



2016

TECHNICAL REGULATIONS

Moto3[™] ***JUNIOR***
WORLD CHAMPIONSHIP

(UPDATED: 13/01/2016)

2.1 Moto3™ Class Technical Rules

2.1.1 Engine

- 2.1.1.1 4-stroke reciprocating piston engines only.
- 2.1.1.2 Engine capacity: maximum 250 cc
- 2.1.1.3 Single cilindres only
- 2.1.1.4 Maximum bore size: 81 mm. No oval pistons (refer to Art. 2.6.3.1 of the FIM Grand Prix Regulations).
- 2.1.1.5 Engines must be normally aspirated. No turbo-charging, no super-charging.
- 2.1.1.6 Crankshaft speed limited to maximum: 13.500 rpm**
- 2.1.1.7 Maximum of 1 ignition driver.
- 2.1.1.8 Pneumatic and/or hydraulic valve systems are not permitted.
- 2.1.1.9 Valve timing system drive must be by one chain. An intermediate drive gear which rotates on only one axle or rotation centre is allowed in the system (refer to ANNEX 1 for some examples of permitted systems).
- 2.1.1.10 Variable valve timing and/or variable valve opening systems are not permitted.

**All motorcycles will have to be equipped with a control system to verify the highest RPM reached during the event, as established in art. 1.6 of these rules.

The only system authorized for this control is:

- RPM Logger AIM (Annex 2 – manufacturer's full address)

The only motorcycles exempt from installing this device are those equipped with:

- ECU Moto3 Dell'Orto Dope, models "RACE", "START" or "FACTORY"
(annex 2 - manufacturer's full address)
- Data adquisition Evo4 AIM (specific firmware M3_CEV_ 2012)
(annex 2 - manufacturer's full address)

2.1.2 Inlet & Fuel System

- 2.1.2.1 **Maximum relative fuel pressure is 5.0 Bar.**
- 2.1.2.2 Variable-length inlet systems are not permitted.

- 2.1.2.3 Only one throttle control valve is permitted to control the power demand by the rider, which must be controlled exclusively by mechanical means (eg. cable) operated by the rider only. No other powered moving devices (except injectors and the idle control air bypass) are permitted in the inlet tract before the engine intake valve. No interruption of the mechanical connection between the rider's input and the throttle is allowed.
- 2.1.2.4 Idle speed (including engine braking) adjustment by means of an air bypass system, controlled by the ECU is allowed.
- 2.1.2.5 Fuel injectors must be located upstream of the engine intake valves.
- 2.1.2.6 A maximum of 2 fuel injectors per throttle body, and 2 independent fuel injector drivers, controlled by the ECU, is permitted.
- 2.1.2.7 Other than engine sump breather gases, only air or air/fuel mixture is permitted in the inlet tract and combustion chamber.
- 2.1.2.8 Only fuel of the current year from the appointed fuel supplier is permitted. This fuel will be available at all official events, and will conform to the FIM Grand Prix specification.
Use of this fuel without any addition or alteration is mandatory during all event (free practices, qualifying practices, warm-up and races).
- 2.1.2.9 In the Moto3™ class, the fuel on the motorcycle must not be below the prevailing ambient temperature, as measured by the Technical Director. Other than a simple removable fuel tank cover, the use of any device on the motorcycle to artificially decrease the fuel temperature below ambient temperature is forbidden.
- 2.1.2.10 Any quality of oil may be used.

2.1.3 Exhaust System

- 2.1.3.1 Variable length exhaust systems are not permitted.
- 2.1.3.2 No moving parts (e.g. valves, baffles...) are allowed in the exhaust systems.
- 2.1.3.3 Exhaust Gas Recirculation (EGR) systems are not permitted.
- 2.1.3.4 The noise limit will be a maximum of 115 dB/A, measured in a static test at 5.500rpm.

