a single piece) and Divided chest protectors (protector designed in two separate halves) are permitted.*

*All types of chest protectors (Full or Divided) must have a minimum protection area of no less than 230cm<sup>2</sup>.*

**3.29 Ponchos**

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

**3.30 Air Bags**

*Competitors are allowed to use suits with air bags or additional airbags over their riding suit. The validity of the airbag suit or air bag will be checked and approved by the technical delegate/ chief scrutinizer at pre-event scrutiny*

## CHAPTER 4: GROUP SPECIFIC REGULATIONS

### 4.1 SPECIFIC TECHNICAL REGULATIONS FOR

# STOCK (Group - D)

*The following rules are intended to permit limited changes to the homologated Motorcycle in the interests of safety and improved competition between various Motorcycle concepts.*

#### **EVERYTHING THAT IS NOT AUTHORISED AND PRESCRIBED IN THESE RULES IS STRICTLY FORBIDDEN**

*If a change to a part or system is not specifically allowed in any of the following articles, then it is forbidden.*

*Motorcycles should be homologated by FMSCI. All Motorcycles must comply in every respect with all the requirements for road racing as specified in these Technical Regulations, unless they are already equipped as such on the homologated or originally manufactured model.*

*Once a Motorcycle has obtained the homologation, it may be used for racing in the corresponding class until the homologated motorcycle is disqualified by new rules or changes in the technical specifications of the corresponding class.*

#### **4.1.1 General Motorcycle Specifications**

- a) *All parts and systems of the Motorcycle not specifically mentioned in the following articles must remain;*
- b) *As originally produced by the manufacturer.*
- c) *As originally fitted or equipped on the homologated Motorcycle*
- d) *All Motorcycles must be normally aspirated.*
- e) *Interchange of any parts between the Motorcycles within same model name and or same frame VIN (Vehicle Identification Numbers) where they are homologated separately and at different years are not allowed.*

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#### **4.1.2 Minimum Weight Limit**

- a) *For Group-D STOCK motorcycles, the minimum weight will be the homologated weight less 10%. No other weights like RC book, tested, kerb weight will be considered. There is no hard, soft and combined weight limits.*
- b) *The use of ballast is allowed to conform to the minimum weight limits.*
- c) *The use of ballast must be declared to the FMSCI Technical delegate at the preliminary checks.*
- d) *During the final technical inspection at the end of the race, the selected Motorcycles will be weighed in the condition they finished the race, and the established minimum weight limits must be met in this condition. Nothing may be added to the Motorcycle.  
This includes all fluids. There is no tolerance on the minimum weight of the Motorcycle.*

#### **4.1.3 Fuel**

*Must be commercially available to public. (UNLESS OTHERWISE STATED IN THE SUPPLEMENTARY REGULATIONS)*

*The use of the following listed fuels is permitted.*

*Any commercially available fuel at regular fuel outlets (petrol pumps)*

*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.*

#### 4.1.4 Engine(s)

- a) All engines will be sealed at pre– event scrutiny of the event and may not be changed except in the case of engine damage.
- b) Any engine changes after sealing must be accompanied by a written request stating the reason for change, the engine seals may not be removed until approved, and the Organizer and FMSCI Technical delegate may request to examine the engine.
- c) Apart from the above requirement, engines will be requested to be sealed at any time during the event by Organizer or FMSCI Technical delegates when the need arises.

#### 4.1.5 Fuel Injection System, Fuel feed and Air intake

Fuel injection system refers to the throttle bodies, fuel injectors, variable length intake tract devices, fuel pump and fuel pressure regulator.

- a) The method of FUEL FEED may not be altered, i.e. from carburetor to fuel injection or vice versa.
- b) Carburetor must remain as originally fitted or homologated part.
- c) Injector must remain as originally fitted or homologated part.
- d) Number/quantity of injectors must remain as the homologated or originally manufactured Motorcycle.
- e) Variable intake tract device may only be used if it is originally fitted or homologated with such system.
- f) Air and air/fuel mixture can go to the combustion chamber exclusively through the throttle body butterflies.
- g) Throttle body must remain as originally fitted or homologated part. The butterfly assembly and the shaft can be modified provided the diameter of the butterfly remains unchanged.
- h) Ride By Wire - Electronically controlled throttle valves, known as 'ride-by-wire', may only be used if the homologated or originally manufactured model is equipped with the same system.

#### 4.1.6 Fuel Supply

- a) Fuel pump must remain as originally fitted or homologated part, NO additional fuel pump & sensors permitted.
- b) Fuel lines from the fuel tank up to the injectors (fuel hoses, delivery pipe assembly, joints, clamps, fuel canister) must remain as originally fitted or homologated part.
- c) Fuel vent lines must remain as originally fitted or homologated part.
- d) Fuel filters must remain as originally fitted or homologated part.

#### 4.1.7 Cylinder Head

- a) Cylinder Head must be the originally fitted or homologated part with NO modifications allowed.
- b) Porting and polishing is not allowed.
- c) No additional welding is allowed.
- d) Valves, Valve seat, Valve spring must remain as originally fitted or homologated part.
- e) Valve lapping as in normal service maintenance is allowed.
- f) Valve shims are FREE only for purpose of adjusting valve clearance.
- g) The head gasket must remain as originally fitted or homologated part.

#### 4.1.8 Camshaft

- a) The camshaft must remain as originally fitted or homologated part. Camshaft must be fitted in OE or as homologated position i.e. Degreeing, Advancing or Retarding of cam timing is not allowed.
- b) Rocker arm must remain as originally fitted or homologated part.

#### 4.1.9 Cam sprockets or gears

- a) Cam sprocket must remain as originally fitted or homologated part.
- b) Tensioner for cam chain must remain as originally fitted or homologated part.
- c) The cam chain must remain as originally fitted or homologated part.

#### 4.1.10 Cylinders (Cylinder Blocks)

- a) *Cylinders must be the originally fitted or homologated part with no modifications allowed.*
- b) *Over boring up to 1 mm from the homologated size is permitted provided the maximum capacity of the class is not exceeded.*
- c) *Only over size pistons supplied by the manufacturer may be used.*

#### **4.1.11 Pistons, Rings, Pins and Clips**

- a) *All pistons, pins, rings, clips must remain as originally fitted or homologated part.*
- b) *All piston rings must be fitted.*

#### **4.1.12 Connecting Rod Assembly**

- a) *Must be the originally fitted or homologated part with no modifications allowed.*

#### **4.1.13 Crankshaft**

- a) *Must be the originally fitted or homologated part with No modifications are permitted on the crankshaft assembly, except for normal maintenance which includes replacement of connecting rods, pins, bearing etc. Crank shaft counter balancer, if present should remain as homologated.*

#### **4.1.14 Crankcases, Engine Cover**

- a) *Must be the originally fitted or homologated part with NO modifications allowed.*

#### **4.1.15 Transmission / Gearbox**

- a) *Must be the originally fitted and homologated parts with no modification allowed.*
- b) *Use of quick shifter and down shift auto blipping is not allowed unless it is originally fitted and homologated.*
- c) *For STOCK class Countershaft sprocket, rear wheel sprocket must remain homologated part.*
- d) *Any Indian component chain can be used as long as pitch and size remains as that of originally fitted or homologated part. The locking clips on the connecting links, where fitted, must be tight fitting and fitted in the forward correct direction.*
- e) *The gear shifting pattern may be altered. (from normal shift to reverse/GP shift or from 1 down and rest up to 1 up and rest down or vice versa.)*
- f) *The sprocket cover may be modified.*
- g) *The OE front sprocket guard may be modified but must remain. Additional guard may be added to the front sprocket guard to ensure that no part of the rider can come in contact with the sprocket. The bottom of the rear wheel sprocket must have a guard ensuring that no part of the rider can come in contact with the sprocket.*

#### **4.1.16 Clutch**

- a) *Clutch system (wet or dry type) and the method of operation (by cable or hydraulic) must remain as homologated.*
- b) *Friction and drive discs (clutch plates) must remain as originally fitted or homologated part.*
- c) *Clutch spring must remain as originally fitted or homologated part and pre-load can be changed by adding shims.*
- d) *The clutch basket including primary gear and clutch centre must remain as originally fitted or homologated part.*

#### **4.1.17 Pumps and Oil Lines Oil**

- a) *Oil Pumps and Oil Lines must be the originally fitted or homologated part with no modifications allowed.*

#### **4.1.18 Radiator, Cooling System and Oil Cooler**

- a) *For liquid (other than oil), only water is allowed to be used inside the radiator and the entire cooling system.*
- b) *Additives, Antifreeze, "Radiator Coolant" or any other liquid is NOT allowed.*
- c) *For oil cooled and air/oil cooled engines, only oil is permitted in the oil cooler and the entire cooling system.*
- d) *Protective meshes may be added in front of the oil and/or water radiator(s).*



- e) *The radiator/oil cooler must remain as originally fitted or homologated part.*
- f) *Radiator cap must remain as originally fitted or homologated part.*
- g) *All cooling system hoses and clamps are Free.*
- h) *Catchtanks must remain as originally fitted or homologated part.*
- i) *Radiator/oil cooler fan and corresponding wiring can be removed.*
- j) *Radiator/oil cooler fan may be switched manually on and off. Switchgear can be added for this purpose.*
- k) *Thermostat, thermal switches or water temperature sensor can be removed.*

