# SSP 300 WOMEN'S EUROPEAN CUP TECHNICAL REGULATIONS 2020

draft pending approval by FIM Europe

## RR XX 1.0 SUPERPORT 300 WOMEN'S EUROPEAN CUP GENERAL TECHNICAL REGULATIONS

The following rules are intended to permit limited changes to the homologated motorcycles in the interests of safety and to improve 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.

The appearance from the front, rear and the profile of SUPERPORT 300 WOMEN'S EUROPEAN CUP motorcycles must (except when otherwise stated) conform to the homologated shape (as originally produced by the manufacturer). The appearance of the exhaust system is excluded from this rule.

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## RR XX 1.1 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 XX 1.2 ELIGIBLE MOTORCYCLES

For SUPERPORT 300 WOMEN'S EUROPEAN CUP the following motorcycles will be legal (this list can be amended at any time by the FIM Europe Road Racing Commission):

| MANUFACTURER | MODEL | PRODUCTION PERIOD FROM / UNTIL |
|---|---|---|
| | | |
| HONDA | CBR500R | JAN 2012 / PRESENT |
| | | |
| KAWASAKI | Ninja 300 (EX300) | JAN 2013 / END |

| | | |
|---|---|---|
| KAWASAKI | Ninja 400 (EX400) | JAN 2018 / PRESENT |
| | | |
| KTM | RC390 | JAN 2015 / END (Standard or Cup) |
| KTM | RC390 | JAN 2017 / PRESENT (ride by wire) |
| KTM | RC390R | JAN 2018 / PRESENT |
| | | |
| YAMAHA | YZF-R3 | JAN 2015 / END |
| YAMAHA | YZF-R3A | JAN 2018 / PRESENT (Model euro 4) |

Except as expressly authorized by this Regulation and the approval lists, motorcycles must remain as originally produced by the manufacturer.

**RR XX 1.3 BALANCING VARIOUS MOTORCYCLE CONCEPTS**

The FIM Europe Road Racing Commission reserve the right to apply balancing to the motorcycles in this class in order to maintain equality among the motorcycles. Balancing methods may include – but are not limited to the following:

• Rev limit change

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• Weight limit change

• Approved parts (see DAWEC-20 List on www.civ.tv)

The decision to apply the handicap will be taken by the FIM Europe Road Racing Commission at any time deemed necessary to ensure fair competition.

Balancing parts and modifications will be documented in the Approved Parts List published on www.civ.tv and supersede all following regulations.

**RR XX .1.4 MINIMUM WEIGHTS**

The minimum weight for each motorcycle in running condition and rider in full racing equipment is indicated in DAWEC-20 list (on www.civ.tv).

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.

c) The motorcycle alone may never at any time be below the “Hard Minimum Weight”.

e) There is no tolerance on the minimum weight.

f) During the final technical inspection at the end of the race and qualifying sessions, 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 or the rider. This includes all fluids.

g) During the practice, riders may be asked to submit their motorcycle to a weight control. In all cases the rider must comply with this request.

h) The use of ballast on the motorcycle is allowed to stay over the minimum weight. The use of ballast on the pilot is forbidden. The use of ballast must be declared to the Chief Technical Steward at the preliminary checks.

**RR XX 1.5 NUMBER PLATES / STARTING NUMBERS**

The background colors and figures (numbers) for SUPERPORT 300 EUROPEAN WOMEN'S CUP are as follows:

Background: White

Numbers: Free

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The sizes for all the front numbers are:

| | |
|---|---|
| Minimum height | mm. 140 |
| Minimum width | mm. 80 |
| Minimum stroke | mm. 25 |
| Minimum space between numbers | mm. 10 |

The sizes for all the side numbers are:

| | |
|---|---|
| Minimum height | mm. 120 |
| Minimum width | mm. 70 |
| Minimum stroke | mm. 20 |
| Minimum space between numbers | mm. 10 |

The allocated numbers & plates for the rider must be affixed on the motorcycle as follows:

a) One on the front, either in the center of the fairing or slightly off to one side.

b) One, on each side of the motorcycle, the location for the number is on the lower rear portion of the main fairing near the bottom.

c) Numbers must be centered on the background with no advertising within 25 mm in all directions.

d) Numbers must be easily legible in a clear simple font.

e) Backgrounds must be of one single color and must be clearly visible around all edges of the number (including outline).

f) A single outline is permitted and the outline must be of a contrasting color and the maximum width of the outline is 3 mm.

g) Reflective or mirror type numbers are not permitted.

h) Numbers cannot overlap.

