

## OPEN - SUPERBIKE TECHNICAL SPECIFICATIONS

[The following rules are intended to give freedom to modify or replace some parts in the interest of safety, research and development and improved competition between various motorcycle concepts](#)

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

Superbike motorcycles require an FIM homologation ([see Appendix FIM Homologation procedure for Superstock, Supersport and Superbike motorcycles](#)). All motorcycles must comply in every respect with all the requirements for road racing as specified in the Technical Regulations, unless it is equipped as such on the homologated machine.

The appearance from both front, rear and the profile of Superbike motorcycles must (except when otherwise stated) conform in principle to the homologated shape (as originally produced by the manufacturer). The appearance of the exhaust system is excluded from this rule.

#### **2.4.1 Machine specifications**

All items not mentioned in the following articles must remain as originally produced by the manufacturer for the homologated machine.

The displacement capacities must remain at the homologated size. Modifying the bore and stroke to reach class limits is not allowed.

#### **2.4.4 Minimum Weights**

##### **2.4.4.1 The minimum weight will be:**

[All machines 168 kg](#)

At any time of the event, the weight of the whole machine (including the tank and its contents) must not be less than the minimum weight [with a tolerance of 1 kg](#).

[There is no tolerance on the minimum weight of the motorcycle](#)

During the final inspection at the end of each race, the machines chosen will be weighed in the condition they finished the race.

The established weight limit must be met in the condition the machine has finished the race; nothing may be added to the machine. This includes water, oil, or fuel.

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

The use of ballast is allowed to stay over the minimum weight limit and may be required due to a handicap system. The use of ballast and weight handicap must be declared to the [Open](#) Superbike Technical Director at the preliminary checks.

#### **2.4.5 Number Plate**

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

- once on the front, either in the centre of the fairing or slightly off to one [right side](#) ([see anexe 4 of 24H SR](#))

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- once, on each side of the motorcycle [in a completely visible place with the presence of the rider. Alternatively, once across the top of the rear seat section with the top of the number facing towards the rider.](#)

These numbers must have the same size as the front numbers.

In case of a dispute concerning the legibility of numbers, the decision of the Technical Director will be final.

### 2.4.6 Fuel

All engines must function on normal unleaded fuel with [a maximum lead content of 0.005 g/l \(unleaded\) and](#) a maximum MON of 90 (see also Art. [2.8](#) for full fuel specifications [SBK FIM technical regulations](#)).

### 2.4.8 Engine

**The following engine components may not be altered from the homologated machine except as noted:**

The homologated engine design model cannot be changed.

Homologated materials and castings for the crankcase, cylinder, cylinder head and gear-box housing must be used.

Material for the crankcase, cylinder, cylinder head and gear-box housing may only be added by welding or removed by machining.

The method of cam drive must remain as homologated unless a complete kit is available through normal commercial channels. These kits must be available in significant quantity and be listed in the racing spare parts book.

#### • For 1000cc 3 & 4 cylinders and 1200cc 2 cylinders

Aftermarket or modified cam drive components are allowed, however the cam drive must be in the homologated location and the system must be as homologated.

The method of valve retention must remain as the homologated model. No pneumatic valve retention devices are allowed unless fitted to the homologated model.

All moving internal engine, gear-box and clutch parts may be altered or replaced including materials from those fitted on the homologated motorcycle (unless not allowed by the individual section covering the parts in question).

Polishing and lightening of engine parts is permitted, except for carburetion instruments (unless not allowed by the individual section covering the parts in question).

#### • For all configurations

The sequence in which the cylinders are ignited (i.e. 1-2-4-3), must remain as originally designed on the homologated model. Simultaneous firing of 2 cylinders is also forbidden if not adopted on the homologated motorcycle. Up to 5 degrees firing difference in 2 cylinders is regarded as 'simultaneous' firing.

### 2.4.8.1 Carburation Instruments / Fuel Injection System

#### 2.4.8.1.1 Carburation Instruments for 1000cc 2 cylinders

Carburation instruments refer to throttle bodies and variable length intake tract devices.

- Carburation instruments must be used un-modified either as the original homologated carburation instrument or as the homologated optional carburation instrument.
- The only modifications allowed to the homologated carburation instruments original or optional are jets, needles, throttle valves, fuel injectors and bell mouths (including their fixing points).

