MOTOAMERICA AMA ROAD RACING SERIES FIM NORTH AMERICA CHAMPIONSHIP

2022 Technical REGULATIONS

Daytona 200

Provisional

AMERICAN MOTORCYCLIST ASSOCIATION

MOTOAMERICA AMA ROAD RACING SERIES FIM NORTH AMERICA CHAMPIONSHIP REGULATIONS

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AMENDMENTS TO THE MOTOAMERICA AMA ROAD RACING REGULATIONS

The AMA, through the MotoAmerica Rules Commission and the MotoAmerica Permanent Bureau, may at any time amend any or all provisions of the Regulations.
Any subsequent changes that take place after the printed versions are completed will be made electronically, and the on-line versions would then be the prevailing versions.
The Permanent Bureau consists of:

a. One (1) Representative of the Krave Group LLC
b. One (1) Representative of MotoAmerica
c. One (1) Representative of FIM North America (FIMNA) or the American Motorcyclist Association (AMA)

The Permanent Bureau shall meet on a regular basis to discuss and decide on all issues pertinent to the respective interests of the members.
The calling of meetings of the Permanent Bureau and the format of meetings must be mutually agreed by the members. A decision of the Permanent Bureau must be unanimous.
The MotoAmerica Rules Commission is competent to study any proposal of changes to the MotoAmerica AMA Road Racing Series Championship Regulations.
The MotoAmerica Rules Commission consists of:

a. One (1) representative appointed by MotoAmerica who will be the Chairman of the MotoAmerica Rules Commission
b. One (1) representative appointed by FIM North America (FIMNA) or the American Motorcyclist Association (AMA)
c. One (1) representative appointed by KRAVE Group LLC
d. One (1) representative from FIM Technical
e. One (1) representative that is a participant of the series

Any resolution voted by the MotoAmerica Rules Commission shall require a simple majority. The chairman will have the casting vote in case of a tie. The resolutions of the MotoAmerica Rules Commission are subject to the approval of the Permanent Bureau. The meetings of the MotoAmerica Rules Commission shall take place no later than fourteen (14) days following the request of any representative.

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TECHNICAL REGULATIONS

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2.0 TECHNICAL REGULATIONS

Amendments to the technical regulations may be made by the MotoAmerica Permanent Bureau at any time.

During free practices, qualifying practices, and warm-up sessions: If a motorcycle is found not to be in conformity with the technical regulations during or after the session, 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.

Races: If a motorcycle is found not to be in conformity with the technical regulations during or after a race, its rider will be given a penalty such as a time penalty or disqualification.

2.1 INTRODUCTION

Motorcycles for the MotoAmerica Superbike Championships must be motorcycles with a valid road homologation in one of the following areas: USA, EU or Japan.

These motorcycles must be available for sale to the public in the shops and the dealerships representing the manufacturer in at least one of the above areas before the third event of the current championship in order to be allowed to be used in the remaining championship events.

2.2 CLASSES

2.2.1 The production-based racing classes will be designated by engine capacity and level of technical freedom.

2.3 GENERAL ITEMS

2.3.1 Main Frame

a. The main frame is considered as any structure that joins the steering tube, engine and swing-arm pivot. If the steering tube, engine mounts or swing-arm is connected through a removable bracket (with engine removed) then those brackets will be considered as part of the main frame. If the steering tube, engine mounts and rear swing-arm pivot connect to the main frame without removable brackets, then any additional brackets will not be considered as part of the main frame. If there is any part in question the Technical Directors decision is final.

b. If the rear section (rearward of the engine, meant for the riders seating) of a frame is not removable then there is no rear sub-frame and only a main frame. Regulations applying to the rear sub-frame will not apply to main frames.

2.3.2 Materials

The use of titanium in the construction of the frame, front forks, handlebars, swing arm, swing arm spindles and the wheel spindles is forbidden. For wheel spindles, the use of light weight alloys is also forbidden. The use of titanium alloy nuts and bolts is allowed **in certain classes specified in their respective sections.**

2.3.3 Handlebars and Control Levers

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

b. The minimum angle of rotation of the steering on each side of the center line or mid position must be of 15° for all motorcycles.

c. The front wheel, tire and the mudguard must maintain a minimum gap of 10 mm from any part of the machine that can cause binding, regardless of the handlebar position.

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d. 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 and/or other bodywork when on full lock in order to prevent trapping of the rider's fingers (see diagrams A, B, C).

e. Repair by welding of light weight alloy handlebars is prohibited.

f. Composite handlebars are not allowed in any class.

g. All handlebar levers (clutch, brake, etc.) must be ball ended. The diameter of this ball is to be at least 16 mm. This ball can also be flattened in any case but the edges must be rounded. The minimum thickness of this flattened part is to be 14 mm. These ends must be permanently fixed and form an integral part of the lever.

h. Each control lever (hand and foot levers) must be mounted on an independent pivot.

i. The brake lever, if pivoted on the footrest axis, must work under all circumstances, such as the footrest being bent or deformed.

j. Modified rider controls will be considered for the mobility challenged subject to a report by the Medical Director, the Technical Directors decision is final.

k. Clutch lever may have a guard fitted equivalent to a brake lever guard.

2.3.4 Compulsory Safety Items

a. All drain plugs must be lock wired (safety wired). The use of clips is not permitted. External oil filter(s), screws and bolts that enter an oil cavity must be safety wired (i.e. on crankcases) or have a secondary retention mechanism.

b. Brake caliper bolts must be safety wired or have a secondary retention method. The use of clips is permitted.

c. Motorcycles must be equipped with brake lever protection, intended to protect the handlebar brake lever from being accidentally activated in case of collision with another motorcycle.

   i. Composite brake lever guards are not permitted, however, FIM approved guards will be permitted without regard to the material. Only composite guards need FIM approval.

   ii. The Technical Director has the right to refuse any guard not satisfying this safety purpose.

d. A solid protective cover (shark fin) shall be securely fixed (bolted or riveted, bonding permitted with the approval of the Technical Director) to the swing-arm and must always cover the opening between the lower chain run, swingarm and the rear wheel sprocket, irrespective of the position of the rear wheel.

e. All fasteners must meet factory torque specification. If any fasteners (i.e. axles, pinch bolts, brake calipers, etc.) are found to be loose while on the race course the competitor will be subject to penalties.

f. 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.

g. Motorcycles must be equipped with a red light on the instrument panel that will illuminate in the event of oil pressure drop.

2.3.5 Wheels and rims

a. Any modification to the rim or spokes of an integral wheel (cast, molded, riveted) as supplied by the manufacturer or of a traditional detachable rim other than for spokes, air valve or security bolts is prohibited.

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b. Tire retention screws may be used to prevent tire movement relative to the rim. If the rim is modified for these purposes, bolts and/or screws must be fitted.

c. The distance between the rim walls is measured inside the flange walls in accordance with ETRTO.

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

e. Wheel balance weights may be discarded, changed or added to.

f. Aluminum or steel inflation valves are compulsory. Angled valves are recommended.

2.3.6 Tires

Tires must be replaced from those fitted to the homologated motorcycle.

a. The tread pattern must be made exclusively by the manufacturer when producing the tire.

b. As a safe minimum, the depth of the tire tread over the whole pattern at pre-race control must be at least 2.5 mm.

c. Tires which at the preliminary examination have a tread depth of less than 1.5 mm are considered as non-treaded tires and the restrictions applying to slick tires will then apply to them.

d. The surface of a slick tire must contain three (3) or more hollows at 120° intervals or less, indicating the limit of wear on the center and muster areas of the tire. The rider shall not enter the track if at least two (2) of these indicator hollows are worn on different parts of the periphery.

