# DMSB Technical Regulations 2025 for the IDM Sportbike class

As per: 22.01.2025

In case of any contradiction regarding interpretation of the regulations, the official German text will prevail.

The DMSB Technical Regulations for the IDM Sportbike class are based on the Technical Regulations for the BSB Sportbike class, published by the MCRCB. The DMSB reserves the right to adopt changes made there at any time.
The DMSB also reserves the right to approve changes or parts subsequently submitted by the manufacturers and/or approved by the FIM or MCRCB only in the following year or by bulletin.

The following rules are intended to give freedom to modify a homologated model in the interest of safety and improved competition between various motorcycle concepts.
Everything that is not authorized and prescribed in this rule, or the IDM Eligible Parts List, is strictly forbidden.

Sportbike motorcycles require the relevant MCRCB homologation or a DMSB authorisation. All motorcycles must comply in all respects with all the requirements for road racing as specified in these Technical Regulations, unless they are already equipped as such on the homologated model, or the permitted modifications are included in the IDM Eligible Parts List.

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

The appearance from the front, rear and the profile of Sportbike 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.

The following reference parts must be submitted by the individual manufacturers until 30 days before the first event to the DMSB (shipping address upon request: idm@actionteam.de):

- Cylinder head
- Intake and exhaust camshaft(s)
- Camshaft sprockets
- Intake and exhaust valve including valve springs, valve discs, valve keys, Bucket tappets and/or rocker arms, finger rocker arm
- Pistons including piston rings, pins and clips
- Connecting rods

If the reference parts are not available by the deadline, the motorcycles in question will be approved with reservations.
If an inspection cannot be carried out due to missing reference parts, the components in question can be secured by the technical stewards and the inspection will be carried out when the required reference parts are available.

**1.7.1 Motorcycle specifications**
All parts and systems not specifically mentioned in the following articles, or included in the IDM Eligible Parts List, must remain as originally produced by the manufacturer for the homologated motorcycle.

**1.7.2 Engine configurations and displacement capacities**
Sportbike Class Motorcycles must be able to achieve approximately 70kW (95PS). Machines outside of these classifications will be considered upon application by the DMSB.
They must be equipped with a Ride by Wire throttle system (OEM or as part of a compulsory kit).
If approved these machines will have their full specification published in the IDM Eligible Parts List.

**1.7.3 Balancing various motorcycle concepts**
In order to equalize the performance of motorcycles used in the MCRCB/IDM and other national championships, a system of performance enhancements or restrictions may be applied according to their respective racing performances – including but not limited to:

- Authorised Parts

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

The decision to apply the 'balancing various motorcycle concepts' to a motorcycle will be taken by the DMSB at any time if this is deemed necessary to ensure fair competition.
The then authorised parts and authorised modifications have priority over the following regulations and are included in the IDM Eligible Parts List.

The specification of MCRCB / IDM Sportbike machines is agreed between the motorcycle manufacturer and the series organizer, represented by the appointed Chief Technical Steward.
The specification will be published in the IDM Eligible Parts List and will supersede all the following regulations.

**1.7.3.1 Balancing Calculation**
The MCRCB algorithm will be used to analyse the performance of the machines relative to one another.

**1.7.3.2 Performance Limit**
Performance Limits will be an integrated part of the legal maps issued for the class.

**1.7.3.3 Minimum weight**

| Brand | Motorcycle Weight | | Combined Minimum Motorcycle and Rider Weight |
|---|---|---|---|
| | Hard Minimum | Soft Maximum | |
| Aprilia RS660 | 158 kg | 168 kg | 238 kg |
| CF Moto 675SR-R | TBC | TBC | TBC |
| Kawasaki Ninja 650 | 156 kg | 166 kg | 236 kg |
| Kawasaki ZX4R (&RR) | TBC | TBC | TBC |
| Kove 450RR Pro | TBC | TBC | TBC |
| Suzuki GSX-8R | 168 kg | 178 kg | 248 kg |
| Triumph Daytona 660 | 165 kg | 175 kg | 245 kg |
| Yamaha YZF-R7 | 158 kg | 168 kg | 238 kg |

a) Combined weight is the weight of the rider (in full racing equipment) and 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 during the event, the weight of the whole motorcycle (including the tank and its contents) including the rider must not be less than the combined minimum weight. At any time during the event, the weight of the whole motorcycle (including the tank and its contents) must not be less than the minimum weight.
d) There is no tolerance on the minimum weight of the motorcycle or rider.
e) During the final technical inspection at the end of the race, the selected motorcycles will be weighed in the condition they finished the race, and 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) Die 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 Steward at the preliminary checks.