The original manufacturer must use the following criteria for the designing and making of the optional homologated carburation instruments.

- a) There is no limit for the intake size of an engine equipped by fuel injection systems.
  - b) The optional injector body material must remain the same as used on the original homologated carburation instruments.
  - c) A minimum number of optional carburation instruments must be available as spare parts and be included in the manufacturer's racing parts lists. All manufacturers must have a minimum of 15 sets available through traditional distributorships worldwide for the life of the homologation. The price of the optional carburation instruments to the public must not exceed twice the manufacturers suggested retail price of the original homologated carburation instrument in the country of origin. This price must be indicated on the Homologation Form.
  - d) The motorcycle manufacturer may submit only one optional carburetion instrument for each model at the time of homologation.
  - e) The motorcycle manufacturer must supply a sample set of the original and optional carburation instruments to the FIM for use as comparison samples at the events.
  - f) f) The motorcycle manufacturer must provide evidence that the minimum of 15 sets of optional carburation instruments have been manufactured.
  - g) The optional carburation instruments must be available for at least three years after the homologation date.
  - h) The carburation instrument homologation will be valid for the same period as the homologated motorcycle.
  - i) An additional model of optional carburation instruments may be homologated during the life of the machine's homologation. These carburation instruments must meet the same requirements as the original modified instruments. This is to allow development after the original homologation.
- The optional carburation instruments may only be homologated at the same time as a new homologation. [see number i) above for additional optional carburation instruments]

#### 2.4.8.1.2 Carburation Instruments for 1000cc 3 & 4 cylinders and 1200cc 2 cylinders

Carburation instruments refer throttle bodies and variable length intake tract devices.

- The original homologated carburation instruments must be used unmodified.
- The use of optional homologated carburation instruments is not allowed.
- The fuel injectors may be replaced, however they must fit without modification to the homologated throttle body.
- The carburation instruments intake insulators may be modified.
- Bell mouths (including their fixing points) may be altered or replaced.
- Vacuum slides may be fixed in the open position

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

**Only for motorcycles homologated after the 1st of January 2010 Electronically controlled throttle valves, known as 'ride-by-wire' systems, may be used exclusively if the homologated model is equipped with this system. Software may be modified but all safety systems and procedures designed by the original manufacturer must be maintained.**

### 2.4.8.1.2 Fuel Injection

- a) The original homologated fuel injection system must be used without any modification.
- b) The fuel injectors must be stock and unaltered from the original specification and manufacture.
- c) Air funnels may be altered or replaced. The critical dimensions of the air funnels used by the nominated reference team must be supplied to the teams purchasing the approved concession parts by the nominated concession parts supplier.
- d) Primary throttle valves cannot be changed or modified.
- e) Secondary throttle valves and shafts may be removed or fixed in the open position and the electronics may be disconnected or removed.
- f) Variable intake tract devices cannot be added if they are not present on the homologated motorcycle and they must remain identical and operate in the same way as the homologated system. All the parts of the variable intake tract device must remain exactly as homologated (excepting the air funnels). Variable intake tract devices may be replaced with fixed air funnels.
- g) Air and air/fuel mixture must go to the combustion chamber exclusively through the throttle body valves.
- h) Electronically controlled throttle valves, known as "ride-by-wire", may be only used if the homologated model is equipped with the same system.
- i) If the variable intake tract actuation mechanism mount or fuel injector mount is an integrated part of the air funnel then those parts alone may be redesigned maintaining the exact geometry of the original parts.
- j) If the mechanism link arm interferes with the air funnels then the link may be redesigned for clearance maintaining the exact linkage geometry of the original parts.

### **2.4.8.2 Cylinder Head**

The homologated cylinder head may be modified as follows:

Homologated materials and castings for the cylinder heads must be used.

Material for these parts may only be added by welding or removed by machining.

The homologated cylinder head cover may be modified.

The induction and exhaust system including the number of valves and or ports (intake and exhaust) must be as homologated.

Porting and polishing of the cylinder head normally associated with individual tuning such as gas flowing of the cylinder head, including the combustion chamber is allowed.

The compression ratio is free.

The combustion chamber may be modified.

