



## 2012

### TECHNICAL REGULATIONS ROAD RACING

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Each modification is prohibited, if it is not allowed expressively

Everything printed in **BOLD** is new or changed for **2012**

## **AA RR 0 GENERAL**

If during the practice sessions or the race itself a Technical Steward states a fault in a motorcycle that could represent a danger for the other riders, he must immediately inform the Clerk of the Course. Random technical controls may be carried out during practices and the end of practices in the technical control area.

The rider is at all times responsible for his machine.

### **AA RR 0.1 - PROTECTIVE CLOTHING AND HELMETS**

0.1.1 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.

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

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

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

0.1.5 Use of a back protector is highly recommended.

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

0.1.7 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

0.1.8 Visors must be made of a shatterproof material.

0.1.9 Disposable "tear-offs" are permitted.

0.1.10 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

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

### **1.1 – Machine Specifications**

These rules intended to limit changes to the homologated motorcycle in the interests of safety only.

### **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.

#### **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 Ø 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.

##### **The Electronic Control Unit (ECU) is free**

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

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 Carburettor and Reed valves**

It's allowed to use the carburettor homologated for a new model of bike in all older models of the same make.  
 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**

The exhaust can be replaced

The noise limit for 125 cc Sport production machines will be 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 grabs 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 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)**

2.1 125 GP CLASS. SPECIFICATIONS  
 125 Over 80cc up to 125cc – Maximum one cylinder.

2.2 ENGINES



Engines may operate on the two -stroke principle only.

Engines must be normally aspirated.

Cubic capacity of the engine will be defined by the swept volume of the cylinder, i.e. the area of the bore of the cylinder multiplied by the stroke.

Cubic Capacity =	$\frac{D^2 \times 3,1416 \times S}{4}$
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D = Diameter

S = Stroke

No tolerance on capacities is permitted.

Engine capacity must be measured at ambient temperature.

### 2.3. GEARS

There may be a maximum of six gears.

### 2.4. WEIGHT

The minimum weight permitted:

**Only for AA Championship: Motorcycle 70 kg**

**For UEM Championship:** The minimum weight in the 125GP class is: 136 kg. This is for motorcycle and rider in full racing dress with helmet.

#### 2.4.1 Ballast may be added to achieve the minimum weights.

The weight of the motorcycle + rider will be that measured in the form that the motorcycle + rider participated, with fuel tank on and including normal levels of oil and water, and all additional equipment attached to the motorcycle, for example timekeeping senders, camera equipment, electronic telemetry equipment, etc.

Random weight controls may be carried out during practice and the end of the race in a designated weighing area.

### 2.5. FUEL TANKS

Fuel caps must be leak proof and have a positive closing device.

Fuel tank breather pipes must include a non-return valve. Fuel tank breather pipes must discharge into a suitable container, one per motorcycle with a minimum capacity of 200cc and a maximum capacity of 250cc.

Fuel tanks of all construction types must be filled with fire retardant material or be lined with a fuel cell bladder.

Except for the case that a fuel tank is fixed on the chassis with bolts, all fuel lines from the fuel tank to the engine/carburetor system should have a self sealing breakaway valve. This valve must separate at less than 50% of the load required to break any part of the fuel line or fitting or to pull it out of the fuel tank.

### 2.6. SAFETY AND CONSTRUCTION CRITERIA

#### 2.6.1 Throttle twist grips

Throttle twist grips must close automatically when released.

#### 2.6.2 Steering

Handlebars must have a width of not less than 450mm 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.

Stops must be fitted to ensure a clearance of at least 30mm between the handlebar and the fuel tank frame and/or bodywork when at the extremes of steering lock.

Motorcycles must have a functioning stop engine button, easy to reach and control.

#### 2.6.3 Brakes

Motorcycles must have a minimum of one brake on each wheel that is independently operated.

Only brake discs of ferrous material are allowed.

#### 2.6.4 Exhausts

The outlet of the exhaust must not extend behind a line drawn vertically through the edge of the rear tyre. For safety reasons the exposed edge of the exhaust pipe must be rounded to avoid any sharp edges.

##### 2.6.4.1 Noise level

The maximum noise levels at all times is 105 dB/A

Due to the similarity of the piston stroke in different engine configurations within the capacity classes, the noise test will be conducted at a fixed RPM, 7000 RPM

#### 2.6.5 Footrests

Footrests must have rounded ends with a minimum solid spherical radius of 8 mm.

