

# ALPE ADRIA CUP 600 / 1000 TECHNICAL REGULATIONS

# 2023

# Version\_Feb-02-2023

AACR 7.1 ELIGIBLE MOTORCYCLES	
	3
AACR 7.2.1 Discipline Specifications Cup 600	
	3
AACR 7.2.2 Discipline Specifications Cup 1000	3
AACR 7.3 MINIMUM WEIGHT	
AACR 7.4 NUMBER PLATES / STARTING NUMBERS	3
AACR 7.5 FUEL	
AACR 7.6 TYRES	
AACR 7.7 ENGINE	
AACR 7.7.1 Fuel injection system	
AACR 7.7.2 Cylinder head	4
AACR 7.7.3 Camshafts	4
AACR 7.7.4 Cam sprockets	4
AACR 7.7.5 Cylinder	5
AACR 7.7.6 Piston	
AACR 7.7.7 Piston rings	
AACR 7.7.8 Piston pin and clips	5
AACR 7.7.9 Connecting rod	
AACR 7.7.10 Crankshaft	
AACR 7.7.11 Crankcase / Gearbox housing	
AACR 7.7.11.1 Lateral covers and protection	
AACR 7.7.12 Transmission / Gearbox	
AACR 7.7.13 Clutch	
AACR 7.7.14 Oil pumps and oil lines	
AACR 7.7.15 Cooling system	
AACR 7.7.16 Air box	
AACR 7.7.17 Fuel supply	
ACCR 7.7.18 Exhaust system	
AACR 7.8 ELECTRICS AND ELECTRONICS	
AACR 7.8.1 Engine Control System (ECU) / Data Logger	
AACR 7.8.2 Generator, alternator	
AACR 7.9 MAIN FRAME	
AACR 7.9.1 Frame body and rear sub frame	
AACR 7.9.2 Front forks / triple clamps	
AACR 7.9.3 Swing arm	
AACR 7.9.4 Rear suspension unit	
AACR 7.9.5 Wheels	
AACR 7.9.6 Brakes	

	AACR 7.9.7	Handle bars and hand controls	9
	AACR 7.9.8	Foot rest / Foot controls	9
	AACR 7.9.9	Fuel tank	.10
	AACR 7.9.10	Fairing / Bodywork	.10
		Seat	
	AACR 7.9.12	Fasteners	.10
	AACR 7.9.13	Rear safety light	.10
	AACR 7.9.14	Timekeeping instruments	.11
		he following items MAY BE altered or replaced	
ΑA	ACR 7.11 T	he following items MAY BE removed	11
ΑA	ACR 7.12 T	he following items MUST BE removed	.11
ΑA	ACR 7.13 T	he following items MUST BE altered	.12
A	ACR 7.14 C	Onboard cameras	12

#### AACR 7.0 GENERAL

The following rules intended to permit limited changes to the street legal motorcycles in the interests of safety and improved competition.

# EVERYTHING THAT IS NOT AUTHORISED AND PRESCRIBED IN THESE RULES IS STRICTLY FORBIDDEN

# If a change to a part or system is not specifically allowed in any of the following articles, then it is forbidden

#### AACR 7.1 ELIGIBLE MOTORCYCLES

Eligible motorcycles for class Alpe Adria 600 / 1000 must be based on street legal motorcycles. Prototypes are not allowed.

Only naturally aspirated 4-stroke engines are allowed.

All parts and systems not specifically mentioned in the following articles must remain as originally produced by the manufacturer for the original motorcycle.

All motorcycles must comply in every respect with all the requirements for Road Racing as specified in these Technical Regulations, unless they are already equipped as such on the original model.

# AACR 7.2 DISPLACEMENT CAPACITIES

#### AACR 7.2.1 Discipline Specifications Cup 600

2-cylinders	over 400 cc up to 850 cc
3-cylinders	over 400 cc up to 675 cc
4-cylinders	over 400 cc up to 636 cc

#### AACR 7.2.2 Discipline Specifications Cup 1000

2-cylinders	over 850 cc up to 1300 cc
3-cylinders	over 675 cc up to 1300 cc
4-cylinders	over 636 cc up to 1200 cc

# AACR 7.3 MINIMUM WEIGHT

There is no minimum weight.

