The Federation of Motor Sports Clubs of India

National Sports Federation recognized by the Government of India

2023

Technical Regulations Two-Wheeler

Motocross(MX) / Supercross(SX) / Dirt Track

Member of

Federation Internationale de l' Automobile

Introduction

1) These rules including the technical regulations, schedules and appendices contained herein, shall govern all competitions in which a two-wheeler (as here in after 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 **20th March 2023**

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 partof these rules.

4) The FMSCI has the right to grant an exemption from these rules to suit special conditions or to enable unusual features to be included in the competition and must be specified in the supplementary regulations.

5) International events run under an International Permit issued by the FMSCI must comply with the International Sporting Code as usual. Only refer to these rules in respect of any matter not covered by the Code.

6) Unless otherwise stated, compliance with all regulations in this publication governing groups and classes, safety requirements, lists, technical specifications and definitions is MANDATORY.

7) Changes on consideration of SAFETY MAY BE IMPLEMENTED IMMEDIATELY. All other changes will be implemented after a notice period, which will be decided by the council on a case to case basis. The council of the FMSCI, may in its own discretion, authorize immediate implementation if deemed necessary or advisable.

8) Approval of a two-wheeler or a component or its homologation is an indication ofits 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 Technical Head / Chairman, Technical Regulations commission and forwarded to him through the Secretariat. Only those replies / interpretations signed by him will be valid.

10) These technical regulations have been compiled for both safety and eligibility andform 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 2023 Regulations are highlighted in Yellow, Bold and Italic

Chapter-1: Classification

1.1 Groups

All two wheelers shall be grouped as follows:

1.1.1. Group "A"

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

1.1.2. Group "B"

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

1.1.3. Group "C"

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

1.1.4. Group "D"

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

1.2. Classes

All Indian two – wheelers other than Group "A", will be divided into thefollowing classes according to the Cubic Capacity of their engines.

1.2.1 Mopeds

Class	Engine Capacity
Class P0	Up to 75 cc

1.2.2 Motorcycles

1.2.2.1 Motorcycles – 2 stroke & 4 stroke

Class	Engine Capacity
Class M-1 Super Sport 130	Up to 130 cc
Class M-2 Super Sport 165	Above 130 cc upto 165 cc
Class M-3 Super Sport 210	Above 165 cc upto 210 cc
Class M-4 Super Sport 260	Above 210 cc upto 260 cc
Class M-5 Super Sport 400	Above 260 cc upto 400 cc
Class M-6 Super Sport 550	Above 400 cc upto 550 cc

1.2.3. Scooters

Class	Engine Capacity
Class S-O	Upto 80 cc
Class S-1	Above 80 cc upto 110cc
Class S-2	Above 110 cc upto 160cc
Class S-3	Above 160 cc upto 210 cc

1.2.4. Motorcycles Group "A" only

Class	Engine Capacity
Class A-1 Super Pro	Upto 125 cc
Class A-2 Super Pro	Above 125 cc upto 250 cc
Class A-3 Super Pro	Above 250 cc upto 500 cc
Class A-4 Super Pro	Above 500 cc upto 750 cc

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 and, furthermore, they are free to mergetwo or more consecutive classes according to the requirements of their events.

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.

2.1.1 Motorcycle

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

2.1.2 Scooter

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

2.1.3 Moped

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

2.1.4 Indian Two-Wheeler

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

2.1.5 Model of two – wheeler

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

2.1.6 Indian component

A component manufactured in India and / or a component imported by the manufacturer of an Indian vehicle 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 havethe same function as that of the OE component it replaces.

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

2.1.7 Wherever the word "FREE" is used in these regulations, without any attached conditions, it is permitted to use any Indian or imported component which maybe specially made, the specifications of which are unrestricted in any manner, subject only to conditions of general prescriptions.

2.2 Homologation

It is the official certification made by the FMSCI that a minimum number of two hundred (200) Indian two-wheelers of specific model have been made on series production basis to justify classification. All two-wheelers that conform to the definition of Indian two-wheeler will be required to be homologated with the FMSCI to be eligible to compete in any National event in India. Indian two- wheelers which have been homologated with FIM will automatically be homologated with the FMSCI.

2.2.1 Homologation Form

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

(i) The presentation of homologation form at scrutiny and / or at the start may be required by the organizers who will be entitled to refuse the participation of the entrant in the event of non-presentation. Only original FMSCI Homologations will be accepted. Xerox copies of Homologation forms will not be accepted

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

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

The FMSCI homologation form consists of the following:

1. A basic form giving technical specifications of the basic model
2. Additional sheets describing `homologation extensions' which can be variants, errata or evolutions which may be issued from time to time.

(a) Variants (VF)
These are supply variants (more than one supplier providing the same part tothe 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) Erratum (ER)
Cancels an incorrect piece of information previously furnished by the manufacturer / constructor and replaces it by a corrected one.

(d) 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 oldform.

(e) Evolution (ES)
Sporting evolution characterized by modification made on a permanentbasis intended to render a model more competitive.

