



SUPERSPORT 600

EUROPEAN SUPERSPORT 600 CUP



TECHNICAL REGULATIONS 2024

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RR 27T 1.0 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.

RR 27T 1.1 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 Systems is strictly forbidden. The Chief Technical Officer has the right to refuse any system not satisfying this safety purpose.**
- 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

Helmets with double D-Ring fasteners are mandatory!

New FIM helmet standards FRHPhe-01 is 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.

RR 27T 1.2 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 Ferme 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.

RR 27T 2.0 TECHNICAL REGULATIONS

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.

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.

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.

RR 27T 2.1 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.

RR 27T 2.2 ELIGIBLE MOTORCYCLES (as of February 2024)

The eligible motorcycles for this class are listed in the “Listing of FIM Homologated Motorcycles for 2024”, class Supersport 600 and Next Generation, Phase 1.

Other motorcycles cannot take part in this class.

RR 27T 2.3 BALANCING VARIOUS MOTORCYCLE CONCEPTS

In order to equalize the performance of motorcycles used in the **European Supersport 600 Cup**, 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
- Other Modifications / Mandatory Modifications

The European Supersport 600 Cup will follow the balancing methods applied in Supersport World Championship as far as possible. The validity of changes for the European Supersport 600 Cup 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-2024 in the current version (published on www.fim-moto.com) for this class. If this list contains mandatory parts and modifications for a respective motorcycle, then the mandatory parts must be used and the mandatory modifications must be made.

Changes can be made at any time to ensure fair competition.

RR 27T 2.4 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
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 675 R	161 kg	170 kg	239kg
Triumph Street Triple 765 RS	161 kg	170 kg	239kg
Triumph Street Triple 765 RS Moto 2 Edition	161 kg	170 kg	239kg
Yamaha YZF-R6	161 kg	170 kg	239kg

- 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.

RR 27T 2.5 STARTING NUMBERS & BACKGROUND COLOURS

Blue numbers with white background.

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

RR 27T 2.6 FUEL

- a) All engines must function on normal unleaded fuel with a maximum lead content of 0.005 g/l (unleaded) and a maximum MON of 90, see FIM Superbike, Supersport & Supersport 300 World Championship Regulations **2023**, Art. 2.8.
- b) At the technical control, each rider must declare the brand and type of fuel he is using.
- c) At least 1/2 litre fuel must remain in the fuel tank of all the motorcycles that finished the race to take samples if needed.

RR 27T 2.7 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.
- 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) A minimum tire pressure of 1.65 bar is highly recommended.

RR 27T 2.8 ENGINE

The number of engines is free.

Deviations from the following rules are only permitted if they are listed in the FIM Eligible Parts for Competition List-2024 in the current version (published on www.fim-moto.com) for the respective motorcycle for this class.

RR 27T 2.8.1 Fuel Injection System / Fuel Supply

- 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) Only the originally homologated parts or the eligible concession parts listed in the FIM Eligible Parts for Competition List-2024 in the current version (published on www.fim-moto.com) for the respective motorcycle may be used.
- d) Butterflies cannot be changed or modified.
- e) 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 (excepting the air funnels). Variable intake tract devices may be replaced with fixed air funnels.
- f) Vacuum slides may be fixed in the open position.
- g) Secondary throttle valves and shafts may be removed or fixed in the open position and the electronics may be disconnected or removed.
- h) 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.

RR 27T 2.8.2 Cylinder Head

Cylinder head must be the originally fitted and homologated part. Only the originally homologated part or the eligible concession part listed in the FIM Eligible Parts for Competition List-2024 in the current version (published on www.fim-moto.com) for the respective motorcycle may be used.

RR 27T 2.8.3 Camshafts

Only the original fitted and homologated camshafts or the championship eligible concession camshafts from the FIM Eligible Parts for Competition List-2024 in the current version (published on www.fim-moto.com) for the respective motorcycle can be used.

RR 27T 2.8.4 Camshaft Drive

- a) Camshaft sprockets or gears may be modified or replaced to allow the degreeding of the camshafts.
- b) Pressed on camshaft sprockets or gears may be replaced with an adjustable boss and cam sprocket or gear.
- c) The camshaft 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) The cam-chain/cam-belt tensioning device(s) must be the originally fitted and homologated parts with no modification allowed.

RR 27T 2.8.5 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.