2.3.7 Tire warmers

a. The use of tires warmers and suspension pre-heaters is allowed.

2.3.8 Use of tires

a. The competitors shall only use tires listed on the allocation sheet provided by the official supplier.

b. For each event, all tires must be made of the same quality and shall be strictly identical.

c. All tires to be used must be easily identifiable with a color marking or a numerical system, to be applied by the official supplier at the time of manufacturing.

d. The Tire supplier shall provide the Technical Director with a written description of the markings and the general characteristics of the different types of tires.

e. At the beginning of the event, the official supplier may be requested by the Technical Director to deliver to him samples of each type of tire to be used at the event.

f. Any modification of the tread pattern by the official supplier is not permitted after the start of the practices.

g. Any modification or treatment (cutting, grooving) is forbidden.

h. The allocation of individual tires will be made on a random basis, with no involvement of any representative from the tire supplier, teams or riders. Those tires will be individually identified and may not be exchanged between riders, including between teammates, and may not be exchanged by the tire supplier after the allocation, except with the permission of the Race Direction.

i. The Technical Director may, at his discretion, require the exchange of one (1) or more competitors' tire(s) for a tire sample under his control. The tires exchanged

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remain under his control and he can exchange them for the tires of another competitor.

2.3.7.1 Tire allocations by class

a. The Technical Director and/or Race Direction has the ability to modify the tire allotments based on the official schedule; this modification will be noted in the event supplementary regulations. During a normally scheduled event, the tire allotments will be as follows:

Class	Daytona 200
Supersport	No limit

2.3.8 Ballast

a. The use of ballast is allowed in order to comply with the minimum weight limit. The use of ballast must be declared to the Technical Director at the preliminary checks.

b. The ballast must be made of (a) solid metallic piece(s) firmly and securely connected either through an adapter or directly to the main frame or engine with a minimum of two (2) steel bolts (min. 8 mm diameter, 8.8 grade or over). Other equivalent technical solutions must be submitted to the Technical Director for his approval.

c. Fuel in the fuel tank can be used as ballast. Nevertheless, the verified weight may never fall below the required minimum weight.

2.3.9 Timekeeping instruments

All motorcycles must have a correctly positioned timekeeping transponder.

a. Teams must provide their own transponder. MotoAmerica will not provide transponders.

b. The transponder must be approved by the official timekeeper. See Team Handbook for compatible models.

c. The transponder should be fitted centrally on the machine and as low to the ground as possible avoiding being shielded by bodywork. The manufacture suggested direction of the transponder should also be respected.

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d. It is the team's responsibility to ensure that the transponder is located in an optimal position and working properly. Any machine without a working transponder is not allowed on the circuit.

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

2.3.10 Wings and Aerodynamic Aids

Wings and other aerodynamic aids will only be considered legal if originally fitted to the homologated road specification machine in all of Europe, Japan and North America. For race use the wings must follow the dimensions, profiles and positions of the homologated shapes exactly (+-1mm). For copies of the OEM parts the leading edges (including end plates) must have a minimum circumference of 4mm and must have a rounded end (8mm radius) or be enclosed / integrated into the fairing.

The OEM parts may be used 'as is' with the exception that the wing root and 10mm from the end face maybe be modified to allow mounting to the (race) 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.

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

For active or dynamic aerodynamic parts, ONLY the standard homologated mechanism may be used. The range of movement must be the same as that used by the homologated road machine in normal use - not the mechanical maximum.

The Technical Directors decision will be final.

2.3.11 Crash Protection

Crash protection may be fitted to the frame, using existing mounting points, or pressed into the ends of the wheel axles. Wheel axles may not be modified for the fitment of crash protection. (this does not apply to SBK or Twins Cup). Crash protection (frame sliders) may not provide an aerodynamic advantage unless originally fitted to the homologated machine see art. 2.3.10.

2.3.12 Homologated Parts

Homologated parts are the OEM parts supplied fitted to the machine during manufacture and as delivered. Unless stated otherwise these parts may not be remade, refinished, treated, coated or modified in any way.

Parts from different homologations may not be used on machines from another homologation including when sharing the model name but excepting when the part is superseded for production reasons and also accepted by the FIM.

See FIM homologation rules for details.

2.3.13 Approved Parts

All approved parts must be approved by the Technical Director before they are allowed to be used. The approved part list can be found at:
http://www.motoamericaregistration.com/competitor-info/

2.3.14 Concession parts

The motorcycle manufacturer may nominate themselves, their subsidiary

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or one company as the supplier of the engine concession parts. The nominated party will be known as the concession part supplier.
All concession parts must be **declared eligible** by Technical Director **and the CTI** before they are allowed to be used.
For the updates of concession parts please see eligibility list.
Concession parts remain legal for use until the end of the season following the season in which they were last updated/replaced.

2.3.15 Refueling

I. The original fuel tank cap may be replaced by maximum two openings to accommodate a “quick-fill” type (i.e. aviation type) fuel valve and must provide a closed system. Quick fill valves with concentric openings are permitted.

II. The original fuel tank cap may be replaced by one (1) or two (2) openings to accommodate a “quick-fill” type (i.e. aviation type) fuel valve.

III. Coaxial or side-by-side quick fill type valve systems are permitted.

Whatever the system chosen by the team, the maximum internal diameter (ID) for the opening of the fuel transfer shall not exceed 2 inches (50.8 mm).

- In case a Team uses a side-by-side quick fill fuel valve system (with an ID opening larger than 2 inches), the Team will be required to install a restrictor (with an Internal constant Diameter of 2 inches (50.8 mm) maximum on a minimum height of 110 mm (as shown on the following drawing)) in the fuel supply line directly positioned above the fuel valve to balance the fuel flow. Both ends of the cylinder-shaped restrictor shall be cut at an angle of 90°.

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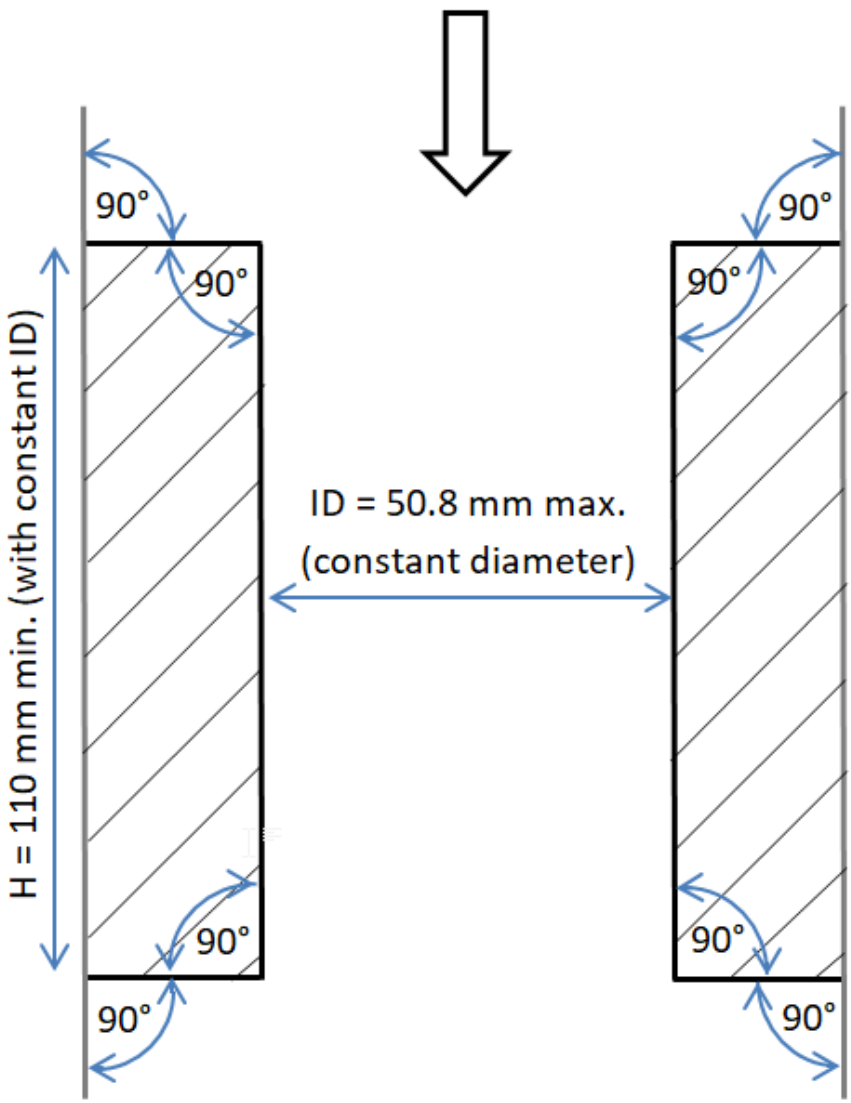
ID = Internal Diameter

