



# IAME EURO SERIES 2022

## TECHNICAL REGULATIONS

### X30 MINI

(261121)

#### 1. CHASSIS

Drivers will be allowed one chassis only, however if damage occurs to the chassis, which has been scrutinized for the meeting, and if in the opinion of the Chief Scrutineer following a decision of the stewards it is not practical to repair in time, one alternative chassis of the same make and model as the damaged chassis may be scrutinized, in order to continue the meeting.

1.1 Wheelbase 950mm

1.2 Axle: 30 mm

1.3 Rims size: The rear rims must not be wider than 150 mm (Maximum 150 mm), the front rims must not be wider than 115 mm (Maximum 115 mm)

1.4 Rims Material: Aluminum and/or Magnesium

1.5 The max rear width over the rims or tyres whichever is the greatest must not be greater than 1100 mm

#### 2. DEFINITION OF THE CHASSIS

2.1 Traditional chassis with a valid 2021 National / CIK-FIA or Manufactures Homologation form / fiche of the chassis must be provided to Scrutineers for technical control and include but not limited to the following information.

- a) Manufacture name
- b) Model
- c) Category
- d) Valid from
- e) Measurement
- f) Tube data
- g) Rear axle data

#### 2.2 CIK-FIA FRONT FARING MOUNTING KIT

a) The use of a homologated front fairing and of the homologated front fairing mounting kit of the bodywork homologation period 2015 – 2020 is mandatory. As from the Qualifying Heats until the Final, each Driver must enter the "Start" Servicing Park – Assembly Area with the front fairing detached from their kart. The Mechanic or the Driver himself must mount the front fairing in the "Start" Servicing Park – Assembly Area under the supervision of a scrutiner. During Qualifying Heats and Final, it is only allowed to install the front fairing to the correct position in the Start Servicing Park

b) Correct installation of the "Front Fairing" The front fairing (using the front fairing mounting kit) must be in the correct position at all times during a competition (see CIK-FIA Technical Drawing No. 2c and 2d).

c) The black flag with an orange disc will not be shown to a driver if his front fairing is no longer in the correct position. If the judge of fact reports that the front fairing on one or more karts was no longer in the correct position when the

“black and white cheered flag” was waved and the kart(s) concerned crossed the finish line, in all situations a time penalty of 5 seconds will be imposed automatically on the driver(s) concerned. This time penalty is not susceptible to appeal.

d) When the Scrutinizer /Judges of Fact send the reports regarding the incorrect position of the front fairing, the Stewards will automatically apply the decisions. The Entrants concerned shall not be invited to sign the decision documents.

e) Should a Driver or a third party be found/proved to have intentionally replaced a front fairing which is not installed correctly during the last lap or after the “black and white cheered flag” was waved this will lead to a disqualification from the competition. As from the moment the “Last Lap” panel is presented to the Drivers the Repair Area will be closed.

### **3. MINIMUM WEIGHT**

The minimum weight of the Kart with driver, in racing conditions, must be: 110 Kg.

### **4. TYRES**

**4.1** Slick Tires Front: Komet K1D-M (10x4.00-5) Rear: Komet K1D-M (11x5.00-5)

**4.2** Wet Tires Front: Komet K1D-W (10x4.00-5) Rear: Komet K1D-W (11x5.00-5)

### **4.3 MODIFICATION OF TIRES**

Any modification of a tire is forbidden, in all categories, the heating and cooling of tires by any method, and/or remolding or treating the tires with any chemical substance is forbidden.

**4.4** Should the check at the “Start” Servicing Park establish that one or more tires are not in conformity with the regulations, the relevant Driver will not be allowed access to the Pre-Gird. Should the test be carried at the “Finish” Servicing Park and one or more tires result not in conformity with the regulations, the driver is disqualified from the race. Protests against this procedure are not admitted. Protests and Appeals in this regard do not have a suspensory effect.

### **APPENDIXES**

The following appendixes are integral part of the regulations:

**APPENDIX 1:** Homologation form n. 364F IAME X30 WATERSWIFT 60cc

### **5. ENGINE IAME X30 WATER SWIFT 60cc**

#### **ENGINE IMPORTANT**

The tolerances reported on homologation form are necessary to comprise all the machining, assembling and settling tolerances. Nevertheless, the Entrant is absolutely not allowed to make any intervention on the engine, even if the characteristic dimensions after his intervention will still be within the prescribed tolerances.

