CR07PT European Pit Bike CUP 2026
Technical Regulation

CR07PT.6.0

Motorcycles participating in the European Pit Bike 4 Stroke Championship (hereinafter referred to as PBK), must comply with the provisions of these Technical Regulations. The documents (lists, models or fiches) mentioned below are to be considered an integral part of these Technical Regulations.
On the proposal of the Chief Technical Steward, the Jury may request to withdraw and retain an engine or any of its components on the competition field, to carry out more in-depth checks in order to determine its compliance. Refusal to comply with the Jury's requests is equated to technical irregularity.
Motorcycles may not contain titanium, beryllium, and carbon parts, unless otherwise specified in these Regulations.
The PBK is open to equipped motorcycles, with different engines depending on the category to which they belong; in compliance with the characteristics described in these Technical Regulations.
For anything not established in these Regulations, all motorcycles are free within the limits of what is established in **CR01, CR02.**
For anything not established in these Regulations, all engines must be kept original, unless otherwise authorized. All engines must comply with the Technical fiches or forms which are at the exclusive disposal of the Technical Stewards which contain measurements, dimensions, weight and codes (where applicable) of each individual engine component.
As established by the Sporting Regulations, this Championship is divided into the following categories:

- Pit Bike 160
- Pit Bike 190

The above categories correspond to different types of motorcycles and engines, in accordance with these Regulations.

CR07PT.6.1 - GENERALITA'

CR07PT.6.1.1 - During the entire duration of the event, each rider may only use one (1) complete motorcycle, as presented to Technical Control, with the frame clearly identified with a seal. In the event that the chassis needs to be replaced, the rider or team must request the use of a replacement chassis from the Chief Technical Steward.

CR07PT.6.1.2 - The weight of the motorcycle (including the tank and its contents) in order must not be lower than the following values:

- **Pit Bike 160: 58 kg**
- **Pit Bike 190: 60 kg**

No tolerance on the minimum weight limit is allowed.

CR07PT.6.1.2.1 - The use of ballast is allowed to stay above the minimum weight limit. The use of ballast must be declared to the Chief Technical Steward at the preliminary checks.
The ballast must consist of one or more solid metal piece/s, securely and securely connected, either through an adapter or directly to the main frame or engine, with a minimum of 2 steel bolts (min. 8 mm diameter, grade 8.8 or higher). Other equivalent technical solutions must be submitted to the Chief Technical Steward for his approval.
Fuel in the tank can be used as ballast. However, the verified weight can never fall below the required minimum weight.

CR07PT.6.1.3 - The number of engines allowed in the CEMB is free.

CR07PT.6.2 - CHASSIS

CR07PT.6.2.1- FRAME

CR07PT.6.2.1.1 - Except as specified in the following articles, the frame must be of the open cradle Pit Bike type, the swingarm, the seat post frame is free.

CR07PT.6.2.1.2 - The maximum wheelbase of the motorcycle in all categories must be mm. 1230 with a tolerance of + mm. 20. The wheelbase measurement is taken with the motorcycle on the ground in the absence of load.

CR07PT.6.2.1.3 - The use of adhesive films or shells intended to protect the sides of the frame is permitted provided that these protections are removable and leave a free area on the steering head for the affixing of the technical seal.

CR07PT.6.2.1.4 - Protective pads can be mounted on the frame (maximum length: 30 mm).

CR07PT.6.2.2 - SWINGARM

CR07PT.6.2.2.1 - If present, rear stand support pins fixed on the swingarm, can be added to the rear swingarm by welding or bolts. The brackets should have rounded edges (with a large radius). The fixing screws must be recessed.

CR07PT.5.2.3 - TRIPLE CLAMPS

CR07PT.6.2.3.1 - Stops must be fitted to ensure a distance of at least 30 mm between the handlebar and the fuel tank, including any accessories attached to it, when they are at the ends of the steering lock.

CR07PT.6.2.3.2 - The angle of rotation of the steering wheel on both sides of the centreline must be at least 15°.

CR07PT.6.2.4 - HANDLEBARS AND HANDLEBAR CONTROLS

CR07PT.6.2.4.1 -

a) The width of the handlebars, understood as the distance between the extreme edges of the grips, must not be between mm. 600 and 850. The use of half handlebars is forbidden.
b) Handlebars should be placed on motorcycles with the fold facing up. No point on the handlebar (including grips) must be positioned lower than the horizontal plane passing through the lower support point of the handlebar on its fixing support.
c) The handlebar clamps must be connected and made in such a way as to avoid areas of breakage of the handlebars. Repairing handlebars by welding is forbidden.
d) Handlebars made of composite material is prohibited in all categories.
e) The shown ends of the handlebars must have a spherical end part made of plastic, metal or composite material.
f) It is mandatory to mount a protector pad on the crossbar. Handlebars without a cross member must be equipped with a protection pad located in the middle of the handlebars, covering widely the handlebars clamp. The protection must be such as to adequately protect the rider in the event of impacts.
g) It is mandatory to mount a RED button or switch on the handlebar, which is easily accessible when the rider holds the grips, which allows the engine to be switched off.

