TECHNICAL REGULATIONS

1. TECHNICAL REGULATIONS -SuperBike 1000 (SB-1, SB-1 PRO)

Amendments to the technical regulations may be made by the FIM Asia Road Racing (ARRC) Technical Committee at any time.
During practices: If a motorcycle is found not to be in conformity with the technical regulations during or after the practices, its rider will be given a penalty for the event such as a ride through, a drop of any number of grid positions for the next race, suspension and/or withdrawal of Championship or Cup points.
After a Race: If a motorcycle is found not to be in conformity with the technical regulations after a race, its rider will be given a penalty such as a time penalty or disqualification.

1.1 INTRODUCTION

1.1.1 Motorcycles for the SuperBike 1000 must be motorcycles with valid road homologation in one of the following areas: Asia Oceania or EU. These motorcycles must be available for sale to the public in the shop and the dealerships representing the manufacturer in at least one of the above areas before the third event of the current Championship to be allowed to be used in the remaining Championship events.

1.1.2. **CLASSES**

- The production based racing classed will be designated by engine capacity and level of technical freedom.

1.1.3 **GENERAL ITEMS**

- Materials
  The use of titanium in the construction of the frame, the front fork, the handlebars, the swing arms, is forbidden. The use of titanium alloy nuts and bolts is allowed in certain classes.
  a) Titanium test to be performed on the track: Magnetic test (titanium is not magnetic)
  b) The 3% nitric acid test (titanium does not react. If metal is steel, the drop wil leave a black spot.
  c) Specific weight of titanium alloys is between 4.5 and 5.0 kg/dm3 vs. over 7.48 kg/dm3 of steel and can be ascertained by weighing the part and measuring its volume in a calibrated glass filled with water (intake valve, rocker, connecting rod, etc)
  d) In case of doubt, the test must take place at a Materials Testing Laboratory.

1.1.4. Handlebars and Control Levers

1.1.4.1 Exposed Handlebar ends must be plugged with a solid material or rubber covered.

1.1.4.2 The minimum angle of the rotation of the steering on each side of the center line or mid position must be of 15˚ for all motorcycles. Whatever the position of the handlebars, the front wheel, tyre and the mudguard must maintain a minimum gap of 10mm. Solid stops (other than steering dampers) must be fitted to ensure a minimum clearance of 30mm between the handlebars and levers and the tank, frame or other bodywork when on full lock to prevent trapping the rider's fingers.

1.1.4.3 Repair by welding of light alloy handlebars is prohibited. Composite are not allowed in any class.

1.1.4.4 All handlebar levers (clutch, brake, etc.) must be ball ended (diameter of this ball to be at least 16mm). This ball can also be flattened, but in any case, the edges must be rounded (minimum thickness of this flattened part 14mm). These ends must be permanently fixed and form an integral part of the lever.

1.1.4.5 Each control lever (hand and foot levers) must be mounted on an independent pivot.

1.1.4.6 The brake lever, (if pivoted on the footrest axis, must work under all circumstances, such footrests being bent or deformed.

1.1.4.7 Modified rider controls will be considered for the mobility subject to a report by the Medical Director, the SuperBike 1000 Technical Director's decision is final.

1.1.5 **Compulsory Safety Items**

1.1.5.1 All drain plugs must be locked wired (safety wired. External oil filter(s), screws and bolts that enter the oil cavity must be safety wired (ie. on crankcases). The oil filter may optionally have a secondary retention mechanism.

1.1.5.2 Where breather or overflow pipes are fitted they must discharge via existing outlets. The original closed system must be retained; no direct atmospheric emission is permitted.

1.1.6 **Wheel and rims**

1.1.6.1 Modification of tyre retention screws sometimes used to prevent tyre movement relative to the rim is permitted. If the rim is modified for these purpose bolts, screws etc. must be fitted.

1.1.6.2 Rim Width Measurement: The distance between the rim walls is measured inside the flange walls in accordance with ETRTO (European Tyre and Rim Technical Organisation).

1.1.7 **Ballast**

1.1.7.1 The use of ballast is allowed to stay over the minimum weight limit.The use of ballast must be declared to the FMSCT Technical Director at the preliminary checks. The ballast must be made of solid metallic piece/s, firmly and securely connected, either through an adapter or directly to the main frame or engine, with a minimum of 2 steel bolts (min. 8mm diameter, 8.8 grade or over).

1.1.7.2 Other equivalent technical solutions must be submitted to the FMSCTTechnical Director for his approval.

1.1.7.3 Fuel and fuel tank can be used as ballast. Nevertheless, the verified weight may never fall below the required minimum weight.

1.1.8 **Homologated Parts**

1.1.8.1 Homologated parts are the OEM parts supplied fitted to the machine during manufacture and as delivered. Unless stated otherwise these parts may not be remade, refinished, treated.

1.1.8.2 Coated or modified in any way. Parts from the different homologations may not be used on the machines from another homologation including when sharing the model name but excepting when the part is superseded for production reasons and also accepted by the FIM and FIM Asia.

1.1.9 **Rear Safety Lights**

1.1.9.1 All motorcycles must have a functioning red light mounted at the rear, this light must be switched on when the motorcycle is on the track ONLY during poor visibility, ie: rain, fog, haze. “LIGHTS ON” board will be shown at the start of finish line and all riders on track MUST turn on their lights. All lights must comply with the following:

1.1.9.2 Lighting direction must be parallel to the machine centre line (motorcycle running direction), and be clearly visible from the rear at least 15 degrees to both left and right sides of the machine centre line.

1.1.9.3 The red light must be mounted near the end of the seat/rear bodywork and approximately on the machine centre line, in a position approved by the Technical Director. In case of dispute over the mounting position or visibility, the decision of the Technical Director will be final.

a) Power output/luminosity equivalent to approximately: 10 – 15 (incandescent), 0.6 – 1.8W (LED).The output must be continuous & no flashing light whilst on track, flashing is allowed in the pit lane when pit speed limiter is active.

b) Safety; light power supply may be separated from the motorcycle’s main battery. The minimum size is 4cm X1cm and the maximum size is 8cm X 6cm.

c) The Technical Director has the right to refuse any light system not satisfying this safety purpose.

1.1.10 **Sound Level Control**

Sound limit in force:

The maximum sound level, shall be measured at a mean piston speed of 11 m/sec. The fixed RPM specified in Art.1.1.11 may be used

- With the microphone placed at 50cm from the exhaust pipe at an angle of 45 measured from the centre- line of the exhaust end and at the height of the exhaust pipe but at least 20cm above the ground. If this is not possible, the measurement can be taken at 45 upwards.
- During a sound test, motorcycles not equipped with a gear-box neutral must be placed on a stand. Motorcycles should be on neutral- gear selection and be placed on the stand during the sound test.
- The rider shall keep his engine running out of gear and shall increase the engine speed until it reaches the specified Revolutions Per Minute (RPM). Measurements must be taken when the specified RPM is reached.
- The RPM depends upon the mean piston speed corresponding to the stroke of the engine.

The RPM will be given by the relationship:

$$N = \frac{30{,}000 \times cm}{l}$$

In which:

N = prescribed RPM of engine
Cm = fixed mean piston speed in m/s
l = stroke in mm

1.1.11 **Noise control**

- Noise control – SUPERBIKE 1000 (SB-1, SB-1 PRO) *refer article 1.2.24
  Due to the different of the piston stroke engine configurations within the capacity classes, the noise test will be conducted at the following RPM. For reference only, the mean piston speed at which the noise text is conducted is calculated at 11 m / sec.

1.1.12 The maximum sound level for engine with more than one cylinder will be measure on each exhaust end.

1.1.13 A motorcycles which does not comply with the maximum sound limits may be presented several times at ore-race control.

1.1.14 The surrounding sound must not exceed 90 dB/A within a 5 metres radius from the power source during tests.

1.1.15 Apparatus for noise control must be in to international standard IEC 651, Type 1. The sound level meter must be equipped with a calibrator for control and adjustment of the meter during periods of use.

1.1.16 The “slow response” setting must always be used.

1.1.17 Sound control after the competition In a competition which requires a final examination of motorcycle es before the results are announced, this examination must include a sound control measurement of at least the first three motorcycles listed in the final classification. At the final test, there will be a 3 dB/A tolerance.