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i) No motorcycle may enter the circuit if it does not meet the above regulations.

In case of a dispute concerning the legibility of numbers, the decision of the Chief Technical Steward will be final. Protest is not allowed on this article.

**RR XX 1.6 FUEL**

Fuel Engine free in the brand but with FIM - FMI characteristics

**RR XX 1.7 TYRES**

**For Dry:**

Dunlop 110/70R17 M/C 54H D213GP PRO 1 TL

Dunlop 140/70R17 M/C 66H D213GP PRO 2 TL

Dunlop 160/70R 17 M/C DUNLOP SPORTSMART TT-only for Honda Cbr 500

**For Rain:**

Dunlop 110/70R17 KR189 WA

Dunlop 140/65R17 KR389WA

With a maximum number of stickers for the Qualifications of n. 2 .

Rain tires are not punched either in qualifying or in the race.

**RR xx 1.8 ENGINE**

There is no allocated number of engines.

**RR XX 1.8.1 Fuel injection system**

General: Fuel injection systems refer to throttle bodies, fuel injector, variable length intake track devices, fuel pump and fuel pressure regulator.

a) Except as indicated in the DAWEC-20 list (on www.civ.tv) the original homologated fuel injection system must be used without any modification.

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

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

d) Air funnels must remain as originally produced by the manufacturer for the homologated motorcycle.

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

f) Secondary throttle valve plates may be removed or fixed in the open position and the electronics may be disconnected or removed. The secondary throttle shaft(s) must remain in place.

g) All the parts of the variable intake tract device (if present on the homologated motorcycle) must remain and operate exactly as homologated. A variable intake tract device cannot be added if it is not installed on the homologated motorcycle.

h) Air and air/fuel mixture must go to the combustion chamber exclusively through the throttle bodies.

i) Electronically controlled throttle valves, known as “ride by wire” can only be used if the homologated motorcycle is equipped with the same system. Software must not be modified and all the safety systems and procedures designed by the original manufacturer must be maintained.

**RR XX 1.8.2 Cylinder head**

a) The cylinder head must be the originally fitted and homologated part with no modifications allowed.

b) The valves, valve seats, valve guides, valve springs, tappets, oil seals, shims, valve cotters, spring base and spring retainers must be the originally fitted and homologated parts with no modifications allowed.

c) Except as indicated in the DAWEC-20 list (on www.civ.tv) the valve spring shims cannot be added.

d) Head and base gasket can be changed.

e) Only normal maintenance interventions as prescribed by the Manufacturer in the model's Service Manual are authorized.

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

g) A restrictor may be required to be fitted between the cylinder head and inlet manifold. See DAWEC-20 List on www.civ.tv.

h) It is allowed to rectify the surface of the head in contact with the cylinder block, provided that the dimensions of the rectified area remain within the limits of the tolerances indicated in DAWEC-20 List on www.civ.tv.

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**RR XX 1.8.3 Camshaft assembly**

a) Except as indicated in the DAWEC-20 list (on www.civ.tv) the camshafts must be the originally fitted and homologated parts with no modifications allowed.

b) At the technical checks: for direct cam drive systems, the cam lobe lift is measured; for non-direct cam drive systems (i.e. with rocker arms), the valve lift is measured.

**RR XX 1.8.4 Cam sprockets or gears**

a) The cam sprockets may be modified or replaced.

c) The cam chain and tensioner must be the originally fitted and homologated parts with no modifications allowed.

**RR XX 1.8.5 Cylinders**

The cylinders must be the originally fitted and homologated parts with no modifications allowed.