CR07PT.6.2.4.2

a) All control levers on the handlebars must have rounded edges and a spherical end part with a minimum diameter of 16 mm, possibly flattened to a minimum thickness of mm. 14. These ends must be permanently attached and form an integral part of the lever.
b) The use of handguards positioned in such a way as to protect the front levers from any involuntary activation due to contact between two motorcycles is mandatory. The use of carbon handguards is prohibited. The handguards must not have sharp edges and must not hinder the driver's operation of the front levers. They must not prevent you from letting go of the handlebar grip in case of need

CR07PT.6.6.4.3 - In any position of the steering and front suspension, the control levers on the handlebars and the front wheel must not touch any part of the motorcycle.

CR07PT.6.2.4.4 - The throttle control must automatically close when the rider releases it.

CR07PT.6.2.4.5 - If there are no hand guards, the use of a device (lever guard) is mandatory, which protects the front brake lever from any involuntary actuation resulting from contact between two motorcycles. The lever guard can be made of plastic, metal, composite material or a combination of these materials. The use of titanium, carbon fiber, and/or Kevlar for this component is permitted. The use of lever guards included in the lists of FIM Approved Safety Equipment is recommended.

CR07PT.6.2.5 - FOOTRESTS AND FOOT CONTROLS

CR07PT.6.2.5.1 -

a) The footrests must be foldable and must be equipped with a device that automatically returns them to their normal position.
b) The ends of the footrests must be made to have the widest contact surface, rounded with the aim of reducing the risk of injury or damage to the rider in the event of an accident.
c) Each control pedal must be mounted on an independent rotation pin.
d) The brake pedal, if articulated on the axis of the footrest, must operate in all circumstances, even if the footrest is bent or deformed.
e) Each control pedal must be mounted on an independent rotation pin.
f) Repairing the footrests and footrest supports by welding is prohibited.
g) Protector sliders under footrest are compulsory. Protector sliders should be in plastic material. Protector sliders in metal are forbidden.

CR07PT.6.2.5.2 - KICK STARTER PEDAL

The engine starter pedal, if installed, must remain mounted and in working order and be equipped with a system that prevents accidental opening (example: elastic).

CR07PT.6.3 - SUSPENSION

Systems for controlling and/or locking travel from the rear and/or front suspension are forbidden when the motorcycle is on the track stationary or moving.

CR07PT.6.3.1 - FRONT FORK

Except as specified in the following articles, the front fork is free.

a) The position of the fork in relation to the triple clamp is free, but the coupling must take advantage of the full height of the clamping surface of the upper triple clamp and without removing material from the pipe fork outer or the triple clamp.
b) Fork caps can be used for upper triple clamp coupling.
c) Electronically controlled forks are not allowed.

CR07PT.6.3.2 – STEERING DAMPER

a) The use of a steering damper is permitted. The steering damper is free as are the relative fixing brackets.
b) Under no circumstances can the steering damper act as a steering end-of-stroke device.
c) Electronic steering damper control systems are not permitted.

CR07PT.6.3.3 – REAR SHOCK

a) The rear suspension is free, both mono-shock and two-shock absorbers. Electronic systems for controlling the rear suspension are forbidden.
b) The rear suspension can be simple articulated or progressive (through the interposition of kinematics (connecting rods and / or linkages).

CR07PT.6.3.4 – BRAKING SYSTEM

Except as specified in the following articles, the front and rear braking system is free.
It is not permitted to add air ducts in order to improve the cooling of the braking system.

CR07PT.6.3.4.1 – BRAKE CALLIPERS

It is admitted modifying the brake callipers (front and rear) as indicated in the following points.

a) Modify the rear brake calliper mount to make it integral with the swingarm.
b) Replace the original pins that fasten the pads to the brake calliper with others that allow quick replacement of the pads, provided that such replacement does not require modification of the brake calliper body.
c) It is admitted replace the light alloy pistons with iron alloy pistons manufactured by the calliper manufacturer to reduce heat transfer to the brake fluid. It is forbidden to interpose metal sheets between the brake pads and the calliper pistons with radiating surfaces protruding from the calliper body.
d) It is admitted replace, modify or remove the dust rings.
e) It is admitted replace the piston seals. The modifications referred to in the previous points must be carried out in a workmanlike manner and must not interfere in any way with the correct functioning of the braking system.
f) Only steel bolts (screws, pins, nuts) with a minimum strength class of 8.8 are permitted for fixing the brake callipers. Aluminium bolts is not permitted for this application. It is recommended, but not mandatory, to secure these bolts with a safety wire that prevents them from being unscrewed accidentally.

