

# ALPE ADRIA MOTORCYCLE UNION

## VINTAGE – 125SP – 125GP – 250GP/SP TECHNICAL REGULATIONS (AAVTR) 2023

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## 1 AAVTR 01 CATEGORIES

Vehicle classes taking part in Alpe Adria Championship for historic Motorcycles are basically split into two categories:

- a. CATEGORY "OLDTIMER"
- b. CATEGORY "CLASSIC"

## 2 AAVTR 02 GENERAL

- a. The difference between these two categories only concerns the year of construction of the motorcycles, not their technical characteristics.
- b. For competing in this championship, motorcycles must be in accordance with this regulation; design and form have to remain the same as in the year of construction.
- c. Technical characteristics have to be in accordance with the state of the technology used in the year of construction, or in common usage during this time. Every modification must be proofed by the rider using either original technical documents or special motorcycle magazines of that period.
- d. National registration documents with pictures, or national technical passports issued by an FMNR are obligatory as a proof of the year of construction, type of motorcycle and engine capacity.
- e. All motorcycles must be fitted with oil drain tray, which must be able to catch all engine and gearbox fluids in case of a leakage
- f. Coolant fluid must only consist of water, no additives allowed.
- g. Oil drain-, checking-, and refilling plug, as well as oil filters, must be secured by wiring.
- h. Lightening devices, turning indicators, license plates have to be dismounted (no pasting over allowed).
- i. Fin chain guard is obligatory.

## 3 AAVTR 03 Category OLDTIMER up to 1972 max.

Oldtimer up to 250ccm:	2 & 4 stroke	y.o.c. max. 1972
Oldtimer up to 500ccm:	2 & 4 stroke	y.o.c. max. 1972
Oldtimer over 500ccm:	4 stroke	y.o.c. max. 1972

### 3.1 Engine

- a. Maximum admissible bore tolerance is the 3rd oversize to the original measurement.
- b. For Honda CB twins 350/450/500ccm: For valve springs only torsion bars are allowed, no coil springs.

### 3.2 Carburettors

- a. Carburettors must be original or new-made replicas looks like the period one, dimension is free.
- b. Makes accepted: CR, AMAL, MK2, Dell'Orto, BING, Mikuni, Gardner, etc.
- c. No flat slides allowed (except Gardner)

### 3.3 Exhaust

- a. **The maximum noise level is 105 dB/A at 7000 RPM with a tolerance of + 3dB/A after the race only.**
- b. Noise level may be checked at any time by the scrutineers, without any notice!

### 3.4 Frame

- a. Must be stock, special constructions must be period specific.

### 3.5 Chassis

- a. Front Forks must be stock or from period, maximum diameter is 35mm.
- b. No upside-down forks allowed.

- c. Rear suspension: Only twin-shocks are allowed, external oil or gas tanks are not allowed.

### 3.6 Brakes

- a. Must be the same model and dimensions as stock.
- b. Maximum two piston brake callipers (Lockheed, Brembo permitted).
- c. Max. brake disc diameter is 300mm.
- d. No free or partly floating brake discs allowed.
- e. No radial brake cylinders allowed.

### 3.7 Wheels & Tyres

- a. Only spoke wheels allowed, minimum diameter 18".
- b. Tyres must be free available on the market, no slicks allowed.

### 3.8 Technical & electronic devices

- a. Modern race technical and electronic devices are forbidden.
- b. The use of titan, carbon and composite materials is forbidden.

### 3.9 Starting numbers & backgrounds

Oldtimer up to 250ccm:	Background: Green	Number: White
Oldtimer up to 500ccm:	Background: Yellow	Number: Black
Oldtimer over 500ccm:	Background: Yellow with black frame	Number: Black

- a. Numbers must be clearly visible and readable, mounted at the front and both lateral sides.
- b. Compulsory colours must be strictly respected!
- c. In case of a dispute concerning the legibility of numbers and backgrounds, the decision of the Chief Technical Steward is final.