**1.7.4 Numbers and number plates**
For the front number the background colours and figures (numbers) are:

| Brand | Combo | Background |
|---|---|---|
| Aprilia | **Purple / White** | Violet, e.g. Avery 717 |
| CF Moto | | |
| Honda | **Red / White** | |
| Kawasaki | **Green / White** | Green, e.g. Pantone 368 |
| Kove | **White/Cyan** | |
| Suzuki | **Yellow / Black** | Yellow (Not fluoro) |
| Triumph | **Black / Fluoro Yellow** | Black |
| Yamaha | **Blue / White** | Blue, e.g. RAL5002 |

| | | |
|---|---|---|
| The sizes for each front digits is: | Minimum height: | **140 mm** |
| | Minimum width: | 80 mm |
| | Minimum stroke: | 25 mm |
| | Minimum space between numbers | **10** mm |
| The sizes for each of side digit is: | Minimum height: | 120 mm |
| | Minimum width: | 60 mm |
| | Minimum stroke: | 20 mm |
| | Minimum space between numbers | **10** mm |

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

a. The only font that may be used in BSB is 'ConthraxSB'. For IDM, the font is free if all other requirements are fulfilled. The numbers must use the design/font and precise colours prescribed by these regulations.

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b. Only single or double digit numbers will be allowed.
c. Numbers must be clearly visible to public and officials on both sides of the track.
d. Numbers must be fitted:
   i. Once on the front, in the centre of the fairing. If the design of the faring makes this impossible then the number must be aligned to the side of the machine that has the timing/data centre. The number must be centred on the background with no advertising within 25mm in all directions.
   ii. Once on each side on the lower rear portion of the lower fairing with a white number on a black background (BSB: compulsory) or in the respective specified colour specifications from the colour table.
   iii. Any change to this position must be pre-approved a minimum of 2 weeks before the first race by the Chief Technical Steward.
e. A single outline is permitted and the outline must be of a contrasting colour and the maximum width of the outline is 3mm. The background colour must be clearly visible around all edges of the number (including outline). Reflective or mirror type numbers are not permitted.
f. Numbers cannot overlap.
g. No machine may enter the circuit if it does not meet the above regulations. If the rider does enter the circuit then no lap times will be recorded and Race Direction will at their discretion black flag the rider.
h. n/a
i. In case of a dispute concerning the legibility of numbers, the decision of the Chief Technical Steward will be final. Technical scrutineering will only take place with the correct start number.
j. The series organizer will not be responsible or give dispensation to any competitor who is delayed or misses their practice session or race due to numbers not complying with the regulations. Nor will the timekeepers be responsible for not recording times. In addition a competitor may be fined or excluded for non-compliance.

**1.7.5 Fuel**
See DMSB Yearbook, blue section, FIM fuel regulations.
Each participant/team must declare the make and exact type of fuel to be used, the source of supply and the manufacturer in the scrutineering certificate at the preliminary checks and declare any changes before the event to the Chief Technical Steward.
Fuel samples may be taken by the DMSB at any time during an event for checking purposes.

**1.7.6 Tyres**
Standard tyres according to IDM championship regulations are mandatory.
The depth of the tyre tread over the whole pattern at pre-event scrutineering must be at least 2.0 mm.
For slick tyres, the wear indicator must show at least 2.0 mm.
All tyres must comply with the general safety standards of the manufacturer.
The use of tyre warmers is permitted.

**1.7.7 Engine**
No modifications may be made to the homologated engine unless stated in the text or in the IDM Eligible Parts List. Engine Kits are compulsory where listed.

The IDM Eligible Parts List will take precedence over the following.

The permitted number of engines is not limited for the year 2025.

Engines/Motorcycles may be chosen and impounded for Dyno testing (during events, between events or after the season) and for comparison to the reference engine (see homologation). Apart from FIM or DMSB staff or their delegates, only one team representative may attend the test.

