



**2010**

## TECHNICAL REGULATIONS ROAD RACING

<b>AARR 0 PROTECTIVE CLOTHING AND HELMETS .....</b>	<b>2</b>
<b>AARR 1 Class 125cc SPORT PRODUCTION .....</b>	<b>2</b>
<b>AARR 2 Class 125cc GRAND PRIX .....</b>	<b>7</b>
<b>AARR 3 Class 250cc SPORTPRODUCTION .....</b>	<b>8</b>
<b>AARR 4 Class SUPERSPORT .....</b>	<b>12</b>
<b>AARR 5(6) SUPERSTOCK 600 and 1000 .....</b>	<b>12</b>
<b>AARR 7 SUPERBIKE .....</b>	<b>19</b>
<b>APPENDIX A .....</b>	<b>20</b>
<b>APPENDIX B .....</b>	<b>23</b>
<b>APPENDIX C .....</b>	<b>23</b>

Each modification is prohibited, if it is not allowed expressively

Everything printed in **BOLD** is new or changed for **2010**

## **AA RR 0 - PROTECTIVE CLOTHING AND HELMETS**

0.1 Riders and passengers must wear a complete leather suit with additional leather padding or other protection on the principal contact points, knees, elbows, shoulders, hips etc.

0.2 Linings or undergarments must not be made of a synthetic material which might melt and cause damage to the riders' skin.

0.3 Riders must also wear leather gloves and boots, which with the suit provides complete coverage from the neck down.

0.4 Leather substitute materials may be used, providing they have been checked by the Chief Technical Steward.

0.5 Use of a back protector is highly recommended.

0.6 Riders must wear a helmet which is in good condition, provides a good fit and is properly fastened.

0.7 Helmets must be of the full face type and conform to one of the recognised international standards:

- Europe ECE 22-05, 'P'
- Japan JIS T 8133 : 2000
- USA SNELL M 2005

0.8 Visors must be made of a shatterproof material.

0.9 Disposable "tear-offs" are permitted.

0.10 Any question concerning the suitability or condition of the riders clothing and/or helmet shall be decided by the Chief technical Steward, who may, if he so wishes, consult with the manufacturers of the product before making a final decision

The rider is at all times responsible for his machine.

## **AARR 1 - Class 125 SPORT PRODUCTION**

### **1.1 – Machine Specifications**

Rules intended to limit changes to the homologated motorcycle in the interests of safety.

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

The Motorcycle must be homologated by the original manufacturer only, except new bikes from the year 2010 on. For these motorcycles, a complete technical documentation, including tolerances, must be published by the manufacturer.

As the name Sport Production implies, the machines used are allowed limited modifications. Most modifications are allowed for safety reasons.

All motorcycles must comply in every respect with all the requirements for Road Racing as specified in FIM Road Racing Technical Rules.

All parts of a motorcycle must consist of that year of production as the motorcycle is homologated.

The appearance from both front, rear and the profile of motorcycles must (except when otherwise stated) conform to the homologated shape (as originally produced by the manufacturer).

Classes over 80cc up to 125 cc max. 1 cylinder and max. 6 gears (7 gears in case of Cagiva Mito, subject to year of construction).

### **1.2 Weight**

The minimum weight of the motorcycle is 110 kg without oil and fuel.

In the final inspection at the end of the race, the checked machines will be weighed in the condition they were at the end of the race.

At any time of the event, the weight of the whole machine (including the tank) must not be less than the minimum weight.

### **1.3 Number Plate Colours**

The background colours and figures for 125 cc SP motorcycles are black background with white numbers, with the RAL colour table values being 9005 for black and 9010 for white.

The sizes for all the front numbers are:	Minimum height:	160 mm
	Minimum width:	80 mm
	Minimum stroke:	25 mm

The sizes for all the side numbers are:	Minimum height:	120 mm
	Minimum width:	60 mm

Minimum stroke: 25 mm

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 side; once, located on the left and right sides of the seat or the fairing. Alternatively, once across the top of the rear seat section with the top of the number towards the rider. This number must be of the same size as the front number. The number must be visible to spectators and officials from both sides of the track.

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

#### **1.4 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. 2.10 of FIM Technical rules)

#### **1.5 Machine Specifications**

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

##### **1.5.1 Frame Body and Rear Sub Frame**

Frames must remain as originally produced by the manufacturer for the homologated machine. The sides of the frame-body may be covered by a protective part made of plastic or composite material. These protectors must fit the form of the frame.

Nothing can be added by welding or removed by machining from the frame body.

All motorcycles must display the manufacturers' vehicle identification number on the frame body (chassis number).

Engine mounting brackets or plates must remain as originally produced by the manufacturer for the homologated machine.

The rear sub frame must remain as originally produced by the manufacturer for the homologated machine.

Protrusive, not-stressed brackets can be removed on request of the Chief Technical Inspector if he supposes they can be dangerous.

Additional seat brackets may be added but none may be removed. Bolt-on accessories to the rear sub-frame may be removed.

The paint scheme is not restricted but polishing the frame body or sub frame is not allowed.

##### **1.5.2 Front Forks**

The fork structure (spindle, stanchions, bridges, stem, etc.) must remain as originally produced by the manufacturer for the homologated machine.

Standard original internal parts of the forks may be modified .

After market damper kits/cartridges or valves may be installed but the external view of the fork must remain as homologated.

The fork caps can be modified or changed to add spring preload/compression adjusters.

Any quality and quantity of oil can be used in the front forks.

The height and position of the front fork in relation to the fork crowns is free.

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

A steering damper may be added or replaced with an after-market damper.

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

##### **1.5.3 Rear Fork (Swing arm)**

Each part of the rear fork must remain as originally produced by the manufacturer for the homologated machine (including rear fork pivot bolt and rear axle adjuster).

**The swing arm can be modified to permanently fix the rear brake calliper support by welding, drilling or using Helicoil.**

Rear wheel stand positioning (support) brackets may be added to the rear fork by welding or by bolts. Brackets must have rounded edges (with a large radius) viewed from all sides. Fastening screws must be recessed.

For safety reasons it is compulsory to use a chain guard made with plastic rigid material fitted in such a way as to prevent trapping between the lower chain run and the final driven sprocket at the rear wheel.

##### **1.5.4 Rear Suspension Unit**

The rear suspension unit (shock absorber and its spring) may be modified or replaced, but the original attachments to the frame and rear fork (swing arm) must be used and the rear suspension linkage must remain as originally produced by the manufacturer for the homologated machine.