1.1.18 Noise control during competition
In a competition which requires noise control tests during the event, motorcycles must comply with the noise limits without tolerance in Article in Ref of Exhaust rules of each classes.

1.1.19 Guidelines for Use of Sound Level Meters

a) Sound level measuring equipment must include a complete calibrator, which must be used immediately before resting begins and always just prior to a re-test if. A disciplinary sanction may be imposed. Two sets of equipment must be available in case of failure of tachometer, sound level meter or calibrator during technical control.
b) Tests may take place in rain or excessively damp conditions. Motorcycles considered excessively noisy must be individually tested if conditions allow.
c) In other than moderate wind, motorcycles must face forward in the wind direction (Mechanical noise will blow forward, away from microphone)
d) “Slow” meter response must be used.
e) “A” weighted setting on sound level meter.
f) No rounding down of the meter reading, that is: 110.9 dB/A = 110.9 dB/A.
g) Corrections
   Type 1 meter : deduct 1 dB/A
h) Precision of the method (tolerances)
i) All corrections are accumulative. Actions and decisions will depend on the Sporting Discipline concerned, and decisions taken during prior discussions with the FMSCT Technical Director.

1.1.20 RIDERS SAFETY EQUIPMENT

1. It is compulsary that all riders must begin each race event with at least one complete sets of UNDAMAGED safety equipment. A complete set of safety equipment shall contain:
- Helmet
- Leather Suit,1-piece.
- Leather Glove
- Leather Boots.
- Back Protector.
-Chest Protector.

The equipment must be worn, correctly fastened, at all times during on track activity. In certain cases (for example the Airbag System) the equipment must be present and functional at least at the start of each track session. The decision of the Tecnical Director is Final in matters of riders equipment. The Race Direction will decide a penalty to riders who not comply this rules with a minimum of USD500 or more. The only purpose of any part of the rider's race suit, boots and gloves should be protect the rider in an incident. Therefore, any part of these items of equipment that is deemed to be solely for the purpose of aiding the rider's aerodynamic effect will not be permitted. The decision of the Technical Director will be final in determining what constitutes an item solely for aerodynamic effect.

2. SAFETY EQUIPMENT CONTROL At all races for the season, one complete set of undamaged safety equipment must be presented and checked for the following:

- Helmets must be of the full face type (integral) and conform to one of the recognized international standards:

EUROPE	ECE 22-05 (only "P" type)
JAPAN	JIS T 8133:2015 (only "Type 2 Full face")
USA	SNELL M2020D or M2020R
FIM	FRHPhe-01 – 2018 (FIM Racing Homologation Programme helmet

- Visors must be made of a shatterproof material.
- Disposable "tear-offs" are permitted. Any question concerning the suitability or condition of the riders clothing and/or helmet shall be decided by the Technical Director, who may, if he so wishes, consult with the manufacturers of the product before making a final decision.
- Leather Suit, Boots, Gloves: the model names of each of these items must correspond to the Self Certifications previously supplied to the Technical Director.
- Back Protector. (Certified)
- Chest Protector. (Certified)

Examples of labels are reported below (for Europe, the country numbers which have granted the approval are also indicated):

1.1.21 TYRES.

Only tyres supply by the Official Supplier at the event are authorised.

1.1.22 USE OF THE TYRE WARMERS.

The use of the tyre warmers is allowed.

1.1.23 DECALS.

i) The organizer will supply Official Tyre decals for all classes.
Compulsory to affix on the race bike and racing suit.

ii)The organizer may also supply other decals during the championship in which all team and wild card rider may need to affix the decals on the race bike.

iv)The allocated number for the rider must appear three times on the machine.
The Sponsor logos are allowed on the race bike, racing suit and helmets .

* The Race Direction will decide a penalty to riders who not comply this rules with a minimum of USD500 or more.

2.1.24 POST RACE ACTIVITIES AND PARC FERME.

i) One crew member per team to enter parc ferme to start their motorcycle for few seconds and for a maximum of 3 times to each their motorcycle.
ii) This area remain restricted to all other team crew
iii) No tools or equipment can be taken into parc ferme including laptops, fans or blowers.
iv) No hard revving is allowed

EUROPE	E 4 051406/J-1952 a = 8 mm min. 3/ 1 for Germany, 2 for France, 3 for Italy, 4 for the Netherlands, 5 for Sweden, 6 for Belgium, 7 for Hungary, 8 for the Czech Republic, 9 for Spain, 10 for Yugoslavia, 11 for the United Kingdom, 12 for Austria, 13 for Luxembourg, 14 for Switzerland, 15 (vacant), 16 for Norway, 17 for Finland, 18 for Denmark, 19 for Romania, 20 for Poland, 21 for Portugal, 22 for the Russian Federation, 23 for Greece, 24 for Ireland, 25 for Croatia, 26 for Slovenia, 27 for Slovakia, 28 for Belarus, 29 for Estonia, 30 (vacant), 31 for Bosnia and Herzegovina, 32 for Latvia, 33 (vacant), 34 for Bulgaria, 35 (vacant), 36 for Lithuania, 37 for Turkey, 38 (vacant), 39 for Azerbaijan, 40 for The former Yugoslav Republic of Macedonia, 41 (vacant), 42 for the European Community (Approvals are granted by its Member States using their respective ECE symbol), 43 for Japan, 44 (vacant), 45 for Australia, 46 for Ukraine, 47 for South Africa and 48 for New Zealand. Subsequent numbers shall be assigned to other countries in the chronological order in which they ratify or accede to the Agreement Concerning the Adoption of Uniform Technical Prescriptions for Wheeled Vehicles, Equipment and Parts which can be Fitted and/or be Used on Wheeled Vehicles and the Conditions for Reciprocal Recognition of Approvals Granted on the Basis of these Prescriptions, and the numbers thus assigned shall be communicated by the Secretary-General of the United Nations to the Contracting Parties to the Agreement.
JAPAN	
USA	

FIM RACING HOMOLOGATED HELMET
SHOEI
X-Fourteen
XS-S-M
FRHPhe-01 - 2018

FIM RACING HOMOLOGATED HELMET
SUOMY
SR GP
S1-M
FRHPhe-01 - 2018

SUPERBIKE 1000 (SB-1, SB-1 PRO) TECHNICAL SPECIFICATIONS

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 permitted in any of the following articles, then it is forbidden.

SUPERBIKE 1000 (SB-1, SB-1 PRO) motorcycles require an FIM homologation as listed in current Listing of FIM homologated motorcycles for Superbike category. If a FIM homologation is not available for a specific motorcycle due to unavoidable circumstances (e.g. Covid-19 Pandemic) and FIM Homologation has been submitted than, the following may be used as a remedy.

- **Homologation from in the Country of Origin (of the motorcycle Make)**
- **Homologation from the FIM FMSCT Technical Committee.**

All motorcycles must comply in every respect with all the requirements for road racing as specified in this Technical Specifications (Regulations), All Motorcycles must be normally aspirated.

Once a motorcycle has obtained the homologation, it may be used for racing in the corresponding class for a maximum period of 8 years or until such time that the homologated motorcycle is disqualified by new rules or changes in the technical specifications of the corresponding class.

The appearance from the front, rear and the profile of SUPERBIKE 1000 (SB-1, SB-1 PRO) motorcycles must (except when otherwise stated) conform to the homologated shape (as originally produced by the manufacturer). The appearance of the exhaust system is excluded from this rule.

1.2 **General Motorcycle Specifications.**

All parts and systems of the Motorcycle not specifically mentioned in the following articles must remain;
- As originally produced by the manufacturer.
- As originally fitted or equipped on the homologated Motorcycle.

Interchange of 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 PERMITTED, except when it is specifically mentioned in another part(s) of this regulation that it can be interchanged between the Motorcycles within same model name and or same frame VIN. (E.g. Wheels)

1.2.1. **Eligible Motorcycles**

These rules are intended for production road Motorcycles only. If the Motorcycles included in the FIM Superbike homologation list does not meet the requirement of this Technical Specifications here, then the FIM Asia FMSCT Technical Committee has the right to decide which Motorcycles will be eligible or NOT eligible be used in the SUPERBIKE 1000 (SB-1, SB-1 PRO) class.