## 4 AAVTR 04 Category CLASSIC

Classic 500	up to 500 ccm	4 stroke	y.o.c. max. 1983
	up to 350 ccm	2 stroke, air cooled only	
Classic 750	up to 750 ccm	4 stroke	y.o.c. max. 1983
	over 350 up to 500 ccm	2 stroke, air cooled only	
	up to 350 ccm	2 stroke, liquid cooled	
Classic Legend	up to 1000 ccm / 2 Cyl. up to 750 ccm / 4 Cyl.	4 stroke	y.o.c. max. 1993
	up to 500 ccm	2 stroke, liquid cooled	
Classic Open	4 stroke open; engines must be naturally aspirated		y.o.c. max. 1993
	2 stroke open		

*Classic Legend* is open only to motorcycles up to year of construction 1993, that types have participated in **Superbike or Moto GP** World Championship. The types permitted are those of motorcycles listed in the Annex 1 and their predecessor models deployed in competition until 1993.

*Classic Open* is open for all motorcycles up to year of construction 1993, which do not correspond to one of the other classes mentioned in this regulation, as well as replicas, production racers, prototypes and custom-built bikes.

#### **4.1 Engine**

- a. All performance components must respect class and year of construction concerned.

#### **4.2 Carburettors**

- a. Carburettors must be original or new-made replicas looks like the period one, dimension is free.

#### **4.3 Exhaust**

- a. **The maximum noise level is 105 dB/A at 7000 RPM with a tolerance of + 3dB/A after the race only.**
- b. Noise level may be checked at any time by the scrutineers, without any notice!

#### **4.4 Frame**

- a. For classes Classic 500, Classic 750, Classic Legend:  
Frame must be stock, if special built frames are used, they must be in accordance to the period provided they had been used originally (Bimota, Egli, Moko, Harris, etc.).
- b. For class Classic Special Open:  
Technical upgrades, young timer, self-made/custom built are allowed.

#### **4.5 Chassis**

- a. Front Forks must be stock or from period, maximum diameter is 43mm.
- b. No upside-down forks allowed – except for Classic Legend (when originally mounted) and for Classic Special Open.
- c. Rear suspension: Shocks must be stock or from period, mono-shocks only when originally mounted.
- d. Classic Legend (when originally mounted) and Classic Special Open: Upside-down forks, mono-shocks and single-sided swing arms are permitted.

#### **4.6 Brakes**

- a. For classes Classic 500 and Classic 750:  
Two piston brake callipers, no radial brake pumps.
- b. Classic Legend and Classic Special Open:  
Brakes are free, period-typical modifications are allowed.

#### **4.7 Wheels & Tyres**

- a. For classes Classic 500, Classic 750:  
Rim diameter only 16" 18" 19".
- b. Classic Legend and Classic Special Open:  
Wheels/Tyres are free, 17" permitted.
- c. For all classes: Tyres must be free available on the market, no slicks allowed.

#### **4.8 Technical & electronic devices**

- a. Modern race technical and electronic devices are forbidden.

#### **4.9 Starting numbers & backgrounds**

Classic 500ccm	Background: Yellow	Number: Red
Classic 750 ccm	Background: Red	Number: White
Classic Legend	Background: White	Number: Black
Classic Open	Background: Black	Number: White

- a. Numbers must be clearly visible and readable, mounted at the front and both lateral sides.
- b. Compulsory colours must be strictly respected!
- c. In case of a dispute concerning the legibility of numbers and backgrounds, the decision of the Chief Technical Steward is final.