~~The rear suspension unit spring may be changed.~~

### **1.5.5 Wheels**

Wheels must remain as originally produced by the manufacturer at the time of sale into the dealer/distributor network for the homologated machine.

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

No modification of the wheel-axles or any fixing and mounting points for front and rear brake caliper are authorized. Spacers can be modified. Modifications to the wheels to keep spacers in place are permitted.

If the original design includes a cushion drive for the rear wheel, it must remain as originally produced for the homologated machine.

Wheel diameter and rim width must remain as originally homologated.

### **1.5.6 Brakes**

Brake discs must remain as originally produced by the manufacturer for the homologated machine. Front discs can be made floating, using original rotors and mounting points.

The front and rear brake caliper (mount, carrier, hanger) must remain as originally produced by the manufacturer for the homologated machine.

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 machine. A modification of these parts is authorized. The swingarm may be modified for this reason to aid the location of the rear brake caliper bracket, by welding, drilling or by using a helicoil.

Front and rear master cylinder must remain as originally produced by the manufacturer for the homologated machine.

Front and rear brake fluid reservoir can be changed with an aftermarket product.

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).

"Quick" (or "dry-brake") connectors in the brake lines are authorized.

Front and rear brake pads may be changed. Brake pad locking pins may be modified to quick-change type.

Additional air scoops or ducts are not allowed.

### **1.5.7 Tyres**

Tyres must be a fully moulded carrying all size and sidewall marking of the tyres for sale to the public. Tyres of V to Z rating must be used. The tyres must have a DOT and/or E mark.

Wet weather tyres may only be used after the race or practice is declared "wet" by the Clerk of Course.

Wet tyres do not need to carry DOT or E mark; however these tyres must be marked "Not for Highway Use" or "NHS".

The use of tyre warmers is allowed.

### **1.5.8 Foot Rest/Foot Controls**

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

The foot controls linkage may be modified. The original mounting points must remain. Their two original points of fixture (on foot controls and on the shift shaft) must remain as original.

**Disburdening support staff of the foot rests is allowed .**

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 8 mm solid spherical radius.

Non-folding metal footrests must have an end (plug), which is permanently fixed, made of plastic, Aluminium, Teflon or an equivalent type material (minimum radius 8mm).

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

### **1.5.9 Handle Bars and Hand Controls**

Handle bars may be replaced (does not include brake master cylinder).

Handle bars and hand controls may be relocated.

Throttle assembly and associated cables may be modified or replaced.

Clutch and brake lever may be exchanged by an after-market copy.

Switches can be changed but engine stop switch **must** be located on the handle bars.

### **1.5.10 Fairing/Body Work**

**a)** Fairing, front mudguards and body work 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 machine, with slight differences due the racing use (different pieces mix, attachment points, fairing bottom, etc).

The material may be changed. The use of carbon fibre, Kevlar or carbon composite materials is not allowed.

**b)** Overall size and dimensions must be the same as the original parts.

**c)** Windscreen may be replaced with a duplicate of transparent material. The height is as original with a tolerance of + 40 mm on the vertical distance from to the upper fork bridge.

- d)** Motorcycles that were not originally equipped with streamlining are not allowed to add streamlining in any form, with the exception of a lower fairing device, as described in (g and h). This device cannot exceed above a line drawn horizontally from axle to axle.
- e)** The original combination of instrument/fairing brackets may be replaced. All other fairing brackets may be altered or replaced.
- f)** The original air ducts running between the fairing and the air box must remain as homologated, as the front meshes. Carbon fibre and other exotic materials are forbidden. The wire mesh/plastic grills at the entrance of the air intake(s) in the front of the fairing can be taken away.
- g)** 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 (minimum **2 litres**).
- h)** The lower fairing must incorporate an opening of  $\varnothing$  25 mm diameter in the front lower area. These holes must remain closed in dry conditions and must only be opened in wet race conditions as declared by the Clerk of the Course.
- i)** Front mudguard may be replaced with a cosmetic duplicate of the original parts and may be spaced upward for increased tyre clearance.
- j)** Rear mudguard fixed on the swing arm that incorporate the chain guard can be modified to accommodate larger diameter rear sprockets.
- k)** All exposed edges must be rounded.

#### **1.5.11 Fuel Tank**

Fuel tank filler cap may be altered or replaced from those fitted to the homologated motorcycle, by a 'screw-on' type fuel cap. The fuel tank valve petcock must remain as originally produced by the manufacturer for the homologated machine.

The sides of the fuel tank may be covered by a protective part made of a composite material. These protectors must fit the shape of the fuel tank.

All fuel tanks must be completely filled with fire-retardant material (open-celled mesh, i.e. "Explosafe®").

#### **1.5.12 Seat**

**The seat can be changed, but it's forbidden to use of carbon fibres and Kevlar if they are not present in the homologated motorcycle.**

The top portion of the rear body work around the seat may be modified to a solo seat.

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

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

#### **1.5.13 Wiring Harness**

The original wire-loom may be modified as indicated hereafter: The unused wire loom elements supplying current to direction indicators, horn, ignition contact and key-lock, etc, may be unplugged and/or removed (no cutting is allowed, but to disconnect connectors is allowed).

#### **1.5.14 Electrical Equipment**

The disposition of the different components could be repositioned.

The electrical commands on the handle bars could be eliminated. The engine stop switch must be fixed.

Ignition: it could be fixed a CDI Unit, delivered in kit that has characteristics defined in homologation forms.

The mechanisms that could allow interventions in order to change the declared curve (map) or ignition timing during the race are not allowed.

The allowed tolerance is  $\pm 1^\circ$ . It's absolutely not allowed to change the ignition timing by piercing (enlarging) fixing holes of the pickup **or by reducing the diameter of the fixing screws**.

The loading circuit of the battery could be off during the race.

**The removal of the starter box is allowed. In the electric device, it is allowed to remove the relative electrical wiring together with all those parts that enable the operation and activation, including flywheel gear**

The motorcycle should be equipped – besides the disconnection switch – by a tug-device linked to the driver who – in the case of a slump (crash) – switches off the main electrical circuit, if there is an electrical pump for the carburetor fixed on the motor – as in the case of injection devices.

#### **1.5.15 Air Filter**

The air filter can be removed; the box of the filter can be removed or used, completely or partially maintaining the original attachments.

**It's allowed to add to the filter box eventual linkages connecting the vents, carburettor and fuel tank.**

**It's allowed to change parts of the original filter box so that it can serve as air conveyer.**

#### **1.5.16 Carburetor and Reed valves**

No modifications are allowed.

