

# General technical regulations

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# General technical regulations

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The “ENDURANCE VINTAGE UEM CUP” is a cup comprised out of international races for vintage motorcycles.

Each race will be held over one single round and the teams will be composed out of 2 or 3 riders.

The present regulations are aimed at defining the manner and behaviour to which the organisers and all participants are submitted to by their entry.

## 1. Introduction

The motorcycles have to be built according to the under-mentioned point 4 of these General technical regulations and must have a minimum of two cylinders.

The motorcycles competing in to the “ European Classic Series” must be in their original configuration. If certain parts have been replaced, these should be similar to the original ones.

## 2. General items

### **2.1. General preparation**

4-stroke engine motorcycles must have a catch tank, enclosed on four sides and absorbent tissue on the bottom that can hold at least half of the lubrication and cooling liquids.

Engine, gearbox and cooling water breather pipes must discharge into a suitable container, with a minimum capacity of 500 cc.

All the drain bolts, oil filters, hoses and hose-bolts, oil filling caps and checking gauges of the engine and gearbox sumps have to be locked with safety wire, in order to prevent any bolt from loosening.

All motorcycles with liquid cooling, only the use of pure water or water mixed with ethyl alcohol is authorised.

Any pieces considered dangerous during technical scrutineering will have to be removed.

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

All handlebar levers (clutch, brake, and possibly the decompression) must be ball ended (diameter of this ball to be at least 16 mm).

### **2.2. Engine**

For the engine, particularities as per the mass-produced motorcycles need to be retained: numbers of valve, number of gear ratios, number of camshaft etc.

The engine sump housing has to comply with the original. However internal modifications are allowed.

The crankshaft stroke is free. The cylinder bore is free.

The preparation of the cylinder head is free as long as the camshaft and valve numbers remain the same as the original. However the cylinder head must correspond to the engine's original model.

Example: fitting the cylinder head of a Suzuki EFE (first model in March 1984) to a GSX engine is not allowed.

### **2.3. Ignition**

The ignition is free BUT the coils must comply with the coils from the period of production. Pencil coils are forbidden.

### **2.4. Supply**

The carburettor must be fitted with round bushels. Flat bushels are forbidden.

Fuel injection and forced induction systems are not allowed.

### **2.5. Handlebars**

Engine cut-out switch must be located on the handlebars, easily reachable by a rider's hand and must securely switch off the engine.

Throttle twist grip must close automatically when released.

Exposed handlebar extremities must be plugged with a solid material or rubber covered.

#### **2.6. Levers**

All handlebar levers must be ball ended (diameter of this ball to be at least 16 mm).

#### **2.7. Transmission**

Gearbox countershaft sprocket must be covered with a metallic protective shield.

A metallic cover has to completely shield the primary chain on engines with a separate gearbox.

A chain guard fitted in such a way as to prevent any direct physical contact possible between the chain-run and the sprockets with a thickness of 5 mm is recommended.

Back Torque Limiter (slipper clutch) is forbidden.

#### **2.8. Brakes**

The maximum diameter of fixed or semi floating discs is authorised as per the under-mentioned point 4. For safety reasons, semi-floating discs are authorised. It should be noted that the disc is considered "semi-floating" if the braking surface is fixed with pawls retaining springs for the axial backlash. Therefore a "semi-floating" disk will only move from the holder through axial forces while in the floating disc the braking surface is free to move axially.

The master cylinders from a motorcycle's period of reference are allowed. Callipers with 4 pistons or more are forbidden if not fitted as standard as well as a master cylinder with a separate oil reservoir, of recent manufacture.

Tying with wire bolts or fastening screws of the brake callipers to the fork is compulsory.

Quick brake system is forbidden.

#### **2.9. Wheels**

Diameter and rim widths according to the different classes.

Quick-change rear wheel set up is allowed.

**The rims have to respect the appearance of the bike's reference period.**

#### **2.10. Tyres**

Slick tyres, re-cut slick tyres and rain tyres are forbidden. Only tyres with a tyre tread similar those found in retail are authorised.

**The tyres and the wheels should not exceed the maximum width of their own class as foreseen under-mentioned point 4, widths are different for each class.**

Tyre warmers are forbidden, even in the pit box.

#### **2.11. Suspension**

Shock absorbers with an external reservoir are allowed.

#### **2.12. Fuel tank**

Fuel tank must be completely filled with a fire retardant material (i.e. Explosafe®).

Fuel tank may only have one filler cap, with a breather pipe that must discharge into a catch tank with a minimum volume of 250ml and made of a suitable material. If the bike retains two filler caps, one of these needs to be hermetically closed (a screwed on or bolted metal plate)

#### **2.13. Various**

Data recording systems are not allowed.