1.2.1.1. The displacement capacity, bore and stroke, must remain as the homologated size.

1.2.1.2. For 2022 the following Motorcycles are approved to compete:

1.2.1.2.1. BMW S1000RR
1.2.1.2.2. BMW M1000RR
1.2.1.2.3. Ducati Panigale V4R
1.2.1.2.4. Honda CBR1000RR SP2
1.2.1.2.5. Honda CBR1000RR-R (2020-Current)

1.2.1.2.6. Honda CBR1000RR-R SP (2020-Current)
1.2.1.2.7. Kawasaki ZX10R
1.2.1.2.8. Kawasaki ZX10RR (2019-Current)
1.2.1.2.9. Suzuki GSX-R 1000
1.2.1.2.10. Yamaha YZF-R1
1.2.1.2.11. Yamaha YZF-R1M (2017-Current)

Note: This list can be amended at any time by The FMSCT Technical Committee**.**

1.2.2. Balancing Various Motorcycle Concepts

FIM Asia together with FMSCT Technical Committee reserves the right to apply balancing methods to the Motorcycles in the class as they see fit. FIM Asia together with FMSCT Technical Committee will review the position of the performances between the Motorcycles Makes. The following are some methods that may be executed and they will be review from time to time.

- Weight Adjustment
- Base Maximum RPM Limit (by adjusting via ECU system)
- Throttle Body Size Balancing
- Engine Parts Concessions
- Handling and Suspension Parts Concessions and other suitable balancing Methods when the need arises.

1.2.3. Minimum weight

At any time of the event, the weight of the whole Motorcycle including the tank and its fuel contents must not be lower than the minimum weight.

The use of ballast is permitted to stay over the minimum weight limit. The use of ballast must be declared to the FIM Asia FMSCT Technical Director whenever it is installed or used and re-inspected whenever there is a change. Ballast may be added to conform to be combined target weight ; a total maximum of **9 kg** may be added.

1.2.3.1 Minimun Motorcycle Weight: 173 kg
1.2.3.2 Maximum Motorcycle Weight: 182 kg
1.2.3.3 Total*Combined Target Weight 245 kg

*Combined Target Weight is defined as: the Motorcycle weight plus the rider's weight while wearing their full racing gear.

If the combined weight is less than 245 kg and when maximum motorcycle weight is already 182 kg or more, there will not be any additional weight penalty.

During the practice and qualifying sessions, riders may be asked to submit their motorcycle to the weight control. In all cases the rider must comply with this request.

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 weight limit 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.

1.2.4. Numbers and number plates

Each rider accepted for the SuperBike 1000 Championship will be able to choose their own starting number which will be valid for the whole championship. The numbers “1” until “10” will be reserved for the previous year’s competitors according to their overall championship points standing.

1.2.4.1. The background colour is white and the numbers are black or dark colours

1.2.4.2. The sizes for all the **front numbers** are:

i. Minimum height:	140 mm
ii. Minimum width:	80 mm
iii. Minimum stroke:	25 mm
iv. Minimum space between numbers:	10 mm

1.2.4.3. The sizes for all the **side numbers** are:

v. Minimum height:	120 mm
vi. Minimum width:	60 mm
vii. Minimum stroke:	25 mm
viii. Minimum space between numbers:	10 mm

1.2.4.4. The allocated number (& plate) for the rider must be affixed on the motorcycle as follows:

i. Once on the front, either in the centre of the fairing or slightly off to one side. The number must be centred on the background with no advertising within 25 mm in all directions.
ii. Once, on each side of the motorcycle. The preferred location for the numbers on each side of the motorcycle is on the lower rear portion of the main fairing (belly pan) near the bottom. The number must be centred on the background.

1.2.4.5. The approved font types for the numbers are as following;

i. Futura Heavy and Futura Heavy Italic
ii. Univers Bold and Univers Bold Italic
iii. Olivers Med and Olivers Med Italic
iv. Franklin Gothic and Franklin Gothic Italic

1.2.4.6. Any numbers not using these fonts must have the design of the numbers and the layout pre-approved by the FMSCT Technical Director a minimum of 2 weeks before the first race. All digits must be of standard form.

1.2.4.7. Any outlines must be of a contrasting colour and the maximum width of the outline is 3 mm. The background colour must be clearly visible around all edges of the number (including outline). Reflective or mirror type numbers are not permitted.

1.2.4.8. Numbers cannot overlap.
In case of a dispute concerning the legibility of numbers, the decision of the FMSCT Technical Director will be final.

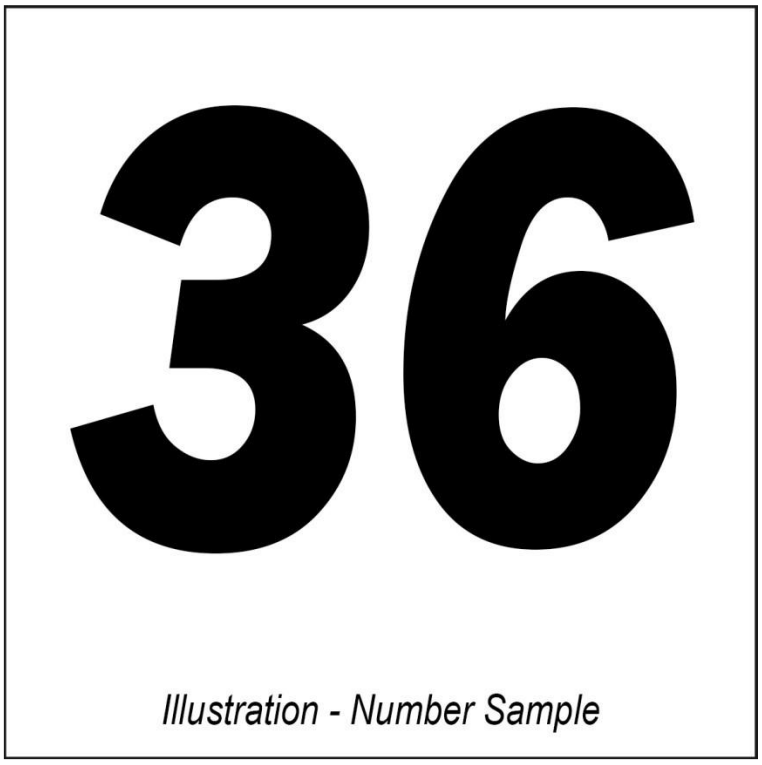

Illustration - Number Sample

1.2.5. Fuel

All SUPERBIKE 1000 (SB-1, SB-1 PRO) Motorcycles must use only normal unleaded fuel Benzene 95, E20 and E85 appointed by Organizer or the Event Promoter and without any additional additives.

1.2.6. Tyres

1.2.6.1. Only FMSCT/TSB homologated Slick Tyres in FMSCT All Thailand Championship are permitted.

1.2.6.2. A maximum of 2 front and 1 extra Rear of Slick tyres is only allowed for the race weekend. The extra Rear tyre can only be used during qualifying session.

1.2.6.3. This is the maximum number of tyres permitted during a race weekend. If allocation is to be changed the entrants will be advised.

1.2.6.4. The wet tyres will not need to be marked with a tyre sticker and will not be considered in the total number of tyres available for use.

1.2.6.6. Any modification or treatment (cutting, grooving) is forbidden.

1.2.6.7. The dry-weather tyres used in the free practices, qualifying practices, warm up and race must be marked with adhesive sticker with a number allocated by Technical Inspection Team

1.2.6.8. At the discretion of the rider or team, dry-weather or wet-weather tyres may be used for the Race weekend.

1.2.6.9. The allocation of tyres will be made on a random basis by the representative from the Official Tyre Supplier. The tyres identified may not be exchanged between riders including between team mates and may not be exchanged by the tyre supplier after the allocation except with the permission of the Race Direction.

1.2.6.10. The stickers will show an identification number for each rider and it will have a different colour on each allocation

1.2.6.11. The stickers must be applied to the right sidewall of the tyre.

1.2.6.12. Officials or Personnel nominated by the FMSCT Technical Director will check that all the Motorcycles in the pit lane are fitted with tyres carrying the sticker. The use of Motorcycles with unmarked tyres (e.g. without the official stickers) will be immediately reported to the Race Direction which will take appropriate action.