H = Height



- A protective and lockable cover must be affixed on the quick-fill fuel valve(s) if no locking device is already applied to the closing system within the receptive part of the quick fill fuel valve installed in the motorcycle fuel tank.
- Any tampering with the opening or closing of the quick fuel valve system installed in the fuel tank will considered as an infringement to the safety requirement.
- The action of opening and closing of the valves when fuel and air are transferred must take place without any leaks or fuel spillage.

- Complete refueling systems must be used in the form of a “portable” fuel container.
- Each system must have a “closed” and leak proof circuit for the transfer of fuel.
- Each system must be fitted with a ventilation opening to equalize the pressure within the circuit with the ambient air pressure.
- Fuel shall only be transferred by gravity feed. For safety reasons, no part of the refueling installation may be cooled or pressurized.

- Cameras or any other electrical equipment (batteries or power supply sources) cannot be mounted/affixed to this portable fuel container.
- Excess fuel must return to the fuel container. In the event that a safety issue was reported, the decision by the Technical Director to accept/refuse said installation will be final
- All fuel shall be stored and used at ambient temperature.

2. Fuel spills are not acceptable and very dangerous. Fuel transfer is not without any risks. Every Team must be extremely careful and attentive when handling fuel during fuel stops. Any evidence of a defective system observed or reported will be sanctioned. The Team must follow all directives given by the Officials and/or by the Firefighters.
3. All personnel who are involved in the refueling operations, including the person responsible for the fire extinguisher, must wear an overall made of fire-retardant materials; hands and feet must be protected with gloves and footwear made of fire-retardant materials; safety goggles and mask and a balaclava of fire-retardant quality. The use of a suitable protective helmet and eye protection is compulsory.
4. During the practices or the race, only tire warmer systems and cordless portable electrical tools are allowed.

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SUPERSPORT TECHNICAL REGULATIONS

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2.5 SUPERSPORT AND SUPERSPORT NEXT GENERATION TECHNICAL SPECIFICATIONS

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

EVERYTHING THAT IS NOT AUTHORISED AND PRESCRIBED IN THIS RULE 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.

Supersport motorcycles require the relevant FIM Phase 2 homologation (see Appendix FIM Homologation procedure). All machines must be normally aspirated. All motorcycles must comply in every respect with all the requirements for road racing as specified in these Technical Regulations unless they are already equipped as such on the homologated model.

Once a motorcycle has obtained the homologation, it may be used for racing in the corresponding class for a maximum period stated in (see Homologation art 1.4.4). Or until such time that the homologated motorcycle is disqualified by new rules or changes in the technical specifications of the corresponding class.

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.

2.5.1 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.

2.5.2 Engine configurations and displacement capacities

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

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

Machines outside of these classifications will be considered upon application by the FIM and DWO. They must be equipped with a Ride by Wire throttle system (OEM or as part of a compulsory kit). If approved these machines will be known as Supersport Next Generation Machines. Manufacturers may resubmit currently homologated machines as Supersport Next Generation. 2024: All machines must meet requirements of the Supersport Next Generation regulations

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2.5.3 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 **'balancing factors'** may be applied – including but not limited to:

- Concession Parts
- Torque limited map with Rev Limit
- Minimum Weight
- Air restrictor
- Modifications

The eligible concession parts (and modifications) supersede all the following regulations (Supersport). The range of concession parts are decided by mutual agreement of SBK Commission. These agreed concession parts will be documented in the Eligible Parts for Competition.

The specification of Supersport Next Generation machines will be agreed between the machine manufacturer and the Superbike Technical Director. The specification will be published in the Eligible Parts for Competition List and will supersede all of the following regulations. The specification will be fixed for the entire season.

Balancing level will be continued between seasons.

2.5.3.1 Balancing Calculation

1) The DWO algorithm will be used to analyse the performance of the machines relative to one another.

2) The algorithm may include but not be limited to the following signals:
    a. Lap time relative to all other competitors
    b. Speed traps
    c. Number of riders per brand
    d. Anticipated individual rider performance
        i. Per track
        ii. Considering preceding rounds
    e. Race results
    f. Laps led
    g. Overall race time
    h. Change in balance following any rpm limiter changes
    i. Bias towards recent results reflecting current performance
    j. Any concession part updates being applied

3) The balancing factors may be updated (according to Art. 2.5.3) The balance will be weighted to the data collected during the previous sessions.
4) The primary method of balancing will be torque limited maps updated in increments of +- x %
5) The balancing factors may also be updated at the end of the season.
6) FIM/DWO/MotoAmerica reserves the right to update the balance at their discretion in the case of an imbalance.

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2.5.3.2 Rev Limit

RPM Limit		
Brand	Type	Limit
Ducati Panigale V2*	2cy 950cc	11,xxx rpm
Honda CBR600RR	4cy 600cc	16,400 rpm
Kawasaki ZX-636R	4cy 600cc	16,xxx rpm
Kawasaki ZX-636R*	4cy 600cc	16,xxx rpm
MV Agusta F3	3cy 675cc	15,800 rpm
MV Agusta F3 800*	3cy 800cc	14,xxx rpm
MV Agusta F3 Superveloce*	3cy 800cc	14,xxx rpm
Suzuki GSX-R600	4cy 600cc	16,xxx rpm
Triumph Daytona 675R	3cy 675cc	15,500 rpm
Triumph ST765RS*	3cy 765cc	14,xxx rpm
Yamaha YZF-R6	4cy 600cc	16,xxx rpm

*As Supersport Next Generation

2.5.4 Minimum weight

Brand	Bike Weight		Combined Minimum Bike and Rider Weight*
	Hard Minimum	Soft Maximum	
Ducati Panigale V2	161 kg	173 kg	242 kg
Honda CBR600RR	161 kg	173 kg	242 kg
Kawasaki ZX-636R	161 kg	173 kg	242 kg
MV Agusta F3	161 kg	173 kg	242 kg
MV Agusta F3 800	161 kg	173 kg	242 kg
MV Agusta F3 Superveloce	161 kg	173 kg	242 kg
Suzuki GSX-R600	161 kg	173 kg	242 kg
Triumph Daytona 675R	161 kg	173 kg	242 kg
Triumph ST765RS	161 kg	173 kg	242 kg
Yamaha YZF-R6	161 kg	173 kg	242 kg

a. Combined weight is the weight of the rider (in full racing equipment) and bike, as used on track.

b. IF the bike has achieved or exceeded the 'Soft Maximum Weight' then the combined minimum weight does not need to be reached. The bike alone may never at any time be below the 'Hard Minimum Weight'.