#### **4.1.19 Air Box**

- a) *For STOCK class the air box must remain as homologated part with no modifications allowed. Air filter element must be OE as homologated.*
- b) *Ram Air intake system is not allowed, (Mouth of the air box should not face the airstream) unless it is originally fitted or as homologated.*

#### **4.1.20 Exhaust System**

- a) *For STOCK class Exhaust pipes and silencers must remain OE as homologated.*
- b) *For safety reasons, the exposed edges of the exhausts pipe(s) outlet must be rounded to avoid any sharp edges.*
- c) *Wrapping of exhaust systems is not allowed except in the area of the rider's foot or an area in contact with the fairing for protection from heat.*
- d) *Detachable silencer baffles, heat shields, aesthetic add-ons if fitted originally may be removed for circuit racing.*
- e) *There is no noise emissions restriction for the exhaust system.*

#### **4.1.21 Ignition, Electronic Control Unit (ECU) and Instruments.**

- a) *Wiring harness must remain as originally fitted or homologated part.*
- b) *CDI and ECU shall be OE as supplied by the manufacturer with original mounting points and sockets.*
- c) *ECU Re-flashing is allowed, nevertheless the system must be entirely interchangeable with the original unit (i.e. the engine must work when the unit is replaced with the series unit).*
- d) *Ignition coil, Ignition cable, Spark plug must remain as originally fitted or homologated part.*
- e) *The key/ignition lock may be relocated, replaced with switch or removed.*
- f) *O.E. Speedometer are allowed to be removed and fitting of odometer / navigational instruments is permitted.*
- g) *Live telemetry of data while motorcycle is running on racetrack is forbidden.*

#### **4.1.22 Generator, Alternator, Electric Starter**

- a) *If the vehicle has an electric starter, it must operate normally and always be able to start the engine during the event.*
- b) *Ignition assembly (includes contact breakers, magnetos, alternators, stators, stator plates, electronic ignitions) must remain as originally fitted or homologated part.*
- c) *Ignition rotor/ flywheel assemblies must remain as originally fitted or homologated part.*
- d) *Rectifier must remain as originally fitted or homologated part.*

#### **4.1.23 Wiring Harness**

- a) *The Wiring Harness and Connectors must remain as originally fitted or homologated part.*

#### **4.1.24 Battery**

- a) *Battery can be replaced by any Indian component battery with same specification (type of battery: lead acid or lithium, voltage rating and ampere rating)*
- b) *Battery cannot be removed.*

#### **4.1.25 Main Frame Body and Rear Sub-Frame**

- a) *The frame must be the originally fitted or homologated part with the following modifications allowed.*
- b) *Engine mounting brackets or plates must be the originally fitted or homologated part with no*

*modifications allowed*

- c) *The side stand bracket cannot be cut. But in case of bolt on may be removed.*
- d) *Bolt on type brackets may be replaced, modified or removed.*
- e) *Bolt-on accessories may be removed.*
- f) *Only bolt-on type 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.*
- g) *The paint scheme is not restricted but polishing the main frame body is not allowed.*
- h) *All Motorcycles must display a vehicle identification number (VIN) punched on the frame.*

#### **4.1.26 Front Forks**

- a) *Front fork assembly must remain as originally fitted or homologated part.*
- b) *Level/quantity of fluid in forks can be changed.*
- c) *The height of the front fork tubes may be raised or lowered in relationship to the triple clamps.*
- d) *Fork braces are FREE and fitment is allowed.*
- e) *Fork Springs preload can be adjusted only by adding shims.*
- f) *A steering damper cannot be added.*

#### **4.1.27 Shock Absorber (Rear Suspension Unit)**

- a) *Shock absorbers must remain as originally fitted or homologated part.*
- b) *Preload is allowed to change only if such system for adjustment is present on OE shock absorber.*

#### **4.1.28 Rear Swinging arm (Rear fork)**

- a) *The rear swinging arm must be the originally fitted or homologated part with the following modifications allowed.*
- b) *Rear wheel stand brackets may be added to the rear swinging arm by welding or by bolts. Brackets must have rounded edges (with a large radius). Fastening bolts must be recessed.*
- c) *A solid protective cover (shark fin) must be fixed to the swing-arm, and must always cover the opening between the lower chain run, swinging arm and the rear wheel sprocket, irrespective of the position of the rear wheel.*

#### **4.1.29 Wheels**

- a) *The size and type of the wheels must remain as originally fitted or homologated part.*
- b) *A non-slip coating/treatment may be applied to the bead area of the rim.*
- c) *Wheel axles and retaining nuts (or bolts), wheel spacers, bearing spacers must remain as originally fitted or homologated part.*
- d) *Wheel balance weights may be discarded, changed or added freely.*

#### **4.1.30 Brakes**

- a) *Brake disc, Caliper/slave cylinder, Disc carrier, Master cylinder, brake fluid reservoirs must remain as originally fitted or homologated part.*
- b) *Brake pads are FREE.*
- c) *Brake hose/lines can be replaced by any Indian Component hose/line.*
- d) *Holder, mounts, adapter plates cannot be added.*
- e) *In order to reduce the transfer of heat to the hydraulic fluid it is permitted to add metallic shims to the calipers, between the pads and the calipers.*
- f) *“Quick” (or “dry-break”) connectors in the brake lines are not allowed.*
- g) *Additional air scoops or ducts are not allowed.*
- h) *The Antilock Brake System (ABS) must be removed. The ABS units electronic board may remain fitted to stop ECU errors or ABS emulator module can be used.*
- i) *Motorcycles must be equipped with brake lever protection, intended to protect the handlebar brake lever from being accidentally activated in case of collision with another motorcycle. Composite guards are not permitted. The FMSCI Technical delegate has the right to refuse any guard not satisfying this safety purpose.*

**4.1.31 Handlebars and hand controls**

- a) Any Indian component handlebar may be fitted provided the original method of fitting is retained.
- b) Throttle controls must be self-closing when not held by the hand.
- c) Throttle assembly and associated must remain as originally fitted or homologated part.
- d) Connection to the throttle body and to the throttle controls must remain as on the homologated motorcycle.
- e) Cable operated throttles (grip assembly) must be equipped with both an opening and a closing cable including when actuating a remote drive by wire grip/ demand sensor. One cable operation is allowed only if homologated motorcycle is originally equipped with only one cable.
- f) Clutch and brake lever must remain as originally fitted or homologated part.
- g) Any Redundant and unnecessary handlebar switches may be removed but the electric starter switch and engine stop switch must be located on the handlebars.
- h) Motorcycles must be equipped with a functional ignition kill switch or button mounted on the handlebar (within reach of the hand while on the hand grips) that is capable of stopping a running engine. The button or switch must be RED.

**4.1.32 Foot rest / Foot controls**

- a) Foot rests, hangers/brackets and hardware may be replaced and relocated freely provided that only the original footrest mounting points are used.
- b) Foot controls; gear shift and rear brake must remain operated manually by foot.
- c) Foot rests may be rigidly mounted or a folding type which must incorporate a device to return them to the normal position.
- d) Passenger footrest bracket/hanger/clamp can be removed if bolt-on or can be chopped and sharp edges must be rounded off.

**4.1.33 Fuel Tank**

- a) Fuel tank must remain as originally fitted or homologated part.
- b) Tank pad may be fitted to the tank.
- c) Fuel tanks with tank breather pipes must be fitted with non-return valves that discharge into a catch tank with a minimum volume of 250 cc made of a suitable material.
- d) Fuel caps may be changed freely. Fuel caps when closed must be leak proof. Additionally they must be securely locked to prevent accidental opening at any time.

**4.1.34 Fairing/Bodywork**

- a) Design and shape of the Fairing/Bodywork (front fender/front mudguard, front cowl/mask, side panels, belly panel/fluid holder, tank covers, seat base panels and covers, rear tyre hugger/mudguard, tail panels) can not be modified.
- b) The bodywork can be reconstructed or replicated with replacement bodywork without altering the Overall design, shape, size and dimensions of the homologated bodywork. It is not necessary to have each tiny detail of bodywork to be replicated with replacement bodywork. FMSCI and organizing technical committee has right to confirm any bodywork is up to the regulations.
- c) No fairing may be fitted unless it is a part of the original specification replacement of original bodywork.
- d) Windscreen/visors are FREE only if made out of clear transparent material. Tinted/smoked/opaque windscreens/visors are not allowed unless it is OE or as homologated component.
- e) The use of carbon fiber or carbon composite materials is not allowed.
- f) The original combination instrument/fairing brackets must remain as originally fitted or homologated part.
- g) In case of retaining OE body kit, empty space left by removal of head lights, turn indicators, tail lamp, etc. must be covered with suitable composite fiber material.
- h) Fairing/bodywork fasteners may be replaced with the quick disconnect type.
- i) The chain guard may be separated from the rear mudguard if fused together as OE.
- j) In case if the OE of the vehicle does not have a full lower fairing to catch the oil/fluid in case of engine breakdown; the lower fairing must be constructed to hold a minimum of 4 liters of Oil/Fluid. The lower edge of all the openings in the fairing must be positioned at least 70 mm above the bottom of the fairing. The upper edge of the transverse wall of the lower fairing must be at least 70 mm above the bottom. The angle between this wall and the floor must be  $\leq 90^\circ$ .