1.2.6.13. In exceptional cases, should the sticker be damaged or applied in the wrong way, up to 1 extra sticker may be provided at the sole discretion of the FMSCT Director.

1.2.6.14. However, the damaged sticker must be returned to the FMSCT Technical Director and/or the tyre it was applied to must be absolutely intact.

1.2.6.15. In case of a red flag, a damaged tyre found on motorcycles checked in pit lane, may be replaced with a new tyre. The damage must be confirmed by the Official Supplier.

1.2.7. Engine

1.2.7.1. A maximum of 2 engines is permitted for each race weekend. Engines will be sealed before the start of the first practice of race weekend during the scrutineering and safety checks

1.2.7.2. Any engine change must be accompanied by a written request stating the reason for change, all engine seals must not be removed without permission from the FMSCT Technical Director. The FMSCT Technical Director may request to examine the retired engine.

1.2.7.3. Apart from the above requirement, engines will be requested to be sealed at any time during the event by the FMSCT Technical Director when the need arises.

1.2.8. **Fuel Injection System**

1.2.8.1. The fuel injection system must be the originally fitted and homologated system with no modifications permitted. Fuel injection system refers to the throttle bodies, fuel injectors, variable length intake tract devices, fuel pump and fuel pressure regulator.

1.2.8.2. The injectors must be the originally fitted and homologated part with no modifications permitted. The number (quantity) of injector must remain as in the homologated Motorcycles.

1.2.8.3. Variable intake tract device may only be used if the homologated Motorcycle model is equipped with such system and they must remain identical and operate in the same way as the homologated system.

1.2.8.4. The throttle bodies must be as originally produced by the manufacturer for the homologated Motorcycle.

1.2.8.5. Butterfly valves must be the originally fitted and homologated part with the following change(s) permitted;

1.2.8.5.1 Secondary throttle valves and shafts may be fixed in the open position and the electronics may be disconnected or removed.

1.2.8.6. Electronically controlled throttle valves, known as “ride-by-wire”, may only be used if the homologated model is equipped with the same system.

1.2.8.7. Air and air/fuel mixture can go to the combustion chamber exclusively through the throttle body butterflies.

1.2.8.8. Throttle body clamp may be changed.

1.2.8.9. Air Funnels or Bell Mouths must be as originally produced by the manufacturer for the homologated Motorcycle.

1.2.9. Fuel Supply

1.2.9.1. Fuel pump and fuel pressure regulator must be the originally fitted and homologated part with no modifications permitted.
1.2.9.2. The fuel pressure must be remain same as in homologated Motorcycle
1.2.9.3. Fuel lines from the fuel tank to the delivery pipe assembly (excluded) may be replaced.
1.2.9.4. Fuel vent lines may be replaced.
1.2.9.5. Fuel filters may be added
1.2.9.6. Quick connectors may be used or added. E.g., Dry Break connectors

1.2.10. Cylinder Head

1.2.10.1. Cylinder head must be the originally fitted and homologated part with no modifications permitted.
1.2.10.2. The head gasket is free
1.2.10.3. The valves, valve seats, guides, springs, tappets, oil seals, shims, cotter valve, rocker arms, spring base and spring retainers must be the originally fitted and homologated part with no modifications permitted. and in the original position as supplied by the manufacturer of the homologated motorcycle.
1.2.10.4. Valve spring shims are not permitted.
1.2.10.5. Valve lapping as in normal service maintenance is permitted

1.2.11. Camshaft

The camshaft must be the originally fitted and homologated part with no modifications permitted.

1.2.12. Camshaft Sprockets or Gears

1.2.12.1. Camshaft Sprockets/Gears can be changed to manually adjustable type and alternatively Stock Camshaft Sprockets/Gears may be modified to allow for such adjustment, E.g. Bolt hole slotting .
1.2.12.2. Pressed-on cam sprockets may be replaced with an adjustable boss and cam sprocket.
1.2.12.3. “Variable Cam Phasing” type of Camshaft Sprockets/Gears may only be used if it is already present on the production model of the homologated motorcycle

1.2.13. Cylinders (Cylinder Blocks)

Cylinders must be the originally fitted and homologated part with no modifications permitted.

1.2.14. Pistons, Piston Rings, Pins and Clips

1.2.14.1. Pistons, Piston Rings, Pins and Clips must be the originally fitted and homologated part with no modifications permitted.
1.2.14.2. All piston rings must be fitted.

1.2.15. Connecting Rod Assembly

Must be the homologated part with no modifications permitted**. However, for reliability purposes it is permitted to change titanium connecting rods to steel connecting rods from the same motorcycle manufacturer with the same or similar model name or VIN number PROVIDED that the mentioned parts are homologated.**

1.2.16. Crankshaft

Must be the originally fitted and homologated part with no modifications permitted.

1.2.17. Crankcases/Gearbox Housing

1.2.17.1 Crankcases must be the homologated parts without any modifications

1.2.17.2 It is not permitted to add a pump used to create a vacuum in the crankcase.

1.2.17.2.1. If a vacuum pump is installed on the homologated motorcycle then it may be used only as homologated.

1.2.18. Lateral Covers (Engine Side Covers) and Protection

1.2.18.1. Lateral covers may be altered, modified or replaced. If altered or modified, the cover must have at least the same resistance to impact as the original one.

1.2.18.2. All lateral covers containing oil and which could be in contact with the ground during a crash, must be protected by an additional cover made from metal, such as aluminium alloy, stainless steel, steel or titanium

1.2.18.3. 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.

1.2.18.4. These covers must be fixed properly and securely with a minimum of three (3) case cover bolts that also mount the original covers/engine cases to the crankcases.

1.2.18.5. Stick-on 'type' additional covers are NOT permitted.

1.2.18.6. Oil containing engine covers must be secured with steel bolts.

1.2.18.7. FIM approved covers will be permitted without regard of the material or its dimensions and

1.2.18.8. The FMSCT Technical Director has the right to refuse any lateral cover and protection covers not satisfying this safety purpose.

1.2.18.9. Plates or crash bars made from aluminium or steel also are permitted in addition to these covers. All of these devices must be designed to be resistant against sudden shocks, abrasions and crash damage.

1.2.19. Transmission and Gearbox

1.2.19.1. The Transmission and Gearbox must be the originally fitted and homologated part with no modifications permitted.

1.2.19.2. Gear ratio and number of speeds must be exactly the same as homologated with no variation permitted.

1.2.19.3. Only FMSCT Scrutineer Technical Committee approved or the homologated Quick shifter systems are permitted (including wire and potentiometer)

1.2.19.3.1 Shift rod sensor may be added

1.2.19.4. Additions of auto selector mechanism to the gearbox is not permitted.

1.2.19.5. Electronic or hydraulic actuated shifters are not permitted.

1.2.19.6. Countershaft sprocket, rear wheel sprocket, chain pitch and chain size maybe altered.

1.2.19.7. The countershaft sprocket cover must be fitted and may be modified but if additional holes are made it must be smaller than 15mm for safety reasons.

1.2.19.8. Top chain guard as long as it is not incorporated in the rear fender may be removed.

1.2.20. Clutch

1.2.20.1. Dry Clutch can only be used if it is equipped as standard in the homologated motorcycle.

1.2.20.2. Clutch must remain as the “Wet Type” and it is prohibited to convert it into a “Dry Type”

1.2.20.3. Hydraulic Clutch can only be used if it is equipped as standard in the homologated motorcycle.

1.2.20.3.1. Clutch operation (actuation) must remain cable operated and it is prohibited to convert into the hydraulic actuation system

1.2.20.4. Back torque limiting or slipper clutch is permitted to be used

1.2.20.5. Clutch springs are free and pre-load can be changed by adding shims.

1.2.20.6. Clutch plates are free.

1.2.20.7. Clutch cable type is free.

1.2.21. Oil Pumps and Oil Lines

1.2.21.1. Oil Pumps must be the originally fitted and homologated part with no modifications permitted.

1.2.21.2. Oil lines may be modified or replaced.

1.2.21.3. Oil lines containing positive pressure, if replaced, must be of metal reinforced construction with swaged connectors.

1.2.21.4 **Oil Pan can be changed to an aftermarket unit or another production model.**

1.2.22. Cooling System, Radiator and Oil Cooler

1.2.22.1. Only water is permitted to be used inside the radiator and the entire cooling system. No additives, Antifreeze, “Radiator Coolant” or any other liquid is permitted.