The maximum diameter of the carburettor must be 28 mm

Carburettor jets, slide spring and needles may be replaced.

The slide metering holes may not be changed.

Electronic or mechanical cold start devices must remain installed but may be deactivated.

**The bell mouth (trumpet) of the carburettor can be modified, removed or replaced .**

**The number and thickness of the reed valve plates is free. The stoppers can be modified, removed or replaced.**

#### **1.5.17 Lubrication and cooling system**

The system of lubrication is free. **It's allowed to remove the oil - gasoline mixer and all its parts.**

**The radiator cap is free, you can remove the expansion tank with on tubing.**

**Protection network and an air conveyor attached to the radiator to improve cooling could be installed**

**The air conveyor set below the bottom plate fork may be modified or replaced.**

**Removing the thermostatic valve is allowed**

**The installation of a water thermometer is allowed**

#### **1.5.18 Cylinder and Cylinder head, piston**

No modifications except written below are allowed.

The cylinders can not be replaced and must remain original.

The cylinders can be rebuilt only on constructor's limits.

The number of the cylinder ports must remain as original.

**The size, shape of the Exh.port, scavenging and inlet ports are free.**

The exhaust port polishing is allowed to reduce the gas residue deposits.

**The flattening of the cylinder is permitted provided that the limit of the compression ratio remains unchanged; it's allowed to install the antiknock ring of any material on the same cylinder.**

Cylinder - crankcase joint faces may be machined to make the flow linkage from crankcase to cylinder, but the crankcase has to remain in original version without any modification

**Cylinder head:** Compression ratio should have maximum value of 13, 5:1. The measuring of the volume of combustion chamber is carried out by a cylinder in the vertical position (without a spark plug) and piston in the top dead center, by introducing the oil through the spark plug hole until it reaches its last thread, by a graded burnt in order to determine the quantity;

for a compression ratio, it's meant the geometrical one:  $R = (V_c + C) : V_c$ .

It's allowed to use a calibrated instrument which has to be inserted into a spark plug seat in order to determine more precisely the reading of the liquid contents in the combustion chamber; the dimension of the depth of the spark plug hole has to be the same as in the produced cylinder head. **(Volume of the thread - 2.3-2.4 cc.)**

It's allowed to set up an antiknock ring made of any material, at the upper cylinder level.

It's allowed the machining of the head for a squish modification

The combustion chamber might be polished, but its shape must remain as homologated.

**On the head and cylinder screws must be provided holes for an eventual plumbing.**

**The piston may be the original one or one of the kit, both clearly indicated on the homologation list.**

#### **1.5.19 Crankcase and all other Engine Cases (i.e. ignition case, clutch case.)**

No modifications are allowed (including painting, polishing and lightening).

**The installation of aluminium or bronze bushings to restore the seats of the bearings of the crankshaft is allowed. These bushings must have a cylindrical shape and maximum diameter of 70mm.**

**The measures of the bearings must remain original.**

#### **1.5.20 Clutch, transmission**

No modifications are allowed.

Only friction and drive discs may be changed, but their number must remain as original.

Clutch springs may be changed.

It is not allowed to change the clutch system. A slipper clutch or back-torque clutch may be used only if it is standard equipment on the homologated model.

**The final drive (drive and driven sprocket, chain) is free.**

#### **1.5.21 Generator**

No modifications are allowed.

#### **1.5.22 Exhaust System**

~~Exhaust pipes and silencers slip-on may be changed or modified.~~

**The exhaust can be replaced but is not allowed the use of titanium for its construction.**

The noise limit for 125 cc Sport production machines will be ~~102 dB/A~~ **96dB/A by 7000 Rpm** with a tolerance of + 3dB/A

The location of the silencer must remain as original.

Wrapping of the exhaust system is not allowed.

Titanium and carbon exhaust pipers and silencers are allowed.

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

### **1.5.23 Fasteners**

Standard fasteners may be replaced with fasteners of any material and design, but titanium fasteners may not be used. The strength and design must be equal to or exceed the strength of the standard fastener it is replacing.

Fasteners may be drilled only for mounting a safety wire, but intentional weight-saving modifications are not allowed.

Fairing/body-work fasteners may be changed to a quick disconnect type.

Aluminium fasteners may only be used in non-structural locations.

### **1.5.24 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.

Any type of spark plug.

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

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

Gaskets and gasket materials (with the exception of cylinder gaskets)

Painted external surface finishes and decals.

### **1.5.25 The Following Items MAY BE Removed**

Instrument and instrument bracket and associated cables.

Horn

Tool box

Tachometer

Speedometer

Light switch

Signal (Horn) switch

Turn signal switch

Radiator fan and wiring

Chain guard as long as it is not incorporated in the rear fender

Bolt on accessories on a rear sub frame

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

Headlamp, rear lamp and turn signal indicators (when not incorporated in the fairing).

Openings must be covered with suitable materials.

Rear-view mirrors.

License plate bracket.

Helmet hooks and luggage carrier hooks

Passenger foot rests.

Passenger grab rails.

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

### **1.5.27 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.

### **1.5.28-9.6 Additional Equipment**

Additional equipment not on the original homologated motorcycle must not be added. (i.e. data acquisition, computers, recording equipment etc.), with the exception of lap timing system.

Telemetry is not allowed during the whole event, but potentiometers and other sensors can be maintained, if disconnected.

## **AARR 2 - Class 125 GRAND PRIX (125 GP)**

Look at code F.I.M. and its annexes. (Technical Appendices for **FIM World Records & International Road Racing Meetings**)

The minimum weight permitted: **Only for AA Ch. Motorcycle 70 kg**

## **AA RR 3 - 250 cc SPORT PRODUCTION (250-4T)**

### **3.1 Machine Specifications 250-4T**

The class is open to racing bikes using rolling chassis prototypes and engine stock-of products and homologated by UEM with the following main characteristics:

Water-cooled, Single cylinder 4-stroke engine with a minimum capacity of 200 cc and a maximum of 250 cc and maximum 6 gears.

Amendments to the technical regulations may be made at any time in order to ensure a fairer competition.

These amendments come into force after an approval of the UEM/RRC.

### **3.2 Weights**

The minimum weight of the motorcycle is 90 kg.

The minimum weight of a motorcycle is defined as the total weight of the empty motorcycle (with an empty fuel tank but with engine oil and other liquids at optimal level). The result is rounded off to the nearest higher digit.