Engine sealing:
The engines must be prepared in advance (for example drill holes) so that the sealing may take place without any problems on the right in direction of travel.
The technical stewards must be notified of all engine changes and therefore always know which engine is in current use.
An engine is considered in use or active from the moment it crosses the line at the pit exit.
Seals will bear a serial number, which will be recorded.
Any attempt made to remove the seal will damage it irreparably. Seals may only be removed under the supervision (or written permission) of the technical stewards.
A broken or damaged seal will be considered as if the engine not complied within the rules and all imposed penalties will be applied retrospectives for all races this engine was used with this seal.
A team must request sealing of an engine/engines before its/their use.
All seals including the seals on an engine that has completed its life cycle or needs repair may only be broken in front of a technical steward, or with the written authorisation of the Chief Technical Steward.
At the time of the breaking of the seals the technical steward may ask for this engine to be disassembled to check for compliance of the technical rules.
The crankcases will be sealed in such a way not to allow the disassembly for repair, replacement or adjustment of the crankshaft, connecting rods and/or associated bearings, pistons, piston pins or piston rings.
The cylinder, cylinder head(s) and head cover/cam cover will be sealed to prevent repairs, replacement or adjustment on the cylinder head, valves, valve seats or any other repairs or service work on the valve train.
Valve clearance adjustments may be made after approval of the Chief Technical Steward and under the supervision of a technical steward. Approval must be requested in advance to the Chief Technical Steward. A new seal will subsequently be applied.
The cassette gearbox door and/or crankcases will be sealed to control the gearbox use.
The right and left hand engine side covers will not be sealed as to allow repair or adjustment to the generator, clutch system, water pump or other accessory systems located behind these covers.
If an engine is found not to be in compliance with the regulations, any penalties imposed will apply retrospectively to each race this engine was used in.

**1.7.7.1 Fuel injection system**
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) Butterflies cannot be changed or modified.

**1.7.2 Lateral (engine-) covers and protection**

Unless otherwise declared in the IDM Eligible Parts List:

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 aluminium alloy, stainless steel or steel, composite covers are not permitted.
c) The secondary cover must cover a minimum of 1/3 of the original cover. It must have no sharp edges to damage the track surface.
d) Plates or crash bars from aluminium or steel also are permitted in addition to these covers. All these devices must be designed to be resistant against sudden shocks, abrasions and crash damage.
e) Covers from the IDM Eligible Parts List will be permitted without regard of the material or dimensions.
f) These covers must be fixed properly and securely with a minimum of three (3) with case cover screws that also mount the original covers/ engine cases to the crankcases.
g) Oil containing engine covers must be secured with steel bolts.
h) The technical stewards have the right to refuse any cover not satisfying this safety purpose.

**1.7.3 Transmission / Gearbox**

a) Must be the originally fitted and homologated parts (including but not limited to shafts, selector mechanism, gears and primary gears) with the following exceptions:
b) Undercutting and re-shimming are allowed.
c) The positive neutral selector mechanism may be removed.
d) Shift star/indexer, spring, roller and detent may be replaced or modified but must function as originally designed.
e) Countershaft sprocket, rear wheel sprocket, chain pitch and size may be changed.
f) The front sprocket cover may be modified or eliminated.
g) Chain guard as long as it is not incorporated in the rear fender may be removed.
h) A support may be added to the gearbox shift shaft to reduce flex, this may be a separate part or integrated into a cover.

**1.7.4 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 part.
e) The original clutch inner assembly may be modified or replaced by an aftermarket clutch, also including back torque limiting capabilities (slipper type).
f) No power source (i.e. hydraulic or electric) can be used for gear selection, if not installed in the homologated model for road use. Human power is excluded from the ban.

**1.7.5. Oil pumps and oil lines**

a) Must be the originally fitted and homologated parts with no modification allowed.
b) 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.
c) All oil related connections must be lockwired.
d) All drain/inlet screws and the oil filter must be lockwired. External screws and bolts of the oil filter(s) that are in the area of the oil flow must be lockwired (e.g. on the crankcase).