- k) *Only in the case of modification as above, the lower fairing must incorporate a single opening of Ø25mm diameter in the front lower area. This hole must remain sealed. In case of wet race declared this hole should be unsealed to drain water out. Alternatively, a lower fairing without the Ø25mm opening may be used in the dry and replaced with one with the Ø25mm opening in case of a wet race being declared.*

#### **4.1.35 Seat**

- a) *The seat base and associated seat bodywork may be replaced freely*
- b) *The top position of the rear bodywork around the seat may be modified to a solo seat.*
- c) *The seat locking system (with plates, pins rubber pads etc.) may be removed.*
- d) *All exposed edges must be rounded.*

#### **4.1.36 Fasteners**

- a) *Standard fasteners may be replaced with fasteners of any design and material, except when there is a specific mention that titanium or other light alloy fasteners are not allowed in specific paragraphs of this technical rule.*
- b) *The strength and design must be sufficient, equal to or exceed the strength of the standard fastener it is replacing.*
- c) *Fasteners may be drilled for safety wire but intentional weight-reduction modifications are not allowed.*
- d) *Aluminum fasteners may only be used in non-structural locations.*

#### **4.1.37 Following items MAY BE ALTERED** or replaced from those originally fitted or homologated by Motorcycle manufacturer

- a) *Any type of lubricants, brake or suspension fluids may be used.*
- b) *External paintwork decals and colour scheme is free.*
- c) *Material for brackets connecting non-original parts (fairing, exhaust, etc.) to the frame (or engine) cannot be made from titanium or carbon fiber reinforced composites.*
- d) *Fuel tanks can be completely filled with fire retardant material (open celled mesh i.e. Explosafe).*

#### **4.1.38 Following Items MAY BE REMOVED**

- a) *Instrument and instrument bracket and associated cables.*
- b) *Tachometer and speedometer.*
- c) *Bolt on accessories on rear frame.*
- d) *Redundant handlebar switches.*
- e) *Emission control items (anti-pollution) in or around the air box and engine (O2 sensors air injection devices).*
- f) *Top chain guard as long as it is not incorporated in the rear fender.*
- g) *Rear Mudguard*

#### **4.1.39 Following Items MUST BE REMOVED**

- a) *Head lamp, tail lamp and turn indicators lamps must be removed. The openings must be covered by a suitable material.*
- b) *Rear-view mirrors.*
- c) *Horn.*
- d) *License plate bracket.*
- e) *Toolkit.*
- f) *Helmet hooks and luggage carrier hooks*
- g) *Passenger foot rests, saree guard and corresponding removable mounting brackets (if any)*
- h) *Passenger's grab rails.*
- i) *Safety bars, centre and side stands must be removed (fixed brackets must remain).*

**4.1.40 Following Items MUST BE ALTERED**

- a) To prevent any oil spilling onto the track, all Motorcycles must have an oil catch tanks.*
- b) Where breather or overflow pipes are fitted, they must discharge via existing outlets.*
- c) All engines must have a closed breather system. All oil breather pipes/lines must be connected to and pass through an oil catch tank. No direct atmospheric emission is allowed.  
The Air box drains must be sealed.*

## 4.2 SPECIFIC TECHNICAL REGULATIONS FOR

# PROSTOCK (Group C)

The following rules are intended to permit limited changes to the homologated Motorcycle in the interests of safety and improved competition between various Motorcycle concepts.

**EVERYTHING THAT IS NOT AUTHORISED AND PRESCRIBED IN THIS RULE IS STRICTLY FORBIDDEN**

If a change to a part or system is not specifically allowed in any of the following articles, then it is forbidden.

Motorcycles should be homologated by FMSCI. All Motorcycles must comply in every respect with all the requirements for road racing as specified in these Technical Regulations, unless they are already equipped as such on the homologated or originally manufactured model.

Once a Motorcycle has obtained the homologation, it may be used for racing in the corresponding class until the homologated motorcycle is disqualified by new rules or changes in the technical specifications of the corresponding class.

### 4.2.1 General Two-wheeler Specifications

- a) All parts and systems of the Motorcycle not specifically mentioned in the following articles must remain;
- b) As originally produced by the manufacturer.
- c) As originally fitted or equipped on the homologated Motorcycle
- d) All Motorcycles must be normally aspirated.
- e) Interchange of any parts between the Motorcycles within same model name and or same frame VIN (Vehicle Identification Numbers) where they are homologated separately and at different years are allowed. If these parts can be directly retrofitted without any modification then, these parts will be considered OE.

### 4.2.2 Minimum Weight Limit

- a) At any time of the event, the \*Minimum Motorcycle Weight and the \*\*Combined Weight must not be lower than the following minimum weight limits;
- b) Definitions;
  - \*Minimum Motorcycle Weight – is defined as the whole motorcycle weight including the fuel inside the tank.
  - \*\* Combined Weight – is the weight of the rider (in full racing equipment) and bike together, as used on track
- c) If a bike has achieved or exceeded the “Soft minimum Weight”, then the combined minimum weight (Bike + Rider, does not have to be reached. The bike alone may never at any time be below the “Hard Minimum weight” to achieve the Bike + rider weight. Riders who are heavier can opt for ‘Bike + rider weight’ by reducing the bike weight up to the ‘Hard minimum weight’

For Single cylinder motorcycles upto 165cc:

- i. \*HARD MINIMUM WEIGHT : 90 kgs
- ii. \*SOFT MINIMUM WEIGHT : 100 kgs
- iii. \*\*MINIMUM COMBINED WEIGHT: 160 kgs

For 201 – 300CC

Motorcycles	*Hard min. Wt. in Kg.	*soft min. Wt. in Kg.	**combined min. Wt. in Kg.
Honda CBR 250 R	105	115	172
Suzuki Gixxer SF 250	105	115	172

For 301 upto 400 cc

Motorcycles	Hard min. Wt. in Kg	Soft min. Wt. in Kg	Combined min. Wt. in Kg
TVS apache 310RR	110	120	182
KTM RC 390	115	125	192
YAMAHA YZF R3	119	129	194

- d) The use of ballast is allowed to conform to the minimum weight limits.
- e) The use of ballast must be declared to the FMSCI Technical delegate at the preliminary checks.
- f) During the final technical inspection at the end of the race, the selected Motorcycles will be weighed in the condition they finished the race, and the established minimum weight limits must be met in this condition. Nothing may be added to the Motorcycle.
- g) This includes all fluids. There is no tolerance on the minimum weight of the Motorcycle.

#### 4.2.3 Fuel

- a) Must be commercially available to the public. (Unless otherwise stated in the Supplementary regulations)
- b) The use of the following listed fuels is permitted. (a) Any commercially available fuel at regular fuel outlets (petrol pumps),
- c) The use of aromatic or alcoholic fuel is prohibited.
- d) Power boosters and octane boosters are prohibited.
- e) Only air shall be used as an oxidizing agent. Nitrous oxide and water injection are prohibited.
- f) 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.

#### 4.2.4 Engine(s)

- a) All engines will be sealed at pre-event scrutiny of the event and may not be changed except in the case of engine damage.
- b) Any engine changes after sealing must be accompanied by a written request stating the reason for change, the engine seals **may not be removed**, until approved in writing, and the Organizer and FMSCI Technical delegate may request to examine the engine.
- c) Apart from the above requirement, engines will be requested to be sealed at any time during the event by Organizer or FMSCI Technical delegate's when the need arises.

#### 4.2.5 Fuel Injection System, Fuel Feed and Air Intake

Fuel injection system refers to the throttle bodies, fuel injectors, variable length intake tract devices, fuel pump and fuel pressure regulator.

- a) The method of Fuel feed must not be altered, i.e. from carburetor to fuel injection or vice versa. Supercharging/turbo charging is forbidden.
- b) Carburetor is free.
- c) Injector may be replaced freely.
- d) Number/quantity of injectors must remain as the homologated or originally manufactured Motorcycle
- e) Manifolds are free

- f) *Air funnel/trumpets/velocity stack is free.*
- g) *Variable intake tract devices cannot be added if they are not present on the homologated or originally manufactured Motorcycle*
- h) *Variable intake tract device may only be used if it is originally fitted or homologated with such system.*
- i) *Air and air/fuel mixture can go to the combustion chamber exclusively through the throttle body butterflies.*
- j) *Throttle body is free.*
- k) *Ride by Wire - Electronically controlled throttle valves, known as 'ride-by-wire', may only be used if the homologated or originally manufactured model is equipped with the same system.*
- l) *Ride by wire system including its software may be modified but all the safety systems and procedures, designed by the original manufacturer must be maintained.*

#### **4.2.6 Fuel Supply**

- a) *Only OE component fuel pump in original or modified form is allowed to be used, NO additional fuel pump & sensors permitted.*
- b) *Fuel lines from the fuel tank up to the injectors (fuel hoses, delivery pipe assembly, joints, clamps, fuel canister) may be replaced and must be located in such a way that they are protected from crash damage.*
- c) *Fuel vent lines may be replaced.*
- d) *Fuel filters may be added*
- e) *Quick connectors may be used or added. E.g. Dry Break connectors*