2.1.4 Transmission

- 2.1.4.1 A maximum of 6 gearbox speeds is permitted.
- 2.1.4.2 Twin clutch transmission systems (DSG) are not permitted.
- 2.1.4.3 Continuously Variable Transmission systems (CVT) are not permitted.
- 2.1.4.4 Automatic transmission systems are not permitted. Manual transmissions with gearshifts assisted by quick-shifter systems are permitted.
- 2.1.4.5 Gearbox systems must be of the conventional type. That is; constant-mesh with engagement dogs as an integral part of the gear, actuated by shift forks and shift cam or drum, with only one set of gears engaging at one time. So-called "seamless shift" transmissions (also known as Automated Manual Transmission, Instantaneous Gearchange System, etc.) are not permitted.

2.1.4.6 Electro-mechanical or electro-hydraulic clutch actuating systems are not permitted.

2.1.5 Ignition, Electronics & Data-Logging

2.1.5.1 The Electronic Control Unit (ECU) is free.

2.1.5.2 The traction control systems are allowed.

2.1.5.3 The Data-Logging system is free.

2.1.5.4 A battery is compulsory; proper engine management function is ensured only when the battery voltage is in the 8÷18 V range.

2.1.6 Chassis

2.1.6.1 Chassis must be a prototype, the design and construction of which is free within the constraints of the FIM Grand Prix Technical Regulations.

2.1.6.2 Minimum total weight of Motorcycle + Rider: **149 kg**.

2.1.6.3 Ballast may be added to achieve the minimum weights.

2.1.6.4 Weight may be checked at the initial technical control, but the main control of weight will be made at the end of practice sessions or at the end of the race. The weight of the motorcycle will be that measured in the form that the motorcycle participated, with fuel tank on and including normal levels of oil and water, and all additional equipment attached to the motorcycle, for example timekeeping transponders, camera equipment, electronic datalogging equipment, etc.

2.1.6.5 For this class the weight checked will be the total of the rider with full protective clothing plus the weight of the motorcycle. Random weight controls may be carried out during practice in a designated weighing area.

2.1.6.6 Brake discs must be made from an iron-based alloy.

2.1.6.7 Electric/electronic controlled suspension, ride height and steering damper systems are not allowed. Adjustments to the suspension and steering damper systems may only be made by manual human inputs and mechanical/hydraulic adjusters.

2.1.6.8 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 (minimum 2.5 liters). This measurement should be taken with the fairing fitted to the motorcycle, whilst both wheels are on the ground and the motorcycle is upright at 90° to the horizontal.

2.1.6.9 The lower fairing should incorporate a maximum of two holes of 25mm. These holes must remain closed in dry conditions and must be only opened in wet race conditions.

2.1.6.10 **Wings may be fitted provided they are an integral part of the fairing or seat and do not exceed the width of the fairing or seat or the height of the handlebars. All edges of any wings fitted must have a minimum radius of 2.5 mm. Moving aerodynamic devices are prohibited.**

2.1.7 Wheels & Tyres

- 2.1.7.1 The only materials allowed for the wheels rims are Magnesium and Aluminium alloys.
- 2.1.7.2 The only permitted wheel rim sizes are:
Front 2.50" x 17"

Rear 3.50" x 17"
- 2.1.7.3 Only tyres from the official tyre supplier may be used in a Moto3™ FIM CEV and each team must sign a contract.
- 2.1.7.4 The tyre specifications available at each event will be determined by the tyre supplier. Only homologated tyres in each event are permitted.
- 2.1.7.5 The maximum number of rear tyres allowed to use during the qualifying practice are THREE (3). Only the rear slick tyres need to be marked with a tyre sticker. The wet tyres will not need to be marked with a tyre sticker and will not be considered in the total number of tyres available for use.
- 2.1.7.6 **A maximum of ONE (1) rear slick tyre per race may be used. Only the race rear slick tyres shall be marked with a code differentiable qualifying tyres. The wet tyres will not need to be marked with a tyre sticker and will not be considered in the total number of tyres available for use.**
- 2.1.7.7 During the preliminary technical inspection the teams will be delivered the adhesive stickers used for marking the tyres. Each team will be responsible of marking their tyres.
- 2.1.7.8 The Technical Stewards may perform random controls during the qualifying practices.
- 2.1.7.9 If the riders are shown a red flag during the practice, **or the race/s**, the Permanent Race Direction is allowed to authorize the use of a supplementary tyre. All checked tyres must be easily identifiable with a colour marking or a numerical system.
- 2.1.7.10 In case of a technical problem, the FIM CEV Technical Director will take a decision about the problem.