The valves may be altered or replaced from those fitted to the homologated motorcycle.

The valve seats may be altered or replaced from those fitted to the homologated motorcycle.

The valve guide may be altered or replaced from those fitted to the homologated motorcycle.

Valve springs may be altered or replaced from those fitted to the homologated motorcycle.

The valve tappets and retainers may be altered or replaced from those fitted to the homologated motorcycle.

### • **For 1000cc 3 & 4 cylinders and 1200cc 2 cylinders**

Aftermarket or modified valves, springs, tappets, retainers and other valve train components are permitted. The original number of valves must be maintained.

a.—Valve diameters, including stem, must remain as homologated.

b.—Valves must be made of the same basic material as the homologated valves.

c.—Valves must remain in the homologated location and at the same angle as the homologated valves, except for normal valve maintenance.

d.—Rocker arms (if any) must remain as homologated (material and dimensions).

### **2.4.8.3 Camshaft**

Camshafts may be altered or replaced from those fitted to the homologated motorcycle (see also Art. 2.4.8).

### **2.4.8.4 Cam sprockets or cam Gears**

Cam sprockets, pulley or gears may be altered or replaced to allow the degreeing of the camshafts (see also Art. 2.4.8).

### **2.4.8.5 Cylinders**

Homologated materials and casting for the cylinder block must be used. The material for the cylinder block may only be added by welding and/or removed by machining. The sleeves or liner material may be changed and the surface finish is free. The original bore size must be retained.

### **2.4.8.6 Pistons**

#### • **For 1000cc 2 cylinders, 1000cc 3 & 4 cylinders**

Pistons may be altered or replaced from those fitted to the homologated motorcycle.

#### • **For 1200cc 2 cylinders**

Standard piston or the piston kit (\*) must be used.

(\*) The piston kit must have the same price as the standard one and must be listed in the current racing parts list of the Manufacturer and be on sale for customers. Within 90 days from the order, the customer must receive the piston kit set.

### **2.4.8.7 Piston rings**

Piston rings may be altered or replaced from those fitted to the homologated motorcycle.

### 2.4.8.8 Piston pins and Clips

Piston pins and clips may be altered or replaced from those fitted to the homologated motorcycle.

### 2.4.8.9 Connecting rods

- **For 1000cc 2 cylinders and 1000cc 3 & 4 cylinders**

Connecting rod may be altered or replaced from those fitted to the homologated motorcycle. Carbon composite or carbon fibre materials are not allowed if not used in the homologated motorcycle. [The weight must be the same or greater than the original homologated part.](#)

- **For 1200cc 2 cylinders**

Connecting rod must remain as homologated. Polishing and lightening is not allowed.

### 2.4.8.10 Crankshaft

- **For 1000cc 2 cylinders**

Crankshaft may be altered or replaced from those fitted to the homologated motorcycle.

Crankshaft stroke must remain as homologated.

- **For 1000cc 3 & 4 cylinders and 1200cc 2 cylinders**

The following modifications are allowed to the homologated crankshaft:

- a. Bearing surfaces may be polished or a surface treatment may be applied.
- b. Balancing is allowed but only by the same method as the homologated crankshaft. (for example heavy metal i.e. Mallory metal inserts are not permitted unless they are originally specified in the homologated crankshaft.)
- c. Attachment of aftermarket ignition components or sensors is permitted.
- d. Balance shaft may be altered, removed or modified.

### 2.4.8.11 Crankcase / Gearbox housing and lateral covers

Homologated materials and castings for crankcase and gearbox housing must be used. Material for crankcase and gearbox housing may only be added by welding or removed by machining.

Oil-pan (sump) may be altered or replaced.

Lateral (side) 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.

If replaced, the cover must be made in material of same or higher specific weight and the total weight of the cover must not be less than the original one.

All lateral covers/engine cases containing oil and which could be in contact with the ground during a crash, must be protected by a second cover made from composite materials, type carbon or Kevlar®. Plates and/or bars from aluminium or steel are also permitted. All these devices must be designed to be resistant against sudden shocks and must be fixed properly and securely.

#### **2.4.8.12 Transmission / Gearbox**

All transmission/gearbox ratios, shafts, drums, selector forks are free.

Primary gear ratios are free.

The number of gears must remain as homologated.