#### AACR 7.4 NUMBER PLATES / STARTING NUMBERS

The colours for starting numbers and background is free. Starting numbers and background must be contrasting.

The sizes for all the front numbers are:	Minimum height	120 mm
	Minimum width	60 mm
	Minimum stroke	20 mm
	Minimum space between numbers	10 mm
The sizes for all the side numbers are:	Minimum height	100 mm
	Minimum width	50 mm
	Minimum stroke	15 mm
	Minimum space between numbers	10 mm

The number must be clearly visible and in a good shape.

The allocated number & plate for the rider must be affixed on the motorcycle as follows:

- a) One on the front, either in the centre of the fairing or slightly off to one side.
- b) One on each side of the motorcycle, the preferred location for this numbers is on the lower rear portion of the main fairing near the bottom. Alternatively, one across the top of the rear seat section with the top of the number towards the rider. The rear and side numbers are optional.
- c) Numbers must be easily legible in a clear simple font and contrast strongly with the background colour.
- d) Numbers must be centred on the background.

- e) Backgrounds must be of one single colour and must be clearly visible around all edges of the number (including outline).
- f) Any outlines must be of a contrasting colour and the maximum width of the outline is 3 mm.
- g) Reflective or mirror type numbers are not permitted.
- h) Numbers cannot overlap.

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

#### AACR 7.5 FUEL

- 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 FIM Superbike, Supersport & Supersport 300 World Championship Regulations 2020; Article 2.8.
- b) At the technical control, each rider must declare the brand and type of fuel he is using.
- c) At least 1/2 litre fuel must remain in the fuel tank of all the motorcycles that finished the race to take samples if needed.

#### AACR 7.6 TYRES

- a) The maximum number of tyres for each event is free.
- b) The brand of tyres is free.
- c) Tyres must be a fully moulded type carrying all size and sidewall markings of the tyres for commercial sale to public.
- d) Slick tyres are allowed.
- The tyres must have a DOT and/or E-Mark, the DOT and/or E-mark must be on the tyre sidewall.
- f) Any modification or treatment of the tyres (cutting, grooving) is forbidden.
- g) Wet tyres and intermediate tyres can be used only when the Race Direction has declared the race or practice "WET".
- h) Wet tyres must be a fully moulded tyre.
- i) Wet tyres do not need to carry a DOT and/or E-marks; however, these tyres must be marked "not for highway use" or "NHS".
- j) The use of hand-cut tyres is not allowed.

#### AACR 7.7 ENGINE

There is no allocated number of engines.

#### AACR 7.7.1 Fuel injection system

- a) The fuel injection system is free.
- b) Air and air/fuel mixture can go to the combustion chamber exclusively through the throttle body butterflies.

# AACR 7.7.2 Cylinder head

- a) The cylinder head must be the originally produced part by the manufacturer of the motorcycle.
- b) Modifying the cylinder head is not restricted.
- c) The head gasket(s) are free.
- d) The valves, valve seats, valve guides, valve springs, tappets, oil seals, shims, valve cotters, cam followers, spring base and spring retainers can be modified or replaced.
- e) Number and position of valves must be the same as originally produced by the manufacturer of the motorcycle.

# AACR 7.7.3 Camshafts

a) Camshafts are free.

#### AACR 7.7.4 Cam sprockets

a) Cam sprockets are free.

b) Cam chain and tensioner is free.

# AACR 7.7.5 Cylinder

- a) The cylinder must be the originally produced part by the manufacturer of the motorcycle.
- b) Modifying the cylinder is not restricted.

#### AACR 7.7.6 Piston

a) The pistons are free. The installation of larger diameter pistons to reach the class limit is allowed.

#### AACR 7.7.7 Piston rings

a) The piston rings are free.