2.2.2 For Evolution (ET) changes, any component which is homologated as ETevolution is freely interchangeable within the same model without any modification, asallowed 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 twowheelers unless otherwise stated.

a) Type of Homologated engine
b) Numbers of cylinder /s
c) The material and casting of the crankcase, cylinder, cylinder-headand 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 outto make the two-wheeler take part in the concerned competition.

3.2.1 Number Plates

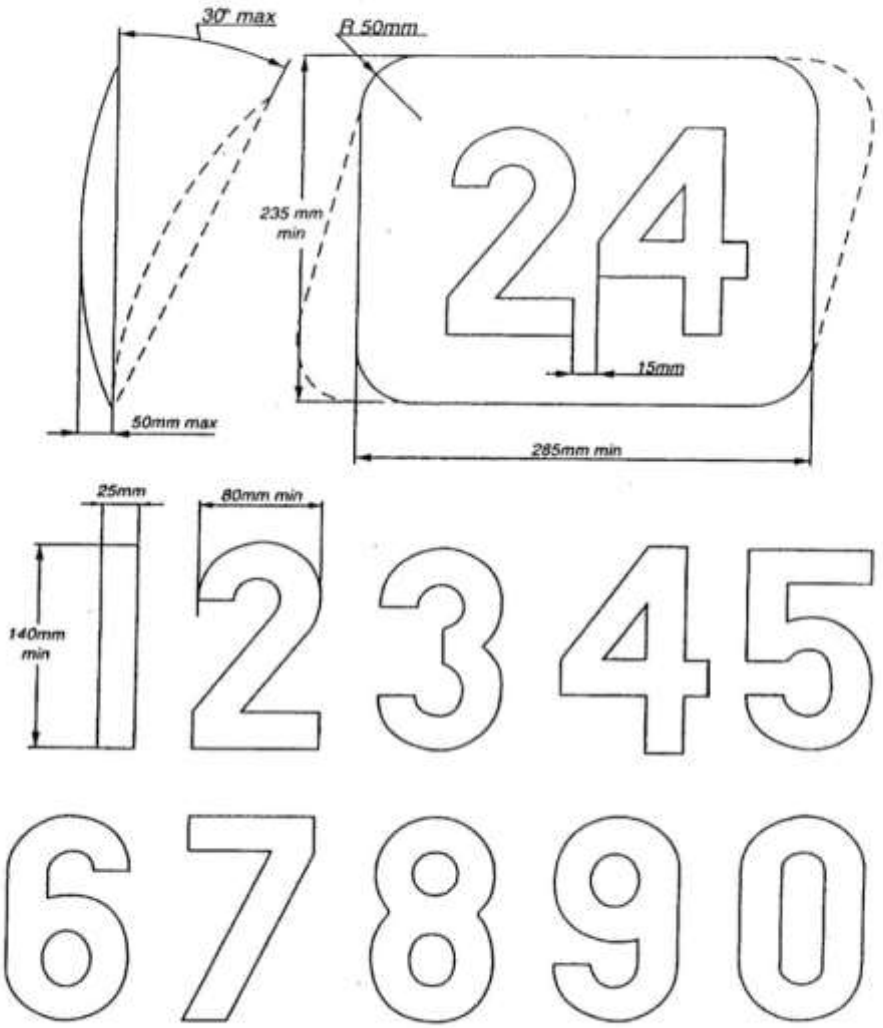
Number plates must be three in number and may be oval or rectangular in shape. They may be made from rigid and solid material (plastic or fiberglass) and should measure not less than 285 mm x 235mm. The plates must not be curved more than 50 mm out of the true plane. One plate must be fixed to the front,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

Height of the figure	140 mm
Width of the figure	080 mm
Width of the Stroke	025 mm
Space between the two figures	015 mm

The English form of letters should be used. The space of a least 5cms must be left free all-round the number plates in which no advertising may appear. Any other number or marking on the machine that may be confused with the competitionnumber plate must be removed before the start of the competition. The side number plate must be positioned above a horizontal line drawn through the rear wheelspindle and front edge of the plate must be behind a vertical line drawn 200 mm to therear of the rider's footrest. The space between

the numbers may be perforated on thenumber plate. Machines with number plates which do not conform to the above listed specifications shall not be passed by the Technical Steward. The Chief Time Keeper may direct the removal of any other number not connected with the competition number, if in his opinion, the presence of the number could prejudice the operation of timing and scoring.
The color of the number and background must be white on black or vice versa unless number stickers are supplied by the organizers

NUMBERS



3.2.2 Starting Devices

Starting Devices are compulsory

3.2.3 Exhaust Pipes

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

3.2.4 Control Levers

For all type of two- wheeler all handlebar levers (Clutch, Brake etc.,) must bein principle ball-ended. The diameter of this ball should be at least 16 mm(see drawing 3.1). This ball canalso 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(see drawing 3.1). 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 toswivel, so that at no time can the rider's fingers be trapped between the lever and the handlebars. Each lever must be mounted on an independent pivot. The end of the levers when closed must not be situated closer than 40mm to the furthest extremity of the handlebar.

Gear levers are allowed to be cut.