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

d. There is no tolerance on the minimum weight of the motorcycle.

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e. During the final technical inspection at the end of the race, the selected motorcycles will be weighed in the condition they finished the race, and **t**he 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 Technical Director at the preliminary checks.

2.5.5 Numbers and number plates

Numbers must be easily legible, in a clear simple font and contrast strongly with the background color. Backgrounds must be white.

The sizes for all the front numbers are:	Minimum height:	140 mm
	Minimum width:	80 mm
	Minimum stroke:	25 mm
	Minimum space between numbers:	10 mm
The sizes for all the side numbers are:	Minimum height:	120 mm
	Minimum width:	70 mm
	Minimum stroke:	20 mm
	Minimum space between numbers:	10 mm

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

a. Once on the front, either in the center of the fairing or slightly off to one side. The number must be centered on the white background with no advertising within 25 mm in all directions.

b. Once on each side of the lower rear portion of the lower fairing. The number must be centered on the white background. Any change to this position must be pre-approved a minimum of two (2) weeks before the first race by the Technical Director.

c. The numbers must use the fonts as detailed after Art 2. Any numbers not using these fonts must have the design of the numbers and the layout pre-approved by the Technical Director a minimum of two (2) weeks before the first race. All digits must be of standard form.

d. Any outlines must be of a contrasting color and the maximum width of the outline is three (3) mm. The background color must be clearly visible around all edges of the number (including outline). Reflective or mirror type numbers are not permitted.

e. Numbers cannot overlap.

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2.5.6 Fuel

a. The designated fuel is VP Racing Fuels MGP.

b. Please refer to Article 2.10 for additional details.

2.5.7 Tires

a. The maximum number of tires, of any type, available to each rider during the event will be specified in Article 2.3.7.1

b. A maximum of ten (10) tires per rider can be mounted at any time..

c. See article 2.3.7.1

2.5.8 Engine

For Supersport Next Generation: No modifications may be made to the engine (all of 2.5.8 and 2.5.9) unless noted in the text or in the Eligible Parts for Competition List.

There is no limit to the number of engines that may be used. If the Technical Director wishes to inspect an engine at the current or future rounds then the engine may be sealed for future inspection. If the engine is not presented when arranged then all points that were earned by this engine will be removed from the rider, team and manufacturer standings.

See Art. 2.3.9 for Sealing and Usage Details

Engines may be chosen and impounded for Dyno testing (during events, between events or after the season) on track or at an approved balancing facility for comparison to the reference engine (see homologation). One team representative may attend the test.

2.5.8.1 Fuel injection system

Fuel injection systems refer to throttle bodies, fuel injectors, variable length intake tract devices, fuel pump and fuel pressure regulator.

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

b. The fuel injectors must be stock and unaltered from the original specification and manufacture.

c. Air funnels (including their fixing points) may be altered or replaced.

d. Butterfly valves cannot be changed or modified.

e. All parts of the variable intake tract device must remain exactly as homologated. Variable intake tract devices cannot be added if they are not present on the homologated motorcycle.

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

g. Air and air/fuel mixture must go to the combustion chamber exclusively through the throttle body butterflies.

h. Electronically controlled throttle valves, known as ‘ride-by-wire’, may only be 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.

2.5.8.2 Cylinder head

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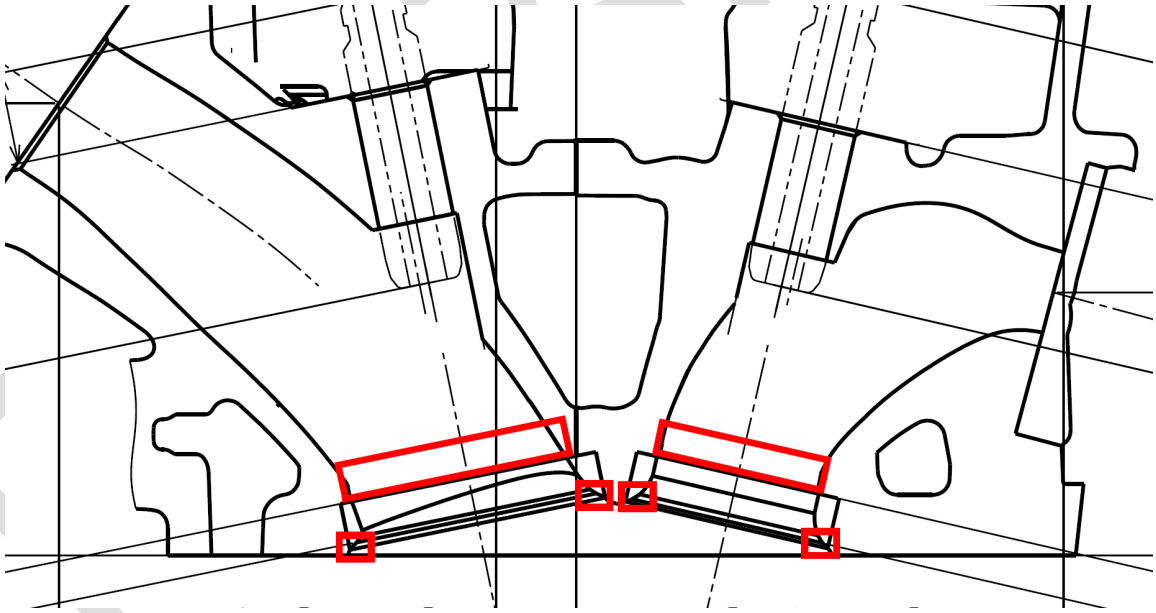
Cylinder head must be the originally fitted and homologated part. The following modifications are allowed:

i. Surface grinding of the cylinder head surface on the head gasket side
ii. Polishing of the combustion chamber
iii. Original valve seats must be used, but modifications are allowed to the shape in the valve contact area, but not to the internal diameter of the main seat material.
iv. The area 10mm into the intake and exhaust ports relative to the valve seat may be filled (with epoxy), machined and polished - to blend (align) the valve seat and the port. The work may not extend past this point nor modify the valve seat. (See diagram below)
v. Valve spring retainers may be replaced or modified, but their weight must be the same as, or higher than, the original ones.
vi. Valve springs may be changed
vii. The valves must remain as originally equipped and homologated.
viii. Rocker arms (if any) must remain as homologated.
ix. The shim buckets / tappets must remain as originally equipped and homologated.

a. The exhaust air bleed system must be blocked and the external fittings on the cam cover(s) may be replaced by plates.
b. Compression ratio is free, but the combustion chamber may be modified only by taking material off.
c. The throttle body intake insulators may be modified to match to the inlet port shape.
d. It is forbidden to add any material to the cylinder head unless as described above.



2.5.8.3 Camshaft

a. Camshaft may be altered or replaced from those fitted on the homologated motorcycle. Only the originally homologated or the championship eligible concession camshafts from the Eligible Parts for Competition list may be used.
b. The method of drive must remain as homologated.
c. The duration is free, the maximum lift must remain as homologated.

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d. The camshafts must be available from the concession parts supplier 30 days before start of 2022 season opener. The price limit is €1000 per camshaft in an inline 3 or 4 cylinder engine and €650 per camshaft in a V engine.