CR07PT.6.3.4.2 - MASTER CYLINDERS AND BRAKING CIRCUIT

The front and rear master cylinders are free.

a) On all motorcycles, it is permitted to mount an additional or replacement rear brake master cylinder on the handlebars of the motorcycle.
b) The position or type of brake fluid container, both front and rear, is free provided that the fixings are carried out "in a workmanlike manner".
c) Hoses containing pressurized brake fluid must be of the type reinforced with external braid and have crimped or threaded iron alloy terminals. The use of terminals, banjos and fixing bolts made of iron alloy is mandatory.
d) Any bifurcation of the brake line towards the two front brake callipers must not take place below the lower steering plate. Connecting the front brake callipers to each other, using a pipe (bridge or U-bolt) that passes over the wheel and is integral with the lower part of the fork is allowed.

CR07PT.6.3.4.3 - BRAKE DISCS

a) The front braking system must have at least one disc, with a maximum diameter of 230 mm.

CR07PT.6.3.4.4 - BRAKE ELECTRONICS

The use of any electrical/electronic device brake assistance (e.g. ABS) is forbidden.

CR07PT.6.4 - WHEEL RIMS

CR07PT.6.4.1 - Except as authorized in the following points, any modification to the wheel rim and spokes of an integral wheel (cast, forged or riveted) or traditional (spoked) wheel as produced by the manufacturer, is forbidden. Any modification that tends to alter the geometry or the reduction of the weight of the wheel rims is forbidden.

a) It is admitted to superficially treat the rim channel in order to increase friction between the wheel rim and the tire (anti-slip treatment).

b) The valve (or inner tube), the wheel spokes (for traditional rims), the hub rubbers (if present), bearings, dust covers and balancing weights, are free.

c) The spacers (internal and external) of the wheel rims can be be modified or replaced with others that remain in place during the tire change.

d) Cushion drive, if present, is free.

CR07PT.6.4.2 - Wheel rims must have the following maximum dimensions:

a) Rims with dimensions 12" with a maximum width of:
Front: 2.75" x 12"
Rear: 3.50" x 12"

CR07PT.6.4.3 - Wheel rims must be made of aluminium alloy. It is forbidden to use wheel rims made of magnesium or carbon

CR07PT.6.4.4 - It is permissible, as well as recommended, to insert protective pads with rounded edges and with a maximum protrusion from the ends of the wheel axles of mm. 30.

CR07PT.6.6 - TYRES

CR07PT.6.6.1 - The only tyres allowed for the championship are those indicated below:

- PMT Slick 100 / 90 R12 front tyre in compound M, S, SS.

- PMT Slick 120 / 80 R12 rear tyre in compound M, S, SS.

In the event that the practices or the races are declared "wet", the use of rain tyres in the sizes and compounds indicated below is permitted:

- PMT Rain 100 / 90 R12 front rain tyre.

- PMT Rain 120 / 80 R12 rear rain tyre.

CR07PT.6.6.2 - During the Warmup, Qualifying Practice and Races, is allowed use up to:

- 2 sets of tires (2 front and 2 rear) for events with a maximum of 2 races.
- 3 sets of tires (3 front and 3 rear), for double event (with 3 races).

CR07PT.6.6.3 - The contingency tyres are recognizable and counted by applying a mark during scrutineering.
Tyres must be presented at scrutineering for punching, if necessary, already mounted on the rims. It is forbidden to change already marked tyres between riders. Rain tyres are excluded from counting, so there is no punching for them.

CR07PT.6.6.4 - The marking is placed on the right shoulder of the tyre (throttle grip side), it is the responsibility of the rider or of the person in charge on his behalf, to ensure the presence and the conformity of the marking before entering the track.

CR07PT.6.6.5 - The check of the punching is normally carried out at the track entrance. Failure to stop the motorcycle for the time necessary for the check at the track entrance is considered as non-compliance with the riders' obligations. The stewards have the possibility to carry out further controls, in the pits, in the pit lane and in the parc fermé.

CR07PT.6.6.6 - In case of absence or non-conformity of one or both punctures, the irregular tyres are marked by the Technical Steward in charge. This operation is sanctioned with a fine, decided by the Jury.

CR07PT.6.6.7 - At the end of the practice and/or race, the rider must hand over to Chief Technical Steward a number of new and marked tyres equal to that of the tyres marked as irregular, so that the marking can be removed. Failure to do so will be considered as a technical irregularity.

CR07PT.6.6.8 - The final responsibility for the collection and handling of punched tyres lies with the rider.

CR07PT.6.6.9 - In the event that a punctured tyre presents defects that compromise its safe use, the Chief Technical Steward., having consulted the tyre supplier (if present on the circuit), may authorize its replacement. The final decision to replace the tyre is at the discretion of the Chief Technical Steward.

CR07PT.6.6.10 - Tyre changing on the starting grid is forbidden.

CR07PT.6.6.11 - The use of tyre warmers on the starting grid is permitted.