In the final inspection at the end of the race, the checked machines will be weighed in the condition as they are. Nothing may be added to the machine. This includes water, oil.

At any time during the event, the weight of the whole machine (including the tank) may not be less than the minimum weight with a tolerance of 1 kg.

The use of ballast is allowed to stay over the minimum weight limit and may be required due to the handicap system. The use of ballast must be declared to the Technical Stewards at the preliminary checks.

The ballast must be made from solid metallic piece/s, firmly and securely connected, either through an adapter or directly to the main frame or engine. For example with minimum 2 steel bolts (min. 8 mm diameter, 8.8 grade or over).

### **3.3 Use of Materials**

The use of titanium in the construction either of the engine (if not originally installed in the homologated unit) or of the rolling chassis is forbidden. For wheel spindles, the use of light alloys is also forbidden.

### **3.4 Number Plate Colours**

The background colours and figures for 250-4T are a green background with white numbers.

The sizes for all the front numbers are: Minimum height 160 mm

Minimum width 80 mm

Minimum stroke 25 mm

The sizes for all the side numbers are: Minimum height 120 mm

Minimum width 60 mm

Minimum stroke 25 mm

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

One on the front, either in the centre of the fairing or slightly off to one side;

One on each side of the motorcycle or one across the top of the rear seat section with the top of the number to the rider.

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

### **3.5 Fuel**

All motorcycle engines must function on normal unleaded fuel. (see technical Appendices of International Road Racing meetings Art. 02.10 of FIM Technical rules for full specification).

### **3.6 Coolants**

The only liquid engine coolants permitted, other than lubricating oil, shall be water or water mixed with ethyl alcohol.

## **3.7 ROLLING CHASSIS**

### **3.7.1 Frame Specifications**

The Championship is for motorcycles, i.e. vehicles with 2 wheels that make one track propelled by an internal combustion engine, controlled exclusively by one rider.

Providing that the following regulations are complied with, the constructors are free to be innovative with regards to design, materials and overall construction of the rolling chassis.

### **3.7.2 Frame Body and Rear sub frame**

The frame and rear sub frame must be made in steel or aluminium alloy. No other materials are allowed. The sides of the frame-body may be covered by a protective part made of plastic or composite material. These protectors must fit to the form of the frame.

### **3.7.3 Front Forks**

Computer controlled front forks are not permitted.

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

The front fork is subject to "claiming rule" (see annex C)

### **3.7.4 Rear Fork**

Swing arm must be made in steel or aluminium alloy.

For safety reasons it is compulsory to use a chain guard made with rigid plastic material fitted in such a way as to prevent trapping between the lower chain run and the final drive sprocket at the rear wheel.

### **3.7.5 Rear Suspension Unit**

Computer controlled suspension units are not permitted.

The shock absorber is subject to "claiming rule" (see annex C)

### **3.7.6 Wheels**

Only aluminum alloy wheels are allowed.

Compulsory dimensions: front 2.50 – 17"; rear 3.50 – 17".

### **3.7.7 Brakes**

Only ferrous materials are allowed for brake discs (central hub can be made in aluminium alloy)

Only a single disc and a single caliper are allowed on each wheel.

No racing type calipers are allowed (main parts cannot be obtained by machining).

### **3.7.8 Tyres**

Slick tyres are allowed

### **3.7.9 Foot Rest/Foot Controls**

Footrests may be of a folding type but in this case they must be fitted with a device which automatically returns them to the normal position, and an integral protection is to be provided at the end of the footrests which must have at least 8 mm solid spherical radius (see diagrams A & C).

Non folding 'metallic' footrests must have an end (plug) which is permanently fixed, made of plastic, Teflon® or an equivalent type material (min. diameter 16mm).

### **3.7.10 Handle Bars and Hand Controls**

Handlebars must have a total width of not less than 450 mm and their ends must be solid or rubber covered.

The width of the handlebar is defined as the width measured between the outside of the handlebar grips or throttle twist grips.

There must be at least 15 degrees of movement of the steering each side of the centre line.

Levers must not be longer than 200 mm measured from the pivot point.

Throttle twist grips must close automatically when released.

Switches can be changed but electric starter switch and engine stop switch must be located on the handle bars.

### **3.7.11 Fairing/Body Work**

- a) The use of carbon fibre or carbon composite materials is not allowed. Local specific reinforcements in Kevlar or Kevlar-carbon are authorized around holes and other stressed points.
- b) The maximum width of bodywork must not exceed 600 mm. The width of the seat or anything to its rear shall not be more than 450 mm (exhaust pipes included).
- c) Wind screen edge and the edges of all exposed parts of the streamlining must be rounded.
- d) Bodywork must not extend beyond a line drawn vertically at the leading edge of the front tyre and a line drawn vertically at the rearward edge of the rear tyre. The suspension should be fully extended when the measurement is taken.
- e) The combination instrument/fairing brackets are free, but the use of titanium and carbon (or similar composite materials) is forbidden.
- f) When viewed from the side, it must be possible to see the rider, seated in a normal position with the exception of the forearms. No transparent material may be used to circumvent the above rule.
- g) 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 (minimum 5 litres). The lower edge of any opening in the fairing must be at least 50 mm above the bottom of the fairing.
- h) The lower fairing must incorporate at least a hole of 25 mm (minimum) diameter in the bottom front lower area. This hole must remain closed in dry conditions and must be only opened in wet race conditions as declared by the Clerk of the Course.
- i) Wings are not allowed, also if they are an integral part of the fairing or seat. No moving aerodynamic devices are allowed.

### **3.7.12 Fuel Tank**

Fuel tank filler cap must be leak proof and have a positive closing device.

Fuel tank must be manufactured only with aluminium alloy or steel material.

All fuel tanks must be completely filled with fire retardant material (open-celled mesh)

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.

### **3.7.13 Spindles**

The use of titanium or carbon fibres (and similar products like aramid, nano composites, etc.) in the construction of the front fork, handle bars, the swinging arm spindles, wheel spindles is forbidden. For wheel spindles, the use of aluminium alloys is also forbidden.

## **3.8 ENGINE AND ITS ACCESSORIES**

### **3.8.1 Engine Specifications**

Engines are stock products. Only engines belonging to the "UEM list of approved engines for 250-4T Road Racing class" can be used. In this list UEM will put in, engines originally installed on a production motorcycle sold to the public.

