

# MALOSSSI®

## TROFEO NAZIONALE SCOOTER VELOCITÀ MALOSSSI 2022 TECHNICAL REGULATIONS

Unless otherwise specified in these Regulations, all scooters must comply with that established in the *Regolamento Tecnico Generale di Sicurezza* (General Safety Technical Regulations, hereinafter RTGS). For all that not specified in these Regulations and in the RTGS, all parts of the scooter must be originals, i.e., as originally produced by the manufacturer. Unless otherwise specified in these regulations, mandatory or optional Malossi branded parts replacing the originals must remain as produced by the manufacturer, with no modifications allowed.

The term "original" refers to all the components built by the manufacturer of the vehicle itself for the exact vehicle model in use, as first equipment or as spare parts. Components built by other manufacturers other than the one that built the scooter in use or components built for other models (even from the same manufacturer) won't be considered "original".

All the mandatory or optional MALOSSSI parts, replacing original components, must remain as built from MALOSSSI and cannot be modified in any way.

Only when explicitly authorized in the present technical regulations, it's admitted to use parts from other brands not considered as "competitors" with MALOSSSI. With the term "competitors" are indicated all the manufacturers producing components destined to the same market segment and core business of MALOSSSI. In the case of necessity of a clarification about the conformity of a component from a brand different than MALOSSSI the riders are strongly suggested to refer to the steward accountable to the technical verifications designated from the organization of Trofei Malossi. The final judgment of the inquired parts will be held by the organization itself. Not respecting this article will be considered as a technical irregularity.

### Art. 1 – General

#### 1.1 - Admitted scooters

**1.1.1 - Scooters with two wheels with a maximum rim diameter of 14", as well as Gilera DNA 50cc scooters, are admitted.**

1.1.2 - All scooters must have been type-approved as a moped by means of a certificate issued by the Ministry of Transport, or certificate of conformity by the countries of the European Single Market.

#### 1.2 - Admitted classes

1.2.1 - All scooters participate in the single class called ScooterMatic 100.

1.2.2 - Scooters having wheel rims with diameter from 12" to 14", in addition to the Gilera DNA 50, also participate in the class called SuperScooter.

#### 1.3 - Prohibited elements

The following elements must be removed from the scooters:

- Stand (both side and central).
- Luggage rack (base and frame).
- Rear top box.
- Saddlebags.
- Rear-view mirrors.

- Plate holder.
- Backrest.
- Footrest platforms (even if folding).
- Side and rear handles.
- The internal part of the front optical unit, rear optical unit and directional indicators (front and rear) must be removed, maintaining the original outer shell. Alternatively, the aforementioned elements can be replaced with fibreglass closing shells which maintain the shape of the originals.
- The rear optical unit can remain functional only if used as a rear light for qualifying session or races that have been declared wet, in compliance with that set out by the RTGS.
- Plate light.
- Horn.

#### 1.4- **Replacement parts**

- 1.4.1 - Unless otherwise specified, all parts used in replacement of the original ones must be exclusively manufactured by MALOSSSI, except for:
  - The tyres, of the brand and model indicated by the Cup promoter.
  - The spark plug, with free choice of brand, model and heat range within the limits of that provided for by the compression ratio regulations, provided it is available on the common market. The spark plug must remain as produced by the manufacturer, no modifications are allowed.
- 1.4.2 - In order to be mounted, the replacement parts must be included in the MALOSSSI S.p.A. sales catalogue as a specific part for the scooter model in use.
- 1.4.3 - Unless otherwise specified, in the event a specific replacement part is not included in the MALOSSSI catalogue, the only allowable part is the original one.

#### 1.5- **Mandatory parts**

- 1.5.1 - The parts listed below must necessarily be replaced with parts in the MALOSSSI catalogue specifically for the scooter model in use:
  - Complete cylinder kit.
  - Complete crankshaft and main bearings.
  - Reed valve block, intake manifold, Dell'orto carburettor by MALOSSSI.
  - Complete exhaust system (expansion and silencer).
  - Controller, coil.
  - Variator, variator rollers, toothed drive belt, fixed and rear mobile half-pulley, contrast spring.
  - Complete clutch, clutch bell, final drive ratio.
  - Front fork and rear shock absorber, shock absorber spring.

Other parts of the scooter may be indicated in the following articles, which must necessarily be replaced with parts in the Malossi catalogue.