2.5.8.4 Cam sprockets or cam gears

a. Camshaft sprockets, pulleys or gears may be altered or replaced to allow degreeing of the camshafts.

b. The cam chain or cam belt tensioning device(s) can be modified or changed.

2.5.8.5 Cylinders

a. Cylinders must be the originally fitted and homologated parts 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. Homologated materials and castings for cylinders must be used. The surface finish of the cylinder bore must remain as homologated.

2.5.8.6 Pistons

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

b. Polishing and lightening is not allowed.

2.5.8.7 Piston rings

a. Piston rings must be the originally fitted and homologated parts with no modification allowed.

b. All piston rings must be fitted.

2.5.8.8 Piston pins and clips

a. Piston pins and clips must be the originally fitted and homologated parts with no modification allowed.

2.5.8.9 Connecting rods

a. The connecting rod assembly must be the originally fitted and homologated parts with no modification allowed.

2.5.8.10 Crankshaft

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

b. Polishing and lightening is not allowed.

c. Modifications of the flywheels are not allowed.

2.5.8.11 Crankcase / Gearbox housing

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

b. It is not allowed to add a pump used to create a vacuum in the crankcase. If a vacuum pump is installed on the homologated motorcycle, then it may be used only as homologated.

2.5.8.11.1 Lateral covers and protection (including SuperSport Next Generation)

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 the same or higher specific weight

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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. Oil containing engine covers cannot be secured with aluminum bolts.

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 aluminum alloy, stainless steel, steel or titanium. Each side (left and right) of the engine must have at least one (1) protective cover installed on the farthest protruding engine cover containing oil. Composite covers are not permitted. FIM approved covers will be permitted without regard of the material or dimensions.

e. The secondary cover must cover a minimum of 1/3 of the original cover. It mustnot have sharp edges that could damage the track surface. Covers must be fixed properly and securely with a minimum of three (3) case cover screws thatalso mount the original covers/engine cases to the crankcases.

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

g. Covers from the Eligible Parts for Competition – List 2022 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) with case cover screws that also mount the original covers/engine cases to the crankcases.

i. Oil containing engine covers cannot be secured with aluminum bolts.

j. The Technical Director has the right to refuse any cover not satisfying this safety purpose.

2.5.8.12 Transmission / Gearbox

a. Stock transmission shafts and gear set must be the originally fitted and homologated part. Shimming is allowed.

b. Quick-shift systems are allowed (including wire and potentiometer).

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

d. The sprocket cover may be modified or eliminated.

e. If it is not incorporated in the rear fender, the chain guard may be removed.

2.5.8.13 Clutch (including Supersport Next Generation)

a. Clutch system (wet or dry type) and the method of operation (by cable or hydraulic) must remain as homologated No power source (i.e. hydraulic or electric) can be used for clutch operation if notinstalled in the homologated model for road use. Human power is excluded fromthe ban.

b. Friction and drive discs may be changed.

c. Clutch springs may be changed

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

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

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type).

f. No power source (i.e. hydraulic or electric) can be used for gear selection, if not installed in the homologated model for road use. Human power is excluded from the ban.

2.5.8.14 Oil pumps and oil lines

a. The originally fitted and homologated oil pump may be modified but the oil pump housing, mounting points and oil feed points must remain as original.

b. Oil lines may be modified or replaced. Oil lines containing positive pressure, if replaced, must be of braided reinforced construction with swaged or treaded connectors. **(Including Supersport NG)**

2.5.8.15 Cooling System (including Supersport NG)

a. The only liquid engine coolant permitted is water.

b. The water pump must remain as homologated.

c. The radiator may be changed with an aftermarket radiator, or an additional radiator may be added provided that it fits in the standard location and does not require any modifications to the main frame or to the fairings' outer appearance.

d. Modifications to the homologated oil-cooler are allowed only if they do not require any modifications to the main frame or to the fairings' outer appearance. A heat exchanger (oil/water) may be replaced with an oil-cooler.

e. The cooling system hoses and catch tanks may be changed.

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

g. Additional oil coolers are not allowed.

h. The oil cooler must not be mounted on or above the rear fender.

2.5.8.16 Air box

a. The air box must be the originally fitted and homologated part with no modification allowed.

b. The air filter element may be removed or replaced but if fitted must be mounted in the original position.

c. The air box drains must be sealed.

d. All motorcycles must have a closed breather system. All oil breather lines must be connected (may pass through an oil catch tank) and discharge in the air box.

e. No heat protection may be attached to the air box (i.e. foil heat tape)

2.5.8.17 Fuel Supply

a. Fuel pumps and fuel pressure regulators must be the originally fitted and homologated parts with no modification allowed.

b. The fuel pressure must be as homologated.

c. Fuel lines from the fuel tank up to the injectors (fuel hoses, delivery pipe assembly, joints, clamps, fuel canister) may be replaced and must be located in such a way that they are protected from crash damage.

d. Fuel level sensors may be removed

e. Quick connectors or dry break connectors may be used.

f. Fuel vent lines may be replaced.

g. Fuel filters may be added.

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2.5.8.18 Exhaust system (including Supersport NG)

a. Exhaust pipes and silencers may be altered or replaced from those fitted on the homologated motorcycle. Catalytic converters must be removed.

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

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

e. The noise limit for Supersport will be 107 dB/A (with a three (3) dB/A tolerance after the race only).

f. Supersport Next Generation machines will have limitations on the exhaust specification defined at the time of the balance test and specified in the Eligible Parts list for Competition.

2.5.9 Electrics and electronics

The complete electronics system must be either:

For 2022:

i. National series' current kit or OEM electronics See art 2.5.9.1

ii. Next generation Supersport Control Electronics System. See art 2.5.9.2

For 2024:

i. Next generation Supersport Control Electronics System. See art 2.5.9.2

2.5.9.1 If using a kit or OEM system: (Current Homologations until 2024)

a. The system may have FIM/DWO/MotoAmerica approved external ignition and/or injection module(s) added.

b. The total combined retail price (software and tuning tools included) on sale to the general public cannot be higher than €2500 (tax excluded).

c. Central unit (ECU) may be relocated.

d. Optional equipment sold by the motorcycle manufacturer for the homologated model is considered not homologated with the bike and must follow the requirements for approved electronics/data loggers.

e. During an event, the Technical Director has the right to ask a team to substitute their ECU or external module with the sample received from the manufacturer. The change must be done before Sunday warm-up.

f. No extra sensors may be added for control strategies except shift rod sensors, wheel speed sensors and lambda sensors. Wheel speed sensors must be included in the kit ECU and harness package if required.

g. Other additional electronic hardware equipment not on the original homologated motorcycle cannot be added with the exceptions noted below.

h. The characteristics of approved data logging systems must be the following:

i. Maximum retail price of the unit (hardware + software, excluding sensors and wiring harness) cannot exceed €3000 (VAT excluded) if it is a standalone unit.

ii. The data logger unit must be available for sale to the public and on the list of FIM/DWO/MotoAmerica approved data loggers.