## **5 AAVTR 05 General Regulations for classes 125 SP - 125 GP – 250GP/SP**

### **5.1 General**

- a. Amendments to the technical regulations may be made by the Alpe Adria Road Racing Commission at any time.
- b. Each rider can pass the Technical Control with one motorcycle only. The Technical Stewards should re-inspect any motorcycle that has been involved in any accident, and if it is necessary to issue a new technical control sticker for a rebuilt motorcycle. If a motorcycle is completely damaged, the Chief Technical Steward can allow the rider to pass the Technical Control with a second motorcycle. But at any time of the event only one motorcycle per rider and class is allowed.
- c. During practices: If a motorcycle is found not to be in conformity with the technical regulations during or after the practices, its rider will be given a penalty for the event such as a ride-through, a drop of any number of grid positions for the next race, suspension and/or withdrawal of Championship or Cup points.
- d. After a race: If a motorcycle is found not to be in conformity with the technical regulations after a race, its rider will be given a penalty such as time penalty or disqualification.
- e. 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.
- f. Random technical controls may be carried out during practices and at the end of practices in the technical control area.
- a. The rider is at all times responsible for his motorcycle.

### **5.2 Protective clothing and helmets**

- a. 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.
- b. Linings or undergarments must not be made of a synthetic material which might melt and cause damage to the rider's skin.
- c. Riders must also wear leather gloves and boots, which with the suit provide complete coverage from the neck down.
- d. Leather substitute materials may be used, provided they have been checked by the Chief Technical Steward.
- e. 0.1.5 Use of a back protector is mandatory.
- f. 0.1.6 Riders must wear a helmet which is in good condition, provides a good fit and is properly fastened.
- g. 0.1.7 Helmets must be of the full face type and must conform to one of the recognised international standards:
  - Europe: ECE 22-05, (P)
  - Japan: JIS T 8133 : 2007 (valid until 31.12.2019); JIS T 8133 : 2015
  - USA: SNELL M 2010 (valid until 31.12.2019); SNELL M 2015
 Helmets with double D-Ring fasteners are mandatory!
- h. Visors must be made of a shatter-proof material.
- i. Disposable "tear-offs" are permitted.

- j. Any question concerning the suitability or condition of the riders clothing and/or helmet should be decided by the Chief Technical Steward, who can, if he wishes so, consult the manufacturers of the product before making a final decision.

### 5.3 Additional equipment

- a. Brake lever protection:  
Motorcycles must be equipped with a brake lever protection, intended to protect the handlebar brake lever from being accidentally activated in case of collision with another motorcycle.  
Composite materials for handlebar protection are not permitted.  
The Chief Technical Steward has the right to refuse any guard not satisfying this safety purpose.
- b. Chain guard:  
All motorcycles must be equipped with a chain guard in such a way to reduce the possibility that any part of the rider's body may become trapped between the lower chain run and the final drive sprocket at the rear wheel.
- c. Rear safety light:  
All motorcycles must be equipped with a functioning red light mounted at the rear of the seat, to be used during Wet Races or in low visibility conditions, as declared by the Race Direction.
- d. All lights must comply with the following:
  - i. Lightning direction must be parallel to the motorcycle centre line (motorcycle running direction), and be clearly visible from the rear at least 15 degrees to both left and right sides of the motorcycle centre line.
  - ii. The rear light must be mounted near the end of the seat/rear bodywork and approximately on the motorcycle centre line, in a position approved by the AA Chief Technical Steward. In case of dispute over the mounting position or visibility, the decision of the AA Chief Technical Steward will be final.
  - iii. Power output/luminosity equivalent to approximately 10-15 W (incandescent) or 0.6-5 W (led).
  - iv. The output must be continuous - no flashing safety light whilst on track is allowed. The flashing is allowed in the pit lane when the pit limiter is active.
  - v. The safety light power supply may be separated from the motorcycle.
  - vi. The Chief Technical Steward has the right to refuse any light system not satisfying this safety purpose.
- e. 0.2.4 Kill switch:  
All motorcycles must be equipped with a functional ignition kill switch or button mounted on the right hand handlebar (within reach of the hand while on the hand grips) that is capable of stopping a running engine. The button or switch must be RED.

## 6 AAVTR 06 Technical Regulations Class 125 SP

### 6.1 General

These rules are exclusively 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 motorcycles from the year 2015 on. For these motorcycles, a complete technical documentation, including tolerances, must be published by the manufacturer.

As the name Sport Production implies, the motorcycles 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).