#### 1.6 - **Optional parts**

- 1.6.1 - The list of optional parts can be expanded by the Cup Organiser during the season.
- 1.6.2 - The use of new MALOSSSI parts specifically for the scooter model in use is regularly allowed starting from 30 (thirty) days after the start of their commercialisation in the common market. In certain special cases MALOSSSI may authorise the use of said parts starting from a specific date, which will be communicated with sufficient notice through the official MALOSSSI Cups website (trofei.MALOSSSI.com). The aim of this rule is to give all registered riders the chance to access new parts at the same time.

#### 1.7 - **Application of leaden seals to scooter**

- 1.7.1 - For each event, each Rider is entitled to apply a leaden seal to one scooter only.

#### 1.8 - **Minimum allowable total weight**

- 1.8.1 - The total weight is defined as the sum of the weight of the scooter in running order (as defined in the RTGS) and the weight of the Rider with their racing equipment. The total minimum allowable weight is:



- 145 Kg for scooters with 10" wheel rim diameter.
  - 155 Kg for scooters with wheel rim diameter between 12" and 14", and for Gilera DNA scooters.
  - 165 Kg for competitors in the Maxi class
- 1.8.2 - The use of counterweights in accordance with the provisions of the RTGS to reach the minimum weight, is allowed. The maximum allowable weight of the counterweight to be eligible for the Maxi class is 5 (five) Kg.
- 1.8.3 - The weight is measured at the end of the race, the Rider must present themselves for weighing operations in their racing gear in the parc fermé with his own scooter, at the end of the session immediately after leaving the racetrack. The late or completely missing appearance at the parc fermé of the scooter will be sanctioned as stated in the current Regolamentoo Velocità.

## **Art. 2 – Chassis set-up**

### **2.1 - Frame**

- 2.1.1 - Except as specified in the articles below, the frame in all its parts, including the engine connections, must remain as originally produced by the Manufacturer for the type-approved scooter. It is prohibited to modify or lighten the supporting parts of the frame, including the body mounts. Mounts can be added in order to install the radiators referred to in article 10.
- 2.1.2 - The joints of the original system of anti-vibration connecting rods supporting and/or joining the engine to the frame can be replaced provided they can be mounted without needing to modify the connecting rods or engine mounts. Said system can be replaced with the specific MALOSSSI one for the scooter model in use.
- 2.1.3 - For the Piaggio Typhoon scooter only, the original system of anti-vibration connecting rods can be modified in order not to obstruct the passage of the exhaust pipe. The only changes allowed concern the creation of a recess in the inner part of the arm, and the addition by welding of a reinforcement bracket on the opposite side and parallel to the axis of the arm itself, which joins with the engine mount.
- 2.1.4 - For the Piaggio Typhoon scooter only, an additional control arm can be mounted between the crankcase and the rear wheel pin in order to reduce vibrations and prevent cracks and breakages. Said control arm must necessarily be the one marketed by Race Service MALOSSSI, or alternatively the one intended for Piaggio scooters equipped with LEADER engine block, possibly modified to be adapted to the scooter model.
- 2.1.5 - The following elements can be removed:
- Side and/or central stand mount.
  - Padlock attachment point.
  - Passenger footrest mounts.
  - Original electrical system support plates.
  - Steering lock bracket.

### **2.2 - Handlebar and throttle controller**

- 2.2.1 - The handlebar (including its position) must remain as originally produced by the Manufacturer of the scooter.
- 2.2.2 - The original throttle controller can be replaced with a quick throttle controller. The throttle controller must automatically close once released and remain inside the handlebar terminal.

## **Art. 3 – Suspensions**

### **3.1 - Front fork**

- 3.1.1 - The front suspension must be replaced with another in the MALOSSSI catalogue, specifically for the scooter model in use.
- 3.1.2 - Only in the event a MALOSSSI front suspension specifically for the scooter in use does not exist, can a MALOSSSI front suspension designed for another scooter model be adapted and/or modified, provided the original front suspension type is maintained.
- 3.1.3 - The fork springs are of free choice. The hydraulic calibration can be modified by adjusting the petals and oil type and level.



- 3.1.4 - The scooter's steering axis can be modified for ZIP SP scooters for the sole purpose of removing (by turning) the lower stop and lengthening the upper thread.
- 3.1.5 - If the front suspension set-up includes a single shock absorber, the shock absorber springs can be changed and the hydraulic calibration can be modified by adjusting the petals and the oil. The springs can be Malossi or of free choice (excluding components from competitors of MALOSSSI), and in any case must have a white coloured surface finish.
- 3.1.6 - In single shock absorbers where a charge valve is not normally included, this can be installed on the gas tank.
- 3.1.7 - The steering rod bearings are free of a manufacturer choice, excluding brands competitors of MALOSSSI. The bearing's seats must remain original.