#### **4.2.7 Cylinder Head**

- a) *Cylinder Head must be the originally fitted or homologated part with the following modifications allowed.*
- b) *Machining cylinder head deck surface is allowed to modify compression ratio.*
- c) *Porting and polishing is allowed. Modifying the intake and exhaust ports is allowed by removing material only. The shapes and sizes of the ports are FREE. No additional welding is allowed.*
- d) *Valves are FREE, provided that Valves head diameter may be increased by a maximum 2 mm from the homologated size. Modified OE/homologated valves or Replaced valves must have weight equal to or more than that of the OE or homologated valves. The valve seat and valve guide may be modified/replaced only to accommodate the larger valve. Use of Titanium Valves are Forbidden.*
- e) *Valve springs are FREE. Type and Number of springs must remain as Originally Equipped.*
- f) *Valve lapping as in normal service maintenance is allowed.*
- g) *Valve shims are FREE only for purpose of adjusting valve clearance.*
- h) *The head gasket is free.*

#### **4.2.8 Camshaft**

- a) *The camshaft is FREE.*
- b) *Rocker arm is FREE.*

#### **4.2.9 Cam sprockets or gears**

- a) *Cam sprocket is FREE.*
- b) *Auto tensioner for cam chain can be replaced with manual one.*
- c) *The cam chain is free.*

#### **4.2.10 Cylinders (Cylinder Blocks)**

- a) *Cylinders must be the originally fitted or homologated part with the following modifications allowed.*
- b) *Machining the cylinder block deck or base surface is allowed to modify compression ratio.*
- c) *Cylinder is 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.*



#### 4.2.11 Pistons, Rings, Pins and Clips

- a) *Only pistons, pins, rings, clips conforming OE or as homologated are permitted in original or modified form. Modification is allowed by way of removal of material only.*
- b) *All piston rings must be fitted.*

#### 4.2.12 Connecting Rod Assembly

- a) *Must be the originally fitted or homologated part with no modifications allowed.*

#### 4.2.13 Crankshaft

- a) *Must be the originally fitted or homologated part with No modifications are permitted on the crankshaft assembly, except for normal maintenance which includes replacement of connecting rods, pins, bearing etc. Crank shaft counter balancer, if present should remain as homologated.*

#### 4.2.14 Crankcases, Engine Covers

- a) *Must be the originally fitted or homologated part with the following modifications allowed.*
- b) *The mating surface of the crankcases to the cylinder block may be machined to allow changing of compression ratio.*
- c) *Oil containing engine covers must be secured with steel bolts.*
- d) *All engine covers (lateral covers) containing oil and which could be in contact with the ground during a crash, may be protected by an additional cover made from metal, such as aluminum alloy, stainless steel, steel or titanium with following regulations,*
- e) *The additional cover must cover a minimum of 1/3 of the original cover. It must have no sharp edges to damage the track surface.*
- f) *These covers must be fixed properly and securely with a minimum of 3 case cover bolts that also mount the original covers/engine cases to the crankcases.*
- g) *Stick-on 'type' additional covers are NOT permitted.*
- h) *The Technical delegate has the right to refuse any protection covers not satisfying this safety purpose.*
- i) *Plates or crash bars made from aluminum or steel also are allowed in addition to these covers. All of these devices must be designed to be resistant against sudden shocks, abrasions and crash damage.*
- j) *Additional breather/overflow pipes may be added and must exit into an oil catch tank.*

#### 4.2.15 Transmission / Gearbox

- a) *Must be the originally fitted and homologated parts with no modification allowed.*
- b) *Use of quick shifter is allowed.*
- c) *Automatic Downshift blipping is not allowed unless it is fitted as OE.*
- d) *Countershaft sprocket, rear wheel sprocket, chain pitch and size maybe changed.*
- e) *The gear shifting pattern may be altered. (from normal shift to reverse/GP shift or from 1 down and rest up to 1 up and rest down or vice versa.)*
- f) *The OE front sprocket guard may be modified but must remain. Additional guard may be added to the front sprocket guard to ensure that no part of the rider can come in contact with the sprocket. The bottom of the rear wheel sprocket must have a guard ensuring that no part of the rider can come in contact with the sprocket.*

#### 4.2.16 Clutch

- a) *Clutch system (wet or dry type) and the method of operation (by cable or hydraulic) must remain as homologated.*
- b) *Friction and drive discs (clutch plates) are free.*
- c) *Clutch springs are free and pre-load can be changed by adding shims.*
- d) *The clutch basket including primary gear and clutch centre may be lightened and balanced.*

#### 4.2.17 Oil Pumps

- a) *Oil Pumps must be as originally fitted or homologated part with no modifications allowed.*

#### 4.2.18 Radiator, Cooling System and Oil Cooler

- a) For liquid (other than oil) cooled engines, only water is allowed to be used inside the radiator and the entire cooling system.
- b) Additives, Antifreeze, "Radiator Coolant" or any other liquid is NOT allowed.
- c) Protective meshes may be added Infront of the oil and/or water radiator(s).
- d) For oil cooled and air/oil cooled engines, only oil is permitted in the oil cooler and the entire cooling system.
- e) ~~Alterations can be made on the radiator or any Indian component radiator can be used in its original or modified form.~~ Radiator is FREE
- f) Radiator cap is free.
- g) All cooling system hoses, clamps, oil lines and catch tanks may be changed freely.
- h) Radiator/oil cooler fan and corresponding wiring is free and can be removed.
- i) Thermostat, thermal switches or water temperature sensor can be removed.
- j) The method of cooling shall not be altered (from liquid cooled to air cooled or air cooled to liquid cooled).

#### 4.2.19 Air Box

- a) The air box is FREE but cannot incorporate a Ram Air system (the mouth of the intake facing the air stream), unless it comes as originally fitted or as homologated.
- b) Air box can be removed.
- c) The air filter element is free and is allowed to be removed.

#### 4.2.20 Exhaust System

- a) Exhaust pipes and silencers are FREE
- b) For safety reasons, the exposed edges of the exhausts pipe(s) outlet must be rounded to avoid any sharp edges.
- c) Wrapping of exhaust systems is not allowed except in the area of the rider's foot or an area in contact with the fairing for protection from heat.
- d) There is no noise emissions restriction for the exhaust system.

#### 4.2.21 Ignition and Electronic Control Unit (ECU)

- a) ECU is free.
- b) CDI is free
- c) Wiring harness is free.
- d) ECU map switch can be added.
- e) Auto tune i.e. closed loop system is allowed and required extra AFR modules and sensors can be added freely.
- f) Ignition coil is free.
- g) Ignition cable is free.
- h) Spark plug is free.
- i) The key/ignition lock may be relocated, replaced or removed.
- j) Use of traction control, anti-wheelie, stoppie control is prohibited. FMSCI or organizing officials can ask any time to check any system on motorcycle to verify it. Teams and competitors have to give access to all systems to FMSCI or organizing officials.
- k) Pit lane speed limiter switch can be added.
- l) Live telemetry of data while motorcycle is running on racetrack is forbidden.

#### 4.2.22 Generator, Alternator, Electric Starter

- a) The electric starter, if homologated, must operate normally and always be able to start the engine during the event.
- b) Any combination of Indian component ignition assembly (includes contact breakers, magnetos, alternators, stators, stator plates, electronic ignitions) may be used in original or modified

form.

- c) Ignition rotor/ flywheel assemblies may be lightened and balanced.
- d) Rectifier is free.

#### 4.2.23 Wiring Harness

- a) The Wiring Harness and Connectors are free.

#### 4.2.24 Battery

- a) The Battery is free.
- b) Battery can be relocated freely.

#### 4.2.25 Main Frame Body and Rear Sub-Frame

- a) The frame must be the originally fitted or homologated part with the following modifications allowed.
- b) Crash Protectors may be fitted to the frame, using existing mounting points or pressed in to the ends of the axles.
- c) Reinforcement of the main frame by the addition of extra frame members, gusset or tubes will be permitted without compromising its basic structural design and rigidity / integrity.
- d) Welding is allowed for this purpose.
- e) Holes cannot be drilled on the frame in any manner. To fix approved components (i.e. fairing brackets, steering damper mount, sensors) extra brackets can be bolted on or welded on to main frame.
- f) The sides of the frame-body may be covered by a protective part made of a composite material.
- g) These protectors must fit the form of the frame.
- h) Engine mounting brackets or plates must be the originally fitted or homologated part with no modifications allowed
- i) The side/center stand bracket may be cut or removed.
- j) Bolt on type brackets may be replaced, modified or removed.
- k) Bolt-on accessories may be removed.
- l) Additional seat brackets may be added, non-stressed protruding brackets may be removed if they do not affect the safety of the construction or assembly.
- m) 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.
- n) Sub frame is FREE on both the removable or fixed type.
- o) Original Sub frame can also be partially cut down, the extended part till beneath the passenger seat which serves no purpose to support rider weight. Sharp edges left after cutting must be grinded off for safety reasons.
- p) It can be directly replaced (in case of bolt on) or chopped down (In case of fixed type) where its welded to main frame and re-welded or creating bolt-on brackets to fit with another custom Sub frame to modify seat height, width and length.
- q) In case of accessories brackets and mounting points (i.e. mounting points and brackets supporting battery, electronic device, wiring harness, Air box, fuel tank, etc.) present on original Sub frame then, brackets can be added freely to serve the same cause to support the accessories or as approved in this regulation.
- r) Sub frame is defined as - The triangular and the twin parallel steel tubes beneath the seat, the rear seat cowling and the rear part of fuel tank, attached or welded to the main frame at points near to the shock absorber top mount and near to the swinging arm pivot.
- s) The use of carbon composite material and titanium to construct or fabricate the Sub frame is not allowed.
- t) Modifications required for fitment of different fairing stay / seat / fuel tank are allowed subject to the above.
- u) The paint scheme is not restricted but polishing the main frame body is not allowed.
- v) All Motorcycles must display a vehicle identification number (VIN) punched on the frame or a metal plate on the body or Sub frame.
- w) In the case of changing or modifying the Sub frame under approved rules, motorcycles with