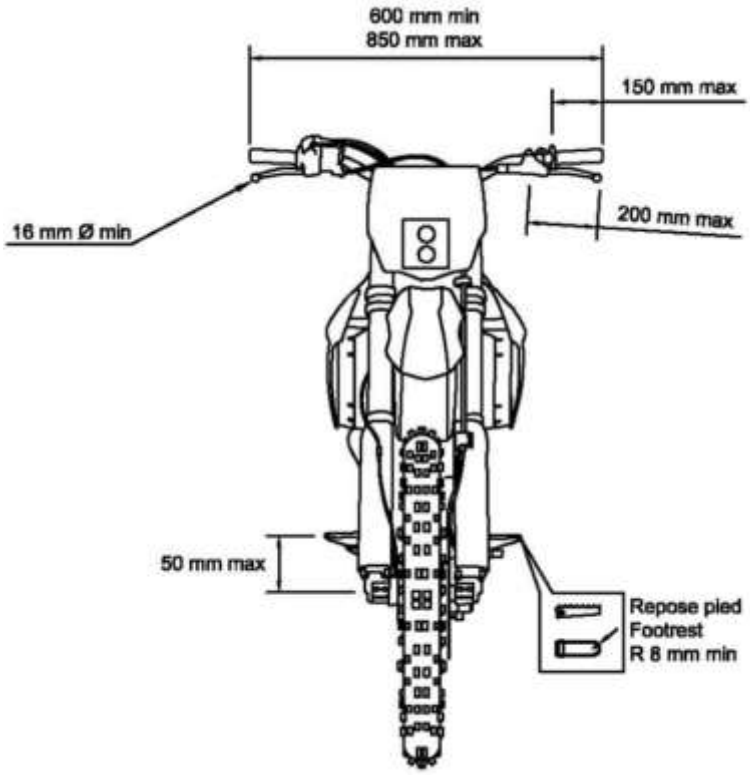
3.2.5 Throttle controls

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

3.2.6 Handlebars

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

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



3.1

3.2.6.1

The width of the handlebars must not be less than 600 mm and not more than 850mm(see drawing 3.1). If hand protectors are used, they must be of shatter resistant material and have permanent opening for the hand.

The handlebars must be equipped with a protection pad / cushion of high density foam on the cross bar. Handlebars without a crossmember must be equipped with a protection pad located in the middle of the handlebars, covering widely the handlebars clamps.

3.2.7 Footrests

The footrests of the rider must be placed in front of the vertical line passing through the centre of the rear wheel. They must be positioned to give easy access to any control pedal without the rider having to lift his foot off the footrest in order to operate the pedal. The ends of the footrests must be rubber covered or rounded off with a spherical radius of not less than 8 mm(see drawing 3.1). Strengthening of OE footrest is allowed.

3.2.7.1

Footrests must not be positioned more than 50 mm above a straight line passing through the centre of the wheels when the motorcycle is normally loaded(see drawing 3.1). Footrests can be of a folding type, but in this case, must be fitted with a device which automatically returns them to the normal position.

3.2.8 Chains

The locking clips on the connecting links, where fitted and painted in any bright color, must be tight fitting and fitted inthe correct direction.

Fixing of Chain Guides and Chain Tension Rollers for Group – C, B & A are permitted

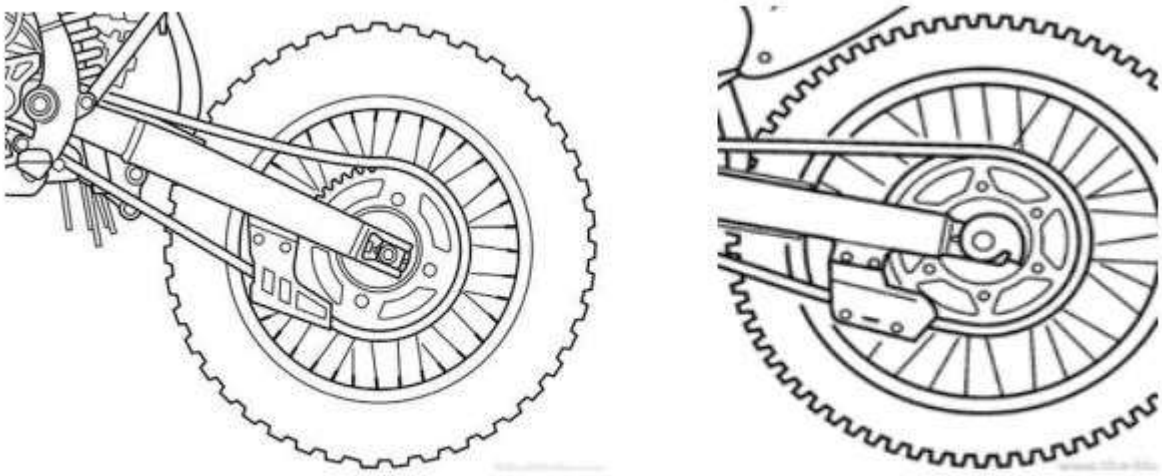
3.2.9 Chain Guards

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

3.2.9.1

No guard shall be permitted over the secondary chain, except it is mandatory at thedrive 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 drivensprockets of the secondary transmission) (see drawing 3.3). If the mandatory chain guard is not an OE component then it must respect the following minimum thickness of 3mm for steel(plate) & 5mm for aluminium(plate).