The engine must have the following trade property:

Produced in at least 50 complete and working units;

If sold separately to the public a maximum price of 4000 € inclusive of carburettor but excluded the air box and exhaust pipe

EVERYTHING THAT IS NOT AUTHORISED AND PRESCRIBED IN THIS "ENGINE AND ITS ACCESSORIES" SET OF RULE IS STRICTLY FORBIDDEN

### **3.8.2 Air Box**

The air box construction is free but it must be compulsory fitted on the machine.

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

### **3.8.3 Fuel Injection System, Carburettors and CDI**

The use of aftermarket throttle bodies, fuel injectors and carburettors is free, but the maximum equivalent diameter is 44 mm. (cross section area = 1520mm<sup>2</sup>)

Air funnel is free.

Fuel pump and fuel pressure regulator are free.

The central unit (ECU) model is defined by UEM and will be sold to the public at a fixed price by the after market supplier chose by UEM

The UEM will allow all the engines to run at maximum 22 meters per second

### **3.8.4 Fuel Supply**

Fuel lines may be replaced. Quick connectors or dry break quick connectors may be used.

Fuel vent lines may be replaced.

Fuel filters may be added.

### **3.8.5 Cylinder Head**

Cylinder head ducts can be machined, but is not allowed to add any kind of material to the original unit.

The cylinder head gasket can be changed.

The valves, valve seats, guides, tappets, oil seals, shims, cotter valve, spring base and retainers must be standard, springs may be changed.

### **3.8.6 Camshaft**

Camshaft is free.

### **3.8.7 Cam Sprockets**

Cam sprockets are free.

### **3.8.8 Crankshaft**

Standard crankshaft must be used and no modifications are allowed but polishing, lightening and balancing is free.

### **3.8.9 Oil Pumps and Oil Lines**

Oil pumps and oil lines are free.

### **3.8.10 Connecting Rods**

Connecting rod must be standard, but polishing is allowed

### **3.8.11 Pistons**

Aftermarket products can be used but bore must stay standard as homologated.

Minimum weight: 160 g.

### **3.8.12 Piston Ring, Pins and Clips**

Piston rings, pins and clips are free.

### **3.8.13 Cylinders**

No modifications are allowed but machining for adjusting the squish height is allowed.

### **3.8.14 Crankcase and all other Engine Cases (i.e. ignition case, clutch case.)**

No modifications are allowed to the crankcases.

Strengthened engine side covers may be installed but must be no lighter in weight than the original components.

All engine cases containing oil, and which could be in contact with the ground during a crash, must be protected by a second cover made of metallic or composite material (type carbon or Kevlar). Aluminium or steel plates or bars are also permitted. All the devices must be designed to be resistant against shocks and fixed properly and securely.

### **3.8.15 Transmission/Gearbox**

All transmission gears must be standard, as shafts, drums, selector fork. Only 1 supplementary set of racing gear ratios can be used during the season. Each entrant must declare the racing ratios set before his first race in the Championship.

The number of gears must remain as homologated.

Primary ratios are free.

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

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

The sprocket cover can be modified but may not be eliminated.

### **3.8.16 Clutch**

Aftermarket or modified clutches are permitted.

Clutch system must be wet, method of operation (cable/hydraulic) must remain as originally produced by the engine manufacturer.

Back torque limiter is permitted.

### **3.8.17 Starter**

Starter system must be in place on the engine (mechanical or electric). The electric starter (if any in the original engine) must operate normally and always be able to start the engine during the event. The engine must start and turn on its own power when the electric starter has stopped its procedure.

### **3.8.18 Exhaust System**

Exhaust pipes and silencers may be changed or modified.

The noise limit is 102 dB/A with a tolerance of + 3dB/A at the final verification.

The location of the silencer is free.

Wrapping of the exhaust system is not allowed.

Titanium and carbon exhaust and silencers are allowed.

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

### **3.8.19 The following items may be altered or replaced from those fitted to the homologated engine.**

Aluminium fasteners may only be used in non-structural locations.

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

Any type of spark plug.

Gaskets and gasket materials.

Titanium fasteners may not be used.

## **3.9. GENERAL**

### **3.9.1 General safety instruction**

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

All drain plugs must be wired. External oil filter(s) screws and bolts that enter an oil cavity must be safety wired.

No direct atmospheric emission is permitted. All motorcycles must have a closed breather system. The oil breather line must be connected and discharge in the air box.

### **3.9.2 Homologation**

All engine models must be homologated. A technical document with dimensions, weights, drawings, parts list and costs, photos must be submitted by the manufacturer or his representative and edited by UEM and will be valid for 1 racing season minimum.

UEM list of approved engines for 250 4T class see to the appendix C

### **3.9.3 Claiming Rule System**

(This art. is not valid for the AA Championship 2010)

The parts of the machines in the list of "Demandable parts" of the first three top riders in each UEM Championship race can be requested by other entrants in the same race.

No rider can refuse to sell requested parts unless he was asked for same part again in the previous three races.

The requested parts must be sold at the price fixed by UEM + 100 €.

Applying rider must introduce his written request to the Technical Chief Steward before the final opening of the park fermè after the end of the race with a cheque or cash money. If the seller refuse to agree he will be disqualified by Race Direction.

The Race Direction must supervise the deal. The part must be disassembled and handed over by the seller in 2 hours from the opening time of the park fermè.

For any reason the purchaser can refuse to buy the requested part after the deal was countersigned by Race Direction. If the purchaser gives up the part after letter and money were given to the Technical Chief Steward the money will be confiscated by UEM and 100 € will be allocated to the missed seller.

## **AARR 4 - SUPERSPORT (SSp)**

Look at code F.I.M. Technical Appendices for **FIM World Records & International Road Racing Meetings 02.5** and its annexes.

## **AARR 5(6) – SUPERSTOCK 600 / 1000 (StSp 600, StSp 1000)**

Motorcycles, which are not homologated by the FIM, are eligible if they are at least homologated by one of the Alpe Adria member FMN's.

Rules intended to limit changes to the homologated motorcycle in the interests of safety.

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

The Motorcycle must be homologated by the original manufacturer only. The model will be eligible for Stocksport competition for a maximum period of 5 years.

As the name Stocksport implies limited modifications are allowed to the machines. Most modifications are only allowed safety reasons.

Stocksport motorcycles require an FIM homologation (see Art.FIM 2.9). All motorcycles must comply in every respect with all the requirements for Road Racing as specified in these Regulations, unless it is equipped as such on the homologated machine.

The appearance from both front, rear and the profile of **Superstock 600 / 1000** 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.