1.2.22.2. Radiator cap is free.

1.2.22.3. Radiator and mounting brackets can be changed, however the mounting point must remain at the original point as in the homologated Motorcycle**.**

1.2.22.4. Extra radiator and Oil Cooler can be added but it must not change the appearance of the front, the rear and the profile of the Motorcycle.

1.2.22.5. The original heat exchanger (oil/water) may be replaced by an oil cooler and its tubes separated from the cooling circuit. The original oil radiator (if fitted) may be replaced.”

1.2.22.6. Additional radiator shroud and inner air ducts to improve the air stream towards the radiator is permitted but the appearance of the front, the rear and the profile of the Motorcycle must not be changed.

1.2.22.7. Protective meshes may be added in front of the oil and/or water radiator(s).

1.2.22.8. Cooling system hoses and catch tank may be changed.

1.2.23. Air Box

1.2.23.1. The air box must be the originally fitted and homologated part with the following modifications permitted

1.2.23.1.1 The air filter element is free.

1.2.23.1.2 Air Box Drainage Holes/Exits MUST be sealed.

1.2.23.1.3 All engines must have a Closed Breather System. All breather lines must be connected, may pass through an oil catch tank and MUST exclusively discharge into the airbox.

1.2.23.2 The original air ducts running between the fairing and the air box must be the originally fitted and homologated part with the following modifications permitted;

1.2.23.2.1. Particle grilles or "**wire-meshes**" originally installed in the openings for the **air ducts** may be removed.

1.2.24. Exhaust System

1.2.24.1. Exhaust pipes and silencers may be modified or changed. Material of exhaust pipes and silencers are free.

1.2.24.2. The silencer(s) must be on the same side(s) or location of the homologated Motorcycle model.

1.2.24.3 For safety reasons, the exposed edges of the exhaust pipe(s) outlet must be rounded to avoid any sharp edges.

1.2.24.4. Catalytic converters must be removed.

1.2.24.5. Wrapping of exhaust systems is not permitted; except in the area of the rider's foot or an area in contact with the fairing for protection from heat.

1.2.24.6. The noise limit for SUPERBIKE 1000 (SB-1, SB-1 PRO) will be 107 dB/A (with a 3 dB/A tolerance after the race only). Noise level will be measured at;

1.2.24.6.1 4-cylinder motorcycles at 5,500rpm

1.2.24.6.2 2-cylinder motorcycles at 5,000rpm

1.2.25. Electrics and Electronics

1.2.25.1. Ignition/Engine Control Unit (ECU)

1.2.25.1.1. All Engine Control Unit (ECU) must be preapproved by the FMSCT Technical Committee.

1.2.25.1.2. A special connector/adaptor may be used to connect the ECU(s) and the original wiring harness.

1.2.25.1.3. The combined retail price of the full system including software,tuningtool, download/connection cable(s), any activation, wiring harness(s) and upgrades must be a declared common price and is available for purchase to all race teams in this Championship.

1.2.25.1.4. The ECU (with software and activations) and harness parts must be individually priced and available separately.

1.2.25.1.5. The software and the firmware must be supplied and approved by FMSCT Technical Committee. The FMSCT Technical Committee must be supplied with the software/ firmware and it must be added to the approved parts list before it may be used.

1.2.25.1.6. The manufacturer must provide the FMSCT Technical Director with the tools/software to perform software checks.

1.2.25.1.7. Throughout the season the manufacturer may update the software and the updates must be made available simultaneously to all users of the system with no charge, updating by a team is not compulsory.

1.2.25.1.8. Engine Control Unit (ECU) may be relocated.

1.2.25.1.9. Corner by corner or distance/position based adjustments are not permitted.

1.2.25.1.10. Optional equipment sold by the motorcycle Manufacturer for the homologated model is considered not homologated with the motorcycle

and must follow the requirements for approved electronics/data loggers.

1.2.25.1.11. During an event the FMSCT Technical Director has the right to ask a team to substitute their ECU or external module with the sample received from the manufacturer. All team must accept this interchange.

1.2.25.1.12. No extra sensors may be added for control strategies except shift rod sensor, wheel speed sensors and lambda sensors. Any of these sensors must be included in the ECU Kit and Harness package if required for strategies (including closed loop lambda).

1.2.25.1.13. Other additional electronic hardware equipment not on the original homologated motorcycle cannot be added with the exceptions noted below.

1.2.25.1.14. Resistors/load may be added to replace the parts of the electrical system that have been removed (including lights and lambda sensors), to prevent ECU errors.

1.2.25.1.15. An ABS replacement/bypass may be fitted and or the ABS unit may be dismantled to leave just its ECU.

1.2.25.1.16. If it is a standalone unit, the Data Logger unit must be available for sale to all race teams in this Championship and on the list of FMSCT approved data loggers.

1.2.25.1.17. The characteristics of approved data logging systems must be the following:

1.2.25.1.17.1 Retail price must be a declared common price and is available for purchase to all race teams in this Championship.

1.2.25.1.18. The following data logging only sensors (connected to the additional data logger) may be added to the original sensors on the motorcycle. The sensors must be from the following list:

i. Fork position
ii. Shock position
iii. Front brake pressure
iv. Rear brake pressure
v. Brake Disc Temperature Sensor
vi. Fuel pressure (not temperature)
vii. Oil pressure
viii. Oil temperature
ix. Transponder/Lap time signal
x. GPS Unit (Lap timing and track position)
xi. Tyre Pressure (TPMS)

1.2.25.1.19. The sensors must be simple-function. No inertial platforms are permitted to be added if an inertial platform is not installed originally on the homologated motorcycle.

1.2.25.1.20. CAN (or other data protocol, k-line, lin) communication from the ECU to an approved data logger is permitted without any limitation in CAN channel logger number. The data logger may not

act to control any strategy or setting in the ECU – except to replicate the original dashboards signals if the original dashboard is removed. The logger may not automate these setting changes.

1.2.25.1.21. The maximum total price of other active/control/calculation units such as lambda driver modules, Quickshifter and analogue to CAN must be a declared common price and is available for purchase to all race teams in this Championship. These devices must be approved by FMSCT.

1.2.25.1.22. Telemetry is NOT permitted.

1.2.25.1.23. No remote or wireless connection to the motorcycle for any data exchange or setting is permitted whilst the engine running or the motorcycle is moving.

1.2.25.1.24. To be approved, samples of the ECU kits, kit harnesses and external modules with their tuning tools must be sent by the Manufacturers to the FMSCT Technical Committee at least 3 weeks before the beginning of the Championship, with technical data and selling price. The Motorcycle Manufacturer must provide the FMSCT Technical Committee with the tools to control the ECU software or work with the FMSCT Technical Committee to achieve this control.

1.2.25.1.25. External modules may not alter any sensor signal relating to the ride by wire system or control/actuate any part of the Motorcycle excepting the ignition coils and fuel injectors.

1.2.25.1.26. No external module may add traction control strategies unless originally fitted to the homologated Motorcycle.

1.2.25.1.27. External downshift blip modules are can be added ONLY if it is not available as standard permitted.

1.2.25.1.28. The dashboard is free, however it may only replace the functions of the standard dashboard (including switch logic and display) and may not perform any other logic function on the motorcycle unless included in the ECU Kit. If essential for the operation of the electronics it must be included in the ECU Kit. It may also contain the datalogger. There must remain a working Tachometer display.

1.2.25.1.29. Spark plugs may be replaced.

1.2.25.1.30. Batteries & Battery Size is free and its mounting position can be relocated.

1.2.25.1.31.1 Battery must be securely mounted and must not be exposed

1.2.25.1.31 Regulator / Rectifier is free

1.2.25.2. Harness:

1.2.25.2.1. The main wiring harness may be replaced by the kit wire harness as supplied for the Kit ECU model, produced and/or approved by the manufacturer of the motorcycle and by FIM.