RR 27T 2.8.6 Pistons

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

RR 27T 2.8.7 Piston Rings

- a) Must be the original fitted and homologated part with no modification allowed.
- b) All piston rings must be fitted.

RR 27T 2.8.8 Piston Pins and Clips

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

RR 27T 2.8.9 Connecting Rods

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

RR 27T 2.8.10 Crankshaft

- a) Must be the original fitted and homologated part with no modification allowed.
- b) Modifications of the flywheels are not allowed.

RR 27T 2.8.11 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.

RR 27T 2.8.11.1 Lateral Covers and Protection

- a) Lateral (side) covers may be altered, modified or replaced. If altered or modified, the cover must have at least the same resistance to impact as the original one. 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-2024 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 which are also used to fasten 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.

RR 27T 2.8.12 Transmission / Gearbox

- a) Gearbox and its internal parts 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. 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. Undercutting and re-shimming are allowed.
 - iii. The positive neutral selector mechanism may be removed.
 - iv. Shift star/indexer, spring, roller and detent may be replaced or modified but must function as originally designed.
 - v. Polishing, surface treatment, and heat treatment of all gearbox components is allowed.
- b) Countershaft sprocket, rear wheel sprocket, chain pitch and size may be changed.
- c) The front sprocket cover can be modified, changed or removed
- d) The chain tensioner is free.
- e) Chain guard can be modified or removed.
- f) Transmission gear shifter shaft supporting brackets can be added.
- g) Add on quick shift modules / additional modules are allowed to enable upshifts and downshifts. "Downshift blipping" is allowed.
- h) No power source (i.e. hydraulic or electric) can be used for gear selection, if not installed in the homologated motorcycle.

RR 27T 2.8.13 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) The original clutch inner assembly may be modified or replaced by an aftermarket clutch, also including back torque limiting capabilities (slipper type).
- f) Clutch fluid reservoir can be modified or replaced.
- g) Clutch lines/cables can be modified or replaced.
- h) No power source (i.e. hydraulic or electric) can be used for clutch operation, if not installed in the homologated motorcycle.

RR 27T 2.8.14 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 pressure relief valve is free.
- c) 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.
- d) The original oil cooler / heat exchanger can be modified or replaced, Extra mounting brackets to accommodate the cooler are permitted.
- e) Additional oil coolers can be added. Extra mounting brackets to accommodate these coolers are allowed.
- f) Oil coolers can be installed even if the homologated motorcycle does not have one.
- g) All oil coolers must be mounted below the lower fork bridge (triple clamp). Mounting on or above the rear mudguard is forbidden.
- h) Oil thermostat (if existing) can be modified, replaced or removed.
- i) Thermal switches and oil temperature sensor can be modified, replaced or removed.
- j) Protective meshes may be added in front of the oil cooler(s).
- k) 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.

RR 27T 2.8.15 Engine Water Cooling System

- a) The only permitted liquid engine coolant for the water-cooling system is water without additives.
- b) The water pump must remain as homologated.
- c) The original water radiator can be modified or replaced, Extra mounting brackets to accommodate the radiator are permitted.
- d) Additional water radiators can be added. Extra mounting brackets to accommodate these radiators are allowed.

- 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) All water radiators must be mounted below the lower fork bridge (triple clamp). Mounting on or above the rear mudguard is forbidden.
- i) Water thermostat can be modified, replaced or removed.
- j) Thermal switches and water temperature sensor can be modified, replaced or removed.
- k) Protective meshes may be added in front of the water radiator(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 water radiators.

RR 27T 2.8.16 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.

RR 27T 2.8.17 Fuel Supply

- a) Fuel pump and fuel pressure regulator 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 or fixed in position.
- e) Quick connectors or dry break connectors may be used.
- f) Fuel vent lines may be modified or replaced.
- g) Fuel filters may be added.

RR 27T 2.8.18 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) Limitations – if existing – will be listed in FIM Eligible Parts for Competition List-2024 in the current version (published on www.fim-moto.com) for the respective motorcycle.
- 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 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
- h) Sound level control:
The methods of measurement will be according to the methods described in the “FIM Sound Regulations 2024”.