### **5 (6).1 Discipline Specifications Superstock 600 / 1000**

#### **Superstock 600**

4 cylinders	over 400 cc up to 600 cc	4-stroke
3 cylinders	over 500 cc up to 675 cc	4-stroke
2 cylinders	over 600 cc up to 750 cc	4-stroke

**Superstock 1000**

4 cylinders	over 600 cc up to 1000 cc	4-stroke
3 cylinders	over 750 cc up to 1000 cc	4-stroke
2 cylinders	over 850 cc up to 1200 cc	4-stroke

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

**5 (6).2 Minimum Weights**

The dry weight of a homologated motorcycle is defined as the total weight of the empty motorcycle as produced by the manufacturer (after removal of fuel, vehicle number plate, tools and main stand when fitted). To confirm the dry weight a minimum of three (3) motorcycles are weighed and compared. The result is rounded off to the nearest digit.

**Superstock 600** machines: minimum weight = dry weight minus 12 kg

**Superstock 1000** machines: minimum weight = dry weight minus 15 kg

In the final inspection at the end of the race, the checked machines will be weighed in the condition they were at the end of the race.

At any time of the event, the weight of the whole machines (including the tank) must not be less than the minimum weight, with a tolerance of 1 kg.

Valid for 1200 cc 2-cylinder bikes homologated as from 1<sup>st</sup> January 2008 the handicap rule according to FIM 2.4.2 applies.

**5 (6).3 Number Plate Colours**

**Superstock 600:** Red background with yellow numbers, with the RAL colour table values being 3020 for red and 1003 for yellow.

**Superstock 1000.** Red background with white numbers, with the RAL colour table values being 3020 for red and 9010 for white.

The sizes for all the front numbers are:	Minimum height:	160 mm
	Minimum width:	80 mm
	Minimum stroke:	25 mm
The sizes for all the side numbers are:	Minimum height:	120 mm
	Minimum width:	60 mm
	Minimum stroke:	25 mm

The allocated number & plate for the rider must be affixed on the machine as follow: once on the front, either in the centre of the fairing or slightly off to one side; once, located on the left and right sides of the seat or the fairing. Alternatively, one across the top of the rear seat section with the top of number towards the rider. This number must have the same size as the front number. The number must be visible to spectators and officials from both sides of the track.

For light coloured bodywork, there will be a black line of 8 mm minimum all around the perimeter of the red background.

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

**5 (6).4 Carburation Instruments / Fuel Injection System**

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

Carburation instruments must be standard units as the homologated machine.

Bell mouths must remain as originally produced by the manufacturer for the homologated machine.

The injector must remain standard units as on the homologated motorcycle.

**5 (6).5 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. 2.10 of FIM Technical rules)

**5 (6).6 Machine Specifications**

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

The appearance from both front rear and the profile of **Superstock 600** motorcycles must be in conformity to the homologated shape as originally produced by the manufacturer. (Except when otherwise stated)

**5 (6).6.1 Frame Body and Rear Sub Frame**

The frame must remain as originally produced by the manufacturer for the homologated machine. The sides of the frame-body may be covered by a protective part made of plastic or composite material. These protectors must fit the form of the frame.

Nothing may be added by welding or removed by grinding from the frame body.

All motorcycles must display the manufacturer's vehicle identification number on the frame body (chassis number), with the exception of possible spare frames.

Engine mounting brackets or plates must remain as originally produced by the manufacturer for the homologated machine.

Rear sub frame may be changed or altered, but the Type of material must remain as homologated, or of higher specific weight. Protrusive, not-stressed brackets can be removed on request of the Chief Technical Inspector if he supposes they can be dangerous.

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.

Holes may be drilled in the frame and rear sub frame only for fixing of allowed components (i.e. fairing brackets, steering damper mount, etc.)

The paint scheme is not restricted but polishing the frame body or sub frame is not allowed.

#### **5 (6).6.2 Front Forks**

The fork structure (spindle, stanchions, bridges, stem, etc.) must remain as originally produced by the manufacturer for the homologated machine.

Standard original internal parts of the forks may be modified.

After market damper kits or valves may be installed, but the external view of the fork must remain as homologated.

No aftermarket or prototype electronically-controlled suspension parts 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 may not be homologated for FIM/UEM AA competitions.

The fork caps can be modified or changed to add preload/compression adjuster.

Dust seals can be modified or removed providing the fork remains totally oil-sealed.

Any quality and quantity of oil can be used in the front forks.

The height and position of the front fork in relation to the fork crowns is free.

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

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

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

#### **5 (6).6.3 Rear Fork (Swing arm)**

Every part of the rear fork must remain as originally produced by the manufacturer for the homologated machine (including rear fork pivot bolt and rear axle adjuster).

Rear wheel stand positioning (support) brackets may be added to the rear fork by welding or by bolts. Brackets must have rounded edges (with a large radius) viewed from all sides. Fastening screws must be recessed.

For safety reasons it is compulsory to use a chain guard made with plastic rigid material fitted in such a way as to prevent trapping between the lower chain run and the final driven sprocket at the rear wheel.

#### **5 (6).6.4 Rear Suspension Unit**

Rear suspension unit (shock absorber and its spring) may be modified or replaced, but the original attachments to the frame and rear fork (swing arm) must be used and the rear suspension linkage must remain as originally produced by the manufacturer for the homologated machine.

Rear suspension unit spring may be changed.

No aftermarket or prototype electronically-controlled suspension unit may be 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 may not be homologated for FIM/UEM AA competitions.

#### **5 (6).6.5 Wheels**

Wheels must remain as originally produced by the manufacturer.

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

No modification of the wheel-axles or any fixing and mounting points for front and rear brake caliper are authorized. Spacers can be modified. Modifications to the wheels to keep spacers in place are permitted.

If the original design includes a cushion drive for the rear wheel, it must remain as originally produced for the homologated machine.

Wheel diameter and rim width must remain as originally homologated.

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

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

#### **5 (6).6.6 Brakes**

Brake discs and carrier must retain the same material as the homologated disc and carrier

When a "wave" type disc is homologated as the original part, the "wave" shape of the replacement disc must remain exactly like the homologated disc. A "wave" type disc can be replaced by round disc.

The outside and inner diameter of the brake disc must remain the same as the homologated disc.

The thickness of the brake disc may be increased by 20% and it must fit into the homologated brake calliper without any modification.

The number of floaters must remain the same but the shape and type of floaters is free.

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

The ABS rotor wheel can be deleted, modified or replaced.

The front and rear brake caliper (mount, carrier, hanger) must remain as originally produced by the manufacturer for the homologated machine.