It is allowed to rectify the surface of the cylinders block in contact with the head, provided that the dimensions of the rectified area remain within mm. 0.1.

**RR XX 1.8.6 Pistons**

Except as indicated in the DAWEC-20 list (on www.civ.tv) the pistons must be the originally fitted and homologated parts with no modifications allowed.

**RR XX 1.8.7 Piston rings**

The piston rings must be the originally fitted and homologated parts with no modifications allowed.

**RR XX 1.8.8 Piston pins and clips**

Except as indicated in the DAWEC-20 list (on www.civ.tv) the piston pins and clips must be the originally fitted and homologated parts with no modifications allowed.

**RR XX 1.8.9 Connecting rods**

The connecting rods must be the originally fitted and homologated parts with no modifications allowed.

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**RR XX 1.8.10 Crankshaft**

Except as indicated in the DAWEC-20 list (on www.civ.tv) the crankshaft must be the originally fitted and homologated parts with no modifications allowed.

**RR XX 1.8.11 Crankcase / Gearbox housing**

The crankcase / gearbox housing must be the originally fitted and homologated parts with no modifications allowed.

**RR XX 1.8.12 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) 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, titanium or composite materials. These covers must be fixed properly and securely with a minimum of three (3) case cover screws that also mount the original covers to the crankcase. All these

covers must be designed to be resistant against sudden shocks, abrasions and crash damages. Sharp edges which could damage the track surface are not allowed.

c) It is recommended that the secondary covers cover a minimum of 1/3 of the original cover. It must have no sharp edges which could damage the track surface.

d) Oil containing engine covers must be fixed with steel bolts.

e) Plates or crash bars made from aluminum or steel are also permitted in addition to these covers. All these devices must be designed to be resistant against sudden shocks, abrasions and crash damages and must be fixed properly and securely. Sharp edges which could damage the track surface are not allowed.

f) The Chief Technical Steward has the right to refuse any cover not satisfying this safety requirements.

**RR XX 1.8.13 Transmission / Gearbox**

a) Except as indicated in the DAWEC-20 list (on www.civ.tv) the transmission / gearbox must be the originally fitted and homologated parts with no modifications allowed except that the positive neutral selector mechanism can be removed.

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b) Quick-shift (upshift only) systems are allowed (including wiring and potentiometer).

c) Downshift blipping is not allowed.

d) Rear wheel sprocket, chain pitch and size may be changed.

e) The sprocket cover may be changed, modified or removed.

f) The chain guard may be changed, modified or removed.

**RR XX 1.8.14 Clutch**

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

b) Friction and drive discs may be changed.

c) Clutch springs may be changed.

d) The clutch basket (outer) must be the originally fitted and homologated parts 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).

**RR XX 1.8.15 Oil pumps and oil lines**

a) The oil pumps and oil lines must be the originally fitted and homologated parts with no modifications allowed.

**RR XX 1.8.16 Cooling system**

a) The only liquid engine coolant permitted is water (eventually mixed with ethyl alcohol)

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

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

d) Radiator fan and wiring may be removed. Thermal switches, water temperature sensor and thermostat may be modified, replaced or removed.

e) Radiator cap is free but it must be secured with an additional steel cable to prevent accidental opening.

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f) An additional water radiator may be fitted but the appearance of the front, the rear and the profile of the motorcycle must not be changed. Extra mounting brackets to accommodate the additional radiator are permitted.

g) The water radiator must be the originally fitted and homologated parts with no modifications allowed.

**RR XX 1.8.17 Air box**

a) Except as indicated in the DAWEC-20 list (on www.civ.tv) the air box must be the originally fitted and homologated part with no modifications allowed.

b) The air filter element may be modified or replaced but not eliminated and 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 the oil breather lines must be connected, may pass through an oil catch tank, and must exclusively discharge in the air box.

e) No heat protection may be added to the air box.

**RR XX 1.8.18 Fuel supply**

a) Fuel pump and fuel pressure regulator must be the originally fitted and homologated parts with no modifications allowed.

b) The fuel pressure must be as homologated.