**1.7.6. Cooling system**

a) The only liquid engine coolants permitted will be water.
b) 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.
c) Alternatively, but not in addition to b), an oil cooler may be fitted. The retail price limit in Germany (excluding taxes) of the complete system including all hoses and fittings must be €1350.
The oil feed may be provided by:

a. An oil coupling already present
b. A heat exchanger (oil/water) may be replaced with an oil-cooler adaptor plate
c. An adaptor plate may be fitted behind the oil filter

d) Protective meshes may be added in front of the oil and/or water radiator(s).
e) The cooling system hoses and catch tanks may be changed. The reservoir/overflow/expansion bottle must be fitted. It can have a small vent hole.
f) Radiator fan and wiring may be changed, modified or removed. Thermal switches, unused temperature sensors and thermostat may be removed.
g) Radiator Cap is free.

**1.7.7 Airbox**

a) The airbox must be the originally fitted and homologated part with no modification allowed.
b) The air filter element may be replaced but must be fitted in the original location.
c) The airbox drains must be sealed.
d) All motorcycles must have a closed breather system. All oil breather lines must be connected, may pass through an oil catch tank and must exclusively discharge in the airbox. Only the original breather vents may be used.
e) No heat protection may be attached to the airbox.

**1.7.8 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. An unpressurised drain line may be installed under the same conditions.
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 replaced.

**1.7.9 Exhaust systems**

a) Exhaust pipes, silencers and exhaust mounts may be altered or replaced from those fitted on the homologated motorcycle.
b) Catalytic converters must be removed.
c) The number of final exhaust silencer(s) must remain as homologated. The silencer(s) must be on the same side(s) as on the homologated model.
d) For safety reasons, the exposed edge(s) of the exhaust pipe(s) outlet(s) must be rounded to avoid any sharp edges.
e) 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.
f) The noise limit for Sportbike will be 107 dB/A (with a 3 dB/A tolerance after the race only).
g) Sportbike machines may have limitations on the exhaust specification defined and specified in the IDM Eligible Parts List.

**1.7.10 Electrics and electronics**

a) The ECU (SPTBK_A), Harness, Dashboard and the Left Switchgear must be the Sportbike Control Electronic System and must originate from the ECU supplier.
The sole official supplier of the ECU is Solo Engineering. www.soloengineering.com, sales@solengineering.com.
b) The firmware and manufacturer (engine) map is included in the IDM Eligible Parts List and will be published online here.
c) No other external modules may be fitted except:
   1. Part of a quickshifter where the module may only provide a signal to the control ECU.
   2. Championship mandated devices (e.g. 2 way RF system).
   3. Datalogger.
d) The rain light must be powered either by the ECU (as detailed in the harness schematics), or through an external power source.
e) The ECU may be freely located but must be fitted securely, in a damped mounting without vibration.

f) During an event the technical stewards or their delegates have the right to ask a team to substitute their ECU. The change has to be done before warm up.
g) During an event, only the technical stewards or their delegates have 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.
h) The following sensors must be connected directly to the ECU only and must be the original OEM sensors unless stated.
   1. Throttle position Sensor(s)
   2. Grip Position Sensor (see IDM Eligible Parts List)
   3. Map sensor, Map Sync (pressure sensor on the intake port used to synchronize the engine during the start)
   4. Airbox Pressure
   5. Engine pick-ups (Cam, crank)
   6. Twist grip position (Gas)
   7. Front Speed
   8. Rear Speed
   9. Gear position
   10. Air pressure
   11. Water temperature
   12. Air temperature
   13. Oil Pressure Switch
   14. Tip-Over Switch (Internal to the ECU)

   The following sensors can be added (and not OEM sensors)
   15. Gear shift load cell/switch (may only provide a signal to the control ECU)
   16. Bosch Lambda Sensor
   17. Fork position
   18. Shock position
   19. Front brake pressure
   20. Rear brake pressure
   21. Switches Left (from control supplier) and right
   22. Oil temperature
   23. GPS
i) The data logging systems must be from the IDM Eligible Parts List. The characteristics of authorized data logging systems must be the following:
   1. Maximum retail price of the unit (hardware + software, excluding sensors and wiring harness) in Germany cannot exceed €3.000 Euro (VAT excluded) unit. The “unit” may consist of multiple parts, input module, recording module etc.
   2. The Data Logger unit must be available for sale to the public.
   3. The Data Logger may ONLY be connected to the CAN bus and those Parts listed in section j)
   4. The logged data must be available to the Chief Technical Steward or his appointed delegates (uploaded to secure fileshare or via flash drive). The logger must log any channels /signals requested by the series.
   5. The ECU may log data exclusively for the Championship. It will be used for BOP and diagnostic purposes.
j) Only the following may be connected directly to the logging system.
   a) GPS Unit (Lap timing and track position).
   b) Transponder / Lap time signal.
   c) Any exceptions noted in IDM Eligible Parts List.
k) Telemetry is not allowed
l) 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.
m) All shift indicator lights must be only “White”.
n) If handlebar switches are replaced from those supplied in the kit then they must meet the specification documented on www.soloengineering.com. Their basic layout, switch function, position and colour must follow those supplied in the kit.
o) Plug caps and coils must remain as homologated.
p) Spark plugs may be replaced
q) Battery, right switchgear and main switches are free