CR07PT.6.6.12 - The use of generators on the starting grid is prohibited

CR07PT.6.7 - TANK AND FUEL SYSTEM

CR07PT.6.7.1 - TANK

CR07PT.6.7.1.1 - The fuel must be contained in a single tank.

CR07PT.6.7.1.2 - It is recommended to secure the tank with screws.

CR07PT.6.7.1.3 - In all classes, the tank cap is free on condition that, once closed, it guarantees a perfect seal.

CR07PT.6.7.1.4 - In all categories the fuel tank breather pipes are free but must discharge into a catch tank and must be equipped with a non-return valve between the fuel tank and the catch tank. The non-return valve must be fitted in such a way as to prevent the passage of fuel to the catch tank. The minimum capacity of the catch tank is 250 cc.

CR07PT.6.7.1.5 - Regardless of the construction material used for the tank, it shall be completely filled with spongy fireproof material (type "Explosafe®").

CR07PT.6.7.1.6 - Bulkheads may be fitted inside the tank in order to slow down or limit the movement of the fuel.

CR07PT.6.7.1.7 - Fit a bulkhead with purpose of insulating the tank from the heat coming from the engine is permitted provided that the bulkhead is made of fireproof material and is firmly secured to the motorcycle (engine, tank or frame). The use of heat-reflecting films glued to the bottom of the tank is allowed.

CR07PT.6.7.1.7 - Tanks made of composite material (e.g. fiberglass, carbon and/or kevlar) are prohibited.

CR07PT.6.7.2 - FUEL CIRCUIT

CR07PT.6.7.2.1 - Fuel circuit refers to the ducts and devices between the tank and the carburettor. The fuel circuit is free but must be positioned on the motorcycle so as to be protected in the event of a fall. The fuel circuit is free as long as it complies with the specifications above and in the following articles.

a) The use of petrol filters is permitted.
b) The use of quick connectors with a self-closing system (dry-break) is permitted.
c) The use of fuel pumps is prohibited.

CR07PT.6.7.2 - FUEL

CR07PT.6.7.2.1 - The only fuels allowed are unleaded fuels that comply with the specifications of the Fuel Annex.

CR07PT.6.8 - FUEL SUPPLY

CR07PT.6.8.1 - GENERAL FUEL SUPPLY

CR07PT.6.8.1.1 - Except as specified in the following articles, the fuel system is free.

CR07PT.6.8.1.2 - The use of the carburettor is mandatory. The use of fuel injection systems or vacuum or diaphragm carburettors is prohibited. Any modification to the carburettor body is prohibited. The use of fixed or removable inserts (including horns or filters) in order to circumvent this standard is prohibited.

CR07PT.6.8.2 - CARBURETTOR

CR07PT.6.8.2.1 - It is mandatory to use the following carburettors:

- **Pit Bike 160:** KEIHIN FRI 28 o Dell'Orto PHBH 28
- **Pit Bike 190:** KEIHIN FRI 28 o Dell'Orto PHBH 28

CR07PT.6.8.2.2- The diffuser section and the number of jets cannot be changed; The carburetion components (valve, needle, seat assy, jets and float) are free.

CR07PT.6.8.2.3 - The use of power pumps or power-jets is not permitted.

CR07PT.6.8.2.4 - The intake manifold and (if present) the sleeve connecting the carburettor to the intake manifold are free,

CR07PT.6.8.3 - AIRBOX AND AIR FILTER

CR07PT.6.8.3.1 - The use of an air filter on the carburettor intake duct or (if fitted) on the air box is mandatory. Only filters made of paper, cotton fibre, sponge or made of a metal mesh whose holes have a maximum surface area of 2 mm^2 are allowed.

CR07PT.6.8.3.2 - The use of systems to increase the pressure inside the filter or air box using dynamic air pressure when the motorcycle is in motion is prohibited.

CR07PT.6.9 – ENGINE

CR07PT.6.9.1 - ENGINE GENERAL

CR07PT.6.9.1.1 - In all categories, only motorcycles equipped with single-cylinder, air-cooled, naturally aspirated engines are allowed as described in the following points. Except as expressly permitted in the following articles, the engine, in all categories, must remain completely original. The only engines allowed are the following:

- **Pit Bike 160:**
  - ZONGSHEN W150-G ((The most commonly used trade names for this configuration are: **GPX 155 – ZS 155**) with a cylinder capacity of 155,5 cc

  - YX (The most commonly used commercial names for this configuration are: **ZR1 – YX – LIFAN – TS8 – TOKAWA 2V**) with a displacement of 161.1cc

- **Pit Bike 190:**
  - **DAYTONA ANIMA FDX 190 4 Speed**
  - **DAYTONA ANIMA FSM 190 4 Speed**

In all Categories, the use of engines with FIM MotoMini World Series Set-Up is also allowed.