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 machine. A modification of these parts is authorized. The swingarm may be modified for this reason to support the location of the rear brake caliper bracket, by welding, drilling or by using a helicoil.

#### **Front master cylinder may be changed.**

The front and rear brake fluid reservoir can be changed with an aftermarket product.

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

"Quick" (or "dry-brake") connectors in the brake lines are authorised.

Front and rear brake pads may be changed. Brake pad locking pins may be modified to quick change type.

The hand lever adjuster is allowed.

Additional air scoops or ducts are not allowed.

#### **5 (6).6.7 Tyres**

According to FIM 2.7.6.

##### **Tyre dimension for Superstock 600 :**

AA Road Racing Committee decided to accept the maximum tyre size 190/55/17 for whole season.

##### **Tyre dimension for Superstock 1000 :**

AA Road Racing Committee decided to accept the maximum tyre size 200/55/17 for whole season.

#### **5 (6).6.8 Foot Rest/Foot Controls**

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

Foot controls linkage may be modified. The original mounting points must remain. Their two original points of fixture (for the footrest, foot controls and on the shift shaft) must remain as original.

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 8 mm solid spherical radius.

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

The plug surface must be designed to reach the widest possible area in order to decrease the risk of injuries to the rider in the case of an accident.

The Chief Technical Steward has the right to refuse any plug not satisfying this safety aim.

#### **5 (6).6.9 Handle Bars and Hand Controls**

Handle bars may be replaced (does not include brake master cylinder).

Handle bars and hand controls may be relocated.

Throttle grip can be modified or substituted.

Throttle assembly and associated cables can be modified or replaced.

Switches can be changed but electric starter switch and engine stop switch must be located on the handle bars.

Clutch and brake lever may be exchanged by an after-market model.

Switches can be changed but electric starter switch and engine stop switch may be located on the handle bars.

An adjuster to the brake lever is allowed.

#### **5 (6).6.10 Fairing/Body Work**

a) Fairing, front mudguards and body work may be replaced with cosmetic duplicates of the original parts, which must appear to be as originally produced by the manufacturer for the homologated machine, or with slight differences due the racing use permitted (different pieces mix, attachment points, fairing bottom, etc). The material may be changed. The use of carbon fibre, or carbon composite materials is not allowed.

b) Overall size and dimensions must be the same as the original parts.

c) Wind screen may be replaced with a duplicate of transparent material. The height is as original with a tolerance of + 40 mm (FIM +/- 15 mm) measured on the vertical distance from to the upper fork bridge.

- d) Motorcycles that were not originally equipped with streamlining are not allowed to add streamlining in any form, with the exception of a lower fairing device, as described in (g and h). This device cannot exceed above a line drawn horizontally from axle to axle.
- e) The original combination of instrument/fairing brackets may be replaced. All other fairing brackets may be altered or replaced.
- f) The original air ducts running between the fairing and the air box may be altered or replaced. Carbon fibre composites and other exotic materials are forbidden. Particle grills or "wire-meshes" originally installed in the openings for the air ducts may be removed.
- g) 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 (minimum 5 litres). The lower edge of any opening in the fairing must be at least 50 mm above the bottom of the fairing.
- h) The lower fairing must incorporate at least a hole of 25 mm (minimum) diameter in the bottom front lower area. This hole must remain closed in dry conditions and must be only opened in wet race conditions as declared by the Clerk of the Course.
- i) Front mudguard may be replaced with a cosmetic duplicate of the original parts and may be spaced upward for increased tyre clearance.
- j) Rear mudguard fixed on the swing arm can be modified or changed but the original profile must be respected.
- k) Motorcycles can be equipped with inner ducts to improve the air stream towards the radiator but the appearance of front, rear and the profile must not be changed.

#### **5 (6).6.11 Fuel Tank**

Fuel tank filler cap may be altered or replaced from those fitted to the homologated motorcycle, by a 'screw-on' type fuel cap.

Fuel tank valve petcock must remain as originally produced by the manufacturer for the homologated machine. The sides of the fuel tank may be covered by a protective part made of a composite material. These protectors must fit the shape of the fuel tank.

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.

All fuel tanks must be completely filled with fire-retardant material (open-celled mesh, i.e. "Explosafe®").

#### **5 (6).6.12 Seat**

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

The original seat locking system (with plates, pins, rubber pads, etc.) can be removed.

The top portion of the rear body work around the seat may be modified to a solo seat.

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

#### **5 (6).6.13 Wiring Harness**

The original wire loom may be modified as indicated hereafter:

The wiring loom may be replaced by the "kit" wire harness loom, as supplied for the ECU Kit model produced or approved by the manufacturer of the motorcycle.

The wiring loom and the key/ignition lock may be relocated or replaced.

Cutting of the wiring harness is not allowed.

#### **5 (6).6.14 Battery**

The battery may be replaced. If replaced, its nominal capacity must be equal to or higher than the homologated type.

#### **5 (6).6.15 Radiator and oil coolers**

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

The radiator **tubes** to and from the engine can be changed but the system must be maintained, with the original tanks.

Radiator fan and wiring may be removed.

Thermal switches, water temperature sensor and thermostat can be removed inside the cooling system.

Radiator cap is free.

**An additional water radiator may be fitted but the appearance of the front, the rear and the profile of the motorcycle must not be changed. Extra mounting brackets to accommodate the additional radiator are permitted.**

#### **5 (6).6.16 Air Box**

The air box must remain as originally produced by the manufacturer on the homologated machine, but the air box drains must be sealed. The air filter element may be modified or replaced.

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

**5 (6).6.18 Fuel Supply**

Fuel lines from the fuel tank to the delivery pipe assembly (excluded) may be replaced but the fuel petcock must remain as originally produced by the manufacturer.

Quick connectors or dry break quick connectors may be used.

Fuel vent lines may be replaced.

Fuel filters may be added.

Fuel pressure regulator may be modified or changed.

**5 (6).6.19 Cylinder Head**

No modifications are allowed.

No material may be added or removed from the cylinder head.

The cylinder head gasket can be changed.

The valves, valve seats, guides, springs, tappets, oil seals, shims, cotter valve, spring base and spring retainers must be as originally produced by the manufacturer for the homologated machine.

Only normal maintenance interventions as prescribed by the manufacturer in the model's service manual are authorized.

Valve spring shims are not allowed.

**5 (6).6.20 Camshaft**

No modifications are allowed.

At the technical checks for direct valve operation systems the cam lobe lifts is measured; for indirect valve operation systems (i.e. where cam followers are fitted), the valve lift is measured.