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

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

e) Fuel vent lines may be replaced.

f) Fuel filters may be added.

**RR XX 1.8.19 Exhaust system**

a) Exhaust pipes and silencers may be modified or changed. Titanium o composit material is allowed. 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.

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

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

e) The noise limit for EUROPEAN SUPERSPORT 300 CUP is 105 dB/A (with a 3 dB/A tolerance after the session).

f) The test RPM for noise control see DAWEC-20 on www.civ.tv

**RR XX 1.9 ELECTRICS AND ELECTRONICS**

**RR XX 1.9.1 Ignition / Engine Control System (ECU)**

a) The engine control unit (ECU) must be either:

i) The original system as homologated, with a change of software being allowed.

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

iii) An ECU (software, tuning tool, download/connection cable any activations, upgrades and wiring harness) to replace the original ECU may be used. A special connector/adaptor may be used to connect the ECU(s) and the original wiring harness.

b) The initial rev-limiter setting for each motorcycle see DAWEC-20 on www.civ.tv

c) The strategies of traction control, launch Control and anti wheelie are not allowed.

**RR XX 1.9.2 Harness, sensor and components**

a) The main wiring harness may be replaced.

b) The Kit wiring harness may incorporate the data logging harness.

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

d) Cutting of the original main wiring harness is allowed.

e) No extra sensors may be added for control strategies except quick shifter, lambda and rear wheel speed sensor. The OEM sensor must be remain originally. The front wheel speed sensor is not allowed (must be removed if present on the original motorcycle).

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

g) The sensors must be simple-function. No inertial platforms are allowed (if an inertial platform is not installed originally on the homologated motorcycle).

h) Type of data logging sensor is free.

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

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

k) Telemetry is not allowed.

l) 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.

m) The original speedometer and tachometer may be altered or replaced.

n) Spark plugs may be replaced.

**RR XX 1.9.3 Data logger**

a) The data logger system and data logger wire harness may be added. The data logger system and wire harness cannot include any other sensors with the exception of the seven sensors that are allowed. The only function of data logger wire harness is to connect the seven sensors to the data logger, to transmit the data and supply the power. Connecting the logger and / or dashboard to the ECU via CAN (or other transmission protocols k-line, lin etc.) is allowed.

b) For controlling the maximum RPM, all motorcycles must use the device indicated in the DAWEC-20 list. The device must be connected to the ignition coils for the acquisition of the RPM value. Rider must verify the correct working of the device before each entry on the track, during practice, the warm-up and the race. The impossibility of verifying compliance with the limit on the maximum RPM is considered a technical irregularity.

**RR XX 1.9.4 Generator, alternator, electric starter**

a) Generator, alternator and electric starter must be the originally fitted and homologated parts with no modifications allowed.

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

c) Battery is free but the electric starter must operate normally and always be able to start the engine during the event. No boost battery may be connected to the motorcycle at any time of the event.

d) The generator must always charge the battery when the engine is running. The charging voltage must be corresponding to the charging voltage at specified RPM listed in the service manual of the homologated motorcycle. Operating the motorcycle on the battery only is not allowed.

**RR XX 2.0 MAIN FRAME**

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. In case the frame will need to be replaced the rider or the team must request the use of a spare frame to the Chief Technical Steward.

The pre-assembled spare part frame must be presented to the Chief Technical Steward for the permission of rebuilding. The pre-assembly is strictly limited to:

• Main frame

• Bearings (steering pipe, swing arm, etc.)

• Swing arm

• Rear suspension linkage and shock absorber

• Upper and lower clamps (triple clamp, fork bridges)

• Wire harness

The spare frame will not be allowed in the pit box before the rider / team has received authorization from the Chief Technical Steward.

The rebuilt motorcycle must be inspected before its use by the Technical Stewards for safety checks and a new seal will be placed on the motorcycle frame.

No other spare motorcycle is allowed at the track. If found, penalties will be applied.

**RR XX 2.0.1 Frame body and rear sub frame**

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

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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: 30 mm). Without exception, the wheel axles cannot be modified.