CR07PT.6.9.1.2 - Bore and stroke must remain original. (**See Appendix" Engines Details")**

CR07PT.6.9.1.3 - It is mandatory to use a protection on the engine side cover to be applied to the right clutch side crankcase. The motor protection cover must be secured using at least 3 iron alloy screws. The use of adhesives or adhesives cannot be considered as an alternative method of fastening to that of screws. The protective cover can be made of metal material (steel or aluminium), with a minimum thickness of mm. 3.

CR07PT.6.9.1.3 - The use of recovery tanks for venting the engine with a minimum capacity of 250cc is mandatory.

CR07PT.6.9.2 - CYLINDER HEAD

CR07PT.6.9.9.2.1 - It is compulsory to use the original head produced by the manufacturer. It is permitted to perform work by removing material (including polishing) and applying material (including surface treatment).

CR07PT.6.9.2.2 - The intake and exhaust ducts are free.

CR07PT.6.9.2.3 - Valves, valve seats, valve guides, tappets, oil seals are free, but the diameter of the valve head must remain as the original. (**See Appendix" Engines Details")**

CR07PT.6.9.2.4 - Springs, valve lockers and spring seats are free.

CR07PT.6.9.2.5 - It is allowed to rectify the plane of the head in contact with the cylinder to restore the surfaces, the volume of the combustion chamber and the squish height are free.

CR07PT.6.9.2.6- The spark plug is free.

CR.06.6.9.2.7 - The head gasket is free.

CR07PT.6.9.3 - VALVES TIMING DIAGRAM

CR07PT.6.9.3.1 – The camshaft is free.

CR07PT.6.9.3.2 - The timing chain is free.

CR07PT.6.9.3.3 - The timing chain sprockets are free.

CR07PT.6.9.4 - CYLINDER

CR07PT.6.9.4.1 - The cylinder must remain original. It is allowed to grind the plane of the cylinder in contact with the head to restore the contact surfaces with the engine head and the engine casings.

CR07PT.6.9.4.2 - Surface treatment of the inner wall of the cylinder is permitted.

CR07PT.6.9.4.3 – The cylinder base gasket is free.

CR07PT.6.9.5 - PISTON

CR07PT.6.9.5.1 - The piston is free.

CR07PT.6.9.5.2 - The set of rings, pin and retainers are free.

CR07PT.6.9.6 - BIELLA

CR07PT.6.9.6.1 - The connecting rod is free.

CR07PT.6.9.7 - CRANKSHAFT

CR07PT.6.9.7.1 - The crankshaft is free.

CR07PT.6.9.7.1 - Lightening, weighing down or replacing the crankshaft is allowed.

CR07PT.6.9.8 - ENGINE CRANKCASE

CR07PT.6.9.8.1 - The engine casings must be EOM. Side covers are free.

CR07PT.6.9.8.2 - The original engine vent is free. It is permitted to drill a hole to apply an additional vent on the timing cover on the head (Pit Bike 160 engine) or on the valve cover (Pit Bike 190 engine).

CR07PT.6.9.8.3 - The use of systems designed to reduce the pressure inside the engine crankcases is prohibited.

CR07PT.6.9.8.4 - Crankcases and engine covers may be repaired by welding or with material.

CR07PT.6.10 - TRANSMISSION

CR07PT.6.10.1 - PRIMARY TRANSMISSION

CR07PT.6.10.1.1 - The gears of the primary drive (on the crankshaft and clutch) are free.

CR07PT.6.10.2 - CLUTCH

CR07PT.6.10.2.1 - The clutch, including springs, driven and conductor discs are free, the clutch control must remain the same type as the original engine.

CR07PT.6.10.2.2 – a slipper clutch kit is allowed.

CR07PT.6.10.3 - GEARBOX

CR07PT.6.10.3.1 - The number of gears, their layout, the gear selection system and the gear engagement mechanisms are free but must remain the same system as those of the original engine. Surface treatments to reduce friction (including polishing and superfinishing) are permitted. Surface treatment to reduce friction (including polishing and superfinishing) is allowed.

CR07PT.6.10.3.2 – The gear ratio is free.

CR07PT.6.10.3 - FINAL TRANSMISSION

CR07PT.6.10.3.1 - The final transmission (countershaft sprocket, rear wheel sprocket, and chain) is free.

CR07PT.6.10.3.2 - On all motorcycles, if it is not an integral part of the swing-arm, a solid protective cover (shark fin) shall be fixed to the swing-arm, and must always cover the opening between the lower chain run, swing-arm and the rear wheel sprocket; irrespective of the position of the rear wheel, to prevent the rider from being trapped between the chain and the rear wheel sprocket.

CR07PT.6.10.3.3 - The chain guard fin must be constructed using metal or rigid plastic material as long as it has a sufficient thickness to guarantee its protective function.

CR07PT.6.11 - COOLING AND LUBRICATION SYSTEM

CR07PT.6.11.1 - OIL COOLER

CR07PT.6.11.1.1 - The oil cooler may be fitted but cannot be mounted on or above the rear fender. The use of protective grilles to protect the oil cooler is permitted as well as recommended.