Accessories and exhaust silencers in carbon fibre are not permitted.

**Coloured bolts, nuts and fittings are forbidden. They have to be either black or in steel.**

### **3. Numbers and colours of the plates**

The motorcycles need to be equipped with solid, rectangular number plates with rounded edges. The dimensions of these plates need to have a minimum width of 285mm and height of 235mm.

The sizes of the numbers need to retain a height of 140mm, a width of 80mm and thickness of 25mm. For the

numbers with two digits, the digits have to be separated by a space of 15mm.

The three allocated number plates must be fitted to the bike as follows: one on the front, either in the centre or slightly off to one side of the bike, and two on each side of the rear of the bike. The tape used to attach the numbers needs to be retro-reflective. The number plates do not need to be lit, but may not be inclined by more than 30° vertically.

Class Maxi Classic: the number plates are black and the numbers are white

Class Classic 1000: the number plates are yellow and the numbers are black

Class 750: the number plates are white and the numbers are black.

Class 750 TT: the number plates are red and the numbers white.

## 4. Classes

### 4.1. Class - Maxi Classic

These motorcycles have to be built before December 31<sup>st</sup> 1982 and have a minimum of two cylinders. Displacement is free but must be superior to 340 cc.

The number of gears must remain the same as in the model's series.

Brakes: original fixed or semi-floating discs with a maximum diameter of 310mm. Floating discs are prohibited.

Wheels: 18 inches, maximum rim width 4 inches. The tires may not exceed a maximum width of 150mm.

Maximum diameter of front fork tubes 42 mm.

Special frames are allowed as long as the combination of frame-engine can be proven with historical documentation.

### 4.2. Class – Classic 1000

These motorcycles have to be built before December 31<sup>st</sup> 1981 and have a minimum of two cylinders. Maximum displacement of 1000 cc. A maximum displacement of 750 cc for motorcycles with 4 cylinders and 4 valves.

**Repairs as foreseen by the constructor are authorised.**

The number of gears must remain the same as in the model's series.

Wheels: 18 inches, maximum rim width 3,5 inches. The tires may not exceed a maximum width of 130mm.

Brakes: original fixed discs or reconditioned as during the motorcycle's production period with a maximum width of 300mm. Floating discs are not permitted. For safety reasons, semi-floating discs are allowed.

Maximum diameter of front fork tubes 38 mm.

For Ducati Pantah engines: crankcase with head studs 70 mm from the centre, must have exclusively only air cylinders and not cooled internally by liquid or oil, rear suspension with two shock absorbers.

Special frames are allowed a long as the combination of frame-engine can be proven with historical documentation.

At the end of the race the displacement might be checked.

### 4.3. Class - 750 TT

Only for motorcycles built in series up until **December 31<sup>st</sup> 1985**, 4 stroke engines up to 750cc, 2 valves per cylinder or 2 stroke engines, maximum 2 cylinders with a displacement between 340 and 500 cc.

**Repairs as foreseen by the constructor are authorised.**

The numbers of gears must remain the same as in the model's series.

Wheels: maximum rim width of 4 inches. The tires may not exceed a maximum width of 150mm.

Brakes: master cylinders of the bike's reference period are permitted. Original disc brakes or reconditioned as during the motorcycle's production period.

Front fork tubes of maximum 42 mm diameter.

For Ducati Pantah engine: crankcase with head studs 70 mm from the centre, with maximum piston stroke of 61,5

mm, must exclusively have only have air cylinders and not cooled internally by liquid or oil. Maximum displacement of 750 cc. Frames with mono shock absorbers are allowed.

For special frames can be requested documentation including frame-engine combination.

Special frames will be accepted as long as the combination of frame-engine can be proven with historical documentation.

At the end of the race the displacement might be checked.

## 5. Refuelling and rider change

The use of jerry cans, funnels or any other open system is strictly forbidden during refuelling.

The number of people assisting the refuelling is free. However some security regulations will be applicable:

- The rider has to step down from his motorcycle prior to the start of the refuelling procedure.
- It is compulsory to switch off the engine and the machine must be put on a stand during the refuelling. The machine must also be put on a stand during the change of rider.
- During the refuelling, no other intervention whatsoever may be carried out on the motorcycle;
- Refuelling (petrol sold at the petrol station) must take place after all mechanical interventions on the machine have been completed, before the rider tries to restart the machine. After refuelling should any further mechanical intervention be required to the machine this may only be carried out inside the team's allocated pit box;
- From the beginning of the official practices, each team must appoint one person for fire safety. This person must be equipped with a reliable extinguisher against fuel fires and is strictly obliged to be present during all refuelling operations.