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

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

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

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

h) Front sub frame / fairing mount may be changed or altered, but the use of titanium and carbon (or similar composite materials) is forbidden.

j) Except as indicated in the DAWEC-20 list (on www.civ.tv) the rear sub frame:

i. If removable it may be changed or altered, but the type of material must remain as homologated, or be material of a higher specific weight.

ii. If part of the main frame assembly then it may not be altered except as noted below.

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

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

l) Thread repair using inserts of different material such as Helicoil® and Timesert® are allowed.

**RR XX 2.0.2 Suspension - General**

a) No type of electronic suspension can be used, even when fitted to the homologated motorcycle.

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b) Electronic controlled steering damper cannot be used if not installed in the homologated model for road use. However, it must be completely standard (any mechanical or electronic part must remain as homologated).

**RR XX 2.0.3 Front forks**

a) Outer and inner fork tubes, steering stem and nut(s), upper and lower triple clamps must be the originally fitted and homologated parts with no modifications allowed.

b) The original surface finish of the fork tubes may be changed. Additional surface treatments are allowed.

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

d) Steering stem pivot position must remain in the homologated position (as supplied on the homologated motorcycle). If the homologated motorcycle has inserts, then the orientation/position of the original insert may be changed, but the insert cannot be replaced or modified.

e) A steering damper may be added or the original damper may be replaced with an aftermarket damper.

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

g) Fork caps on the mechanical forks may only be modified or replaced to allow external adjustment.

h) Electronic forks must have their complete internal parts (including all electronic control) replaced with a conventional damping system.

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

j) Any quality and quantity of oil may be used in the front forks.

**RR XX 2.0.4 Rear fork (Swing arm)**

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

b) The swing arm pivot bolt must be the originally fitted and homologated part with no modifications 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 orientation/position of the original insert may be changed, but the insert cannot be replaced or modified.

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d) A solid protective cover (shark fin) must be fixed to the swing arm (with bolts, glue or other are not allowed) 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.

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

f) The sides of the swing arm may be protected by a cover.

**RR XX 2.0.5 Rear suspension unit**

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

b) Except as indicated in the DAWEC-20 list (on www.civ.tv) all the rear suspension linkage parts must be the originally fitted and homologated parts with no modifications allowed.

**RR XX 2.0.6 Wheels**

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

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

c) Wheel bearings may be replaced with aftermarket bearings but the dimensions must be the same as the original bearings.

e) Wheel spacers may be modified or replaced.

f) Wheel axles must remain as homologated.

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

h) If the original design includes a cushion drive for the rear wheel, it must remain as originally produced for the homologated motorcycle.

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

j) The inflation valves are free.

**RR XX 2.0.7 Brakes**

a) Brake discs may be replaced by aftermarket discs which comply with the following requirements:

i. Brake discs and carrier must retain the same material as the homologated disc or be steel (max. carbon content 2.1 wt%).

ii. Non-floating or single piece disks may be replaced with floating discs. The disc carrier must be the same material as the homologated carrier, steel or aluminium.

iii. The outside diameters of the brake discs must not be larger than the homologated discs.

iv. The thickness of the brake disc may be increased but the disc must fit into the homologated brake calliper without any modification of the calliper. The number of floaters is free.

v. The fixing of the carrier on the wheel must remain the same as on the homologated disc.

b) The front and rear brake calliper (mount, carrier, hanger) must be the originally fitted and homologated parts with no modifications allowed.

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

d) The rear brake calliper bracket may be mounted fixed on the swing arm, but the bracket must maintain the same mounting (fixing) points for the calliper as used on the homologated motorcycle.

e) The swing arm may be modified for this reason to aid the location of the rear brake calliper bracket, by welding, drilling or by using inserts such as Helicoil® and Timesert®.

f) The front and rear brake master cylinder must be the originally fitted and homologated parts with no modifications allowed.

g) Front and rear brake fluid reservoir may be changed if not in one piece with the pump.

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h) Front and rear hydraulic brake lines may be changed.

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

j) "Quick" (or "dry-brake") connectors in the brake lines are not allowed.