Any modification or adjunction on the engine and its accessories, if not expressly authorized, is forbidden. IAME considers as modifications any action changing the initial aspect and dimensions of an original part. Any modification and/or installation having as a consequence to alter a dimension and/or its control possibility is strictly forbidden. Polishing, sandblasting, trimming or adjustments are not allowed. No heat treatment or surface treatment are allowed, The Entrant is liable for the conformity of its own equipment.

Any tuning is forbidden: the maximum and minimum allowed values and the volume of the combustion chamber have to be measured according to the procedure described on the CIK Technical Regulations.

Only the IAME X30 WATERSWIFT 60cc original and strictly in compliance with the manufacturer's technical form (technical features, sizes, weights, diagrams with the tolerances prescribed by the manufacturer) is admitted. The pictures on the original homologation forms are as well valid to identify the engine and the parts.

All engines will be supplied directly by IAME through the organization RGMMC. The engines must be provided with their original serial number. No modification, improvement, polishing, addition or removal of material of any engine part is allowed. Each engine internal or external part has to be installed in its original position and functioning according to the original design specs.

The tolerances reported on homologation form are necessary to comprise all the machining, assembling and settling tolerances. Nevertheless, the Entrant is absolutely not allowed to make any intervention on the engine, even if the characteristic dimensions after his intervention will still be within the prescribed tolerances. Any tuning is forbidden: the maximum and minimum allowed values and the volume of the combustion chamber have to be measured according to the CIK Technical Regulations.

In any moment, the technical officials, following a decision of the Stewards, have the right to replace any part, any accessory or even the complete engine.

**DIAGRAMS AND VOLUME CHART:** refer to engine tech. form

### **5.1. CYLINDER HEAD**

Strictly original, the sparkplug body tightened on the cylinder head must not protrude from the upper part of the combustion chamber dome. The squish (distance between piston and the cylinder head) must be minimum 0.75mm at all points. The thickness of the tin wire (50% tin minimum.) used for the squish measurement must have a 1,5mm diameter. Measurements must be taken with the engine in racing conditions at any time during the event. The original IAME gauge n. 10215 is the reference to check the cylinder head profile conformity. The gauge shape must match with the dome profile, the squish area and the gasket plane.

### **5.2. CYLINDER**

Strictly original and provided with the original security pin and markings, polishing, sandblasting, trimming or adjustments are not allowed. Only re-boring is allowed. In case of doubt, the shape and the height of the transfers have to be compared to the cylinder of the sample engine. No heat treatment or surface treatment are allowed. The diagram adjustment is allowed only by means of the cylinder gasket replacement. Only one-cylinder gasket, identical to the original one (0.40mm +/- 0.10 mm) is admitted. No head gasket is admitted. The original IAME gauge n. ATT-005 is the reference to measure the distance of the upper edge of the ports from the cylinder head plane.

### **5.3. CRANKCASE, CRANKSHAFT, CON-ROD, CRANKPIN**

Only original parts are allowed, without any modification. Only strictly original big end cage (IAME B-10431), original washers (IAME E-38436) and original small end cage (IAME A-60440) are allowed. Oil seals must be installed in the correct position, cave side looking inside the crankcase.

### **5.4. BEARINGS**

Strictly original: crankshaft ball bearings p.n. IAME: 10400-D (6204 C4). Ball-bearing with oblique contacts is forbidden, only bearings with steel balls and rings are authorized. (Ceramic is forbidden). Shims can be added behind the main roller bearings to reach the correct axial play.

## **5.5. PISTON, RING AND PIN**

Strictly original without any modification and in compliance with the engine technical form.

## **5.6. CARBURETTOR – INLET SILENCER**

a) Only the Tillotson HW-31A Carburetor (Venture max. diam. 17.15mm) supplied together with the engine in its original configuration (same brand, same model, and same reference) is admitted. Only the accessories supplied together with the original carburetor are allowed, needle valve spring are free. Carburetor positioning (i.e. with pump in upper or in lower position) is free. All carburetor spacers and gaskets are mandatory and must be in compliance and in the same order as indicated on the technical form.

In case of doubt the carburetor must be compared to the sample carburetor.

Inlet silencer strictly original as supplied together with the engine (same brand, same model, same reference) that is IAME mod MINI SWIFT with CSAI 01/SA/14 homologation.