#### 2.6.6 Handlebar Levers

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

#### 2.6.7 Bodywork

The windscreen edge and the edges of all other exposed parts of the streamlining must be rounded.

The maximum width of bodywork must not exceed 600mm. The width of the seat or anything to its rear shall not be more than 450mm (exhaust pipes excepted).

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.

When viewed from the side, it must be possible to see:

A) At least 180 degrees of the rear wheel rim.

B) The whole of the front rim, other than the part obscured by the mudguard, forks or removable air-intake.

C) The rider, seated in a normal position with the exception of the forearms.

Note: No transparent material may be used to circumvent the above rules.

No part of the motorcycle may be behind a line drawn vertically at the edge of the rear tyre.

The seat unit shall have a maximum height of the (approximately) vertical section behind the rider's seating position of 150mm. The measurement will be taken at a 90° angle to the upper surface of the flat base at the rider's seating position, excluding any seat pad or covering.

Any on-board camera/antenna mounted on the seat unit is not included in this measurement.

Mudguards are not compulsory. When fitted, front mudguards must not extend:

A) In front of a line drawn upwards and forwards at 45 degrees from a horizontal line through the front wheel spindle.

B) Below a line drawn horizontally and to the rear of the front wheel spindle.

The mudguard mounts/brackets and fork-leg covers, close to the suspension leg and wheel spindle, and brake disc covers are not considered part of the mudguard.

Wings may be fitted provided they are an integral part of the fairing or seat and do not exceed the width of the fairing or seat or the height of the handlebars. Any sharp edges must be rounded.

Moving aerodynamic devices are prohibited.

#### 2.6.8 Clearances

The motorcycle, unloaded, must be capable of being leaned at an angle of 50 degrees from the vertical without touching the ground, other than with the tyre.

There must be a clearance of at least 15mm around the circumference of the tyre at all positions of the motorcycle suspension and all positions of the rear wheel adjustment.

#### 2.6.9 Breather Pipes

Any breather pipe from the engine or gearbox must discharge into a suitable container with a minimum capacity of 250cc. There must be a separate container for each breather pipe.

#### 2.6.10 Materials

The use of titanium in the construction of the frame, the front forks, the handle-bars, the swinging arm spindles, and the wheel spindles is forbidden. For wheel spindles, the use of light alloys is also forbidden.

#### 2.6.11 Chain Guards

A guard must be fitted in such a way as to prevent trapping between the lower drive chain run and the final drive sprocket at the rear wheel.

#### 2.6.12 Suspension and Dampers

Electric/electronic controlled suspension, ride height and steering damper systems are not allowed. Adjustments to the suspension and steering damper systems may only be made by manual human inputs and mechanical/hydraulic adjusters.

**2.7. RIMS**

Maximum rim widths are as follows:

	Front	Rear
125 GP	2,5 “ maximum	3,5” maximum

**2.8. NUMBERS AND BACKGROUNDS**

Racing numbers must be affixed to the front and the two sides of the motorcycle, so they are clearly visible for the timekeeping staff, the spectators and the Officials.

The front plate must be located in the middle of the fairing’s front or on the side facing the official time keeping staff.

The side plates must be affixed in the rear right and left sides of the motorcycle. The numbers must be visible for the spectators and officials situated at any side of the track.

Alternatively, one across the top of the rear seat section with the top of the number towards the rider is allowed.

The dimensions for the number plates must be: 140mm x 25mm minimum. Numbers from 1 to 9 can be wider. Background colours: Black Figures (numbers) White.

The backgrounds of number plates will not have a downward slope of more than 30°

There must be a minimum clear area of 25mm around the numbers

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

**2.9. FUEL, OIL AND COOLANTS**

All motorcycles must be fuelled with unleaded petrol and must comply with the FIM Grand Prix specification. (FIM Art.01.63)

**AA RR 3 - Moto3****3.1 ENGINE / ENGINE SPECIFICATION**

4-stroke reciprocating piston engines only.

Engine capacity: maximum 250cc. Single cylinder only.

Maximum bore size: 81mm. Oval pistons are not permitted (refer to Art. 2.3.1 of the FIM Grand Prix Regulations).

Engines must be normally aspirated. No turbo-charging, no super-charging.

Maximum of 1 ignition driver.

Pneumatic and/or hydraulic valve systems are not permitted. Valve timing system drive must be by one chain. An intermediate drive gear which rotates on only one axle or rotation centre is allowed in the system. Variable valve timing and/or variable valve lift systems are not permitted.

**3.2 INLET & FUEL SYSTEM**

Variable-length inlet tract systems are not permitted.