CR07PT.6.11.2 - OIL CIRCUIT

CR07PT.6.11.2.1 - All external components of the oil circuit, the intake and exhaust plugs, the oil filter and the pressurized oil hoses, must be tightened with appropriate torques. It is mandatory to use gaskets and secure all components with a binding wire in order to guarantee a perfect seal of the circuit.

CR07PT.6.11.2.2 - Oil lines containing positive pressure, must be of braided reinforced construction with swaged or threaded connectors

CR07PT.6.12 - ELECTRICAL SYSTEM

CR07PT.6.12.1 - GENERAL ELECTRICAL SYSTEM

CR07PT.6.12.1.1 - Electrical system means the assembly of all the devices, instruments, electrical and/or electronic wiring necessary for the operation of the motorcycle, engine management, display, transmission and data acquisition. Except as specified in the following articles, the electrical system is free.

CR07PT.6.12.2 - WIRING AND ELECTRICAL CONTROLS

CR07PT.6.12.2.1 - The main wiring harness is the assembly of connections (cables and connectors) necessary to connect the components of the motor control system.
Electrical controls are the switches and buttons connected to the engine control unit (ECU) or other devices. Included among the electrical controls are the push-button panels on the handlebars, the switches on the instrument panel and the ignition lock. The main wiring is free.

CR07PT.6.12.2.2 - On the right or left side of the handlebar, a red switch or button (kill-switch) must be installed, which allows the engine to be switched off. The kill-switch must be positioned so that it is easily operated by the pilot when holding the grip and must be kept operational and functional at all times during the event.

CR07PT.6.12.3 - IGNITION AND ENGINE CONTROL

CR07PT.6.12.3.1 - Ignition and engine control system means the set of devices that manage and regulate the operation of the engine. The engine control unit (ECU), ignition coil, spark plug, rotor and stator are part of the ignition and engine control system.

In all Categories, the use of ignition and engine control systems with FIM MotoMini World Series Set-Up is also allowed.

CR07PT.6.12.3.2 - The ignition and engine control system (rotor, stator, engine control unit (ECU) and coil) must be kept original. Rotating the stator or rotor and moving the pick-up beyond what the original fixing slots allow, is prohibited. It is forbidden to remove the rotor key. Stators without internal windings of the lighting and battery supply system are permitted.

CR07PT.6.12.3.3 - All motorcycles must be equipped with original control units (ECUs) and ignitions fitted as standard on the engines admitted to the Championship. Daytona replica control units and control units that can be mapped or interfaced with PCs are forbidden (**See the Appendix "Ignition and Engine Control".**).

CR07PT.6.12.4 - SENSORS AND MOTOR CONTROL

CR07PT.6.12.4.1- The use of electronic shift assistance systems (quick-shifter) is prohibited.

CR07PT.6.12.4.2- No additional control units or sensors except those originally mounted on the engine can be added in order to implement engine control strategies. The sensors originally mounted on the engine must be kept original.

CR07PT.6.12.5 - ADDITIONAL EQUIPMENT

CR07PT.6.12.5.1 - With the exception of what is authorized in the following articles, any additional electrical or electronic component (sensor, display unit) is forbidden.

CR07PT.6.12.5.2 - The use of electronic equipment with IR (infrared), GPS or radio technology for timing (electronic finish lines) is allowed.

CR07PT.6.12.5.3 - It is allowed to mount one or more systems (dashboards, displays, etc.) to display the parameters indicated in the following points.

a) Engine rpm
b) Oil temperature
c) Lap Time
d) Engine hours

CR07PT.6.12.5.4 - The use of integrated dashboards with electronic milestone function, geo-location and data acquisition is allowed. Data acquisition must be limited to the channels indicated in the list below.

a) Engine rpm
b) Oil temperature
c) Lap Time
d) Engine hours
e) Location and speed (via GPS signal)

CR07PT.6.12.5.5 - The presence of cables or electronic components that are not permitted or of an undetermined nature is equated to a technical irregularity.

CR07PT.6.12.5.6 - The use of electronic equipment of any kind, for the purpose of transmitting information (data or voice) to or from a motorcycle while it is moving with the engine running (telemetry), is forbidden.

Exceptions to this are lap time display devices on board the motorcycle and any data transmission and/or reception devices (e.g. video devices, timing equipment, etc.) provided by the organiser and by the Race Director.

CR07PT.6.13 - BODYWORK

CR07PT.6.13.1 - BODYWORK GENERAL

CR07PT.6.13.1 - All exposed edges of the body must be rounded. Each component of the bodywork must be presented in good condition and with fastening systems to the motorcycle such as to prevent detachment when the motorcycle is on the track, in compliance with the rules of these Regulations.