Inlet hose max internal diameter must be 22mm. Protective grids are optional.

b) Any injection and/or spraying system is forbidden.

c) The rubber manifold connecting the inlet silencer to the carburetor can be installed in either ways and it must be in compliance with the size indicated on the technical form of the engine. If the manifold with sponge air filter is used, the sponge must be intact and the whole must be in compliance with the size indicated on the technical form of the engine.

## **5.7. CLUTCH**

The engine is supplied with a dry centrifugal clutch system. Any intervention intended to extend the sliding of the clutch hub beyond the prescribed limit is strictly forbidden.

The centrifugal clutch must engage at max. 4.500 RPM moving the kart with driver on board and in racing conditions.

The clutch must be completely triggered at max. 6.500 RPM in any condition, this measurement can eventually be checked with proper instruments. Each driver is responsible for the wear status of the clutch padding material and friction parts cleaning, since the proper clutch operation might be checked at any moment of the event, and even after each phase. (Not any modification of shape and/or material is permitted).

## **5.8. IGNITION**

Original ignition only that is SELETTRA p.n. IAME A-61951 and coil p.n. IAME A-61955 without any modification. Scrutineers following a decision of the Stewards have the right to ask for the replacement of the whole ignition system or part at any moment before starting the race. The organizer will not be liable for any eventual breakdown occurred after the replacement.

Modifications on the stator fixing, the shape and thickness of the rotor key and the rotor and crankshaft slots are forbidden. The battery is free and must be fixed to the chassis and always connected to the ignition system.

## **5.9. SPARK PLUG & SPARK PLUG CAP**

Only the following strictly original without any modification NGK spark plugs allowed: B9EG - B10EG - BR9EG - BR10EG

The sparkplug must be installed with its original gasket. The insulator must not exceed the sparkplug body and the length of the sparkplug body itself must be max. 18,5mm (CIK technical regulations appendix 7) Original spark plug cap, as delivered with the engine (IAME p.n. 10544)

## **5.10. EXHAUST**

Only the original muffler and header are allowed as supplied with the engine and must be kept in compliance with the homologation form, therefore no modification in structure or in dimensions are allowed.

The complete sealing of the exhaust gas between the cylinder and the exhaust manifold must be guaranteed at all times. The control of the sealing of the exhaust gas can be performed at any time through occlusion of the outlet hole of the exhaust header, filling of the exhaust header with liquid through the exhaust port and check for leaks. The proper sealing of the exhaust system is at Driver's responsibility.

The exhaust manifold (Ø28, 5 mm) must be strictly original and in compliance with the technical form. Only one original exhaust gasket is allowed. Exhaust temperature probes are not allowed.

## **5.11. COOLING**

The cooling system must be in its original configuration: only one IAME original radiator (p.n. T-8601), only one IAME original simple water pump (black or blue) are allowed and in compliance with the homologation form. The number of radiator support brackets is not limited. Only simple or by pass original IAME thermostats are allowed and their use is optional. Only water with no other additive is allowed for cooling. No additives are allowed. Radiators shields, either adhesive or mechanic are allowed but should not be removable when the kart is in motion. Original IAME marked blue

water hoses as delivered with the engine. The use of the original water pump pulley activating the water pump through O rings is mandatory.

#### **5.12. STARTER**

The engine is provided with an on-board electric starter. The original on-board starting system has to be installed with all its components and properly connected.

#### **5.13. SPROCKETS**

IAME original only Z10 or Z11

#### **5.14. FUEL, FUEL TANK, LUBRICANT**

Panta fuel is the only fuel allowed as described in the specific regulations of the event.

The oil must be CIK-FIA approved / homologated 2-stroke oil, which must be stated on the scrutineering card/passport upon completing technical check. The fuel tank must be detachable and have a minimum capacity of 3 liters. A recovery tank for fuel tank and water-cooling system breathers must be installed on the chassis.

#### **5.15 FUEL & OIL**

**5.15.1** Fuel will be none "Parc-Ferme" status. Unleaded commercial quality fuel from petrol station.

**5.15.2** It will be each competitor's responsibility to purchase their own petrol from free practice until the end of the race weekend on Sunday. The official fuel supplier to the event shall be Panta Fuel. It is mandatory to order your fuel 2 weeks prior to the event.

**5.15.3** The requirements specified in these regulations are intended to ensure the use of fuels predominantly composed of compounds normally found in commercial fuel, and to prohibit the use of specific power-boosting chemical compounds.