1.2.25.2.2. The Kit wiring harness may incorporate the data logging harness.

1.2.25.2.3. A kit harness that incorporates the data logging harness may only accommodate 9 additional sensors.
1.2.25.2.4. The key/ignition lock may be relocated, replaced or removed.
1.2.25.2.5. Cutting of the original main wiring harness is permitted.
1.2.25.2.6. **Data logger Harness**: The Data Logger wire harness cannot include any other sensors with the exception of the 9 sensors that are permitted. The only function of the approved Data Logger wire harness is to connect the seven sensors to the Data Logger, to transmit the data and supply the power.

1.2.25.3. Generator, Alternator, Electric Starter.
1.2.25.3.1. The generator (ACG) must be the originally fitted and homologated part with no modifications permitted.
1.2.25.3.2. The stator must be fitted in its original position and without offsetting.
1.2.25.3.3. The electric starter must operate normally and always be able to start the engine during the event.
1.2.25.3.3.1 During parc fermé the starter must crank the engine at a suit able speed for starting for a minimum of 2 seconds without the use of a boost battery.

1.2.26. Main Frame Body and Rear Sub-Frame
1.2.26.1. In case the frame will need to be replaced the rider or the team must request the use of a spare frame to the FMSCT Technical Director.
1.2.26.2. The frame must be the homologated part with minor modification permitted stated in the following;
1.2.26.2.1. Holes may be drilled on the frame only to fix approved components (i.e. fairing brackets, steering damper mount, sensors).
1.2.26.2.2. 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.

1.2.26.3. Crash protectors (protective cone) may b.e fitted to the frame, using existing points, or pressed into the ends of the wheel axles. Without exception, the axles cannot be modified.
1.2.26.4. Nothing may be added or removed from the frame body with exception of the installation of a steering damper.
1.2.26.5. All Motorcycles must display a vehicle identification number (VIN) punched on the frame or a metal plate on the body or subframe.
1.2.26.6. Engine mounting brackets or plates must remain as originally produced by the manufacturer for the homologated motorcycle.
1.2.26.7. Front sub frame/fairing mount may be changed or altered, but the use of titanium and carbon (or similar composite materials) is forbidden.
1.2.26.8. Rear sub-frame may be changed or altered and the type of material is free.
1.2.26.9. 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. Bolt-on accessories to the rear sub-frame may be removed.

1.2.26.10. Brackets or mounting points cannot be welded onto the frame.
1.2.26.11. Bolt on type brackets may be replaced or modified or removed
1.2.26.12. Bolt-on accessories may be removed.
1.2.26.13. The paint scheme is not restricted but polishing the frame body or sub frame is not permitted.

1.2.27. Pre-Assembled Spare Frame and Spare Motorcycle

In case the frame needs to be replaced, the rider or the team must make a request to the FMSCT Technical Director to use the spare frame. The pre-assembled spare frame must be presented to the FMSCT Technical Director to receive the permission to rebuild the Motorcycle.

1.2.27.1. The pre-assembly of the frame shall be strictly limited to:
i. Main frame assembly
ii. Bearings (steering head bearings upper and lower triple clamps, swingarm and etc.)
iii. Swing-arm
iv. Rear suspension linkage and shock absorber
v. Upper and lower triple clamps
vi. Wiring harness

1.2.27.2. The rebuilt Motorcycle must be inspected before its use by the technical stewards for safety checks and a new seal will be placed on the Motorcycle frame.

1.2.27.3. Complete spare Motorcycle may be used if the registered main motorcycle is damaged causing the competitor to miss a session or DNS/DNF a race. The team(s) must write-in a request to the FMSCT Technical Director for the damaged Motorcycle to be changed and the replacement motorcycle will need to go through to the technical scrutineering first.

1.2.27.4. For the remainder of the event the Motorcycle will be impounded and no part of that Motorcycle may be used for spare parts.

<u>EXPLANATION OF THE PROCEDURES.</u>

- Only one (1) complete Motorcycle may be presented for the preliminary technical checks and it will be the only Motorcycle permitted on the track and in the display area of pit box during the practices, qualifying, warm up and race.
- When a team decides that a crashed or damaged Motorcycle requires a change of frame it must inform the FMSCT Technical Director. If the Motorcycle is damaged in a crash or in any other incident, it is permitted to use the preassembled spare frame to rebuild the Motorcycle.
- Once the assembly of the replacement Motorcycle is completed the Motorcycle must undergo technical and safety checks and it will be officially sealed.
- The seal on the damaged Motorcycle will be destroyed by the technical staff and the chassis of this Motorcycle must not be used for the remainder of the event.
- The new serial number will be recorded by the FMSCT Technical Director.
- Parts may be transferred from the damaged Motorcycle for the assembly of the replacement motorcycle
- The replacement Motorcycle may be used on the track only after the end of the practice and qualifying sessions or race in which the damage occurred.

- The damaged Motorcycle must be removed from the pit box as soon as possible and put in storage outside the display area of the pit box.
- After the pre-assembled spare part frame has been used should it become necessary to replace the frame again because of a further crash or damage the assembly work must be done using a bare frame -with no components attached.
- The FMSCT Technical Director must inspect the bare frame and give his authorisation before work can start.
- Any actions contrary to these procedures will result in a penalty as described in the Sporting Regulations

1.2.28. Suspension – General

1.2.28.1. Electronic Suspension:

1.2.28.1.1. No aftermarket or prototype electronically-controlled suspensions may be used. Electronically-controlled suspension may only be used if already present on the production model of the homologated motorcycle.

1.2.28.1.2. The electronically-controlled valves must remain as homologated. The shims, spacers and fork/shock springs not connected with these valves can be changed.

1.2.28.1.3. The ECU for the electronic suspension must remain as homologated and cannot receive any motorcycle track position or sector information; the suspension cannot be adjusted relative to track position.

1.2.28.1.4. The electronic interface between the rider and the suspension must remain as on the homologated motorcycle. It is permitted to remove or disable this rider interface.

1.2.28.2. Front - Forks and Steering Damper.

1.2.28.2.1 The Font Fork assembly including the associated brake parts can be interchanged with the different version of the same motorcycle model. E.G. YZF R1 change to YZF R1M or CBR1000RR-R to CBR1000RR-R SP

1.2.28.2.2 Steering stem pivot position must remain in the homologated position (as supplied on the production bike). If the standard motorcycle has inserts then the orientation/position of the original insert may be changed but the insert cannot be replaced or modified.

1.2.28.2.3 Dust seals may be modified, changed or removed if the fork remains totally oil-sealed.

1.2.28.2.4 The original surface finish of the fork tubes (stanchions, fork pipes) may be changed. Additional surface treatments are permitted.

1.2.28.3. Electronic forks:

1.2.28.3.1 The electronic front suspension (including the upper and lower fork clamp) may be replaced with a mechanical system from a similar homologated model from the same manufacturer.

1.2.28.3.2 Electronic forks may have their complete internal parts (including all electronic control) replaced by conventional damping system and it will be considered as a mechanical fork.

1.2.28.4. Mechanical forks:

1.2.28.4.1 Forks (stanchions, stem, wheel spindle, upper and lower crown, etc.) must be; the originally fitted or homologated parts with the following modifications permitted:

1.2.28.4.2 Original internal parts of the homologated forks may be modified or changed.

1.2.28.4.3 The upper and lower fork clamps (triple clamp, fork bridges) must remain as originally produced by the manufacturer on the homologated motorcycle.

1.2.28.4.4 Fork caps on the mechanical forks may only be modified or replaced to allow external adjustment. (This does not include the mechanical fork leg that is part of the homologated electronic fork set).

1.2.28.4.5 A steering damper may be added or replaced with a “non-electronic after market steering damper”.

1.2.28.4.6 The steering damper cannot act as a steering lock limiting device.

1.2.28.4.7 Electronic controlled steering damper cannot be used if not installed in the homologated model for road use. However it must be completely standard (any technical or electronic part must remain as in homologated model).

1.2.28.5. Rear Swingarm (Rear fork)

1.2.28.5.1 The Rear Swingarm must be the homologated part with the following modifications permitted.

1.2.28.5.2 A solid protective cover (shark fin) shall be fixed to the swing-arm, and must always cover the opening between the lower chain run, swingarm and the rear wheel sprocket, irrespective of the position of the rear wheel to prevent any rider’s body part that may become trapped between the lower chain run and rear wheel sprocket.

1.2.28.5.3 Rear wheel stand brackets may be added to the Rear Swingarm 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.