*original VIN located at the original Sub frame can be removed and reposition to the new Sub frame or to main frame to a position where it must be easily visible during inspection.*

#### **4.2.26 Front Forks**

- a) Any Indian component fork/triple clamp assembly may be used in original or modified form.*
- b) Fork travel / damping may be altered.*
- c) Spring preload adjusters are free.*
- d) Piston rod bolt is FREE.*
- e) T-Stem and Triple clamp may be freely modified.*
- f) Fork Springs must be Indian component and can be used in original or modified form.*
- g) A steering damper may be added or replaced with an after-market damper.*
- h) The steering damper cannot act as a steering lock limiting device.*

**For 301 cc to 400 cc, Front Suspension is FREE which includes points a) to h)**

#### **4.2.27 Shock Absorber (Rear Suspension Unit)**

- a) Shock absorbers shall be FREE*
- b) The shock absorber mounting points on main frame and swinging arm may be altered.*
- c) Electronically-controlled Shock Absorbers are not allowed and it must be replaced with a conventional shock absorber.*

#### **4.2.28 Rear Swinging arm (Rear fork)**

- a) The rear swinging arm must be the originally fitted or homologated part with the following modifications allowed. However, the wheel mounting slot in the swinging arm may be increased provided the chain / wheel adjusters remain as provided by the manufacturer as OE.*
- b) Swing arm reinforcement by adding gusset or tubes is allowed. Welding is allowed for this purpose.*
- c) The length of the swinging arm can be altered.*
- d) Rear swinging arm pivot position on main frame must remain in the original or homologated position.*
- e) If the standard Motorcycle has inserts then the orientation/position of the original insert may be changed but the inserts cannot be replaced or modified.*
- f) Rear wheel stand brackets may be added to the rear swinging arm by welding or by bolts. Brackets must have rounded edges (with a large radius). Fastening bolts must be recessed. An anchorage system or point(s) to keep the original rear brake caliper in place may be added to the rear swing-arm.*
- g) A solid protective cover (shark fin) must be fixed to the swing-arm, and must always cover the opening between the lower chain run, swinging arm and the rear wheel sprocket, irrespective of the position of the rear wheel.*

#### **4.2.29 Wheels**

- a) Only Indian component wheels, rims, hubs and spokes may be used in original or modified form.*
- b) A non-slip coating/treatment may be applied to the bead area of the rim.*
- c) Wheel axles and retaining nuts (or bolts), wheel spacers, Bearing spacers may be modified or replaced freely.*
- d) Wheel balance weights may be discarded, changed or added freely.*
- e) In case of control tyres provided by the organizer, the wheel rims must match the tyre size.*

#### **4.2.30 Brakes**

- a) Brake disc, Caliper/slave cylinder, Disc carrier, Master cylinder and brake fluid reservoirs must be Indian component and can be used in original or modified form.*
- b) Discs can be lightened by drilling holes or machining.*
- c) Holders, mounts, adapter plates can be added freely.*
- d) Brake hydraulic hoses/lines, brake pads are free.*
- e) In order to reduce the transfer of heat to the hydraulic fluid it is permitted to add metallic shims to the calipers, between the pads and the calipers, and/or to replace light alloy pistons with steel pistons*

*made by the same manufacturer of the caliper.*

- f) Front Brake: The fitment of disc brakes is permitted. Any combination of Indian component brake assembly may be used in original or modified form.*
- g) 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.*
- h) The rear brake caliper bracket may be mounted fixed on the swinging arm, but the bracket must maintain the same mounting (fixing) points for the caliper as used on the homologated motorcycle.*
- i) The swing-arm may be modified for this reason to aid the location of the rear brake caliper bracket, by welding, drilling or by using a helicoil.*
- j) "Quick" (or "dry-break") connectors in the brake lines are not allowed.*
- k) Brake pad locking pins may be modified for quick change type.*
- l) Additional air scoops or ducts are not allowed.*
- m) The Antilock Brake System (ABS) must be removed. The ABS units electronic board may remain fitted to stop ECU errors or ABS emulator module can be used.*
- n) Motorcycles must be equipped with brake lever protection, intended to protect the handlebar brake lever from being accidentally activated in case of collision with another motorcycle. Composite guards are not permitted. The FMSCI Technical delegate has the right to refuse any guard not satisfying this safety purpose.*

#### **4.2.31 Handlebars and hand controls**

- a) Handlebars may be replaced freely.*
- b) Handlebars and hand controls may be relocated freely.*
- c) Throttle controls must be self-closing when not held by the hand.*
- d) Throttle assembly and associated cables may be modified or replaced with quick/short throttle.*
- e) Connection to the throttle body and to the throttle controls must remain as on the homologated motorcycle. i.e. Mechanical actuation cannot be replaced by Electronic control / ride by wire method and vice versa. Cable operated throttles (grip assembly) must be equipped with both an opening and a closing cable including when actuating a remote drive by wire grip/ demand sensor. Single cable operation is allowed only if homologated motorcycle is originally equipped with only one cable.*
- f) Clutch and brake lever may be replaced with an after-market model. An adjuster to the brake lever is allowed.*
- g) Switches may be changed freely but the electric starter switch and engine stop switch must be located on the handlebars.*
- h) Motorcycles must be equipped with a functional ignition kill switch or button mounted on the handlebar (within reach of the hand while on the hand grips) that is capable of stopping a running engine. The button or switch must be RED.*

#### **4.2.32 Foot rest / Foot controls**

- a) Foot rests, hangers/brackets and hardware may be replaced and relocated freely. Additional mounting points other than the OE, are permitted.*
- b) Foot controls; gear shift and rear brake must remain operated manually by foot.*
- c) Foot rests may be rigidly mounted or a folding type which must incorporate a device to return them to the normal position.*
- d) The end of the foot rest must have at least an 8 mm solid spherical radius.*
- e) Non folding footrests must have an end (plug) which is permanently fixed, made of aluminum, plastic, Teflon® or an equivalent type material (minimum radius 8 mm). The plug surface must be designed to reach the widest possible area. The FMSCI Technical delegate has the right to refuse any plug not satisfying this safety aim.*

#### 4.2.33 Fuel Tank

- a) Fuel tank is free (size, shape, location) only if it is made out of metal.
- b) Tank pad may be fitted to the tank.
- c) Fuel tank covers can be freely modified.
- d) Fuel tanks with tank breather pipes must be fitted with non-return valves that discharge into a catch tank with a minimum volume of 250cc made of a suitable material.
- e) Fuel caps may be changed freely. Fuel caps when closed must be leak proof.
- f) Additionally, they must be securely locked to prevent accidental opening at any time.

#### 4.2.34 Fairing/Bodywork

- a) Design and shape of the Fairing/Bodywork (front fender/front mudguard, front cowl/mask, side panels, belly panel/fluid holder, tank covers, seat base panels and covers, rear tyre hugger/mudguard, tail panels) is FREE.
- b) Design and shape of the windscreen is FREE.
- c) The use of carbon fiber or carbon composite materials is not allowed.
- d) Original air ducts may be removed or replaced
- e) The original combination instrument/fairing brackets may be replaced but the use of titanium and carbon (or similar composite materials) is forbidden.
- f) All other fairing brackets may be added, altered or replaced.
- g) The lower fairing must be constructed to hold in case of an engine breakdown a minimum 4 liters of oil/fluid. The lower edge of all the openings in the fairing must be positioned at least 70 mm above the bottom of the fairing. The upper edge of the rear transverse wall of the lower fairing must be at least 70 mm above the bottom. The angle between this wall and the floor must be  $\leq 90^\circ$ .
- h) The lower fairing must incorporate a single opening of  $\varnothing 25$  mm diameter in the front lower area. This hole must remain sealed. In case of wet race declared this hole should be unsealed to drain water out. Alternatively a lower fairing without the  $\varnothing 25$ mm opening may be used in the dry and replaced with one with the  $\varnothing 25$ mm opening in case of a wet race being declared.
- i) The rear mudguard may be removed/ replaced.
- j) The chain guard may be separated from the rear mudguard.

#### 4.2.35 Seat

- a) The seat base and associated seat bodywork may be replaced freely
- b) The top position of the rear bodywork around the seat may be modified to a solo seat.
- c) The seat locking system (with plates, pins rubber pads etc.) may be removed.
- d) All exposed edges must be rounded.

#### 4.2.36 Fasteners

- a) Standard fasteners may be replaced with fasteners of any design and material, except when there is a specific mention that titanium or other light alloy fasteners are not allowed in specific paragraphs of this technical rule.
- b) The strength and design must be sufficient, equal to or exceed the strength of the standard fastener it is replacing.
- c) Fasteners may be drilled for safety wire but intentional weight-reduction modifications are not allowed.
- d) Fairing/bodywork fasteners may be replaced with the quick disconnect type.
- e) Aluminum fasteners may only be used in non-structural locations.