### **3.2. - Rear shock absorber**

- 3.2.1 - The rear shock absorber must be replaced with another in the MALOSSSI catalogue.
- 3.2.2 - Only in the event a MALOSSSI shock absorber specifically for the model in use does not exist, can the shock absorber frame and engine mounts be modified for the sole purpose of allowing the mounting of a MALOSSSI shock absorber designed for another scooter model.
- 3.2.3 - The shock absorber springs can be changed and the hydraulic calibration can be modified by adjusting the petals and the oil. The springs can be Malossi or of free choice (excluding components from competitors of MALOSSSI), and in any case must have a white coloured surface finish.
- 3.2.4 - In single shock absorbers where a charge valve is not normally included, this can be installed on the gas tank.
- 3.2.5 - The rear suspension articulation set-up must remain as originally produced for the type-approved scooter.

### **Art. 4 – Braking system**

- 4.1 - Except as specified in the articles below, the braking system must remain as originally produced by the Manufacturer for the type-approved scooter.
- 4.2 - The pumps, callipers, pads, brake shoes and brake lines (front and rear) are of free choice within the limits of that specified in the RTGS, provided the brand is not a MALOSSSI competitor.
- 4.3 - The original brake discs (front and rear) can be replaced with MALOSSSI brake discs.
- 4.4 - In the event brake callipers are used different to the originals, any type of brake pad can be used provided the brand is not a MALOSSSI competitor. If brake pads for a certain calliper model do not exist, changes can be made to the brake pads necessary to allow their housing on the calliper. Said changes must not compromise the safety and reliability of the pads in any way, must not affect the calliper mounting area and must be declared during the Preliminary Operations to the Cup Organiser's representative for approval. The representative has the right to check that the modification has been made in accordance with best practices and in compliance with the above. The final judgement on the suitability of the part rests with the Cup Organiser's representative. Failure to comply with this article shall be considered a technical irregularity.
- 4.5 - In the event a radial type brake pump with separate tank is used, said tank must be firmly anchored to the handlebar and be positioned in a safe zone so as not to be damaged in the event of contact with other scooters.
- 4.6 - For scooters with front brake disc with maximum diameter 160 mm, MALOSSSI brake discs with greater diameter designed for other scooters with the same displacement can be adapted, using a spacer to reposition the front brake calliper. Said spacer is of free choice provided it is fixed in all the original mounting points of the calliper by means of securely tied bolts, and provided the brand is not a MALOSSSI competitor. Said system must be declared by the rider to the Cup Organiser and to the Technical Commissioner for their approval. The final judgement on the suitability of the part rests with the TC. Failure to comply with this article shall be considered a technical irregularity.
- 4.7 - The type of rear braking system can be changed from drum to disc or vice versa, only for scooters fitted with a Malossi crankcase. In this case the rear wheel can be replaced with another provided it originally equips a mass-produced scooter.

### **Art. 5 – Wheel Rims and Tyres**

#### **5.1 - Wheel rims**

- 5.1.1 - Except as specified in the previous and following articles, the wheel rims must remain as originally produced by the Manufacturer for the type-approved scooter.



- 5.1.2 - On scooters originally equipped with 13" or 14" front wheel rims, except for the Gilera DNA, 12" rims mounted standard on Gilera Runner 50, Malaguti Crosser and Yamaha Jog R models can also be mounted.
- 5.1.3 - On scooters originally equipped with 13" rear wheel rim, 12" rims originally mounted on Gilera Runner 50, Malaguti F12 models are allowed.
- 5.1.4 - Piaggio Typhoon scooters equipped with additional control arm must necessarily use, in replacement of the original one, the rear wheel pin marketed by Race Service MALOSSSI, or by Malossi S.p.A., specifically for the scooter model in use.
  
- 5.2 - **Tyres**
  - 5.2.1 - The only tyres allowed are those indicated by the Cup Organiser.
  - 5.2.2 - The allowable tyre models are:
    - For dry qualifying sessions or races: MALOSSSI branded Mitas, in the sizes distributed by the Cup Organiser and envisaged for the scooter model in use.
    - In the event the Race Director declares the qualifying sessions or race as wet, the use of rain tyres is allowed. The brand, model and blend of the rain tyres is of free choice, provided their size complies with that indicated by the Cup Organiser and envisaged for the scooter model in use.
  - 5.2.3 - For the DNA scooter model only:
    - Any tyre available for sale in the common market can be mounted, provided the sizes reported in the scooter registration certificate are complied with.
  - 5.2.4 - If deemed necessary, the Cup Organiser reserves the right to update the list of allowable tyres, informing the Riders and Teams through the official communication channels (the website first and foremost), no less than fifteen days before the update itself comes into effect.