# AACR 7.7.8 Piston pin and clips

a) The piston pin and clips are free.

# AACR 7.7.9 Connecting rod

a) The connecting rods are free.

#### AACR 7.7.10 Crankshaft

- a) The crankshaft must be the originally produced part by the manufacturer of the motorcycle. Crankshaft stroke and journal diameters must be as originally produced by the manufacturer of the motorcycle.
- b) Balancing and lightening is allowed.

# AACR 7.7.11 Crankcase / Gearbox housing

- a) The crankcase / gearbox housing must be the originally produced part by the manufacturer of the motorcycle.
- b) Modifications are not restricted.

#### AACR 7.7.11.1 Lateral covers and protection

- a) 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.
- b) A second cover made from metal such as aluminium alloy, stainless steel, steel or titanium must protect all lateral covers/engine cases containing oil and which could be in contact with the ground during a crash. <u>Covers made from composite materials are not permitted</u>. These covers must be fixed properly and securely with a minimum of three (3) case cover screws that also mount the original covers to the crankcase. All these covers must be designed to be resistant against sudden shocks, abrasions and crash damages. Sharp edges, which could damage the track surface, are not allowed.
- c) The secondary covers should cover a minimum of 1/3 of the original cover. These must have no sharp edges, which could damage the track surface.
- d) FIM / Alpe Adria approved covers will be permitted without regard of the material or its dimensions.
- e) Oil containing engine covers must be fixed with steel bolts.
- f) Plates / crash bars made from aluminium or steel are also permitted in addition to these covers. All these devices must be designed to be resistant against sudden shocks, abrasions and crash damages and must be fixed properly and securely. Sharp edges, which could damage the track surface, are not allowed.
- g) Plates /crash bars must not protrude outside the fairing for more than 30 mm.
- h) The Chief Technical Steward has the right to refuse any cover not satisfying the safety requirements.

# AACR 7.7.12 Transmission / Gearbox

- a) The transmission / gearbox is free.
- b) External Quick-shift modules (upshift and downshift) are allowed.
- c) Countershaft sprocket, rear wheel sprocket, rear sprocket carrier hub, chain pitch and size may be changed.
- d) The sprocket cover may be modified or eliminated.

#### AACR 7.7.13 Clutch

a) Clutch system is free.

#### AACR 7.7.14 Oil pumps and oil lines

- a) The oil pumps and oil lines are free.
- b) Oil lines containing positive pressure, if replaced, must be of braided reinforced construction with swaged or threaded connectors.

# AACR 7.7.15 Cooling system

- a) Only water can be used as cooling liquid. Additives are not permitted.
- b) The water pump and pump drive is free.
- c) Protective meshes may be added in front of the oil and/or water radiator(s).
- d) The cooling system hoses/pipes and catch tanks may be modified or changed.
- e) Radiator fan and wiring may be changed modified or removed.
- f) Radiator cap is free.
- g) The original water radiator can be modified or replaced. Extra mounting brackets to accommodate the radiator are permitted.
- h) Water and oil thermostat can be modified, replaced or removed.
- i) Thermal switches and water temperature sensor can be modified, replaced or removed.
- j) The original oil radiator can be modified or replaced.
- k) Additional water radiators and oil coolers can be added. Extra mounting brackets to accommodate these radiators / coolers are allowed.
- I) All radiators / coolers must be mounted below the lower fork bridge (triple clamp).

#### AACR 7.7.16 Air box

- a) The air box is free.
- b) The air box drains must be sealed.
- c) All motorcycles must have a closed breather system. All the oil breather lines must be connected, may pass through an oil catch tank, and must exclusively discharge in the air box.

#### AACR 7.7.17 Fuel supply

- a) Fuel pump and fuel pressure regulator are free.
- b) The fuel pressure is free.
- c) Fuel lines from the fuel tank up to the delivery pipe assembly (delivery pipe excluded) may be replaced and must be located in such a way that they are protected from crash damage.
- d) Quick connectors or dry break quick connectors may be used.
- e) Fuel vent lines may be replaced.
- f) Fuel filters may be added.
- g) A fuel tank drain valve can be installed and must be located in such a way that it is protected from crash damage.