#### 4.2.37 Following items MAY BE ALTERED or replaced from those originally fitted or homologated by Motorcycle manufacturer.

- a) Any type of lubricants, brake or suspension fluids may be used.
- b) All gaskets and its material are free.
- c) External paintwork decals and colour scheme is free.
- d) Instruments, instrument bracket(s) and associated cables.

- e) *Material for brackets connecting non-original parts (fairing, exhaust, etc.) to the frame (or engine) cannot be made from titanium or carbon fiber reinforced composites.*
- f) *Protective covers for the frame, chain and footrests may be made in other materials like fibre composite material if these parts do not replace original parts mounted on the motorcycle.*
- g) *Fuel tanks can be completely filled with fire retardant material (open celled mesh i.e. Explosafe).*

#### **4.2.38 Following Items MAY BE REMOVED**

- a) *Instrument and instrument bracket and associated cables.*
- b) *Tachometer and speedometer these instruments can be replaced with any other instrument which does the same job.*
- c) *Bolt on accessories on rear Sub frame.*
- d) *Redundant handlebar switches.*
- e) *Emission control items (anti-pollution) in or around the air box and engine (O2 sensors air injection devices).*
- f) *Top chain guard as long as it is not incorporated in the rear fender.*

#### **4.2.39 Following Items MUST BE REMOVED**

- a) *Head lamp, tail lamp and turn indicators lamps must be removed. The openings must be covered by suitable material.*
- b) *Rear-view mirrors.*
- c) *Horn.*
- d) *License plate bracket.*
- e) *Toolkit.*
- f) *Helmet hooks and luggage carrier hooks*
- g) *Passenger foot rests and corresponding mounting brackets (if any)*
- h) *Passenger's grab rails, saree guard.*
- i) *Safety bars, centre and side stands must be removed.*
- j) *Catalytic convertors.*

#### **4.2.40 Following Items MUST BE ALTERED**

- a) *To prevent any oil spilling onto the track, all Motorcycles must have an oil catch tanks.*
- b) *Where breather or overflow pipes are fitted, they must discharge via existing outlets.*
- c) *All engines must have a closed breather system. All oil breather pipes/lines must be connected to and pass through an oil catch tank. No direct atmospheric emission is allowed.*
- d) *The Air box drains must be sealed.*

## 4.3 SPECIFIC TECHNICAL REGULATIONS FOR *SUPERSPORT INDIAN (Group B)*

*The following rules are intended to permit limited changes to the homologated Motorcycle in the interests of safety and improved competition between various Motorcycle concepts.*

**EVERYTHING THAT IS NOT AUTHORISED AND PRESCRIBED IN THIS RULE IS STRICTLY FORBIDDEN**

*If a change to a part or system is not specifically allowed in any of the following articles, then it is forbidden.*

*Motorcycles should be homologated by FMSCI. All Motorcycles must comply in every respect with all the requirements for road racing as specified in these Technical Regulations, unless they are already equipped as such on the homologated or originally manufactured model.*

*Once a Motorcycle has obtained the homologation, it may be used for racing in the corresponding class until the homologated motorcycle is disqualified by new rules or changes in the technical specifications of the corresponding class.*

### 4.3.1 General Motorcycle Specifications

- a) *All parts and systems of the Motorcycle not specifically mentioned in the following articles must remain;*
- b) *As originally produced by the manufacturer.*
- c) *As originally fitted or equipped on the homologated Motorcycle*
- d) *All Motorcycles must be normally aspirated.*
- e) *Interchange of any parts between the Motorcycles within same model name and or same frame VIN (Vehicle Identification Numbers) where they are homologated separately and at different years are not allowed.*

### 4.3.2 Minimum Weight Limit

- a) *At any time of the event, the \*Minimum Motorcycle Weight and the \*\*Combined Weight must not be lower than the following minimum weight limits;*
- b) *Definitions;*  
*Minimum Motorcycle Weight – is defined as the whole motorcycle weight including the fuel inside the tank.*  
*\*\* Combined Weight – is the weight of the rider (in full racing equipment) and bike together, as used on track.*
- c) **If a bike has achieved or exceeded the “Soft minimum Weight”, then the combined minimum weight (Bike + Rider, does not have to be reached. The bike alone may never at any time be below the “Hard Minimum weight” to achieve the Bike + rider weight. Riders who are heavier can opt for ‘Bike + rider weight’ by reducing the bike weight up to the ‘Hard minimum weight’**
- d) **All weights ( \*HARD MINIMUM WEIGHT, \*SOFT MINIMUM WEIGHT, \*\*MINIMUM COMBINED WEIGHT) will be 5 kilograms less that of the respective Group-c prostock category.**
- e) *The use of ballast is allowed to conform to the minimum weight limits.*
- f) *The use of ballast must be declared to the FMSCI Technical delegate at the preliminary checks.*
- g) *During the final technical inspection at the end of the race, the selected Motorcycles will be weighed in the condition they finished the race, and the established minimum weight limits must be met in this condition. Nothing may be added to the Motorcycle. This includes all fluids.*
- h) *There is no tolerance on the minimum weight of the Motorcycle.*



#### 4.3.3 Fuel

- a) *Must be commercially available to the public. (Unless otherwise stated in the Supplementary Regulations)*
- b) *The use of the following listed fuels is permitted. Any commercially available fuel at regular fuel outlets (petrol pumps)*
- c) *The use of aromatic or alcoholic fuel is prohibited.*
- d) *Power boosters and octane boosters are prohibited.*
- e) *Only air shall be used as an oxidizing agent. Nitrous oxide and water injection are prohibited.*
- f) *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.*

#### 4.3.4 Engine(s)

- a) *All engines will be sealed at scrutiny event and may not be changed except in the case of engine damage.*
- b) *Any engine changes after sealing must be accompanied by a written request stating the reason for change, the engine seals may not be removed until approved, and the Organizer and FMSCI Technical delegate may request to examine the engine.*
- c) *Apart from the above requirement, engines will be requested to be sealed at any time during the event by Organizer or FMSCI Technical delegate's when the need arises.*

#### 4.3.5 Fuel Injection System, Fuel feed and Air intake

- a) *Fuel injection system refers to the throttle bodies, fuel injectors, variable length intake tract devices, fuel pump and fuel pressure regulator.*
- b) *The method of Fuel feed may be altered, i.e. from carburetor to fuel injection or vice versa.*
- c) *Supercharging/turbo charging is forbidden.*
- d) *Carburetor is free.*
- e) *Injector may be replaced freely.*
- f) *Number/quantity of injectors is FREE.*
- g) *Manifolds are free*
- h) *Air funnel/trumpets/velocity stack is free.*
- i) *Intake tract devices are free*
- j) *Air and air/fuel mixture can go to the combustion chamber exclusively through the throttle body butterflies.*
- k) *Throttle body is free.*
- l) *Ride By Wire- Electronically controlled throttle valves, known as 'ride-by-wire', may be used and is FREE.*

#### 4.3.6 Fuel Supply

- a) *Fuel pump is FREE.*
- b) *Fuel lines from the fuel tank up to the injectors (fuel hoses, delivery pipe assembly, joints, clamps, fuel canister) may be replaced and must be located in such a way that they are protected from crash damage.*
- c) *Fuel vent lines may be replaced.*
- d) *Fuel filters may be added*
- e) *Quick connectors may be used or added. E.g. Dry Break connectors.*

#### 4.3.7 Cylinder Head

- a) *Cylinder Head is FREE*
- b) *Additional studs on the cylinder head are permitted.*
- c) *The number of ports, shape and size of the ports is FREE.*
- d) *Valves, number of valves, valve springs, retainers, locks and valve seats are FREE.*
- e) *Valve shims are FREE only for purpose of adjusting valve clearance.*
- f) *The head gasket is free.*

#### 4.3.8 Camshaft

- a) The camshaft is FREE.
- b) Rocker arm is FREE.
- c) Push rod is FREE.

#### 4.3.9 Cam sprockets or gears

- a) Cam sprocket is FREE.
- b) Timing gear is FREE.
- c) Tensioner for cam chain is FREE.
- d) The cam chain is FREE.

#### 4.3.10 Cylinders (Cylinder Blocks)

- a) Cylinder is FREE. Bore and Stroke length can be altered.
- b) Additional studs on the cylinder are permitted.

#### 4.3.11 Pistons, Rings, Pins and Clips

- a) Pistons, pins, rings, clips are FREE.

#### 4.3.12 Connecting Rod Assembly

- a) Stroke length can be altered.
- b) Connecting rod assembly is FREE.

#### 4.3.13 Crankshaft

- a) Crank shaft assembly is FREE. Crank shaft counter balancer, and its gears - free. Drive gears of the counter balancer - Free

#### 4.3.14 Crankcases, Engine Covers

- a) Must be the originally fitted or homologated part with the following modifications allowed.
- b) The mating surface of the crankcase to the cylinder block may be machined to allow changing of compression ratio.
- c) Material from crankcase can be removed by machining only.
- d) The PCD of the crank case may be altered.
- e) Material may be added to crankcase by welding.
- f) Oil containing engine covers must be secured with steel bolts.
- g) All engine covers (lateral covers) containing oil and which could be in contact with the ground during a crash, may be protected by an additional cover made from metal, such as aluminum alloy, stainless steel, steel or titanium with following regulations,
- h) The additional cover must cover a minimum of 1/3 of the original cover. It must have no sharp edges to damage the track surface.
- i) These covers must be fixed properly and securely with a minimum of 3 case cover bolts that also mount the original covers/engine cases to the crankcases.
- j) Stick-on 'type' additional covers are NOT permitted.
- k) The Technical delegate has the right to refuse any protection covers not satisfying this safety purpose.
- l) Plates or crash bars made from aluminum or steel also are allowed in addition to these covers. All of these devices must be designed to be resistant against sudden shocks, abrasions and crash damage.