#### **Art. 6 - Fuel tank and fuel**

- 6.1 - The fuel tank must remain as originally produced by the Manufacturer for the type-approved scooter. On Piaggio ZIP SP first series scooters (produced until 2000), in partial derogation of that established by the RTGS, the oil tank can be maintained and used as an additional fuel tank.
- 6.2 - Use of the MALOSSSI fuel pump is allowed and recommended.
- 6.3 - The fuel supply valve and pipes can be replaced or modified.
- 6.4 - The only fuel allowed is the "green" type compliant with the Italian Motorcycling Federation (IMF) regulations in force ("Fuels" annex to current Speed Regulations).

#### **Art. 7 – Supply**

##### **7.1 - Carburettor**

- 7.1.1 - Except as specified in the following article, the only carburettors allowed in the ScooterMatic class are Dell'Orto MALOSSSI, PHBG BS with diffuser measuring 19 mm (cod. 16-11021 T0) and "tapered" Dell'Orto MALOSSSI with diffuser measuring 21 mm (cod. 16-13890).
- 7.1.2 - On scooters participating in the SuperScooter and Maxi classes, it is possible to mount the Dell'Orto MALOSSSI VHST carburettor with diffuser measuring 28 mm (cod. 1616276).
- 7.1.3 - The carburettors indicated in the previous articles must remain as originally produced by the Manufacturer, no changes are allowed except for replacement of the elements able to modify the carburetion.
- 7.1.4 - All the air entering the supply system must pass through a filter sponge (filter/s) that prevents impurities from entering the engine. The maximum surface area of any air passage holes through the filter sponge must be mm<sup>2</sup> 2. No changes are allowed to any part of the filter sponge.

##### **7.2 - Intake manifold**

- 7.2.1 - The type of intake must remain as originally produced by the Manufacturer for the type-approved scooter.
- 7.2.2 - Changes to the intake manifold are allowed.
- 7.2.3 - A spacer can be interposed between the manifold and the reed valve block.



### **7.3 - Reed valve block**

7.3.1 - Use of the Malossi reed valve block is mandatory.

7.3.2 - In order to house the replacement reed valve block, the intake pipe can be modified, only by removing material, provided the original height of the support surface of the reed valve block is not changed.

## **Art. 8 – Engine**

### **8.1 - Cylinder head**

8.1.1 - The compression ratio must have a maximum value of 15.3:1. The compression ratio is measured in compliance with the current IMF regulations ("Displacement and compression ratio" annex to current Speed Regulations). In partial derogation to that set out by the current Speed Regulations on the compression ratio measurement, a tolerance of 0.5 is allowed.

8.1.2 - The spark plug, once fixed to the cylinder head, cannot protrude into the internal part of the combustion chamber, except for the electrodes.

### **8.2 - Cylinder**

8.2.1 - For all scooters, the maximum allowable displacement is 70cc.

8.2.2 - The maximum displacement can only be obtained by increasing the bore. The piston stroke must necessarily remain the standard type through use of the specific Malossi crankshaft with relative main bearings.

8.2.3 - The only works allowed on the cylinder are those involving the removal of material. Overlaying or the addition of material (of any type) is prohibited.

### **8.3 - Crankcases**

8.3.1 - Except as specified in the following articles, the only works allowed on crankcases are those involving the removal of material; overlaying or the addition of material (of any type) is prohibited.

8.3.2 - Only C-One MALOSSİ crankcases are allowed, specifically for the scooter model in use.

8.3.3 - A bush can be inserted between the main bearing and its seat, and in the housing seat of the final drive ratios in order to rectify any play resulting from the wear of said seats.

8.3.4 - The crankcase can be repaired by welding provided the following conditions are satisfied:

- The crankcase must not be broken, and in any case any cracks or lesions must not extend for more than half of its total size.
- The repairs must not compromise the structural integrity of the crankcase.
- The repairs must be limited to the damaged area; it is prohibited to add material to other parts of the engine.

8.3.5 - If the crankcase is repaired, the repair must be declared to the Cup Organiser's representative. The representative and Technical Commissioner have the right to check that the repair has been carried out in accordance with best practices, that the crankcase itself is intact and functional in all its parts, and that no unauthorised internal modifications have been made. The final judgement on the suitability of the part rests with the TC. Failure to comply with this article shall be considered a technical irregularity.