#### ACCR 7.7.18 Exhaust system

- a) Exhaust pipes and silencers may be modified or changed.
- b) The number of the final exhaust silencers is free. The position of the silencer is free.
- c) For safety reasons, the exposed edges of the exhausts pipe outlet must be rounded to avoid any sharp edges.
- d) Wrapping of exhaust systems is not allowed except in the area of the rider's foot or an area in contact with the fairing for protection from heat.
- e) The basic noise limit for this class is 107 dB/A (with a 3 dB/A tolerance after the race only). <u>Some circuits may have a lower noise limit. This will be published in the Supplementary Regulations of the respective event.</u>
- f) Titanium and carbon exhausts and silencers are allowed.

g) The test RPM for noise control will be as follows:

#### Cup 600:

2-cylinder engines: 5.000 RPM
3-Cylinder engines: 6.000 RPM
4-cylinder engines: 7.000 RPM

# Cup 1000:

2-cylinder engines: 5.000 RPM
3-Cylinder engines: 5.000 RPM
4-cylinder engines: 5.500 RPM

# AACR 7.8 ELECTRICS AND ELECTRONICS

# AACR 7.8.1 Engine Control System (ECU) / Data Logger

- a) Engine Control System (ECU) is free.
- b) Additional injection and/or ignition modules are allowed.
- c) The Data Logging system is free.
- d) The addition of a device for infrared (IR) transmission of a signal between the motorcycle and the team, used exclusively for lap timing, is allowed.
- e) The addition of a GPS unit for lap timing/scoring purposes is allowed.
- f) Telemetry is not allowed.
- g) Harness is free.
- h) Dashboard is free, but there must remain a working tachometer display.
- i) Display(s) for lap-timing and gear indication purposes can be installed.
- j) Spark plug may be replaced.
- k) Battery is free.

#### AACR 7.8.2 Generator, alternator

- a) Generator and alternator are free.
- b) Operating the motorcycle on the battery only is not allowed.

#### AACR 7.9 MAIN FRAME

- a) During the entire duration of the event, each rider can only use one (1) complete motorcycle, as presented for Technical Control, with the frame clearly identified with a seal and a valid frame number / chassis number. In case the frame will need to be replaced, the rider or team must request the use of a spare frame to the AA Technical Delegate.
- b) The rebuilt motorcycle must be inspected before its use by the Technical Stewards for safety checks and a new seal will be placed on the motorcycles frame.

# AACR 7.9.1 Frame body and rear sub frame

- a) The frame must be the originally produced part by the manufacturer of the motorcycle.
- b) Holes may be drilled on the frame only to fix approved components (i.e. fairing brackets, steering damper mount, sensors).
- c) The sides of the frame body may be covered by a protective part made of a composite material. These protectors must fit the form of the frame.
- d) Crash protectors may be fitted to the frame, using existing points (max. length: 50 mm), or pressed into the ends of the wheel axles. Without exception, the wheel axles cannot be modified.
- e) Crash protectors / frame sliders must not protrude outside the fairing for more than 30 mm.
- f) All motorcycles must display the manufacturer's vehicle identification number (chassis number) on the frame body.
- g) Engine mounting brackets or plates must remain as originally produced by the manufacturer for the original motorcycle.
- h) Front sub frame / fairing mount may be changed or altered, but the use of titanium and carbon (or similar composite materials) is forbidden.

- i) Rear sub frame:
  - i. Rear sub frame may be changed or altered.
  - ii. Additional seat support 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.
  - iii. Repairing and welding of the sub frame is allowed.
- j) The paint scheme is not restricted.
- k) Thread repair using inserts of different material such as Helicoil® and Timesert® are allowed.