2.1.8 Materials & Construction

- 2.1.8.1 Construction materials must comply with:

- 1) The use of titanium in the construction of the frame, the front forks, the handle-bars, the swinging arm spindles, and the wheel spindles is forbidden. For wheel spindles, the use of light alloys is also forbidden.

2) The basic structure of the crankshaft and camshafts must be made from ferrous materials, steel or cast iron. Inserts of a different material are allowed in the crankshaft for the sole purpose of balancing.

3) Pistons, cylinder heads and cylinder blocks may not be composite structures which use carbon or aramid fibre reinforcing materials.

4) Brake calipers must be made from aluminium materials with a modulus of elasticity no greater than 80 Gpa.

5) No parts of the motorcycle or engine may be made from metallic materials which have a specific modulus of elasticity greater than 50 Gpa / (g/cm³).

6) The use of MMC (Metal Matrix Composite) and FRM (Fibre Reinforced Metal) materials is forbidden.

7) In the Moto3 class, the following materials restrictions apply:

a) Engine crankcases, cylinder blocks and cylinder heads must be made from cast aluminium alloys.

b) Pistons must be made from an aluminium alloy.

c) Piston pins must be made from ferrous materials.

d) Connecting rods, valves and valve springs must be made from either ferrous or titanium-based alloys.

2.1.9 General

2.1.9.1 Number of machines: the team can scrutineer only one motorcycle per rider.

2.1.9.2 If during the official practice sessions a motorcycle suffers any damages that are difficult to repair in the circuit, the FIM CEV Technical Director could allow a second motorcycle to go under the technical inspection. The process of authorizing a new machine is not possible during a practice session. **Once the starting procedure is initiated, it isn't possible to verify a second motorcycle, neither in case of detention by red flag. In case of events with two races, once the first race is finished, the FIM CEV Technical Director may allow the request for verification of a second motorcycle.**

2.1.9.3 Once the official practice sessions have started, only the motorcycle that has gone under the technical inspection will be allowed to be inside the box.

2.1.10 Numbers and backgrounds

- 2.1.10.1 The front plate must be located in the middle of the fairing's front or on the side facing the official time keeping staff.
- 2.1.10.2 Rear or side numbers are optional. If they are fitted, must govern the same rules as the front.
- 2.1.10.3 The dimensions for the number plates must be: 140mm x 25mm minimum. Numbers from 1 to 9 can be wider. Only numbers between 1 and 99 will be admitted.
- 2.1.10.4 Backgrounds must be of one single colour over an area large enough to provide a minimum clear area of 25 mm around the numbers.
- 2.1.10.5 In case of a dispute concerning the legibility of numbers, the decision of the FIM Technical Director will be final.
- 2.1.10.6 The numbers and backgrounds will be as follows:

	Background Number	
Moto3™	Black	White

2.1.11 Safety points

- 2.1.11.1 Motorcycles **must** be equipped with a brake lever protection, intended to protect the handlebar brake lever from being accidentally activated in case of collision with another motorcycle.
- 2.1.11.2 Rear Safety Light:

All motorcycles must have a functioning red light mounted at the rear of the machine, to be used in rain or low visibility conditions.

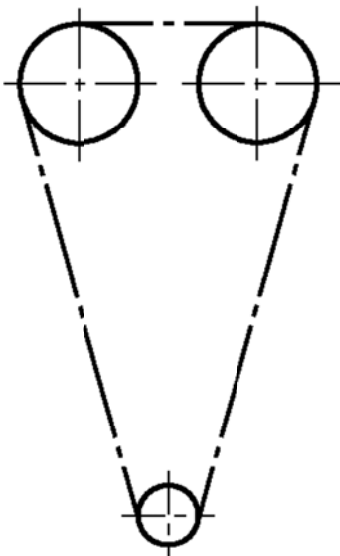
The rear safety light must comply with the following:

 - a) The lighting direction must be parallel to the center line of the motorcycle (running direction) and it must be clearly visible from the rear, at least 15 degrees to both the left and right sides of the center line of the motorcycle.
 - b) It must be safely mounted on the very end of seat/rear bodywork and approximately on the center line of the motorcycle. In case of dispute over the mounting position or visibility of the Rear Safety Light, the decision of the FIM CEV Technical Director will be final.
 - c) The power output/luminosity must be equivalent to approximately 10-15W (incandescent) or 0,6-5W (led).
 - d) Able to be switched on and off by the rider when seated on the machine
 - e) Safety light power supply may be separated from the motorcycle main wiring and battery.

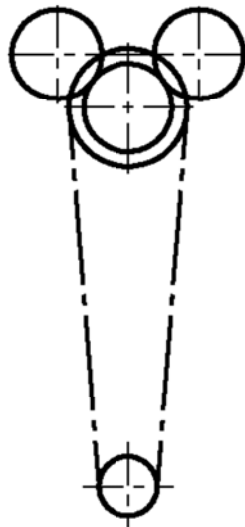
2.1.11.3 Timing Transponders

- a) All machines must have a correctly-positioned timekeeping transponder, of the correct type for the class entered. The transponder must be supplied or approved by the official Timekeeper and fixed to the motorcycle in the position advised by Timekeeping and approved by the Technical Director.
- b) Correct attachment of the transponder bracket consists of a minimum of tie-wraps, but preferably by screw or rivet. Velcro or adhesive alone will not be accepted, and any transponder retaining clip must also be secured by a tie-wrap.
- c) Transponders must be fully functional on the motorcycle as required by the Organiser, including wiring, power supply, and inputs / outputs for data or signals purposes.

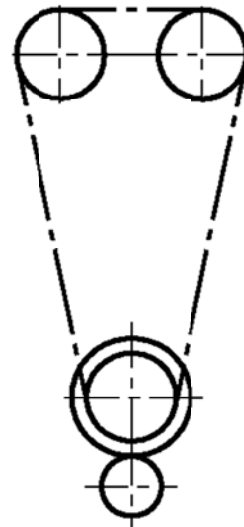
ANNEX 1



A) Simple chain drive



B) Chain drive + upper gear



C) Chain drive + lower gear

ANNEX 2

- RPM Logger AIM

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2016

TECHNICAL REGULATIONS

Moto3™ JUNIOR
WORLD CHAMPIONSHIP

Moto3™ PRODUCTION
(UPDATED: 13/01/2016)

2.2 Moto3™ Production Technical Rules

Manufacturer engine motorcycle: Honda Motor Co., Ltd.

Model: NSF 250 R (Tipo: MR03)

EVERYTHING THAT IS NOT AUTHORISED AND PRESCRIBED IN THIS RULE IS STRICTLY FORBIDDEN

2.2.1 Engine

- 2.2.1.1 The engine and all its component parts must be the original mounted by the manufacturer in the motorcycle Honda NSF 250 R (Type: MR03), with the following exceptions.
- 2.2.1.2 The cylinder head, and all the other gaskets, may be changed.
- 2.2.1.3 The oil filter may be changed.
- 2.2.1.4 The spark plug may be changed.
- 2.2.1.5 Coolant hoses and fittings may be changed to suit individual radiator designs.
- 2.2.1.6 Additional oil coolers are not permitted.
- 2.2.1.7 In the case of dispute over modifications, the decision of the FIM CEV Technical Director will be final.