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

## **6.2 Weight**

- a. The minimum weight of the motorcycle is 110 kg without oil and fuel.
- b. In the final inspection at the end of the race, the checked motorcycles will be weighed in the condition they were at the end of the race.
- c. At any time of the event, the weight of the whole motorcycle (including the tank) must not be less than the minimum weight.
- d. There is no tolerance on the minimum weight.
- e. During the final inspection at the end of the race, the selected motorcycles will be weighted in the condition they finished the race, and the established weight limit must be met in this condition. Nothing may be added to the motorcycle. This includes all fluids.
- f. During the practice and qualifying sessions, riders may be asked to submit their motorcycle to a weight control. In all cases the rider must comply with this request.

## **6.3 Starting numbers & backgrounds**

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.

## **6.4 Fuel, oil and coolants**

- a. 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 Appendix D below).
- b. The only liquid engine coolants permitted other than lubricating oil shall be water or water mixed with ethyl alcohol.

## **6.5 Specifications**

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

### **6.5.1 Frame body & rear sub frame**

- a. Frames must remain as originally produced by the manufacturer for the homologated motorcycles.
- b. 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.
- c. Nothing can be added by welding or removed by machining from the frame body.
- d. All motorcycles must display the manufacturers' vehicle identification number on the frame body (chassis number).
- e. Engine mounting brackets or plates must remain as originally produced by the manufacturer for the homologated motorcycle.
- f. The rear sub frame must remain as originally produced by the manufacturer for the homologated motorcycles.
- g. Protrusive, not-stressed brackets can be removed on request of the Chief Technical Steward if he supposes they can be dangerous.
- h. Additional seat brackets may be added but none may be removed. Bolt-on accessories to the rear sub-frame may be removed.
- i. The paint scheme is not restricted but polishing the frame body or sub frame is not allowed.



- j. It is allowed to remove the top engine mount connecting the cylinder to the frame of the motorcycle.

#### 6.5.2 Front fork

- a. The fork structure (spindle, stanchions, bridges, stem, etc.) must remain as originally produced by the manufacturer for the homologated motorcycle.
- b. Standard original internal parts of the forks may be modified.
- c. Aftermarket damper kits/cartridges or valves may be installed but the external view of the fork must remain as homologated.
- d. The fork caps can be modified or changed to add spring preload/compression adjusters.
- e. Any quality and quantity of oil can be used in the front forks.
- f. The height and position of the front fork in relation to the fork crowns is free.
- g. The upper and lower fork clamps (triple clamp, fork bridges) must remain as originally produced by the manufacturer on the homologated motorcycle.
- h. A steering damper may be added or replaced with an after-market damper.
- i. The steering damper cannot act as a steering lock limiting device.

#### 6.5.3 Rear fork (swing arm)

- a. Each part of the rear fork must remain as originally produced by the manufacturer for the homologated motorcycle (including rear fork pivot bolt and rear axle adjuster).
- b. The swing arm can be modified to permanently fix the rear brake calliper support by welding, drilling or using thread repair inserts.
- c. 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.
- d. For safety reasons it is compulsory to use a chain guard made of plastic rigid material fitted in such a way as to prevent trapping between the lower chain run and the final drive sprocket at the rear wheel.

#### 6.5.4 Rear suspension unit

- a. The rear suspension unit (shock absorber and its spring) may be modified or replaced.
- b. 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 of the homologated motorcycle.

#### 6.5.5 Wheels

- a. Wheels must remain as originally produced by the manufacturer at the time of sale into the dealer/distributor network for the homologated motorcycle.
- b. The speedometer drive may be removed and replaced with a spacer.
- c. No modification of the wheel-axes or any fixing and mounting points for front and rear brake calliper are authorized. Spacers can be modified. Modifications of the wheels to keep spacers in place, are permitted.
- d. If the original design includes a cushion drive for the rear wheel, it must remain as originally produced for the homologated motorcycle.
- e. Wheel diameter and rim width must remain as originally homologated.