**1.7.10.1 Generator, alternator, electric starter**

a) The generator (ACG) must be the originally fitted and homologated part with no modification allowed.
b) The stator must be fitted in its original position and without offsetting.
c) The electric starter must operate normally and always be able to start the engine during the event.
d) During parc fermé the starter must crank the engine at a suitable speed for starting for a minimum of 2 seconds without the use a boost battery. No boost battery may be connected to the machine after the end of the session. Connecting a boost battery after the session has ended is not permitted.

**1.7.11 Main frame and pre-assembled spare 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 needs to be replaced, the rider or the team must make a request to the Chief Technical Steward to use the spare frame.
The pre-assembled spare frame must be presented to the Chief Technical Steward to receive the permission to rebuild the motorcycle. The pre- assembly of the frame shall be strictly limited to:

- Main frame
- Bearings (steering pipe, swing-arm, etc)
- Swing-arm
- Rear suspension linkage and shock absorber
- Upper and lower triple clamps
- Wiring harness

The spare frame will not be allowed in the pit box before the rider, or the 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 marking/identification will be placed on the motorcycle frame.
No complete spare machine may be in the pit garage. If found penalties will be applied. For the remainder of the event the machine will be impounded, and no part of that machine may be used for spare parts.

**EXPLANATION OF THE PROCEDURES**

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

The frame of this motorcycle will be officially marked/identified by the technical stewards. Any attempt made to remove the marking/identification will damage it irreparably.

At any time during the event the technical stewards, under the direction of the Chief Technical Steward, may check the seal and verify that it conforms to the motorcycle and rider it was assigned to. For cross reference, every frame must have a unique number punched on it, preferably on the steering-head. If there is no VIN of the manufacturer on the frame, but a consecutive number of the team (001, 002.....), a declaration of conformity of the manufacturer must be submitted, which certifies the exact vehicle type.

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

The spare frame may be pre-assembled with the following items: main frame assembly, swing-arm, rear suspension linkage, shock-absorber, steering head bearings, upper and lower triple clamps and wiring harness.

When a team decides that a crashed or damaged motorcycle requires a change of frame, it must inform the Chief Technical Steward. Only once authorized may the pre-assembled spare frame be brought into the pit box.

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

Once the assembly of the replacement motorcycle is completed, the machine must undergo technical and safety checks, and it will be officially marked. The marking on the damaged motorcycle will be

destroyed by the technical staff and the chassis of this motorcycle must not be used for the remainder of the event. The new frame number will be recorded by the technical stewards.

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

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

**1.7.11.1 Frame body and sub-frames**

a) The frame must be the originally fitted and homologated part with no modification allowed.
b) Holes may be drilled on the frame only to fix approved components (i.e. fairing brackets, steering damper mount, sensors).
c) The sides of the frame-body may be covered by a protective part made of a composite material. These protectors must fit the form of the frame.
d) Crash protectors may be fitted to the frame using existing points (max. length: 50 mm), or pressed into the ends of the wheel axles (max. length: 30 mm).
e) Nothing else may be added or removed from the frame body.
f) All motorcycles must display a vehicle identification number punched on the frame body.
g) 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.
i) Rear sub frame may be changed or altered. The material must be metal, no composites are allowed.
j) In the case of a fixed rear subframe (part of the main frame) the rear part of the frame may be cut off and replaced with a subframe following the outline of the original design. The IDM Eligible Parts List will document exactly where this alteration may be made and there will be no tolerance.
k) 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.
l) The paint scheme is not restricted but polishing the frame body or sub-frame is not allowed.