Only one throttle control valve is permitted to control the power demand by the rider, which must be controlled exclusively by mechanical, means (eg. cable) operated by the rider only. No other powered moving devices (except injectors and the idle control air bypass) are permitted in the inlet tract before the engine intake valve. No interruption of the mechanical connection between the rider’s input and the throttle are allowed.

Idle speed (including engine braking) adjustment by means of an air bypass system, controlled by the ECU is allowed (see also 5.4).\* The maximum size of such air bypass is 12mm equivalent diameter, control systems may include a butterfly-type control valve.

Fuel injectors must be located upstream of the engine intake valves.

Maximum of 2 fuel injectors and 2 independent fuel injector drivers.

Relative fuel pressure must not exceed 5.0 bar.

Other than engine sump breather gases, only air or air/fuel mixture is permitted in the inlet tract and combustion chamber.

Only normal unleaded fuel from the official supplier may be used with a maximum lead content of 0,005 g/l and a maximum MON of 90 is allowed (see FIM 2.10.1)

Any quality of oil may be used.

**3.3 EXHAUST SYSTEM**

Variable length exhaust systems are not permitted.

No moving parts (e.g. valves, baffles) are allowed in the exhaust system.

Noise tests will be according to Article 2.14 of the FIM Grand Prix Regulations.

Test rpm: 5,000. Maximum permitted noise level: 105 dB/A.

**3.4. TRANSMISSION**

A maximum of 6 gearbox speeds is permitted.

Electro-mechanical or electro-hydraulic clutch actuating systems are not permitted.

**3.5. IGNITION, ELECTRONICS & DATA-LOGGING**

The Electronic Control Unit (ECU) is free

The traction control system are not allowed

The use of a Data-Logging system is free

**3.6 WEIGHT**

The minimum weight in the Moto3 class is: 148 kg. This is for motorcycle and rider in full racing dress with helmet.

**3.6. CHASSIS**

Chassis must be of a design and construction which is free within the constraints of the FIM Grand Prix Technical Regulations.

Brake discs must be made from ferrous materials, iron-based alloy.

Suspension systems must be of a conventional passive, mechanical type. Active and semi-active suspension systems and/or electronic control of any aspect of the suspension and ride height is not permitted. Springing must be by means of coil springs made of ferrous materials (iron-based alloy).

Referring to Article 2.7.7.9 of the FIM Grand Prix Regulations, the lower fairing minimum capacity to retain spilled engine fluids is 2.5 litres for Moto3.

**3.7. WHEELS & TYRES**

The materials permitted for wheel construction are Magnesium and Aluminium alloys.

The only permitted wheel rim sizes are:

Front 2.50" x 17" , Rear, 3.50" x 17"

**3.8. MATERIALS & CONSTRUCTION**

Construction materials must comply with Article 2.7.10 of the FIM Grand Prix Regulations.

Camshafts, crankshafts, piston pins must be made from ferrous materials. Inserts of a different material are allowed in the crankshaft for the sole purpose of balancing.

Engine crankcases, cylinder blocks and cylinder heads must be made from cast aluminium alloys.

Pistons must be made from an aluminium alloy.

Connecting rods, valves and valve springs must be made from either ferrous or Titanium-based alloys.

Definitions:

"X-based alloy" or "X materials" means the element X (e.g. Fe, for ferrous or ironbased alloy) must be the most abundant element in the alloy, on a % w/w basis.

**3.9. GENERAL**

Number of machines: The team can present only one motorcycle per rider for technical control. Replacement motorcycles may only be used subject to Article 1.15.3 of the FIM Grand Prix Regulations

**3.10. NUMBER & BACKGROUND**

The front plate must be located in the middle of the fairing's front  $\sigma_r$ , on the side facing the official time keeping staff or on both sides. The side numbers must be located on the fairing in front of the lower fairing. Also the number may be placed on the top of the seat. These numbers must have the same size as the front numbers.

The dimensions of the number in the front must be min. 160 mm. x 25 mm. The side numbers must min. 120 mm. x 25 mm. There must be a clear area around the numbers of 25 mm.

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

The numbers and backgrounds will be as follows:

<b>Background</b>	<b>Number</b>
<b>White</b>	<b>Black</b>

## **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 2010.

## **AARR 5 – MOTO2**

**Proposals for technical rules must be handed to the AA RRC by 30<sup>th</sup> April 2012**

## **AARR 6 – SUPERSTOCK 600 / 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.

### **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.

### **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

Models produced as from 2011 = dry weight minus 9 kg

Superstock 1000 machines: minimum weight = dry weight minus 12 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.