2.2.2 Inlet & Fuel System

- 2.2.2.1 The throttle body must remain as originally produced by the manufacturer for the homologated engine.
- 2.2.2.2 Modifications to the fuel pressure regulator are not allowed.
- 2.2.2.3 The insulators that attach the throttle body to the head cannot be modified or changed.
- 2.2.2.4 The airbox may be modified or replaced.
- 2.2.2.5 The air filter element may be modified or replaced.
- 2.2.2.6 The air box drains must be sealed (safety wired).
- 2.2.2.7 All motorcycles must have a closed breather system. All the oil breather lines must be connected and discharge in the airbox.
- 2.2.2.8 Other than engine sump breather gases, only air or air/fuel mixture is permitted in the inlet tract and combustion chamber.
- 2.2.2.9 The injector must remain standard unit as on the homologated engine.
- 2.2.2.10 Bell mouths can't be modified or replaced as originally produced by the manufacturer for the homologated machine.
- 2.2.2.11 Throttle valve must remain as originally produced by the manufacturer for the homologated machine.
- 2.2.2.12 Only fuel of the current year from the appointed fuel supplier is permitted. This fuel will be available at all official events, and will conform to the FIM Grand Prix specification. Use of this fuel without any addition or alteration is mandatory during all event (free practices, qualifying practices, warm-up and races).

- 2.2.2.13 In the Moto3™ Production class, the fuel on the motorcycle must not be below the prevailing ambient temperature, as measured by the Technical Director. Other than a simple removable fuel tank cover, the use of any device on the motorcycle to artificially decrease the fuel temperature below ambient temperature is forbidden.
- 2.2.2.14 A catch-tank may be fitted in the engine breather between the cam cover and airbox. The catch tank is solely for the purpose of collecting engine fluids, no other functions (such as pressure modification) are permitted and breather connections may only be directly between the cam cover, catch tank and airbox. The catch tank and connections must be visible for inspection at all times (that is, not permanently built into the chassis or other parts).
- 2.2.2.15 Any quality of oil may be used.

2.2.3 **Exhaust system**

- 2.2.3.1 Variable length exhaust systems are not permitted.
- 2.2.3.2 No moving parts (e.g. valves, baffles...) are allowed in the exhaust systems.
- 2.2.3.3 Exhaust Gas Recirculation (EGR) systems are not permitted.
- 2.2.3.4 The noise limit will be a maximum of 115 dB/A, measured in a static test at 5.500rpm.

2.2.4 **Transmission**

- 2.2.4.1 Clutch type (wet) and the way of operation (by cable) must remain as homologated.
- 2.2.4.2 Friction and drive discs may be changed.
- 2.2.4.3 Clutch springs may not be changed.
- 2.2.4.4 The clutch basket (outer) may not be changed.
- 2.2.4.5 The original clutch assembly may not be changed or modified for back torque limiting capabilities (slipper type).
- 2.2.4.6 The use of electro-mechanical or electro-hydraulic actuating systems are not allowed.
- 2.2.4.7 An external quick-shift system on the gear selector (including wire and potentiometer) may be added, provided this doesn't involve cutting or modification of the original wiring.
- 2.2.4.8 Countershaft sprocket, rear wheel sprocket, chain pitch and size can be changed.
- 2.2.4.9 The gearbox must remain as originally produced by the manufacturer for the homologated engine.
- 2.2.4.10 Other modifications to gearbox or selector mechanism are not allowed.

2.2.5 Ignition, Electronics & Data-Logging

- 2.2.5.1 The Electronic Control Unit (ECU) must remain as originally produced by the manufacturer for the homologated engine. It isn't allowed to add injection modules that modify the inputs/outputs of the ECU.
- 2.2.5.2 The software used to modify the ECU must be the originally produced by the manufacturer for the homologated motorcycle-engine.
- 2.2.5.3 The parameters that the software itself provides for adjustment, cannot be extended and/or exceeded under any circumstances.
- 2.2.5.4 The FIM CEV Technical Director could, at its discretion, download and analyze the files and maps of that ECU.
- 2.2.5.5 The main wiring harness must remain as originally produced by the manufacturer for the homologated engine. It's only allowed for data download proposal (Datalogger).
- 2.2.5.6 The standard sensors of the ECU, cannot be changed, modified or eliminated.
- 2.2.5.7 The standard cockpit can be changed or modified only if the standard main wiring harness is not modified or cutted.
- 2.2.5.8 The data acquisition systems are free, but the maximum number of inputs by external sensors allowed are:

- 1) Position and speed by GPS
- 2) Engine temperature
- 3) Lambda signal
- 4) TPS signal
- 5) Engine RPM
- 6) Rear Wheel speed
- 7) Front Wheel speed
- 8) Front brake pressure
- 9) Rear brake pressure
- 10) Front fork position
- 11) Rear damper position

- 2.2.5.9 The FIM CEV Technical Director could ask, at any moment of the event, for the datalogger files, for its analyze or download.