**1.7.11.2 Suspension – General**

a) Permitted are freely available products at limited sales prices:

   The retail price limits in Germany are:
   i) Fork: For the fork kit, including all parts such as but not limited to cartridge, adjusters, fork caps, blanking inserts, seals, bushes but excepting oil, springs and fitting the price limit is €1250 excluding tax.
   ii) Shock Absorber/RCU: For the complete shock absorber/RCU including but not limited to spring (1 of), pre-load adjuster and length/ride height adjuster the price limit is €1500 excluding tax.
b) The eligible products from the suspension manufacturers must be available to all participants at least one month before the first round of the season and remain available all season. The products must be available within 6 weeks of a confirmed order.
c) 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.
d) Teams may not modify any part of the forks or shock absorber; all setting parts must be supplied by the Suspension manufacturer and available to all teams/riders.
e) The suspension manufacturers are allowed to offer service contracts when the team is using the authorised suspension products. The suspension manufacturers cannot demand a service contract for a customer or participant in order to obtain a suspension product.
f) No aftermarket or prototype electronically-controlled suspensions maybe used. If electronically controlled suspension is originally fitted to the machine it must be replaced by conventional parts.

g) Electronic controlled steering damper cannot be used if not installed in the homologated model for road use. If an electronics model is fitted to the homologated machine then it can be used - however, it must be completely standard (any mechanical or electronic part must remain as homologated).

**1.7.11.3 Front forks**

a) Forks must be the originally fitted and homologated parts with the following modifications allowed:
b) n/a
c) Kits must be of an open cartridge design (no sealed/through rod/pressurised systems)
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. The fork stroke will be a maximum of 125 mm to the bump stop plus a maximum of 5 mm bump stop stroke.
f) The fork kit manufacturer will be wholly responsible for ensuring the safe operation of the fork.
g) Dust seals may be modified, changed or removed if the fork is totally oil-sealed.
h) The triple clamp assembly must be the manufacturer designated assembly, unless not other stated in the IDM Eligible Parts List.
i) A steering damper may be added or replaced with an aftermarket damper.
n) The steering damper cannot act as a steering lock limiting device.

**1.7.11.4 Rear fork (Swing-Arm)**

a) The rear fork must be the originally fitted and homologated part with no modification allowed.
b) Rear fork pivot bolt must be the originally fitted and homologated part with no modification allowed.
c) Rear axle chain adjuster may be modified or changed. The wheel axle nut may be replaced and/or made captive. Bolts may passthrough the adjuster to make the rear caliper hanger captive, however wheelbase adjustment will be reduced and the swingarm cannot be modified to regain that adjustment.
d) The wheel axle nut may be replaced and/or made captive.
e) A solid protective cover (shark fin) shall be fixed to the swing-arm and must always cover the opening between the lower chain run, swingarm and the rear wheel sprocket, irrespective of the position of the rear wheel.
f) Brackets/mounts for rear wheel stand bobbins may be added to the rear fork by welding or bolts. No fork style stand brackets are allowed, the stand must use forks and the swingarm use bobbins.
g) 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) The sides of the swing-arm may be protected by a thin vinyl cover only, no composite or structural covers are allowed.

**1.7.11.5 Rear suspension unit**

a) n/a
b) The original attachment points to the frame and rear fork (or linkage) must be as homologated.
c) The rear suspension linkage must be the originally fitted and homologated parts with no modification allowed, unless not included in the IDM Eligible Parts List.
d) Removable top shock mounts must remain as homologated. A nut may be made captive on the top shock mount and shim spacers may be fitted behind it.

**1.7.11.6 Wheels**

a) Wheels must be the originally fitted and homologated parts with no modification allowed.
b) The wheels may be overpainted but the original finish cannot be removed.
c) A non-slip coating/treatment may be applied to the bead area of the rim.
d) If the original design included a cushion drive for the rear wheel, it must be the originally fitted and homologated parts with no modification allowed.
e) Wheel axles must be as homologated with no modification allowed. Axle cones are not allowed.
f) Axle nut may be replaced and be captive.
g) Wheel spacers can be modified or replaced.
h) Bearing spacers are free.

i) Wheel balance weights may be discarded, changed or added to.
j) Angled aluminium or steel inflation valves are compulsory.
k) The only allowed rim sizes are:

| Wheels Size | |
|---|---|
| Front | 3.5" |
| Rear | 5.5" |

In the case the machine is not fitted with the aforementioned sizes, a single alternative wheel will be agreed between the manufacturer and the Chief Technical Steward. This whell will be included in the IDM Eligible Parts List.