RR 27T 2.9 ELECTRICS and ELECTRONICS

RR 27T 2.9.1 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 ECU must be the Supersport control ECU - the MecTronik MKE7 (part number WSS600_A) for the respective motorcycle. The suppliers are either: Mectronik, the motorcycle manufacturer or one of its authorized dealers or Solo Engineering.
- c) The firmware and manufacturer (engine) map must be declared eligible by championship and from the FIM Eligible Parts for Competition List-2024 in the current version (published on www.fim-moto.com) for the respective motorcycle.
- d) 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.
Other technical solutions (e.g. original ECU's modified by the manufacturer or somebody else, additional rpm-limiters, etc.) will not be accepted!
- e) External quick shift modules/sensors may be fitted but may only provide a signal to the Control Supersport ECU.
- f) 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. Data logger
- g) 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
- h) The rain light must be powered by the ECU (as detailed in the harness schematics).
- i) The ECU may be freely located but must be fitted securely, in a damped mounting without vibration.
- j) During an event, the Chief Technical Steward has the right to ask a team to substitute their ECU. The change has to be done before Sunday warm up.
- k) During an event, the 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.
- l) 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. Air box 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
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 FIM Eligible Parts for Competition List-2024 in the current version (published on www.fim-moto.com) for the respective motorcycle.

m) The data logger must be from the FIM Eligible Parts for Competition List-2024 in the current version (published on www.fim-moto.com).

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-2024 in the current version (published on www.fim-moto.com)

The Chief Technical Officer or his appointed staff has the right to read and save the data logging file.

- n) Telemetry is not allowed.
- o) 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.
- p) The dashboard is free, it may also contain the data logger. There must remain a working Tachometer display.
- q) All shift lights must be only “White”.
- r) If handlebar switches are replaced from those supplied in the kit then they must meet the specification documented on either: Mectronik, the motorcycle manufacturer or one of its authorized dealers or Solo Engineering. Their basic layout, switch function, position and colour must follow those supplied in the kit.
- s) Plug caps and coils / coil on plug must remain as homologated.
- t) Electric cables, harness, connectors, battery and switches are free but the harness must comply with the wiring schematic that is available from either: Mectronik, the motorcycle manufacturer or one of its authorized dealers or Solo Engineering.
- u) Spark plugs and wires are free.
- v) The battery is free and may be relocated.
- w) A lap timer can be fitted.

RR 27T 2.9.2 Generator, Alternator, Electric Starter

- a) The generator (ACG) must be the originally fitted and homologated part with no modification allowed; any exceptions for respective motorcycles are listed in the FIM Eligible Parts for Competition List-2024 in the current version (published on www.fim-moto.com) for the respective motorcycle.
- 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.

RR 27T 2.10 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.

RR 27T 2.10.1 Frame Body and Sub Frames

- 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 swing arm pivot bolt, then these inserts can be modified or replaced. Modifying the frame body is not allowed.

RR 27T 2.10.2 Suspension General

- a) Participants in the Supersport class must only use units from the FIM Eligible Parts for Competition List-2024 in the current version (published on www.fim-moto.com).
- b) The retail price limits (excluding taxes) 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 € 2.450 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 € 2.450 excluding tax.
- c) One chassis racing kit will be available for all the manufacturers and limited to only 1 homologated racing kit per racing season. The racing kit chassis can be made of other OEM parts or specific made parts. The chassis racing kit will be listed in the FIM Eligible Parts for Competition – List 2024.

The chassis racing kit parts includes:

- Triple clamp upper and lower

- Steering stem (including bearings and relative bearing seats)
- Rear suspension linkage without swingarm

The price limit is €1000 Euro (all parts together)

- d) The eligible products from the suspension manufacturers must be available to all participants at least one month before the first round of the World Superbike season, and remain available all season. The products must be available within 6 weeks of a confirmed order.
- e) Setting parts and tuning parts must be provided by the suspension manufacturers to 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.
- f) 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.
- g) The suspension manufacturers are allowed to offer service contracts when the team is using the eligible suspension products. The suspension manufacturers cannot demand a service contract for a customer or participant in order to obtain a suspension product.
- h) 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 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.
- i) 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).

RR 27T 2.10.3 Front Fork and Fork Clamps

- a) Forks must be the originally fitted and homologated parts with the following modifications allowed:
- b) Original internal parts of the homologated forks may be modified or changed.
- c) Only aftermarket damper kits or valves from the FIM Eligible Parts for Competition List-2024 in the current version (published on www.fim-moto.com).
- d) Fork springs may be modified or replaced.