CR07PT.6.13.1.2 - No part of the motorcycle must exceed the vertical plane tangent to the rear part of the rear tyre.
No part of the motorcycle must exceed the vertical plane tangent to the front of the front tYre.

CR07PT.6.13.2 - FAIRING

CR07PT.6.13.2.1 – Pit Bike motorcycles must be without a fairing.

CR07PT.6.13.3 - PROTECTIVE SHIELD

CR07PT.6.13.3.1 – Motorcycles must be equipped with a protective shield, installed under the engine, to act simultaneously as a protection and as a reservoir to collect losses of oil or coolants which may occur in case of an engine breakdown

CR07PT.6.13.4 - MUDGUARDS

CR07PT.6.13.4.1 - The use of mudguards is compulsory. Mudguards must be of such dimensions that they do not cause danger in the event of contact with other riders and that they provide effective protection against dirt, water and any debris thrown up by the tyres. Carbon may not be used as a construction material for mudguards.

CR07PT.6.13.5 - RACE NUMBERS

CR07PT.6.13.5.1 - The colours of the background and race numbers must be those indicated in the following points.

CATEGORY	TABLE	NUMBER
a) Pit Bike 160	**White**	**Red**
b) **Pit Bike 190**	**White**	**Black**

CR07PT.6.13.5.2 - The characters used for the race numbers must be clearly legible.
The front and side race numbers must have a minimum height of mm. 100. The width and thickness of the numbers, the distance between the numbers, the distance of the numbers from the edge of the table must be such as to ensure perfect legibility when the motorcycle is on the track. Race numbers cannot overlap. Reflective or mirrored race numbers are forbidden.
In the event of disputes regarding the legibility of the number plates, the decision of the Chief Technical Steward is final.

CR07PT.6.13.5.3 - The number plates must be displayed at the front and on both sides of the motorcycle so as to be clearly visible to spectators, timekeepers and Marshals present on both sides of the track and must be positioned on the motorcycle respecting the following articles.

CR07PT.6.13.5.4 - The front number plate must be displayed in the centre of the front of the motorcycle, possibly on a surface with a maximum inclination of 30° with respect to the vertical.

CR07PT.6.13.5.5 - The side number plates must be displayed on the rear of the motorcycle. The rider's legs, riding the motorcycle, must not cover (even partially) the numbers and the side number plates.

CR07PT.6.13.5.6 - The use of a maximum of 2 digits for the race numbers is allowed, subject to compliance with visibility.

CR07PT.6.14 - EXHAUST SYSTEM

CR07PT.6.14.1 - Exhaust system means the assembly of exhaust pipes, silencers and related fasteners.

CR07PT.6.14.2 - Except as specified in the following articles, the exhaust system is free.

CR07PT.6.14.3 - The exhaust gases must be expelled backwards in such a way as not to raise dust, not to soil the brakes or tyres, or to disturb the riders behind in any way.

CR07PT.6.14.4 - The end of the exhaust pipes of a motorcycle must not protrude beyond the vertical tangent to the rear tyre, it must be horizontal and parallel (tolerance +/- 10 mm) to the longitudinal axis of the motorcycle for a minimum length of 30 mm. All ends of the drain must be rounded to avoid sharp edges.

CR07PT.6.14.5 - Variable-length exhaust systems are prohibited.
Except for parts in contact with the fairing and parts that may come into contact with the rider's feet (or other parts of the body), wrapping material around the exhaust pipes is prohibited.

CR07PT.6.14.6 - In all categories the maximum noise limit is 102 dB/A at an engine speed of 5500 rpm (with 3 dB/A tolerance only after the race).

CR07PT.6.15 - HARDWARE, FASTENERS AND BEARINGS

CR07PT.6.15.1 - Except as set out in the following articles, bolts, fasteners and bearings are free

CR07PT.6.15.2 - The use of titanium or aluminium bolts and titanium or aluminium and carbon fiber or Kevlar fasteners is prohibited.

CR07PT.6.15.3 - The bearings must have the same technical characteristics as the original ones. Bearings with ceramic coatings and/or Teflon cages are forbidden.

CR07PT.6.15.4 - The original engine bolts can be replaced with another of the same size and with a strength class equal to or higher than the original.

CR07PT.6.15.5 - The engine bolts cannot be subjected to any machining or dimensional modification compared to the original bolts. Where required, it is permitted to drill holes for the passage of the safety tying wires, but any modification tending to lighten is prohibited.

CR07PT.6.15.5 - Thread recovery is allowed using helicoil or time-sert.

CR07PT.6.16 - CONSTRUCTION MATERIALS

CR07PT.6.16.1 - The use of titanium for the construction of the frame, front fork, swingarm, swingarm pivot and handlebars is prohibited.
The use of composite materials as a construction material for triple clamps, handlebar wristbands, handlebars, footrest mounts, footrests, wheel rims, mudguards, handguards, side panels and conveyors is forbidden.