Additions to gearbox or selector mechanism, such as quick shift systems, are allowed.

Countershaft sprocket, rear wheel sprocket, chain pitch and size may be changed.

**Any power source (i.e. hydraulic or electric) cannot be used for gear selection, if not installed in the homologated model for road use.**

**Human power and so called quick shift systems are excluded from the ban.**

#### **2.4.8.13 Clutch**

Aftermarket or modified clutches are permitted.

Back torque limiter is permitted.

**Any power source (i.e. hydraulic or electric) cannot be used for clutch operation, if not installed in the homologated model for road use.**

**Human power is excluded from the ban.**

- **For 1000cc 2 cylinders**

Clutch system (wet or dry type) and method of operation (cable/hydraulic) may be altered or replaced from those fitted to the homologated motorcycle.

- **For 1000cc 3 & 4 cylinders and 1200cc 2 cylinders**

Clutch system (wet or dry type) and method of operation (cable/hydraulic) must remain as homologated.

#### **2.4.8.14 Oil Pumps and Oil lines**

Oil pump may be altered or replaced from those fitted to the homologated motorcycle.

Oil lines may be modified or replaced. Oil lines containing positive pressure, if replaced, must be of metal reinforced construction with swaged or treaded connectors.

#### **2.4.8.15 Radiator / Oil cooler**

The original radiator or oil cooler may be altered or replaced from those fitted to the homologated motorcycle.

Additional radiators or oil coolers may be added.

Radiator fan and wiring may be changed, modified or removed.

Oil cooler must not be mounted on or above the rear mudguard.

The appearance from the front, rear and profile of the machine must in principle conform to the homologated shape after the addition of additional radiators or oil coolers.

### 2.4.8.16 Air Box

The air box may be altered or replaced from those fitted to the homologated motorcycle (a special design for racing is allowed). If fuel injectors are attached to the cover of the air box, their position with reference to the throttle body must remain as original.

The air filter element may be removed.

The air box must be completely closed around the induction bell mouth and all engine breather tubes. Carburation instruments may be entirely within the air box.

The air box drains must be sealed.

All motorcycles must have a closed breather system. All the oil breather lines must be connected and discharge in the air box.

The breather system (air box plus any breather oil collector box) must be capable in the event of drain pipe blockage, of retaining a minimum of 1000 cc of discharged fluid.

#### **Only for motorcycles homologated after the 1st of January 2010:**

**The air box must remain as originally produced by the manufacturer on the homologated motorcycle.**

**Air filters, internal flap type valve, sensors and vacuum fittings may be removed, modified, or replaced with aftermarket parts.**

**Any holes in the air box to the outside atmosphere resulting from the removal of components must be completely sealed from incoming air.**

**Ram air tubes or ducts running from the fairing to the air box may be modified, replaced or removed. If tubes/ducts are utilized, they must be attached to the original, unmodified air box inlets.**

**All motorcycles must have a closed breather system. All the oil breather lines must be connected and discharge in the air box.**

### 2.4.8.17 Fuel supply

The engine control unit (ECU) may be modified or changed.

The fuel pump and pressure regulator may be modified or changed. No mechanical fuel pump is allowed unless installed in the homologated model.

[Quick connectors or dry break connectors may be used.](#)

[Fuel vent lines may be replaced.](#)

[Fuel filters may be added.](#)



### 2.4.8.18 Exhaust system

Exhaust pipes, catalytic converters and silencers may be altered or replaced from those fitted to the homologated motorcycle. [Catalytic converters may be removed.](#)

The number of the final exhaust silencer(s) must remain as homologated. The silencer(s) must be on the same side(s) of the homologated model.

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

Wrapping of exhaust systems is not allowed except in the area of the riders foot or an area in contact with the fairing for protection from heat.

The noise limit for Superbikes will be 115 dB/A (with a 3 dB/A tolerance after the race).

### 2.4.9 Electric and electronic devices

Electric cables, connectors, battery and switches are free.

#### 2.4.9.1 Ignition / Engine Control System

Ignition/engine control system (ECU) may be modified or changed.

Spark plugs, spark plug caps and wires may be replaced.

#### 2.4.9.2 Generator, alternator, electric starter

The generator, starting system electrical or manual including kick lever, pedal, starter crank gear and starter shaft may be altered, replaced or removed from those fitted to the homologated motorcycle.

