

Technical regulations

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Items in **BOLD** are new or been modified for 2018

TECHNICAL REGULATIONS

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

Each race will be held over one or more rounds, as defined in the specific regulations, with teams composed out of 2 or 3 riders.

The present regulations are aimed at defining the motorbikes allowed to compete in the European Classics Series (ECS) and the eventual modifications allowed.

1. Introduction

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

The motorcycles competing in to the European Vintage Cup 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 mandatorily have a catch tank, that can hold at least half of the lubrication and cooling liquids.

All tanks holding fuel, water, engine and gearbox oils must be fitted with breather pipes that must lead to a suitable container, with a minimum capacity of half a litre.

All the drain plugs, oil filters, exterior lubrication hoses, oil filler caps and checking gauges of the engine and gearbox sumps have to be locked with safety wire, in order to prevent any plug 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 rubber ball ended.

2.2. *Engine*

For the engine, particularities as per the mass-produced motorcycles need to be retained: such as number of cylinders, 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.

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*

For the Classic and Classic 1000 classes:

- The carburettors must be fitted with round bushels. Carburettors of the guillotine type (flat carburettors) are forbidden;
- Fuel injection and forced induction systems are forbidden.

2.5. *Handlebars*

Engine cut-out switch must be located on the handlebars, readily reachable, is mandatory.

Throttle twist grip must close automatically when released.

Exposed handlebar extremities must be plugged.

2.6. Levers

All levers must be ball ended (minimum 16 mm). The levers must be neither recut or rewelded

2.7. Transmission

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

A metallic cover must entirely 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.

It is **mandatory** to fit a chain protection pin between the lower part of the chain and the crown.

Anti-dribble clutch is forbidden.

2.8. Brakes

For the Maxi Classic and Classic 1000 classes:

- **The maximum diameter of fixed or semi floating discs is authorised in accordance with the under-mentioned point 4;**
- **The master cylinders from a motorcycle's period of reference are allowed. Callipers with 4 pistons or more are forbidden as well as master cylinders with a separate oil reservoir, of recent manufacture.**
- **Quick brake systems are forbidden.**

For the EVO class:

- **Floating discs are allowed;**
- **Quick brake systems are allowed.**

For all classes: Tying with wire bolts or fastening screws of the brake callipers to the fork is mandatory.

2.9. Wheels

Diameter and rim widths according to the different classes.

For the Classic and Classic 1000 classes: Quick-change rear wheel set up is allowed.

For the EVO class: the quick-change system for the two wheels 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 ratings foreseen in point 4 hereunder, ratings varying according to the class of motorbike.

Tyre warmers are forbidden, even in the pit box.

The promoter reserves the right to impose one single supplier be it for the entirety of the series as also for a specific class.

2.11. Suspension

Shock absorbers with an external reservoir are allowed.

2.12. Fuel cell

Fuel cell must contain a fire retardant material.

Fuel cell may only have one filler cap, with a breather pipe that must discharge into a catch tank with a minimum volume of 250ml. If the cell is fitted with 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 forbidden.

Accessories and exhaust silencers in carbon fibre are forbidden, except for the Evo class.

Telemetry and radio communications between the pit and motorbike or its rider are forbidden.

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.

Three allocated plates are mandatory and must be fitted as follows: one on the front of the motorbike, and the two others on each side of the rear of the motorbike. The tape used to attach the numbers needs to be retro-reflective. These may not be inclined by more than 30° from the vertical.

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

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

Class Evo: the plates are red and the numbers white.

4. Classes

4.1. *Maxi Classic class*

These motorcycles have to be built before **December 31st 1984**.

The engine must have a minimum of two cylinders and the displacement must be between 340 and **1200cc**.

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 forbidden.

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. *Classic 1000 class*

These motorcycles have to be built before December 31st 1981 and have a minimum of two cylinders and maximum displacement of 1000 cc. A maximum displacement of 750cc for motorbikes 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 inch, 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 forbidden. For safety reasons, semi-floating discs are allowed.

Maximum diameter of front fork tubes 38 mm.

For Ducati Pantah: sump with head studs 70 mm from the centre, air cylinder not foreseen for the internal cooling by liquid or air, rear suspension with twin shock absorbers.

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

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

4.3. *Evo class*

The motorbikes (year – model) must have been built between 1st January 1983 and 31st December 1991.

The engines, 2 or 4 stroke, must have a displacement between 400cc and 750 cc and a minimum of two cylinders.