#### 6.5.6 Brakes

- a. It is allowed to use the front and rear brake disc, including the follower, from another manufacturer as it was on the homologated motorcycle. Brake disc and follower must be of the same material as the homologated ones. The outer and inner diameter of the disc must remain the same as the homologated one. The thickness of the brake disc may be increased by 20%, but the original brake calliper must be used without any modifications. The method of attachment of the followers to the wheel must remain the same as on the homologated motorcycle.

- b. Front discs can be made floating, using original rotors and mounting points.
- c. The front and rear brake calliper (mount, carrier, hanger) must remain as originally produced by the manufacturer for the homologated motorcycle.
- d. The rear brake calliper bracket may be mounted 'fixed' on the swing arm, but the bracket must maintain the same mounting (fixing) points for the calliper as used on the homologated motorcycle. A modification of these parts is authorized. The swing arm may be modified for this reason to aid the location of the rear brake calliper bracket, by welding, drilling or by using thread repair inserts.
- e. Front and rear master cylinder must remain as originally produced by the manufacturer for the homologated motorcycle.
- f. Front and rear brake fluid reservoir can be changed with an aftermarket product.
- g. 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).
- h. "Quick" (or "dry-brake") connectors in the brake lines are authorized.
- i. Front and rear brake pads may be changed. Brake pad locking pins may be modified to quick-change type.
- j. Additional air scoops or ducts are not allowed.

#### 6.5.7 Tyres

- a. Tyres must be 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.
- b. Wet weather tyres may only be used after the race or practice is declared "wet" by the Clerk of Course.
- c. Wet tyres do not need to carry DOT or E mark; however, these tyres must be marked "Not for Highway Use" or "NHS".
- d. The use of tyre warmers is allowed.

#### 6.5.8 Footrests & foot controls

- a. Foot rest/foot controls may be relocated but brackets must be mounted to the frame at the original mounting points.
- b. 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.
- c. Disburdening support staff of the foot rests is allowed.
- d. Foot rests may be rigidly mounted or of a folding type which must incorporate a device to return them to the normal position.
- e. The end of the foot rest must have at least an 8 mm solid spherical radius.
- f. 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).
- g. 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.

#### 6.5.9 Handle bars & hand controls

- a. Handle bars may be replaced (this does not include brake master cylinder).
- b. Handle bars and hand controls may be relocated.
- c. Throttle assembly and associated cables may be modified or replaced.
- d. Clutch and brake lever may be exchanged by an after-market copy.
- e. Switches can be changed but engine stop switch must be located on the handle bars.

#### 6.5.10 Fairing & body work

- a. Fairing, front mudguards and body work may be replaced with the exact cosmetic duplicates of the original parts but must appear to be as originally produced by the manufacturer for the homologated motorcycle, with the 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.
- l. It is allowed to remove a side deflector from both front sides of the fairing.

#### 6.5.11 Fuel tank

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

#### 6.5.12 Seat

- a. 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.
- b. The top portion of the rear body work around the seat may be modified to a solo seat.
- c. The appearance from both front rear and profile must conform to the homologated shape.
- d. The seat/rear cowl replacement must allow space for proper number display.

#### 6.5.13 Wiring harness

- a. 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).

#### 6.5.14 Electrical equipment

- a. The disposition of the different components could be repositioned.
- b. The electrical commands on the handle bars could be eliminated. The engine stop switch must be fixed.
- c. The Electronic Control Unit (ECU) is free.