- e) Fork caps may be modified or replaced to allow external adjustment. They may extend the clamping area of the fork leg a maximum of 18 mm above the standard fork tube. The fork “drop” must never be set allowing the fork to be submerged in the top yoke/clamp. The full clamping area of the top yoke/clamp must be used.
- f) The fork stroke will be a maximum of 125 mm to the bump stop plus a maximum of 5 mm bump stop stroke.
- 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 changed. Additional surface treatments are allowed.
- j) The front fender mounts integrated in the fork lower may be modified.
- k) The axle bore in the fork lower cannot be modified. The front axle nut/sleeve may be added or modified and/or made captive.
- l) The upper and lower fork clamps (triple clamp, fork bridges and stem) must remain as originally produced by the manufacturer on the homologated motorcycle or from the racing kit chassis listed in the FIM Eligible Parts for Competition List-2024 in the current version (published on www.fim-moto.com) for the respective motorcycle.
- m) Steering bearings and dust seals are free.
- n) A steering damper may be added; the original steering damper may be replaced with an after-market damper.
- o) The steering damper cannot act as a steering lock limiting device.
- p) Fork bushings and oil seals are free.
- q) Any quality and quantity of fork oil can be used.
- r) Fixing and mounting points for front brake callipers must remain as homologated.

RR 27T 2.10.4 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) A solid protective cover (shark fin) must be fixed to the swing-arm, and must always cover the opening between the lower chain run, swing arm and the rear wheel sprocket, irrespective of the position of the rear wheel.

- 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 rear swing arm.
- h) Wheel support rails/guides may be added to permit quick wheel changes.
- i) 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.
- j) 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.
- k) Covers that provide structural reinforcement to the swing arm are prohibited.

RR 27T 2.10.5 Rear Suspension Unit

- a) Rear suspension unit (shock absorber) can be modified or replaced with a unit from the FIM Eligible Parts for Competition List-2024 in the current version (published on www.fim-moto.com).
- 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 or from the FIM Eligible Parts for Competition List-2024 in the current version (published on www.fim-moto.com).
- d) The rear suspension attachment points on the frame and on the swingarm must be the originally fitted and homologated with no modification allowed.
- e) 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.

RR 27T 2.10.6 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. These regulations will follow this agreement.

RR 27T 2.10.7 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 and 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-2024 in the current version (published on www.fim-moto.com). 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 FIM Eligible Parts for Competition List-2024 in the current version (published on www.fim-moto.com). 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. Composite guards are permitted. Guards from the FIM Eligible Parts for Competition List-2024 in the current version (published on www.fim-moto.com) will be permitted without regard to the material. The Chief Technical Officer has the right to refuse any guard not satisfying this safety purpose.

RR 27T 2.10.8 Handle Bars and Hand Controls

- a) Handle bars 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. Only the OEM unit may be used or optional units (motorcycle specific) from the FIM Eligible Parts for Competition List-2024 in the current version (published on www.fim-moto.com) for the respective motorcycle - Permitted Modifications.
- e) 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.
- f) Switches can be changed but electric starter switch and engine stop switch must be located on the handle bars.
- g) Welding of handle bars 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.

RR 27T 2.10.9 Foot Rests and Foot Controls

- a) The use of titanium, carbon fibre, Kevlar or carbon composite materials for foot rests and foot controls is forbidden.
- b) The use of titanium and aluminium alloys for nuts and screws is allowed.
- c) Foot rests, 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) Foot rests 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 foot rests 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.

RR 27T 2.10.10 Fuel Tank

- a) Fuel tank must be the originally fitted and homologated parts 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 250 cc made of a suitable material.
- d) 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.
- e) If the tank has a filler "neck" (tube) inside the tank that restricts its complete filling, then the neck may be removed or have vent holes drilled through it.

- f) A rider spacer/pad may be fitted to the rear of the tank with non-permanent adhesive. It may be constructed of foam padding or composite material.
- g) The fuel tank can have a cover fitted over it. This cover must fit the shape of the fuel tank.
- h) The sides of the fuel tank may be protected with a cover made of a composite material. These covers must fit the shape of the fuel tank.
- i) Fuel tank may have heat reflective sheet attached to its bottom surface.
- j) Fuel petcock (if existing) may be altered, replaced or removed.
- 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.

RR 27T 2.10.11 Fairing / Body Work

- a) Fairing, mudguards and bodywork must conform in principle to the homologated shape as originally produced by the manufacturer. The use of carbon fibre or Kevlar® materials for fairings, fuel tank cover, seat, seat base and associated bodywork construction is allowed. Headlights decals must be included.