For Group-A, B & C if the chain guide is placed in where the chain comes in contact with the bottom of the driven sprocket then the chain guide will be considered as the mandatory guard and no separate guard is required(see Image 3.4), the decision of the Chief Scrutineer/Technical Delegate is final



3.3

3.4

3.2.10 Inclination and Suspension

It must be possible for all two wheelers not being loaded to be inclined to an angle of50 degrees from the vertical without any part of it other than the tyres coming in to contact with the ground.

3.2.11 Streamlining

Streamlining may be used for events other than motocross, trials and dirt races 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 drawnvertically through the axis of the front wheel

c) There must be no streamlining to the rear of a straight line drawn vertically through the axis of the rear wheel. The rim of the rear wheel must be clearly visible for the 180 degrees of its circumference to the rear of this line. No partof the machine other than the mudguard, may project to the rear of a straight line drawn vertically through the exterior edge of the rear wheel.
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 900mm above ground when the motorcycle is not loaded.
f) There must be a clearance of at least 50mm between the streamlining and extremities of the handlebar, whatever the position of the handlebar.

3.2.12 Stands

Fitting of stands of any kind is not permitted.

3.2.13 Rear view mirrors

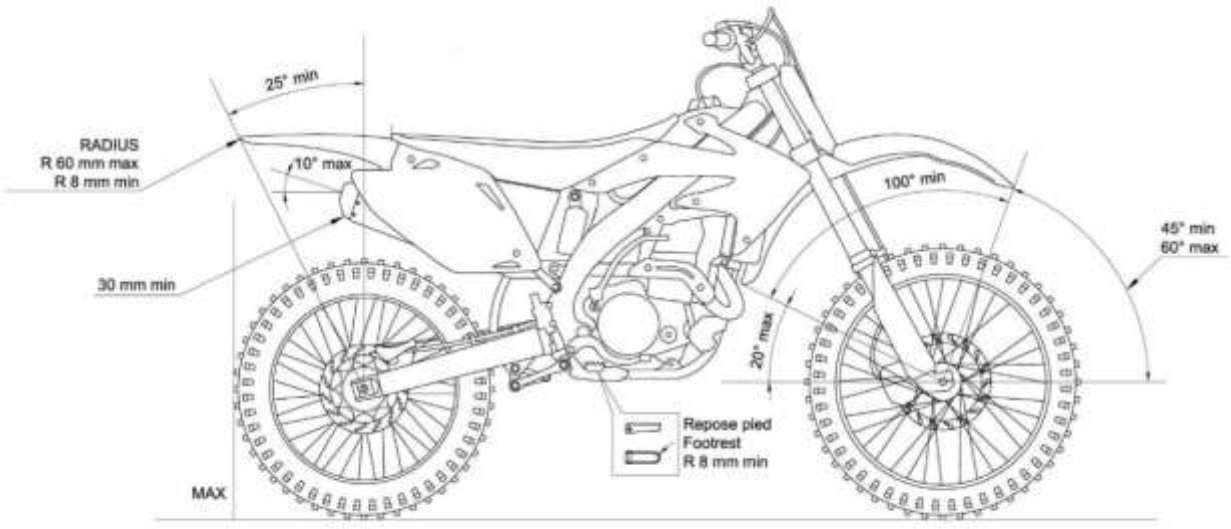
Rear view mirrors are not permitted and must be removed

3.2.14 Mudguard

Metal mudgards are not allowed

3.2.14.1 Front Mudguard

The front mudguard must cover at least 100 degrees of the circumference of wheel. The angle formed by a line drawn from the front edge of the mudguard to the center of the wheel and one drawn horizontally through the center of the wheel must be between 45 degrees and 60 degrees(see drawing 3.2). The angle formed by two lines, one drawn from the rear edge of the mudguard to the center of the wheel and one drawn horizontally through the center of the wheel shall not exceed 20 degrees(see drawing 3.2). It is permitted to strengthen the existing front mudguard and / or brackets.



3.2

3.2.14.2 Rear Mudguard

The rear mudguard covered area must respect the angle formed by a line drawn from the rear edge of the mudguard to the center of the wheel and a line drawn vertically through the center of the wheel must be minimum of 25degree(see drawing 3.2) when measured with the crew sitting on the machine.

~~3.2.15~~

3.2.16 Horns

To be removed or disconnected

3.2.17 Brakes

All two wheelers must be equipped with one efficient brake operating on each wheel, operated independently and concentrically with the wheel.
The ABS system may be disconnected / rendered inoperative / removed.

3.2.18 Wheel rims / discs spokes

Any modification (see Art. 4.2.5.7) to the rim or spokes of an integral wheel (cast,moulded, riveted) as supplied by the manufacturer or of a traditional detachable rim, other than for spokes, valves or security bolts is prohibited except for tyre retention screws sometimes used to prevent tyre movement relative to the rim. If rim is modified for these purposes, bolts, screws, etc must be fitted.

All wheel spokes should be taut and intact.

Wheel rims are FREE for Group “B” and “C”, but must respect Art 2.1.1.

