ALPE ADRIA MOTORCYCLE UNION
ALPE ADRIA CIRCUIT RACING
TECHNICAL REGULATIONS 2025

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Table of Contents

AACR 0 GENERAL 4

AACR 0.1 PROTECTIVE CLOTHING AND HELMETS 4
AACR 0.2 ADDITIONAL EQUIPMENT 5
AACR 0.3 TIRES 6
AACR 0.4 STARTING NUMBERS / BACKGROUND COLOURS 6
AACR 0.5 FUEL 7
AACR 0.6 HOMOLOGATION 7
AACR 0.7 SOUND LEVEL CONTROL 8
AACR 0.8 TIMEKEEPING INSTRUMENTS 9
AACR 0.9 TECHNICAL CONTROL 9
AACR 0.10 ONBOARD CAMERAS 9
AACR 0.11 ENVIRONMENTAL PROTECTION 10

AACR 1 SUPERSPORT 300 (SSP 300) 10

AACR 2 SUPERSTOCK 600 (STK 600) 10

AACR 2.0 GENERAL 10
AACR 2.1 DISCIPLINE SPECIFICATIONS SUPERSTOCK 600 10
AACR 2.2 MINIMUM WEIGHT 10
AACR 2.3 STARTING NUMBERS & BACKGROUND COLOURS 11
AACR 2.4 FUEL 11
AACR 2.5 TIRES 11
AACR 2.6 ENGINE 11
AACR 2.7 ELECTRICS AND ELECTRONICS 16
AACR 2.8 MAIN FRAME / CHASSIS 19
AACR 2.9 THE FOLLOWING ITEMS MAY BE ALTERED OR REPLACED 27
AACR 2.10 THE FOLLOWING ITEMS MAY BE REMOVED 27
AACR 2.11 THE FOLLOWING ITEMS MUST BE REMOVED 27
AACR 2.12 THE FOLLOWING ITEMS MUST BE ALTERED 28
AACR 2.13 TIMEKEEPING INSTRUMENTS 28
AACR 2.14 ONBOARD CAMERAS 28

AACR 3 SUPERSPORT AND SUPERSPORT NEXT GENERATION 28

AACR 3.0 GENERAL 28

AACR 3.1 MOTORCYCLE SPECIFICATIONS 29
AACR 3.2 ELIGIBLE MOTORCYCLES (AS OF JANUARY 2024) 29
AACR 3.3 BALANCING VARIOUS MOTORCYCLE CONCEPTS 29
AACR 3.4 MINIMUM WEIGHTS 30
AACR 3.5 STARTING NUMBERS & BACKGROUND COLOURS 31
AACR 3.6 FUEL 31
AACR 3.7 TIRES 31
AACR 3.8 ENGINE 31
AACR 3.9 FUEL SYSTEM 36
AACR 3.10 EXHAUST SYSTEM 38
AACR 3.11 ELECTRICS AND ELECTRONICS 38
AACR 3.12 MAIN FRAME / CHASSIS 43
AACR 3.13 THE FOLLOWING ITEMS MAY BE ALTERED OR REPLACED 51
AACR 3.14 THE FOLLOWING ITEMS MAY BE REMOVED 51
AACR 3.15 THE FOLLOWING ITEMS MUST BE REMOVED 52
AACR 3.16 THE FOLLOWING ITEMS MUST BE ALTERED 52
AACR 3.17 TIMEKEEPING INSTRUMENTS 52
AACR 3.18 ONBOARD CAMERAS 52
AACR 3B MOTO 2 52
AACR 4 SUPERSTOCK 1000 (STK 1000) 53
AACR 4.0 GENERAL 53
AACR 4.1 DISCIPLINE SPECIFICATIONS SUPERSTOCK 1000 53
AACR 4.2 MINIMUM WEIGHT 53
AACR 4.3 STARTING NUMBERS & BACKROUND COLOURS 54
AACR 4.4 FUEL 54
AACR 4.5 TIRES 54
AACR 4.6 ENGINE 54
AACR 4.7 ELECTRICS AND ELECTRONICS 59
AACR 4.8 MAIN FRAME / CHASSIS 61
AACR 4.9 THE FOLLOWING ITEMS MAY BE ALTERED OR REPLACED 70
AACR 4.10 THE FOLLOWING ITEMS MAY BE REMOVED 70
AACR 4.11 THE FOLLOWING ITEMS MUST BE REMOVED 71
AACR 4.12 THE FOLLOWING ITEMS MUST BE ALTERED 71
AACR 4.13 TIMEKEEPING INSTRUMENTS 71
ACCR 4.14 ONBOARD CAMERAS 71
AACR 5 SUPERBIKE (SBK) 71
AACR 5.0 GENERAL 71
AACR 5.1 DISCIPLINE SPECIFICATIONS SUPERBIKE 72
AACR 5.2 MINIMUM WEIGHT 72
AACR 5.3 STARTING NUMBERS & BACKGROUND COLOURS 72
AACR 5.4 FUEL 72

AACR 5.5 TIRES 72
AACR 5.6 ENGINE 73
AACR 5.7 ELECTRICS AND ELECTRONICS 79
AACR 5.8 MAIN FRAME / CHASSIS 82
AACR 5.9 THE FOLLOWING ITEMS MAY BE ALTERED OR REPLACED 90
AACR 5.10 THE FOLLOWING ITEMS MAY BE REMOVED 90
AACR 5.11 THE FOLLOWING ITEMS MUST BE REMOVED 90
AACR 5.12 THE FOLLOWING ITEMS MUST BE ALTERED 90
AACR 5.13 TIMEKEEPING INSTRUMENTS 91
AACR 5.14 ONBOARD CAMERAS 91

AACR 6 MOTO 4 91

AACR 6.0 GENERAL 91
AACR 6.1 APPROVED ENGINES 91
AACR 6.2 MINIMUM WEIGHT 93
AACR 6.3 STARTING NUMBERS & BACKGROUND COLOURS 93
AACR 6.4 FUEL 94
AACR 6.5 TIRES 94
AACR 6.6 AIR BOX 94
AACR 6.7 FUEL TANK 95
AACR 6.8 ELECTRICS AND ELECTRONICS 95
AACR 6.9 MAIN FRAME / CHASSIS 96
AACR 6.10 FASTENERS 99
AACR 6.11 REAR SAFETY LIGHT 100
AACR 6.12 TIMEKEEPING INSTRUMENTS 100
AACR 6.13 ONBOARD CAMERAS 100

APPENDIX A: STARTING NUMBERS 101

APPENDIX B: AA FUELS REGULATIONS **102**

<u>Version Feb-??-2025:</u> Changes to the 2024 regulations are shown in bold and red. The following articles are affected by this draft:

- **General: AACR 0.1.f.i, ii, iii; 01.h; 0.2.3.f; 0.3.j; 0.5.a+b; 0.6.a-e; 0.7; 0.9.e; 0.11.a;**
- **Class SSP 300: AACR 1;**
- **Class STK 600: AACR 2.6.16.l+m; 2.8.10.g; 2.12.a;**
- **Class SSP & SSP NG: AACR 3.1.1.a+b; 3.2.2; 3.3; 3.4; 3.9.2.l+m; 3.12.10.e;**
- **Class STK 1000: AACR 4.1; 4.6.16.l+m; 4.8.10.g; 4.12.a;**
- **Class SBK: AACR 5.6.16.o+p; 5.8.10.g;**
- **Class MOTO 4: AACR 6.4.a+b; 6.9.7.k; 6.11.f;**
- **APPENDIX B; AA FUELS REGULATIONS**

AACR 0 GENERAL

a) The Alpe Adria Circuit Racing Commission may make amendments to the technical regulations at any time.

b) Each rider can pass the Technical Control with one motorcycle only. The Technical Officers 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 Officer 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 Officer states a fault in a motorcycle that could represent a danger for the other riders, he must immediately inform the Race Director.

f) Random technical controls can be carried out during practices and at the end of practices in the technical control area.

g) The rider is at all times responsible for his motorcycle.

h) Motorcycles must comply with the Technical Regulations at any time of an event.

AACR 0.1 PROTECTIVE CLOTHING AND HELMETS

a) Riders 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 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 the Chief Technical Officer has checked them.

e) Use of a chest and back protector is mandatory. (with or without airbag protection in the suit) and must be clearly marked with the following norms:

- **i. The back protector must comply with EN1621-2, CB ("central back") or FB ("full back") Level 1 or 2.**
- **ii. The chest protector must comply with prEN1621-3 Level 1 or 2.**

f) The use of ~~mechanical Airbag System is strictly forbidden~~ is strongly recommended for 2025 and is compulsory for 2026:

- **i. The use of airbags (for 2025) on the FIM Airbag Category 1 or 2 lists is strongly recommended and compulsory for 2026.**
- **ii. The only mechanical Airbag systems allowed are those on the FIM Airbag Category 2 list.**
- **iii. The airbag system must be compatible with the use of EN 1621 chest and back protectors, if not included in the airbag itself; in this case, the passive**

protectors must be certified according to EN1621-2 for the back protector and EN1621-3 for the chest and must mandatorily be used in addition to the airbag system.'

The Chief Technical Officer has the right to refuse any system not satisfying this safety purpose.
The updated list of FIM certified airbags can also be downloaded from www.fim-moto.com/en/documents.

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

h) Helmets must be of the full-face type and must comply with one of the recognised international standards:

- Europe: ECE 22-05, ECE 22-06 (only "P" type)
- Japan: JIS T 8133:2015 (only type 2 "Full Face")
- USA: SNELL M 2015, **SNELL 2020 D, SNELL 2020 R**

Helmets with double D-Ring fasteners are ~~**mandatory!**~~ **highly recommended.**

New FIM helmet standards FRHPhe-01 and FRHPhe-02 are highly recommended.

i) Visors must be made of a shatterproof material.

j) Disposable "tear-offs" are permitted.

k) Only helmets with a valid and identifiable label will be accepted.

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

AACR 0.2 ADDITIONAL EQUIPMENT

0.2.1 Brake lever protection:

Motorcycles must be equipped with a brake lever protection (guard), intended to protect the handlebar brake lever from being accidentally activated in case of collision with another motorcycle. FIM approved guards are permitted without regard to the material.

The Chief Technical Officer has the right to refuse any guard not satisfying this safety purpose.

0.2.2 Chain guard:

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 rear wheel sprocket, irrespective of the rear wheel position. This must be fitted in such a way to reduce the possibility that any part of the riders' body may become trapped between the lower chain run and the rear wheel sprocket.

0.2.3 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 4cm² (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 Officer. In case of dispute over the mounting position or visibility, the decision of the Chief Technical Officer will be final.

f) Power output/luminosity should be ~~equivalent to minimum~~ **of** 10**-15** W (incandescent) or ~~1~~ **0,6-1,8** W (LED).

g) The output must be continuous - no flashing safety light 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 Officer has the right to refuse any light system not satisfying this safety purpose.

0.2.4 Kill switch:

All motorcycles must be equipped with a functional ignition kill switch or button mounted on 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.

AACR 0.3 TIRES

a) Maximum number of tires for each event:
   i. There is no maximum number of tires.

b) The brand of tires is free.

c) Tires must be a fully moulded type carrying all size and sidewall markings of the tires for commercial sale to the public.

d) Slick tires are allowed in all classes.

e) The tires must have a DOT and/or E-Mark, the DOT and/or E-mark must be on the tire sidewall.

f) Any modification or treatment of the tires (cutting, grooving) is forbidden.

g) Wet tires and intermediate tires can be used only when the Race Direction has declared the race or practice "WET".

h) Wet tires must be a fully moulded tire.

i) Wet tires do not need to carry a DOT and/or E-marks; however, these tires must be marked "not for highway use" or "NHS".

j) The use of tyre warmers and generators on the starting grid is permitted. Generators must be fitted with a lower container to prevent spillage of liquids (engine oil and battery acid). To ensure mobility when clearing the grid, it is recommended to place the generators on tool trolleys.

AACR 0.4 STARTING NUMBERS / BACKGROUND COLOURS

The colours of the starting numbers and backgrounds are defined separately in the regulation of the class concerned. 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. The number must be centred on the background with no advertising within 25 mm in all directions.

b) One, on each side on the lower rear portion of the lower fairing; see Appendix A. The number must be centred on the background. Side numbers can also be placed on the swingarm. These must be clearly visible. Number plates can be used.

c) Numbers must be easily legible in a clear simple font and contrast strongly with the background colour.

d) Backgrounds must be of one single colour and must be clearly visible around all edges of the number (including outline). Backgrounds must protrude the numbers within 15 mm in all directions.

e) Any outlines must be of a contrasting colour and the maximum width of the outline is 3 mm.

f) Reflective or mirror type numbers are not permitted.

g) Numbers cannot overlap.

In case of a dispute concerning the legibility of numbers, the decision of the Chief Technical Officer is final.

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

AACR 0.5 FUEL (All Classes)

See Appendix B: Fuels Regulations

~~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 **2023**, Art. 2.8.~~

a) ~~At the technical control each rider must declare the brand and type of fuel he is using.~~

b) 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 0.6 HOMOLOGATION

The required homologations are as follows:

a) Class Alpe Adria Supersport 300:

All motorcycles require a FIM homologation (see **"FIM HOMOLOGATION REGULATIONS FOR MOTORCYCLES" 2024 and 2025**). **See also RR 028T 1.2**

All motorcycles must comply in every respect with all the requirements for Road Racing as specified in these Technical Regulations.

Once a motorcycle has obtained a homologation, it may be used for racing in this class for a maximum period of **8** years (Model Year **2018** or newer), or until such time that the homologated motorcycle is disqualified by new rules or changes in the Technical Regulations for this class.

b) Classes Alpe Adria Superstock 600 & Superbike:

All motorcycles require a FIM homologation.

All motorcycles must comply in every respect with all the requirements for Road Racing as specified in these Technical Regulations.

Once a motorcycle has obtained a homologation, it may be used for racing in this class for a maximum period of 18 years (Model Year **2008** or newer), or until such time that the homologated motorcycle is disqualified by new rules or changes in the Technical Regulations for this class.

c) **Class Alpe Adria Superstock 1000**:

All homologated motorcycles for this class are listed in the "Listing of FIM Homologated Motorcycles for **2025**", published on www.fim-moto.com.

All motorcycles must comply in every respect with all the requirements for Road Racing as specified in these Technical Regulations.

Once a motorcycle has obtained a homologation, it may be used for racing in this class for a maximum period of 8 years or until such time that the homologated motorcycle is disqualified by new rules or changes in the Technical Regulations for this class.

d) Class Alpe Adria Supersport:

All motorcycles require a FIM homologation.

All motorcycles must comply in every respect with all the requirements for Road Racing as specified in these Technical Regulations.

Once a motorcycle has obtained a homologation, it may be used for racing in this class for a maximum period of 18 years (Model Year **2008** or newer), or until such time that the homologated motorcycle is disqualified by new rules or changes in the Technical Regulations for this class.

e) Class Alpe Adria Supersport Next Generation:

All homologated motorcycles for this class are listed in the "Listing of FIM Homologated Motorcycles for **2025**", published on www.fim-moto.com.

As soon as this list is updated for **2025**, it will be adopted for Alpe Adria and will be published on Alpe Adria webpage.

All motorcycles must comply in every respect with all the requirements for Road Racing as specified in these Technical Regulations.

Once a motorcycle has obtained a homologation, it may be used for racing in this class for a maximum period of 8 years or until such time that the homologated motorcycle is disqualified by new rules or changes in the Technical Regulations for this class.

f) Classes Moto 4, Cup 600, Cup 1000 and **SPORTBIKE**:

No homologation required.

AACR 0.7 SOUND LEVEL CONTROL

The noise limits are defined separately in the regulation of the class concerned.

For all AA classes the methods of measurement will be according to the methods described in the **"FIM Sound Regulations 2025"**.

AACR 0.8 TIMEKEEPING INSTRUMENTS

All motorcycles must have a correctly positioned timekeeping transponder. The transponder must be supplied or approved by the official Timekeeper and fixed on the side of the motorcycle in the longitudinal centre of the motorcycle (typically close the swing-arm pivot), on either the left or right side, as low as possible and avoiding being shielded by carbon bodywork. The position will be appointed and controlled by the Chief Technical Officer.

Correct attachment of the transponder bracket consists of a minimum of two tie-wraps, but preferably by screws or rivets. Any transponder-retaining clip must also be secured by a tie-wrap. Hook and loop fasteners (e.g. Velcro®) 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 Officer has the right to refuse any mounting solution not satisfying these requirements.

AACR 0.9 TECHNICAL CONTROL

a) All motorcycles must be presented at the Technical Control with the lower fairing removed. The oil pan, oil drain plug, oil filler cap, oil filter and - if existing - oil radiator and oil lines must be clearly visible.

b) All riders / teams must be prepared to disassemble their engines completely at the Parc Fermé inspection. Therefore, all necessary tools and spare parts must be available.

c) After a crash, the rebuilt motorcycle must be inspected before its use by the Technical Officers for safety checks and a new seal will be placed on the motorcycles frame.

d) Helmets, back protectors and chest protectors which are in use during an event must be presented at the Technical Control.

e) **The Technical Inspection of motorcycles normally consists of a visual check of the safety requirements and visible technical characteristics of the motorcycles, as prescribed in the Class Technical Regulations. Under no circumstances may a failure to attend the Technical Inspection be considered as valid justification for the use of motorcycles that do not comply with the Technical Regulations.**

AACR 0.10 ONBOARD CAMERAS

a) Onboard cameras can only be used with written permission of the promoter.

b) When a rider/team has obtained this permission, the motorcycle with the camera installed - and the permission sheet - must be presented to the Technical Control.

c) When the promoter asks a rider to install a camera - provided by the promoter - on his motorcycle, then the rider cannot refuse.

d) Cameras must be mounted inside the fairing or on the top / bottom side of the rear seat bodywork.

e) Cameras must be fixed securely to the motorcycle. Adhesives are only accepted when it is originally by the camera manufacturer.

f) Cameras must be secured to the motorcycle with an additional steel cable.

g) The Chief Technical Officer has the right to refuse any solution not satisfying these requirements.

AACR 0.11 ENVIRONMENTAL PROTECTION

a) Inside the boxes and the paddock (except in the park fermé), where maintenance work is carried out on a motorcycle and where they are parked, the use of carpets equal to or larger than the length of the motorcycle and the width of the handlebars is compulsory in order to avoid spillage of liquids, oil and environmentally dangerous products on the ground. The carpet must have a waterproof underside and be covered with absorbent material.

AACR 1 SUPERSPORT 300 (SSP 300)

Look at the code European SSP 300 Cup Technical Regulations RR 028T **2025** and its annexations.

AACR 2 SUPERSTOCK 600 (STK 600)

AACR 2.0 GENERAL

The following rules are intended to permit limited changes to the homologated motorcycles in the interests of safety and improved competition between various motorcycle concepts.

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

Superstock motorcycles require an FIM homologation (see AACR 0.6).

All motorcycles must be normally aspirated.

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

As the name SUPERSTOCK implies, limited modifications are allowed to the motorcycles. Most modifications are only allowed for safety reasons.

The appearance from both fronts, rear and the profile of Superstock 600 motorcycles must (except when otherwise stated) remain as originally produced by the manufacturer for the homologated motorcycle.

The appearance of the exhaust system is excluded from this rule.

AACR 2.1 DISCIPLINE SPECIFICATIONS SUPERSTOCK 600

- 4 cylinders over 401 cc up to 600 cc 4-stroke
- 3 cylinders over 401 cc up to 675 cc 4-stroke
- 2 cylinders over 401 cc up to 750 cc 4-stroke

The displacement capacity, bore and stroke must remain at the homologated size. Modifying the bore and stroke to reach class limits is not allowed.

AACR 2.2 MINIMUM WEIGHT

a) The minimum weight for each motorcycle in running condition is 162 kg.

b) At any time of the event, the weight of the whole motorcycle (including the tank and its contents) must not be lower than the specified minimum weight.

c) There is no tolerance on the minimum weight.

d) During the final technical inspection at the end of the race, the selected motorcycles and riders 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.

e) 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.

f) The use of ballast is allowed to stay over the minimum weight limit.

g) The use of ballast is allowed to stay over the minimum weight limit and must be declared to the Chief Technical Officer at the preliminary checks. Fuel in the fuel tank can be used as ballast.

h) The ballast must be made from solid metal piece(s), firmly and securely connected, either through an adapter or directly to the main frame or engine, with minimum 2 steel bolts (min. 8 mm diameter, 8.8 grade or higher). Other equivalent technical solutions must be submitted to the Chief Technical Officer for his approval.

AACR 2.3 STARTING NUMBERS & BACKGROUND COLOURS

Red background with yellow numbers (see AACR Technical Regulations Appendix A and AACR 0.4 for sizes and specifications).

AACR 2.4 FUEL

See AACR 0.5.

AACR 2.5 TIRES

See AACR 0.3.

AACR 2.6 ENGINE

The number of engines is free.

AACR 2.6.1 Cylinder Head

a) Must be the original fitted and homologated part with no modification allowed, except 2.6.1.b).

b) The resurfacing of the cylinder heads sealing surface is permitted but only up to minus 0,1 mm below the homologated tolerance.

c) No material may be added or removed from the cylinder head.

d) The gaskets can be changed.

e) The valves, valve seats, guides, springs, tappets, oil seals, shims, cotter valve, spring base and spring retainers must be as originally produced by the manufacturer for the homologated motorcycle.

f) Valve spring shims may be changed.

g) Valve seats:

i. Must be the original part as produced for the homologated motorcycle.

ii. Valve seat angle must remain as homologated.

iii. Valve seat width is free.

iv. Cutting of top and bottom angles is free. Radius cutting is allowed.

v. Machining of ports and combustion chambers is strictly forbidden.

AACR 2.6.2 Camshafts

a) Must be the original fitted and homologated part with no modification allowed.

b) At the technical checks for direct valve operation systems the cam lobe lifts are measured; for indirect valve operation systems (i.e. where cam followers are fitted), the valve lift is measured.

c) The timing of the camshafts is free; however, no machining of the camshaft is authorized.

AACR 2.6.3 Camshaft Sprockets or Gears

a) Camshaft sprockets or camshaft gears may be modified or replaced.

b) Pressed on cam sprockets may be replaced with an adjustable boss and cam sprocket.

c) The cam drive system (chain drive or gears) must remain as homologated.

d) Cam chain and tensioner can be modified or replaced.

AACR 2.6.4 Cylinders

Must be the original fitted and homologated part with no modification allowed.

AACR 2.6.5 Pistons

Must be the original fitted and homologated part with no modification allowed.

AACR 2.6.6 Piston Rings

Must be the original fitted and homologated part with no modification allowed.

AACR 2.6.7 Piston Pins and Clips

Must be the original fitted and homologated part with no modification allowed.

AACR 2.6.8 Connecting Rods

Must be the original fitted and homologated part with no modification allowed.

AACR 2.6.9 Crankshaft

Must be the original fitted and homologated part with no modification allowed.

AACR 2.6.10 Crankcase and all other Engine Cases

a) Crankcases must remain as homologated. No modifications are allowed (including painting, polishing and lightening).

b) Repairing the crankcase by welding or using Epoxy is allowed.

c) It is not allowed to add a pump or any other device to create a vacuum in the crankcase. If a vacuum pump is installed on the homologated motorcycle, then it can be used only as homologated.

d) 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 part.

e) All lateral covers/engine cases containing oil and which could be in contact with the ground during a crash, must be protected by a second cover made from metal, such as aluminium alloy, stainless steel, steel or titanium. Covers made of composite materials are not permitted.

f) The secondary cover should cover a minimum of 1/3 of the original cover. It must have no sharp edges to damage the track surface.

g) Plates or crash bars made from aluminium or steel are also permitted in addition to these covers. All of these devices must be designed to be resistant against sudden shocks,

abrasions and crash damage.

h) Plates/crash bars/frame sliders must not protrude outside the fairing for more than 30 mm.

i) FIM approved covers will be permitted without regard of the material or its dimensions.

j) These covers must be fixed properly and securely with a minimum of three (3) case cover screws that also mount the original covers/engine cases to the crankcases.

k) Oil containing engine covers must be secured with steel bolts.

l) The Chief Technical Officer has the right to refuse and forbid any cover not satisfying this safety purpose, if the evidence shows that the cover is not effective.

m) No damaged or repaired covers will be permitted unless approved by the Chief Technical Officer.

AACR 2.6.11 Transmission / Gearbox

a) Must be the original fitted and homologated part with no modification allowed except:
   i. The positive neutral selector mechanism may be removed.
   ii. Shift star/indexer spring, roller and detent may be replaced but must function as originally designed on the homologated motorcycle.

b) Quick shifters are free.

c) Other modifications to the gearbox or selector mechanism are not allowed.

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

e) The sprocket cover can be modified or eliminated.

f) The chain tensioner is free.

g) Chain guard can be removed.

h) Transmission gear shifter shaft supporting brackets can be added.

i) Add on quick shift modules / additional modules are allowed to enable upshifts and downshifts. “Downshift blipping” is allowed.

j) No power source (i.e. hydraulic or electric) can be used for gear selection, if not installed in the homologated motorcycle.

AACR 2.6.12 Clutch

a) Clutch system (wet or dry type) must remain as homologated.

b) The method of operation (by cable or hydraulic) may be changed.

c) Friction and drive discs may be changed, the number of discs is free.

d) Clutch springs may be changed, the number of springs is fee.

e) Clutch outer basket must be the originally fitted and homologated part but may be reinforced.

f) Primary driven gear must remain as originally produced for the homologated motorcycle with no modification allowed.

g) The original clutch inner assembly may be modified or replaced by an aftermarket clutch, also including back torque limiting capabilities (slipper type).

h) Clutch fluid reservoir can be replaced.

i) Clutch lines/cables can be replaced.

j) No power source (i.e. hydraulic or electric) can be used for clutch operation, if not installed in the homologated motorcycle.

AACR 2.6.13 Oil Pumps and Oil Lines

a) Oil pump may be modified or replaced from those fitted to the homologated motorcycle, but modifications of the crankcase are not allowed.

b) The oil pump drive may be modified or changed.

c) The oil pressure relief valve is free.

d) Oil lines may be modified or replaced. Oil lines containing positive pressure, if replaced, must be of braided reinforced construction with swaged or threaded connectors.