An exception to the engine displacement limit is allowed for:

- Two cylinder 4 stroke air cooled engines with a displacement under 1000cc;
- The Ducati 851 and 888 models (see restrictions hereunder).

The water cooled client or works competition models are allowed.

Engine: supercharged engines (turbo or compressor) are forbidden; fuel injection engines are forbidden unless the injection fitted is of origin.

Brakes: carbon brakes, radial master cylinders as also callipers with more than 4 pistons are forbidden.

The discs must be of a circular shape; “petal” discs are forbidden.

The brake discs must have a maximum diameter of 320 mm.

Floating callipers are allowed.

Wheels: 16, 17 or 18 inch. The tyres must have a maximum width of 180 mm. Carbon wheels are forbidden.

The fuel cell may not hold more than 24 litres. Additional fuel cells are forbidden.

Shifters, apparent or not, are forbidden.

Ducati 851 – specifications: the engine must have a bore of 92 mm and a stroke of 64 mm. Fuel supply must be via an electronic injection.

Ducati 888 – specifications: the engine must have a bore of 94 mm and a stroke of 64 mm. Fuel supply must be via an electronic injection.

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, **but the engine need not be switched off.**
- During the refuelling, no other intervention whatsoever may be carried out on the motorbike;
- Refuelling must take place after all mechanical interventions on the machine have been completed. After refuelling should any further mechanical intervention be required to the machine, it must mandatorily be carried out inside the team’s allocated pit box;
- In all cases each team must appoint one person for fire safety. This person must be equipped with a reliable extinguisher against fuel fires. No refuelling may be carried out without the presence of this person.

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

The pit marshall must imperatively be present during the refuelling. Each team must request the presence of a pit marshall prior to the refuelling.

The refuelling cans must mandatorily be covered with only the pouring hole pointed downwards. These will be checked during technical scrutineering.

When filling only gravity is allowed to guide the fuel into the motorbike’s fuel cell. When the person in charge of the refuelling releases the refuelling can’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 twin filler caps, one of these needs to be made inoperative.

A replacement of full cell is permitted on condition that the connection and activation system has been verified and approved during the technical scrutineering, with both cells 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 inside, in front of or behind the pit boxes.

6. Reserve motorbike

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 motorbikes 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 motor bikes cannot be on the track at 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, the latter being the sole one allowed to compete during the race.

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

7. Lights

For daytime races; it is mandatory to fit a rear red light each to be lit upon orders of the Clerk of the Course.

For night time rounds, each motorbike 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 conform to the shape of the lights of that period (no additional square 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 drawing in annexe 1 of these regulations);
- A 60cm² reflector will be fitted to the rear of the bike.

During daytime races, the lighting system may be removed.

Additional green, red or yellow lighting is forbidden.

8. Equipment

Competitors must mandatorily be equipped with:

- A full face helmet fitted with a chinstrap fastening system, in good condition and meeting the FIM norms; the use of a full off-road helmet is strictly forbidden. Helmets must be fitted with a self-adhesive reflective surfaces at the back and on the sides, of which one of a 25cm² red colour, the other of a 25 cm² white colour also.
- A 1-piece leather suit. Synthetic lining is forbidden bar the wearing of full undergarment in cotton, silk or other non-flammable material:
- Leather gloves;
- Mandatory dorsal protection

9. Noise restrictions

Even after the various technical controls, all motorbikes 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 as per the FIM regulations.

10. Technical passport

The Technical Passport must accompany the motorbike under all 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 by post 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.

For the EVO class:

- **For all new entries at an event, one month prior to the event the Team must provide a photograph of the left side as also the right side of the motorbike, in addition to the chassis and engine numbers;**
- **All engine numbers wiped out or re-stamped will not be accepted;**
- **The engines must correspond to the chassis.**
- **All blatant fraud regarding the engine's bore and stroke will incur exclusion from the race, without any reimbursement. Examples: Honda RC 30 with an RC 36 engine, Kawasaki with a ZX9R engine, etc.)**

11. Divers

The promoter reserves the right to accept, as an exception, the participation of a Prototype or a motorbike not meeting the technical definitions as specified above, but produced or built during the reference periods foreseen in these present regulations.

This participation will be allowed under the following conditions;

- the race classification will be granted, that is to say that the team concerned shall be ranked in the same manner as the other teams in the overall classification and category;
- transparency at the Endurance Vintage Cup level: the team concerned will not score points for the championship, the classification in each race being transparent for the other teams.

12. ANNEXE 1