3.2.19 Tyres

The tyres should be in sound condition, with no signs of perishing or cracking andwith no cuts on the side walls and tread surface.

3.2.19.1

a) There is no restriction on the type of tyre used. Only large, widely spaced stud tyres will be permitted
b) At the pre-event scrutiny, tread must be of a minimum depth of 2.5 mm and maximum of 19.5 mm for Motocross and Dirt Tracks. Tyre surface must not be fitted with subsequently mounted elements such as anti-skid spikes, special chains etc. All tyre measurements will be done with the tyre mounted on the rim, at a pressure of 1kg/cm^2 and taken at a tyre section 90 degrees from the ground.
c) Additional tubes may be fitted in to tyres provided that the maximum number of tubes fitted inside any one tyre is not greater than three.

3.3 Fuel

The use of the following listed fuels is permitted.

a. Any commercially available fuel at regular fuel outlets (petrol pumps)
b. Commercial aviation fuel conforming to 100/130 AV gas

The use of aromatic or alcoholic fuel is prohibited. Power booster 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.

3.4 Equipment and protective clothing

3.4.1 Helmets

Crash Helmets

Crash helmets of standard design and construction must be used by competitors in all events. Competitors must ensure that helmets worn are suitable for the type of the event entered. The user must ensure that the crash helmet is in a serviceablecondition, that it fits properly and that is secured properly. The decision of the scrutineer is final.

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

Fit and security

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

a) Obtain correct size by measuring the crown of your head
b) Check that there is no side to side movement ; a helmet should fitsnugly without causing discomfort.
c) Tighten straps securely – ONLY A DOUBLE D RING FASTENING WILL BE ALLOWED**.** 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 nevercover your nose or mouth.
f) Never wear a scarf, tie or other loose clothing which could come loose and possibly cause an accident.
g) Ensure that the visor can be opened with one gloved hand.
h) Satisfy yourself that the back of the helmet provides protection for your neck.

Condition and care of helmets

a) The user himself must bear the prime responsibility for ensuring that his helmet is fit for the purpose intended, since significant damage to the helmetmay have been sustained without this being apparent to the Scrutineer.
b) It is strongly recommended that the competitor buy the best possible helmet hecan (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 radiois fitted this should only be done is accordance with the helmet manufacturer'sinstructions.
d) Repainting of helmets, affixing stickers thereon or drilling holes is not advisable as this may weaken the structure of the helmet; such weakening may not be visually apparent.

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

It is recommended that the helmets are replaced after three years after purchase, irrespective of use they have been put to.

Use of plastic interlocking connects is prohibited.

a) Some moulded plastic helmets do meet approved standards; however, itis stressed that helmets manufactured from this material can be seriously damaged by substances such as petrol, paint adhesives, cleaning agents and sticker – such damage may not always be apparent; however, crazing or obvious dulling of the surface finish could indicate serious structural weakening of the helmet.
b) Use only a weak solution of soft soap and water to clean the interiorand exterior of the helmet; do not get the interior too wet.;
c) The helmet should be stored, preferably in a helmet bag, in a cool dry place away from sunlight when not in use.
d) 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 relyon others. You are responsible for your own safety. Do not, through yourown fault, became a grave burden to others.

NOTE: Total protection can never be given by any headgear and the best of crash helmets may not entirely prevent head injury or death in a severe accident. Helmet users must understand that helmets are deliberately constructed so that the energy ofsevere blow will be absorbed by the helmet and thereby partially destroy it. The damagemay 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 thehelmet user, who will have been aware of the circumstances under which the helmet was struck. It is not possible nor reasonable to expect the scrutineer, in every case, toobserve 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 thatthis is a small insurance to pay for one's life. The competitor must also considerthat, 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.

The following helmets are minimum required for Dirt Track only:

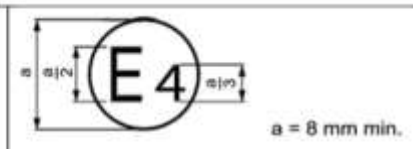
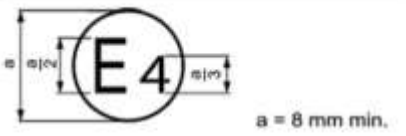
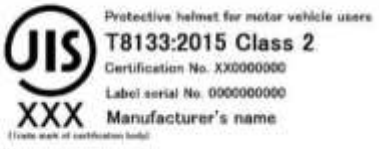
GP One from Steelbird BIEFFE BR15
from SteelbirdBIEFFE BR16 from
SteelbirdFlash from MPA
Uvex from MPA AGV from
MPA Uvex from Studds

For Group "A" motorcycles, FIM approved helmets are mandatory for Dirt Track.

The following helmets standards are mandatory for SX & MX:

Europe:	ECE 22-05 or ECE 22-06 (Only "P" type)
Japan:	JIS T 8133:2015 (Only Type 2 Full face)
USA:	SNELL M 2010", SNELL M2015 or SNELL M2020D or SNELL M2020R

Examples of above mentioned Helmet standard labels are reported below

EUROPE	 051406/P-1952	 061406/P-1952
JAPAN		

USA	

An 'ECE, SNELL or a JiS' certified/approved helmet as mentioned above with a Double 'D' ring strap retention is also mandatory to be presented at time of pre-event scrutiny and be worn at all times during recce and the competitive stages.