- d. The mechanisms that could allow interventions in order to change the declared curve (map) or ignition timing during the race are not allowed.
  - e. 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.
  - f. The loading circuit of the battery could be off during the race.
  - g. 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
  - h. 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 carburettor fixed on the motor – as in the case of injection devices.
- 6.5.15 Air filter
- a. The air filter can be removed; the box of the filter can be removed or used, completely or partially maintaining the original attachments.
  - b. It's allowed to add to the filter box eventual linkages connecting the vents, carburettor and fuel tank.
  - c. It's allowed to change parts of the original filter box so that it can serve as air conveyer.
- 6.5.16 Carburettor & reed valves
- a. It's allowed to use the carburettor homologated for a new model of motorcycle in all older models of the same make.
  - b. The maximum diameter of the carburettor in the venture section must be 28 mm.
  - c. Carburettor jets, slide spring and needles may be replaced.
  - d. The slide metering holes may not be changed.
  - e. Electronic or mechanical cold start devices must remain installed but may be deactivated.
  - f. The bell mouth (trumpet) of the carburettor can be modified, removed or replaced.
  - g. The number and thickness of the reed valve plates is free. The stoppers can be modified, removed or replaced.
  - h. It is allowed to use any complete suction valves (reed valve case, plates, stops) with any filler flap. It is allowed to modify the original intake manifold (works between carburettor and reed valve case).
- 6.5.17 Lubrication & cooling system
- a. The system of lubrication is free. It's allowed to remove the oil - gasoline mixer and all its parts.
  - b. The radiator cap is free; you can remove the expansion tank with on tubing.
  - c. Protection network and an air conveyor attached to the radiator to improve cooling could be installed.
  - d. The air conveyor set below the bottom plate fork may be modified or replaced.
  - e. Removing the thermostatic valve is allowed.
  - f. The installation of a water thermometer is allowed.
- 6.5.18 Cylinder, cylinder head & piston
- Cylinder: No modifications except written below are allowed:
- a. The cylinders cannot be replaced and must remain original.
  - b. The cylinders can be rebuilt only on manufacturer's limits.
  - c. The number of the cylinder ports must remain as original.
  - d. The size, shape of the exhaust port, scavenging and inlet ports are free.
  - e. The exhaust port polishing is allowed to reduce the gas residue deposits.
  - f. 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.
  - g. 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 must not exceed the 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 centre. The oil will be poured through the spark plug hole into the combustion chamber oil with viscosity class SAE 10W, until it reaches its last thread and this volume must be at least 12.3 cm<sup>3</sup>. It is allowed to use any cylinder head insert with any shape of the combustion chamber.

Piston: The piston may be the original one or one of the kit or any available aftermarket, but it must be the same dimension as the homologated one to retain the original bore and stroke indicated on the homologation list.

6.5.19 Crankshaft, crankcase & all other engine cases

- a. The crankshaft flywheel must be the same as the original one.
- b. The Connecting rod could be changed with any available aftermarket, but the length must be same as by the original one.
- c. The installation of aluminium or bronze bushings to restore the seats of the bearings of the crankshaft is allowed.
- d. These bushings must have a cylindrical shape and maximum diameter of 70mm.
- e. The measures of the bearings must remain original.
- f. Painting, polishing and lightening are not allowed.

6.5.20 Clutch & transmission

- a. No modifications are allowed.
- b. Only friction and drive discs may be changed, but their number must remain as in original version.
- c. Clutch springs may be changed.
- d. 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.
- e. The final drive (drive and driven sprocket, chain) is free.
- f. It is allowed to use any sprockets and chain for any end-chain transmission.

6.5.21 Generator

- a. No modifications are allowed.

6.5.22 Exhaust system

- a. The exhaust can be replaced.
- b. **The maximum noise level is 96 dB/A at 7000 RPM with a tolerance of + 3dB/A after the race only.**
- c. The location of the silencer must remain as in original version.
- d. Wrapping of the exhaust system is not allowed.
- e. Titanium and carbon exhaust pipes and silencers are allowed.
- f. For safety reasons the exposed edge(s) of the exhaust pipe(s) outlet must be rounded to avoid any sharp edges.

6.5.23 Fasteners

- a. Standard fasteners may be replaced with the 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.
- b. Fasteners may be drilled only for mounting a safety wire, but intentional weight-saving modifications are not allowed.
- c. Fairing/body-work fasteners may be changed to a quick disconnect type.
- d. Aluminium fasteners may only be used in non-structural locations.

6.5.24 The following items MAY BE altered or replaced

- a. Any type of lubrication, brake or suspension fluid may be used.
- b. Any type of spark plug may be used.
- c. Any inner tube (if fitted) or inflation valves may be used.
- d. Wheel balance weights may be discarded, changed or added.