#### 4.3.15 Transmission / Gearbox

- a) The method of drive shall not be altered from chain to gear or belt or vice versa.
- b) The components of the primary drive: Gears and gear ratios are FREE.
- c) The maximum number of speeds shall be six (6).
- d) Use of quick shifter is allowed.

- e) *Automatic Downshift blipping is not allowed.*
- f) *Countershaft sprocket, rear wheel sprocket, chain pitch and size are FREE.*
- g) *The gear shifting pattern may be altered. (from normal shift to reverse/GP shift or from 1down and rest up to 1 up and rest down or vice versa)*
- h) *The OE front sprocket guard may be modified but must remain. Additional guard may be added to the front sprocket guard to ensure that no part of the rider can come in contact with the sprocket. The bottom of the rear wheel sprocket must have a guard ensuring that no part of the rider can come in contact with the sprocket.*

#### **4.3.16 Clutch**

- a) *The type of clutch shall not be altered from wet to dry or vice versa.*
- b) *The method of operation (by cable or hydraulic) is FREE.*
- c) *Friction and drive discs (clutch plates) are free.*
- d) *Clutch springs are free and pre-load can be changed by adding shims.*
- e) *The clutch basket including primary gear and clutch centre is FREE.*

#### **4.3.17 Oil Pumps and Oil Lines**

- a) *Oil Pumps and Oil Lines are FREE.*

#### **4.3.18 Radiator, Cooling System and Oil Cooler**

- a) *For liquid (other than oil) cooled engines, only water is allowed to be used inside the radiator and the entire cooling system.*
- b) *For oil cooled and air/oil cooled engines, only oil is permitted in the oil cooler and the entire cooling system.*
- c) *Additives, Antifreeze, "Radiator Coolant" or any other liquid is NOT allowed.*
- d) *Protective meshes maybe added in front of the oil and/or water radiator(s).*
- e) *The radiator is free*
- f) *Oil cooler is free*
- g) *Auxiliary additional radiator can be added to aid extra cooling. Extra mounting brackets to accommodate the additional radiator are allowed.*
- h) *Radiator cap is free.*
- i) *Auxiliary additional radiator for water cooled engines and oil cooler for oil and air to /oil cooled engines can be added to aid extra cooling. Extra mounting brackets and hoses to accommodate the additional radiator/ oil cooler are allowed.*
- j) *All cooling system hoses, clamps, oil lines and catch tanks may be changed freely.*
- k) *Radiator/oil cooler fan and corresponding wiring is free and can be removed.*
- l) *Thermostat, thermal switches or water temperature sensor is free and can be removed.*
- m) *The method of cooling is permitted to be changed.*

#### **4.3.19 Air Box**

- a) *The air box is FREE.*
- b) *Ram Air intake system is FREE.*
- c) *Air box can be removed.*
- d) *The air filter element is free and is allowed to be removed.*

#### **4.3.20 Exhaust System**

- a) *Exhaust pipes and silencers are FREE*
- b) *For safety reasons, the exposed edges of the exhausts pipe(s) outlet must be rounded to avoid anysharp edges.*
- c) *Wrapping of exhaust systems is not allowed except in the area of the rider's foot or an area in contact with the fairing for protection from heat.*
- d) *There is no noise emissions restriction for the exhaust system.*

#### 4.3.21 Ignition and Electronic Control Unit (ECU)

- a) ECU is free.
- b) CDI is free
- c) Wiring harness is free.
- d) ECU map switch can be added.
- e) Auto tune i.e. closed loop system is allowed and required extra AFR modules and sensors can be added freely.
- f) Ignition coil is free.
- g) Ignition cable is free.
- h) Spark plug is free.
- i) The key/ignition lock may be relocated, replaced or removed.
- j) Use of traction control, anti wheelie, stoppie control is prohibited. FMSCI or organizing officials can ask any time to check any system on motorcycle to verify it. Teams and competitors have to give access to all systems to FMSCI or organizing officials.
- k) Use of launch control is allowed.
- l) Pit lane speed limiter switch is can be added.
- m) Use of any Lap timer and Data loggers is allowed. Data Loggers are allowed with sole intension to collect data and analyze after official practice/qualifying/race session is over and such system would not interfere with rider decisions and inputs by controlling strategies or by connecting in any form with actuators or output devices.
- n) Live telemetry of data while motorcycle is running on racetrack is forbidden.
- o) Data can be logged from connection between ECU and data logger from following channels if such sensors are originally fitted or homologated with motorcycle,
  1. All thermal / heat / temperature channels and sensors
  2. Front and rear wheel speed
  3. Gear position
  4. Gyro
  5. GPS
  6. Memory log unit
  7. Throttle position sensor and/or Twist grip position
  8. RPM
  9. AFR
  10. All pressure sensors (air pressure, air box pressure.)
  11. Accelerometer
  12. Map sensor, Map Sync (pressure sensor on the intake port used to synchronize the engine during the start)
  13. Air box Pressure
  14. Engine pick-ups (Cam, crank)
  15. Gearbox output shaft speed
  16. Tip-over switch (lean angle)

Following sensors and their modules can be added for Data logging,

  17. Suspension travel Front and rear wheel speed
  18. Gyro
  19. Accelerometer
  20. GPS
  21. RPM
  22. TPS (Throttle position sensor) and/or Twist grip position
  23. AFR (air fuel ratio) or wide band oxygen sensor

#### 4.3.22 Generator, Alternator, Electric Starter

- a) The electric starter/Alternator/generator is not mandatory.
- b) Any combination of ignition assembly is FREE (includes contact breakers, magnetos, alternators, stators, stator plates, electronic ignitions, ignition rotor/flywheel assemblies).
- c) Rectifier is FREE.

#### 4.3.23 Wiring Harness

- a) *The Wiring Harness and Connectors are free.*

#### 4.3.24 Battery

- a) *The Battery is free.*
- b) *Battery can be relocated freely.*

#### 4.3.25 Main Frame Body and Rear Sub-Frame

- a) *Any Indian Component frame can be used in original or modified form. The onus of proof lies with the competitor & TEAM.*
- b) *Crash Protectors may be fitted to the frame, using existing mounting points or pressed in to the ends of the axles.*
- c) *Reinforcement of the main frame by the addition of extra frame members, gusset or tubes will be permitted without compromising its basic structural design and rigidity / integrity. Welding is allowed for this purpose.*
- d) *The sides of the frame-body may be covered by a protective part made of a composite material. These protectors must fit the form of the frame.*
- e) *Engine mounting brackets or plates are FREE.*
- f) *The side/center stand bracket may be cut or removed.*
- g) *Bolt on type brackets may be replaced, modified or removed.*
- h) *Bolt-on accessories may be removed.*
- i) *Additional seat brackets may be added, non-stressed protruding brackets may be removed if they do not affect the safety of the construction or assembly.*
- j) *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.*
- k) *Sub frame is FREE on both the removable or fixed type.*
- l) *Original Sub frame can also be partially cut down, the extended part till beneath the passenger seat which serves no purpose to support rider weight. Sharp edges left after cutting must be grinded off for safety reasons.*
- m) *It can be directly replaced (incase of bolt on) or chopped down (In case of fixed type) where its welded to main frame and re-welded or creating bolt-on brackets to fit with another custom Sub frame to modify seat height, width and length.*
- n) *In case of accessories brackets and mounting points(i.e. mounting points and brackets supporting battery, electronic device, wiring harness, Air box, fuel tank, etc.) present on original Sub frame then, brackets can be added freely to serve the same cause to support the accessories or as approved in this regulation.*
- o) *Sub frame is defined as - The triangular and the twin parallel steel tubes beneath the seat, the rear seat cowling and the rear part of fuel tank, attached or welded to the main frame at points near to the shock absorber top mount and near to the swinging arm pivot.*
- p) *The use of carbon composite material and titanium to construct or fabricate the Sub frame is not allowed.*
- q) *Modifications required for fitment of different fairing stay / seat / fuel tank are allowed subject to the above.*
- r) *The paint scheme is not restricted. Polishing the main frame body is allowed.*

#### 4.3.26 Front Forks

- a) *The method and components of the front suspension (includes fork assemblies, steering head assemblies, rake and trail) are FREE.*
- b) *A steering damper may be added or replaced with an after-market damper.*
- c) *The steering damper cannot act as a steering lock limiting device.*

#### 4.3.27 Shock Absorber (Rear Suspension Unit)

- a) *The mounting method and components of the rear suspension including shock absorber is FREE.*
- b) *The shock absorber mounting points on main frame and swinging arm may be altered.*
- c) *Electronically-controlled Shock Absorbers are not allowed and it must be replaced with a conventional shock absorber.*