**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.

**6.4 Carburation Instruments / Fuel Injection System**

**No modifications are permitted.**

**The injectors must be standard parts as on the homologated motorcycle.**

**Intake trumpets and connections between injection body/throttle body and cylinder head are free.**

**Modifications on the original fuel pump or on the original pressure regulator are not permitted**

**Electronic or mechanical enriching devices may be removed.**

**Air or air-fuel mixture can enter or exit to/from the combustion chamber only passing through the original throttle body butterflies**

**Vacuum pumps are not allowed if not installed in the original engine.**

**Additional flaps with connected and associated components which have no direct connection to the speed control but serve exclusively for mixture enrichment and/or mixture optimisation may be removed, cut or fixed.**

**Variable length fuel injection intake tract devices that function while the engine is operating are not allowed, unless homologated.**

**The throttle bodies may not be replaced or modified.**

**The fuel injection management computer chip (EPROM) may be changed.**

**The use of flash memory ("flash RAM") for fuel injection mapping is permitted. An additional control unit to modify the fuel mixture may be mounted and must be attached to the original connections**

**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)

**6.6 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.

**6.6.1 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.

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 changed 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.

### **6.6.2 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.

### **6.6.3 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.

### **6.6.4 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.

### **6.6.5 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 is free

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

An anti-lock system (ABS) can be disconnected and its ECU can be dismantled.

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

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

In order to reduce the transfer of heat to the hydraulic fluid it is permitted to add metallic shims to the callipers, between the pads and the callipers, and/or to replace light alloy pistons with steel pistons made by the same manufacturer of the calliper.

The rear brake calliper bracket may be mounted 'fixed' on the swingarm, but the bracket must maintain the same mounting (fixing) points for the calliper 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.

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

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

Front and rear hydraulic brake lines may be changed when, the split of the front brake lines for both front brake callipers is situated 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.

#### **6.6.6 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.

#### **6.6.7 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.

#### **6.6.8 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 but the connection to the throttle body and the throttle controls must remain as homologated 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. An adjuster to the brake lever is allowed.

#### **6.6.9 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 with the following exceptions: Local specific reinforcements made of kevlar or kevlar-carbon are authorized around holes and other stressed points.

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. Particle grills or “wire-meshes” originally installed in the openings for the air ducts may 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 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.

#### **6.6.10 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®").

#### **6.6.11 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.

#### **6.6.12 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.

#### **6.6.13 Battery**

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

#### **6.6.14 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. **Tanks may be changed but must fixed in a secure way.**

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.

#### **6.6.15 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.

#### **6.6.16 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 **must remain standard.**

#### **6.6.17 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.

#### **6.6.18 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.

#### **6.6.19 Cam sprockets or Gears**

No dimensional modifications are allowed.

#### **6.6.20 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.

#### **6.6.21 Connecting Rods**

No modifications are allowed (including polishing and lightening).

#### **6.6.22 Pistons**

No modifications are allowed (including polishing and lightening).

#### **6.6.23 Piston Rings**

No modifications are allowed.

#### **6.6.24 Piston Pins and Clips**

No modifications are allowed.

#### **6.6.25 Cylinders**

No modifications are allowed.

#### **6.6.26 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.

#### **6.6.27 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.

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

The sprocket cover can be modified or eliminated.

#### **6.6.28 Clutch**

No modifications are allowed.

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

#### **6.6.29 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.

### **6.6.30 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.

### **6.6.31 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 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.

### **6.6.32 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.

### **6.6.33 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 and associated cables.

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.

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

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

Horn

Emission control items (anti-pollution) in or around the air box and engine (O<sub>2</sub> sensors, air injection devices)

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

### **6.6.35 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

Toolkit

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)

#### **6.6.36 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

#### **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: **165** kg, for 1200cc 2 cylinders **171** kg

#### **FIM 2.4.7 Tyres**

The number and brand of the tyres is free.

Wheel diameter and rim width must remain as originally homologated. It can also be used rim with dimensions 3.5 x 16.5" or 3.75 x 16.5" for the front wheel and 6.25 x 16.5" for the rear wheel.