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

l) Additional air scoops or ducts are not allowed.

m) The Antilock Brake System (ABS) must be removed. The ABS units electronic board may remain fitted to stop/avoid ECU errors.

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

**RR XX 2.0.8 Handle bars and hand controls**

a) Handle bars may be replaced (except for the brake master cylinder).

b) Handle bars and hand controls may be relocated.

c) Throttle grip can be modified or substituted by an aftermarket part.

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

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

f) Clutch and brake lever may be exchanged by an aftermarket model. An adjuster to the brake lever is allowed.

g) Switches may be changed but electric starter switch and engine stop switch must be located on the handle bars.

h) Motorcycles must be equipped with a functional ignition kill switch or button mounted on the right-hand handlebar (within the reach of the hand while on the hand grips) that is capable of stopping a running engine. The button or switch must be RED.

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i) Repair by welding of handlebars is prohibited.

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

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

l) The minimum angle of rotation of the handlebar on each side of the centre line must be of 15°.

m) In any position of the handlebars /steering stem, the front wheel, tyre and mudguard must maintain a minimum gap of 10 mm to the bodywork and radiator(s). Solid stops, (other than steering dampers) must be fitted to ensure a minimum clearance of 30 mm between the handlebar with levers and the tank/fairing when on full lock to prevent trapping the rider's fingers.

n) All handlebar levers (clutch, brake, etc.) must be ball ended (diameter of this ball to be at least 16 mm). This ball can also be flattened, but in any case, the edges must be rounded (minimum thickness of this flattened part 14 mm). 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) The rear brake lever, if pivoted on the footrest axis, must work under all circumstances, such as the footrest being bent or deformed.

**RR XX 2.0.9 Foot rest / Foot controls**

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

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

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

d) The end of the foot rest must have a solid spherical radius.

e) Non-folding footrests must have an end (plug) which is permanently fixed, made of aluminium, plastic, Teflon® or an equivalent type material . The plug surface must be designed to reach the widest possible area.

**RR XX 2.0.10 Fuel tank**

a) Fuel tank must be the originally fitted and homologated part with no modifications allowed.

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

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

d) Fuel 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) A rider spacer/pad may be fitted to the rear of the tank with non-permanent adhesive. It may be constructed of foam padding or composite material.

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

**RR XX 2.0.11 Fairing / Bodywork**

a) Fairing and body work may be replaced with exact cosmetic duplicates of the original parts, but must appear to be as originally produced by the manufacturer for the homologated motorcycle, with slight differences due the racing use

(different pieces mix, fixing points, fairing bottom, etc.). The material may be changed. The use of carbon fibre or carbon composite materials is not allowed. Specific reinforcements in Kevlar® or carbon are authorized locally around holes and stressed areas.

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

c) Overall size and dimensions must be the same as the original parts, with a tolerance of +/- 5 mm, respecting the design and features of the homologated fairing as far as possible. The overall width of the frontal area may be + 5 mm maximum. In case of a dispute, the decision of the Chief Technical Steward is final.

d) Wind screen may be replaced with an aftermarket product. The edge of the screen must have no sharp edges. The material of the wind screen must be transparent.

e) All fairing brackets may be modified, altered or replaced.

f) The lower fairing has to be constructed to hold, in case of an engine breakdown, minimum 6 litres. The lower edge of all the openings in the fairing must be positioned at least 50 mm above the bottom of the fairing.

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g) The upper edge of the rear transverse wall of the lower fairing must be at least 50 mm above the bottom. The angel between this wall and the floor must be ≤ 90°.

h) Original openings for cooling in the lateral fairing/bodywork sections may be partially closed only to accommodate sponsors' logos/lettering. Such modification shall be made using wire mesh or perforated plate.

i) 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.

j) The lower fairing must incorporate an opening of Ø 25 mm diameter in the front lower area. This hole must remain sealed in dry conditions and must be only opened only in wet race conditions as declared by the Race Director.

k) Front mudguards may be replaced with a cosmetic duplicate of the original parts and may be spaced upward for increased tyre clearance.

l) Rear mudguard fixed on the swing arm may be modified, changed or removed.