### **8.4 - Ignition cover**

8.4.1 - The ignition flywheel cover must remain original, the only changes allowed are those aimed at improving the cooling of the internal parts. Said changes must not compromise the structural integrity of the piece.

### **8.5 - Transmission cover**

8.5.1 - The original starter system and transmission cover can be changed in order to promote the cooling and cleaning of the internal parts, or to increase the ground clearance. This change must be made on or with original pieces produced by the manufacturer of the engine mounted on the scooter, without the addition of material by welding and without compromising the structural integrity of the piece.

8.5.2 - The original transmission cover can be replaced with the Malossi one specifically for the scooter model in use.

8.5.3 - A conveyor can be mounted on the transmission cover to improve the cooling of internal parts. Said conveyor must be firmly secured to the cover without protruding from the profile of the scooter.

### **8.6 - Side cover fixing**



- 8.6.1 - The flywheel, starter system and transmission covers must be secured with all the screws envisaged by the manufacturer of the engine mounted on the scooter.

#### **Art. 9 – Transmission and starter system**

- 9.1 - The clutch must be the Malossi one.
- 9.2 - The only clutch bell allowed is the MALOSSSI Wing Clutch Bell MHR or MALOSSSI Wing Clutch Bell.
- 9.3 - The variator, final drive ratios, toothed drive belt and centrifugal weights must be the Malossi ones.
- 9.4 - The variator can be modified only by the removal of material. Surface finishing treatments on the toothed belt sliding track are allowed.
- 9.5 - On Yamaha–Minarelli engines, a primary gear support bearing can be added, replacing the original primary gear with the one designed for this application.
- 9.6 - The starting lever is of free choice provided it is the retracting type with an efficient lock spring.
- 9.7 - The original gears cover can be replaced with the MALOSSSI one.

#### **Art. 10 - Cooling system**

- 10.1 - On scooters originally equipped with air cooling systems, a water cooling system can be installed provided the additional radiators and relative piping do not protrude from the bodywork of the scooter and are firmly secured to the frame.
- 10.2 - The original radiator can be replaced or supplemented by a MALOSSSI radiator specifically for the scooter model in use. On scooter models for which specific MALOSSSI radiators do not exist, a maximum of two radiators originally mounted on a scooter with the same displacement can be mounted, or a MALOSSSI radiator designed for another model, even if modified.
- 10.3 - As a potential secondary radiator, either the scooter's original radiator (if present) can be maintained, or the original radiator of another scooter with the same displacement can be mounted.
- 10.4 - A MALOSSSI Energy Pump electric water pump can be mounted, combined with the MALOSSSI Heat Master controller.

#### **Art. 11 - Bodywork**

- 11.1 - The original bodywork can be replaced with an aesthetic duplicate of the original in fibreglass, provided all the original fixing points are maintained and used. Only functional modifications are allowed to adapt the bodywork to competition use, as specified in the following articles.
- 11.2 - If the original shells of the front optical unit, rear optical unit and directional indicators are maintained, they must be taped.
- 11.3 - The original shell of the rear light must be left free of the tape referred to in the previous article only in the event it is used as a rear light when the Race Director declares the qualifying session or race to be wet, or in conditions of reduced visibility at the discretion of the Race Director.
- 11.4 - The plastic elements of the handlebar can be modified in order to mount a quick throttle controller and the radial brake pump. This modification must be made in such a way as to alter the original aesthetics of the scooter as little as possible.
- 11.5 - The dashboard/flyscreen/light unit and relative handlebar of Piaggio Zip SP models produced from 2000 onwards can be mounted on earlier Piaggio Zip SP models.
- 11.6 - The drilling of holes to improve radiator cooling is allowed. Said holes must have a maximum diameter of 14 mm and total maximum surface area equal to that of the cooling system and can only be made on the portion of the bodywork in front of and behind the cooling system.
- 11.7 - If the radiator is positioned behind the front lights, the holes referred to in the previous article can also be made on the outer shell of the front lights, only in the cooling system area. Complete removal of the front lights shell to improve radiator cooling is prohibited. Even in the presence of holes, the front lights outer shell must be taped.
- 11.8 - Conveyors can be applied inside the front fairing and only in correspondence of the cooling system surface, to promote the correct flow of air. Said conveyors must never protrude beyond the profile of the front fairing.
- 11.9 - All scooters except for the Gilera Runner must have an opening to allow inspection of the cylinder kit by the Technical Commissioners. Said opening must have dimensions no larger than 15x15 cm if rectangular, or a diameter no greater



than 20 cm if circular. On Aprilia Sr, Yamaha Aerox, MBK Nitro, Malaguti F12 scooters, the opening can be obtained by removing the battery inspection hatch.