#### 2.4.9.3 Additional Equipment

Additional electronic hardware equipment not on the original homologated motorcycle may be added (e.g. data acquisition, computers, recording equipment, traction control).

The addition of a device for infra red (IR) transmission of a signal between the racing rider and his team, used exclusively for lap timing, is allowed.

The addition of a GPS unit for lap timing/scoring purposes is allowed.

Telemetry is not allowed.

### 2.4.10 Frame and Body

The use of titanium in the construction of the front forks, the handlebars and the swing-arm spindle is forbidden.

#### 2.4.10.1 Frame Body and Rear sub-frame

The main frame must remain as originally produced by the manufacturer for use on the homologated machine.

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The main frame may only be altered by the addition of gussets or tubes. No gussets or tubes may be removed.

Holes may be drilled on the frame only to fix approved components (i.e. fairing brackets, steering damper mount).

The homologated dimensions and position of bearing seats in the steering head column, and the engine, swing arm, rear shock, and suspension linkage mounting points must remain as original.

Steering angle changes are permitted by fitting inserts onto the bearing seats of the original steering head, but no part of the insert must protrude axially more than 3 mm from the original steering head.

All motorcycles must display a vehicle identification number on the main frame body (chassis number).

Rear sub frame may be changed or altered, but the type of material must remain as homologated or of higher specific weight

The paint scheme is not restricted.

### **2.4.10.2 Front Forks**

The front fork in whole or part may be changed but must be the same type homologated (leading link, telescopic, etc.).

No aftermarket or prototype electronically-controlled suspensions may be used. If original electronic suspensions are used, they must be completely standard (any mechanical or electronic part must remain as homologated). The original electronic system must work properly in the event of an electric/electronic failure otherwise it cannot be homologated for FIM competitions.

The upper and lower fork clamps (triple clamp, fork bridges) may be changed or modified.

Steering damper may be added or replaced with an after market damper.

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

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

### **2.4.10.3 Rear Fork (Swing-arm)**

The rear fork may be altered or replaced from those fitted to the homologated motorcycle. The use of carbon fibre or Kevlar® materials is not allowed if not homologated on the original machine. A chain guard must be fitted in such a way to reduce the possibility that any part of the riders' body must become trapped between the lower chain run and the rear wheel sprocket.

Rear wheel stand brackets may be added to the rear fork by welding or by bolts.

Brackets must have rounded edges (with a large radius). Fastening screws must be recessed.

### **2.4.10.4 Rear Suspension Unit**

Rear suspension unit may be changed but a similar system must be used (i.e. dual or mono).

No aftermarket or prototype electronically-controlled suspension unit maybe used. If original electronic unit is used, it must be completely standard (any mechanical or electronic part must remain as homologated). The original electronic system must work properly in the event of an electric/electronic failure otherwise it cannot be homologated for FIM competitions.

The rear suspension linkage may be modified or replaced.

The original fixing points in the frame (if any) must be used to mount the shock absorber, linkage and rod assembly fulcrum (pivot points).

### 2.4.10.5 Wheels

Wheels may be replaced (see Art. [2.3.4 SBK Technical Regulations](#)) and associated parts may be altered or replaced from those fitted to the homologated motorcycle. Carbon fibre or carbon composite wheels are not allowed, unless the manufacturer has equipped the homologated production model with this type of wheel.

Bearings, seals, and axles may be altered or replaced from those fitted to the homologated motorcycle. The use of titanium and light alloys is forbidden for wheel spindles (axles).

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

Any inner tube (if fitted) or inflation valves may be used.

~~Wheel rim diameter size (front and rear) — 16.5 in. (NOT APPLICABLE)~~

Front wheel rim width: **3.50 or 3.75 in.**

Rear wheel rim width: 6.25 in.

### 2.4.10.6 Brakes

Front master cylinder may be altered or replaced from those fitted to the homologated motorcycle.

Rear master cylinder may be altered or replaced from those fitted to the homologated motorcycle.

Front callipers may be altered or replaced from those fitted to the homologated motorcycle.

Rear callipers may be altered or replaced from those fitted to the homologated motorcycle.