AACR 2.6.14 Engine Cooling System

a) The only permitted liquid engine coolant for the water-cooling system is water without additives.

b) The water pump may be modified or changed, but modifications of the crankcase are not allowed.

c) The water pump drive may be modified or changed.

d) Protective meshes may be added in front of the oil and water radiator(s).

e) The cooling system hoses/pipes and catch tanks may be modified or changed.

f) Radiator fan and wiring may be changed modified or removed.

g) Radiator cap is free.

h) The original water radiator can be modified or replaced, Extra mounting brackets to accommodate the radiator are permitted.

i) Water and oil thermostat can be modified, replaced or removed.

j) Thermal switches and water temperature sensor can be modified, replaced or removed.

k) The original oil radiator can be modified, replaced or removed.

l) Additional water radiators and oil coolers can be added. Extra mounting brackets to accommodate these radiators / coolers are allowed.

m) Oil coolers can be installed even if the homologated motorcycle does not have one.

n) The appearance from the front, the rear and the profile of the motorcycle must conform to the homologated shape after the addition of radiators /oil coolers.

o) All radiators / coolers must be mounted below the lower fork bridge (triple clamp).

AACR 2.6.15 Air Box

a) Must be the original fitted and homologated part with no modification allowed, but the air box drains must be sealed.

b) Air filters, internal flap type valve, sensors and vacuum fittings may be removed, modified, or replaced with aftermarket parts.

c) All motorcycles must have a closed breather system. The oil breather line(s) must be connected, may pass through an oil catch tank and must exclusively discharge in the air box.

d) Ram air tubes or ducts running from the fairing to the air box may be modified, replaced or removed. The material is free. If tubes/ducts are used, they must be attached to the original, unmodified air box inlets.

e) No heat protection can be attached to the air box.

f) The engine breathers must remain original (number and size).

AACR 2.6.16 Fuel Injection System / Fuel Supply

Fuel injection system / fuel supply refer to throttle bodies, fuel injectors, fuel lines and pipes, fuel pump, fuel pressure regulator and intake tract devices (static or variable length).

a) The original homologated fuel injector system must be used without any modification.

b) The throttle bodies must be stock and unaltered from the original specification and manufacture and in the same position as on the homologated motorcycle.

c) The fuel injectors must be stock and unaltered from the original specification and manufacture and in the same position as on the homologated motorcycle.

d) Bell mouths must remain as originally produced by the manufacturer for the homologated motorcycle.

e) Butterfly valves must remain as originally produced by the manufacturer for the homologated motorcycle.

f) Variable intake tract devices cannot be added if they are not present on the homologated motorcycle and they must remain identical and operate in the same way as the homologated system. All parts of the variable intake tract device must remain exactly as homologated.

g) Existing variable intake tract devices can be deactivated or removed.

h) Secondary throttle valves and shafts may be removed or fixed in the open position and the electronics may be disconnected or removed.

i) Air and air/fuel mixture can go to the combustion chamber exclusively though the throttle body butterflies.

j) Electronically controlled throttle valves, known as “ride-by-wire”, may be only used if the homologated model is equipped with the same system. Software may be modified but all the safety systems and procedures designed by the original manufacturer must be maintained.

k) Fuel pump and fuel pressure regulator must be the original fitted and homologated parts with no modification allowed.

l) ~~**The fuel pressure must be as homologated**~~**.**

~~m) **The pressure tolerance at the technical control is + 0,5 bar in respect to the maximum pressure of the homologated motorcycle.**~~

n) Fuel lines from the fuel tank to the delivery pipe assembly(s) may be replaced and must be located in such a way that they are protected from crash damage.

o) Fuel lines from the fuel tank up to the injectors (fuel hoses, delivery pipe assembly, joints, clamps) may be modified or replaced.

p) Quick connectors or dry break quick connectors may be used.

q) Fuel filters may be added.

AACR 2.6.17 Fuel Tank

a) Fuel tank must remain as originally produced by the manufacturer for the homologated motorcycle with no modification allowed.

b) All fuel tanks 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.

d) Fuel tank filler cap may be altered or replaced from those fitted to the homologated motorcycle. Fuel cap when closed must be leak proof. Additionally, they must be securely locked to prevent accidental opening at any time.

e) Fuel petcock (if existing) may be altered, replaced or removed.

f) Fuel vent lines may be replaced.

g) A rider spacer/pad may be fitted to the rear of the tank with permanent or non-permanent adhesive. The material is free.

h) The tank can have a cover fitted over it. This cover must fit the shape of the fuel tank.

i) The sides of the fuel tank may be protected with a cover made of a composite material. These protectors must fit the shape of the fuel tank.

j) A fuel tank drain valve can be installed and must be located in such a way that it is protected from crash damage.

k) A spacer between fuel tank and fuel pump can be installed.

l) The fuel tank may have a heat protection shield /mat attached to its bottom and engine side.

AACR 2.6.18 Exhaust System

a) Exhaust pipes and silencers may be modified or changed. Catalytic converters must be removed.

b) The number of the final exhaust silencer(s) must remain as homologated.

c) For safety reasons the exposed edge(s) of the exhaust pipe(s) outlet must be rounded to avoid any sharp edges.

d) Wrapping of the exhaust system is not allowed except in the area of the rider’s foot or an area in contact with the fairing for protection from heat.

e) Titanium and carbon exhausts and silencers are allowed.

f) The basic noise limit is 107 dB/A (with a 3 dB/A tolerance after the race only). **Some circuits may have a lower noise limit. This will be published in the Supplementary Regulations of the respective event.**

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

- 2-cylinder engines: 5.500 RPM
- 3-Cylinder engines: 6.500 RPM
- 4-cylinder engines: 7.000 RPM

AACR 2.6.19 Sound level control

See AACR 0.7.

AACR 2.7 ELECTRICS AND ELECTRONICS

AACR 2.7.1 Engine control system (ECU) / Electronics

a) Motorcycles that are not equipped with the correct electronics for this class cannot compete in this class.

b) The engine control system (ECU) must be either:

   i. The original system as homologated. Flashing the original ECU is allowed, hardware modifications of the ECU are not allowed.

   ii. The original system (with the production ECU) (option i.) may have commercially available external ignition and/or injection module/s added. A special connector may be used to connect the module/s and the ECU.

   iii. An FIM/AA approved ''Superstock Kit'' model (produced and/or approved by the motorcycle manufacturer) may be used. Flashing the KIT-ECU is allowed, hardware modifications of the ECU are not allowed. Commercially available external ignition and/or injection module/s may be added. A special connector/adaptor may be used to connect the ECU(s) and the original wiring harness.

   The ECU (with software and activations) and harness parts must be available separately

   iv. The FIM World Supersport 600 approved ECU MecTronik MKE7 (part number WSS600_A) for the specified motorcycle. The sole official supplier of this ECU is Solo Engineering.

   www.soloengineering.com, sales@soloengineering.com.

   When using this ECU, Art. 3.11.2 in these Regulations is mandatory.

c) Central unit (ECU) may be relocated.

d) Corner by corner or distance/position-based adjustments are not allowed.

e) Optional equipment sold by the motorcycle Manufacturer for the homologated model is considered not homologated with the motorcycle and must follow the requirements for approved electronics / data loggers.

f) During an event the Chief Technical Officer has the right to ask a rider/team substitute their ECU or external module(s) with the FIM / AA sample received from the Manufacturer. The change has to be done before Sunday warm up.

g) No extra sensors can be added for engine control strategies except shift rod sensor, wheel speed sensors and lambda sensors. Any of these sensors must be included in the Kit ECU and Harness package if required for strategies (including closed loop lambda).

h) Other additional electronic hardware not present on the original homologated motorcycle cannot be added with the exceptions noted below.

i) Resistors/load may be added to replace the parts of the electrical system that have been removed (including lights and lambda sensors) to prevent ECU errors.

j) An ABS replacement/bypass may be fitted and/or the ABS unit may be dismantled to leave just its ECU.

k) The external fuel injection modules / ignition modules may not alter any sensor signal relating to the ride by wire system / ECU or control / actuate any part of the motorcycle excepting the fuel injectors / ignition coils.

l) Lambda closed loop /auto tuning is permitted.

m) No external modules may add traction control strategies (such as Traction Control, Launch Control, Anti Wheelie Control) unless originally fitted to the homologated motorcycle or included in the Racing Kit (which must be produced and/or approved by

the motorcycle manufacturer) for the homologated motorcycle.

n) Control strategies (such as Traction Control, Launch Control, Anti Wheelie Control) is only allowed when it is originally fitted to the homologated motorcycle or included in the Racing Kit (which must be produced and/or approved by the motorcycle manufacturer) for the homologated motorcycle.

o) Data logging systems:
   i. The data logging system is free, but the specifications listed below must be respected.
   ii. The Data Logger unit must be available for sale to the public.
   iii. The sensors must be simple function. No inertial platforms are allowed to be added if an inertial platform is not installed originally on the homologated motorcycle.
   iv. CAN (or other data protocol) communication from the ECU to an approved Data Logger is allowed without any limitation in CAN channel logger number.
   v. The Data Logger may not act to control any strategy or setting in the ECU – except to replicate the original dashboard signals if the original dashboard is replaced. The logger may not automate these setting changes.

p) The maximum total price of other active/control/calculation units such as lambda driver modules, quick shifter and analogue to CAN converters is € 1.000 (tax excluded). These devices must be approved by FIM / Alpe Adria.

q) Telemetry is not allowed.

r) No remote or wireless connection to the motorcycle for any data exchange or setting is allowed whilst the engine is running or the bike is moving.

s) The wiring harness is free.

t) Downshift blipping is allowed. External downshift blip modules are allowed.

u) The addition of an infrared (IR) or GPS based lap timing system is allowed.

v) Dashboard is free. It may incorporate the Data Logger. There must remain a working tachometer display.

w) Spark plugs may be replaced.

x) Spark plug caps /coil on plug, ignition cables and ignition harness are free.

y) The battery is free and may be relocated. The maximum capacity is 10 Ah.

z) A lap timer can be fitted.

AACR 2.7.2 Generator, Alternator and Electric Starter

a) The generator (ACG) must be the originally fitted and homologated part with no modification allowed.

b) The stator must be fitted in its original position and without offsetting.

c) The electric starter must operate normally and always be able to start the engine during the event.

d) During Parc Ferme, the starter must crank the engine at a suitable speed for starting for a minimum of 2 seconds without the use of a boost battery. No boost battery may be connected to the motorcycle at any time of the event.

e) The generator must always charge the battery in a sufficient way when the engine is running. The charging voltage must be corresponding to the charging voltage listed in the

service manual / kit manual of the homologated motorcycle.

f) The regulator/rectifier may be modified or replaced.

g) Operating the motorcycle on the battery only (without a functioning generator) is not allowed.

AACR 2.8 MAIN FRAME / CHASSIS

a) The use of titanium and carbon (or similar composite materials) in the construction of the main frame, rear sub frame, swing arm and swing arm pivot bolt, front forks, triple clamps, wheel axles, engine mounting parts and handlebars is forbidden. The use of titanium and aluminium alloys in the construction of swing arm pivot bolts and wheel axles is forbidden.

b) Unless otherwise stated, the use of titanium and aluminium alloys for nuts and screws is allowed.

c) 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 2nd motorcycle to the Chief Technical Officer.

d) After a crash, the rebuilt motorcycle must be inspected before its use by the Technical Officers for safety checks and a new seal will be placed on the motorcycles frame.

e) No other spare motorcycle may be on the track.

AACR 2.8.1 Frame Body and Rear Sub Frame

a) The frame must remain as originally produced by the manufacturer for the homologated motorcycle.

b) Holes may be drilled on the frame only to fix approved components (i.e. fairing brackets, steering damper mount, sensors, etc.).

c) The sides of the frame body may be covered by protective parts made of plastic or 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 fitted into the ends of the wheel axles (max. length: 30 mm).

e) Crash protectors / frame sliders must not protrude outside the fairing for more than 30 mm.

f) Nothing may be added by welding or removed by grinding from the main frame body.

g) All motorcycles must display a valid vehicle identification number (frame number / chassis number) punched on the frame body.

h) Engine mounting brackets or plates may be modified or replaced, but the use of titanium and carbon (or similar composite materials) is forbidden.

i) Engine mounting axles, bolts and nuts can be modified or replaced, but must be made of a steel alloy.

j) Suspension linkage mounting points on the frame must remain as originally produced by the manufacturer for the homologated motorcycle with no modification allowed.

k) Front sub frame / fairing mount may be modified or replaced. The material is free.

l) Rear sub frame may be modified or replaced, but the use of titanium and carbon (or

similar composite materials) is forbidden. Repairing and welding of the sub frame is allowed.

m) Additional seat brackets may be added, non-stressed protruding brackets may be removed if they do not affect the safety of the construction or assembly. Bolt-on accessories to the rear sub-frame may be removed.

n) The side stand bracket may be cut or removed.

o) The paint scheme is not restricted but polishing the frame body or sub-frame is not allowed.

p) If the homologated motorcycle has inserts for the steering bearings or swingarm pivot bolt, then these inserts can be modified or replaced. Modifying the frame body is not allowed.

AACR 2.8.2 Suspension - General

a) Front Fork internal parts and Rear Shock Absorber can be modified or changed.
The price limits are:

   i. Front Fork: For the fork kit, including all parts such as – but not limited to – cartridge, springs (1set), adjusters, fork caps, blanking inserts, seals, bushes but excepting oil and fitting, the price limit is € 3000 excluding tax.

   ii. Rear Shock Absorber/RCU: For the complete shock absorber/RCU including – but not limited to – spring (1 piece), pre-load adjuster and length/ride height adjuster, the price limit is € 2.000 excluding tax.

b) Electronic suspension:

   i. No aftermarket or prototype electronically-controlled suspensions can be used. Electronically-controlled suspension can only be used if already present on the production model of the homologated motorcycle.

   ii. The electronically-controlled valves must remain as homologated. The shims, spacers and springs not connected with these valves can be changed.

   iii. The ECU for the electronic suspension must remain as homologated and cannot receive any motorcycle or track position or sector information; the suspension cannot be adjusted relative to track position.

   iv. The electronic interface between the rider and the suspension must remain as on the homologated motorcycle. It is allowed to remove or disable this rider interface.

   v. The electronic suspension system must work safely in the event of an electronic failure.

   vi. Electro-magnetic fluid systems which change the viscosity of the suspension fluids(s) during operation are not permitted.

c) Electronic controlled steering dampers cannot be used if not installed on the homologated motorcycle for road use. However, it must be completely standard (any mechanical or electronic part must remain as homologated).

AACR 2.8.3 Front Fork and Fork Clamps

a) Forks (stanchions, stems, wheel spindle, upper and lower fork clamps, etc.) must be the originally fitted and homologated parts with the following modifications allowed:

   i. The upper and lower fork clamps (triple clamp, fork bridges and stem) must

remain as originally produced by the manufacturer on the homologated motorcycle

ii. Steering stem pivot position must remain in the homologated position (as supplied on the production motorcycle). If the standard motorcycle has inserts, then the inserts can be modified or replaced.

iii. Steering bearings and bearing seals are free.

iv. A steering damper may be added or replaced with an after-market damper.

v. The steering damper cannot act as a steering lock limiting device.

vi. Fork caps can be modified or replaced to allow external adjustment. This does not include the mechanical fork leg that is part of the homologated electronic fork set.

vii. The original surface finish of the fork tubes (stanchions, fork pipes) may be changed. Additional surface treatments are allowed.

viii. Fork bushings and oil seals are free.

ix. Dust seals may be modified, changed or removed if the fork remains totally oil-sealed.

x. The front fender mounts integrated in the fork lower may be modified or changed.

b) Mechanical Forks: Original internal parts of the homologated forks may be modified or changed. After-market damper kits or valves may be installed.

c) Electronic Suspensions:

i. No aftermarket or prototype electronically controlled suspension may be used, unless such suspension is already present on the production model of the homologated motorcycle, and it must remain completely standard (all mechanical or electronic parts must remain as homologated, with the exception of shims and springs).

ii. The electronic front suspension may be replaced with a mechanical system from a similar homologated model from the same manufacturer.

iii. Electronic forks may have their complete internal parts (including all electronic control) replaced with an approved conventional damping system and it will be considered as a mechanical fork.

d) Any quality and quantity of oil can be used in the front forks.

e) The protrusion (height and position of the front fork in relation to the fork crowns) is free.

f) Fixing and mounting points for front brake callipers must remain as homologated.

AACR 2.8.4 Swing Arm

a) The swing arm must be the originally fitted and homologated part with no modification allowed.

b) The swing arm pivot bolt and nut may be modified or replaced, but must be made of a steel alloy.

c) Swing arm pivot position must remain in the homologated position (as supplied on the production motorcycle). If the standard motorcycle has inserts, then the inserts can be modified or replaced.

d) Rear axle/chain adjuster can be modified or changed to an aftermarket product.

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 rear wheel sprocket, irrespective of the rear wheel position. This must be fitted in such a way to reduce the possibility that any part of the riders' body may become trapped between the lower chain run and the rear wheel sprocket.

f) Rear wheel stand brackets may be added to the swing arm by welding or by bolts. Brackets must have rounded edges (with a large radius) viewed from all sides. 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 protective parts made of plastic or composite material. These protectors must fit the form of the swing arm.

AACR 2.8.5 Rear Suspension Unit

a) Rear suspension unit (shock absorber and its spring) may be replaced with an approved unit, but the original attachments to the frame and swing arm or linkage must be as homologated.

b) Rear suspension linkage parts can be modified or replaced.

c) Removable top shock mounts can be modified or replaced.

d) Mechanical Suspensions: Rear suspension unit and spring may be changed.

e) Electronic Suspensions: No aftermarket or prototype electronically controlled suspension unit may be used, unless such suspension is already present on the production model of the homologated motorcycle and it must remain completely standard (any mechanical or electronic part must remain as homologated, with the exception of shims and spring). If the standard system has no facility for ride height adjustment the standard shock may be modified to allow shock length change if no hydraulic parts are modified. The original suspension system must work properly safe in the event of an electronic failure. The electronic shock absorber can be replaced with a mechanical one.

AACR 2.8.6 Wheels

a) Wheels must be the originally fitted and homologated parts with no modification allowed.

b) Wheels from different model years (Model Year 2006 or newer) of the homologated motorcycle can also be used.

c) Wheels may be overpainted but the original surface finish cannot be removed.

d) A non-slip coating/treatment may be applied to the bead area of the rim.

e) The cushion drive for the rear wheel can be modified or replaced.

f) Wheel bearings are free.

g) Wheel axles may be modified or replaced, but must be made of a steel alloy.

h) Axle nuts / bolts can be modified or replaced, but must be made of a steel alloy.

i) Wheel Spacers can be modified or replaced. Modifications to keep spacers in place are permitted.

j) Bearing spacers can be modified or replaced.

k) Wheel balance weights are free.

l) Aluminium or steel inflation valves are compulsory. Angled valves are recommended.

AACR 2.8.7 Brakes

a) Brake discs may be replaced by aftermarket discs which comply with the following requirements:
   i. Brake discs and carrier must retain the same material as the homologated disc and carrier or steel (max. carbon content 2.1 wt%). All homologated discs are steel.
   ii. Non-floating or single piece discs may be replaced with floating discs. The disc carrier must be the same material as the homologated carrier, steel or aluminium.
   iii. The outside diameter of the brake disc may be increased but the disc must fit into the homologated brake calliper without any modification of the brake calliper.
   iv. The thickness of the brake disc may be increased but the disc must fit into the homologated brake calliper without any modification of the brake calliper. The number of floaters is free.
   v. The fixing of the carrier on the wheel must remain the same as on the homologated disc.

b) Front brake calliper (mount, carrier, hanger) must remain as originally produced by the manufacturer for the homologated motorcycle with no modification allowed. The rear brake calliper and its attachment / mounting is free.

c) Only steel bolts/nuts and steel fasteners (8.8 grade or higher) can be used to fasten the brake callipers.

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

e) The rear brake calliper bracket may be mounted fixed on the swing arm.

f) 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 a thread repair insert.

g) Front-brake master cylinder can be replaced.

h) Rear brake master cylinder can be replaced.

i) Front and rear brake fluid reservoir can be replaced.

j) Front and rear hydraulic brake lines can be replaced.

k) The split of the front brake lines for both front brake callipers must be made above the lower fork bridge (lower triple clamp).

l) “Quick” (or “dry-brake”) connectors in the brake lines are allowed.

m) Front and rear brake pads may be changed. Brake pad locking pins may be modified for quick change type.

n) Front brake calliper additional air scoops or ducts are allowed.

o) The Antilock Brake System (ABS) may be used only if installed in the homologated model for road use. However, it must be completely standard (any mechanical or electronic part must remain as homologated, brake discs and master cylinder levers excluded) and only the software of the ABS may be modified.

p) The Antilock Brake System (ABS) may be disconnected, and its ECU can be dismantled. The ABS rotor wheel can be removed, modified or replaced.

q) 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. FIM approved guards will be permitted without regard of the material. The Chief Technical Officer has the right to refuse any guard not satisfying this safety purpose.

r) The use of thumb or hand brakes is allowed in addition to or instead of the foot operated system. An adaptor may be fitted to the reservoir input of the OEM master cylinder to facilitate this.

AACR 2.8.8 Handlebars and Hand Controls

a) Handlebars and hand controls may be replaced and relocated.

b) Throttle grip can be modified or substituted.

c) Throttle controls must be self-closing when not held by the hand.

d) Throttle assembly and associated cables can be modified or replaced but the connection to the throttle body and the throttle controls must remain as homologated. Cable operated throttles (grip assembly) must be equipped with both an opening and a closing cable including when actuating a remote drive by wire grip/demand sensor.

e) Clutch and brake lever may be exchanged by an after-market model. An adjuster to the brake lever and to the clutch lever is allowed.

f) Switches can be changed but electric starter switch and engine stop switch must be located on the handlebars.

g) Welding of handlebars is not allowed.

h) The use of titanium, carbon fibre, Kevlar® or carbon composite materials for handlebars is forbidden.

i) The use of titanium and aluminium alloys for nuts and screws is allowed.

j) Handlebar ends must be plugged with a solid material or rubber covered.

k) The minimum angle of rotation of the steering stem on each side of the centre line or mid position must be of 15°.

l) In any position of the handlebars /steering stem, the front wheel, tIre and mudguard must maintain a minimum gap of 10 mm to the bodywork and radiator(s).

m) 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, frame or other bodywork when on full lock to prevent trapping the rider's fingers. These stops can be adjustable.

n) All handlebar levers must be ball-ended (diameter of this ball should be at least 16 mm). This ball can also be flattened, the minimum thickness of the flattened part should be 14 mm, and the edges must be rounded. These ends must be permanently fixed and form an integral part of the lever.

o) Each control lever must be mounted on an independent pivot.

p) 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.

AACR 2.8.9 Footrests and Foot Controls

a) The use of titanium, carbon fibre, Kevlar or carbon composite materials for footrests and foot controls is forbidden.

b) The use of titanium and aluminium alloys for nuts and screws is allowed.

c) Footrests, hangers/brackets and hardware may be replaced and relocated but the hangers / brackets must be mounted to the frame at the original mounting points.

d) Gear shift must remain operated manually by foot.

e) Footrests may be rigidly mounted or a folding type which must incorporate a device to return them to the normal position.

f) The end of the footrests must be rounded.

g) Non-folding footrests must have an end (plug) which is permanently fixed, made of plastic, Teflon or an equivalent type material (Alloy), and must be rounded. The plug surface must be designed to reach the widest possible area in order to decrease the risk of injuries to the rider in the case of an accident. The Chief Technical Officer has the right to refuse any solution not satisfying this safety purpose.

AACR 2.8.10 Fairing / Body Work

a) Fairing, mudguards and bodywork must confirm in principle to the homologated shape as produced by the manufacturer, irrespective of the model year to encourage the most up to date visual impression.

b) Fairings from a different model year can be used when it is/was homologated and the model year is 2006 or newer. In this case, the upper and lower fairing must be used as a set.

c) The material is free.

d) Headlight decals should be included.

e) For all bodywork, paint and decal design is free.

f) Overall size and dimensions must be the same as the original parts, with a tolerance of +/- 10 mm, respecting the design and features of the homologated fairing as far as possible. The overall width of the frontal area may be +10 mm maximum. In case of a dispute, the decision of the Chief Technical Officer is final.

g) Windscreen may be replaced with an aftermarket product. The height of the windscreen is free, ~~**with a tolerance of +/- 15 mm measured on the vertical distance from / to the upper fork bridge**~~. The screen must not have sharp edges. The material of the windscreen must be transparent or ~~**slightly**~~ tinted.

h) Fairing brackets and fasteners may be altered or replaced. The material is free.

i) The ram-air intake(s) must maintain the originally homologated shape and dimensions with a +/- 2 mm tolerance.

j) The original air ducts running between the fairing and the air box may be altered or replaced with a +/- 2 mm tolerance to the homologated parts. The material is free. Particle grills or “wire - meshes” originally installed in the openings for the air ducts may be removed.

k) The lower fairing must be constructed to hold a minimum of 5 litres in case of an engine breakdown. The lower edges of all the openings in the fairing must be positioned at least 50 mm above the bottom of the fairing.

l) The lowest point of the rear transverse wall of the lower fairing must be at least 50 mm above the bottom. The angle between this wall and the floor must be ≦ 90°.

m) The lower fairing must incorporate at least a single opening of 20 mm diameter in the front lower area. This hole must remain sealed in dry conditions and must be opened only in wet race conditions as declared by the Race Director.

n) Motorcycles may be equipped with a radiator shroud (inner ducts) to improve the air stream towards the radiator, but the appearance of the front, the rear and the profile of the motorcycle must not be changed.

o) Front mudguard may be modified or replaced and may be spaced upward for increased tire clearance. The material is free.

p) Rear mudguard fixed on the swing arm can be modified, replaced, may be spaced upward for increased tire clearance or removed. The material is free. The chain guard may be removed.

q) All exposed edges must be rounded.

r) Wings and Aerodynamic Aids:

   i. Wings and other aerodynamic aids can only be used if originally fitted to the homologated motorcycle.

   ii. The wings and other aerodynamic aids must follow the dimensions, profiles and positions of the homologated shapes exactly (tolerance +/- 1 mm). For copies of the OEM parts, the leading edges (including end plates) must have a minimum circumference of 4 mm and must have a rounded end (8 mm radius) or be enclosed / integrated into the fairing.

   iii. The OEM parts may be used "as is" with the exception that the wing root and 10 mm from the end face may be modified to allow mounting to the fairing. This may not be in the form of an extension and the size of the wing will be measured with reference to the face of the wing root.

   iv. The wings must be fitted in the same relative position (accepting the tolerance allowed for the fairing) and the angle of attack must be within +/- 4 degrees of the original angle of attack relative to the chassis.

   v. For active or dynamic aerodynamic parts, only the standard homologated mechanism can be used. The range of movement of these parts must be the same as that used by the homologated motorcycle in normal use - not the mechanical maximum.