- e. Gaskets and gasket materials (with the exception of cylinder gaskets).
  - f. Painted external surface finishes and decals.
- 6.5.25 The following items MAY BE removed
- a. Instrument and instrument bracket and associated cables.
  - b. Horn.
  - c. Tool box.
  - d. Tachometer.
  - e. Speedometer.
  - f. Light switch.
  - g. Signal (Horn) switch.
  - h. Turn signal switch.
  - i. Radiator fan and wiring.
  - j. Chain guard as long as it is not incorporated in the rear fender.
  - k. Bolt on accessories on a rear sub frame.
- 6.5.26 The following items MUST BE removed
- a. Headlamp, rear lamp and turn signal indicators (when not incorporated in the fairing).
  - b. Openings must be covered with suitable materials.
  - c. Rear-view mirrors.
  - d. License plate bracket.
  - e. Helmet hooks and luggage carrier hooks.
  - f. Passenger foot rests.
  - g. Passenger grab rails.
  - h. Safety bars, centre and side stands must be removed (fixed brackets must remain).
- 6.5.27 The following items MUST BE altered
- a. 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. The button or switch must be RED.
  - b. Throttle controls must be self-closing when not held by the hand.
  - c. All drain plugs, oil filler caps and oil dip sticks must be wired. External oil filter(s) screws and bolts that enter an oil cavity must be safety wired (i.e. on crankcases).

## **7 AAVTR 07 Technical Regulations Class 125 GP**

### **7.1 125 GP Class specifications**

125 Over 80cc up to 125cc – Maximum one cylinder.

### **7.2 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 =	$D^2 \times 3,1416 \times S$
	4

D = Diameter; S = Stroke

No tolerance on capacities is permitted.

Engine capacity must be measured at ambient temperature.

### **7.3 Gears**

There is a maximum of six gears.



## 7.4 Weight

The minimum weight permitted:

The minimum weight in the 125GP class is: Motorcycle 70 kg.

There is no tolerance on the minimum weight.

During the final inspection at the end of the race, the selected motorcycles will be weighted in the condition they finished the race, and the established weight limit must be met in this condition.

Nothing may be added to the motorcycle. This includes all fluids.

## 7.5 Fuel tank

- a. Fuel caps must be leak proof and have a positive closing device.
- b. 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.
- c. Fuel tanks of all construction types must be completely filled with fire-retardant material (open-celled mesh, i.e. "Explosafe®") 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/carburettor 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.

## 7.6 Safety & construction criteria

### 7.6.1 Throttle twist grips

Throttle twist grips must close automatically when released.

### 7.6.2 Steering

- a. 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.
- b. There must be at least 15 degrees of movement of the steering to each side of the centre line.
- c. 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.
- d. 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.

### 7.6.3 Brakes

- a. Motorcycles must have a minimum of one brake on each wheel that is independently operated.
- b. Only brake discs of ferrous material are allowed.

### 7.6.4 Exhausts

- a. The outlet of the exhaust must not extend behind a line drawn vertically through the edge of the rear tyre.
- b. For safety reasons the exposed edge of the exhaust pipe must be rounded to avoid any sharp edges.
- c. **The maximum noise level is 105 dB/A at 7000 RPM with a tolerance of + 3dB/A after the race only.**