Any exceptions for respective motorcycles are listed in the FIM Eligible Parts for Competition List-2024 in the current version (published on www.fim-moto.com) for the respective motorcycle.

- 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. In case of a dispute, the decision of the Chief Technical Officer is final.
- d) 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.
- e) Fairing brackets and fasteners may be altered or replaced. The material is free.
- f) The ram-air intake must maintain the originally homologated shape and dimensions unless other parts are approved and listed in the FIM Eligible Parts for Competition List-2024 in the current version (published on www.fim-moto.com) for the respective motorcycle.
- g) 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-2024 in the current version (published on www.fim-moto.com) for the respective motorcycle. The material is free. If the airbox is relocated (FIM approval in Homologation) all parts must be approved and listed into the FIM Eligible Parts for Competition List-2024 in the current version (published on www.fim-moto.com) for the respective motorcycle. The original homologated airduct entry diameter dimensions must be maintained.

- h) 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.
- i) 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.
- j) 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.
- k) Minimal changes are allowed in the fairing to allow clearance for protective engine covers.
- l) 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.
- m) 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.
- n) Front mudguard may be spaced upward for increased tire clearance.
- o) 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.
- p) The existing rear mudguard under the seat may be modified, changed or removed.
- q) The chain guard may be modified, changed or removed.
- r) If a motorcycle is not fitted originally with a fairing, then a fairing from the manufacturers range may be used by agreement with the FIM SBK Technical Director. These regulations will follow this agreement. If a fairing for the respective motorcycle is listed in the FIM Eligible Parts for Competition List-2024 in the current version (published on www.fim-moto.com) for the respective motorcycle, then it can be used. A belly-pan according to articles 3.12.10.i and 3.12.10.j is mandatory.
- s) All exposed edges must be rounded.

RR 27T 2.10.12 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) 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 material is free.
- e) All exposed edges must be rounded.

RR27 T 2.10.13 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 swing arm 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.

RR27 T 2.10.14 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 \varnothing 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 10 W (incandescent) or 1 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 should be supplied by the ECU.
- i) The Chief Technical Officer has the right to refuse any light system not satisfying this safety purpose.

RR 27T 2.11 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.

RR 27T 2.12 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) 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.

RR 27T 2.13 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.
- e) Tool box.
- f) Helmet hooks and luggage carrier hooks.
- g) Passenger foot rests.
- 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.

RR 27T 2.14 The following items MUST BE altered

- a) Throttle controls must be self-closing when not held by the hand.
- b) 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).
- c) All motorcycles must have a closed breather system. The oil breather line must be connected and discharge in the air box.

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

RR 27T 2.15 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.

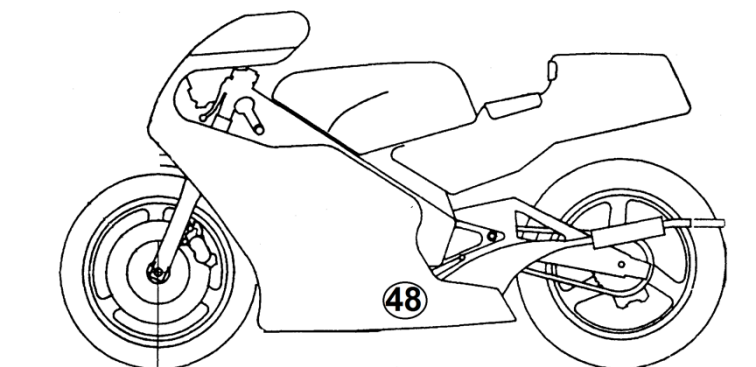
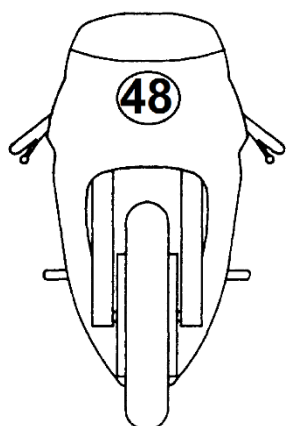
The transponder must be working at all times during practices and races, also when the engine is switched off.

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

RR 27T 2.16 ONBOARD CAMERAS

- a) On-board 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.

APPENDIX A: STARTING NUMBERS



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