AACR 2.8.11 Seat

a) Seat, seat base and associated bodywork may be replaced. The appearance from front, rear and profile must conform in principle to the homologated shape.

b) The top portion of the rear body work around the seat may be modified to a solo seat.

c) The homologated seat locking system (with plates, pins, rubber pads, etc.) can be removed.

d) The material is free.

e) All exposed edges must be rounded.

AACR 2.8.12 Fasteners

a) Standard fasteners may be replaced with fasteners of any material and design with the exceptions listed below, or in the relevant sections of this regulations.

b) Titanium fasteners may be used in structural (highly stressed) locations, but the strength and design must be equal to - or exceed - the strength of the standard fastener it is replacing.

c) Internal engine bolts, screws and nuts must remain of standard homologated materials or materials of higher specific weight.

d) The requirements for the materials of axles, bolts and nuts for engine mounting, wheels and swingarm are specified in the relevant sections of this regulations.

e) Fasteners may be drilled only for safety wiring, but intentional weight-reduction modifications are not allowed.

f) Thread repair using inserts of different material such as Helicoil® and Time-Sert® are allowed.

g) Fairing/body-work fasteners may be changed to a quick disconnect type, the material is free.

h) Aluminium fasteners may only be used in non-structural (low stressed) locations.

i) In case of a dispute, the decision of the Chief Technical Officer is final.

AACR 2.8.13 Rear Safety Light

See AACR 0.2.3.

AACR 2.9 The following items MAY BE altered or replaced

a) Any type of lubrication, brake and suspension fluid may be used.

b) Gaskets and gasket materials.

c) Bearings of any type and brand may be used.

d) Painted external surface finishes and decals.

e) Material for brackets connecting non-original parts (fairing, exhaust, instruments, etc.) to the frame (or engine) can be made from titanium or fibre reinforced composites.

f) Protective covers for the frame, chain, footrests can be made in materials like fibre composite material.

AACR 2.10 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 / cylinder head must be plugged.

c) Speedometer and related wheel spacers.

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 2.11 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) Tool box.

f) Helmet hooks and luggage carrier hooks.

g) Passenger footrests.

h) Passenger grabs rails.

i) Safety bars, centre and side stands must be removed (fixed brackets must remain excepting side stand bracket).

j) Catalytic convertors.

AACR 2.12 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 **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.

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 crankcase, oil radiator).

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 2.13 TIMEKEEPING INSTRUMENTS

See AACR 0.8.

AACR 2.14 ONBOARD CAMERAS

See AACR 0.10.

AACR 3 SUPERSPORT and SUPERSPORT NEXT GENERATION

AACR 3.0 GENERAL

The following rules are intended to give freedom to modify or replace some parts in the interests of safety, research and development and improved competition between various motorcycle concepts.

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.

Homologation requirements see AACR 0.6.

All motorcycles must be normally aspirated.

All motorcycles must comply in every respect with all the requirements for road racing as specified in these Technical Regulations.

The appearance from the front, rear and the profile of Supersport motorcycles must (except when otherwise stated) conform in principle to the homologated shape (as originally produced by the manufacturer). The appearance of the exhaust system is excluded from this rule.

AACR 3.1 MOTORCYCLE SPECIFICATIONS

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

AACR 3.1.1 Engine configurations and displacement capacities

a) The following engine configurations comprise the Supersport class.

Over 400cc up to 600cc 4 stroke 4 cylinders
Over 500cc up to 675cc 4 stroke 3 cylinders
Over 600cc up to 750cc 4 stroke 2 cylinders

b) The following engine configurations comprise the Supersport NG class.

Over 400cc up to 600cc 4 stroke 4 cylinders
Over 500cc up to 900cc 4 stroke 3 cylinders
Over 600cc up to 900cc 4 stroke 2 cylinders

AACR 3.2 ELIGIBLE MOTORCYCLES (as of February 2025)

AACR 3.2.1 Class Supersport

- Honda CBR 600 RR (Model Code: PC 40)
- Kawasaki ZX-6R (Model Code: ZX600P, ZX600R)
- Suzuki GSX-R 600 (Model Code: K7, K8, K9, L0, L1, L2)
- Triumph Daytona 675 R
- Yamaha YZF-R6 (Model Code: RJ15, RJ27)

AACR 3.2.2 Class Supersport Next Generation

- Ducati Panigale V2 (Model Code: 1H)
- Honda CBR 600 RR (Model Code: MC51) TBC
- Kawasaki ZX-6R (Model Code: ZX600RF)
- **Kawasaki ZX-6R-636**
- MV Agusta F3 800 RR
- MV Agusta F3 Superveloce
- Suzuki GSX-R 600 (Model Code: M2)
- Suzuki GSX-R 750 (Model Code: M2)
- Triumph ST 765 RS
- Triumph Street Triple Moto2 Edition
- Yamaha YZF-R6 (Model Code: BN6)
- **Yamaha YZF-R9**
- **QJ Motor – QJ800GS-G**

AACR 3.3 BALANCING VARIOUS MOTORCYCLE CONCEPTS

In order to equalize the performance of motorcycles used in the Supersport World Championship, a system of performance enhancements or restrictions, referred to as **"balancing factors",** may be applied **– including but not limited to:**

- Concession Parts

- Permitted Tuning Parts
- Motorcycle specified Engine Control Units (ECU's)
- Minimum Weight
- Air restrictors
- **Rev Limit (noted as a feature of the legal balance in the Eligible Parts for Competition List 2025).**
- Other Modifications / Mandatory Modifications

Alpe Adria will follow the balancing factors applied in Supersport World Championship as far as possible. The validity of changes for the Alpe Adria Championship will be published with Technical Bulletins.

The eligible and mandatory parts and modifications for the respective motorcycles are listed in the FIM Eligible Parts for Competition List in the current version (published on www.fim-moto.com) for this class. If this list contains mandatory parts and mandatory modifications for a respective motorcycle, then the mandatory parts must be used and the mandatory modifications must be made.

AACR 3.4 MINIMUM WEIGHTS

The weights of the motorcycles in running condition are specified as follows:

Motorcycle	Motorcycle Weight		Combined Minimum Weight (Motorcycle + Rider)
	Hard Minimum	Soft Maximum	
Ducati Panigale V2	166 kg	175 kg	244 kg
Honda CBR 600 RR	161 kg	170 kg	239kg
Kawasaki ZX-6R	161 kg	170 kg	239kg
Kawasaki ZX-6R-636	**161 kg**	**170 kg**	**239 kg**
MV Agusta F3 800	161 kg	170 kg	239kg
MV Agusta F3 Superveloce	161 kg	170 kg	239kg
Suzuki GSX-R 600	161 kg	170 kg	239kg
Suzuki GSX-R 750	161 kg	170 kg	239kg
Triumph Daytona 675 R	161 kg	170 kg	239kg
Triumph Street Triple 765 RS	161 kg	170 kg	239kg
Triumph ST Moto2 Edition	161 kg	170 kg	239kg
Yamaha YZF-R6	161 kg	170 kg	239kg
Yamaha YZF-R9	**161 kg**	**170 kg**	**239 kg**
QJ Motor – QJ800GS-G	**161 kg**	**170 kg**	**239 kg**

a) Combined weight is the weight of the rider (in full racing equipment) plus motorcycle as used on track.

b) If the motorcycle has achieved or exceeded the "Soft Maximum Weight", then the "Combined Minimum Weight" does not need to be reached. The motorcycle alone may

never at any time be below the “Hard Minimum Weight”.

c) At any time of the event, the weight of the whole motorcycle (including the tank and its contents) must not be lower than the specified minimum weight.

d) There is no tolerance on the hard minimum and the combined minimum weight.

e) During the final technical inspection at the end of the race, the selected motorcycles and riders 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.

g) The use of ballast is allowed to stay over the minimum weight limit and may be required due to the handicap system. The use of ballast and weight handicap must be declared to the Chief Technical Officer at the preliminary checks.

h) Minimum weights can be changed in conjunction with the FIM Supersport World Championship Regulations. Changes will be published with Technical Bulletins.

AACR 3.5 STARTING NUMBERS & BACKGROUND COLOURS

Blue numbers with white background (see AACR Technical Regulations Appendix A and AACR 0.4 for sizes and specifications).

AACR 3.6 FUEL

See AACR 0.5.

AACR 3.7 TIRES

See AACR 0.3.

AACR 3.8 ENGINE

The number of engines is free.

AACR 3.8.1 Cylinder Head - Supersport

Must be the originally fitted and homologated part. The following modifications are allowed:

a) Porting and polishing of the cylinder head normally associated with individual tuning such as gas flowing of the cylinder head, including the combustion chamber is allowed. Welding is not allowed. No machining or modification is allowed in the cam box/valve mechanism area.

b) The throttle body intake insulators may be modified.

c) Modifications of the inlet and exhaust ports by taking off or adding material (welding is forbidden). Epoxy may be used to shape the ports.

d) It is forbidden to add any material to the cylinder head unless as described above.

e) Surface grinding of the cylinder head surface on the head gasket side.

f) Original homologated valves guides may be cut or modified, but only on the intake or exhaust port side.

g) Polishing of the combustion chamber.

h) Original valve seats must be used, but modifications are allowed to the shape.

i) Compression ratio is free, but the combustion chamber may be modified only by taking

material off.

j) Valve clearance adjusting shims can be changed.

k) Valve springs may be changed but the number must remain as homologated.

l) Valve spring retainers and valve cotters may be replaced or modified, but their weight must be the same as, or higher than, the original ones.

m) Valve spring seats (spring base) may be modified or changed. Valve spring shims may be added.

n) Valve stem seals can be modified or changed.

o) Gaskets can be modified or changed.

The parts listed below must be the originally fitted and homologated parts with no modifications allowed:

p) Cam followers / valve lifters (bucket tappets, finger followers, rocker arms) must remain as homologated.

q) Valve clearance adjusting screws and nuts must remain as homologated.

r) The valves must remain as homologated.

The modification(s) listed below are mandatory:

s) The exhaust air bleed system must be blocked and the external fittings on the cam cover(s) may be replaced by plates.

AACR 3.8.2 Cylinder Head - Supersport Next Generation

a) Must be the original fitted and homologated part with no modification allowed, except 3.8.2.b).

b) Surface grinding of the cylinder head surface on the head gasket side is permitted but only up to minus 0,1 mm below the homologated tolerance.

c) The gaskets can be modified or changed.

d) The throttle body intake insulators may be modified.

e) The valves, valve guides, valve springs, valve spring retainers, valve cotters, valve stem seals and spring base must be as originally produced by the manufacturer for the homologated motorcycle.

f) Original valve seats must be used, but modifications are allowed to the shape.

g) Cam followers / valve lifters (bucket tappets, finger followers, rocker arms) must remain as homologated.

h) Valve clearance adjusting shims can be changed.

i) Valve clearance adjusting screws and nuts must remain as homologated.

j) The exhaust air bleed system must be blocked and the external fittings on the cam cover(s) may be replaced by plates.

AACR 3.8.3.1 Camshafts - Supersport

a) Camshafts are free, but the maximum cam lift must not be higher than on the homologated camshafts.

b) The timing of the camshafts is free.

AACR 3.8.3.2 Camshafts - Supersport Next Generation

a) Only the original fitted and homologated parts or the championship eligible concession camshafts from the **FIM Eligible Parts for Competition-List** in the current version (published on www.fim-moto.com) can be used. **If this list contains mandatory parts for a specified motorcycle, then the mandatory parts must be used**.

b) The timing of the camshafts is free.

AACR 3.8.4 Camshaft drive

a) Camshaft sprockets or gears may be modified or replaced to allow the degreeing of the camshafts.

b) Pressed on cam sprockets or gears may be replaced with an adjustable boss and cam sprocket or gear.

c) The cam drive system (chain drive, belt drive or gears) must remain as homologated.

d) Cam chain(s), cam belt(s) and cam drive gears must remain as homologated.

e) Cam chain / cam belt tensioner(s) can be modified or replaced.

AACR 3.8.5 Cylinders

a) Must be the original fitted and homologated part(s) with only the following modification allowed.

   i. Cylinder head gasket surface may be machined to allow the adjustment of compression ratio or resurfacing to repair a warped cylinder surface deck.

b) The surface finish of the cylinder bore must remain as homologated.

AACR 3.8.6 Pistons

a) Must be the original fitted and homologated part with no modification allowed.

AACR 3.8.7 Piston Rings

a) Must be the original fitted and homologated part with no modification allowed.

b) All piston rings must be fitted.

AACR 3.8.8 Piston Pins and Clips

a) Must be the original fitted and homologated part with no modification allowed.

AACR 3.8.9 Connecting Rods

a) Must be the original fitted and homologated part with no modification allowed.

AACR 3.8.10 Crankshaft

a) Must be the original fitted and homologated part with no modification allowed.

b) Modifications of the flywheels are not allowed.

AACR 3.8.11 Crankcase / Gearbox Housing

a) Crankcases must remain as homologated. No modifications are allowed (including painting, polishing and lightening).

b) Repairing the crankcase by welding or using Epoxy is allowed.

c) It is not allowed to add a pump or any other device to create a vacuum in the crankcase. If a vacuum pump is installed on the homologated motorcycle then it can be used only as homologated.

d) One thread may be altered or created to allow for oil pressure/ oil temperature measurement. The sensor must be positioned in such a way that it cannot be damaged in

the case of a crash.

AACR 3.8.12 Crankcase / Gearbox Housing

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. If replaced, the cover must be made in material of same or higher specific weight and the total weight of the cover must not be less than the original one.

b) Titanium bolts may be used to fasten lateral covers.

c) All lateral covers/engine cases containing oil and which could be in contact with the ground during a crash, must be protected by a second cover made from metal, such as aluminium alloy, stainless steel, steel or titanium. Covers made of composite materials are not permitted.

d) The secondary cover should cover a minimum of 1/3 of the original cover. It must have no sharp edges to damage the track surface.

e) Plates or crash bars made from aluminium or steel are also permitted in addition to these covers. All of these devices must be designed to be resistant against sudden shocks, abrasions and crash damage.

f) Plates/crash bars/frame sliders must not protrude outside the fairing for more than 30 mm.

g) Covers listed in the **FIM Eligible Parts for Competition-List** in the current version (published on www.fim-moto.com) will be permitted without regard of the material or dimensions.

h) These covers must be fixed properly and securely with a minimum of three (3) case cover screws that also mount the original covers/engine cases to the crankcases.

i) Oil containing engine covers must be secured with steel or titanium bolts.

j) The Chief Technical Officer has the right to refuse and forbid any cover not satisfying this safety purpose.

k) No damaged or repaired covers will be permitted unless approved by the Chief Technical Officer.

AACR 3.8.13 Transmission / Gearbox

a) Must be the originally fitted and homologated parts (including but not limited to shafts, selector mechanism, gears and primary gears) with the following exceptions:

   i. **Supersport:** 1st gear shaft and counter gear may be changed and must be declared before the start of the season. Only one option may be used for the whole season.

   ii. **Supersport Next Generation:** The manufacturer of the motorcycle will be responsible for nominating and supplying the first gear.

b) Undercutting and re-shimming are allowed.

c) The positive neutral selector mechanism may be removed.

d) Shift star/indexer, spring, roller and detent may be replaced or modified but must function as originally designed.

e) Polishing, surface treatment, and heat treatment of all gearbox components is allowed.

f) Countershaft sprocket, rear wheel sprocket, chain pitch and size may be changed.

g) The front sprocket cover can be modified, changed or removed

h) The chain tensioner is free.

i) Chain guard can be modified or removed.

j) Transmission gear shifter shaft supporting brackets can be added.

k) Add on quick shift modules / additional modules are allowed to enable upshifts and downshifts. “Downshift blipping” is allowed.

l) No power source (i.e. hydraulic or electric) can be used for gear selection, if not installed in the homologated motorcycle.

AACR 3.8.14 Clutch

a) Clutch system (wet or dry type) and the method of operation (by cable or hydraulic) must remain as homologated.

b) Friction and drive discs may be changed, the number of discs is free.

c) Clutch springs may be changed, the number of springs is free.

d) Clutch outer basket must be the originally fitted and homologated part but may be reinforced.

e) Primary driven gear must remain as originally produced for the homologated motorcycle with no modification allowed.

f) The original clutch inner assembly may be modified or replaced by an aftermarket clutch, also including back torque limiting capabilities (slipper type).

g) Clutch fluid reservoir can be replaced.

h) Clutch lines/cables can be replaced.

i) No power source (i.e. hydraulic or electric) can be used for clutch operation, if not installed in the homologated motorcycle.

AACR 3.8.15 Engine Oil System

a) Oil pump internal parts may be modified or replaced from those fitted to the homologated motorcycle, but oil pump housing, mounting points and oil feed points must remain as original. Modifications of the crankcase are not allowed.

b) The oil pump drive may be modified or changed.

c) The oil pressure relief valve is free.

d) Oil lines may be modified or replaced. Oil lines containing positive pressure, if replaced, must be of braided reinforced construction with swaged or threaded connectors.

e) The original oil cooler / heat exchanger can be modified or replaced, Extra mounting brackets to accommodate the cooler are permitted.

f) Additional oil coolers can be added. Extra mounting brackets to accommodate these coolers are allowed.

g) Oil coolers can be installed even if the homologated motorcycle does not have one.

h) All oil coolers must be mounted below the lower fork bridge (triple clamp). Mounting on or above the rear mudguard is forbidden.

i) Oil thermostat (if existing) can be modified, replaced or removed.

j) Thermal switches and oil temperature sensor can be modified, replaced or removed.

k) Protective meshes may be added in front of the oil cooler(s).

l) The appearance from the front, the rear and the profile of the motorcycle must conform

to the homologated shape after the addition of oil coolers.

AACR 3.8.16 Engine Water Cooling System

a) The only permitted liquid engine coolant for the water-cooling system is water without additives.

b) Water pump internal parts may be modified or replaced from those fitted to the homologated motorcycle, but water pump housing and mounting points must remain as original. Modifications of the crankcase are not allowed.

c) The water pump drive may be modified or changed.

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) Additional water radiators can be added. Extra mounting brackets to accommodate these radiators are allowed.

i) All water radiators must be mounted below the lower fork bridge (triple clamp). Mounting on or above the rear mudguard is forbidden.

j) Water thermostat can be modified, replaced or removed.

k) Thermal switches and water temperature sensor can be modified, replaced or removed.

l) Protective meshes may be added in front of the water radiator(s).

m) The appearance from the front, the rear and the profile of the motorcycle must conform to the homologated shape after the addition of water radiators.

AACR 3.8.17 Air Box

a) Must be the original fitted and homologated part with no modification allowed.

b) Air filter(s) may be removed, modified, or replaced with aftermarket parts.

c) The air box drains must be sealed.

d) All motorcycles must have a closed breather system. All oil breather line(s) must be connected, may pass through an oil catch tank and must exclusively discharge in the air box. Only the original breather vents can be used.

e) Ram air tubes or ducts running from the fairing to the air box may be modified, replaced or removed. The material is free. If tubes/ducts are used, they must be attached to the original, unmodified air box inlets.

f) No heat protection can be attached to the air box.

AACR 3.9 FUEL SYSTEM

AACR 3.9.1 Fuel Tank

a) Fuel tank must remain as originally produced by the manufacturer for the homologated motorcycle with no modification allowed.

b) All fuel tanks 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.

d) Fuel tank filler cap may be altered or replaced from those fitted to the homologated motorcycle. Fuel cap when closed must be leak proof. Additionally, they must be securely locked to prevent accidental opening at any time.

e) If the tank has a filler "neck" (tube) inside the tank that restricts its complete filling, then the neck may be cut or removed or have vent holes drilled through it.

f) A rider spacer/pad may be fitted to the rear of the tank with permanent or non-permanent adhesive. The material is free.

g) The fuel tank can have a cover fitted over it. This cover must fit the shape of the fuel tank.

h) The fuel tank may have a heat reflective shield attached to its bottom surface.

i) Fuel petcock (if existing) may be altered, replaced or removed.

j) Fuel vent lines may be modified or replaced.

k) A fuel tank drain valve can be installed and must be located in such a way that it is protected from crash damage.

l) A spacer between fuel tank and fuel pump can be installed.

AACR 3.9.2 Fuel Injection System / Fuel Supply

Fuel injection system / fuel supply refer to throttle bodies, fuel injectors, fuel lines and pipes, fuel pump, fuel pressure regulator and intake tract devices (static or variable length).

Only optional parts / concession parts and permitted modifications listed in the **FIM Eligible Parts for Competition-List** in the current version (published on www.fim-moto.com) will be permitted for the specific motorcycle only. These optional parts / concession parts and permitted modifications only override the relevant points of the regulations listed below.

a) The original homologated fuel injector system must be used without any modification.

b) The throttle bodies must be stock and unaltered from the original specification and manufacture and in the same position as on the homologated motorcycle.

c) The fuel injectors must be stock and unaltered from the original specification and manufacture and in the same position as on the homologated motorcycle.

d) Bell mouths / velocity stacks must remain as originally produced by the manufacturer for the homologated motorcycle.

e) Butterfly valves must remain as originally produced by the manufacturer for the homologated motorcycle.

f) Variable intake tract devices cannot be added if they are not present on the homologated motorcycle, and they must remain identical and operate in the same way as the homologated system. All parts of the variable intake tract device must remain exactly as homologated.

g) Existing variable intake tract devices can be deactivated or removed.

h) Secondary throttle valves and shafts may be removed or fixed in the open position and the electronics may be disconnected or removed.

i) Air and air/fuel mixture can go to the combustion chamber exclusively though the throttle body butterflies.

j) Electronically controlled throttle valves, known as "ride-by-wire", may be only used if

the homologated model is equipped with the same system. Software may be modified but all the safety systems and procedures designed by the original manufacturer must be maintained.

k) Fuel pump and fuel pressure regulator must be the original fitted and homologated parts with no modification allowed.

~~l) **The fuel pressure must be as homologated.**~~

~~m) **The fuel pressure tolerance at the technical control is + 0,5 bar in respect to the maximum pressure of the homologated motorcycle.**~~

n) Fuel lines from the fuel tank to the delivery pipe assembly(s) may be replaced and must be located in such a way that they are protected from crash damage.

o) Fuel lines from the fuel tank up to the injectors (fuel hoses, delivery pipe assembly, joints, clamps) may be modified or replaced.

p) Quick connectors or dry break quick connectors may be used.

q) Fuel filters may be added.

AACR 3.10 EXHAUST SYSTEM

a) Exhaust pipes, silencers and mounting brackets may be modified or replaced. Catalytic converters must be removed.

b) The number of the final exhaust silencer(s) must remain as homologated. The silencer(s) must be on the same side(s) as on the homologated motorcycle.

c) For safety reasons the exposed edge(s) of the exhaust pipe(s) outlet(s) must be rounded to avoid any sharp edges.

d) Wrapping of the exhaust system is not allowed except in the area of the rider's foot or an area in contact with the fairing for protection from heat.

e) Titanium and carbon exhausts and silencers are allowed.

f) <u>Supersport Next Generation:</u> Motorcycles will have limitations on the exhaust specification defined at the time of the balance tests and specified in the Eligible Parts list for Competition. Once approved, the system and its map ID will be added to the Eligible Parts for Competition List.

g) The basic noise limit 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>**

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

- 2-cylinder engines over 750 cc: 5.000 RPM
- 3-Cylinder engines up to 750 cc: 6.000 RPM
- 3-Cylinder engines over 750 cc: 5.000 RPM
- 4-cylinder engines up to 600 cc: 7.000 RPM
- 4-cylinder engines up to 750 cc: 7.000 RPM

i) Sound level control: See AACR 0.7.

AACR 3.11 ELECTRICS and ELECTRONICS

AACR 3.11.1 Engine control system (ECU) / Electronics - Supersport

a) Motorcycles that are not equipped with the correct electronics for this class cannot

compete in this class.

b) The engine control system (ECU) must be either:

i. The original system as homologated. Flashing the original ECU is allowed, hardware modifications of the ECU are not allowed.

ii. The original system (with the production ECU - option i.) may have commercially available external ignition and/or injection module/s added. A special connector may be used to connect the module/s and the ECU.

iii. An FIM/AA approved ''Superstock Kit'' model (produced and/or approved by the motorcycle manufacturer) may be used. Flashing the KIT-ECU is allowed, hardware modifications of the ECU are not allowed. Commercially available external ignition and / or injection module/s may be added. A special connector / adaptor may be used to connect the ECU(s) and the original wiring harness.

The ECU (with software and activations) and harness parts must be available separately.

iv. The FIM World Supersport 600 approved ECU MecTronik MKE7 (part number WSS600_A) **for the specified motorcycle. The** sole official supplier of this ECU is Solo Engineering. www.soloengineering.com, sales@soloengineering.com. When using this ECU, Art. 3.11.2 in these Regulations is mandatory.

c) Central unit (ECU) may be relocated.

d) Corner by corner or distance/position-based adjustments are not allowed.

e) Optional equipment sold by the motorcycle Manufacturer for the homologated model is considered not homologated with the motorcycle and must follow the requirements for approved electronics / data loggers.

f) During an event the Chief Technical Officer has the right to ask a rider/team substitute their ECU or external module(s) with the FIM / AA sample received from the Manufacturer. The change has to be done before Sunday warm up.

g) No extra sensors can be added for engine control strategies except shift rod sensor, wheel speed sensors and lambda sensors. Any of these sensors must be included in the Kit ECU and Harness package if required for strategies (including closed loop lambda).

h) Other additional electronic hardware not present on the original homologated motorcycle cannot be added with the exceptions noted below.

i) Resistors/load may be added to replace the parts of the electrical system that have been removed (including lights and lambda sensors) to prevent ECU errors.

j) An ABS replacement/bypass may be fitted and/or the ABS unit may be dismantled to leave just its ECU.

k) The external fuel injection modules / ignition modules may not alter any sensor signal relating to the ride by wire system / ECU or control / actuate any part of the motorcycle excepting the fuel injectors / ignition coils.

l) Lambda closed loop /auto tuning is permitted.

m) No external modules may add traction control strategies (such as Traction Control, Launch Control, Anti Wheelie Control) unless originally fitted to the homologated motorcycle or included in the Racing Kit (which must be produced and/or approved by the motorcycle manufacturer) for the homologated motorcycle.

n) Control strategies (such as Traction Control, Launch Control, Anti Wheelie Control) is only allowed when it is originally fitted to the homologated motorcycle or included in the Racing Kit (which must be produced and/or approved by the motorcycle manufacturer) for the homologated motorcycle.

o) Data logging systems:

   i. The data logging system is free, but the specifications listed below must be respected.

   ii. The Data Logger unit must be available for sale to the public.

   iii. The sensors must be simple function. No inertial platforms are allowed to be added if an inertial platform is not installed originally on the homologated motorcycle.

   iv. CAN (or other data protocol) communication from the ECU to an approved Data Logger is allowed without any limitation in CAN channel logger number.

   v. The Data Logger may not act to control any strategy or setting in the ECU – except to replicate the original dashboard signals if the original dashboard is replaced. The logger may not automate these setting changes.

p) The maximum total price of other active/control/calculation units such as lambda driver modules, quick shifter and analogue to CAN converters is € 1.000 (tax excluded). These devices must be approved by FIM / Alpe Adria.

q) Telemetry is not allowed.

r) No remote or wireless connection to the motorcycle for any data exchange or setting is allowed whilst the engine is running, or the bike is moving.

s) The wiring harness is free.

t) Downshift blipping is allowed. External downshift blip modules are allowed.

u) The addition of an infrared (IR) or GPS based lap timing system is allowed.

v) Dashboard is free. It may incorporate the Data Logger. There must remain a working tachometer display.

w) Spark plugs may be replaced.

x) Spark plug caps /coil on plug, ignition cables and ignition harness are free.

y) The battery is free and may be relocated. The maximum capacity is 10 Ah.

z) A lap timer can be fitted.