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iii. A maximum of seven (7) simultaneously working sensors (connected to the additional data logger) may be added to the original sensors on the motorcycle.

iv. The sensors must be simple function.

v. Approved data loggers with internal inertial platforms (IMU or gyros) may be used for data collection but may not be used for control strategy. Also see 2.5.9.1/i./vii.

vi. Type of sensor is free.

vii. Communication from the ECU to an approved data logger (logger can receive data only; no data transmission is allowed) is allowed without any limitation in CAN channel logger number.

i. The maximum total price of other active/control/calculation units such as lambda driver modules, quick shifter, analogue to CAN, air bleed control and traction control units is €750. These devices must be approved by FIM/DWO/MotoAmerica.

j. The addition of a device for infra-red (IR) transmission of a signal between the racing rider and his team, used exclusively for lap timing, is allowed and considered in the seven (7) sensors.

k. The addition of a GPS unit for lap timing/scoring purposes is allowed and considered in the seven (7) sensors.

l. Telemetry is not allowed.

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

n. Harness:

i. The main wiring harness may be replaced by the kit wire harness as supplied for the kit ECU model that is produced and/or approved by the manufacturer of the motorcycle and by FIM/DWO/MotoAmerica. The kit wiring harness may incorporate the data logging harness.

ii. A kit harness that incorporates the data logging harness may only accommodate seven (7) additional sensors.

iii. A sample of the kit wiring harness may be requested by the FIM/MotoAmerica.

iv. The key/ignition lock may be relocated, replaced or removed.

v. Cutting of the original main wiring harness is allowed.

o. Data logger harness:

i. The data logger wire harness cannot include any other sensors with the exception of the seven (7) sensors that are allowed. The only function of the approved data logger wire harness is to connect the seven (7) sensors to the data logger, to transmit the data and supply the power.

p. For the Superstock kit to be approved, samples of the ECU kits, kit harnesses and external modules with their tuning tools must be sent by the manufacturers to the MotoAmerica Technical Director with technical data and selling price.

q. For the ignition and/or injection module, quick shifter or stand-alone data logger to be approved, samples must be sent by the manufacturer of the device to the MotoAmerica Technical Director with technical data and selling price.

r. The original speedometer and tachometer may be altered or replaced (see also 2.5.11).

s. Electric cables, connectors, battery and switches are free

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t. Spark plugs, plug caps, coils and wires may be replaced

2.5.9.2 If using the FIM approved ECU: (All Supersport next generation)

a. The ECU must be the Supersport 600 control ECU – the Mectronik MKE7 (part number WSS600_A). The sole official supplier of the ECU is Solo Engineering. www.soloengineering.com, sales@solengineering.com

b. The firmware and manufacturer (engine) map must be declared eligible by the championship and from the Eligible Parts for Competition – List 2022

2.5.9.3 Electrics and electronics ECU (All Supersport Next Generation)

a. The ECU/Dashboard must be the Supersport control ECU and Dashboard - Sole official supplier of the ECU is Solo Engineering. www.soloengineering.com, sales@solengineering.com
b. The firmware and manufacturer (engine) map must be declared eligible by the championship and from the Eligible Parts for Competition – List 2022.
c. The ECU must have the 'FIM Settings' section up to date at all times – it is the team's responsibility to ensure that this is done.
d. External quickshift 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:
    a. Part of a quickshifter where the module may only provide a signal to the control ECU.
    b. Championship mandated devices (e.g. 2 way RF system).
    c. Datalogger.
f. 2 CAN connections must be made available for Championship devices. One must be located in the rear of the seat unit of the bike. They 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 or nominated by the Technical Director.
g. The ECU may be freely located but must be fitted securely, in a damped mounting without vibration.
h. During an event the Technical Director has the right to ask a team to substitute their ECU. The change has to be done before Sunday warm up.
i. During an event the Technical Director or his appointed deputy has the right to read and save the teams calibration file, it will not be shared except for conformity checks with control electronics system partners but may be used in Dyno tests.

j. The following sensors must be connected directly to the ECU only and must be the original OEM sensors unless stated.
    a. Throttle position (multiple allowed)
    b. Map sensor, Map Sync (pressure sensor on the intake port used to synchronize the engine during the start)
    c. Airbox Pressure
    d. Engine pick-ups (Cam, crank)

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e. Twist grip position
f. Front Speed (add only if not available OEM)
g. Rear Speed (add only if not available OEM)
h. Gearbox output shaft speed (if on OEM machine)
i. Gear position
j. Air pressure
k. Water temperature
l. Air temperature
m. Tip-Over Switch (No lean angle – except from ECU) (all ECU's feature crash detection ~~(~~by IMU).

The following can be added (and not OEM sensors)

n. Gear shift load cell / switch (Non-OEM parts must be from the Eligible Parts for Competition – List 2021 (Shift controlled by ECU only)
o. Lambda - Bosch LSU4.9 only (one sensor only).
p. Fork position
q. Shock position
r. Front brake pressure
s. Rear brake pressure
t. Fuel pressure (not temperature)
u. Oil pressure
v. Oil temperature
w. Switches (Left and right)
x. Rear TPMS Monitor (Temperature and Pressure, must be CAN)*
y. Front TPMS Monitor (Temperature and Pressure, must be CAN)*

* The OEM phonic/speed sensor rings must be used (ZX636).
* Must be from the Eligible Parts for Competition – List 2022

k. The data logger must be from the Eligible Parts for Competition – List 2022 (Data Logger list). The characteristics of eligible data logging systems must be the following:
   a. 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.
   b. The Data Logger unit must be available for sale to the public.
   c. The data logger may ONLY be connected to the CAN bus and to those sensors listed in section 2.5.9.1.k.

l. Only the following may be connected directly to the logging system.
   a. GPS Unit (Lap timing and track position)
   b. Transponder / Lap time signal
   c. Rear tire temperature (Infra-Red)(External)(Maximum 3)
   d. Any exceptions noted in Eligible Parts for Competition List.

m. Telemetry is not allowed.
n. No remote or wireless connection to the bike for any data exchange or setting is allowed while the engine is running or the bike is moving.
o. All shift lights must be only 'White'.
p. Plug caps and coils must remain as homologated.

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q. 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.
r. Spark plugs and wires may be replaced

2.5.9.4 Generator, alternator, electric starter

a. The generator (ACG) must remain as homologated. No modifications are 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 fora minimum of two (2) seconds without the use a boost battery. No boost battery may be connected to the machine after the end of the session.

2.5.10 Main frame and pre-assembled spare frame

a. During the entire duration of the event, each rider can only use one (1) complete motorcycle, as presented for technical control, with the frame clearly identified with a seal.
b. In case the frame needs to be replaced, the rider or the team can request the use of a spare frame to the Technical Director.
c. The pre-assembled spare frame must be presented to the Technical Director to receive the permission to rebuild the motorcycle. The pre-assembly of the frame shall be strictly limited to:
    i. Main frame and swing-arm
    ii. Bearings (steering pipe, swing arm, etc.)
    iii. Rider controls (handlebars, rear sets, shift/brake linkage), front and rear mud guard.
    iv. Rear suspension linkage and shock absorber
    v. Upper and lower triple clamps, front forks, braking system and wheels.
    vi. Wiring harness, ECU, dash associated electronics, throttles, airbox and associated cables.
d. The spare frame will not be allowed in the pit box before the rider or the team has received authorization from the Technical Director.
e. The motorcycle, once rebuilt, must be inspected before its use by the technical stewards for safety checks and a new seal will be placed on the motorcycle frame.
f. No complete spare machine may be at the track. If found, penalties will be applied. For the remainder of the event, the machine will be impounded, and no part of that machine may be used for spare parts.

Explanation of Procedures

Only one (1) complete motorcycle may be presented for the preliminary technical checks and it will be the only motorcycle allowed on the track and in the pit box during the practices, qualifying, warm-up and race.

The frame of this motorcycle will be officially sealed by the Technical Director or by his appointed staff. The seal will bear a serial number, which will be recorded. Any attempt made to remove the seal will damage it irreparably.