CR07PT.6.16.2 - The brake rotors of the brake discs and the wheel spindles must be made of iron alloy.

CR07PT.6.16.3 - Unless otherwise specified in the Class Regulations, only bolts made of steel, with a minimum strength class of 8.8, or grade 5 titanium bolts are permitted for fastening structural parts. Aluminium hardware can only be used for fastening non-structural parts.

CR07PT.6.16.4 - Fasteners may be drilled for the passage of the binding wires, modifications aimed at lightening are prohibited.

CR07PT.6.16.4 - In the event of a dispute, the final decision on the suitability of the hardware rests with the Chief Technical Steward in charge. Failure to comply with the regulations on construction materials is sanctioned as a technical irregularity.

CR07PT.6.17 - ENVIRONMENTAL PROTECTION

CR07PT.6.17.1 - Even on asphalt surfaces or inside the boxes, it is **mandatory** to use mats in the areas of the paddock where motorcycles are sheltered and/or where maintenance work is carried out on the motorcycles themselves. The mats must be of such size and materials as to prevent the spreading of liquids, solvents, oils, paints or any other product harmful to the environment on the ground.

Appendix - "Ignition and Engine Control"

ENGINE PIT BIKE 160cc can use the following Ignition system:

- **ZR1 – YX – Lifan 2015 – TS8 – Tokawa 2V**
- **GPX 155 – ZS 155**

ECU
Variable Advance Angle
Medium Weight
Flywheel weight: 630 gr.
Digital ECU (YX - GPX) with 8-pin connector

ECU
Fixed Advance Angle
Medium Weight
Flywheel weight: 530 gr.
ECU Model (YX) with 5-pin connector

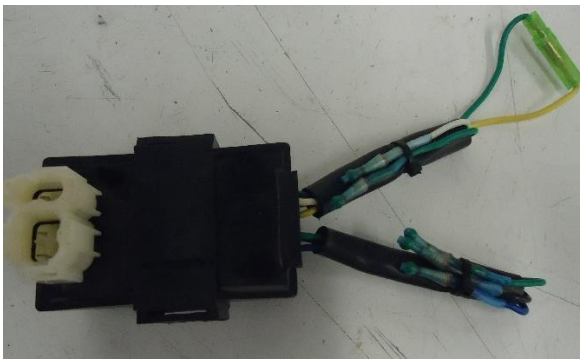
<u>ENGINE PIT BIKE 190cc</u> can use the following Ignition system:

- **DAYTONA ANIMA FDX 190 4 Speed**
- **DAYTONA ANIMA FSM 190 4 Speed**

ECU
Variable Advance Angle
Medium Weight
Flywheel weight: 630 gr.
Digital ECU with 8-pin connector

ECU
Variable Advance Angle Daytona
4 pole

ECU with adjustable REV limiter



Appendix - "Engines Details"

PIT BIKE 160 cc ENGINE TYPE A

Engine of displacement 155 model ZS-W150G. The most commonly used trade names for this configuration are: GPX 155 - ZS 155

Engine 4 Stroke, 2 valves, 4 speed Zongshen ZS-W150-G	
Engine Model	Zongshen W150-G
Bore and Stroke (mm)	60,0 x 55,0
Total Capacity (cc)	cc 155,53

Engine Head Model	The original Zongshen 2 valve model
Intake valve	"ZS" model mm 28,00
Exhaust valve	"ZS" model mm 23,00
Cylinder model	The original Zongshen 2 valve model
Number of gears	4 Gears
Gearbox ratios	Free

PIT BIKE 160 cc ENGINE TYPE B

Engine of displacement 161,1 model "YX". The most commonly used trade names for this configuration are: ZR1 - YX - LIFAN - TS8 - TOKAWA 2V

Engine 4 Stroke, 2 valves, 4 speed YX - ZR1	
Engine Model	"YX"
Bore and Stroke (mm)	60,0 x 57,0
Total Capacity (cc)	cc 161,10
Engine Head Model	The original "YX" model
Intake valve	The original "YX" model mm 28,00
Exhaust valve	The original "YX" model mm 23,00
Cylinder model	The original "YX" model
Number of gears	4 Gears
Gearbox ratios	Free

PIT BIKE 190 cc CLASS

Engine of displacement 190 model Daytona Anima 190. The models used for this configuration are: DAYTONA ANIMA 190 FDX - DAYTONA ANIMA 190 FMS

Engine 4 Stroke, 4 valves, 4 speed Daytona 190 FDX - FSM	
Engine Models	Daytona 190 FDX - FSM
Bore and Stroke (mm)	62,0 x 62,0
Total Capacity (cc)	cc 187,18
Engine Head Model	The original Daytona 190 FDX / FSM 4 valves model
Intake valve	"Daytona" model mm 24,50
Exhaust valve	"Daytona" model mm 21,00
Cylinder model	The original Daytona 4 valve model
Number of gears	4 Gears
Gearbox ratios	Free