# AACR 7.9.2 Front forks / triple clamps

- a) Front forks are free.
- b) Triple clamps are free.
- c) Steering stem pivot position must remain in the original position.
- d) A steering damper may be added or the original damper may be replaced with an aftermarket damper.
- e) The steering damper cannot act as a steering lock limiting device.
- f) Dust seals may be modified, changed or removed, if the fork remains totally oil-sealed.
- g) Any quantity and quality of oil can be used.

# AACR 7.9.3 Swing arm

- a) The swing arm can be modified or replaced.
- b) The paint scheme is not restricted.
- a) The swing arm pivot bolt is free but the use of titanium and light alloys is forbidden.
- c) The rear axle adjuster (chain tensioner) is free.
- d) Swing arm pivot position must remain as originally produced by the manufacturer for the original motorcycle.
- e) A solid protective cover (shark fin) must be fixed to the swing arm and must always cover the opening between the lower chain run, swing arm and the rear wheel sprocket, irrespective of the position of the rear wheel.
- f) Rear wheel stand brackets may be added to the rear fork by welding or by bolts. Brackets must have rounded edges (with a large radius). Fastening screws must be recessed. An anchorage system or point(s) to keep the original rear brake calliper in place may be added to the rear swing arm.
- g) The sides of the swing arm may be protected by covers.

# AACR 7.9.4 Rear suspension unit

- a) Rear suspension unit is free.
- b) All rear suspension linkage parts are free.

#### AACR 7.9.5 Wheels

- b) Wheels may be replaced and associated parts may be altered or replaced from those fitted to the original motorcycle.
- c) Only wheels made from aluminium alloys are allowed. Wheels made from composite materials are allowed only when these wheels are fitted to the original motorcycle.
- d) The use of the following alloy materials for the wheels is not allowed: Beryllium (>=5%), Scandium (>=2%), Lithium (>=1%).
- e) A non-slip coating / treatment may be applied to the bed area of the rims.
- f) Wheel axles and nuts, bearings, wheel spacers and bearing spacers may be modified or replaced.
- g) The use of titanium and light alloys for wheel axles is forbidden.
- h) Wheel balance weights are free.
- i) Any inflation valves may be used. The use of metal and angled valve stems is highly recommended.
- j) The use of any device to adjust the tyre pressure whilst on track is forbidden.

#### AACR 7.9.6 Brakes

- a) Brake discs must comply with the following requirements:
  - i. Brake discs must be made of steel (max. carbon content 2.1 wt %).
- b) The front and rear brake calliper (mount, carrier and hanger) may be modified or changed.
- c) The front and rear brake master cylinder may be changed.
- d) Front and rear brake fluid reservoir may be changed.
- e) Front and rear hydraulic brake lines may be changed.
- f) "Quick" (or "dry-brake") connectors in the brake lines are allowed.
- g) Front and rear brake pads may be changed. Brake pad locking pins may be modified for quick change type.
- h) Additional air scoops or ducts are allowed.
- i) Motorcycles must be equipped with brake lever protection, intended to protect the handlebar brake lever from being accidentally activated in case of collision with another motorcycle. Composite guards are not permitted. FIM approved guards will be permitted without regard of the material. The Chief Technical Steward has the right to refuse any guard not satisfying this safety purpose.
- j) The rear brake calliper bracket may be mounted fixed on the swing arm.
- k) 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 inserts such as Helicoil® and Timesert®.