At any time during the event the technical stewards, under the direction of the Technical Director, may check the seal and verify that it conforms to the motorcycle and rider it was

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assigned to. For cross reference, every frame must have a unique number punched on it, preferably on the steering-head.

If the motorcycle is damaged in a crash or in any other incident, it is permitted to use the pre-assembled spare frame to rebuild the motorcycle.

The spare frame may be pre-assembled with the following items: main frame assembly, swing-arm, rider controls, rear suspension linkage, shock-absorber, steering head bearings, upper and lower triple clamps, front forks braking system, wheels, wiring harness, dash, ECU, associated electronics, throttles, airbox, front and rear mud guards.

When a team decides that a crashed or damaged motorcycle requires a change of frame, the team must inform the Technical Director. Only at this point may the pre-assembled spare frame be brought into the pit box.

Parts may be transferred from the damaged motorcycle for the assembly of the replacement motorcycle.

Once the assembly of the replacement motorcycle is completed, it will then undergo technical and safety checks and it will be officially sealed. The seal on the damaged motorcycle will be destroyed by the technical staff and the chassis of this motorcycle must not be used for the remainder of the event. The new serial number will be recorded by the Technical Director.

The replacement motorcycle may be used on the track only after the end of the practice and qualifying sessions or race in which the damage occurred. The damaged motorcycle must be removed from the pit box as soon as possible and put in storage outside the pit box.

After the pre-assembled spare part frame has been used, should it become necessary to replace the frame again because of a further crash or damage, the assembly work must be done using a bare frame with no components attached. The Technical Director must inspect the bare frame and give his approval before work can start.

Any actions contrary to these procedures will result in a penalty as described in the sporting regulations.

2.5.10.1 Frame body and rear sub-frame

a. The frame must be the originally fitted and homologated part with no modification allowed.

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

c. The sides of the frame-body may be covered by a protective part made of a composite material. These protectors must fit the form of the frame.

d. Crash protectors may be fitted to the frame using existing points (max. length: 50 mm) or pressed into the ends of the wheel axles (max. length: 30mm). Without exception, the wheel axles cannot be modified.

e. Nothing else may be added or removed from the frame body.

f. All motorcycles must display a vehicle identification number punched on the frame body (a proper “legal VIN” or a unique designation by the team, which the Technical Director may choose to append). No detachable plates are permitted.

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

h. Front sub frames / fairing mounts may be changed or altered. The material if free

i. Rear sub frames may be changed or altered. The material must be metal, no composites are allowed

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j. 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.

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

2.5.10.2 Suspension - General

a. Participants in the Supersport class must only use the approved and listed suspension units for that season. The price limits are:

   i. Fork: For the fork kit, including all parts such as but not limited to cartridge,springs (1 set), adjusters, fork caps, blanking inserts, seals, bushes but excepting oil and fitting, the price limit is €2200 excluding tax.

   ii. Shock Absorber/RCU: For the complete shock absorber / RCU including but not limited to spring (1 of), pre-load adjuster and length/ride height adjuster, theprice limit is €2000 excluding tax.

b. The approved products from the suspension manufacturers must be available to all participants at least one (1) month before the first round of the MotoAmerica Superbike season and remain available all season. The products must be availablewithin six (6) weeks of a confirmed order.

c. Setting parts and tuning parts must be provided by the suspension manufacturersto all customers/ teams/ participants using the manufacturer's products. These parts can be used by all participants during the season. These parts shall be available for immediate delivery to all teams/customers.

d. Teams may not modify any part of the forks or shock absorber; all setting parts must be supplied by the suspension manufacturer and available to all teams/riders.

e. The suspension manufacturers are allowed to offer service contracts when the team is using the approved and listed suspension products. The suspension manufacturers cannot demand a service contract for a customer or participant inorder to obtain a suspension product.

f. Electronically-controlled suspension must be removed.

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

2.5.10.3 Front suspension

a. Forks must be the originally fitted and homologated parts with the following modifications allowed:

b. Lower fork legs may be modified for quick change purposes only. Must be approved by technical director

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

d. After market damper kits or valves may be installed.

e. Fork springs may be modified or replaced.

f. Fork caps may be modified or replaced to allow external adjustment.

g. The fork kit manufacturer will be wholly responsible for ensuring the safe operation of the fork.

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

i. The original surface finish of the fork tubes (stanchions, fork pipes) may be

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changed. Additional surface treatments are allowed.

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

k. A steering damper may be added or replaced with an aftermarket damper.

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

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

2.5.10.4 Swing arm (rear fork)

a. The rear fork must be the originally fitted and homologated part with no modification allowed except the following:

   i. A chain guard must be fitted in such a way as to reduce the possibility that any part of the riders' body may become trapped between the lower chain run and the rear wheel sprocket.

   ii. Rear wheel stand brackets may be added to the rear fork by welding or by bolts. Brackets must have rounded edges (with a large radius). Fastening screws must be recessed. An anchorage system or point(s) to keep the original rear brake caliper in place may be added to the rear swing-arm.

   iii. A rear axle chain adjuster slot may be enlarged to allow the brake caliper bracket mounting to become captive by use of a sleeve. The slot may only be modified on the side the rear brake caliper is located. The enlarged slot may not increase or decrease the original wheel base.

   iv. The sides of the swing-arm may be protected by a thin vinyl cover only; no composite or structural covers are allowed.

b. The rear fork pivot bolt must be the originally fitted and homologated part with no modification allowed.

c. Rear axle chain adjusters may be modified or changed.

2.5.10.5 Rear suspension unit (shock)

a. The rear suspension unit (shock absorber) may be changed or modified. The original attachment points to the frame and rear fork (or linkage) must be as homologated.

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

c. 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.

2.5.10.6 Wheels

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

b. The wheels may be overpainted but the original 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

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diameter as the originally homologated axle but the threaded area may be reduced in diameter.

f. Wheel spacers can be modified or replaced.

g. Bearing spacers are free.

h. Axles may be modified or replaced

i. Wheel balance weights may be discarded, changed or added to.

j. Angled aluminum or steel inflation valves are compulsory.

k. **The only allowed rim sizes are:**

Wheels Size	
Front	**3.5"**
Rear	**5.5"**

In the case the machine is not fitted with the aforementioned sizes, a single alternative wheel will be agreed between the manufacture and the Superbike Technical Director. It should be an OEM type production wheel. The inertia must be within 10% of the originally fitted wheel. The inertia must be within the range of homologated wheels in the other machines.

2.5.10.7 Brakes

a. Front and rear brake discs may be replaced with aftermarket brake discs that must fit the original caliper and mounting. The outside diameter may be changed. 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. The brake disc carriers may be changed, but they must retain the same off set and same type of mounting to the wheels of the homologated motorcycle.

c. Only steel (max. carbon content 2.1 wt. %) is allowed for brake discs.

d. Front and rear brake calipers may be modified for quick change purposes only. Must be pre-approved by Technical Director.

e. All the brake mounting points and mounting hardware (mount, carrier, hanger) must remain as originally produced by the manufacturer for the homologated motorcycle (see also Article 2.5.10.4/a./ii./iii.).

f. The rear brake caliper bracket may be modified or replaced

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

h. The front brake master cylinder may be replaced.

i. The rear brake master cylinder must be the originally fitted and homologated parts

j. Front and rear hydraulic brake lines may be changed. The brake fluid reservoir may be replaced and/or repositioned. Quick connectors may be used. The split of the front brake lines for both front brake calipers must be made above the lower edge of the fork bridge (lower triple clamp).

k. Front and rear brake pads may be changed. Brake pad locking pins may be

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modified for quick change type.

l. Additional air ducts are not allowed.

m. The anti-lock brake system (ABS) must be removed.