- 11.10 - The rear mudguard must be cut in such a way that it remains inside the rear wheel profile. For models for which it is available, the original mudguard can be replaced with the one produced by Malossi S.p.A.
- 11.11 - The front mudguard must remain as originally produced by the Manufacturer for the type-approved scooter. The front mudguard mounts can be modified to facilitate their removal or to prevent touching with the wheel.
- 11.12 - A maximum of 4 fairing pads can be mounted provided they do not protrude from the side profile of the scooter. Said pads must have a rounded shape with diameter no less than 5 cm and be made of plastic (non-metallic) material. In order to position the fairing pads, the fairing can be drilled provided the size of the holes made does not exceed the size of the pads.
- 11.13 - The seat must be the original one and be fitted with a locking system to prevent accidental opening.
- 11.14 - The backrest can be removed and the seat covering can be replaced, changing its colour and adding any logos and/or decorative embroidery, provided the displayed brands are not MALOSSSI competitors. Said changes must be approved the Cup Organiser.

#### **Art. 12 - Controller, Ignition and Devices**

- 12.1 - The only engine control units allowed are MALOSSSI ones specifically for the scooter model in use. Any modifications to the engine control unit are prohibited.
- 12.2 - The only allowed ignition is the MALOSSSI internal rotor one.
- 12.3 - The original devices (tachometers, water thermometers, etc.) can be removed or replaced with other types by brands that are not MALOSSSI competitors, provided they are mounted in the standard housing.
- 12.4 - The use of data acquisition systems is allowed provided they are not by MALOSSSI competitor brands.

#### **Art. 13 - Exhaust system**

- 13.1 - The exhaust pipe and silencer must be replaced with those in the MALOSSSI catalogue and cannot be modified.
- 13.2 - Repairs to the exhaust pipe are allowed provided the following conditions are satisfied:
  - The dimensions of the pipe as supplied by MALOSSSI are maintained.
  - The structural integrity of the exhaust system is not compromised.
  - The exhaust system remains aesthetically compatible with the system supplied by MALOSSSI.
- 13.3 - If the exhaust system is repaired, the repairs must be declared to the Organiser's representative. The representative and Technical Commissioner have the right to check that the repairs have been carried out in accordance with best practices, and that no internal modifications to the exhaust have been made. The final judgement on the suitability of the part rests with the TC. Failure to comply with this article shall be considered a technical irregularity.
- 13.4 - All silencers produced by MALOSSSI with external diameter no less than 60mm can be used.
- 13.5 - The use of mobile devices (valves, bulkheads, etc.) designed to vary the length, shape or flow area of the exhaust pipe is prohibited.
- 13.6 - Installation of a sensor is allowed for the sole purpose of detecting the temperature of the exhaust gas.
- 13.7 - The allowable sound level is 100 dB/A at 7.500 revs/min.

#### **Art. 14 – Summary of general safety rules**

**All scooters must comply with that specified in the General Safety Technical Regulations (*Regolamento Tecnico Generale e Sicurezza, RTGS*) included in the current Speed Regulations; riders and teams are therefore invited to read them. Several of the basic safety rules relating to scooters during their use on-track are reiterated by way of example but not exhaustive. In any case, the official and applicable regulations are those specified in the current RTGS:**

- The pre-race technical inspection (Preliminary Operations, PO) of scooters normally consists in a visual inspection by the TCs of the safety requirements and visible technical characteristics of the scooters set out in the Technical





Regulations for the Class or Cup. Under no circumstances may non-objection during the PO be used by riders as valid justification for the use of scooters that do not comply with the Technical Regulations.