3.4.2 Gloves

The rider must wear full leather gloves or competition gloves

3.4.3 Footwear

The rider / co-rider must wear Boots specifically made for off-road competition riding providing protection up to the shin.

3.4.4. Clothing

Chest Guard / Protector is compulsory

The rider must wear trousers and full sleeved jackets of leather or other tough material through out the competition. For motocross long sleeved jerseys of durable flame resistant fabric that does not melt may be worn.

A bionic armour jacket with kidney protection is recommended to be worn by all the competitors at all times during the recce and the competitive stages.
If a competitor does not have a bionic armour jacket, a kidney protection belt is mandatory along with the other protective apparels and equipment
This bionic armour jacket or the kidney protection belt has to be presented at the time of pre-event scrutiny.

All Riders/their pit crew must present the safety gears of the rider at the time of Pre-Event Scrutiny, which must include long sleeved Jersey, full length trouser of tough material with padding, Chest guard with Back guard(spine guard), Elbow guard, Knee Braces/Guard, Gloves(with knuckle protection recommended and competition gloves mandatory), Goggles and First Aid Kit. All the safety gears

The Scrutineers/Technical Delegate decision will be final in assessing the quality and condition of the presented protective apparels and equipment.

3.4.5 Ponchos

For Motocross and all other events starting numbers to be worn on sachets orponchos, in events where the supplementary regulations so require, must conform to the following.

a) Black numbers on a white background must be used.
b) The size of the area in which the numbers are printed is 250 mm x 250mm
c) The height of the figures 160 mm width of the figure 90 mm, width of the stroke 30 mm, space between 15 mm
d) Only the space outside the 250 mm x 250 mm area may be used for publicity.
e) Ponchos, if manufactured from plastic material, must be perforated to provide adequate ventilation.

3.4.6

3.4.7 Locking devices

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

3.4.8 Minimum weight

For the Group “D” bikes, the minimum weight will be the homologated weight less10%. No other weights like RC book, tested, kerb weight will be considered. For Group “C”

bikes, it will be 140 kgs (including the rider with shoes, helmet, gloves etc. as rider returns from the track with fluids in the bike as reporting for post event scrutiny).

The use of ballast is allowed to stay over the minimum weight limit. the use of ballast must be declared to the Chief Technical Steward at the preliminary checks.

Ballast must be made from solid metallic piece/s, firmly, securely connected, either through an adapter or directly to the main frame or engine, with minimum 2 steel bolts (min. 8 mm diameter, 8.8 grade or over). Fuel in the fuel tank can be usedas ballast.

3.4.9 Shin guard / Knee caps

Wearing of shin guard and the knee caps are mandatory.

3.5 CDI

FREE for all groups.

~~3.6 Electronic Control Unit (ECU)~~

~~The Electronic Control Unit and the ignition components in the Electronic Control Unit are FREE(subject to one single unit) for all groups. 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). Sensors and Actuators on the input side must be standard, as must their function. No sensor may be added, even for the purpose of data (for Group-D ECU must be as supplied by the manufacturer)~~

3.7 Radiator Coolant

FREE

3.8 Camera & Camera Fixing

- Only one camera per two-wheeler is allowed.
- Only cameras meant for onboard sporting activities are allowed.
- Mounting of camera on Helmet and Safety gears are not permitted.
- Mounting of camera on the handle bar is not permitted.
- Camera should only be mounted on the two-wheelers without endangering safety.
- Camera should be fixed with in the streamlining of the two-wheeler.
- Camera should be mounted rigidly and to be presented to the Scrutineer/Technical Delegate during pre-event scrutiny for approval, The decision of Scrutineer/Technical Delegate is final.
- Camera should be removed before entering the Parc ferme no cameras are allowed in Parc ferme.

3.9 Kill switch

Vehicles must be equipped with a functional kill switch mounted on either left or right side of the handle bar(within reach of the hand while on hand grips) that is capable of stopping a running engine.

Other than kill switch rest all the switches may be removed.

Chapter-4: Specific Technical Regulations for Groups

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

Whatever modifications have been carried out, the rider must at all times have easy access to all controls without having to remove his hands and feet from the handlebar and footrest respectively.

Art.4.1 Specific Technical Regulations for Group-D

4.1.1 The two wheelers shall compete in an event without having undergone any preparation likely to improve their performance or their condition of use. The only working authorized is normal maintenance or the replacement of parts damaged through wear or accident and the modifications and additions explicitly authorized hereafter. Except for what is explicitly authorized, anypart damaged through wear or accident may only be replaced by a part which must be exactly the same as the one for which it is substituted.

4.1.2 Where the manufacturer has freely used more than one make of component, the same may be freely interchanged.

4.1.3 No components shall be removed from the two wheeler as supplied by the manufacturer, in order to effect a reduction in weight or for any other reasons, except as later laid down in these regulations.

GROUP “D” BIKES SHOULD HAVE ENGINE NUMBER / CHASSIS NUMBER / RC BOOK AND A VALID INSURANCE EVEN IF IT IS TAKING PART IN CLOSED IN-STADIA EVENTS.