2.5.10.8 Handlebars and hand controls

a. Handlebars may be replaced.

b. Handlebars and hand controls may be relocated.

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

d. 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.

e. The clutch and brake lever may be replaced with an after-market model. An adjuster to the brake lever is allowed.

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

g. 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.

2.5.10.9 Footrest and foot controls

a. The footrests, hangers/brackets and hardware may be replaced and relocated but the hangers/brackets must be mounted to their original frame mounting points.

b. The foot controls, gear shift and rear brake must remain operated manually by foot.

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

d. The end of the foot rest must have at least an eight (8) mm solid spherical radius.

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

2.5.10.10 Fuel tank

a. Forks must be the originally fitted and homologated parts with the following modifications allowed:

b. Fuel Tanks may be modified to accept female dry brake valve, capacity must remail as homologated.

c. If the fuel tank filler cap is replaced by a “quick-fill” type, when closed must be leak proof. Any tampering to the opening or closing of the quick fuel valve system of the fuel tank will considered as an infraction to the safety requirement (leak proof). Additionally, the system must be secured to prevent accidental opening at any time (See also Art. 2.3.14).

d. Addition of any type of secondary fuel tank are prohibited

e. All fuel tanks must be completely filled with fire retardant material (i.e. fuel tank foam).

f. Fuel tanks with tank breather pipes must be fitted with non-return valves that discharge into a catch tank with a minimum volume of 250 cc made of a suitable

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material.

g. Fuel caps may be changed. Fuel caps when closed, must be leak proof. Additionally, they must be securely locked to prevent accidental opening at any time.

h. A rider spacer/pad may be fitted to the rear of the tank with non-permanent adhesive. It may be constructed of foam padding.

i. The tank may not have a full cover fitted over it unless the homologated machine also features a full cover.

j. The sides and rear of the fuel tank may be protected with a cover made of a composite material. These covers must **follow** the shape of the fuel tank **exactly**.

k. The fuel tank may have heat reflective sheet attached to its bottom surface.

2.5.10.11 Fairing / Bodywork

a. Fairing, mudguards and body work must conform in principle to the homologated shape as originally produced by the manufacturer. The use of carbon fibre or Kevlar® materials is not allowed in fairing, fuel tank cover, seat, seat base and associated bodywork construction. Specific reinforcements in Kevlar® or carbon are allowed locally around holes and stressed areas. Headlights must be included even when considered external.

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

c. The fairing has a tolerance of +/-10mm 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 +10mm maximum. The decision of the Technical Director is final.

d. For Supersport Next Generation - The fairing has a tolerance of +/-8mm 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 +5mm maximum. The decision of the Technical Director is final.

e. Wind screen may be replaced.

f. Fairing brackets may be altered or replaced.

g. The ram-air intake must maintain the originally homologated shape and dimensions.

h. For Supersport: 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 machine.

i. For Supersport Next Generation: The original air ducts running between the fairing and the airbox may replaced by exact cosmetic replicas of the original parts. 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 machine.

j. The lower fairing has to be constructed to hold, in case of an engine breakdown, at least half of the total oil and engine coolant capacity used in the engine (min. 5 liters). The lower edge of openings in the fairing must be positioned at least 50 mm above the bottom of the fairing.

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k. The lower fairing must incorporate one hole of 25 mm in the bottom of the front lower area. This hole must remain closed in dry conditions and must be opened only in wet race conditions, as declared by the Race Director.

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

m. Motorcycles may be equipped with a radiator shroud 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.

n. Front mudguard must conform in principle to the homologated shape originally produced by the manufacturer. Front mudguards may be replaced and the use of carbon fibre or Kevlar® composites are allowed.

o. Front mudguard may be spaced upward for increased tire clearance.

p. Rear hugger type mudguards fixed on the swing-arm may be replaced with a cosmetic duplicates of the original part. The use of carbon fibre or Kevlar® composites are allowed.

q. The chain guard may be removed as long as it is not incorporated in the rear hugger. If the chain guard is incorporated in the hugger then the chain guard section may be removed or modified to accommodate larger diameter rear sprockets.

r. The chain guard may be removed as long as it is not incorporated in the rear fender.

s. The existing rear mudguard under the seat may be removed.

t. The exact appearance, shape, size and location of the front headlights of the homologated motorcycle must be respected, and should be obtained by applying a plastic or metallic film on the front of the motorcycle.

u. Supersport Next Generation, in the event that the proposed machine is not fitted with a fairing, then a fairing from the manufacturers range may be used by agreement with DWO and the Technical Director. A bellypan is compulsory.

2.5.10.12 Seat

a. The seat, seat base and associated bodywork may be replaced with parts of similar appearance as originally produced by the manufacturer for the homologated motorcycles.

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

c. Holes may be drilled in the seat or rear cowl to allow additional cooling. Holes which are bigger than 10 mm must be covered with metal gauze or fine mesh. Mesh must be painted to match the surrounding material.

d. The appearance from the front, rear and profile must conform in principle to the homologated shape.

e. The same material as fairing must be used (article 2.5.10.11.a).

f. All exposed edges must be rounded.

2.5.10.13 Rear safety light

All motorcycles must have a functioning red light mounted at the rear of the machine. This light must be switched on any time the motorcycle is on the track or being ridden in the pit lane and the session is declared WET. All lights must comply with the following:

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a. Lighting direction must be parallel to the machine center line (motorcycle running direction) and be clearly visible from the rear at least 15 degrees to both left and right sides of the machine center line.

b. The rear light must be mounted near the end of the seat/rear bodywork and approximately on the machine center line in a position approved by the Technical Director. In case of dispute over the mounting position or visibility, the decision of the Technical Director will be final.

c. Power output/luminosity equivalent to approximately: 10-15 (incandescent), 0.6 – 1.8 W (LED)

d. The output must be continuous; no flashing safety light is allowed whilst on track. Flashing is allowed in the pit lane when the pit limiter is active.

e. The safety light power supply may be separated from the motorcycle.

f. The Technical Director has the right to refuse any light system not satisfying this safety purpose.

2.5.10.14 Fasteners

a. Standard fasteners may be replaced with fasteners of any material and design.

b. Aluminum fasteners may only be used in non-structural locations.

c. Titanium fasteners may be used in structural locations, but the strength and design must be equal to or exceed the strength of the standard fastener it is replacing.

d. Special steel fasteners may be used in structural locations, but the strength and design must be equal to or exceed the strength of the standard fastener it is replacing.

e. Fasteners may be drilled for safety wire, but intentional weight-saving modifications are not allowed.

f. Threads repairs may be made using inserts of different material such as Helicoils and Timeserts.

g. Fairing/bodywork fasteners may be changed to the quick disconnect type.

2.5.11 The following items MAY BE altered or replaced from those fitted to the homologated motorcycle

a. Any type of lubrication, brake or suspension fluid

b. Instruments, their supports(s) and associated cables

c. Bearings (ball, roller, taper, plain, etc.) of any type or brand may be used

d. Gaskets, **seals** and gasket materials

2.5.12 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. Speedometer and related wheel spacers

c. Bolt on accessories on a rear sub frame

2.5.13 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

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e. Tool box
f. Helmet hooks and luggage carrier hooks
g. Passenger foot rests
h. Passenger grab rails
i. Safety bars, center and side stands must be removed (fixed brackets must remain)

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