- During the PO, each rider is entitled to apply a leaden seal to one scooter only. A leaden seal can be applied to the one scooter for a maximum of two different Classes within the same event, provided the technical rules of each Class are respected, as well as the times spent in the parc fermé. A replacement scooter can have a leaden seal applied in the event of proven technical reasons (e.g. accident, breakage, etc.) and must be agreed upon with the TC in charge. The scooter must be of the same brand and model as the one replaced.
- Applying a leaden seal consists in the application of a sticker, a seal in lead or indelible paint, on the frame of the scooter in a clearly visible and accessible area, at the discretion of the Technical Commissioner (TC) in charge. The seal application area must be presented free of previous seals, without any protections, and be perfectly degreased. At any time during the event, the scooter can be inspected to check that the leaden seal is in good condition and/or that the leaden seal is in the name of the rider of the scooter.
- During the preliminary operations (PO), the TC has the right to reject scooters deemed non-compliant with the current RTGS and Class or Cup Regulations. In the event of a dispute, the ultimate decision regarding the conformity of the scooters rests with the 1st TC. Said decision is final.
- The scooters must comply with the RTGS and the Class or Cup regulations at all times during the event; they are perfectly susceptible to inspections by the Race Commissioners, as well as during the PO and technical inspections, and also before entering the track or during qualifying sessions. The rider has an obligation and responsibility to ensure that the scooter complies with the safety regulations before each entry to the track, during the qualifying sessions, warm-up and race.
- The TC has the right to order tests (also destructive) on parts of the scooter deemed unsafe in order to simulate the effects of violent impact, falls, or other possible stresses resulting from use on the race tracks. Under no circumstances can the rider claim against the TC or IMF in order to be reimbursed for any damaged parts during said testing.
- The 1st TC has the right to remove the leaden seal on the frame of a scooter involved in an accident. Said scooter must undergo a new technical verification (with the application of another leaden seal) if the rider believes they can still participate. At any time during the event, the 1st TC has the right to summon a rider to check whether a scooter is deemed compliant, and if necessary, remove the leaden seal on the frame until such time as the scooter complies with the requests of the 1st TC.
- During a technical inspection, the TC in charge has the right to request, inspect, analyse, retain any part or data present on the scooter in order to determine its compliance. Refusal to comply with the requests of the TC is equated with a technical irregularity.
- The object of the technical inspections, instruments and other inspection methods is at the discretion of the TC in charge and cannot be appealed. Except as otherwise specified in the RTGS and in the Class or Cup regulations, no method or measurement tolerance is applied to the measurements taken.
- The angle of rotation of steering on both sides of the centre-line must be at least 15°. End stops or other equivalent devices must be mounted; under no circumstances can the steering shock absorber act as a device to limit the steering angle. In all steering and front suspension positions, the front wheel must never touch any part of the scooter.
- The exposed end of the handlebar, all control levers on the handlebar and of the platforms, must have rounded edges and a spherical end part.
- On the right half-handlebar or on the right side of the handlebar, a red coloured switch or button (kill-switch) must be installed, allowing the engine to be switched off. The kill-switch must be positioned in such a way that it can be easily activated by the rider when holding the grip, and must be kept operative and functional at all times during the event.
- The throttle control (mechanical or electronic) must close automatically when released by the rider. The mechanical throttle controls (also in the presence of a ride by wire system) must have 2 throttle cables, one to open and one to close the throttle. Scooters with carburettor/s on which the throttle cable is directly connected to a guillotine valve are an exception to the above.
- All scooters must have at least one functional braking system for each wheel axle.