**RR XX 2.0.12 Seat**

a) Seat, seat base and associated bodywork may be replaced.

b) The appearance from both front rear and profile must conform to the homologated shape.

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

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

e) All exposed edges must be rounded.

f) The use of titanium, Kevlar®, carbon fibre or carbon composite materials is forbidden. Specific reinforcements in Kevlar® or carbon are authorized locally around holes and stressed areas.

**RR XX 2.0.13 Fasteners**

a) Standard fasteners may be replaced with fasteners of any material and design but titanium fasteners cannot be used. The strength and design must be equal to or exceed the strength of the standard fastener.

b) Fasteners may be drilled for safety wire, but intentional weights saving modifications are not allowed.

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c) Thread repair using inserts of different material such as Helicoil® and Timesert® are allowed.

d) Fairing/body work fasteners may be replaced with a quick disconnect type.

e) Aluminium fasteners may only be used in non-structural locations.

**RR XX 2.0.14 Rear safety light**

All motorcycles must have a functioning and water resistant 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.

d) Lightning direction must be parallel to the motorcycle centre line (motorcycle running direction), and be clearly visible from the rear at least 15 degrees to both left and right sides of the motorcycle centre line.

e) The rear light must be mounted near the end of the seat/rear bodywork and approximately on the motorcycle centre line, in a position approved by the Chief Technical Steward. In case of dispute over the mounting position or visibility, the decision of the Chief Technical Steward will be final.

f) Power output/luminosity should be equivalent to minimum 10 W (incandescent) or 0.6 W (LED).

g) The output must be continuous - no flashing safety light allowed. Flashing is allowed only in the pit lane when the pit limiter is active.

h) The safety light power supply may be separated from the motorcycle, but the lighting must be controlled by the rider when he is in the driving position

i) The Chief Technical Steward has the right to refuse any light system not satisfying this safety purpose

**RR XX 2.1 The following items MAY BE altered or replaced**

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

b) Gaskets and gasket materials.

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c) Material for brackets connecting non-original parts (fairing, exhaust, instruments, etc.) to the frame (or engine) cannot be made from titanium or fibre reinforced composites excepting the exhaust silencer hanger that may be in carbon.

d) Protective covers for frame, swing arm, chain and footrests may be made in other materials like fibre composite material if these parts do not replace original parts mounted on the homologated motorcycle.

**RR XX 2.2 The following items MAY BE removed**

a) Emission control (anti-pollution) items in or around the air box and engine (O2 sensors, air injection devices).

b) Bolt on accessories on a rear sub frame.

c) Tachometer.

d) Speedometer.

e) Light switch.

f) Horn switch.

g) Turn signal switch.

**RR XX 2.3 The following items MUST BE removed**

a) Headlamp, rear lamp and turn signal indicators (when not incorporated in the fairing). Openings must be covered by suitable materials.

b) Rear-view mirrors.

c) Horn.

d) License plate bracket.

e) Toolkit.

f) Helmet hooks and luggage carrier hooks.

g) Passenger foot rests.

h) Passenger grab rails.

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

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j) Catalytic converters.

**RR XX 2.4 The following items MUST BE altered**

a) 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.

b) All drain plugs, oil filler caps and oil dip sticks must be wired. External oil filter(s) screws and bolts that enter an oil cavity must be safety wired (i.e. on crankcases).

c) Where breather or overflow pipes are fitted they must discharge via existing outlets. The original closed breather system must be retained. No direct atmospheric emission is permitted.

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

**RR XX 2.5 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 the motorcycle. The place will be appointed and controlled by the Technical Director.

Correct attachment of the transponder bracket consists of a minimum of tie-wraps, but preferably by screws or rivets. Any transponder retaining clip must also be secured by a tie-wrap. Velcro® - like or adhesive alone will not be accepted.

**RR XX 2.6 Onboard cameras**

a) Onboard cameras can only be used with the permission of the Race Direction.

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

d) Cameras must be fixed securely to the motorcycle.

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

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

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