#### 4.3.28 Rear Swinging arm (Rear fork)

- a) *The rear swinging arm is FREE.*
- b) *Rear swinging arm pivot position on main frame must remain in the original or homologated position of provided main frame.*
- c) *If the standard Motorcycle has inserts then the orientation/position of the original insert may be changed and the inserts can be replaced or modified.*
- d) *Rear wheel stand brackets may be added to the rear swinging arm by welding or by bolts. Brackets must have rounded edges (with a large radius). Fastening bolts must be recessed. An anchorage system or point(s) to keep the original rear brake caliper in place may be added to the rear swing-arm.*
- e) *A solid protective cover (shark fin) must be fixed to the swing-arm, and must always cover the opening between the lower chain run, swinging arm and the rear wheel sprocket, irrespective of the position of the rear wheel.*

#### 4.3.29 Wheels

- a) *The size and type of the wheels are FREE.*
- b) *wheels, rims, hubs and spokes are FREE.*
- c) *A non-slip coating/treatment may be applied to the bead area of the rim.*
- d) *Wheel axles and retaining nuts (or bolts), wheel spacers, Bearing spacers are FREE.*
- e) *Wheel balance weights may be discarded, changed or added freely.*
- f) *In case of controlled tyres provided by the organizer. The wheel rims must match the tyre size.*

#### 4.3.30 Brakes

- a) *All components of braking system (Brake disc, Caliper/slave cylinder, Disc carrier, Master cylinder, brake fluid reservoirs, Holders, mounts, adapter plates, hydraulic hoses/lines, brake pads, brake pad locking pins, etc.) are FREE.*
- b) *In order to reduce the transfer of heat to the hydraulic fluid it is permitted to add metallic shims to the calipers, between the pads and the calipers, and/or to replace light alloy pistons with steel pistons.*
- c) *The rear brake caliper bracket may be mounted fixed on the swinging arm.*
- d) *The swing-arm may be modified for this reason to aid the location of the rear brake caliper bracket, by welding, drilling or by using a helicoil.*
- e) *“Quick” (or “dry-break”) connectors in the brake lines are not allowed.*
- f) *Additional air scoops or ducts are allowed.*
- g) *The Antilock Brake System (ABS) must be removed. The ABS units electronic board may remain fitted to stop ECU errors or ABS emulator module can be used.*
- h) *Motorcycles must be equipped with brake lever protection, intended to protect the handlebar brake lever from being accidentally activated in case of collision with another motorcycle. Composite guards are not permitted. The FMSCI Technical delegate has the right to refuse any guard not satisfying this safety purpose.*

#### 4.3.31 Handlebars and hand controls

- a) *Handlebars may be replaced freely.*
- b) *Handlebars and hand controls may be relocated freely.*
- c) *Throttle controls must be self-closing when not held by the hand.*
- d) *Throttle assembly and associated cables may be modified or replaced with quick/short throttle FREELY.*
- e) *Cable operated throttles (grip assembly) must be equipped with both an opening and a closing cable including when actuating a remote drive by wire grip/ demand sensor. One cable*

- operation is allowed only if homologated motorcycle is originally equipped with only one cable.
- f) Clutch and brake lever may be replaced with an after-market model. An adjuster to the brake lever is allowed.
  - g) Switches may be changed freely but the electric starter switch and engine stop switch must be located on the handlebars.
  - h) Motorcycles must be equipped with a functional ignition kill switch or button mounted on the handlebar (within reach of the hand while on the hand grips) that is capable of stopping a running engine. The button or switch must be RED.

#### 4.3.32 Foot rest / Foot controls

- a) Foot rests, hangers/brackets and hardware may be replaced and relocated freely. Additional mounting points other than the OE, are permitted
- b) Foot controls; gear shift and rear brake must remain operated manually by foot.
- c) Foot rests may be rigidly mounted or a folding type which must incorporate a device to return them to the normal position.
- d) The end of the foot rest must have at least an 8 mm solid spherical radius.
- e) Non folding footrests must have an end(plug) which is permanently fixed, made of aluminum, plastic, Teflon® or an equivalent type material (minimum radius 8 mm). The plug surface must be designed to reach the widest possible area. The FMSCI Technical delegate has the right to refuse any plug not satisfying this safety aim.

#### 4.3.33 Fuel Tank

- a) Fuel tank is FREE. (Should be made of metal)
- b) Fuel tank covers can be freely modified.
- c) Fuel tanks with tank breather pipes must be fitted with non-return valves that discharge into a catch tank with a minimum volume of 250cc made of a suitable material.
- d) Fuel caps may be changed freely. Fuel caps when closed must be leak proof.
- e) Additionally, they must be securely locked to prevent accidental opening at any time.

#### 4.3.34 Fairing/Bodywork

- a) Design and shape of the Fairing/Bodywork (front fender/front mudguard, front cowl/mask, side panels, belly panel/fluid holder, tank covers, seat base panels and covers, rear tyre hugger/mudguard, tail panels) is FREE.
- b) Design and shape of the windscreen is FREE.
- c) The use of carbon fiber or carbon composite materials is not allowed.
- d) Original air ducts may be removed or replaced
- e) The original combination instrument/fairing brackets may be replaced but the use of titanium and carbon (or similar composite materials) is forbidden.
- f) All other fairing brackets may be added, altered or replaced.
- g) The lower fairing must be constructed to hold in case of an engine breakdown a minimum 4 liters of oil/fluid. The lower edge of all the openings in the fairing must be positioned at least 70 mm above the bottom of the fairing. The upper edge of the rear transverse wall of the lower fairing must be at least 70 mm above the bottom. The angle between this wall and the floor must be  $\leq 90^\circ$ .
- h) The lower fairing must incorporate a single opening of  $\varnothing 25$  mm diameter in the front lower area. This hole must remain sealed. In case of wet race declared this hole should be unsealed to drain water out. Alternatively a lower fairing without the  $\varnothing 25$  mm opening may be used in the dry and replaced with one with the  $\varnothing 25$  mm opening in case of a wet race being declared.
- i) The rear mudguard may be removed/ replaced.
- j) The chain guard may be separated from the rear mudguard.

#### 4.3.35 Seat

- a) The seat base and associated seat bodywork may be replaced freely
- b) The top position of the rear bodywork around the seat may be modified to a solo seat.

- c) *The seat locking system (with plates, pins rubber pads etc.) may be removed.*
- d) *All exposed edges must be rounded.*

#### 4.3.36 Fasteners

- a) *Standard fasteners may be replaced with fasteners of any design and material, except when there is a specific mention that titanium or other light alloy fasteners are not allowed in specific paragraphs of this technical rule.*
- b) *The strength and design must be sufficient, equal to or exceed the strength of the standard fastener it is replacing.*
- c) *Fasteners may be drilled for safety wire but intentional weight-reduction modifications are not allowed.*
- d) *Fairing/bodywork fasteners may be replaced with the quick disconnect type.*
- e) *Aluminum fasteners may only be used in non-structural locations.*

#### 4.3.37 Following items MAY BE ALTERED

*or replaced from those originally fitted or homologated by Motorcycle manufacturer*

- a) *Any type of lubricants, brake or suspension fluids may be used.*
- b) *All gaskets and its material are free.*
- c) *External paintwork decals and colour scheme is free.*
- d) *Instruments, instrument bracket(s) and associated cables.*
- e) *Material for brackets connecting non-original parts (fairing, exhaust, etc.) to the frame (or engine) cannot be made from titanium or carbon fiber reinforced composites.*
- f) *Protective covers for the frame, chain and footrests may be made in other materials like fibre composite material if these parts do not replace original parts mounted on the motorcycle.*
- g) *Fuel tanks can be completely filled with fire retardant material (open celled mesh i.e. Explosafe).*

#### 4.3.38 Following Items MAY BE REMOVED

- a) *Instrument and instrument bracket and associated cables.*
- b) *Tachometer and speedometer.*
- c) *Bolt on accessories on rear Sub frame.*
- d) *Redundant handlebar switches.*
- e) *Emission control items (anti-pollution) in or around the air box and engine (O2 sensors air injection devices).*
- f) *Top chain guard as long as it is not incorporated in the rear fender.*

#### 4.3.39 Following Items MUST BE REMOVED

- a) *Head lamp, tail lamp and turn indicators lamps must be removed. The openings must be covered by a suitable material.*
- b) *Rear-view mirrors.*
- c) *Horn.*
- d) *License plate bracket.*
- e) *Toolkit.*
- f) *Helmet hooks and luggage carrier hooks*
- g) *Passenger foot rests and corresponding mounting brackets (if any)*
- h) *Passenger's grabrails, saree guard.*
- i) *Safety bars, centre and side stands must be removed*
- j) *Catalytic convertors.*

#### 4.3.40 Following Items MUST BE ALTERED

- a) *To prevent any oil spilling onto the track, all Motorcycles must have an oil catch tanks.*
- b) *Where breather or overflow pipes are fitted, they must discharge via existing outlets.*
- c) *All engines must have a closed breather system. All oil breather pipes/lines must be connected to and pass through an oil catch tank. No direct atmospheric emission is allowed.*
- d) *The Air box drains must be sealed.*



## 4.4 SPECIFIC REGULATIONS FOR **SUPER SPORT (Group A)**

*Provided it complies with the regulations listed under Classification of two Wheelers, Common Technical and the safety requirement regulations are followed. There is no restriction on the make, design or type of two-wheeler that may be driven in competitions held under these regulations, except as may be provided in the Supplementary Regulations.*

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



The Federation of Motor Sports Clubs of India