1.2.28.5.4 The sides of the swing-arm may be protected by a thin vinyl cover only, no composite or structural covers are permitted. (E.G hard bonded / attached carbon fiber covers)

1.2.28.5.5 Rear swingarm pivot bolt must be the homologated part with no modification permitted.

1.2.28.5.6 Rear swingarm pivot position must remain in the homologated position (as supplied on the production Motorcycle). 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.

1.2.28.6. Rear Shock Absorber (Rear Suspension Unit)

1.2.28.6.1 Rear Shock Absorber may be replaced but the original attachments to the frame and rear fork (swing arm) (or linkage) must be as homologated.

1.2.28.6.2 All the rear suspension linkage parts must be the homologated part with no modification permitted.

1.2.28.6.3 Removable top shock mounts must be the homologated part with no modification permitted. A nut may be made captive on the top shock mount and shim spacers may be fitted behind it to adjust ride height.

1.2.28.6.4 Mechanical suspension: Rear Shock Absorber unit and spring may be changed.

1.2.28.6.5 Electronic suspension: If the standard system has no facility for ride height adjustment the standard shock may be modified to allow shock length changes if no hydraulic parts are modified. The electronic shock absorber can be replaced with a mechanical one.

1.2.29. Wheels

1.2.29.1. All wheels must be the homologated part or wheels from another motorcycle of the same model or within same frame VIN will be taken as compatible and permitted to use.

1.2.29.2. No Carbon Wheels (or similar composite materials) are permitted for all situations.

1.2.29.2.1. If a Motorcycle is originally equiped with carbon wheels as standard than it MUST be changed to non-carbon wheels**.**

1.2.29.3. The wheels may be overpainted but the original finish cannot be removed.

1.2.29.4. A Non-Slip Coating or Treatment may be applied to the bead area of the rim.

1.2.29.5 Bearing spacers must remain as homologated

1.2.29.6. The speedometer drive may be removed and replaced with a spacer.

1.2.29.7. Wheel spacers and collars may be modified, added or replaced.

1.2.29.8. Wheel balance weights may be discarded changed or added to.

1.2.29.9. Any inflation valves may be used.

1.2.29.10. Front and rear wheel axles must remain as originally produced by the manufacturer for the homologated Motorcycle**.**

1.2.30. Brakes

1.2.30.1. Brake discs may be replaced by aftermarket discs which comply with following requirements:

1.2.30.1.1. Brake discs and carrier must retain the same material as the homologated disc and carrier or steel (max. carbon content 2.1 wt%) (nb all homologated discs are steel).

1.2.30.1.2. Non-floating or single piece discs may be replaced with floating discs. The disc carrier must be the same material as the homologated carrier, steel or aluminium.

1.2.30.1.3. The outside and inner diameters of the brake disc must not be larger than the ones on the homologated disc.

1.2.30.1.4. The thickness of the brake disc may be increased but the disc must fit into the homologated brake caliper without any modification. The number of floaters is free.

1.2.30.2. The fixing of the carrier on the wheel must remain the same as on the homologated disc.

1.2.30.3. The front brake caliper (including: mount, carrier, hanger) must be homologated part with no modification permitted.

1.2.30.4. The rear brake caliper (mount, carrier, hanger) must be the homologated parts with no modification permitted.

1.2.30.5. 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. (E.G. titanium piston change to steel piston)

1.2.30.6. The rear brake caliper bracket may be mounted fixed on the swingarm, but the bracket must maintain the same mounting (fixing) points for the caliper as used on the homologated motorcycle.

1.2.30.7. 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.

1.2.30.8. The front master cylinder and its brake fluid reservoir can be changed and the attached hand and foot brake levers are free.

1.2.30.9. Rear master cylinder must be the originally fitted and homologated part with the following modifications permitted.

1.2.30.10. Front and rear hydraulic brake lines may be changed. The split of the front brake lines for both front brake calipers must be made above the lower fork bridge (lower triple clamp).

1.2.30.11. “Quick” (or “dry-break”) connectors in the brake lines are permitted.

1.2.30.12. Front and rear brake pads may be changed. Brake pad locking pins may be removed/modified for quick change type.

1.2.30.13. Front brake system Cooling Ducts or Brake Air Scoops are permitted.

1.2.30.13.1. Fully enclosed disc covers are not permitted. *Refer illustration - ASC 02.

1.2.30.13.2. It must be fabricated from non-metallic material e.g. nylon, plastic, CRP & etc.

1.2.30.13.3. The Front Fender can be slightly modified to facilitate the implementation and installation of the Cooling Ducts or Brake Air Scoop.

1.2.30.13.4. The FMSCT Technical Committee reserves the right to refuse any Brake Cooling Ducts or Brake Air Scoops assy. that are deemed as dangerous.

1.2.30.14. The Antilock Brake System (ABS) may be used only if installed in the homologated model for road use. However, it must be completely standard (any mechanical or electronic part must remain as homologated, brake discs and master cylinder levers excluded), and only the software of the ABS may be modified.

1.2.30.15. The Antilock Brake system (ABS) can be disconnected and its ECU can be dismantled. The ABS rotor wheel can be deleted, modified or replaced.

1.2.30.16. The Antilock Brake system (ABS) can be disconnected and its ECU can be dismantled. The ABS rotor wheel can be deleted, modified or replaced.

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1.2.30.17. 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. FIM approved guards will be permitted without regard of the material.

1.2.30.18. The FMSCT Technical Director has the right to refuse any guard not satisfying this safety purpose.

Illustration – ASC 02

1.2.31. Handlebars and Hand Controls.

1.2.31.1. Handlebars may be replaced

1.2.31.2. Handlebars and hand controls may be relocated. (except for the brake master cylinder)

1.2.31.3. Throttle controls must be self-closing when not held by the hand.

1.2.31.4. Throttle assembly and associated cables may be modified or replaced but the connection to the throttle body and to the throttle controls must remain as on the homologated motorcycle. 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.

1.2.31.5. Clutch and brake lever may be replaced with an after-market model. An adjuster to the brake lever is permitted.

1.2.31.6. Switches may be changed but the electric starter switch and engine stop switch must be located on the handlebars.

1.2.31.7. Motorcycles must be equipped with a functional ignition kill switch or button mounted on the right hand handlebar (within reach of the hand while the hand is on the grips) that is capable of stopping a running engine. The button or switch must be RED.

1.2.32. Foot Rest and Foot Controls

1.2.32.1. Foot rest and foot controls may be relocated but brackets must be mounted to the frame at the original mounting points.

1.2.32.2. Foot controls; gear shift and rear brake must remain operated manually by foot.

1.2.32.3. Footrests may be of a rigid type or folding type. All folding type footrest must be fitted with a return mechanism.

1.2.32.4. The end of the foot rest must have at least an 8 mm solid spherical radius.

1.2.32.5. Rigid type metal footrest must have an end plug which is permanently fixed made of plastic, nylon or an equivalent type material. The plug surface must be designed to reach the widest possible area.

1.2.32.6. The FIM Asia FMSCT Technical Director has the right to refuse any plug not satisfying this safety aim.

1.2.33. Fuel Tank

1.2.33.1. Stock Fuel tank can be modified to hold an extra 3 litres of fuel if the stock ECU (non-kit ECU) is being utilised**.**

*** NOTE: For Year 2025, FIM or FIM Asia Homologated 21 litre Fuel Tank and Stock Fuel Tank is permitted.**

1.2.33.2. All fuel tanks must be completely filled with fire retardant material (opencelled mesh, i.e. Explosafe®).

1.2.33.3. 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.

1.2.33.4. Fuel caps may be changed. Fuel caps when closed must be leak proof. Additionally they must be securely locked to prevent accidental opening at any time.

1.2.33.5. A rider spacer/pad may be fitted to the rear of the tank with non-permanent adhesive. It may be constructed of foam padding or composite material.

1.2.33.6. The tank may not have a cover fitted over it unless the homologated Motorcycle also features a full cover.

1.2.33.7. The sides of the fuel tank may be protected with a cover made of a composite material. These covers must fit the shape of the fuel tank.

1.2.34. Fairing and Body Work

1.2.34.1. Fairing and bodywork may be replaced with exact cosmetic duplicates of the original parts, but must appear to be as originally produced by the manufacturer for the homologated motorcycle, with slight differences due to the racing use (different pieces mix, fixing points, fairing bottom, etc.). Headlights must be included even when considered external.