**1.7.11.7 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) The maximum thickness of the brake disc is 5.5mm
c) Only Steel (max. carbon content 2.1 wt%) is allowed for replacement brake discs.
d) 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 caliper and fork lower to fit larger diameter discs. Caliper bolts must have correct length shanks.
e) Rear brake callipers must be the originally fitted and homologated parts with no modification allowed. The mounting points and carrier/hanger must remain as homologated but the threaded holes may be made in the carrier/hanger to make the hanger captive (connected to the chain adjusters)
f) Brake pistons are free.
g) The front brake master cylinder can be the originally fitted and homologated parts with no modification allowed or may be replaced by a unit with a retail price limit in Germany of €250 (VAT excluded), including lever.
h) The brake lever design is free.
i) Front and rear hydraulic brake lines may be changed. The brake fluid reservoir may be replaced and/or repositioned. Quick connectors may be used but only between the master cylinder and the brake hose split.
j) 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.
k) Front and rear brake pads may be changed. Brake pad locking pins may be modified for quick change type.
l) Additional air ducts are not allowed.
m) The ABS System must be removed.
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. Composite guards are not permitted. Guards from the IDM Eligible Parts List will be permitted without regard to the material. The Chief Technical Steward has the right to refuse any guard not satisfying this safety purpose.

**1.7.11.8 Handlebars and hand controls**

a) Handlebars may be replaced.
b) Handlebars and hand controls may be replaced and relocated.
c) Throttle controls must be self-closing when not held by the hand.
d) Only the Grip/Gas sensor listed in the IDM Eligible Parts List may be used.
e) Clutch assy and brake lever may be replaced with an after-market model. An adjuster to the brake lever is allowed.
f) Switches may be changed but the electric starter switch and engine stop switch must be located on the handlebars.
g) Motorcycles must be equipped with a functional ignition kill switch or button mounted on the right hand handlebar (within reach of the hand while on the hand grips) that is capable of stopping a running engine. The button or switch must be red.

**1.7.11.9 Foot rest and 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 and gear shift must remain operated manually by foot.
c) Foot rests may be rigidly mounted or a folding type which must incorporate a device to return them to the normal position.
d) The end of the foot rest must have at least an 8 mm solid spherical radius.
e) Non folding footrests must have an end (plug) which is permanently fixed, made of aluminium, plastic, Teflon® or an equivalent type material (minimum radius 8mm). The plug surface must be designed to reach the widest possible area. The Chief Technical Steward has the right to refuse any plug not satisfying this safety purpose.

**1.7.11.10 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) reaching into the interior of 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 tank may not have a cover fitted over it unless the homologated machine also features a full cover.
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 cannot have heat reflective sheet attached to its bottom surface.

**1.7.11.11 Fairing / Bodywork**

a) Fairing, mudguards and body work must conform in principle to the homologated shape as originally produced by the manufacturer. The use of carbon fibre or Kevlar® materials is not allowed in fairing, fuel tank cover, seat, seat base and associated bodywork constructions. Specific reinforcements in Kevlar® or carbon are allowed locally around holes and stressed areas. Headlights must be included even when considered external.
b) For all bodywork paint and decal design is free, taking into account the conditions of the event.
c) The fairing has a tolerance of +/-8 mm from the original homologated road fairing, respecting the design and features of the homologated fairing and any articles below. The overall width of the frontal area may be +5 mm maximum. The decision of the Chief Technical Steward is final.
d) Wind screen may be replaced.
e) Fairing brackets may be altered or replaced.
f) If fitted the ram-air intake must maintain the originally homologated shape and dimensions.
g) The original air ducts running between the fairing and the airbox may replaced by exact cosmetic replicas of the original parts. If the part serves another function (ie Dash Mounting) then the airflow passage must retain the homologated internal shape. The material is free.
h) No ducting may be added to direct airflow towards the airbox if not fitted on the original machine. No other part may be modified to perform this purpose.
i) 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 homologated machine.
j) The lower fairing has to be constructed to hold, in case of an engine breakdown, at least half of the total oil and engine coolant capacity used in the engine (min. 5 litres). The lower edge of openings in the fairing must be positioned at least 50 mm above the bottom of the fairing.
k) The lower part of the fairing may have a minimum of one and a maximum of two drainage openings of at least 25 mm diameter each at the lowest point. In dry conditions, the lower part of the fairing must be closed; in wet track conditions, the lower part of the fairing may be opened. Replacement of the lower part of the fairing is permitted.
l) Minimal changes are allowed in the fairing to allow clearance for protective engine covers.