2.2.6 Chassis

- 2.2.6.1 Chassis must be a prototype, the design and construction of which is free within the constraints of the FIM Grand Prix Technical Regulations.
- 2.2.6.2 Minimum total weight of Motorcycle + Rider: 149 kg.
- 2.2.6.3 Ballast may be added to achieve the minimum weights.
- 2.2.6.4 Weight may be checked at the initial technical control, but the main control of weight will be made at the end of practice sessions or at the end of the race. The weight of the motorcycle will be that measured in the form that the motorcycle participated, with fuel tank on and including normal levels of oil and

water, and all additional equipment attached to the motorcycle, for example timekeeping transponders, camera equipment, electronic datalogging equipment etc.

- 2.2.6.5 For this class the weight checked will be the total of the rider with full protective clothing plus the weight of the motorcycle. Random weight controls may be carried out during practice in a designated weighing area.
- 2.2.6.6 Brake discs must be made from an iron-based alloy.
- 2.2.6.7 Electric/electronic controlled suspension, ride height and steering damper systems are not allowed. Adjustments to the suspension and steering damper systems may only be made by manual human inputs and mechanical/hydraulic adjusters.
- 2.2.6.8 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 (minimum 2.5 liters). This measurement should be taken with the fairing fitted to the motorcycle, whilst both wheels are on the ground and the motorcycle is upright at 90° to the horizontal
- 2.2.6.9 The lower fairing should incorporate a maximum of two holes of 25mm. These holes must remain closed in dry conditions and must be only opened in wet race conditions.
- 2.2.6.10 Wings may be fitted provided they are an integral part of the fairing or seat and do not exceed the width of the fairing or seat or the height of the handlebars. All edges of any wings fitted must have a minimum radius of 2.5 mm. Moving aerodynamic devices are prohibited.

2.2.7 **Wheels & Tyres**

- 2.2.7.1 The only materials allowed for the wheels rims is Aluminium alloys.
- 2.2.7.2 The only permitted wheel rim sizes are:
 - Front 2.50" x 17"
 - Rear 3.50" x 17"
- 2.2.7.3 Only tyres from the official tyre supplier may be used in a Moto3™ Production FIM CEV and each team must sign a contract.
- 2.2.7.4 The tyre specifications available at each event will be determined by the tyre supplier. Only homologated tyres in each event are permitted.
- 2.2.7.5 The maximum number of rear tyres allowed to use during the qualifying practice are THREE (3). Only the rear slick tyres need to be marked with a tyre sticker. The wet tyres will not need to be marked with a tyre sticker and will not be considered in the total number of tyres available for use.
- 2.2.7.6 A maximum of ONE (1) rear slick tyre per race may be used. Only the race rear slick tyres shall be marked with a code differentiable qualifying tyres. The wet tyres will not need to be marked with a tyre sticker and will not be considered in the total number of tyres available for use.

- 2.2.7.7 During the preliminary technical inspection the teams will be delivered the adhesive stickers used for marking the tyres. Each team will be responsible of marking their tyres.
- 2.2.7.8 The Technical Stewards may perform random controls during the qualifying practices.
- 2.2.7.9 If the riders are shown a red flag during the practice, or the race/s, the Permanent Race Direction is allowed to authorize the use of a supplementary tyre. All checked tyres must be easily identifiable with a colour marking or a numerical system.
- 2.2.7.10 In case of a technical problem, the FIM CEV Technical Director will take a decision about the problem.