Art.4.1 Permitted modifications for Group-D

1. Engine

Over boring upto 1mm O/s from the homologated size permitted provided the maximum capacity of the class is not exceeded.

2. Carburetors

Metering devices such as jets, needles, slides etc are FREE

3. Handlebars

Any Indian component handlebar may be fitted provided the original method of fitting is retained. Welding of stay across the handle bar is permitted for all events. The specifications are : The stay on the crossbar must be soft-padded to avoid impacton chest in case of fall. The bar / tube should be minimum 12mm in diameter and shallnot exceed the handlebar diameter.

4. Streamlining

No fairing or windscreen may be fitted unless it is a part of the original specification

5. Exhaust pipes and Silencers

Detachable silencer baffles, if fitted originally may be removed.

6. Seats

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

7. Wheels

The original equipment rims as supplied by the manufacturer shall be retained. Tyre catching device is permitted. They should be mounted on the rims without any intermediary arrangement.

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

9. Reduction in the Weight.

For Group "D", the following may be removed:

1) Plastic parts such as Tail pieces, Front fairings, Under cowling, Side covers.
2) Chain guards along with fitment brackets.

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

11. Fork braces are FREE and fitment is allowed.

12. Only for Dirt track / Enduro
1) Footrests, Brake Pedals and silencer mounting points are allowed to be strengthened
2) Sprockets cannot be changed and must be original specifications
3) No engine, Gears, Carburetor, Rim Size modification is allowed.How ever the rear of the external Gear stick can be cut off.

All cables (Clutch Cable, Brake Cable, Accelerator Cable, Brake Pipes) can be changed.

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

14. ECU, Wiring Harness & Sensors

ECU must be OE as supplied by the manufacturer with original mounting points and sockets.
ECU Re-flashing is allowed, nevertheless the system must be entirely interchangeable with the original unit (i.e. the endine must work when the unit is replaced with the series unit).
The Wiring Harness and Connectors must remain as originally fitted or homologated part.
All sensors must be as supplied by the manufacturer and addition of sensors is forbidden.

Art.4.2 Specific Technical Regulations for Group-C

Two wheelers in Group "C" are eligible to compete with the modifications andconditions authorized as listed below, in addition to those permitted in Group "D" but within the limits laid down in Chapter 2 Common Technical Regulations.

4.2.1 Any permitted modification carried out on the existing component/s, shall be carried out in India. All components of these two wheelers, unless otherwise stated, must be Indian components.

4.2.2. In the event of the promoters of an event having any doubts whatsoever, as tothe origin of any motorcycle or its component/s the onus of the proof shall rest with the competitor.

ENGINE NUMBER AND CHASSIS NUMBER IS MANDATORY FOR ALL GROUPS.

Art.4.2.3 List of FREE items for Group-C in addition to those allowed in Group-D

1. Controls, control cables, Mudguards, Handlebars and mounting points,foot rests and mountings, pedals, fasteners, hoses.
2. Spark plugs, holders, ignition cables, batteries, rectifiers.
3. All bearings, bushings and spacers
4. Steering dampers
5. Tachometers (Revcounters), Navigation instruments
6. All gaskets, oil seals
7. All Springs (Chassis and Engine)
8. Fuel filters, petrol cocks
9. All manifolds
10. Resonators
11. Secondary drive sprockets, camshaft drive sprocket
12. Exhaust system
13. Seats
14. Streamlining

Art.4.2.4 Permitted additional engine modifications for Group-C

1) The shapes and sizes of the ports are FREE. The number of ports percylinder/s, cylinder head/s shall not be altered. The bridge separating the bridged ports shall not be removed. The disc valves and inlet ports may be modified.
2) For four strokes only, the size of the valves are FREE. The number of valves shall not be altered. Valve lift / Timing can be changed by modifying the rocker arm or grinding the Cam lobes. Grinding of camshaft journal is permitted.
3) All engines are permitted to be over bored without restriction but they must remain within the cubic capacity of the class entered. Only pistons and Piston pins conforming to the definition of Indian component are permitted in original or modified form. Modification is allowed with or without addition of material.

4) The cylinder/s, cylinder head/s shall be as supplied by the manufacturer. Material may be removed by machining only. Addition of material is prohibited(other than addition of sleeve to the cylinder, Inserting of oversize sleeve to the cylinder is an allowed modification). The method of cooling shall not be altered.

5) It is permitted to match the entry points from the crankcase to the transfer ports by removal of material only. Dowell pins to locate the cylinder to the crankcase is permitted.

6) No modifications is permitted on the crankshaft assembly, except for normal maintenance which includes replacement of connecting rods, pins, bearingetc.

7) Any Indian component/s carburetor/s / Throttle Body / injectors may be used in original or modified form. The Homologated method of fuel feed must be respected. Supercharging / turbo charging is forbidden.

8) Any combination of Indian component ignition assembly (includes contact breakers, ignition coils, magnetos, alternators, stator plates, electronic ignitions) may be used in original or modified form. Magneto flywheel assemblies may be lightened and balanced.