AACR 3.11.2 Engine control system (ECU) / Electronics - Supersport Next Generation

a) Motorcycles that are not equipped with the correct electronics for this class cannot compete in this class.

b) The ECU must be the Supersport control ECU - the MecTronik MKE7 (part number WSS600_A) for the specified motorcycle. The sole official supplier of this ECU's is Solo Engineering. www.soloengineering.com, sales@soloengineering.com.

c) The ECU must have the "FIM Settings" section for the specified motorcycle at all times – it is the team's responsibility to ensure that this is done.

   Other technical solutions (e.g. original ECU's modified by the manufacturer or somebody else, additional rpm-limiters, etc.) will not be accepted!

d) External quick shift modules/sensors may be fitted but may only provide a signal to the

Control Supersport ECU.

e) No other external modules may be fitted except:
   i. Part of a quick shifter where the module may only provide a signal to the control ECU.
   ii. Championship mandated devices (e.g. 2-way RF system).
   iii. Datalogger

f) A CAN connection must be made available for Championships devices. They must be located in the rear of the seat unit of the motorcycle. It must be connected to the ECU CAN bus and the TPMS system (if fitted) must be connected to the same bus. 12v power should be available switched by the main switch (not switched by the ignition switch). The devices may be championship mandated.

   Connector spec: JST 04R-JWPF-VSLE-S

   1. Ground
   2. CAN Lo
   3. CAN Hi
   4. 12v Main Switch

g) The rain light must be powered by the ECU (as detailed in the harness schematics).

h) The ECU may be freely located but must be fitted securely, in a damped mounting without vibration.

i) During an event the Alpe Adria Chief Technical Steward has the right to ask a team to substitute their ECU. The change has to be done before Sunday warm up.

j) During an event the Alpe Adria Chief Technical Steward has the right to read and save the teams calibration file (amp), it will not be shared except for conformity checks with control electronics system partners but may be used in Dyno tests.

k) The following sensors must be connected directly to the ECU only and must be the original OEM sensors unless stated otherwise:

   1. Throttle position (multiple allowed)
   2. Map sensor, Map Sync (pressure sensor on the intake port used to synchronize the engine during the start)
   3. Airbox Pressure
   4. Engine pick-ups (cam, crank)
   5. Twist grip position
   6. Front Speed (add only if not available OEM) *****
   7. Rear Speed (add only if not available OEM) *****
   8. Gearbox output shaft speed (if on OEM machine)
   9. Gear position
   10. Air pressure
   11. Water temperature
   12. Air temperature
   13. Tip-Over Switch (No lean angle – except from ECU; all ECU's feature crash detection by IMU)

   The following sensors can be added (and do not have to be OEM sensors):

   14. Gear shift load cell/switch (may only provide a signal to the control ECU)

15. Lambda - Bosch LSU4.9 only (one sensor only)
16. Fork position
17. Shock position
18. Front brake pressure
19. Rear brake pressure
20. Fuel pressure (not temperature)
21. Oil pressure
22. Oil temperature
23. Switches (left and right)
24. Rear TPMS Monitor (Temperature and Pressure, must be CAN) **
25. Front TPMS Monitor (Temperature and Pressure, must be CAN) **

*** The OEM phonic/speed sensor rings must be used (ZX636 for ZX6).**

**** Must be from the Eligible Parts for Competition List.**

l) The data logger must be from the **FIM Eligible Parts for Competition-List** in the current version (Data Logger List). The characteristics of eligible data logging systems must be the following:

i. Maximum retail price of the unit (hardware + software, excluding sensors and wiring harness) cannot exceed €3.000 Euro (VAT excluded) unit. The "unit" may consist of multiple parts, input module, recording module etc.

ii. The Data Logger unit must be available for sale to the public.

iii. The data logger may ONLY be connected to the CAN bus and to those sensors listed below:

1. GPS Unit (Lap timing and track position).
2. Transponder / Lap time signal.
3. Rear tire temperature (Infra-Red, External, Maximum 3).
4. And any exceptions noted in the **FIM Eligible Parts for Competition-List** in the current version.

m) Telemetry is not allowed.

n) No remote or wireless connection to the motorcycle for any data exchange or setting is allowed whilst the engine is running, or the motorcycle is moving.

o) The dashboard is free, it may also contain the datalogger. There must remain a working Tachometer display.

p) All shift lights must be only "White".

q) If handlebar switches are replaced from those supplied in the kit, then they must meet the specification documented on www.soloengineering.com for the specified motorcycle. Their basic layout, switch function, position and colour must follow those supplied in the kit.

r) Plug caps and coils / coil on plug must remain as homologated.

s) Electric cables, harness, connectors, battery and switches are free, but the harness must comply with the wiring schematic that is available from www.soloengineering.com for the specified motorcycle.

t) Spark plugs and wires may be replaced.

u) A lap timer can be fitted.

AACR 3.11.3 Generator, Alternator, Electric Starter

a) The generator (ACG) must be the originally fitted and homologated part with no modification allowed any exceptions for specified motorcycles are noted in the **FIM Eligible Parts for Competition-List** in the current version.

b) The stator must be fitted in its original position and without offsetting.

c) The electric starter must operate normally and always be able to start the engine during the event.

d) During Parc Fermé, the starter must crank the engine at a suitable speed for starting for a minimum of 2 seconds without the use of a boost battery. No boost battery may be connected to the motorcycle at any time of the event.

e) The generator must always charge the battery in a sufficient way when the engine is running. The charging voltage must be corresponding to the charging voltage listed in the service manual / kit manual of the homologated motorcycle.

f) The regulator/rectifier may be modified or replaced.

g) Operating the motorcycle on the battery only (without a functioning generator) is not allowed.

AACR 3.12 MAIN FRAME / CHASSIS

a) The use of titanium and carbon (or similar composite materials) in the construction of the main frame, rear sub frame, swing arm and swing arm pivot bolt, front forks, triple clamps, wheel axles, engine mounting parts and handlebars is forbidden. The use of titanium and aluminium alloys in the construction of swing arm pivot bolts and wheel axles is forbidden.

b) Unless otherwise stated, the use of titanium and aluminium alloys for nuts and screws is allowed.

c) 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 2nd motorcycle to the Chief Technical Officer.

d) After a crash, the rebuilt motorcycle must be inspected before its use by the Technical Officers for safety checks and a new seal will be placed on the motorcycles frame.

e) No other spare motorcycle may be on the track.

AACR 3.12.1 Frame Body and Rear Sub Frame

a) The frame must remain as originally produced by the manufacturer for the homologated motorcycle.

b) Holes may be drilled on the frame only to fix approved components (i.e. fairing brackets, steering damper mount, sensors, etc.).

c) The sides of the frame body may be covered by protective parts made of plastic or 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 fitted into the ends of the wheel axles (max. length: 30 mm).

e) Crash protectors / frame sliders must not protrude outside the fairing for more than 30

mm.

f) Nothing may be added or removed from the main frame body.

g) All motorcycles must display a valid vehicle identification number (frame number / chassis number) punched on the frame body.

h) Engine mounting brackets or plates must remain as originally produced by the manufacturer for the homologated motorcycle.

i) Engine mounting axles, bolts and nuts can be modified or replaced but must be made of a steel alloy.

j) Suspension linkage mounting points on the frame must remain as originally produced by the manufacturer for the homologated motorcycle with no modification allowed.

k) Front sub frame / fairing mount may be modified or replaced. The material is free.

l) Rear sub frame may be modified or replaced, but the use of titanium and composite materials is forbidden. Repairing and welding of the sub frame is allowed.

m) Additional seat brackets may be added, non-stressed protruding brackets may be removed if they do not affect the safety of the construction or assembly. Bolt-on accessories to the rear sub-frame may be removed.

n) The side stand bracket may be cut or removed.

o) The paint scheme is not restricted but polishing the frame body or sub-frame is not allowed.

p) If the homologated motorcycle has inserts for the steering bearings or swingarm pivot bolt, then these inserts can be modified or replaced. Modifying the frame body is not allowed.

AACR 3.12.2 Suspension General

a) **Front Fork internal parts and Rear Shock Absorber can be modified or changed.** The price limits are:

   i. Front Fork: For the fork kit, including all parts such as – but not limited to – cartridge, springs (1set), adjusters, fork caps, blanking inserts, seals, bushes but excepting oil and fitting, the price limit is € 2.500 excluding tax.

   ii. Rear Shock Absorber/RCU: For the complete shock absorber/RCU including – but not limited to – spring (1 piece), pre-load adjuster and length/ride height adjuster, the price limit is € 2.000 excluding tax.

b) Electronic suspensions:

   i. No aftermarket or prototype electronically-controlled suspensions can be used. Electronically-controlled suspension can only be used if already present on the production model of the homologated motorcycle.

   ii. The electronically-controlled valves must remain as homologated. The shims, spacers and fork / shock springs not connected with these valves can be changed.

   iii. The ECU for the electronic suspension must remain as homologated and cannot receive any motorcycle or track position or sector information; the suspension cannot be adjusted relative to track position.

   iv. The electronic interface between the rider and the suspension must remain as on the homologated motorcycle. It is allowed to remove or disable this rider interface.

v. The electronic suspension system must work safely in the event of an electronic failure.

vi. Electro-magnetic fluid systems which change the viscosity of the suspension fluids(s) during operation are not permitted.

c) Electronic controlled steering dampers cannot be used if not installed on the homologated motorcycle for road use. However, it must be completely standard (any mechanical or electronic part must remain as homologated).

AACR 3.12.3 Front Fork and Fork Clamps

a) Forks (stanchions, tubes, wheel spindle, upper and lower fork clamps, etc.) must be the originally fitted and homologated parts with the following modifications allowed:

i. Original internal parts of the homologated forks may be modified or changed.

ii. Fork springs may be modified or replaced.

iii. Fork caps may be modified or replaced. The full clamping area of the upper fork clamp must be used.

iv. Dust seals may be modified, changed or removed if the fork remains totally oil- sealed.

v. The original surface finish of the fork tubes (stanchions, fork pipes) may be changed. Additional surface treatments are allowed.

vi. The front fender mounts integrated in the fork lower may be modified or removed and replaced.

b) The axle bore in the fork lower cannot be modified. The front axle nut/sleeve may be added or modified and/or made captive.

c) The upper and lower fork clamps (triple clamp, fork bridges and stem) must remain as originally produced by the manufacturer on the homologated motorcycle.

d) Steering stem pivot position must remain in the homologated position (as supplied on the homologated motorcycle). If the homologated motorcycle has inserts, then the inserts can be modified or replaced.

e) Steering bearings and dust seals are free.

f) A steering damper may be added; the original steering damper may be replaced with an after-market damper.

g) The steering damper cannot act as a steering lock limiting device.

h) Fork bushings and oil seals are free.

i) Any quality and quantity of fork oil can be used.

j) Fixing and mounting points for front brake callipers must remain as homologated.

AACR 3.12.4 Swing Arm

a) The swing arm must be the originally fitted and homologated part with no modification allowed.

b) The swing arm pivot bolt must be the originally fitted and homologated part with no modification allowed.

c) Swing arm pivot position must remain in the homologated position (as supplied on the homologated motorcycle). If the homologated motorcycle has inserts, then the inserts can be modified or replaced.

d) Rear axle chain adjuster may be modified or changed. The wheel axle nut may be replaced and/or made captive.

e) Rear axle chain adjuster slot may be enlarged to allow the brake calliper mounting to become captive.

f) Rear wheel stand brackets may be added to the swing arm by welding or by bolts. Brackets must have rounded edges (with a large radius) viewed from all sides. 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) Wheel support rails/guides may be added to permit quick wheel changes.

h) 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 rear wheel sprocket, irrespective of the rear wheel position. This must be fitted in such a way to reduce the possibility that any part of the riders' body may become trapped between the lower chain run and the rear wheel sprocket.

i) The sides of the swing arm may be protected by protective parts made of plastic or composite material. These protectors must fit the form of the swing arm.

j) Covers that provide structural reinforcement to the swing arm are prohibited.

AACR 3.12.5 Rear Suspension Unit

a) Rear shock absorber can be modified or replaced. For the complete shock absorber including – but not limited to – spring (1 piece), pre-load adjuster and length/ride height adjuster, the price limit is € 2.000 excluding tax.

b) The original attachment points to the frame and swing arm or linkage must be as homologated.

c) All the rear suspension linkage parts must be the originally fitted and homologated parts with no modification allowed.

d) Removable top shock mounts must remain as homologated. A nut may be made captive on the top shock mount and shim spacers may be fitted behind it.

AACR 3.12.6 Wheels

a) Wheels must be the originally fitted and homologated parts with no modification allowed.

b) Wheels may be overpainted but the original surface finish cannot be removed.

c) A non-slip coating/treatment may be applied to the bead area of the rim.

d) If the original design included a cushion drive for the rear wheel, it must be the originally fitted and homologated parts with no modification allowed.

e) Wheel axles may be modified or replaced but must be of the same material as the originally homologated part. The shank section of the axle must remain the same diameter as the originally homologated axle but the threaded area may be reduced in diameter.

f) Axle nuts / bolts can be modified or replaced, but must be made of a steel alloy.

g) Wheel spacers can be modified or replaced. Modifications to keep spacers in place are permitted.

h) Bearing spacers can be modified or replaced.

i) Wheel bearings are free.

j) Wheel balance weights are free.

k) Angled aluminium or steel inflation valves are compulsory.

l) The only permitted rim sizes are:

- Front 3.5”
- Rear 5.5”

In the case a motorcycle is not fitted with the aforementioned sizes, a single alternative wheel will be agreed between the motorcycle manufacturer and the FIM SBK Technical Director. Alpe Adria will follow this agreement.

ACR 3.12.7 Brakes

a) Front and rear brake discs may be replaced with aftermarket brake discs that must fit the original calliper and mounting. The maximum outside diameter is 320 mm. However, the offset, wheel mounting and the ventilation system must remain the same as on the homologated motorcycle. Internally ventilated discs are not allowed if not present on the homologated motorcycle.

b) Only Steel (max. carbon content 2.1 wt%) is allowed for replacement brake discs.

c) Front brake callipers as well as all the mounting points and mounting hardware (mount, carrier, hanger) must be the originally fitted and homologated parts with no modification allowed. Spacers may be fitted between the calliper and fork lower to fit larger diameter discs.

d) Rear brake callipers must be the originally fitted and homologated parts with no modification allowed. The mounting points must remain as homologated, but the mounting hardware (mount, carrier, hanger) may be modified or changed.

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

f) The front brake master cylinder can be the originally fitted and homologated parts with no modification allowed or may be replaced with a unit from the **FIM Eligible Parts for Competition-List** in the current version. The retail price limit without taxes for the front master cylinder (including lever) is €350.

g) The brake lever design is free.

h) The rear brake master cylinder can be the originally fitted and homologated parts with no modification allowed or may be replaced with a unit from the Eligible Parts for Competition List. The retail price limits without taxes are:

i. Thumb brake (including lever and mounts) €450
ii. Hand brake €450
iii. Foot operated master cylinder €200

i) The use of thumb or hand brakes is allowed in addition to or instead of the foot operated system. An adaptor may be fitted to the reservoir input of the OEM master cylinder to facilitate this.

j) Front and rear hydraulic brake lines may be changed. The brake fluid reservoirs may be replaced and/or repositioned. Quick connectors may be used but only between the master cylinder and the brake hose split.

k) The split of the front brake lines for both front brake callipers must be made above the

lower edge of the fork bridge (lower triple clamp). Brake line hose fittings (including banjo bolts) can only be Steel or Titanium.

l) Front and rear brake pads may be changed. Brake pad locking pins may be modified for quick change type.

m) Additional air ducts are allowed.

n) The ABS System must be removed.

o) 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. Guards from the **FIM Eligible Parts for Competition-List** in the current version will be permitted without regard to the material. The Chief Technical Officer has the right to refuse any guard not satisfying this safety purpose.

AACR 3.12.8 Handlebars and Hand Controls

a) Handlebars and hand controls may be replaced and relocated.

b) Throttle controls must be self-closing when not held by the hand.

c) Motorcycle with Throttle Cables:

i. Throttle assembly and associated cables may be modified or replaced but the connection to the throttle body and to the throttle controls must remain as on the homologated motorcycle.

ii. Cable operated throttles (grip assembly) must be equipped with both an opening and a closing cable including when actuating a remote drive by wire grip/demand sensor.

d) e) Motorcycle with Ride by Wire throttle “Grip” sensor:

i. i) Only the OEM unit may be used or optional units (motorcycle specific) from the Eligible Parts List for Competition List – World Supersport Next Generation Permitted Modifications.

e) Throttle assembly and associated cables can be modified or replaced but the connection to the throttle body and the throttle controls must remain as homologated. Cable operated throttles (grip assembly) must be equipped with both an opening and a closing cable including when actuating a remote drive by wire grip/demand sensor.

f) Clutch and brake lever assembly may be exchanged by an after-market model. An adjuster to the brake lever and to the clutch lever is allowed.

g) Switches can be changed but electric starter switch and engine stop switch must be located on the handlebars.

h) Welding of handlebars is not allowed.

i) The use of titanium, carbon fibre, Kevlar® or carbon composite materials for handlebars is forbidden.

j) The use of titanium and aluminium alloys for nuts and screws is allowed.

k) Handlebar ends must be plugged with a solid material or rubber covered.

l) The minimum angle of rotation of the steering stem on each side of the centre line or mid position must be of 15°.

m) In any position of the handlebars /steering stem, the front wheel, tire and mudguard must maintain a minimum gap of 10 mm to the bodywork and radiator(s).

n) 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, frame or other bodywork when on full lock to prevent trapping the rider's fingers. These stops can be adjustable.

o) All handlebar levers must be ball-ended (diameter of this ball should be at least 16 mm). This ball can also be flattened, the minimum thickness of the flattened part should be 14 mm, and the edges must be rounded. These ends must be permanently fixed and form an integral part of the lever.

p) Each control lever must be mounted on an independent pivot.

q) 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.

AACR 3.12.9 Footrests and Foot Controls

a) The use of titanium, carbon fibre, Kevlar or carbon composite materials for footrests and foot controls is forbidden.

b) The use of titanium and aluminium alloys for nuts and screws is allowed.

c) Footrests, hangers/brackets and hardware may be replaced and relocated but the hangers / brackets must be mounted to the frame at the original mounting points.

d) Gear shift (and rear brake if kept on the foot control) must remain operated manually by foot.

e) Footrests may be rigidly mounted or a folding type which must incorporate a device to return them to the normal position.

f) The end of the footrests must be rounded.

g) Non-folding footrests must have an end (plug) which is permanently fixed, made of plastic, Teflon® or an equivalent type material, and must be rounded. The plug surface must be designed to reach the widest possible area in order to decrease the risk of injuries to the rider in the case of an accident. The Chief Technical Officer has the right to refuse any solution not satisfying this safety purpose.

AACR 3.12.10 Fairing / Body Work

a) Fairing, mudguards and body work must conform in principle to the homologated shape as originally produced by the manufacturer. The material is free. Headlights decals must be included.

b) For all bodywork, paint and decal design is free.

c) The fairing has a tolerance of +/-10 mm from the original homologated road fairing, respecting the design and features of the homologated fairing and any articles below. The overall width of the frontal area may be +10 mm maximum. The decision of the Alpe Adria Chief Technical Officer is final.

d) <u>For Supersport Next Generation:</u> The fairing has a tolerance of +/-8 mm from the original homologated road fairing, respecting the design and features of the homologated fairing and any articles below. The overall width of the frontal area may be +5 mm maximum. The decision of the Chief Technical Officer is final.

e) Windscreen may be replaced with an aftermarket product. The height of the windscreen is free, ~~**with a tolerance of +/- 15 mm measured on the vertical distance from / to the upper fork bridge**~~. The screen must not have sharp edges. The material of the

windscreen must be transparent or ~~**slightly**~~ tinted.

f) Fairing brackets and fasteners may be altered or replaced. The material is free.

g) The ram-air intake(s) must maintain the originally homologated shape and dimensions with a +/- 2 mm tolerance. The material is free.

h) <u>For Supersport:</u> The original air ducts running between the fairing and the airbox may be altered or replaced. Particle grilles or "wire- meshes" originally installed in the openings for the air ducts may be removed. Air ducts cannot be added if they are not present on the original motorcycle. The material is free.

i) <u>For Supersport Next Generation:</u> The original air ducts running between the fairing and the airbox may be replaced by exact cosmetic replicas of the original parts. If the part serves another function (i.e. Dash Mounting) then the airflow passage must retain the homologated internal shape, and the part must be listed in the FIM Eligible Parts for Competition-List in the current version. The material is free.

j) Particle grilles or "wire-meshes" originally installed in the openings for the air ducts may be removed. Flap valves systems may be removed. Air ducts cannot be added if they are not present on the original motorcycle.

k) The lower fairing must be constructed to hold a minimum of 5 litres in case of an engine breakdown. The lower edges of all the openings in the fairing must be positioned at least 50 mm above the bottom of the fairing.

l) The lower fairing must incorporate at least a single opening of 20 mm diameter in the front lower area. This hole must remain sealed in dry conditions and must be opened only in wet race conditions as declared by the Race Director.

m) Minimal changes are allowed in the fairing to allow clearance for protective engine covers.

n) Motorcycles may be equipped with a radiator shroud (inner ducts) to improve the air stream towards the radiator, but the appearance of the front, the rear and the profile of the motorcycle must not be changed.

o) Front mudguard can be modified or replaced. It must conform in principle to the homologated shape originally produced by the manufacturer. The material is free.

p) Front mudguard may be spaced upward for increased tire clearance.

q) Rear hugger / mudguard fixed on the swing arm can be modified, replaced, may be spaced upward for increased tire clearance or removed. The material is free. The chain guard may be removed.

r) The existing rear mudguard under the seat may be removed.

s) <u>Supersport Next Generation:</u> In the event that a motorcycle is not fitted originally with a fairing, then a fairing from the manufacturers range may be used by agreement with DWO and the FIM SBK Technical Director. Alpe Adria will follow this agreement. If a fairing for the specified motorcycle is listed in the FIM Eligible Parts for Competition-List in the current version it can be used. A belly pan according to articles 3.12.10.k and 3.12.10.l is mandatory.

t) All exposed edges must be rounded.

AACR 3.12.11 Seat

a) Seat, seat base and associated bodywork may be replaced. The appearance from front, rear and profile must conform in principle to the homologated shape.

b) The top portion of the rear body work around the seat may be modified to a solo seat.

c) The homologated seat locking system (with plates, pins, rubber pads, etc.) can be removed.

d) The material is free.

e) All exposed edges must be rounded.

AACR 3.12.12 Fasteners

a) Standard fasteners may be replaced with fasteners of any material and design with the exceptions listed below, or in the relevant sections of this regulations.

b) Titanium fasteners may be used in structural (highly stressed) locations, but the strength and design must be equal to - or exceed - the strength of the standard fastener it is replacing.

c) Internal engine bolts, screws and nuts must remain of standard homologated materials or materials of higher specific weight.

d) The requirements for the materials of axles, bolts and nuts for engine mounting, wheels and swingarm are specified in the relevant sections of this regulations.

e) Fasteners may be drilled only for safety wiring, but intentional weight-reduction modifications are not allowed.

f) Thread repair using inserts of different material such as Helicoil® and Time-Sert® are allowed.

g) Fairing/body-work fasteners may be changed to a quick disconnect type, the material is free.

h) Aluminium fasteners may only be used in non-structural (low stressed) locations.

i) In case of a dispute, the decision of the Chief Technical Officer is final.

AACR 3.12.13 Rear Safety Light

See AACR 0.2.3.

AACR 3.13 The following items MAY BE altered or replaced

a) Any type of lubrication, brake and suspension fluid may be used.

b) Gaskets and gasket materials.

c) Bearings of any type and brand may be used.

d) Painted external surface finishes and decals.

e) Material for brackets connecting non-original parts (fairing, exhaust, instruments, etc.) to the frame (or engine) can be made from titanium or fibre reinforced composites.

f) Protective covers for the frame, chain, footrests can be made in materials like fibre composite material.

AACR 3.14 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. The connections to the cylinder head cover / cylinder head must be plugged.

c) Speedometer and related wheel spacers.

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 3.15 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) Toolbox.

f) Helmet hooks and luggage carrier hooks.

g) Passenger footrests.

h) Passenger grabs rails.

i) Safety bars, centre and side stands must be removed (fixed brackets must remain excepting side stand bracket).

j) Catalytic convertors.

AACR 3.16 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 crankcase, oil radiator).

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 3.17 TIMEKEEPING INSTRUMENTS

See AACR 0.8.

AACR 3.18 ONBOARD CAMERAS

See AACR 0.10.

AACR 3B MOTO 2

The 2020 FIM CEV-Repsol Technical Regulations for class Moto2 European Championship will apply.

a) Tires: See AACR 0.3.

b) Fuel: See AACR 05.

c) The number of engines is free.

AACR 4 SUPERSTOCK 1000 (STK 1000)

AACR 4.0 GENERAL

The following rules are intended to permit limited changes to the homologated motorcycle in the interests of safety and improved competition between various motorcycle concepts.

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

Superstock motorcycles require an FIM homologation (see AACR 0.6).

All motorcycles must be normally aspirated.

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

As the name SUPERSTOCK implies, limited modifications are allowed to the motorcycles. Most modifications are only allowed for safety reasons.

The appearance from both front, rear and the profile of Superstock 1000 motorcycles must (except when otherwise stated) remain as originally produced by the manufacturer for the homologated motorcycle.

The appearance of the exhaust system is excluded from this rule.

AACR 4.1 DISCIPLINE SPECIFICATIONS SUPERSTOCK 1000

- 3 and 4 cylinders over 750 cc up to **1100** cc 4-stroke
- 2 cylinders over 850 cc up to 1200 cc 4-stroke

The displacement capacity, bore and stroke must remain at the homologated size. Modifying the bore and stroke to reach class limits is not allowed.