m) Motorcycles may be equipped with a radiator shroud to improve the air stream towards the radiator but the appearance of the front, the rear and the profile of the motorcycle must not be changed.
n) The front mudguard must conform in principle to the homologated shape originally produced by the manufacturer. The front mudguard may be replaced and the use of carbon fibre or Kevlar® composites are allowed.
o) Front mudguard may be spaced upward for increased tyre clearance.
p) Rear hugger type mudguards fixed on the swing-arm may be replaced with a cosmetic duplicates of the original part. The use of carbon fibre or Kevlar® composites are allowed.
q) The chain guard may be removed as long as it is not incorporated in the rear hugger. If the chain guard is incorporated in the hugger then the chain guard section may be removed or modified to accommodate larger diameter rear sprockets.
r) n/a
s) The existing rear mudguard under the seat may be removed.
t) In the event that the proposed machine is not fitted with a fairing, then a fairing from the IDM Eligible Parts List may be used. A bellypan and a collecting tray is compulsory.

**1.7.11.12 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) Same materials as fairing must be used.
d) All exposed edges must be rounded.

**1.7.11.13 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) Special steel fasteners may be used in structural locations, but the strength and design must be equal to or exceed the strength of the standard fastener it is replacing.
c) Aluminium fasteners may only be used in non-structural locations.
d) Fasteners may be drilled for safety wire, but intentional weight-saving modifications are not allowed.
e) Thread repair using inserts of different material such as helicoils and timeserts are permitted.
f) Fairing/bodywork fasteners may be changed to the quick disconnect type.

**1.7.11.14 Rear Safety Light**

All motorcycles must have a functioning red light mounted at the rear of the machine.
All lights must comply with the following:

a) Lighting direction must be parallel to the machine centre line (motorcycle running direction), and be clearly visible from the rear at least 15 degrees to both left and right sides of the machine centre line.
b) The rear light must be mounted near the end of the seat/rear bodywork and approximately on the machine centre line, in a position approved by the technical stewards. In case of dispute over the mounting position or visibility, the decision of the technical stewards will be final.
c) Power output/luminosity equivalent to approximately: 2 W (LED).
d) The output must be continuous - no flashing of the safety light whilst on track, flashing is allowed in the pit lane when pit limiter is active.
e) Safety light power should be supplied either by the control ECU or the light switch must be connected directly to the battery with an external supply. The wiring harness of the ECU must not be modified.
f) The technical stewards have the right to refuse any light system not satisfying this safety purpose.
g) n/a

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

a) Any type of lubrication, brake or suspension fluid.
b) Bearings (ball, roller, taper, plain, etc.) of any type or brand may be used.
c) Gaskets and gasket materials (excepting head and base gaskets – see IDM Eligible Parts List)

**1.7.13 The following items MAY BE removed**

a) Emission control items (anti-pollution) in or around the airbox and engine (O2 sensors, air injection devices).
b) Speedometer and related wheel spacers/drives.
c) Bolt on accessories on a rear sub frame.

**1.7.14 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 grab rails.
i) Safety bars, centre and side stands must be removed (fixed brackets must remain).
j) Catalytic convertors.
k) Rear mudguards affixed to the seat unit.

**1.7.15 Equipment and protective clothing**

Rider clothing / equipment in compliance with FIM Article 1.65 is mandatory.
It is mandatory for the leather suit to be fitted with an Airbag system. Alternatively, commercially available airbag vests will also be permitted. Every rider must start each track session with a functional Airbag system. Once the airbag has been deployed, the responsibility for continuing the practice or race rests with the rider.
The rider's name must appear on the right arm of the rider’s clothing near the wrist (embroidered, patch).

**1.7.16 Camera / Camera mounting**

The use of cameras is only permitted in free practice. These must have a double attachment und must be secured (e.g. pad + wire rope) and have to be presented at the scrutineering before using on the race track.
Any use outside the free practice sessions will only be authorised by the series organizer in exceptional cases.