9) The clutch basket including primary gear and clutch centre may be lightened and balanced. Any Indian component clutch plates (pressure and friction) maybe used.

10) The secondary drive ratio may be altered. Any Indian component chain may be used.

11) Autolube equipment / battery may be removed.

12) Reed valves are FREE.

13) For Two Strokes only, the cylinder barrel and head may be interchanged between different models of the homologated vehicles from the same manufacturer.

Art.4.2.5 Permitted modification to Chassis / Suspension / Brakes Group-C

1. Front suspension

Fork travel / damping may be altered. Piston rod bolt is FREE. In case of Earles suspension, the length of the swinging arm may be altered, the shock absorber mounting points may be altered. All shock absorbers shall be Indian components in original or modified form. T-Stem and Triple clamp may be freely modified.

2. Rear suspension

The swinging arm may be strengthened by addition of material only. The length of the swinging arm may be altered. The shock absorber mounting points may be altered. The pivot point of the swinging arm with respect to the frame shall not be altered. All shock absorbers shall be Indian components in original or modified form.

3. Brakes

Any brake assembly and / or axle assembly may be used, however, modification is permitted only to the extent of allowing safe fitment. The fitment of disc brakes on the front wheel in Group “C” motorcycles is allowed. The front fork legs, front hubs are FREE if disc brake is fitted.

4. Wheels

Indian component rims, hubs and spokes may be used in original or modified form. The tyres would be free for Motocross / Supercross / Dirt Track & other off-road events.

5. Frame

Struts, clamps for attachment of components such as air filters, tool boxes, mudguards battery carriers etc. which as a result of strip down to racing trim, having become totally unloaded and stress free, may be removed. Reinforcement of the frame by the addition of extra frame members will be permitted without compromising its basic structural design and rigidity. Modificationsrequired for fitment of different seat / fuel tank are allowed subject to the above.

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

7. Mudguards made from metal are not permitted.

8. Fuel tanks – Any Indian component OE fuel tanks from any production vehicle may be used. Modification to them is limited to fitment of vents, pipes, caps, taps, brackets and Fuel pump(if applicable).

9. ECU, Wiring harness & Sensors
ECU is free(piggyback ecu is allowed)
Wiring harness and connectors are free
All sensors must be as supplied by the manufacturer and addition of sensors is forbidden.

Art.4.3 Specific Technical Regulations for Group-B

Two wheelers in group “B” are eligible to compete with the modifications and conditions authorized as listed below, in addition to those permitted in group “C” but within the limits laid down under chapter 3 “Common Technical Regulations”. Articles 4.2.1 and 4.2.2 are applicable in this group also.

Art.4.3.1 List of FREE items for Group-B in addition to those allowed in Group-C

1. Wheels, hubs, axles
2. Chains and chain adjusters
3. All types of ignitions (including coils, contact – breakers, magnetos, alternators, capacitor discharge & transistorized ignitions)
4. Fuel tanks – Any OE fuel tank is allowed (Indian or Imported) limiting the modification, only for fitment of vents, pipes, caps, taps and brackets and Fuel pump, the onus of proof lies with the competitor. Any kind of additional fuel tank/fuel reservoir is forbidden.
5. Shock absorbers, all dampers
6. All instruments
7. Crank shaft assemblies (includes crankshaft, connecting rod/s, crank pins). Piston/s, Pin/s, Lock/s, Ring/s.
8. Components of the braking system (includes brake pads, brake linings, shoes, master cylinders, rotors, calipers)
9. Gears and gear ratios are FREE. The number of speeds as specified in the homologation form shall not be altered. However the shift pattern may be altered.
10. Valves, number of valves, valve springs, retainers, locks, rocker arms, push-rods, cam-shaft/s and timing gear.
11. The components of the primary drive (crank pinion gears or sprockets and ratios)./ The method of drive shall not be altered from chain to gear or belt or vice versa.
12. The components of the clutch system (includes clutch basket, pressure andfriction plates). The type of clutch shall not be altered from wet to dry or vice versa).
13. The method and components of the front suspension (includes fork assemblies, steering head assemblies, rake and trail)
14. The method and components of the rear suspension (includes swinging arm). However, the pivot point of the swinging arm with respect to the frame shall not be altered.
15. Method of Fuel Delivery (i.e. Carburettor / Throttle body & Fuel injection). Super charging / Turbo charging is forbidden if its not a part of the Homologated vehicle.
16. Chassis - Indian or Imported Series Production Component only, the onus of proof lies with the competitor.

Art.4.3.2 Permitted additional engine modifications for Group-B

1) The number of ports per cylinder/s, cylinder head/s may be altered.
2) The material and castings of the cylinder/s and cylinder head/s are FREE, as long as they are made in India. Additional studs onthe cylinder/s cylinder head/s are permitted
3) Crankcase / gearbox shell : Material may be added by welding or removed by machining only. Primary compression ratio may bealtered.
4) The stroke of the engine may be altered
5) The method of cooling shall not be altered.
6) **ECU**

ECU is free(piggyback ecu is allowed)
Wiring harness and connectors are free
Sensors free and addition of sensors are allowed.

Art.4.4 Specific Technical Regulations for Group-A

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

END