### 7.6.5 Footrests

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

### 7.6.6 Handlebar levers

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

### 7.6.7 Bodywork

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

- b. 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 (except exhaust pipes).
  - c. 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.
  - d. When viewed from the side, it must be possible to see:
    - i. At least 180 degrees of the rear wheel rim.
    - ii. The whole of the front rim, except the part covered by the mudguard, fork or removable air-intake.
    - iii. The rider, seated in a normal position with the exception of the forearms.
  - e. Note: No transparent material may be used to circumvent the above rules.
  - f. No part of the motorcycle can be behind a line drawn vertically at the rearward edge of the rear tyre.
  - g. 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.
  - h. Any on-board camera/antenna mounted on the seat unit is not included in this measurement.
  - i. Mudguards are not compulsory. When fitted, front mudguards must not extend:
    - i. In front of a line drawn upwards and forwards at 45 degrees from a horizontal line through the front wheel spindle.
    - ii. Below a line drawn horizontally and to the rear of the front wheel spindle.
  - j. 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.
  - k. 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.
  - l. Moving aerodynamic devices are prohibited.
- 7.6.8 Clearances
- a. 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.
  - b. 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.
- 7.6.9 Breather pipes
- a. Any breather pipe from the engine or gearbox must discharge into a suitable container with a minimum capacity of 250cc.
  - b. There must be a separate container for each breather pipe.
- 7.6.10 Materials
- a. 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.
  - b. For wheel spindles, the use of light alloys is also forbidden.
- 7.6.11 Chain guards
- a. 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.
- 7.6.12 Suspension & dampers
- a. Electric/electronic controlled suspension, ride height and steering damper systems are not allowed.
  - b. Adjustments to the suspension and steering damper systems may only be made by manual human inputs and mechanical/hydraulic adjusters.

## 7.7 Rims

Maximum rim widths are as follows:



125 GP	Front	Rear
	2,5" maximum	2,5" maximum

### 7.8 Starting numbers & backgrounds

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

### 7.9 Fuel, oil & coolants

- 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 AACR Technical Regulations).
- The only liquid engine coolants permitted other than lubricating oil shall be water or water mixed with ethyl alcohol.

## 8 AAVTR 08 Technical Regulations Class 250GP/SP

Look at the code FIM Europe Road Racing (2014 - 2.6).

Decisions concerning changes are up to the Jury President of the event, together with the Chief Technical Steward!

## Annex No. 1

### Motorcycle types permitted for Classic Legend category

Motorcycles of the year 1984-1993 type participating in the World Championship Superbike or Moto GP

4-stroke motorcycles: volume from 601 to 1000 cc / 2-cylinder, or 750 cc / 4-cylinder

2-stroke motorcycles: volume up to 500 cc

The newest 4-stroke motorcycles permitted Superbike specification (their older and previous models raced in 1984-1993 are also permitted):

Type	Specification
1993 Ducati 888	<a href="https://www.motorcyclespecs.co.za/model/ducati/ducati_888sp5.htm">https://www.motorcyclespecs.co.za/model/ducati/ducati_888sp5.htm</a>
1993 Honda VFR 750R (RC30)	<a href="https://www.motorcyclespecs.co.za/model/Honda/honda_vfr750rc30_90.html">https://www.motorcyclespecs.co.za/model/Honda/honda_vfr750rc30_90.html</a>
1993 Kawasaki ZX-R 750 J2	<a href="https://www.motorcyclespecs.co.za/model/kawasaki/kawasaki_zxr750j%2092.htm">https://www.motorcyclespecs.co.za/model/kawasaki/kawasaki_zxr750j%2092.htm</a>
1993 Suzuki GSX-R 750WP	<a href="https://www.motorcyclespecs.co.za/model/suzu/suzuki_gsxr750%2093.htm">https://www.motorcyclespecs.co.za/model/suzu/suzuki_gsxr750%2093.htm</a>
1993 Yamaha FZR 750RR (OW01)	<a href="https://www.motorcyclespecs.co.za/model/yamaha/yamaha_fzr750r_OWO1_90.html">https://www.motorcyclespecs.co.za/model/yamaha/yamaha_fzr750r_OWO1_90.html</a>
1993 Yamaha YZF 750R	<a href="https://www.motorcyclespecs.co.za/model/yamaha/yamaha_yzf750r%2093.htm">https://www.motorcyclespecs.co.za/model/yamaha/yamaha_yzf750r%2093.htm</a>
1993 Bimota YB4 SP	<a href="https://www.motorcyclespecs.co.za/model/bimota/bimota_yb4_ei%20SP%2088.htm">https://www.motorcyclespecs.co.za/model/bimota/bimota_yb4_ei%20SP%2088.htm</a>