**5.15.4** At any time including end of race the volume of fuel in the tank must be over or equal to 1 liter.

**5.15.6** The oil mixture ratio shall be 4-6 %

**5.15.7** The Scrutineer/Organization, following a decision of the Stewards, has the right to change/replace any driver's petrol at his discretion and at any time, the organizer may charge 3€ per liter.

**Case 1** - Should this be the case the Drivers will be asked to enter servicing park without petrol in his/her petrol tank, where the fuel will be added.

**Case 2** - Petrol will be changed without warning. Changed/Replaced petrol will be the petrol as stated in the supplementary regulations of the event. It is recommended that evaluation of fuels at the racetrack be conducted using one or all of the following tests.

a) Digatron DT- 47 Fuel Meter Test.

b) Specific Gravity Test

c) Water Solubility Test

#### **6. TECHNICAL CONTROLS / SCRUTINEERING**

**6.1** The technical forms are the main comparison reference for Scrutineers. In case of doubts on the engine parts conformity, the comparison with the sample engine will be the definitive probating element. In case of extremely controversial events, the Stewards can decree the delivery of the concerned parts, duly sealed, to IAME Spa. which will proceed with an accurate inspection at the factory with the presence of one representative of the Competitor and one of the Sporting Authority (ASN).

**6.2** The engine technical inspection is performed by the technical scrutineer. The technical scrutineer has the right to inspect any part to the point that it can no longer be employed. If this is the event, the inspected part found in compliance with the regulations will be replaced to the driver at no cost. Any part found as not in compliance with the regulations, will not be refunded.

**6.3** It is the duty of every Entrant to prove to the Scrutineers and to the Stewards that his kart integrally complies with the Regulations throughout the event

**6.4** A mandatory check will be carried out before the non-qualifying practice. It must be possible to identify the homologated equipment by the technical descriptions (drawings, dimensions, etc.) on the Homologation Form. For any used equipment, which has been homologated, every competitor shall be able to submit the relevant Homologation Forms. For identification and control it must be possible to identify the homologated equipment. A scrutineering (technical passport) report must be completed the entrant is responsible that the card is completed and correct.

**6.5** The Scrutineer, following a decision of the Stewards has the right to impound any part of the Engine including but not limited to carburetor, exhaust, electronic ignition and petrol at his discretion. Should this be the case the parts impounded will be replaced with new original manufactured parts at the expense of the Entrant / Driver (At IAME Official Recommended Retail Price List)

## **7. APPEALS**

Appeals can be made according to the rules of the ASN hosting the event.

## **8. MODIFICATIONS TO THE REGULATIONS**

The Organizer of the series reserves the right to issue additional statements concerning the Technical Regulations (previously approved by the ASN proposing the series and the CIK-FIA) from time to time following the agreement of the ASN presenting the series and the CIK-FIA, and all such statements will be issued to all registered competitors by way of Competitors' Bulletins at the race meeting, or posted to the address detailed on the event registration form.

## **9. SAFETY EQUIPMENT**

Drivers safety equipment must apply to each ASN, regulations which can vary from country to country and change with short notice.

## **10. RACING NUMBERS AND DRIVERS IDENTIFICATION**

**10.1** The numbers shall be black (without shadow and color stripes) on a clear Yellow Back-Ground, and they shall be at least 14 or 15 cm high and have a 2-cm thick stroke and represented with an Arial type or similar font. The competition number shall be bordered by a yellow background of 1 cm minimum. They must be fitted before free practice and must be clearly visible during the hole race event (damaged numbers and id must be replaced regularly) on both front and rear and on both sides towards the rear of the bodywork. The number plates fitted at the back of the kart shall be plane and have rounded corners (diameter of rounded corners 15 to 25 mm) with 22 cm sides. The plates shall be flexible and made of opaque plastic, and they shall always be visible (fixation without a possible displacement).

**10.2** Driver's name shall be in the fore part of the lateral bodywork. The minimum height of the letters of the name shall be 2 cm minimum. Driver is responsible at all times for ensuring that the required numbers and I.D. are clearly visible to Officials, Timekeepers and Marshals.

**10.3** Karts not apply to article 10 may be refused entry to Free-Practice, Time-Qualifying, Qualifying Heats, Second Chance Heat, Pre-Final or Final Race.