2.2.8 **Materials & Construction**

2.2.8.1 Construction materials must comply with:

- 1) The use of titanium in the construction of the frame, the front forks, the handle-bars, the swinging arm spindles, and the wheel spindles is forbidden. For wheel spindles, the use of light alloys is also forbidden.
- 2) The basic structure of the crankshaft and camshafts must be made from ferrous materials, steel or cast iron. Inserts of a different material are allowed in the crankshaft for the sole purpose of balancing.
- 3) Pistons, cylinder heads and cylinder blocks may not be composite structures which use carbon or aramid fibre reinforcing materials.
- 4) Brake calipers must be made from aluminium materials with a modulus of elasticity no greater than 80 Gpa.
- 5) No parts of the motorcycle or engine may be made from metallic materials which have a specific modulus of elasticity greater than 50 Gpa / (g/cm³).
- 6) The use of MMC (Metal Matrix Composite) and FRM (Fibre Reinforced Metal) materials is forbidden.
- 7) In the Moto3 class, the following materials restrictions apply:
 - a) Engine crankcases, cylinder blocks and cylinder heads must be made from cast aluminium alloys.
 - b) Pistons must be made from an aluminium alloy.
 - c) Piston pins must be made from ferrous materials.
 - d) Connecting rods, valves and valve springs must be made from either ferrous or titanium-based alloys.

2.2.9 General

- 2.2.9.1 Number of machines: the teams can scrutineer only one motorcycle per rider.
- 2.2.9.2 If during the official practice sessions a motorcycle suffers any damages that are difficult to repair in the circuit, the FIM CEV Technical Director could allow a second motorcycle to go under the technical inspection. The process of authorizing a new machine is not possible during a practice session. Once the starting procedure is initiated, it isn't possible to verify a second motorcycle, neither in case of detention by red flag. In case of events with two races, once the first race is finished, the FIM CEV Technical Director may allow the request for verification of a second motorcycle.
- 2.2.9.3 Once the official practice sessions have started, only the motorcycle that has gone under the technical inspection will be allowed to be inside the box.

2.2.10 Numbers and backgrounds

- 2.2.10.1 The front plate must be located in the middle of the fairing's front or on the side facing the official time keeping staff.
- 2.2.10.2 Rear or side numbers are optional. If they are fitted, must govern the same rules as the front.
- 2.2.10.3 The dimensions for the number plates must be: 140mm x 25mm minimum. Numbers from 1 to 9 can be wider. Only numbers between 1 and 99 will be admitted.
- 2.2.10.4 Backgrounds must be of one single colour over an area large enough to provide a minimum clear area of 25 mm around the numbers.
- 2.2.10.5 In case of a dispute concerning the legibility of numbers, the decision of the FIM Technical Director will be final.
- 2.2.10.6 The numbers and backgrounds will be as follows:

	Background Number	
Moto3™ Production	White	Black

2.2.11 Safety points

- 2.2.11.1 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.

2.2.11.2 Rear Safety Light:

All motorcycles must have a functioning red light mounted at the rear of the machine, to be used in rain or low visibility conditions.

The rear safety light must comply with the following:

- a) The lighting direction must be parallel to the center line of the motorcycle (running direction) and it must be clearly visible from the rear, at least 15 degrees to both the left and right sides of the center line of the motorcycle.
- b) It must be safely mounted on the very end of seat/rear bodywork and approximately on the center line of the motorcycle. In case of dispute over the mounting position or visibility of the Rear Safety Light, the decision of the FIM CEV Technical Director will be final.
- c) The power output/luminosity must be equivalent to approximately 10-15W (incandescent) or 0,6-5W (led).
- d) Able to be switched on and off by the rider when seated on the machine
- e) Safety light power supply may be separated from the motorcycle main wiring and battery.

2.2.11.3 Timing Transponders

- a) All machines must have a correctly-positioned timekeeping transponder, of the correct type for the class entered. The transponder must be supplied or approved by the official Timekeeper and fixed to the motorcycle in the position advised by Timekeeping and approved by the Technical Director.
- b) Correct attachment of the transponder bracket consists of a minimum of tie-wraps, but preferably by screw or rivet. Velcro or adhesive alone will not be accepted, and any transponder retaining clip must also be secured by a tie-wrap.
- c) Transponders must be fully functional on the motorcycle as required by the Organiser, including wiring, power supply, and inputs / outputs for data or signals purposes.