Brake pads or shoes may be altered or replaced from those fitted to the homologated motorcycle.

Brake hoses and brake couplings may be altered or replaced from those fitted to the homologated motorcycle. The split of the front brake lines for both front brake callipers must be made above the lower fork bridge (lower triple clamp).

Brake discs may be altered or replaced from those fitted to the homologated motorcycle. Only ferrous materials are allowed for brake discs. The use of exotic alloy materials for discs and brake callipers (i.e. aluminium beryllium, etc.) is not allowed.

**ABS (Antilock Brake System) 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.**

### 2.4.10.7 Handle Bars and Hand controls

Handle bars, hand controls and cables may be altered or replaced from those fitted to the homologated motorcycle

Engine stop switch must be located on the handle bars.

### 2.4.10.8 Foot Rest/Foot controls

Foot rest/foot controls may be relocated, but the original mounting points must be used.

Foot rests may be rigidly mounted or a folding type which must incorporate a device to return them to the normal position.

The end of the foot rest must have at least an 8mm solid spherical radius. (see diagram A & C).

Non folding footrests must have an end (plug) which is permanently fixed, made of aluminium, plastic, Teflon® or equivalent type of material (min. radius of 8mm).

The plug surface must be designed to reach the widest possible area of the footrest. The Technical Director has the right to refuse any plug not satisfying this safety aim.

### 2.4.10.9 Fuel tank

[The fuel tank must conform in principle to the homologated appearance and location of the original tank; however its actual shape can be slightly changed to suit the rider's preference and increased fuel volume. The tank may also be modified below the upper frame line and under the seat.](#)

[The tank may be replaced by a fuel cell and a structural cover](#)

The Material of construction of the fuel tank may be altered or replaced from those fitted to the homologated motorcycle.

All fuel tanks must be filled with fire retardant material, or be fitted with a fuel cell bladder.

Fuel tanks made of composite materials (carbon fibre, aramid fibre, glass fibre, etc.) must have passed the FIM Standards for fuel tanks or be lined with a fuel cell bladder.

Tanks made of composite material must bear the label certifying conformity with FIM Fuel Tank Test Standards. Fuel tanks without a fuel cell bladder must bear a label certifying conformity with FIM Fuel Tank Test Standards.

Such labels must include the fuel tank manufacturer's name, date of tank manufacture, and name of testing laboratory.

Each manufacturer is requested to inform the FIM/CCR Secretariat of its fuel tank model(s) which have passed the FIM test standards, together with a copy of the fuel tank label. Full details of the FIM Fuel Tank Test Standards and Procedures are available from the FIM (See 'Fuel Tank Test Standards' below).

Fuel cell bladders must conform to or exceed the specification FIM/FCB-2005.

Full details of this standard are available from the FIM.

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The fuel tank must be fixed to the frame from the front and the rear with a crashproof assembly system. Bajonet style couplings cannot be used, nor may the tank be fixed to any parts of the streamlining (fairing) or any plastic part. The Technical Director has the right to refuse a motorcycle if he is of the opinion that the fuel tank fixation is not safe.

The original tank may be modified to achieve the maximum capacity of 24 litres, provided the original profile is as homologated.

A cross over line between each side of the tank is allowed (maximum inside diameter 10 mm).

Fuel tanks with tank breather pipes must be fitted with non-return valves which discharge into a catch tank with a minimum volume of 250 cc made of a suitable material.

Fuel tank filler caps may be altered or replaced from those fitted to the homologated motorcycle, and when closed, must be leak proof. Additionally, they must be secured to prevent accidental opening at any time.

The same size fuel tank used in practice must be used during the entire event.

### Fuel tank homologation

1. Any fuel tanks, made of non ferrous materials (with the exception of aluminium) must be tested according to the test procedure prescribed by the FIM.
2. Each manufacturer is responsible for testing its own fuel tank model(s) and will certify that the fuel tank exceeds the FIM test standard, if it has passed the FIM test procedure for fuel tanks.
3. Each manufacturer must affix a quality and test label on each fuel tank type that is produced for competition use. This quality and test label will be the recognition of a fuel tank model which has passed the FIM test procedure.
4. All fuel tanks that are made to the same design, dimensions, number of fibre layers, grade of fibre, percentage of resin, etc, must be identified with the same quality and test label.
5. The quality and test label will include the following information on each label affixed to each fuel tank: name of the fuel tank manufacturer, date of fabrication, code or part number, name of testing laboratory, fuel capacity.
6. Each manufacturer is requested to inform the FIM/CCR Secretariat of its fuel tank model(s) which have passed the FIM test procedure, with a copy of the quality and test label, according to point 5.
7. Only fuel tanks that have passed the FIM test procedure will be accepted.