AACR 4.2 MINIMUM WEIGHT

a) The minimum weight for each motorcycle in running condition is 170 kg.

b) At any time of the event, the weight of the whole motorcycle (including the tank and its contents) must not be lower than the specified minimum weight.

c) There is no tolerance on the minimum weight.

d) During the final technical inspection at the end of the race, the selected motorcycles and riders 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.

e) 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.

f) The use of ballast is allowed to stay over the minimum weight limit.

g) The use of ballast is allowed to stay over the minimum weight limit and must be declared to the Chief Technical Officer at the preliminary checks. Fuel in the fuel tank can be used as ballast.

h) The ballast must be made from solid metal piece(s), firmly and securely connected, either

through an adapter or directly to the main frame or engine, with minimum 2 steel bolts (min. 8 mm diameter, 8.8 grade or higher). Other equivalent technical solutions must be submitted to the Chief Technical Officer for his approval.

AACR 4.3 STARTING NUMBERS & BACKROUND COLOURS

Red background with white numbers (see AACR Technical Regulations Appendix A and AACR 0.4 for sizes and specifications).

AACR 4.4 FUEL

See AACR 0.5.

AACR 4.5 TIRES

See AACR 0.3.

AACR 4.6 ENGINE

The number of engines is free.

AACR 4.6.1 Cylinder Head

a) Must be the original fitted and homologated part with no modification allowed, except 3.6.1.b).
b) The resurfacing of the cylinder heads sealing surface is permitted but only up to minus 0,1 mm below the homologated tolerance.
c) No material may be added or removed from the cylinder head.
d) The gaskets can be changed.
e) The valves, valve seats, guides, springs, tappets, oil seals, shims, cotter valve, spring base and spring retainers must be as originally produced by the manufacturer for the homologated motorcycle.
f) Valve spring shims may be changed.
g) Valve seats:
    i. Must be the original part as produced for the homologated motorcycle.
    ii. Valve seat angle must remain as homologated.
    iii. Valve seat width is free.
    iv. Cutting of top and bottom angles is free. Radius cutting is allowed.
    v. Machining of ports and combustion chambers is strictly forbidden.

AACR 4.6.2 Camshafts

a) Must be the original fitted and homologated part with no modification allowed.
b) At the technical checks for direct valve operation systems the cam lobe lifts are measured; for indirect valve operation systems (i.e. where cam followers are fitted), the valve lift is measured.
c) The timing of the camshafts is free; however, no machining of the camshaft is authorized.

AACR 4.6.3 Camshaft Sprockets or Gears

a) Camshaft sprockets or camshaft gears may be modified or replaced.
b) Pressed on cam sprockets may be replaced with an adjustable boss and cam sprocket.
c) The cam drive system (chain drive or gears) must remain as homologated.

d) Cam chain and tensioner can be modified or replaced.

AACR 4.6.4 Cylinders

Must be the original fitted and homologated part with no modification allowed.

AACR 4.6.5 Pistons

Must be the original fitted and homologated part with no modification allowed.

AACR 4.6.6 Piston Rings

Must be the original fitted and homologated part with no modification allowed.

AACR 4.6.7 Piston Pins and Clips

Must be the original fitted and homologated part with no modification allowed.

AACR 4.6.8 Connecting Rods

Must be the original fitted and homologated part with no modification allowed.

AACR 4.6.9 Crankshaft

Must be the original fitted and homologated part with no modification allowed.

AACR 4.6.10 Crankcase and all other Engine Cases

a) Crankcases must remain as homologated. No modifications are allowed (including painting, polishing and lightening).

b) Repairing the crankcase by welding or using Epoxy is allowed.

c) It is not allowed to add a pump or any other device to create a vacuum in the crankcase. If a vacuum pump is installed on the homologated motorcycle, then it can be used only as homologated.

d) 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 part.

e) All lateral covers/engine cases containing oil and which could be in contact with the ground during a crash, must be protected by a second cover made from metal, such as aluminium alloy, stainless steel, steel or titanium. Covers made of composite materials are not permitted.

f) The secondary cover should cover a minimum of 1/3 of the original cover. It must have no sharp edges to damage the track surface.

g) Plates or crash bars made from aluminium or steel are also permitted in addition to these covers. All of these devices must be designed to be resistant against sudden shocks, abrasions and crash damage.

h) Plates/crash bars/frame sliders must not protrude outside the fairing for more than 30 mm.

i) FIM approved covers will be permitted without regard of the material or its dimensions.

j) These covers must be fixed properly and securely with a minimum of three (3) case cover screws that also mount the original covers/engine cases to the crankcases.

k) Oil containing engine covers must be secured with steel bolts.

l) The Chief Technical Officer has the right to refuse and forbid any cover not satisfying this safety purpose, if the evidence shows that the cover is not effective.

m) No damaged or repaired covers will be permitted unless approved by the Chief Technical

Officer.

AACR 4.6.11 Transmission / Gearbox

a) Must be the original fitted and homologated part with no modification allowed except:
   i. The positive neutral selector mechanism may be removed.
   ii. Shift star/indexer spring, roller and detent may be replaced but must function as originally designed on the homologated motorcycle.
b) Quick shifters are free.
c) Other modifications to the gearbox or selector mechanism are not allowed.
d) Countershaft sprocket, rear wheel sprocket, chain pitch and size can be changed.
e) The sprocket cover can be modified or eliminated.
f) The chain tensioner is free.
g) Chain guard can be removed.
h) Transmission gear shifter shaft supporting brackets can be added.
i) Add on quick shift modules / additional modules are allowed to enable upshifts and downshifts. “Downshift blipping” is allowed.
j) No power source (i.e. hydraulic or electric) can be used for gear selection, if not installed in the homologated motorcycle.

AACR 4.6.12 Clutch

a) Clutch system (wet or dry type) must remain as homologated.
b) The method of operation (by cable or hydraulic) may be changed.
c) Friction and drive discs may be changed, the number of discs is free.
d) Clutch springs may be changed, the number of springs is free.
e) Clutch outer basket must be the originally fitted and homologated part but may be reinforced.
f) Primary driven gear must remain as originally produced for the homologated motorcycle with no modification allowed.
g) The original clutch inner assembly may be modified or replaced by an aftermarket clutch, also including back torque limiting capabilities (slipper type).
h) Clutch fluid reservoir can be replaced.
i) Clutch lines/cables can be replaced.
j) No power source (i.e. hydraulic or electric) can be used for clutch operation, if not installed in the homologated motorcycle.

AACR 4.6.13 Oil Pumps and Oil Lines

a) Oil pump may be modified or replaced from those fitted to the homologated motorcycle, but modifications of the crankcase are not allowed.
b) The oil pump drive may be modified or changed.
c) The oil pressure relief valve is free.
d) Oil lines may be modified or replaced. Oil lines containing positive pressure, if replaced, must be of braided reinforced construction with swaged or threaded connectors.

AACR 4.6.14 Engine Cooling System

a) The only permitted liquid engine coolant for the water-cooling system is water without additives.
b) The water pump may be modified or changed, but modifications of the crankcase are not allowed.
c) The water pump drive may be modified or changed.
d) Protective meshes may be added in front of the oil and water radiator(s).
e) The cooling system hoses/pipes and catch tanks may be modified or changed.
f) Radiator fan and wiring may be changed modified or removed.
g) Radiator cap is free.
h) The original water radiator can be modified or replaced, Extra mounting brackets to accommodate the radiator are permitted.
i) Water and oil thermostat can be modified, replaced or removed.
j) Thermal switches and water temperature sensor can be modified, replaced or removed.
k) The original oil radiator can be modified, replaced or removed.
l) Additional water radiators and oil coolers can be added. Extra mounting brackets to accommodate these radiators / coolers are allowed.
m) Oil coolers can be installed even if the homologated motorcycle does not have one.
n) The appearance from the front, the rear and the profile of the motorcycle must conform to the homologated shape after the addition of radiators /oil coolers.
o) All radiators / coolers must be mounted below the lower fork bridge (triple clamp).

AACR 4.6.15 Air Box

a) Must be the original fitted and homologated part with no modification allowed, but the air box drains must be sealed.
b) Air filters, internal flap type valve, sensors and vacuum fittings may be removed, modified, or replaced with aftermarket parts.
c) All motorcycles must have a closed breather system. The oil breather line(s) must be connected, may pass through an oil catch tank and must exclusively discharge in the air box.
d) Ram air tubes or ducts running from the fairing to the air box may be modified, replaced or removed. The material is free. If tubes/ducts are used, they must be attached to the original, unmodified air box inlets.
e) No heat protection can be attached to the air box.
f) The engine breathers must remain original (number and size).

AACR 4.6.16 Fuel Injection System / Fuel Supply

Fuel injection system / fuel supply refer to throttle bodies, fuel injectors, fuel lines and pipes, fuel pump, fuel pressure regulator and intake tract devices (static or variable length).

a) The original homologated fuel injector system must be used without any modification.
b) The throttle bodies must be stock and unaltered from the original specification and manufacture and in the same position as on the homologated motorcycle.
c) The fuel injectors must be stock and unaltered from the original specification and manufacture and in the same position as on the homologated motorcycle.

d) Bell mouths must remain as originally produced by the manufacturer for the homologated motorcycle.

e) Butterfly valves must remain as originally produced by the manufacturer for the homologated motorcycle.

f) Variable intake tract devices cannot be added if they are not present on the homologated motorcycle, and they must remain identical and operate in the same way as the homologated system. All parts of the variable intake tract device must remain exactly as homologated.

g) Existing variable intake tract devices can be deactivated or removed.

h) Secondary throttle valves and shafts may be removed or fixed in the open position and the electronics may be disconnected or removed.

i) Air and air/fuel mixture can go to the combustion chamber exclusively though the throttle body butterflies.

j) Electronically controlled throttle valves, known as "ride-by-wire", may be only used if the homologated model is equipped with the same system. Software may be modified but all the safety systems and procedures designed by the original manufacturer must be maintained.

k) Fuel pump and fuel pressure regulator must be the original fitted and homologated parts with no modification allowed.

~~l) **The fuel pressure must be as homologated.**~~

~~m) **The pressure tolerance at the technical control is + 0,5 bar in respect to the maximum pressure of the homologated motorcycle.**~~

n) Fuel lines from the fuel tank to the delivery pipe assembly(s) may be replaced and must be located in such a way that they are protected from crash damage.

o) Fuel lines from the fuel tank up to the injectors (fuel hoses, delivery pipe assembly, joints, clamps) may be modified or replaced.

p) Quick connectors or dry break quick connectors may be used.

q) Fuel filters may be added.

AACR 4.6.17 Fuel Tank

a) Fuel tank must remain as originally produced by the manufacturer for the homologated motorcycle with no modification allowed.

b) Fuel tanks which comply with the FIM EWC Superstock Technical Regulations are also permitted.

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

d) 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.

e) Fuel tank filler cap may be altered or replaced from those fitted to the homologated motorcycle. Fuel cap when closed must be leak proof. Additionally, they must be securely locked to prevent accidental opening at any time.

f) Fuel petcock (if existing) may be altered, replaced or removed.

g) Fuel vent lines may be replaced.

h) A rider spacer/pad may be fitted to the rear of the tank with permanent or non-permanent adhesive. The material is free.

i) The tank can have a cover fitted over it. This cover must fit the shape of the fuel tank.

j) The sides of the fuel tank may be protected with a cover made of a composite material. These protectors must fit the shape of the fuel tank.

k) A fuel tank drain valve can be installed and must be located in such a way that it is protected from crash damage.

l) A spacer between fuel tank and fuel pump can be installed.

m) The fuel tank may have a heat protection shield /mat attached to its bottom and engine side.

AACR 4.6.18 Exhaust System

a) Exhaust pipes and silencers may be modified or changed. Catalytic converters must be removed.

b) The number of the final exhaust silencer(s) must remain as homologated.

c) For safety reasons the exposed edge(s) of the exhaust pipe(s) outlet must be rounded to avoid any sharp edges.

d) Wrapping of the exhaust system is not allowed except in the area of the rider's foot or an area in contact with the fairing for protection from heat.

e) Titanium and carbon exhausts and silencers are allowed.

f) The basic noise limit is 107 dB/A (with a 3 dB/A tolerance after the race only). **Some circuits may have a lower noise limit. This will be published in the Supplementary Regulations of the respective event.**

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

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

AACR 4.6.19 Sound level control

See AACR 0.7.

AACR 4.7 ELECTRICS and ELECTRONICS

AACR 4.7.1 Engine control system (ECU) / Electronics

a) Motorcycles that are not equipped with the correct electronics for this class cannot compete in this class.

b) The engine control system (ECU) must be either:

i. The original system as homologated. Flashing the original ECU is allowed, hardware modifications of the ECU are not allowed.

ii. The original system (with the production ECU, option i.) may have commercially available external ignition and/or injection module/s added. A special connector may be used to connect the module/s and the ECU.

iii. An FIM/AA approved ''Superstock Kit'' model (produced and/or approved by the motorcycle manufacturer) may be used. Flashing the KIT-ECU is allowed, hardware modifications of the ECU are not allowed. Commercially available external ignition

and/or injection module/s may be added. A special connector/adaptor may be used to connect the ECU(s) and the original wiring harness.

The ECU (with software and activations) and harness parts must be ~~available~~ separately. The MoTec M130 engine control unit (ECU) as specified by the CIV Technical Regulations Superbike, marked with the FMI-logo and distributed by Aviorace Srl.

iv. The MecTronik MKE 7 engine control unit (ECU).

c) Central unit (ECU) may be relocated.

d) Corner by corner or distance/position-based adjustments are not allowed.

e) Optional equipment sold by the motorcycle Manufacturer for the homologated model is considered not homologated with the motorcycle and must follow the requirements for approved electronics / data loggers.

f) During an event the Chief Technical Officer has the right to ask a rider/team substitute their ECU or external module(s) with the FIM / AA sample received from the manufacturer. The change has to be done before Sunday warm up.

g) No extra sensors may be added for engine control strategies except shift rod sensor, speed sensors and lambda sensors.

h) Other additional electronic hardware not present on the original homologated motorcycle cannot be added with the exceptions noted below.

i) Resistors/load may be added to replace the parts of the electrical system that have been removed (including lights and lambda sensors) to prevent ECU errors.

j) An ABS replacement/bypass may be fitted and/or the ABS unit may be dismantled to leave just its ECU.

k) The external fuel injection modules / ignition modules may not alter any sensor signal relating to the ride by wire system / ECU or control / actuate any part of the motorcycle excepting the fuel injectors / ignition coils.

l) Lambda closed loop /auto tuning is permitted.

m) No external modules may add traction control strategies (such as Traction Control, Launch Control, Anti Wheelie Control) unless originally fitted to the homologated motorcycle or included in the Racing Kit (which must be produced and/or approved by the motorcycle manufacturer) for the homologated motorcycle, or included in the MoTec M130 ECU as specified in point a) iv.

n) Control strategies (such as Traction Control, Launch Control, Anti Wheelie Control) is only allowed when it is originally fitted to the homologated motorcycle or included in the Racing Kit (which must be produced and/or approved by the motorcycle manufacturer) for the homologated motorcycle, or included in the MoTec M130 ECU as specified in point a) iv.

o) Data logging systems:

i. The data logging system is free, but the specifications listed below must be respected.

ii. The Data Logger unit must be available for sale to the public.

iii. The sensors must be simple function. No inertial platforms are allowed to be added if an inertial platform is not installed originally on the homologated motorcycle.

iv. CAN (or other data protocol) communication from the ECU to an approved Data Logger is allowed without any limitation in CAN channel logger number.

v. The Data Logger may not act to control any strategy or setting in the ECU – except to replicate the original dashboard signals if the original dashboard is replaced. The logger may not automate these setting changes.

p) The maximum total price of other active/control/calculation units such as lambda driver modules, quick shifter and analogue to CAN converters is € 750 (tax excluded).

q) Telemetry is not allowed.

r) No remote or wireless connection to the motorcycle for any data exchange or setting is allowed whilst the engine is running or the bike is moving.

s) The wiring harness is free.

t) Downshift blipping is allowed. External downshift blip modules are allowed.

u) The addition of an infrared (IR) or GPS based lap timing system is allowed.

v) Dashboard is free. However, it may only replace the functions of the standard dashboard (including switch logic and display) and may not perform any other logic function on the motorcycle. It may incorporate the Data Logger. There must remain a working tachometer display.

w) Spark plugs may be replaced.

x) Spark plug caps /coil on plug, ignition cables and ignition harness are free.

y) The battery is free and may be relocated. The maximum capacity is 10 Ah.

z) A lap timer can be fitted.

AACR 4.7.2 Generator, Alternator and Electric Starter

a) The generator (ACG) must be the originally fitted and homologated part with no modification allowed.

b) The stator must be fitted in its original position and without offsetting.

c) The electric starter must operate normally and always be able to start the engine during the event.

d) During Parc Fermé, the starter must crank the engine at a suitable speed for starting for a minimum of 2 seconds without the use of a boost battery. No boost battery may be connected to the motorcycle at any time of the event.

e) The generator must always charge the battery in a sufficient way when the engine is running. The charging voltage must be corresponding to the charging voltage listed in the service manual / kit manual of the homologated motorcycle.

f) The regulator/rectifier may be modified or replaced.

g) Operating the motorcycle on the battery only (without a functioning generator) is not allowed.

AACR 4.8 MAIN FRAME / CHASSIS

a) The use of titanium and carbon (or similar composite materials) in the construction of the main frame, rear sub frame, swing arm and swing arm pivot bolt, front forks, triple clamps, wheel axles, engine mounting parts and handlebars is forbidden. The use of titanium and aluminium alloys in the construction of swing arm pivot bolts and wheel axles is

forbidden.

b) Unless otherwise stated, the use of titanium and aluminium alloys for nuts and screws is allowed.

c) 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 2nd motorcycle to the Chief Technical Officer.

d) After a crash, the rebuilt motorcycle must be inspected before its use by the Technical Officers for safety checks and a new seal will be placed on the motorcycles frame.

e) No other spare motorcycle may be on the track.

AACR 4.8.1 Frame Body and Rear Sub Frame

a) The frame must remain as originally produced by the manufacturer for the homologated motorcycle.

b) Holes may be drilled on the frame only to fix approved components (i.e. fairing brackets, steering damper mount, sensors, etc.).

c) The sides of the frame body may be covered by protective parts made of plastic or 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 fitted into the ends of the wheel axles (max. length: 30 mm).

e) Crash protectors / frame sliders must not protrude outside the fairing for more than 30 mm.

f) Nothing may be added by welding or removed by grinding from the main frame body.

g) All motorcycles must display a valid vehicle identification number (frame number / chassis number) punched on the frame body.

h) Engine mounting brackets or plates may be modified or replaced, but the use of titanium and carbon (or similar composite materials) is forbidden.

i) Engine mounting axles, bolts and nuts can be modified or replaced but must be made of a steel alloy.

j) Suspension linkage mounting points on the frame must remain as originally produced by the manufacturer for the homologated motorcycle with no modification allowed.

k) Front sub frame / fairing mount may be modified or replaced. The material is free.

l) Rear sub frame may be modified or replaced, but the use of titanium and carbon (or similar composite materials) is forbidden. Repairing and welding of the sub frame is allowed.

m) Additional seat brackets may be added, non-stressed protruding brackets may be removed if they do not affect the safety of the construction or assembly. Bolt-on accessories to the rear sub-frame may be removed.

n) The side stand bracket may be cut or removed.

o) The paint scheme is not restricted but polishing the frame body or sub-frame is not allowed.

p) If the homologated motorcycle has inserts for the steering bearings or swingarm pivot

bolt, then these inserts can be modified or replaced. Modifying the frame body is not allowed.

AACR 4.8.2 Suspension - General

a) Front Fork internal parts and Rear Shock Absorber can be modified or changed.
The price limits are:
   i. Fork: For the fork kit, including all parts such as – but not limited to – cartridge, springs (1set), adjusters, fork caps, blanking inserts, seals, bushes but excepting oil and fitting, the price limit is € 2.500 excluding tax.
   ii. Shock Absorber/RCU: For the complete shock absorber/RCU including – but not limited to – spring (1 piece), pre-load adjuster and length/ride height adjuster, the price limit is € 2.000 excluding tax.

b) Electronic suspension:
   i. No aftermarket or prototype electronically-controlled suspensions can be used. Electronically-controlled suspension can only be used if already present on the production model of the homologated motorcycle.
   ii. The electronically-controlled valves must remain as homologated. The shims, spacers and springs not connected with these valves can be changed.
   iii. The ECU for the electronic suspension must remain as homologated and cannot receive any motorcycle or track position or sector information; the suspension cannot be adjusted relative to track position.
   iv. The electronic interface between the rider and the suspension must remain as on the homologated motorcycle. It is allowed to remove or disable this rider interface.
   v. The electronic suspension system must work safely in the event of an electronic failure.
   vi. Electro-magnetic fluid systems which change the viscosity of the suspension fluids(s) during operation are not permitted.

c) Electronic controlled steering dampers cannot be used if not installed on the homologated motorcycle for road use. However, it must be completely standard (any mechanical or electronic part must remain as homologated).

AACR 4.8.3 Front Fork and Fork Clamps

a) Forks (stanchions, etc.) must be the originally fitted and homologated parts with the following modifications allowed:
   i. The upper and lower fork clamps (triple clamp, fork bridges and stem) can be modified or replaced.
   ii. Steering stem pivot position must remain in the homologated position (as supplied on the production motorcycle). If the standard motorcycle has inserts, then the inserts can be modified or replaced.
   iii. Steering bearings and bearing seals are free.
   iv. A steering damper may be added or replaced with an after-market damper.
   v. The steering damper cannot act as a steering lock limiting device.
   vi. Fork caps can be modified or replaced to allow external adjustment. This does not include the mechanical fork leg that is part of the homologated fork set.

vii. The original surface finish of the fork tubes (stanchions, fork pipes) may be changed. Additional surface treatments are allowed.

viii. Fork bushings and oil seals are free.

ix. Dust seals may be modified, changed or removed if the fork remains totally oil-sealed.

x. The front fender mounts integrated in the fork lower may be modified or changed.

b) Mechanical Forks: Original internal parts of the homologated forks may be modified or changed. After-market damper kits or valves may be installed.

c) Electronic Suspensions:

i. No aftermarket or prototype electronically controlled suspension may be used, unless such suspension is already present on the production model of the homologated motorcycle, and it must remain completely standard (all mechanical or electronic parts must remain as homologated, with the exception of shims and springs).

ii. The electronic front suspension may be replaced with a mechanical system from a similar homologated model from the same manufacturer.

iii. Electronic forks may have their complete internal parts (including all electronic control) replaced with an approved conventional damping system and it will be considered as a mechanical fork.

d) Any quality and quantity of oil can be used in the front forks.

e) The protrusion (height and position of the front fork in relation to the fork crowns) is free, the full clamping area of the upper fork clamp must be used.

f) Fixing and mounting points for front brake callipers must remain as homologated.

g) The axle bore in the fork lower cannot be modified. The front axle nut/sleeve may be added or modified and/or made captive.

AACR 4.8.4 Swing Arm

a) The swing arm must be the originally fitted and homologated part with no modification allowed.

b) The swing arm pivot bolt and nut may be modified or replaced but must be made of a steel alloy.

c) Swing arm pivot position must remain in the homologated position (as supplied on the production motorcycle). If the standard motorcycle has inserts, then the inserts can be modified or replaced.

d) Rear axle/chain adjuster can be modified or changed to an aftermarket product.

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 rear wheel sprocket, irrespective of the rear wheel position. This must be fitted in such a way to reduce the possibility that any part of the riders' body may become trapped between the lower chain run and the rear wheel sprocket.

f) Rear wheel stand brackets may be added to the swing arm by welding or by bolts. Brackets must have rounded edges (with a large radius) viewed from all sides. 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 protective parts made of plastic or composite material. These protectors must fit the form of the swing arm.

AACR 4.8.5 Rear Suspension Unit

a) Rear suspension unit (shock absorber and its spring) may be replaced with an approved unit, but the original attachments to the frame and swing arm or linkage must be as homologated.

b) Rear suspension linkage parts can be modified or replaced.

c) Removable top shock mounts can be modified or replaced.

d) Mechanical Suspensions: Rear suspension unit and spring may be changed.

e) Electronic Suspensions: No aftermarket or prototype electronically-controlled suspension unit may be used, unless such suspension is already present on the production model of the homologated motorcycle and it must remain completely standard (any mechanical or electronic part must remain as homologated, with the exception of shims and spring). If the standard system has no facility for ride height adjustment the standard shock may be modified to allow shock length change if no hydraulic parts are modified. The original suspension system must work properly safe in the event of an electronic failure. The electronic shock absorber can be replaced with a mechanical one.

AACR 4.8.6 Wheels

a) Wheels may be replaced and associated parts that are fitted to the homologated motorcycle may be altered or replaced.

b) Aftermarket wheels must be made from aluminium alloys.

c) The use of the following alloy materials for the wheels is not allowed: Beryllium (>=5%), Scandium (>=2%), Lithium (>=1%).

d) Any modification to the rim or spokes of an integral wheel (cast, moulded, riveted) as supplied by the manufacturer or of a traditional detachable rim is prohibited, except for modifications on the spokes, valves, safety bolts and tire retention screws sometimes used to prevent tire movement relative to the rim. If the rim is thus modified, bolts, screws etc. must be fitted for this purpose.

e) Wheels may be overpainted but the original surface finish cannot be removed.

f) A non-slip coating/treatment may be applied to the bead area of the rim.

g) The cushion drive for the rear wheel can be modified or replaced.

h) Bearings, seals and axles may be modified or replaced by aftermarket products.

i) The use of titanium, light metal alloys and carbon (or similar composite materials) in the construction of the wheel axles is forbidden.

j) Axle nuts/bolt can be modified or replaced, but must be made of a steel alloy.

k) Wheel Spacers can be modified or replaced. Modifications to keep spacers in place are permitted.

l) Bearing spacers can be modified or replaced.

m) Wheel balance weights are free.

n) Aluminium or steel inflation valves are compulsory. Angled valves are recommended.

o) Permitted dimensions:

- Permitted wheel rim diameter size: 17 inches
- Permitted front wheel rim width: 3,50 inches
- Permitted rear wheel rim width: 6,00 inches

AACR 4.8.7 Brakes

a) Brake discs may be replaced by aftermarket discs which comply with the following requirements:

i. Brake discs may be altered or replaced from those fitted to the homologated motorcycle. Only steel (max. carbon content 2.1 wgt. %) is allowed for brake discs.

ii. Non-floating or single piece discs may be replaced with floating discs, the number of floaters is free.

iii. The outside diameter of the brake disc may be increased but the disc must fit into the brake calliper without any modification of the brake calliper. The mounting position of the brake callipers must be the same as the homologated callipers.

iv. The thickness of the brake disc may be increased but the disc must fit into the brake calliper without any modification of the brake calliper.