The timing of the camshaft is free; however no machining of the camshaft and camshaft sprocket is authorized.

**5 (6).6.21 Cam Sprockets**

No dimensional modifications are allowed.

**5 (6).6.22 Crankshaft**

No modifications are allowed (including polishing and lightening)

**5 (6).6.23 Oil Pumps and Oil Lines**

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

**5 (6).6.24 Connecting Rods**

No modifications are allowed (including polishing and lightening).

**5 (6).6.25 Pistons**

No modifications are allowed (including polishing and lightening).

**5 (6).6.26 Piston Rings**

No modifications are allowed.

**5 (6).6.27 Piston Pins and Clips**

No modifications are allowed.

**5 (6).6.28 Cylinders**

No modifications are allowed.

**5 (6).6.29 Crankcase and all other Engine Cases (i.e. ignition case, clutch case.)**

No modifications to the crankcases are allowed (including painting, polishing and lightening).

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 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 of metallic or composite material (type carbon or Kevlar).

Aluminium or steel plates or bars are also permitted. All the devices must be designed to be resistant against shocks and fixed properly and securely.

**5 (6).6.30 Transmission/Gearbox**

An external quick-shift system on the gear selector (including wire and potentiometer) may be added.

Other modifications to the gearbox or selector mechanism are not allowed.

Only countershaft sprocket, rear wheel sprocket, chain pitch and size can be changed.

The sprocket cover can be modified or eliminated.

**5 (6).6.31 Clutch**

Only friction, drive discs and clutch springs may be changed, but their number must remain as original. (It is not allowed to change the clutch system. A slipper clutch or back-torque clutch may be used only if it is standard equipment on the homologated model).

**5 (6).6.32 Ignition/Engine Control System**

The engine control unit (ECU) must be either:

- a) As Homologated and inner software may be changed.
- b) Or the ECU kit model (produced and/or approved by the machine Manufacturer) may be used. A special connector may be used to connect ECU and the original wire loom. The retail price of the full system (software included) must not be more than 1,5 times higher than the price of the original system.
- c) In addition to option a) and b) mentioned above, external ignition and/or injection module/s may be added to the standard production ECU, but their total retail price cannot be higher than the complete ECU kit. Central unit (ECU) may be relocated.  
Spark plugs may be replaced.

**5 (6).6.33 Generator and Electric Starter**

No modifications are allowed.

The electric starter must operate normally and always be able to start the engine during the event.

**5 (6).6.34 Exhaust System**

Exhaust pipes, internal devices to lead the gas flow and silencers may be modified or changed. Catalytic converters can 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.

The noise limit for **Superstock** 600 and 1000 machines will be 102 dB/A with a tolerance of + 3dB/A after the race

The location of the silencer must remain as original.

Wrapping of the exhaust system is not allowed except in the area of the rider's foot or an area in contact with the fairing for protection from heat.

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

**5 (6).6.35 Fasteners**

Standard fasteners may be replaced with fasteners of any material and design, but titanium fasteners must not be used. The strength and design must be equal to or exceed the strength of the standard fastener it is replacing.

Fasteners may be drilled only for mounting a safety wire, but intentional weight-saving modifications are not allowed.

Fairing/body-work fasteners may be changed to a quick disconnect type.

Aluminium fasteners may only be used in non-structural locations.

**5 (6).6.36 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.

Any type of spark plug.

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

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

Gaskets and gasket materials (with the exception of cylinder gaskets)

The instruments, the instruments support.

Painted external surface finishes and decals.

Material for brackets connecting non original parts (fairing, exhaust, etc) to the frame (or engine) cannot be made from titanium or fibre reinforced composites.

Protective covers for engine, frame, chain, footrests, ect. can be made in other material like fibre composite material if these parts do not replace original parts mounted on the homologated model.

**5 (6).6.37 The Following Items MAY BE Removed**

Instrument and instrument bracket and associated cables

Horn

Tool box

Tachometer

Speedometer

Light switch

Signal (Horn) switch

Turn signal switch

Radiator fan and wiring

Chain guard as long as it is not incorporated in the rear fender. If the original chainguard is removed, a device, taking over this function in order to secure the marshals while they are removing the motorcycle, must be mounted

Bolt on accessories on a rear sub frame

The isolating mat between engine and fuel tank

#### **5 (6).6.38 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

License plate bracket

Helmet hooks and luggage carrier hooks

Passenger foot rests

Passenger grabs rails

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

#### **5 (6).6.39 The Following Items MUST BE Altered**

Motorcycles must be equipped with a functional ignition kill switch or button mounted on a 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 air box.

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.

Where an oil breather pipe is fitted, the outlet must discharge into a catch tank located in an easily accessible position and which must be emptied before the start of a race.

The minimum size of a catch tank shall be 250 cc for gear-box breather pipes and 500 cc for engine breather pipes

#### **5 (6).7 Additional Equipment**

Additional electronic hardware equipment which is not as the original homologated motorcycle may not be added. (E.g. data acquisition, computers, recording equipment etc.), 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 during the whole event. The only potentiometers and sensors allowed are those fitted as original equipment on the homologated motorcycle.

## **AARR 7 - SUPERBIKE**

Look at code F.I.M. Road Racing World Championship Superbike & Supersport Regulations and its annexations.

Motorcycles, which are not homologated by the FIM, are eligible if they are at least homologated by one of the Alpe Adria member FMN's.

### **FIM 2.4.3 Minimum Weight**     The minimum weight will be: 162 kg, for 1200cc 2 cylinders 168 kg

Valid for 1200 cc 2-cylinder bikes homologated as from 1<sup>st</sup> January 2008 the handicap rule according to FIM 2.4.2 applies.

### **FIM 2.4.7 Tyres**     The number and brand of the tyres is free.

**Only two rim sizes (3.50 x 16.5 and 3.75 x 16.5) shall be allowed for the front tyre and only one rim sizes (6.25 x 16.5) shall be allowed for the rear tyre.**

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

To add:

**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.**

**Meeting of Alpe Adria Road Racing Commission**Budapest, 05<sup>th</sup> December 2009 – Final 06. February 2010

Günther Zaritsch  
AAMU President Road Racing Commission

Gerhard Ittner  
ACCR

Janez Pintar  
AMZS

Luigi Favarato  
FMI

Dean Grbac  
HMS

Attila Nagy  
MAMS

Martin Suchý  
OeAMTC

Milan Jakubovic  
SMF

Mieczyslaw Kaluza  
PZM