### **Meeting of Alpe Adria Road Racing Commission**

Mestre, 10<sup>th</sup> December 2011

Günther Zaritsch

AAMU President Road Racing Commission

Gerhard Ittner  
ACCR

Luigi Favarato  
FMI

Dean Grbac  
HMS

Attila Nagy  
MAMS

Martin Suchý  
OeAMTC

**Ladislav Snegon**  
SMF

Jazek Molik  
PZM

**APPENDIX B – rel.1****LIST OF HOMOLOGATED CDI AND WIRE HARNESS MODELS (PROVISIONAL)**

Make and Model	ECU		Wiring harness		Max r.p.m.	Suggested price VAT excl.
	Std	Kit	Std	Kit		
DUCATI 749 R	28641121D	28640421A (a)	51013232A	51013041A	13.500	----
HONDA CBR 600RR (2006)	38770-MEE-D01	38700-NL-900 (b)	32100_MEE-D00	32100-MEE-R20 (c)	16.000	----
HONDA CBR 600RR (2007)	38770-MFJ-D04	38770-N1A-D00	32100-MFJ-D02	32100-MFJ-R00	16.000	----
HONDA CBR 600RR (2009)						
KAWASAKI ZX 600 (2006)	21175-0047	21175-0074 (d)	26031-0248 (e)	26031-0326	15.100	----
KAWASAKI ZX 600 (2008)	27008 - 5030	21175 - 0145	26031 - 0665	26031 - 0558	16.000	712 €
KAWASAKI ZX 600 (2009)						
SUZUKI GSX 600 (2006)		490-568-0000		406-568-0000	TBA	-----
SUZUKI GSX 600 (2008)	32920 – 37H00	----	36610 – 37H10	—	TBA	-----
TRIUMPH 675	T1292102/ T1293100	A9618070	T2501666/ T2501659	A9618071	TBA	625 €
TRIUMPH 675 (2009)						
YAMAHA R6 (2006)	2CO-8591A-00	2CO-F533A70	2CO-82590-00	2CO-F2590-70	16.000	-----
YAMAHA R6 (2008)	13S-8591A – 00	2CO-8591A - 80	13S-82590 – 00	13S-8533A – 70	16.000	533 €

- (a) With: Timing gears cod. 171.2.017.1B + pick up kit  
(b) With: Connecting unit cod. 3880-NL3-750  
(c) With: Assy kill switch cod. 35130-NL3-750  
(d) With: Adapter cod. 26031-0327 for ECU kit  
(e) With: PC con. unit cod. 26031-240

<b>Motorcycle / Make</b>	<b>Bike minimum weights</b>	<b>Bike noise (dB/A)</b>	<b>Throttle body diameter</b>
Honda CBR600RR M.Y. 09	160 kg No ABS		40 mm
Honda CBR600RR M.Y. 09	170 kg with ABS		40 mm
Kawasaki ZX600P	164 kg		38 mm
Suzuki GSXR600	170 kg		40 mm
Triumph 675	165 kg		44 mm
Yamaha YFZ-R6	165 kg		41 mm
<b>Supersport</b>			
Honda CBR600RR (PC40)	161 kg		40 mm
Kawasaki ZX600 R F	161 kg		38 mm
Suzuki GSXR600	161 kg		40 mm
Triumph 675	161 kg		44 mm
Yamaha YFZ-R6	161 kg		41 mm
<b>Stocksport 1000</b>			
Aprilia RSV(09/1)	174 kg		48 mm
Aprilia RSV (09/2)	173 kg		48 mm
BMW S1000RR	176 kg		48 mm
BMW S1000 R (ABS)	180 kg		48 mm
Ducati 1198 S	171 kg		73.5 x 53.8 mm
Honda CBR1000 RR9	169 kg		44 mm
Honda CBR1000 RR9 (ABS)	178 kg		44 mm
Kawasaki ZX10R	174 kg		47 mm
KTM RC8R	165 kg		
MV Augusta F4	178 kg		
Suzuki GSXR1000 K9	177 kg		44 mm
Yamaha YFZ-R1	187 kg		45 mm
<b>Superbike</b>			
Aprilia RSV(09/1)	165 kg		48 mm
Aprilia RSV (09/2)	165 kg		48 mm
BMW S1000RR	165 kg		48 mm
BMW S1000 R (ABS)	165 kg		48 mm
Ducati 1198 S	165 kg		73.5 x 53.8 mm
Honda CBR1000 RR9	165 kg		44 mm
Honda CBR1000 RR9 (ABS)	165 kg		44 mm
Kawasaki ZX10R	165 kg		47 mm
KTM RC8R	165 kg		
MV Augusta F4	165 kg		
Suzuki GSXR1000 K9	165 kg		44 mm
Yamaha YFZ-R1	165 kg		45 mm