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

b) The front brake callipers can be modified (e.g. calliper pistons) or replaced by aftermarket callipers. The price limit is € 1000 (tax excluded) for 1 calliper. The mounting (carrier, hanger) of the front callipers must remain as originally produced by the manufacturer for the homologated motorcycle with no modification allowed. The rear brake calliper and its attachment / mounting is free.

c) Only steel bolts/nuts and steel fasteners (8.8 grade or higher) can be used to fasten the brake callipers.

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

e) The rear brake calliper bracket may be mounted fixed on the swing arm.

f) 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 a thread repair insert.

g) Front-brake master cylinder can be replaced.

h) Rear brake master cylinder can be replaced.

i) Front and rear brake fluid reservoir can be replaced.

j) Front and rear hydraulic brake lines can be replaced.

k) The split of the front brake lines for both front brake callipers must be made above the lower fork bridge (lower triple clamp).

l) “Quick” (or “dry-brake”) connectors in the brake lines are allowed.

m) Front and rear brake pads may be changed. Brake pad locking pins may be modified for quick change type.

n) Front brake calliper additional air scoops or ducts are allowed.

o) The Antilock Brake System (ABS) may be used only if installed in the homologated model

for road use. However, it must be completely standard (any mechanical or electronic part must remain as homologated, brake discs and master cylinder levers excluded) and only the software of the ABS may be modified.

p) The Antilock Brake System (ABS) may be disconnected, and its ECU can be dismantled. The ABS rotor wheel can be removed, modified or replaced.

q) 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. FIM approved guards will be permitted without regard of the material. The Chief Technical Officer has the right to refuse any guard not satisfying this safety purpose.

r) The use of thumb or hand brakes is allowed in addition to or instead of the foot operated system. An adaptor may be fitted to the reservoir input of the OEM master cylinder to facilitate this.

AACR 4.8.8 Handlebars and Hand Controls

a) Handlebars and hand controls may be replaced and relocated.

b) Throttle grip can be modified or substituted.

c) Throttle controls must be self-closing when not held by the hand.

d) Throttle assembly and associated cables can be modified or replaced but the connection to the throttle body and the throttle controls must remain as homologated. Cable operated throttles (grip assembly) must be equipped with both an opening and a closing cable including when actuating a remote drive by wire grip/demand sensor.

e) Clutch and brake lever may be exchanged by an after-market model. An adjuster to the brake lever and to the clutch lever is allowed.

f) Switches can be changed but electric starter switch and engine stop switch must be located on the handlebars.

g) Welding of handlebars is not allowed.

h) The use of titanium, carbon fibre, Kevlar® or carbon composite materials for handlebars is forbidden.

i) The use of titanium and aluminium alloys for nuts and screws is allowed.

j) Handlebar ends must be plugged with a solid material or rubber covered.

k) The minimum angle of rotation of the steering stem on each side of the centre line or mid position must be of 15°.

l) In any position of the handlebars /steering stem, the front wheel, tire and mudguard must maintain a minimum gap of 10 mm to the bodywork and radiator(s).

m) 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, frame or other bodywork when on full lock to prevent trapping the rider's fingers. These stops can be adjustable.

n) All handlebar levers must be ball-ended (diameter of this ball should be at least 16 mm). This ball can also be flattened, the minimum thickness of the flattened part should be 14 mm, and the edges must be rounded. These ends must be permanently fixed and form an integral part of the lever.

o) Each control lever must be mounted on an independent pivot.

p) 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.

AACR 4.8.9 Footrests and Foot Controls

a) The use of titanium, carbon fibre, Kevlar® or carbon composite materials for footrests and foot controls is forbidden.

b) The use of titanium and aluminium alloys for nuts and screws is allowed.

c) Footrests, hangers/brackets and linkage may be modified, replaced and relocated but the hangers/brackets must be mounted to the frame at the original mounting points.

d) Gear shift must remain operated manually by foot.

e) Footrests may be rigidly mounted or a folding type which must incorporate a device to return them to the normal position.

f) The end of the footrests must be rounded.

g) Non-folding footrests must have an end (plug) which is permanently fixed, made of plastic, Teflon or an equivalent type of material (Alloy) and must be rounded. The plug surface must be designed to reach the widest possible area in order to decrease the risk of injuries to the rider in the case of an accident. The Chief Technical Officer has the right to refuse any plug not satisfying this safety aim.

h) The rear brake lever, if pivoted on the footrest axis, must work under all circumstances, such as the footrest being bent or deformed.

AACR 4.8.10 Fairing / Body Work

a) Fairing, mudguards and bodywork must confirm in principle to the homologated shape as produced by the manufacturer, irrespective of the model year to encourage the most up to date visual impression.

b) Fairings from a different model year can be used when it is/was homologated, and the model year is 2006 or newer. In this case, the upper and lower fairing must be used as a set.

c) The material is free.

d) Headlight decals should be included.

e) For all bodywork, paint and decal design is free.

f) Overall size and dimensions must be the same as the original parts, with a tolerance of +/- 10 mm, respecting the design and features of the homologated fairing as far as possible. The overall width of the frontal area may be +10 mm maximum. The decision of the Chief Technical Officer is final.

g) Windscreen may be replaced with an aftermarket product. The height of the windscreen is free~~, with a tolerance of +/- 15 mm measured on the vertical distance from / to the upper fork bridge~~. The screen must not have sharp edges. The material of the windscreen must be transparent or ~~slightly~~ tinted.

h) Fairing brackets and fasteners may be altered or replaced. The material is free.

i) The ram-air intake must maintain the originally homologated shape and dimensions with a tolerance of +/- 2 mm.

j) The original air ducts running between the fairing and the air box may be altered or

replaced with a tolerance of +/- 2 mm to the homologated parts. The material is free. Particle grills or “wire - meshes” originally installed in the openings for the air ducts may be removed.

k) The lower fairing must be constructed to hold a minimum of 5 liters in case of an engine breakdown. The lower edges of all the openings in the fairing must be positioned at least 70 mm above the bottom of the fairing.

l) The lowest point of the rear transverse wall of the lower fairing must be at least 50 mm above the bottom. The angle between this wall and the floor must be ≦ 90°.

m) The lower fairing must incorporate at least a single opening of 20 mm diameter in the front lower area. This hole must remain sealed in dry conditions and must be opened only in wet race conditions as declared by the Race Director.

n) Motorcycles may be equipped with a radiator shroud (inner ducts) to improve the air stream towards the radiator, but the appearance of the front, the rear and the profile of the motorcycle must not be changed.

o) Front mudguard may be modified or replaced and may be spaced upward for increased tire clearance. The material is free.

p) Rear mudguard fixed on the swing arm can be modified, replaced (and may be spaced upward for increased tire clearance) or removed. The material is free. The chain guard may be removed.

q) All exposed edges must be rounded.

r) Wings and Aerodynamic Aids:

   i. Wings and other aerodynamic aids can only be used if originally fitted to the homologated motorcycle.

   ii. The wings and other aerodynamic aids must follow the dimensions, profiles and positions of the homologated shapes exactly (tolerance +/- 1 mm). For copies of the OEM parts, the leading edges (including end plates) must have a minimum circumference of 4 mm and must have a rounded end (8 mm radius) or be enclosed / integrated into the fairing.

   iii. The OEM parts may be used “as is” with the exception that the wing root and 10 mm from the end face may be modified to allow mounting to the fairing. This may not be in the form of an extension and the size of the wing will be measured with reference to the face of the wing root.

   iv. The wings must be fitted in the same relative position (accepting the tolerance allowed for the fairing) and the angle of attack must be within +/- 4 degrees of the original angle of attack relative to the chassis.

   v. For active or dynamic aerodynamic parts, only the standard homologated mechanism can be used. The range of movement of these parts must be the same as that used by the homologated motorcycle in normal use - not the mechanical maximum.

AACR 4.8.11 Seat

a) Seat, seat base and associated bodywork may be replaced. The appearance from front, rear and profile must conform in principle to the homologated shape.

b) The top portion of the rear body work around the seat may be modified to a solo seat.

c) The homologated seat locking system (with plates, pins, rubber pads, etc.) can be removed.

d) The material is free.

e) All exposed edges must be rounded.

AACR 4.8.12 Fasteners

a) Standard fasteners may be replaced with fasteners of any material and design with the exceptions listed below, or in the relevant sections of this regulations.

b) Titanium fasteners may be used in structural (highly stressed) locations, but the strength and design must be equal to - or exceed - the strength of the standard fastener it is replacing.

c) Internal engine bolts, screws and nuts must remain of standard homologated materials or materials of higher specific weight.

d) The requirements for the materials of axles, bolts and nuts for engine mounting, wheels and swingarm are specified in the relevant sections of this regulations.

e) Fasteners may be drilled only for safety wiring, but intentional weight-reduction modifications are not allowed.

f) Thread repair using inserts of different material such as Helicoil® and Time-Sert® are allowed.

g) Fairing/body-work fasteners may be changed to a quick disconnect type, the material is free.

h) Aluminium fasteners may only be used in non-structural (low stressed) locations.

i) In case of a dispute, the decision of the Chief Technical Officer is final.

AACR 4.8.13 Rear Safety Light

See AACR 0.2.3.

AACR 4.9 The following items MAY BE altered or replaced

a) Any type of lubrication, brake and suspension fluid may be used.

b) Gaskets and gasket materials.

c) Bearings of any type and brand may be used.

d) Painted external surface finishes and decals.

e) Material for brackets connecting non-original parts (fairing, exhaust, instruments, etc.) to the frame (or engine) can be made from titanium or fibre reinforced composites.

f) Protective covers for the frame, chain, footrests can be made in materials like fibre composite material.

AACR 4.10 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 / cylinder head must be plugged.

c) Speedometer and related wheel spacers.

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 4.11 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) Tool box.

f) Helmet hooks and luggage carrier hooks.

g) Passenger footrests.

h) Passenger grabs rails.

i) Safety bars, centre and side stands must be removed (fixed brackets must remain excepting side stand bracket).

j) Catalytic convertors.

AACR 4.12 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 **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.

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 crankcase, oil radiator).

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 4.13 TIMEKEEPING INSTRUMENTS

See AACR 0.8.

ACCR 4.14 ONBOARD CAMERAS

See AACR 0.10.

AACR 5 SUPERBIKE (SBK)

AACR 5.0 GENERAL

The following rules are intended to give freedom to modify or replace some parts in the interest of safety, and improved competition between various motorcycle concepts.

EVERYTHING THAT IS NOT AUTHORISED AND PRESCRIBED IN THIS RULE IS STRICTLY

FORBIDDEN

Superbike motorcycles require an FIM homologation (see AACR 0.6).

All motorcycles must be normally aspirated.

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

The appearance from both front, rear and the profile of Superbike motorcycles must (except when otherwise stated) remain as originally produced by the manufacturer for the homologated motorcycle.

The appearance of the exhaust system is excluded from this rule.

AACR 5.1 DISCIPLINE SPECIFICATIONS SUPERBIKE

- 3 & 4 cylinders over 750 cc up to 1000 cc 4-stroke
- 2 cylinders over 850 cc up to 1200 cc 4-stroke

The displacement capacity, bore and stroke must remain at the homologated size. Modifying the bore and stroke to reach class limits is not allowed.

AACR 5.2 MINIMUM WEIGHT

a) The minimum weight for each motorcycle in running condition is 168 kg.

b) At any time of the event, the weight of the whole motorcycle (including the tank and its contents) must not be lower than the specified minimum weight.

c) There is no tolerance on the minimum weight.

d) During the final technical inspection at the end of the race, the selected motorcycles and riders 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.

e) 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.

f) The use of ballast is allowed to stay over the minimum weight limit.

g) The use of ballast is allowed to stay over the minimum weight limit and must be declared to the Chief Technical Officer at the preliminary checks. Fuel in the fuel tank can be used as ballast.

h) The ballast must be made from solid metal piece(s), firmly and securely connected, either through an adapter or directly to the main frame or engine, with minimum 2 steel bolts (min. 8 mm diameter, 8.8 grade or higher). Other equivalent technical solutions must be submitted to the Chief Technical Officer for his approval.

AACR 5.3 STARTING NUMBERS & BACKGROUND COLOURS

White background with black numbers. See Appendix A and AACR 0.4 for sizes and specifications.

AACR 5.4 FUEL

See AACR 0.5.

AACR 5.5 TIRES

See AACR 0.3.

AACR 5.6 ENGINE

a) The number of engines is free.

b) The following engine specifications and components may not be altered from the homologated motorcycle except as noted:

i. The homologated engine design model cannot be changed.

ii. Homologated materials and castings for the crankcase, cylinder, cylinder head and gear-box housing must be used.

iii. Material for the crankcase, cylinder, cylinder head and gear-box housing may only be added by welding or removed by machining.

iv. The method of cam drive must remain as homologated.

v. Aftermarket or modified cam drive components are allowed; however, the cam drive must be in the homologated location and the system must be as homologated.

vi. The method of valve retention must remain as the homologated model. No pneumatic valve retention devices are allowed unless fitted to the homologated model.

vii. All moving internal engine, gearbox and clutch parts may be altered or replaced including materials from those fitted on the homologated motorcycle (unless not allowed by the individual section covering the parts in question).

viii. Polishing and lightening of engine parts is permitted, except for carburation instruments (unless not allowed by the individual section covering the parts in question).

ix. The sequence in which the cylinders are ignited (i.e. 1-2-4-3), must remain as originally designed on the homologated model. Simultaneous (*) firing of 2 cylinders is also forbidden if not adopted on the homologated motorcycle (*up to 5 degrees firing difference in 2 cylinders is regarded as 'simultaneous' firing).

AACR 5.6.1 Cylinder Head

The homologated cylinder head may be modified as follows:

a) Homologated materials and castings for the cylinder heads must be used. Material for these parts may only be added by welding or using Epoxy and removed by machining.

b) The resurfacing of the cylinder heads sealing surface is permitted.

c) The homologated cylinder head cover may be modified.

d) The induction and exhaust system including the number of valves and or ports (intake and exhaust) must be as homologated.

e) Porting and polishing of the cylinder head normally associated with individual tuning such as gas flowing of the cylinder head, including the combustion chamber is allowed. Epoxy may be used to shape the ports.

f) The compression ratio is free.

g) The combustion chamber may be modified.

h) Aftermarket or modified valves, springs, tappets, retainers, valve seats, valve guides, and other valve train components are permitted.

i) Valve diameters, including stem diameters, must remain as homologated.

j) Valves must be made of the same basic material as the homologated valves.

k) Valves must remain in the homologated location and at the same angle as the homologated valves.

l) Cam followers can be modified or replaced but must be in the same position as on the homologated motorcycle.

m) The gaskets can be modified or changed.

AACR 5.6.2 Camshafts

a) Camshafts may be altered or replaced from those fitted to the homologated motorcycle, duration and lift are free.

b) Offsetting the camshaft is not allowed. The camshaft must remain in the homologated location.

AACR 5.6.3 Camshaft Sprockets or Gears

a) Camshaft sprockets or camshaft gears may be altered or replaced.

b) The cam drive system (chain drive or gears) must remain as homologated.

c) Cam chain and tensioner may be altered or replaced.

AACR 5.6.4 Cylinders

a) Homologated materials and casting for the cylinder block must be used.

b) Material for the cylinder block may only be added by welding or using Epoxy and removed by machining.

c) The sleeves or liner material may be changed, and the surface finish is free.

d) The original bore size must be retained.

AACR 5.6.5 Pistons

a) Pistons may be modified or replaced from those fitted to the homologated motorcycle.

AACR 5.6.6 Piston Rings

a) Piston rings may be modified or replaced from those fitted to the homologated motorcycle.

AACR 5.6.7 Piston Pins and Clips

a) Piston pins and clips may be modified or replaced from those fitted to the homologated motorcycle.

AACR 5.6.8 Connecting Rods

a) Connecting rods may be modified or replaced from those fitted to the homologated motorcycle.

b) Carbon composite or carbon fibre materials are not allowed if not used in the homologated motorcycle.

AACR 5.6.9 Crankshaft

Only the following modifications are allowed to the homologated crankshaft:

a) Bearing surfaces may be polished or a surface treatment may be applied.

b) Balancing is allowed. The addition or reduction in weight of the crankshaft in order to reach a racing balance can not be higher than 15% of the homologated weight without the tolerance as shown on the homologation drawing of the crankshaft.

c) The weight reduction may be done by drilling or machining of the crankshaft

counterweights.

d) Polishing of the crankshaft is not allowed.

e) Attachment of aftermarket ignition components or sensors is permitted.

f) Balance shaft(s) may be modified, altered or removed.

AACR 5.6.10 Crankcase and all other Engine Cases

a) Homologated materials and castings for crankcase and gearbox housing must be used.

b) Repairing the crankcase by welding or using Epoxy is allowed.

c) Oil-pan (sump) may be altered or replaced.

d) Vacuum pumps are not allowed if not installed on the homologated motorcycle.

e) 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 part.

f) All lateral covers/engine cases containing oil and which could be in contact with the ground during a crash, must be protected by a second cover made from metal, such as aluminium alloy, stainless steel, steel or titanium. Covers made of composite materials are not permitted.

g) The secondary covers should cover a minimum of 1/3 of the original cover. It must have no sharp edges to damage the track surface.

h) Plates or crash bars made from aluminium or steel are also permitted in addition to these covers. All of these devices must be designed to be resistant against sudden shocks, abrasions and crash damage.

i) Plates / crash bars / frame sliders must not protrude outside the fairing for more than 30 mm.

j) FIM approved covers will be permitted without regard of the material or its dimensions.

k) These covers must be fixed properly and securely with a minimum of three (3) case cover screws that also mount the original covers / engine cases to the crankcases.

l) Oil containing engine covers must be secured with steel bolts.

m) The Chief Technical Officer has the right to refuse and forbid any cover not satisfying this safety purpose, if the evidence shows that the cover is not effective.

n) No damaged or repaired covers will be permitted unless approved by the Chief Technical Officer.

AACR 5.6.11 Transmission / Gearbox

a) All transmission / gearbox ratios, shafts, drums, selector forks are free. The design concept must remain the same as homologated.

b) Primary gear ratio must remain as homologated.

c) The layout of the transmission shafts must be the same as on the homologated motorcycle and only the material and the ratios can be changed.

d) The layout and function of the shift drum must be the same as on the homologated motorcycle.

e) The selector forks may be changed; however, the forks must engage with the same gears and function in the same way as on the homologated motorcycle.

f) The number of gears must remain as homologated.

g) Additions to gearbox or selector mechanism, such as quick shift systems, are allowed.

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

i) The chain tensioner is free.

j) Chain guard can be removed.

k) Transmission gear shifter shaft supporting brackets can be added.

l) Add on quick shift modules / additional modules are allowed to enable upshifts and downshifts. “Downshift blipping” is allowed.

m) No power source (i.e. hydraulic or electric) can be used for gear selection, if not installed in the homologated motorcycle.

AACR 5.6.12 Clutch

a) Clutch system (wet or dry type) must remain as homologated.

b) The method of operation (by cable or hydraulic) is free.

c) Friction and drive discs may be changed, the number of discs is free.

d) Clutch springs may be changed, the number of springs is free.

e) Aftermarket or modified clutches are permitted.

f) Back torque limiter is permitted.

g) Clutch fluid reservoir can be replaced.

h) Clutch lines/cables can be replaced.

i) No power source (i.e. hydraulic or electric) can be used for clutch operation, if not installed in the homologated motorcycle.

AACR 5.6.13 Oil Pumps and Oil Lines

a) Oil pump may be modified or replaced from those fitted to the homologated motorcycle, but modifications of the crankcase are not allowed.

b) The oil pump drive may be modified or changed.

c) The oil pressure relief valve is free.

d) Oil lines may be modified or replaced. Oil lines containing positive pressure, if replaced, must be of metal reinforced construction with swaged or treaded connectors

AACR 5.6.14 Engine Cooling System

a) The only permitted liquid engine coolant for the water-cooling system is water without additives.

b) The water pump may be modified or changed, but modifications of the crankcase are not allowed.

c) The water pump drive may be modified or changed.

d) Protective meshes may be added in front of the oil and water radiator(s).

e) The cooling system hoses / pipes and catch tanks may be modified or changed.

f) Radiator fan and wiring may be changed modified or removed.

g) Radiator cap is free.

h) The original water radiator can be modified or replaced, extra mounting brackets to accommodate the radiator are permitted.

i) Water and oil thermostat can be modified, replaced or removed.

j) Thermal switches and water temperature sensor can be modified, replaced or removed.

k) The original oil radiator can be modified or replaced, extra mounting brackets to accommodate the radiator are permitted.

l) Additional water radiators and oil coolers can be added. Extra mounting brackets to accommodate these radiators / coolers are allowed.

m) Oil coolers can be installed even if the homologated motorcycle does not have one.

n) The appearance from the front, the rear and the profile of the motorcycle must conform to the homologated shape after the addition of radiators /oil coolers.

o) All radiators / coolers must be mounted below the lower fork bridge (triple clamp).

AACR 5.6.15 Air Box

a) Must be the original fitted and homologated part with no modification allowed, but the air box drains must be sealed.

b) Air filters, internal flap type valve, sensors and vacuum fittings may be removed, modified, or replaced with aftermarket parts.

c) Any holes in the air box to the outside atmosphere resulting from the removal of components must be completely sealed from incoming air

d) All motorcycles must have a closed breather system. The oil breather line(s) must be connected, may pass through an oil catch tank and must exclusively discharge in the air box.

e) Ram air tubes or ducts running from the fairing to the air box may be modified, replaced or removed. The material is free. If tubes/ducts are used, they must be attached to the original, unmodified air box inlets.

f) Heat protection can be attached to the air box.

g) The engine breathers must remain original (number and size).

AACR 5.6.16 Fuel Injection System / Fuel Supply

The fuel injection system / fuel supply refers to throttle bodies, fuel injectors, fuel lines and pipes, fuel pump, fuel pressure regulator and intake tract devices (static or variable length).

a) The original homologated fuel injector system must be used without any modification.

b) The throttle bodies must be stock and unaltered from the original specification and manufacture and in the same position as on the homologated motorcycle.

c) The use of an optional homologated throttle body is allowed.

d) The fuel injectors must be stock and unaltered from the original specification and manufacture and in the same position as on the homologated motorcycle.

e) The throttle body intake insulators may be modified.

f) Bell mouths (including their fixing points) may be altered or replaced.

g) Butterfly valves must remain as originally produced by the manufacturer for the homologated motorcycle.

h) Variable intake tract devices cannot be added if they are not present on the homologated motorcycle.

i) Existing variable intake tract devices can be modified, deactivated or removed.

j) Secondary throttle valves and shafts may be removed or fixed in the open position and

the electronics may be disconnected or removed.

k) Vacuum slides may be fixed in the open position.

l) Air and air/fuel mixture can go to the combustion chamber exclusively though the throttle body butterflies.

m) Electronically controlled throttle valves, known as 'ride-by-wire', may be added or changed. However, the safety systems and procedures must always be present and fully functional. Software may be modified but all the safety systems and procedures designed by the original manufacturer must be maintained.

n) Fuel pump and fuel pressure regulator must be the original fitted and homologated parts with no modification allowed.

~~o) **The fuel pressure must be as homologated.**~~

~~p) **The pressure tolerance at the technical control is + 0,5 bar in respect to the maximum pressure of the homologated motorcycle.**~~

q) Fuel lines from the fuel tank to the delivery pipe assembly(s) may be replaced and must be located in such a way that they are protected from crash damage.

r) Fuel lines from the fuel tank up to the injectors (fuel hoses, delivery pipe assembly, joints, clamps) may be modified or replaced.

s) Quick connectors or dry break quick connectors may be used.

t) Fuel filters may be added.

AACR 5.6.17 Fuel Tank

a) The fuel tank must maintain the homologated appearance and location; however, its actual shape can be slightly changed to suit the rider's preference. The tank may be modified below the upper frame line and under the seat.

b) The material of construction of the fuel tank may be altered from the material used on the homologated motorcycle.

c) All fuel tanks must be filled with fire retardant material or be fitted with a fuel cell bladder.

d) Fuel tanks made of composite materials (carbon fibre, aramid fibre, glass fibre, etc.) must have passed the FIM Standards for fuel tanks or be lined with a fuel cell bladder.

e) Tanks made of composite material must bear the label certifying conformity with FIM Fuel Tank Test Standards. Fuel tanks without a fuel cell bladder must bear a label certifying conformity with FIM Fuel Tank Test Standards.

f) Such labels must include the fuel tank manufacturer's name, date of tank manufacture, and name of testing laboratory.

g) Fuel cell bladders must conform to or exceed the specification FIM/FCB-2005. Full details of this standard are available from the FIM.

h) The fuel tank must be fixed to the frame from the front and the rear with a crash-proof assembly system. Bayonet style couplings cannot be used, nor may the tank be fixed to any parts of the streamlining (fairing) or any plastic part. The Chief Technical Officer has the right to refuse any mounting not satisfying this safety purpose.

i) The original tank may be modified to achieve the maximum capacity of 24 liters.

j) A cross over line between each side of the tank is allowed (maximum inside diameter 10

mm).

k) Fuel tanks with tank breather pipes must be fitted with non-return valves which discharge into a catch tank with a minimum volume of 250 cc made of a suitable material.

l) Fuel tank filler caps may be altered or replaced from those fitted to the homologated motorcycle, and when closed, must be leak proof. Additionally, they must be secured to prevent accidental opening at any time.

m) Fuel petcock (if existing) may be altered, replaced or removed.

n) Fuel vent lines may be replaced.

o) A rider spacer/pad may be fitted to the rear of the tank with non-permanent adhesive. The material is free.

p) The tank can have a cover fitted over it. This cover must fit the shape of the fuel tank.

q) The sides of the fuel tank may be protected with a cover made of a composite material. These protectors must fit the shape of the fuel tank.

r) A fuel tank drain valve can be installed and must be located in such a way that it is protected from crash damage.

s) A spacer between fuel tank and fuel pump can be installed.

t) The fuel tank may have a heat protection shield /mat attached to its bottom and engine side.

AACR 5.6.18 Exhaust System

a) Exhaust pipes and silencers may be modified or changed. Catalytic converters must be removed.

b) The number of the final exhaust silencer(s) must remain as homologated.

c) For safety reasons the exposed edge(s) of the exhaust pipe(s) outlet must be rounded to avoid any sharp edges.

d) Wrapping of the exhaust system is not allowed except in the area of the rider's foot or an area in contact with the fairing for protection from heat.

e) Titanium and carbon exhausts and silencers are allowed.

f) The basic noise limit is 107 dB/A (with a 3 dB/A tolerance after the race only). **Some circuits may have a lower noise limit. This will be published in the Supplementary Regulations of the respective event.**

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

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

h) Titanium and carbon exhausts and silencers are allowed.