### 2.4.10.10 Fairing / Bodywork

- a) Fairing, mudguards and body work must conform in principle to the homologated shape as originally produced by the manufacturer.
- b) Wind screen may be replaced.
- c) Original air ducts running between the fairing to the airbox may be altered or replaced from those fitted to the homologated motorcycle.
- d) The lower fairing has to be constructed to hold, in case of an engine breakdown, at least half of the total oil and engine coolant capacity used in the engine (min. 5 litres). The lower edge of openings in the fairing must be positioned at least **70** mm above the bottom of the fairing.
- e) The lower fairing must incorporate one hole of **40** mm in the bottom of the front lower area. This hole must remain closed in dry conditions and must be only opened in wet race conditions, as declared by the Race Director.
- f) Minimal changes are allowed in the fairing to permit the use of an elevator (stand) for wheel changes and to add plastic protective cones to the frame or the engine.

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- g) Holes may be drilled or cut in the fairing or bodywork to allow additional increased intake air to the oil cooler. Holes bigger than 10mm must be covered with a particle grill or fine wire mesh. Grill/mesh must be painted to match the surrounding material.
- h) Front mudguard must conform in principle to the homologated shape originally produced by the manufacturer.
- i) Holes may be drilled in the front mudguard to allow additional cooling. Holes bigger than 10mm must be covered with metal gauze or fine mesh. Mesh must be painted to match the surrounding material.
- j) Rear mudguard may be added or removed.
- k) Material of construction of the front mudguard, rear mudguard and fairing [is free](#).

### 2.4.10.11 Seat

Seat may be altered or replaced from those fitted to the homologated motorcycle.

The top portion of the rear body work around the seat may be modified to a solo seat. The solo seat then must incorporate the rear number plates. The appearance from both front rear and profile must conform in principle to the homologated shape.

The seat/rear cowl must allow for proper number display.

Holes may be drilled in the seat or rear cowl to allow additional cooling. Holes which are bigger than 10mm must be covered with metal gauze or fine mesh.

Mesh must be painted to match the surrounding material.

Material of construction of the seat [is free](#).

### 2.4.11 The following items MAY BE altered or replaced from those fitted to the homologated motorcycle.

Any type of lubrication, brake or suspension fluid may be used.

Gaskets and gasket material.

Bearings (ball, roller, taper, plain, etc.) of any type or brand may be used.

Fasteners (nuts, bolts, screws, etc.).

[Thread repair using inserts of different material such as helicoils and timeserts.](#)

External surface finishes and decals.

It is recommended that machines be equipped with a red light on the instrument panel. This light must flash in the event of oil pressure drop.

### 2.4.12 The following items MAY BE removed

Instrument and instrument bracket and associated cables.

Tachometer.

Speedometer and associated wheel spacers.

Chain guard.

### 2.4.13 The Following Items **MUST BE Removed**

Headlamp, rear lamp and turn signal indicators (when not incorporated in the fairing). Openings must be covered by suitable materials.

Rear-view mirrors.

Horn.

License plate bracket.

Tool box.

Helmet hooks and luggage carrier hooks.

Passenger foot rests.

Passenger grab rails.

[Passenger grab rails.](#)

Safety bars, centre and side stands must be removed (fixed brackets must remain).

[Catalytic convertors](#)

### 2.4.14 The following items **MUST BE altered**

Motorcycles must be equipped with a functional ignition kill switch or button mounted at least on one side of the handlebar (within reach of the hand while on the hand grips) that is capable of stopping a running engine.

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

All drain plugs must be wired. External oil filter(s) screws and bolts that enter an oil cavity must be safety wired (i.e. on crankcases, oil lines, oil coolers, etc.)

All motorcycles must have a closed breather system. The oil breather line must be connected and discharge in the airbox.

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.