- In all Classes it is mandatory to use a device (lever guard) that protects the front brake lever against any involuntary activation due to contact between two scooters.
  - Wheel rims made of composite material such as carbon and/or Kevlar, including those reinforced with carbon fibre or glass fibre, cannot be used.
  - The use of lenticular wheels and/or the use of wheel covers is forbidden.
  - It is possible and advisable to insert protective pads with rounded edges onto the ends of the wheel pins, with a maximum protrusion from the ends of the wheel pins of 30.
  - All tyres must be replaced when their wear exceeds the minimum value set by the manufacturer. Wet weather tyres can only be used if the race or qualifying session has been declared wet by the Race Director.
  - The fuel must be contained in a single tank. Except as expressly authorised in the Class or Cup Regulations, tanks made of composite material (e.g. glass fibre, carbon and/or Kevlar) are prohibited. Regardless of the material used to construct the tank, it is recommended but not mandatory to fill the tank with fireproof foam material (such as "Explosafe<sup>®</sup>").
  - Supercharging, regardless of the system used, is prohibited in all Classes. The air box can be communicating with the tank.
  - In all Classes, all the air entering the supply system must pass through a filter sponge (filter/s) that prevents impurities from entering the engine. The maximum surface area of any air passage holes through the filter sponge must be mm<sup>2</sup> 2.
  - On 2T scooters without air box, all crankcase breather pipes must end in one or more collection tanks located in an easily accessible position and firmly secured to the scooter. The minimum capacity of said tanks must be 250 cc.
  - The only authorised coolant in the water circuit is pure water, possibly mixed with ethyl alcohol.
  - The only cooling liquid admitted in the water circuit is pure water.
  - The filling plug of the water radiator must guarantee a perfect seal and must be secured with a binding wire that prevents accidental opening.
  - All oil filling and draining plugs must be tightened at the appropriate torque. The use of gaskets is mandatory, and all parts must be secured with a binding wire in order to guarantee perfect sealing.
  - A light with the following characteristics must be mounted on the scooters:
    - \* Have a red light beam, 10-15 Watts for incandescent lamps, and 0.6-1.8 Watts, for LED lamps.
    - \* When the scooter is on the track, the light beam must be continuous (not intermittent).
    - \* Be firmly mounted under or above the tail, in the rear part, near the centre-line of the scooter and be oriented so as to be clearly visible to those behind the scooter at an angle of 15° to the right and left with respect to the longitudinal plane of the scooter.
    - \* Be connected to the scooter's electrical system and activated by means of a switch preferably positioned on the handlebar or half-handlebar so as to allow the rider to turn the rear light on or off while riding the scooter. At the sole discretion of the 1st TC, the use of rear lights powered by an internal battery with switch activated by the rider when riding the scooter, may be allowed.
    - \* Have a watertight casing preventing the infiltration of water that would compromise its operation.
- The light must be turned on only when the Race Director declares the qualifying session or race as wet, and in cases of reduced visibility at the discretion of the Race Director, but must remain mounted and operational (ready for use) for the entire duration of the event.
- Each component of the bodywork must be presented in good condition and fixed to the scooter using systems that prevent detachment when the scooter is on the track, in compliance with the current RTGS.
  - The fonts used for the race numbers must be clearly legible, homogeneous in colour and possibly have a matt background so as not to reflect sunlight.
  - All riders must wear protective clothing in compliance with that indicated in the RTGS and in the "Protective clothing" annex of the current Speed Regulations. Full responsibility for the characteristics, suitability and correct use of protective clothing rests with the rider, however the Race Commissioners in charge (or their delegated staff in the organisation) reserve the right to carry out checks during the event, even randomly. Refusal on the part of the rider to have their protective clothing checked shall result in their exclusion from the event. Protective clothing must be



worn correctly in accordance with the Manufacturer's instructions and be in excellent condition, without any tears, scratches and/or broken parts such as to compromise its protective function.

#### **Art. 15 – Video recording devices**

As a partial exception to that provided for in the RTGS, the use of video recording devices is allowed provided the rules set out in the following points are respected:

- The organiser or promoter of the event may request authorisation from the Race Director for certain riders to mount and use said devices for commercial and/or promotional scopes. The Race Director has the right to refuse the mounting and use of the aforementioned devices.
- Via the Race Secretariat, the Race Director must transmit to the 1st TC the list of any riders authorised to mount these devices, in order that the TCs can carry out the checks specified in the points below.
- Riders who have been authorised by the Race Director to mount and use the video devices have their scooters inspected by the TC in charge, with the devices mounted in their final position, in order to verify their safety. The video devices can be mounted on scooters only in positions that do not represent an obstacle to the rider's view or a danger in the event of contact with other scooters; it is therefore prohibited to mount devices on the rider's equipment (overalls, helmet, etc.). The TC has the right to refuse any mounting deemed unsafe.
- Regardless of the main fixing system, the video devices must be secured in at least one point by a safety wire.
- Any mounting of video recording or transmission devices not authorised by the Race Director and/or not inspected by the TC is punishable with: the application of the fine provided for by the Sporting Rules for non-compliance with riders' obligations, or as a technical irregularity for cases that are recurring or deemed more serious from the point of view of safe mounting. The final decision regarding the type of sanction to be applied rests with the Delegated Race Commissioner after hearing the opinion of the 1st TC.
- Video recording or transmission devices (including any memory supports) must remain mounted on the scooter for their entire permanence in the parc fermé.
- The Race Director has the right to requisition the memory supports and/or cancel the recorded images.

#### **Art. 16 – Transitory rule**

For all that not expressly contemplated by these Regulations, the current Motorcycling Event Regulations (*Regolamento Manifestazioni Motociclistiche*, RMM) and current Speed Regulations (chapter I "General part", chapter II "Specialties" and chapter III "Technical regulations" with particular reference to the RTGS), shall apply insofar as applicable.

#### **Art. 17 – Regulatory changes**

Subject to authorisation by the Technical-Sporting Sector of the IMF, the Organiser reserves the right to modify these Technical Regulations, also during the season, promptly notifying its members.