1.2.34.2. For all bodywork material, paint and decal design is free.

1.2.34.3. Overall size and dimensions must be the same as the original part, with a tolerance of +10 mm, respecting the design and features of the homologated fairing as far as possible. The overall width of the frontal area may be +10 mm maximum. The decision of the FMSCT Technical Director is final.

1.2.34.4. Fairing brackets may be altered or replaced.

1.2.34.5. Wind screen may be replaced with an aftermarket product. The height of the windscreen is free, within a tolerance of +15 mm referred to the vertical distance from/to the upper fork bridge. The screen must conform to the same profile from the front as the original – no double bubble or wide types. From a top view the length of the windscreen may be shortened by 25 mm to allow clearance for the rider. The edge of the screen must have no sharp edges.

1.2.34.6. The ram-air intake must maintain the originally homologated shape and dimensions.

1.2.34.7. The lower fairing must to be constructed to hold, in case of an engine breakdown minimum 6 litres. 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 ≤ 90°.

1.2.34.8. There may be no exit air vents in the front half of the lower fairing below a line 40 mm below line between the wheel axles of the

Motorcycle. The FMSCT Technical Director may give permission for the lower fairing to have additional vents added if vents have been filled to meet the these and the oil containment requirements.

1.2.34.9. Any added vents will not allow the exit of air in the front half of the fairing lower if they are behind a water or oil radiator.

1.2.34.10. Exceptions may be made to (2.2.34.7) with the sole agreement of the FMSCT Technical Director if a manufacturer produced and FIM approved close fitting, oil containing engine shroud is fitted in addition to the bellypan. In this case OEM shaped air vents will be permitted in the front lower half of the fairing.

1.2.34.11. Any vents in the fairing lower must have their inner surface finish in-line with their outer surface or overlap to reduce the risk of liquid spraying from the Motorcycle.

1.2.34.12. Original openings for cooling in the lateral fairing/bodywork sections may be partially closed only to accommodate sponsors' logos/lettering.

1.2.34.13. Such modification shall be made using wire mesh or perforated plate.

1.2.34.14. The material is free but the distance between all opening centres, circle centres and their diameters must be constant. Holes or perforations must have an open area ratio > 60%.

1.2.34.15. Motorcycles may be equipped with a radiator shroud (inner ducts) to improve the air stream towards the radiator but the appearance of the front, the rear and the profile of the motorcycle must not be changed.

1.2.34.16. The lower fairing must incorporate a single opening of Ø 25 mm diameter in the front lower area. This hole must remain sealed in dry conditions and must be opened only in wet race conditions as declared by the Race Director.

1.2.34.17. All exposed edges must be rounded.

1.2.34.18. The original combination instrument/fairing brackets may be replaced but the use of titanium and carbon (or similar composite materials) is forbidden.

1.2.34.19. Motorcycles that were not originally equipped with streamlining are not permitted to add streamlining in any form, with the exception of a lower fairing (bellypan). This device cannot exceed above a line drawn horizontally from wheel axle to wheel axle.

1.2.34.20. Front fender/mudguards may be replaced with a cosmetic duplicate of the original part and may be spaced upward for increased tyre clearance.

1.2.34.21. Rear mudguard fixed on the rear fork (swingarm) that incorporates the chain guard may be modified to accommodate larger diameter rear sprockets.

1.2.34.22. The chain guard may be separate from the rear mudguard

1.2.35. Seat

1.2.35.1. The seat, seat base and associated bodywork may be replaced with parts of similar appearance as originally produced by the manufacturer for the homologated Motorcycle.

1.2.35.2. The top portion of the rear bodywork around the seat may be modified to a solo seat.

1.2.35.2.1. The material is free.

1.2.35.3. The appearance from both front rear and profile must conform to the homologated shape.

1.2.35.4. The homologated seat locking system (with plates pins rubber pads etc.) may be removed.
1.2.35.5. All exposed edges must be rounded.

1.2.36. Wings and Aerodynamic Aids

1.2.36.1. Wings and other aerodynamic aids will only be considered legal if originally fitted to the homologated road specification Motorcycle of Asia, Oceania or EU.
1.2.36.2. For race use the wings must follow the dimensions and profiles homologated shapes exactly (+2mm).
1.2.36.3. The leading edges (including end plates) must have a minimum circumference edge of 3mm
1.2.36.4. All wings must have a rounded end (8mm radius) or be enclosed/integrated into the fairing.
1.2.36.5. Alternatively the originally fitted and homologated wings may be used from the street motorcycle without modification except to their fairing mounting.
1.2.36.6. The position of the wings must be +5mm, angle of attack +2degrees.

1.2.37. Fasteners

1.2.37.1. Standard fasteners may be replaced with fasteners of any design and material; except when there is a specific mention that titanium or other specific light alloy fasteners are not permitted in a specifi paragraphs of this technical rule.
1.2.37.2. The strength and design must be sufficient, equal to or exceed the strength of the standard fasterner it is replacing.
1.2.37.3. Fasteners may be drilled for safety wire but intentional weight-reduction modifications are not permitted.
1.2.37.4. Fairing/bodywork fasteners may be replaced with the quick disconnect type.
1.2.37.5. Aluminium fasteners may only be used in non-structural locations.
1.2.37.6. The use of any type of special or custom fabricated Fasteners with intention to increase or tune engine performane is strictly not permitted**.**

1.2.38. The following items MAY BE ALTERED or replaced from those fitted to the homologated Motorcycle

1.2.38.1. Any type of lubrication, brake/clutch or suspension fluid may be used.
1.2.38.2. All gaskets and its materials is free
1.2.38.3. Material for brackets connecting non original parts (fairing, exhaust, instruments, etc) to the frame (or engine) cannot be made from titanium or fibre reinforced composites excepting the exhaust silencer hanger that may be in carbon.
1.2.38.4. 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 homologated model.
1.2.38.5. External paintwork decals and colour scheme is free
1.2.38.6. Instruments, instrument bracket(s) and associated cables.

1.2.39. Following Items MAY BE Removed

1.2.39.1. Emission control items (anti-pollution) in or around the air box and engine (O2 sensors air injection devices).
1.2.39.2. Bolt-on accessories on a rear sub frame.
1.2.39.3. Instrument and instrument bracket and associated cables.
1.2.39.4. Radiator fan and wiring.

1.2.39.5. Thermal switches, water temperature sensor and thermostat may be removed inside the cooling system.
1.2.39.6. Redundant handlebar switches.

1.2.40. The Following Items MUST BE Removed

1.2.40.1. Head lamp rear lamp and turn indicators must be removed but profile and frontal appearance must be retained. The openings must be covered by a suitable material.
1.2.40.2. Rear-view mirrors.
1.2.40.3. Horn.
1.2.40.4. License plate bracket.
1.2.40.5. Toolkit.
1.2.40.6. Helmet hooks and luggage carrier hooks
1.2.40.7. Passenger's foot rests and it's removable mounting brackets (if any)
1.2.40.8. Passenger's grab rails.
1.2.40.9. Safety bars, centre and side stands must be removed (fixed brackets must remain).
1.2.40.10. Catalytic convertors

1.2.41. The Following Items MUST BE Altered

1.2.41.1. All Motorcycles must incorporate a Closed Breather System. All oil breather pipes/lines must be connected and pass;

a. through an oil catch tank and MUST exclusively discharge into the airbox.

OR

b. directly into oil catch tank with capacity of 1 litre of liquid.

1.2.41.2. No breather pipes/lines should discharge directly to the atmosphere
1.2.41.3. The usage of the One-Way Valve CANNOT replaced the above requirements
1.2.41.4 All breather or overflow pipes/lines must discharge via existing outlets.
1.2.41.5. The airbox drains must be sealed.
1.2.41.6. The following items must be securely safety wired
i. Oil drain plug
ii. Oil filler cap
iii. External Oil filter
iv. All wheel axle nuts (or alternately being appropriately attached with safety pins)

1.2.42. Additional Equipment

1.2.43.1. Data loggers can be used and Telemetry is NOT permitted.
1.2.43.2. No remote or wireless connection to the bike for any data exchange or setting is permitted whilst the engine is running or the bike is moving.