AACR 5.6.19 Sound level control

See AACR 0.7.

AACR 5.7 ELECTRICS and ELECTRONICS

AACR 5.7.1 Engine control system (ECU) / Electronics

a) Motorcycles that are not equipped with the correct electronics for this class cannot compete in this class.

b) The engine control system (ECU) must be either:

i. The original system as homologated. Flashing the original ECU is allowed, hardware modifications of the ECU are not allowed.

ii. The original system (with the production ECU, option i.) may have commercially available external ignition and/or injection module/s added. A special connector may be used to connect the module/s and the ECU.

iii. An FIM/AA approved ''Superstock Kit'' model (produced and/or approved by the motorcycle manufacturer) may be used. Flashing the KIT-ECU is allowed, hardware modifications of the ECU are not allowed. Commercially available external ignition and/or injection module/s may be added. A special connector/adaptor may be used to connect the ECU(s) and the original wiring harness.

The ECU (with software and activations) and harness parts must be available separately.

iv. The MoTec M130 engine control unit (ECU) as specified by the CIV Technical Regulations Superbike, marked with the FMI-logo and distributed by Aviorace Srl.

v. The Mectronik MKE7 engine control unit (ECU).

c) Central unit (ECU) may be relocated.

d) Corner by corner or distance/position-based adjustments are not allowed.

e) Optional equipment sold by the motorcycle Manufacturer for the homologated model is considered not homologated with the motorcycle and must follow the requirements for approved electronics / data loggers.

f) During an event the Chief Technical Officer has the right to ask a rider/team substitute their ECU or external module(s) with the FIM / AA sample received from the Manufacturer. The change has to be done before Sunday warm up.

g) No extra sensors can be added for engine control strategies except shift rod sensor, wheel speed sensors and lambda sensors. Any of these sensors must be included in the Kit ECU and Harness package if required for strategies (including closed loop lambda).

h) Other additional electronic hardware not present on the original homologated motorcycle cannot be added with the exceptions noted below.

i) Resistors/load may be added to replace the parts of the electrical system that have been removed (including lights and lambda sensors) to prevent ECU errors.

j) An ABS replacement/bypass may be fitted and/or the ABS unit may be dismantled to leave just its ECU.

k) The external fuel injection modules / ignition modules may not alter any sensor signal relating to the ride by wire system / ECU or control / actuate any part of the motorcycle excepting the fuel injectors / ignition coils.

l) Lambda closed loop /auto tuning is permitted.

m) No external modules may add traction control strategies (such as Traction Control, Launch Control, Anti Wheelie Control) unless originally fitted to the homologated motorcycle or included in the Racing Kit (which must be produced and/or approved by the motorcycle manufacturer) for the homologated motorcycle.

n) Control strategies (such as Traction Control, Launch Control, Anti Wheelie Control) is only

allowed when it is originally fitted to the homologated motorcycle or included in the Racing Kit (which must be produced and/or approved by the motorcycle manufacturer) for the homologated motorcycle.

o) Data logging systems:
   i. The data logging system is free, but the specifications listed below must be respected.
   ii. The Data Logger unit must be available for sale to the public.
   iii. The sensors must be simple function. No inertial platforms are allowed to be added if an inertial platform is not installed originally on the homologated motorcycle.
   iv. CAN (or other data protocol) communication from the ECU to an approved Data Logger is allowed without any limitation in CAN channel logger number.
   v. The Data Logger may not act to control any strategy or setting in the ECU – except to replicate the original dashboard signals if the original dashboard is replaced. The logger may not automate these setting changes.

p) The maximum total price of other active/control/calculation units such as lambda driver modules, quick shifter modules and analogue to CAN converters is € 1.000 (tax excluded).

q) Telemetry is not allowed.

r) No remote or wireless connection to the motorcycle for any data exchange or setting is allowed whilst the engine is running, or the motorcycle is moving.

s) The wiring harness is free.

t) Downshift blipping is allowed. External downshift blip modules are allowed.

u) The addition of an infrared (IR) or GPS based lap timing system is allowed.

v) Dashboard is free. It may incorporate the Data Logger. There must remain a working tachometer display.

w) Spark plugs may be replaced.

x) Spark plug caps /coil on plug, ignition cables and ignition harness are free.

y) The battery is free and may be relocated. The maximum capacity is 10 Ah.

z) A lap timer can be fitted.

AACR 5.7.2 Generator Alternator and Electric Starter

a) The generator (ACG) may be modified or replaced.

b) The regulator/rectifier may be modified or replaced.

c) The electric starter must operate normally and always be able to start the engine during the event.

d) During Parc Fermé, the starter must crank the engine at a suitable speed for starting for a minimum of 2 seconds without the use of a boost battery.

e) The generator must always charge the battery in a sufficient way when the engine is running. The charging voltage must be corresponding to the charging voltage listed in the service manual / kit-manual of the homologated motorcycle.

f) Operating the motorcycle on the battery only (without a functioning generator) is not allowed.

AACR 5.8 MAIN FRAME / CHASSIS

a) The use of titanium and carbon (or similar composite materials) in the construction of the main frame, rear sub frame, swing arm and swing arm pivot bolt, front forks, triple clamps, wheel axles, engine mounting parts and handlebars is forbidden. The use of titanium and aluminium alloys in the construction of swing arm pivot bolts and wheel axles is forbidden.

b) Unless otherwise stated, the use of titanium and aluminium alloys for nuts and screws is allowed.

c) 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 2nd motorcycle to the AA Technical Officer.

d) After a crash, the rebuilt motorcycle must be inspected before its use by the Technical Officers for safety checks and a new seal will be placed on the motorcycles frame.

e) No other spare motorcycle may be on the track.

AACR 5.8.1 Frame Body and Rear Sub Frame

a) The frame must remain as originally produced by the manufacturer for the homologated motorcycle.

b) Holes may be drilled on the frame only to fix approved components (i.e. fairing brackets, steering damper mount, sensors, etc.).

c) The sides of the frame body may be covered by protective parts made of plastic or 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 fitted into the ends of the wheel axles (max. length: 30 mm).

e) Crash protectors / frame sliders must not protrude outside the fairing for more than 30 mm.

f) Nothing may be added by welding or removed by grinding from the main frame body.

g) All motorcycles must display a valid vehicle identification number (frame number / chassis number) punched on the frame body.

h) Engine mounting brackets or plates may be modified or replaced, but the use of titanium and carbon (or similar composite materials) is forbidden.

i) Engine mounting axles, bolts and nuts can be modified or replaced but must be made of a steel alloy.

j) Suspension linkage mounting points on the frame must remain as originally produced by the manufacturer for the homologated motorcycle with no modification allowed.

k) Front sub frame / fairing mount may be modified or replaced. The material is free.

l) Rear sub frame may be modified or replaced; the material is free. Repairing and welding of the sub frame is allowed.

m) Additional seat brackets may be added, non-stressed protruding brackets may be removed if they do not affect the safety of the construction or assembly. Bolt-on accessories to the rear sub-frame may be removed.

n) The side stand bracket may be cut or removed.

o) The paint scheme is not restricted but polishing the frame body or sub-frame is not allowed.

p) If the homologated motorcycle has inserts for the steering bearings or swingarm pivot bolt, then these inserts can be modified or replaced. Modifying the frame body is not allowed.

AACR 5.8.2 Suspension - General

a) The use of titanium and carbon (or similar composite materials) in the construction of the fork and fork clamps is forbidden.

b) Mechanical forks:

i. Original internal parts of the homologated forks may be modified or changed. Aftermarket damper kits or valves may be installed

ii. The original surface finish of the fork tubes (stanchions, fork pipes) may be changed. Additional surface treatments are allowed.

iii. The original fork may be replaced by an aftermarket fork.

c) Electronic forks:

i. No aftermarket or prototype electronically-controlled suspensions can be used. Electronically-controlled suspension can only be used if already present on the production model of the homologated motorcycle.

ii. The electronically-controlled valves must remain as homologated. The shims, spacers and springs not connected with these valves can be changed.

iii. The electronic suspension system must work safely in the event of an electronic failure.

iv. Electro-magnetic fluid systems which change the viscosity of the suspension fluids(s) during operation are not permitted.

v. The electronic front suspension may be replaced by a mechanical system.

vi. Electronic forks may have their complete internal parts (including all electronic control) replaced with a conventional damping system and it will then be considered as a mechanical fork.

vii. The original electronic fork may be replaced by an aftermarket mechanical fork.

AACR 5.8.3 Front Fork and Fork Clamps

a) The upper and lower fork clamps (triple clamp, fork bridges) may be modified or replaced by aftermarket products.

b) Steering bearings and inserts are free.

c) Electronic controlled steering dampers cannot be used if not installed in the homologated motorcycle. However, it must be completely standard (any mechanical or electronic part must remain as homologated).

AACR 5.8.4 Swing Arm

a) The swing arm may be altered or replaced from those fitted to the homologated motorcycle. However, the type (single or double sided) must remain as homologated.

b) The use of titanium and carbon (or similar composite materials) in the construction of the

swing arm is forbidden if not homologated on the original motorcycle.

c) Swing arm pivot bolt and nut can be modified or replaced, but must be made of steel.

d) Swing arm pivot position must remain in the homologated position (as supplied on the production motorcycle). If the standard motorcycle has inserts then the orientation/position of the original inserts may be changed. The inserts can be modified or replaced.

e) Rear axle/chain adjuster can be modified or replaced.

f) 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 rear wheel sprocket, irrespective of the rear wheel position. This must be fitted in such a way to reduce the possibility that any part of the riders' body may become trapped between the lower chain run and the rear wheel sprocket.

g) Rear wheel stand brackets may be added to the swing arm by welding or by bolts. Brackets must have rounded edges (with a large radius) viewed from all sides. 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 swing arm.

h) The sides of the swing arm may be protected by protective parts made of plastic or composite material. These protectors must fit the form of the swing arm.

AACR 5.8.5 Rear Suspension Unit

a) Mechanical Suspensions:

   i. Rear suspension unit (shock absorber and its spring) may be replaced with aftermarket parts.

b) Electronic Suspensions:

   i. No aftermarket or prototype electronically controlled suspension unit may be used, unless such suspension is already present on the homologated motorcycle.

   ii. The electronically-controlled valves must remain as homologated.

   iii. The shims, spacers and shock absorber springs not connected with these valves can be changed.

   iv. The ECU for the electronic suspension must remain as homologated and cannot have GPS capabilities.

   v. The electronic interface between the rider and the suspension must remain as on the homologated motorcycle. It is allowed to remove or disable this rider interface.

   vi. If the standard system has no facility for ride height adjustment the standard shock may be modified to allow shock length change if no hydraulic parts are modified.

   vii. The original suspension system must work properly safe in the event of an electronic failure.

   viii. The electronic shock absorber can be replaced by a mechanical one.

c) The original attachments to the frame must be as homologated.

d) Removable top shock mounts can be modified or replaced. A nut may be made captive on the top shock mount and shim spacers may be fitted behind it to adjust the ride height.

e) The rear suspension linkage may be modified or replaced.

AACR 5.8.6 Wheels

a) Wheels may be replaced and associated parts that are fitted to the homologated motorcycle may be altered or replaced.

b) Aftermarket wheels must be made from aluminium alloys.

c) The use of the following alloy materials for the wheels is not allowed: Beryllium (>=5%), Scandium (>=2%), Lithium (>=1%).

d) Any modification to the rim or spokes of an integral wheel (cast, moulded, riveted) as supplied by the manufacturer or of a traditional detachable rim is prohibited, except for modifications on the spokes, valves, safety bolts and tire retention screws sometimes used to prevent tire movement relative to the rim. If the rim is thus modified, bolts, screws etc. must be fitted for this purpose.

e) Wheels may be overpainted, but the original surface finish cannot be removed.

f) A non-slip coating/treatment may be applied to the bead area of the rim.

g) The cushion drive for the rear wheel can be modified or replaced.

h) Bearings, seals and axles may be modified or replaced by aftermarket products.

i) The use of titanium, light metal alloys and carbon (or similar composite materials) in the construction of the wheel axles is forbidden.

j) Axle nuts/bolts can be modified or replaced but must be made of steel.

k) Wheel Spacers can be modified or replaced. Modifications to keep spacers in place are permitted.

l) Bearing spacers can be modified or replaced.

m) Wheel balance weights are free.

n) Aluminium or steel inflation valves are compulsory. Angled valves are recommended.

o) Permitted dimensions:

- Permitted wheel rim diameter size: 17 inches
- Permitted front wheel rim width: 3,50 inches
- Permitted rear wheel rim width: 6,00 inches

AACR 5.8.7 Brakes

a) Brake discs may be replaced by aftermarket discs which comply with the following requirements:

i. Brake discs may be altered or replaced from those fitted to the homologated motorcycle. Only steel (max. carbon content 2.1 wgt. %) is allowed for brake discs.

ii. Non-floating or single piece discs may be replaced with floating discs, the number of floaters is free.

iii. The outside diameter of the brake disc may be increased but the disc must fit into the brake calliper without any modification of the brake calliper. The mounting position of the brake callipers must be the same as the homologated callipers.

iv. The thickness of the brake disc may be increased but the disc must fit into the brake calliper without any modification of the brake calliper.

b) Front and rear brake callipers may be altered or replaced from those fitted to the homologated motorcycle.

c) Only steel bolts/nuts and steel fasteners (8.8 grade or higher) can be used to fasten the brake callipers.

d) Front-brake master cylinder may be altered or replaced from those fitted to the homologated motorcycle.

e) Rear brake master cylinder may be altered or replaced from those fitted to the homologated motorcycle.

f) Front and rear brake fluid reservoir may be altered or replaced from those fitted to the homologated motorcycle.

g) Front and rear hydraulic brake lines may be altered or replaced from those fitted to the homologated motorcycle.

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

i) The rear brake calliper bracket may be mounted fixed on the swing arm.

j) 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 a thread repair insert.

k) The split of the front brake lines for both front brake callipers must be made above the lower fork bridge (lower triple clamp).

l) "Quick" (or "dry-brake") connectors in the brake lines are allowed.

m) Front and rear brake pads may be changed. Brake pad locking pins may be modified for quick change type.

n) Front brake calliper additional air scoops or ducts are allowed.

o) Antilock Brake Systems (ABS) are not permitted.

p) 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. FIM approved guards will be permitted without regard of the material. The Chief Technical Officer has the right to refuse any guard not satisfying this safety purpose.

q) The use of thumb or hand brakes is allowed in addition to or instead of the foot operated system. An adaptor may be fitted to the reservoir input of the OEM master cylinder to facilitate this.

AACR 5.8.8 Handlebars and Hand Controls

a) Handlebars and hand controls may be replaced and relocated.

b) Throttle grip can be modified or substituted.

c) Throttle controls must be self-closing when not held by the hand.

d) Throttle assembly and associated cables can be modified or replaced but the connection to the throttle body and the throttle controls must remain as homologated. Cable operated throttles (grip assembly) must be equipped with both an opening and a closing cable including when actuating a remote drive by wire grip/demand sensor.

e) Clutch and brake lever may be exchanged by an after-market model. An adjuster to the brake lever and to the clutch lever is allowed.

f) Switches can be changed but electric starter switch and engine stop switch must be located on the handlebars.

g) Welding of handlebars is not allowed.

h) The use of titanium, carbon fiber, Kevlar® or carbon composite materials for handlebars is forbidden.

i) The use of titanium and aluminium alloys for nuts and screws is allowed.

j) Handlebar ends must be plugged with a solid material or rubber covered.

k) The minimum angle of rotation of the steering stem on each side of the center line or mid position must be of 15°.

l) In any position of the handlebars /steering stem, the front wheel, tire and mudguard must maintain a minimum gap of 10 mm to the bodywork and radiator(s).

m) 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, frame or other bodywork when on full lock to prevent trapping the rider's fingers. These stops can be adjustable.

n) All handlebar levers must be ball-ended (diameter of this ball should be at least 16 mm). This ball can also be flattened, the minimum thickness of the flattened part should be 14 mm and the edges must be rounded. These ends must be permanently fixed and form an integral part of the lever.

o) Each control lever must be mounted on an independent pivot.

p) 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.

AACR 5.8.9 Footrests and Foot Controls

a) The use of titanium, carbon fibre, Kevlar® or carbon composite materials for footrests and foot controls is forbidden.

b) The use of titanium and aluminium alloys for nuts and screws is allowed.

c) Footrests, hangers/brackets and hardware may be replaced and relocated but the hangers / brackets must be mounted to the frame at the original mounting points.

d) Gear shift must remain operated manually by foot.

e) Footrests may be rigidly mounted or a folding type which must incorporate a device to return them to the normal position.

f) The end of the footrests must be rounded.

Non-folding footrests must have an end (plug) which is permanently fixed, made of plastic, Teflon or an equivalent type material (Alloy), and must be rounded. The plug surface must be designed to reach the widest possible area in order to decrease the risk of injuries to the rider in the case of an accident. The Chief Technical Officer has the right to refuse any solution not satisfying this safety purpose.

g) The rear brake lever, if pivoted on the footrest axis, must work under all circumstances, such as the footrest being bent or deformed.

h) 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 Officer is final.

AACR 5.8.10 Fairing / Body Work

a) Fairing, mudguards and bodywork must confirm in principle to the homologated shape

as produced by the manufacturer, irrespective of the model year to encourage the most up to date visual impression.

b) Fairings from a different model year can be used when it is/was homologated and the model year is 2006 or newer. In this case, the complete fairing (upper fairing, lower fairing) must be used as a set.

c) The material for fairings is free.

d) Headlight decals should be included.

e) For all bodywork, paint and decal design is free.

f) Overall size and dimensions must be the same as the original parts, with a tolerance of +/- 10 mm, respecting the design and features of the homologated fairing as far as possible. The overall width of the frontal area may be +10 mm maximum. The decision of the Chief Technical Officer is final.

g) Windscreen may be replaced with an aftermarket product. ~~**The height of the windscreen is free, with a tolerance of +/- 15 mm measured on the vertical distance from / to the upper fork bridge.**~~ The screen must not have sharp edges. The material of the windscreen must be transparent or ~~**slightly**~~ tinted.

h) Fairing brackets and fasteners may be altered or replaced. The material is free.

i) The ram-air intake must maintain the originally homologated shape and dimensions with a +/- 2 mm tolerance.

j) The original air ducts running between the fairing and the air box may be altered or replaced with a +/- 2 mm tolerance to the homologated parts. The material is free. Particle grills or “wire - meshes” originally installed in the openings for the air ducts may be removed.

k) The lower fairing must be constructed to hold a minimum of 5 litres in case of an engine breakdown. The lower edges of all the openings in the fairing must be positioned at least 50 mm above the bottom of the fairing.

l) The lowest point of the rear transverse wall of the lower fairing must be at least 50 mm above the bottom. The angle between this wall and the floor must be ≦ 90°.

m) The lower fairing must incorporate at least a single opening of 20 mm diameter in the front lower area. This hole must remain sealed in dry conditions and must be opened only in wet race conditions as declared by the Race Director.

n) Motorcycles may be equipped with a radiator shroud (inner ducts) to improve the air stream towards the radiator, but the appearance of the front, the rear and the profile of the motorcycle must not be changed.

o) Front mudguard may be modified or replaced and may be spaced upward for increased tire clearance. The material is free.

p) Rear mudguard fixed on the swing arm can be modified, replaced, may be spaced upward for increased tire clearance or removed. The material is free. The chain guard may be removed.

q) All exposed edges must be rounded.

r) Wings and Aerodynamic Aids:

   i. Wings and other aerodynamic aids can only be used if originally fitted to the homologated motorcycle.

ii. The wings and other aerodynamic aids must follow the dimensions, profiles and positions of the homologated shapes exactly (tolerance +/- 1 mm). For copies of the OEM parts, the leading edges (including end plates) must have a minimum circumference of 4 mm and must have a rounded end (8 mm radius) or be enclosed / integrated into the fairing.

iii. The OEM parts may be used "as is" with the exception that the wing root and 10 mm from the end face may be modified to allow mounting to the fairing. This may not be in the form of an extension and the size of the wing will be measured with reference to the face of the wing root.

iv. The wings must be fitted in the same relative position (accepting the tolerance allowed for the fairing) and the angle of attack must be within +/- 4 degrees of the original angle of attack relative to the chassis.

v. For active or dynamic aerodynamic parts, only the standard homologated mechanism can be used. The range of movement of these parts must be the same as that used by the homologated motorcycle in normal use - not the mechanical maximum.

AACR 5.8.11 Seat

a) Seat, seat base and associated bodywork may be replaced. The appearance from front, rear and profile must conform in principle to the homologated shape.

b) The top portion of the rear body work around the seat may be modified to a solo seat.

c) The material is free.

d) The homologated seat locking system (with plates, pins, rubber pads, etc.) can be removed.

e) All exposed edges must be rounded.

AACR 5.8.12 Fasteners

a) Standard fasteners may be replaced with fasteners of any material and design with the exceptions listed below, or in the relevant sections of this regulations.

b) Titanium fasteners may be used in structural (highly stressed) locations, but the strength and design must be equal to - or exceed - the strength of the standard fastener it is replacing.

c) Internal engine bolts, screws and nuts must remain of standard homologated materials or materials of higher specific weight.

d) The requirements for the materials of axles, bolts and nuts for engine mounting, wheels and swingarm are specified in the relevant sections of this regulations.

e) Fasteners may be drilled only for safety wiring, but intentional weight-reduction modifications are not allowed.

f) Thread repair using inserts of different material such as Helicoil® and Time-Sert® are allowed.

g) Fairing/body-work fasteners may be changed to a quick disconnect type, the material is free.

h) Aluminium fasteners may only be used in non-structural (low stressed) locations.

i) In case of a dispute, the decision of the Chief Technical Officer is final.

AACR 5.8.13 Rear Safety Light

See AACR 0.2.3.

AACR 5.9 The following items MAY BE altered or replaced

a) Any type of lubrication, brake or suspension fluid may be used.

b) Gaskets and gasket materials.

c) Bearings of any type and brand may be used.

d) Painted external surface finishes and decals.

e) Material for brackets connecting non-original parts (fairing, exhaust, instruments, etc.) to the frame (or engine) can be made from titanium or fibre reinforced composites.

f) Protective covers for the frame, chain, footrests can be made in other material like fibre composite material if these parts do not replace original parts mounted on the homologated motorcycle.

AACR 5.10 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 / cylinder head must be plugged.

c) Speedometer and related wheel spacers.

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 5.11 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) Tool box.

f) Helmet hooks and luggage carrier hooks.

g) Passenger footrests.

h) Passenger grabs rails.

i) Safety bars, centre and side stands must be removed (fixed brackets must remain excepting side stand bracket).

j) Catalytic convertors.

AACR 5.12 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 crankcase, oil radiator).

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 5.13 Timekeeping instruments

See AACR 0.8.

AACR 5.14 Onboard cameras

See AACR 0.10.

AACR 6 MOTO 4

AACR 6.0 GENERAL

Motorcycles participating in the Moto4 class must comply with the specifications in these Technical Regulations.

All motorcycle components are free, exceptions to this are listed in these Technical Regulations.

AACR 6.1 APPROVED ENGINES

Only the following 4-stroke single-cylinder engines are permitted:

- Zongshen NC 250
- Zongshen NC 250 S
- Zongshen NC 250 SR
- Tianda TDR 300
- Yamaha 250 WR
- Honda CR 150

All engines must be naturally aspirated.

AACR 6.1.1 Engine Modifications and Limitations

a) Engine tuning is free.

b) The number of engines is free.

c) The castings of the crankcase, cylinder and cylinder head must be those originally equipping the engine model.

d) The maximum displacement allowed is 250 ccm, with the exception of the TDR 300 engine whose maximum displacement is 280 ccm.

e) The use of carburettor fuel systems is mandatory, the use of electronic fuel injection systems is forbidden. The remaining components of the fuel system are free within the limits indicated in these regulations.

f) The basic noise limit is 105 dB/A (with a 3 dB/A tolerance after the race only). The test RPM for noise control is 5,500 rpm.

AACR 6.1.2 Crankcase and all other Engine Cases

a) Repairing the crankcase by welding or using Epoxy is allowed.

b) It is not allowed to add a pump or any other device to create a vacuum in the crankcase.

c) 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 part.

d) All lateral covers/engine cases containing oil and which could be in contact with the ground during a crash, must be protected by a second cover made from metal, such as aluminium alloy, stainless steel, steel or titanium. Covers made of composite materials are not permitted.

e) FIM approved covers will be permitted without regard of the material or its dimensions.

f) The secondary cover should cover a minimum of 1/3 of the original cover. It must have no sharp edges to damage the track surface.

g) Plates or crash bars made from aluminium or steel are also permitted in addition to these covers. All of these devices must be designed to be resistant against sudden shocks, abrasions and crash damage.

h) Plates/crash bars/frame sliders must not protrude outside the fairing for more than 30 mm.

i) These covers must be fixed properly and securely with a minimum of three (3) case cover screws that also mount the original covers/engine cases to the crankcases.

j) Oil containing engine covers must be secured with steel bolts.

k) 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 crankcase, oil radiator).

l) The Chief Technical Officer has the right to refuse and forbid any cover not satisfying this safety purpose, if the evidence shows that the cover is not effective.

m) No damaged or repaired covers will be permitted unless approved by the Chief Technical Officer.

AACR 6.1.3 Engine Water Cooling System

a) The only permitted liquid engine coolant for the water-cooling system is water without additives.

b) The radiator filler cap must ensure a proper seal and must be secured in a way that prevents accidental opening.

c) Water radiators are free.

d) All radiators must be mounted below the lower fork bridge (triple clamp) and inside the fairing.

AACR 6.1.4 Engine Oil System

a) External flexible oil lines must be of braided reinforced construction with swaged or threaded connectors.

b) Oil flanges outside the engine must be tightened with steel bolts (min. 6 mm diameter, 8.8

grade or higher) or titanium bolts (min. 6 mm diameter, Grade 5 or equivalent).

c) Fasteners for oil flanges outside the engine must be safety wired.

d) Oil coolers are free.

e) All oil coolers must be mounted in a way, that any oil leakage is collected by the recovery pan (belly pan).