#### AACR 7.9.7 Handle bars and hand controls

- a) Handle bars may be replaced.
- b) Handle bars and hand controls may be relocated, modified or replaced.
- c) Throttle controls must be self-closing when not held by the hand.
- d) Throttle assembly and associated cables may be modified or replaced. Cable operated throttles (grip assembly) must be equipped with both an opening and a closing cable.
- e) Clutch and brake lever may be exchanged by an aftermarket model. An adjuster to the brake lever is allowed.
- f) Switches may be changed but engine stop switch must be located on the handle bars.
- g) Motorcycles must be equipped with a functional ignition kill switch or button mounted on the right or left-hand handlebar (within the reach of the hand while on the handgrips) that is capable of stopping a running engine. The button or switch must be RED.
- h) The repair by welding of light alloy handlebars is forbidden.
- i) Exposed handlebar ends must be plugged with a solid material or rubber covered.
- j) The minimum angle of rotation of the handlebar on each side of the centre line must be of 15°.
- k) Solid stops, (other than steering dampers) must be fitted to ensure a minimum clearance of 30 mm between the handlebar with levers and the tank/fairing when on full lock to prevent trapping the rider's fingers.
- All handlebar levers (clutch, brake, etc.) must be ball ended. This ball can also be flattened, but in any
  case, the edges must be rounded. These ends must be permanently fixed and form an integral part of
  the lever.
- m) Each hand lever must be mounted on an independent pivot.
- n) A thumb operated rear brake solution is allowed, but there must remain a functioning foot operated rear brake lever. In case of a dispute, the decision of the Chief Technical Steward is final.

# AACR 7.9.8 Foot rest / Foot controls

- a) Foot rests, hangers/brackets and hardware may be replaced and relocated but the hangers/brackets must be mounted to their original frame mounting points.
- b) Gear shift must remain operated manually by foot.
- c) Foot rests may be rigidly mounted or a folding type which must incorporate a device to return them to the normal position.
- d) The end of the foot rest must have a solid spherical radius.

e) Non-folding footrests must have an end (plug) which is permanently fixed, made of aluminium, plastic, Teflon® or an equivalent type material (minimum radius 8mm). The plug surface must be designed to reach the widest possible area. The Chief Technical Steward has the right to refuse any plug not satisfying this safety purpose.

#### AACR 7.9.9 Fuel tank

- a) Fuel tank can be modified or changed.
- b) Fuel tank must be completely filled with fire retardant material (open-celled mesh, i.e. Explosafe®).
- c) 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. The original catch tank can be changed.
- d) Fuel cap when closed must be leak proof.
- e) A rider spacer/pad may be fitted to the rear of the tank with non-permanent adhesive. It may be constructed of foam padding or composite material.
- f) The sides of the fuel tank may be protected with a cover made of a composite material. These covers must fit the shape of the fuel tank.
- g) A fuel tank drain valve can be installed and must be located in such a way that it is protected from crash damage.

# AACR 7.9.10 Fairing / Bodywork

- a) Fairing and body work is free. Fairing / bodywork must be mounted properly. The Chief Technical Steward has the right to refuse mounting solution considered unsafe.
- b) For all bodywork paint and decal design is free.
- c) Windscreen is free. The edge of the screen must have no sharp edges. The material of the wind screen must be transparent.
- d) The lower fairing has to be constructed to hold, in case of an engine breakdown, minimum 2,5 litres. The lower edge of all the openings in the fairing must be positioned at least 70 mm above the bottom of the fairing.
- e) The lower fairing must incorporate an opening of Ø 25 mm diameter in the front lower area. This hole must remain sealed in dry conditions and must be only opened only in wet race conditions as declared by the Race Director.

#### AACR 7.9.11 Seat

- a) Seat, seat base and associated bodywork is free.
- b) No part of the motorcycle can be behind a line drawn vertically at the edge of the rear tyre.
- c) All exposed edges must be rounded.

#### AACR 7.9.12 Fasteners

- a) Standard fasteners may be replaced with fasteners of any material and design but titanium fasteners cannot be used. The strength and design must be equal to or exceed the strength of the standard fastener.
- b) Fasteners may be drilled for safety wire, but intentional weights saving modifications are not allowed.
- c) Thread repair using inserts of different material such as Helicoil® and Timesert® are allowed.
- d) Fairing/body work fasteners may be replaced with a quick disconnect type.
- e) Aluminium fasteners may only be used in non-structural locations.

# AACR 7.9.13 Rear safety light

All motorcycles must have a functioning red light mounted at the rear of the motorcycle. This light must be switched on any time the motorcycle is on the track or is ridden in the pit lane and the Race Direction declares the session WET.

All lights must comply with the following:

a) The rear light must be mounted on the motorcycle during the whole time of the event.