All persons assigned to the refuelling (petrol), including the person responsible for the fire safety, and any person standing less than one meter from the motorcycle must wear suitable fire retardant clothing, a full face helmet with the visor closed or eye protection and a hood. This procedure is applicable during practice sessions and the race.

The pit marshal must be present during the refuelling. Each team must request the presence of a pit marshal before the refuelling.

The refuelling cells must mandatorily be covered (only the pouring hole may be open) and needs to be checked during technical scrutineering.

When filling only gravity is allowed to guide the fuel into the motorcycle's fuel tank. When the person in charge of the refuelling releases the refuelling cell's handle, the fuel should automatically stop running.

The refuelling may only be carried out with a quick fill system petrol can, with the opening being done either using a controlled device or pressing the can against the reservoir cap, and carried out by the person in charge of the refuelling. If the bike has two filler caps, one of these needs to be made inoperative.

A change of reservoir is permitted on condition that the connection and activation system has been verified and approved during the technical scrutineering, with both identical reservoirs being checked.

When filling the fuel cans, the persons in charge of this job must also wear their protective clothing.

It is prohibited to store fuel inside the pit box. For the transport of the fuel it is mandatory to use a metallic jerry can with a leak proof seal.

It is explicitly forbidden to smoke in, in front of or behind the pit boxes.

## 6. Reserve bike

The teams may use a second vehicle, also known as a "mule". A "T" letter will be placed alongside the numbers of this second motorcycle. Both bikes will have to pass the technical scrutineering

During the qualification sessions and the warm-up, the teams have the right to use both vehicles without restrictions (but both bikes cannot be on the track in the same time). At least one hour prior to the race, the team manager has to inform the race secretariat as to which motorcycle will be raced. This bike will be the only one allowed to compete during the race.

During the race, the motorcycle that does not compete must be outside the pit box. Should this bike be used during the race the team will be disqualified.

## 7. Lights

For the night-time races, each motorcycle must be equipped with a complete lighting system, in working condition and consisting of:

- a headlight that can be covered for day races. The Xenon bulb kits, fitted in optics not originally intended for this type of lighting, are forbidden. Xenon headlights, as originally foreseen for this equipment, are allowed. LED lights are allowed on condition that the headlight in which these LED lights are fitted conforms to the shape of the lights of that period (no additional headlights or light bars);
- a rear light comprised out of two independent bulbs with a minimum strength of 5W, plugged into two independent electrical circuits. The supply will be assured through the bike's energy or through additional batteries. LED lights are not authorised unless they are fitted in the original lights or have the same aspect as the lights from that period;
- For safety reasons the machine must be equipped with two separate light circuits. Each circuit must be comprised out of one front white (or yellow) headlight and one non-flashing red rear light. Each circuit must be controlled by a switch fitted to the handlebars and may not be controlled by the other circuit. The first circuit is controlled by a switch with an ON/OFF position and fitted on the right hand side of the handlebar. The second circuit must have a switch with an ON/OFF position and fitted to the left hand side of the handlebar; **(see annex 1 of the present rules)**
- A 60cm<sup>2</sup> reflector will be fitted to the rear of the bike.

During daytime races, the lighting system may be removed.

**Green, red or yellow additional lighting are forbidden.**

## 8. Protective clothing and helmets

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

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

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

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

**Use of a chest and back protector is highly recommended.**

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

**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 : 2007 (valid until 31.12.2019)**  
**JIS T 8133 : 2015**
- **USA : SNELL M 10 (valid until 31.12.2019)**  
**SNELL M 2015**

**Visors must be made of a shatterproof material.**

**Disposable "tear-offs" are permitted.**

## 9. Noise restrictions

Even after the various technical controls, all motorcycles can at any time be tested on noise. The maximum noise level allowed may not exceed 101 dB/A with a tolerance of 3 dB/A after the race.

The testing will be carried out done as per the FIM regulations.

## 10. Technical passport

The Technical Passport must accompany the motorbike in every circumstance and principally for the scrutineering.

This Technical Passport must specify:

- Frame number of the bike (or frame type should there be no number on the frame);
- Engine housing number;
- Displacement and exact size of the engine;
- List of the modifications carried out, together with photographs;

**The Technical Passport must be completed by the team 30 days prior to the first race in which it is competing and handed over to the ECS's technical person in charge. The technical passport will be sent out to the team manager once the team enters.**

Any modifications carried out during the season will imply an update of the Technical Passport, as also a new presentation of same to the ECS's technical person in charge.

The Technical Passport has to be presented, together with the bike, for scrutineering before each race.

ANNEX 1