AACR 6.2 MINIMUM WEIGHT

The minimum combined weight is 145 kg.

a) Combined weight is the weight of the rider (in full racing equipment) plus motorcycle as used on track.

b) There is no tolerance on the combined minimum weight.

c) During the final technical inspection at the end of the race, the selected motorcycles and riders 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.

d) During the practice and qualifying sessions, riders may be asked to come to a weight control together with their motorcycles. In all cases the rider must comply with this request.

e) The use of ballast is allowed to stay over the minimum weight limit.

f) The ballast must be made from solid metal piece(s), firmly and securely connected, either through an adapter or directly to the main frame or engine, with minimum 2 steel bolts (min. 8 mm diameter, 8.8 grade or higher). Other equivalent technical solutions must be submitted to the Chief Technical Officer for his approval.

AACR 6.3 STARTING NUMBERS & BACKGROUND COLOURS

Green background with white numbers. The numbers 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. The number must be centred on the background with no advertising within 25 mm in all directions.

b) One, on each side on the lower rear portion of the lower fairing; see Appendix A. The number must be centred on the background.

c) Numbers must be easily legible in a clear simple font and contrast strongly with the background colour.

d) Backgrounds must be of one single colour and must be clearly visible around all edges of the number (including outline). Backgrounds must protrude the numbers within 15 mm in all directions.

e) Any outlines must be of a contrasting colour and the maximum width of the outline is 3 mm.

f) Reflective or mirror type numbers are not permitted.

g) Numbers cannot overlap.

In case of a dispute concerning the legibility of numbers, the decision of the Chief Technical Officer is final.

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

AACR 6.4 FUEL

a) **See AACR 0.5**

~~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 **2023**, Art. 2.8.~~

b) 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 6.5 TIRES

a) Only the tires specified below are allowed in the Moto 4 class:
- Front: DUNLOP KR 149M Dimension: 90/80-R17
- Rear: DUNLOP KR 133M Dimension: 115/75-R17

b) The tires must be purchased from the official tire supplier in the paddock.

c) All tires in use must be easily identifiable with the official tire stickers. Using tires without the official tire stickers is forbidden.

d) A corresponding number of official tire stickers will be handed over personally, to the riders/teams only, by the tire suppliers.

e) The official tire stickers must be placed on the side of motorcycle, which is facing to the pit lane before the motorcycle is entering the track.

f) Sticker requirements: Stickers must be used for all Qualifying Practices and Races. In Free Practices and Warm Up's, stickers are not required.

g) Any modification or treatment of the tires (cutting, grooving) is forbidden.

h) For wet tires only: Wet tires are free in make, model, compound and size but the diameter must be 17".

i) Wet tires do not need tire stickers.

j) Wet tires can be used only when the Race Direction has declared the race or practice "WET".

k) Wet tires must be a fully moulded tire.

l) Wet tires do not need to carry a DOT and/or E-marks; however, these tires must be marked "not for highway use" or "NHS".

AACR 6.6 AIR BOX

a) The construction of the air box is free.

b) The engine intake air has to pass through an air filter element.

c) Motorcycles with air box must have a closed breather system. The engine oil breather line(s) must be connected, may pass through an oil catch tank and must exclusively discharge in the air box.

d) Air box drains must be sealed.

e) Motorcycles without air box must have the engine breather system connected to an oil catch tank. The capacity of the oil catch tank must be at least 500 ccm. The oil catch tank must be securely mounted and easily accessible.

AACR 6.7 FUEL TANK

a) The construction of the fuel tank is free, but the use of titanium, carbon, carbon/Kevlar® (or similar composite materials) in the construction of the fuel tank is forbidden.

b) Only single tanks are permitted.

c) Fuel tanks must be completely filled with fire-retardant material (open-celled mesh, i.e. "Explosafe®").

d) Fuel tanks with tank breather pipes must be equipped with non-return valves that discharge into a catch tank with a minimum volume of 250cc made of a suitable material. The catch tank must be securely mounted and easily accessible.

e) Fuel cap when closed must be leak proof. Additionally, they must be securely locked to prevent accidental opening at any time.

f) Fuel petcock (if existing) is free.

g) Fuel vent lines are free.

h) A rider spacer/pad may be fitted to the rear of the tank with permanent or non-permanent adhesive. The material is free.

i) The tank can have a cover fitted over it. This cover must fit the shape of the fuel tank.

j) The sides of the fuel tank may be protected with a cover made of a composite material. These protectors must fit the shape of the fuel tank.

k) A fuel tank drain valve can be installed and must be located in such a way that it is protected from crash damage.

l) A spacer between fuel tank and fuel pump can be installed.

m) The fuel tank may have a heat protection shield/mat attached to its bottom and engine side.

AACR 6.8 ELECTRICS and ELECTRONICS

AACR 6.8.1 Engine Control System (ECU) / Electronics

a) The engine control system (ECU) is free.

b) Data logging system is free.

c) Telemetry is not allowed.

d) No remote or wireless connection to the motorcycle for any data exchange or setting is allowed whilst the engine is running or the bike is moving.

e) The wiring harness is free.

f) Quickshifters are allowed.

g) Downshift blipping is allowed. Downshift blip modules are allowed.

h) The addition of an infrared (IR) or GPS based lap timing system is allowed.

i) Dashboard is free. It may incorporate the Data Logger. There must remain a working tachometer display.

j) Motorcycles must be equipped with a red light on the instrument panel that will illuminate in the event of oil pressure drop.

k) Spark plugs are free.

l) Spark plug caps /coil on plug, ignition coils and cables and ignition harness are free.

m) The battery is free. The maximum capacity is 10 Ah.

n) A lap timer can be fitted.

AACR 6.8.2 Generator, Alternator and Electric Starter

a) A functioning generator (ACG) must be fitted.

b) The electric starter must operate normally and always be able to start the engine during the event.

c) During Parc Fermé, the starter must crank the engine at a suitable speed for starting for a minimum of 2 seconds without the use of a boost battery. No boost battery may be connected to the motorcycle at any time of the event.

d) The generator must always charge the battery in a sufficient way when the engine is running.

e) The regulator/rectifier is free.

f) Operating the motorcycle on the battery only (without a functioning generator) is not allowed.

AACR 6.9 MAIN FRAME / CHASSIS

a) The use of titanium, carbon, carbon/Kevlar® (or similar composite materials) in the construction of the main frame, rear sub frame, swing arm and swing arm pivot bolt, front forks, triple clamps, wheel axles, engine mounting parts and handlebars is forbidden. The use of titanium and aluminium alloys in the construction of swing arm pivot bolts and wheel axles is forbidden.

b) Unless otherwise stated, the use of titanium and aluminium alloys for nuts and screws is allowed.

c) 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 2nd motorcycle to the Chief Technical Officer.

d) After a crash, the rebuilt motorcycle must be inspected before its use by the Technical Officers for safety checks and a new seal will be placed on the motorcycles frame.

e) No other spare motorcycle may be on the track.

AACR 6.9.1 Frame Body and Rear Sub Frame

a) The sides of the frame body may be covered by protective parts made of plastic or composite material. These protectors must fit the form of the frame.

b) Crash protectors may be fitted to the frame, using existing points (max. length: 50 mm),

or fitted into the ends of the wheel axles (max. length: 30 mm).

c) Crash protectors / frame sliders must not protrude outside the fairing for more than 30 mm.

d) All motorcycles must display a valid vehicle identification number (frame number / chassis number) punched on the frame body.

e) Engine mounting brackets or plates are free, but the use of titanium, carbon, carbon/Kevlar® (or similar composite materials) is forbidden.

f) Engine mounting axles, bolts and nuts are free but must be made of a steel alloy.

g) Front sub frame / fairing mounts are free. The material is free.

AACR 6.9.2 Suspension - General

a) Only mechanical suspensions are allowed. Any kind of electronical suspension device is forbidden.

b) The use of titanium, carbon, carbon/Kevlar® (or similar composite materials) in the construction of suspension parts is forbidden.

AACR 6.9.3 Swing Arm

a) The use of titanium, carbon, carbon/Kevlar® (or similar composite materials) in the construction of the swing arm is forbidden.

b) The swing arm pivot bolt and nut must be made of a steel alloy.

c) 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 rear wheel sprocket, irrespective of the rear wheel position. This must be fitted in such a way to reduce the possibility that any part of the riders' body may become trapped between the lower chain run and the rear wheel sprocket.

d) The sides of the swing arm may be protected by protective parts made of plastic or composite material. These protectors must fit the form of the swing arm.

AACR 6.9.4 Rear Suspension Unit

a) The use of titanium, carbon, carbon/Kevlar® (or similar composite materials) in the construction of the rear suspension unit is forbidden.

AACR 6.9.5 Wheels / Rims

a) The mandatory dimensions for the rim sizes are:

- Front: 2,50" x 17" Rear: 3,50" x 17"

b) The use of titanium, carbon, carbon/Kevlar® (or similar composite materials) in the construction of the rims is forbidden.

c) Coating/painting of the rims is free.

d) Wheel axles must be made of a steel alloy.

e) Axle nuts / bolts must be made of a steel alloy.

f) Aluminium or steel inflation valves are mandatory. Angled valves are highly recommended.

AACR 6.9.6 Brakes

a) Only one (1) brake disc is allowed on the front wheel.

b) Brake discs must be made of steel (max. carbon content 2.1 wt%).

c) Ventilated brake discs are not allowed.

d) Only steel bolts/nuts and steel fasteners (8.8 grade or higher) can be used to fasten the brake callipers.

e) "Quick" (or "dry-brake") connectors in the brake lines are allowed.

f) Front brake calliper additional air scoops or ducts are allowed.

g) 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. The Chief Technical Officer has the right to refuse any guard not satisfying this safety purpose.

h) The use of thumb or hand brakes is allowed in addition to or instead of the foot operated system. An adaptor may be fitted to the reservoir input of the OEM master cylinder to facilitate this.

AACR 6.9.7 Handlebars and Hand Controls

a) The use of titanium, carbon, carbon/Kevlar® (or similar composite materials) in the construction of the handlebars is forbidden.

b) The use of titanium and aluminium alloys for nuts and screws is allowed.

c) Welding of handlebars is not allowed.

d) The total maximum width of the handlebars is 600 mm.

e) The minimum angle of rotation of the steering stem on each side of the centre line or mid position must be of 15°.

f) In any position of the handlebars /steering stem, the front wheel, tire and mudguard must maintain a minimum gap of 10 mm to the bodywork and radiator(s).

g) 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, frame or other bodywork when on full lock to prevent trapping the rider's fingers. These stops can be adjustable.

h) Handlebar ends must be plugged with a solid material or rubber covered.

i) Throttle controls must be self-closing when not held by the hand.

j) Throttle assembly and associated cables are free.

~~k) **Throttle must be self-closing when not held by hand.**~~

l) Electric starter switch and engine stop switch must be located on the handlebars.

m) All handlebar levers must be ball-ended (diameter of this ball should be at least 16 mm). This ball can also be flattened, the minimum thickness of the flattened part should be 14 mm, and the edges must be rounded. These ends must be permanently fixed and form an integral part of the lever.

n) Each control lever must be mounted on an independent pivot.

o) 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.

AACR 6.9.8 Footrests and Foot Controls

a) The use of titanium, carbon, carbon/Kevlar® (or similar composite materials) for

footrests and foot controls is forbidden.

b) The use of titanium and aluminium alloys for nuts and screws is allowed.

c) Gear shift must remain operated manually by foot.

d) Footrests may be rigidly mounted or a folding type which must incorporate a device to return them to the normal position.

e) The end of the footrests must be rounded.

f) Non-folding footrests must have an end (plug) which is permanently fixed, made of plastic, Teflon or an equivalent type material, and must be rounded. The plug surface must be designed to reach the widest possible area in order to decrease the risk of injuries to the rider in the case of an accident. The Chief Technical Officer has the right to refuse any solution not satisfying this safety purpose.

AACR 6.9.9 Fairing / Body Work

a) The use of carbon, carbon/Kevlar® (or similar composite materials) for fairings (this also includes mudguards/fenders and seat cowling) is forbidden.

b) Specific reinforcements made of carbon, carbon/Kevlar® (or similar composite materials) are allowed locally around holes and stressed areas.

c) The maximum width of the fairing is 600 mm.

d) The maximum width of the seat cowling is 450 mm.

e) The minimum ground clearance of the fairing with the motorcycle in unloaded condition is 100 mm.

f) The fairing must not protrude beyond the foremost point of the front wheel in a vertical line.

g) The fairing must not protrude beyond the rearmost point of the rear wheel in a vertical line.

h) Fairing brackets and fasteners are free, but the use of titanium, carbon, carbon/Kevlar® (or similar composite materials) is forbidden.

i) For all bodywork, paint and decal design is free.

j) The windscreen must not have sharp edges. The material of the windscreen must be transparent.

k) The lower fairing (belly pan) must be constructed to hold a minimum capacity of 2 litres in case of an engine breakdown.

l) The lower fairing must incorporate at least a single opening of 20 mm diameter in the front lower area. This hole must remain sealed in dry conditions and must be opened only in wet race conditions as declared by the Race Director.

m) All exposed edges must be rounded.

AACR 6.10 FASTENERS

a) Internal engine bolts, screws and nuts must remain of standard materials or materials of higher specific weight.

b) The requirements for the materials of axles, bolts and nuts for engine mountings, wheels and swingarm are specified in the relevant sections of this regulations.

c) Fasteners may be drilled only for safety wiring, but intentional weight-reduction

modifications are not allowed.

d) Thread repair using inserts of different material such as Helicoil® and Time-Sert® are allowed.

e) Aluminium fasteners may only be used in non-structural (low stressed) locations.

f) In case of a dispute, the decision of the Chief Technical Officer is final.

AACR 6.11 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^2 (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 Officer. In case of dispute over the mounting position or visibility, the decision of the Chief Technical Officer will be final.

f) Power output/luminosity should be ~~equivalent to minimum~~ **of** 10**-15** W (incandescent) or ~~1~~ **0,6-1,8** W (LED).

g) The output must be continuous - no flashing safety light 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 Officer has the right to refuse any light system not satisfying this safety purpose.

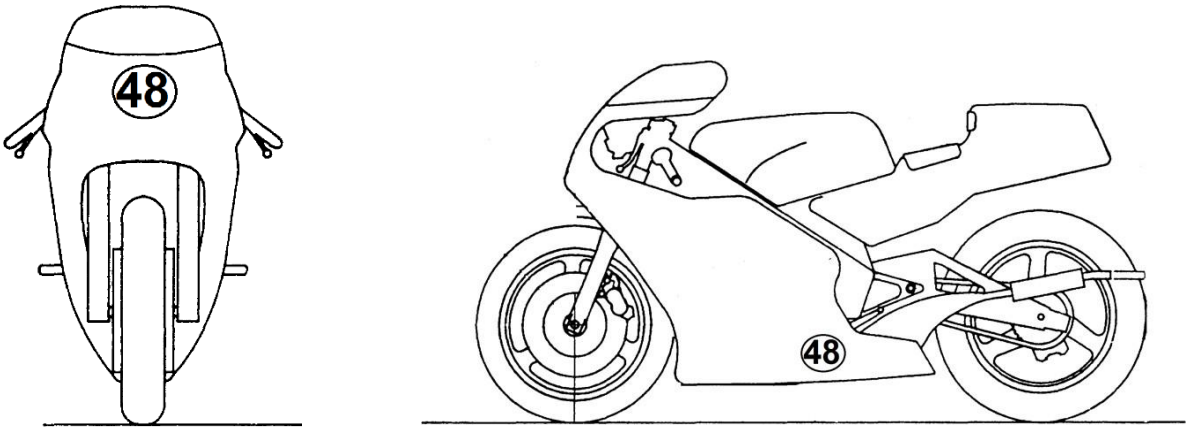
AACR 6.12 TIMEKEEPING INSTRUMENTS

See AACR 0.8.

AACR 6.13 ONBOARD CAMERAS

See AACR 0.10.

APPENDIX A: STARTING NUMBERS



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

APPENDIX B: AA FUELS REGULATIONS

AA FUELS

REGULATIONS

2025

1. FUEL

All vehicles must be fuelled with:

- **unleaded gasoline (from public pump station or race type) OR**
- **a mixture of unleaded gasolines**

The unleaded gasoline or the mixture of unleaded gasolines used must comply with the specifications as set out in Art. 1.1.

1.1. FIM specifications for unleaded gasolines or mixtures of unleaded gasolines

The following specifications are set for unleaded gasoline or the mixture of unleaded gasolines:

a) The following properties shall be within the following thresholds (for each property, the relative test methods to be used for the measurement are indicated):

Property	Units	Min.[3]	Max.[1]	Test Methods[4]	
Density at 15°C	[kg/m3]	720	785	EN ISO 12185	ASTM D4052
RON	-	95	102	EN ISO 5164	ASTM D2699
MON	-	85	90	EN ISO 5163	ASTM D2700
Oxidation stability	[min]	360		EN ISO 7536	ASTM D525
Vapour pressure (DVPE)	[kPa]		100	EN 13016-1	ASTM D5191
Aromatics	% (V/V)		35.0	EN ISO 22854	ASTM D6839
Benzene	% (V/V)		1.0	EN ISO 22854	ASTM D6839 or D5580
Diolefins total	% (m/m)		1.0	GC-MS	HPLC
Lead	[mg/L]		5.0		AAS
Manganese	[mg/L]		2.0	~~ICP-OES~~	AAS
Nitrogen	% (m/m)		0.2	ASTM D 4629	ASTM 5762
Olefins	% (V/V)		18.0	EN ISO 22854	ASTM D6839
Oxygen (includes 10% ethanol allowance)	% (m/m)		3.7	EN ISO 22854	EN 13132 or elemental analysis
Sulphur	[mg/kg]		10.0	EN ISO 20846	ASTM D5453
Distillation:				EN ISO 3405	ASTM D86
E at 70°C	% (V/V)	20.0	52.0		
E at 100°C	% (V/V)	46.0	72.0		
E at 150°C	% (V/V)	75.0			
Final Boiling Point	[°C]		210		
Residue	% (V/V)		2.0		
Oxygenates:				EN ISO 22854	EN 13132
Methanol	% (V/V)		3.0		
Ethanol	% (V/V)		10.0	The only oxygenates permitted are paraffinic mono-alcohols and paraffinic mono-ethers (of 5 or more carbon atoms per molecule) with a final boiling point below 210°C.	
Isopropanol	% (V/V)		12.0		
Isobutanol	% (V/V)		15.0		
tert-Butanol	% (V/V)		15.0		
Ethers (C5 or higher)	% (V/V)		22.0		
Others	% (V/V)		15.0		

Table 3 : Specifications and test methods (does not include the visual inspection)

In addition to these specifications, the appearance of the fuel, controlled by visual inspection must be clear, bright and free from solid matter and undissolved water.

[3] All reported min. and max. thresholds do not include the tolerance, which needs to be calculated in accordance with ISO 4259 and taken into account to correct the min. and max. thresholds

[4] In case of dispute the test method listed in **bold** will be the reference

The total of individual hydrocarbon components, present at concentrations of less than 5% (m/m), must constitute at least 30% (m/m) of the gasoline. The test method will be GC-FID (gas chromatography-flame ionisation detector) and/or GC/MS (gas chromatography-mass spectrometry).

The total concentration of naphthene, olefins and aromatics classified by carbon number must not exceed the values given in the following table:

% (m/m)	C4	C5	C6	C7	C8	C9+
Naphthene	0	5	10	10	10	10
Olefins	5	20	20	15	10	10
Aromatics	-	-	1.2	35	35	30

Bicyclic and polycyclic olefins are not permitted. The fuel must contain no substances which are capable of exothermic reaction in absence of external oxygen.

2. Air

Only ambient air may be mixed with the gasoline as an oxidant.

3. Sampling and Testing

The Organiser may require gasoline controls, i.e., controls of the unleaded gasoline, mixture of unleaded gasolines, used by riders/teams at events. These controls involve initial sampling at the event and further testing in the laboratory appointed by the Cup Organiser.

3.1. Sampling

The FIM Technical Director (or the FMNR Chief Technical Steward when there is no FIM Technical Director appointed) is the sole official responsible for the sampling management and supervision.

Sampling may be carried out before, during or at the end of official free practice, Qualifying Practices (qualifying), warm-up and races. Motorcycles selected for sampling may be held in the pits, on the pit lane or in the parc fermé for the time necessary to carry out the sampling. Refusal to submit to fuel sampling is equated with the use of non-compliant fuel and as such sanctioned.

A fuel sample is taken from the motorcycle and placed in the 'A' container. Following the filling of sample 'A' a second fuel sample is taken from the motorcycle and placed in container 'B'. Containers 'A' and 'B' must be labelled and sealed. The containers should preferably be filled directly through the motorcycle's fuel delivery pipe by.

If it is not possible to fill directly from the motorcycle's fuel tank delivery pipe, the FIM Technical Director / FMNR Chief Technical Steward in charge of the sampling operations may ask the team to take the necessary amount of fuel from the tank by means of a suitable instrument (pipette/hand pump, etc.). It is the responsibility of the rider (or person delegated by him) to equip himself with suitable sampling instruments that are not contaminated by substances that could alter the fuel taken.

In any case, the suitability of the instrument used for sampling is at the unquestionable judgement of the assigned FIM Technical Director / FMNR Chief Technical Steward and the non-contamination of the instrument is the sole responsibility of the rider. The sampling procedures and the instruments used cannot be subject to protest.

The date of sampling, the place of the event, the type of session (free, qualifying or race), the rider's name, the rider's number and the class are written on the labels of the containers.

In all classes the Gasoline Sample Declaration Form must be signed, and the labels of both containers must be signed The FIM Technical Director / FMNR Chief Technical Steward or Technical Steward in charge of sampling and countersigned by the rider. The rider may delegate a person from his team. If the rider is a minor, the countersignature must be provided by a person exercising parental authority or by the team leader responsible for the fuel sampling. Refusal to countersign both container labels is equated with the use of non-compliant fuel and sanctioned as such.

3.2. Testing

One or more properties to be checked are determined by the FMNR for each selected rider/team.

Sample A will be sent by the Organiser to one of the accredited laboratories.

Analyses will concern only those properties which can be analysed according to the quantity of fuel taken, at the sole discretion of the Organiser. The result of the analysis on sample "A" will be communicated to the rider subject to sampling within 90 days from the date of sampling.
The sample "B" will be retained by the Organiser for possible counter-analysis, or alternatively will be taken by the FIM Technical Director / FMNR Chief Technical Steward. The counter-analysis may be requested by the Organiser or by the sampled rider within 5 days from the date of communication of the result of the first analysis.
The sample of the counter-analysis will be handed over to the representative of the analysis laboratory in the presence of a delegate of the Organiser or of the FIM Technical Director / FMNR Chief Technical Steward and of the rider (or his delegate) who signed the container label (or the Gasoline Sample Declation Form) for the sampling carried out, who will be notified by e-mail of the day, time and place of the operations, as well as of the fact that their presence will not be necessary for the completion of the relevant activities. In any case, the recognition of the sample and its integrity will be verified by the Organiser's delegate or the FIM Technical Director / FMNR Chief Technical Steward, who will record it in a report.
In the event of a request for counter-analysis by the rider, the costs of laboratory examinations, transfers to and from the laboratory and any incidental costs will be borne by the rider.
In case of conflicting results between the result of the first analysis (sample A) and the result of the counter-analysis (sample B), the result more favourable to the driver/team shall prevail. The counter-analysis will only concern the analysable properties depending on the quantity of fuel taken, at the organiser's sole discretion. Any inability to determine the conformity of the fuel due to too few or no properties analysed shall invalidate the counter-analysis, at the sole discretion of the Organiser. In this case, the result of the analysis carried out on sample "A" will be used to determine the conformity of the fuel. In case of absent "B" sample due to lack of residual fuel quantity, it will therefore not be possible to request/perform counter-analysis.
The accredited laboratory for all analyses and counter-analyses is chosen by the organiser.
Costs for shipping and analysis of A-samples are paid by the Organiser.

As soon as possible after completion of the test, the laboratory appointed by The Organiser reports the test results directly to The Organiser.
For negative cases (i.e. conformity of the tested property(ies) with the specification), the rider(s)/Team(s) concerned will be informed individually by the Organiser in due time, informing the rider's FMN/Team, the FIM Technical Director / FMNR Chief Technical Steward, the competent authority (e.g. Race Direction, Jury), the Director and the Coordinator(s) of the relevant Sporting Commission.
Only for positive cases following A or B sample tests (i.e. non-compliance of one or more properties*), the Organiser will inform by e-mail* the rider/Team concerned (including test results) and, 24 hours later, transmit the relevant information to the rider/Team's FMN, the FIM Technical Director / FMNR Chief Technical Steward, the competent authority (e.g. Race Direction, Jury), the Director and the Coordinator(s) of the Sport Commission concerned.
***Note: The non-compliance of a property (except appearance) is sufficient to declare the non-compliance of the petrol or mixture.**
If the rider/Team wishes to request a counter-examination, on sample B he must notify the Organiser by e-mail*, within 72 hours after receipt by the Organiser of the notification of the delivery status of the test results to the rider/Team.
The rider/Team has the right to appeal against the decision of the competent

authority of the event in question (e.g. Race Direction, Jury) in accordance with the FIM Europe Disciplinary and Arbitration Code applicable to the discipline in question.

***Receipt of a notification of delivery will be considered as proof of delivery.**

4. FUEL STORAGE

In the event that fuel is supplied by the organiser, there will be an officially designated and monitored fuel storage area. Outside these areas, fuel may only be stored in metal containers.

The officially designated storage and refuelling area must comply with the construction criteria. Fire-fighting equipment, protective devices and personnel must comply with the requirements of the local authorities and laws.

The organiser must make fire extinguishers of a size and type approved by local laws available to each competitor in the pit area.

5. FUEL REPLACEMENT

At any time during the event the FIM Technical Director / FMNR Chief Technical Steward has the right to request the replacement of all fuel contained in the motorcycle's tank with fuel supplied on the moment by the Official Championship Supplier (if any) or by the Event Organiser.

Gasoline Sample Declaration Form

Discipline	
IMN (xxx/xx)	
Riders'/Teams' name	
Riders'/Teams' number	
Team	
Vehicles' make	
Gasolines' make and type	
Gasolines' origin (public station or race	
Gasoline' samples taken on date (dd/mm/yy)	

Gasoline samples taken at (right before or after)

FP	QP1	QP2
	Race 1	Race 2

	Seal Sample n°
Sample A	
Sample B	

The above listed details refer to gasoline samples taken from the fuel tank of the motorcycle specified.

Sample A is the first testing sample to be used bu the Organizer appointed laboratory. Sample B can be used if a counter-expertise is required by the Organizer or the Rider/team.

Riders'/Teams' responsable name	
Riders'/Teams' responsable signature	
FIM Technical Directors'/FMNR Chief Technical	
FIM Technical Directors'/FMNR Chief Technical	
Date and Time (dd/mm/yy, hh/mm	