- b) The rear light must be mounted properly with screws. Mounting the rear light with tape is forbidden. Mounting with hook-and-loop fasteners is allowed when the wiring of the light is connected to the motorcycle.
- c) The luminous field should be at least 4cm<sup>2</sup> (e.g. rectangular 4 cm x 1 cm, circular Ø 2.25 cm).
- d) 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.
- e) 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 Chief Technical Steward. In case of dispute over the mounting position or visibility, the decision of the Chief Technical Steward will be final.
- f) Power output/luminosity should be equivalent to minimum 10 W (incandescent) or 1 W (LED). In case of dispute over the power output / luminosity, the decision of the Chief Technical Steward will be final.
- g) The output must be continuous no flashing safety light allowed whilst the motorcycle is on the track. Flashing is allowed only in the pit lane when the pit limiter is active.
- h) The safety light power supply may be separated from the motorcycle.
- i) The Chief Technical Steward has the right to refuse any light system not satisfying this safety purpose.

#### AACR 7.9.14 Timekeeping instruments

All motorcycles must be equipped with a correctly positioned timekeeping transponder. The transponder must be approved by the official timekeeper and fixed in the longitudinal centre of the motorcycle (typically close to the swing arm pivot), on either the left or right side, as low as possible and avoided being shielded by carbon bodywork.

Correct attachment of the transponder bracket consists of a minimum of 2 tie-wraps, but preferably by screws or rivets. Any transponder-retaining clip must also be secured by a tie-wrap. Hook and loop fasteners or adhesive alone will not be accepted. The transponder must be working at all times during practices and races, also when the engine is switched off.

The Chief Technical Steward has the right to refuse any solution not satisfying these requirements.

## AACR 7.10 The following items MAY BE altered or replaced

- a) Any type of lubrication, brake or suspension fluid may be used.
- b) All kind of gaskets and bearings.
- c) Painted external surface finishes and decals.
- d) Material for brackets connecting non-original parts (fairing, exhaust, instruments, etc.) to the frame (or engine) cannot be made from titanium.

# AACR 7.11 The following items MAY BE removed

- a) Emission control items (anti-pollution) in or around the air box and engine (O2 sensors, air injection devices)
- b) The air injection control system (valve, solenoid, tubes) may be removed. In this case, connections to the cylinder head cover must be plugged.
- c) Speedometer.
- d) Bolt on accessories on a rear sub frame.
- e) The original left and right handlebar switch, e.g. light switch, horn switch, turn signal switch, etc.

#### AACR 7.12 The following items MUST BE removed

- a) Headlamp, rear lamp and turn signal indicators (when not incorporated in the fairing). Openings must be covered by suitable materials.
- b) Rear-view mirrors.
- c) Horn.
- d) License plate bracket.
- e) Toolkit.

- f) Helmet hooks and luggage carrier hooks.
- g) Passenger foot rests.
- h) Passenger grab rails.
- i) Safety bars, centre and side stands must be removed.
- j) Catalytic convertors.

# AACR 7.13 The following items MUST BE altered

- a) 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. 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 safety wired. External oil filter(s) screws and bolts that enter an oil cavity must be safety wired (i.e. on crankcases).
- d) All motorcycles must have a closed breather system. The oil breather line must be connected and discharge in the air box.
- e) 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.
- f) Motorcycles must be equipped with a red light on the instrument panel that will illuminate in the event of oil pressure drop.

#### AACR 7.14 Onboard cameras

- a) Onboard cameras can only be used with the permission of the Race Direction. xxxx
- b) When a rider/team has obtained this permission, the motorcycle with the camera installed must be presented to the Technical Control.
- c) Cameras must be mounted inside the fairing or on the top / bottom side of the rear seat bodywork.
- d) Cameras must be fixed securely to the motorcycle. Adhesive will only be accepted when it is originally by the camera manufacturer.
- e) Cameras must be secured to the motorcycle with an additional steel cable.
- f) The Chief Technical Steward has the right to refuse any solution not satisfying these requirements.