



**TECHNICAL REGULATIONS 2020  
RGMMC GmbH ORGANIZED  
IAME WINTER CUP 2020  
IAME EURO SERIES 2020  
IAME JUNIOR, SENIOR  
TECHNICAL REGULATIONS PART 2 of 2. V1**

**TECHNICAL REGULATIONS PART 2 OF 2  
ENGINE SPECIFICATIONS  
DATE 04.10.2019 VERSION 1**

The CIK-FIA Technical regulation also applies for the IAME WINTER CUP & IAME EURO SERIES.  
The English text is the authentic version.

RGMMC 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/Series Registration Form

The Scrutineer following a decision of the Stewards has the right to impound any part of the Engine including but not limited to the carburettor, 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)

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 during engines scrutineering, the Stewards can decree the delivery of the concerned part, duly sealed, to IAME S.p.A. for an accurate inspection at the factory at the presence of representatives of the Entrant and the Sporting Authority (ASN).

The following appendixes are integral part of the regulations:

APPENDIX 1: homologation form n. 254U - IAME X30 125cc RL – TaG

APPENDIX 2: homologation form n. 348A - Carburateur Tillotson HW27A

APPENDIX 3: exhaust silencer – X30 Junior – X30 Senior

## **Article 5 - ENGINE IAME X30 125cc RL TaG – X30 JUNIOR - X30 SENIOR**

Any modification on the engine and its accessories is strictly forbidden, if not expressly authorized. 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.

**5.1** Only the IAME X30 125cc-RL-TaG, 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.

**5.2** 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.

**5.3 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.

**5.4** 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.

### **5.5 DIAGRAMS AND VOLUME CHART**

Refer to engine homologation form

### **5.6 CYLINDER HEAD**

**5.6.1** The cylinder head has to be strictly original. Only the thread repairing by means of an M14 x1,25 helicoil of the same length as the original thread is allowed. The sparkplug body tightened on the cylinder head must not protrude from the upper part of the combustion chamber dome.

**5.6.2** The squish minimum value must be in compliance with the engine technical form prescription at all points. 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 and at ambient temperature. The original IAME gauge n. ATT-025/1 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.

**5.6.3** The CIK insert body tightened on the cylinder head, must not protrude from the upper part of the combustion chamber dome.

### **5.7 CYLINDER**

Only the original cylinder can be employed. 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. The number of cylinder gaskets is not limited.. No head gasket is admitted.

The original IAME gauge n. ATT-025/2 is the reference to measure the cylinder ports position.

The original IAME gauge n. ATT-035/1 is the reference to carry a visual check of the ports.

Starting from the serial n. M3521/B3059 the X30 engines are equipped with a marked cylinder, as shown on the homologation form:

- engines with serial number previous to M3521/B3059 can be equipped with the marked cylinder.
- engines with serial number subsequent to M3521/B3059 cannot be equipped with the non-marked older cylinder.

### **5.8 CRANKCASE, CRANKSHAFT, CON-ROD, CRANKPIN**

Strictly original and without any modification.

The original IAME gauge ATT-035/3 is the reference to check the reed block housing plane

The original IAME gauge ATT-035/4 is the reference to check the distance between the indexing pins of the cylinder

The original IAME gauge ATT-035/5 is the reference to check the height of the cylinder base plane

Only original big end cage (X30125431), small end cage (E-10440/E-10441) and original washers (X30125436/X30125436EX) allowed.

Oil seals must be installed in the correct position, cave side looking inside the crankcase.

## 5.9 BEARINGS

Only crankshaft bearings 6206 C4 and balance shaft 6202 C3/C4/C4H and 6005 C3/C4 steel ball and polyamide cage are allowed. Oblique contact prohibited. Ceramic balls prohibited.

The bearings must be mounted with balls visible from the inside of the crankcase

All bearings not reporting the correct and clearly visible classification number, as described in the present regulations, are expressly forbidden.

The use of spacer shims behind the bearings is allowed to obtain the correct axial clearance.

All internal parts of the engine must be of manufacturer origin, the same number as the assembly of the factory and mounted in the same direction.

## 5.10 PISTON, RING AND PIN

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

The IAME original gauge ATT-035/2 is the reference to check the piston head shape.

## 5.11 REED BLOCK

Strictly original without any modification. No gasket planes machining is allowed. Free screws. Original reed valve cover without any modification is allowed. Reed block/crankcase gasket thickness is 1mm (admitted tolerance +/- 0.3mm). Conveyor/reed block gasket thickness is 0.8mm (admitted tolerance +/- 0.3mm).

## 5.12 REED PETALS

Only fiberglass (min. thickness 0.30mm) or carbon fibre (min. thickness 0.24mm) original IAME marked reed petals are allowed. Mixing of carbon fibre and fibreglass petals is forbidden.

## 5.13 CARBURETTOR, INLET SILENCER

Only the Tillotson HW-27A carburettor supplied together with the engine in its original configuration (same brand, same model, same reference) is admitted. Only the accessories supplied together with the original carburettor and represented on the carburettor technical form are allowed; needle valve spring is free.

Carburettor positioning (i.e. with pump in upper or in lower position) is free.

Carburettor gasket thickness is 1 mm (admitted tolerance +/- 0.3mm).

The inlet silencer (p.n. 10743-C1 ou X30125740) must be identical to the original one supplied together with the engine (same brand, same model, same reference) with max. 22mm diameter intake tubes. Protective grids are optional.

The rubber manifold with air filter connecting the inlet silencer to the carburettor is mandatory and must be installed and in compliance with the homologation form.

Any injection and/or spraying system is forbidden.

The original IAME gauge n. ATT-035/2 is the reference to check the carburettor inlet duct. The gauge shape must match with the inlet profile.

## 5.14 CLUTCH

The centrifugal clutch must engage at max. 4.000 RPM moving the kart with driver on board and in racing conditions. The clutch must be completely triggered at max. 6.000 RPM in any condition, this measurement can eventually be checked with proper instruments. Each driver will be 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. The original IAME gauge ATT-047/4 is the reference to check the clutch drum. The tool must not enter into the clutch drum in perpendicular position respect to the clutch drum axis.

## 5.15 IGNITION

**5.15.1** Only original ignitions, either Selettra Digital "K" or Selettra Digital "S" systems are allowed, without any modification. Scrutineers 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.

**5.15.2** Only the electronic CDI box type "C" (16000 RPM) is allowed and must be fixed on the chassis or on the engine. The markings on the electronic box are compulsory and must be clearly visible without disassembling the electronic box. Covering with adhesive or masking tape is forbidden. Modifications on the stator fixing, on the shape and thickness of the rotor key and on the rotor and crankshaft slots are forbidden.

The IAME original gauge ATT-035/7 is the reference to check the correct position of the phase reference marking on the rotor.

The battery must be fixed to the chassis and always connected to the ignition system.

## **5.16 SPARKPLUG**

**5.16.1** Only the NGK B9EG - B10EG - BR9EG - BR10EG – BR9EIX - BR10EIX - R6254E-105 - R6252K-105 sparkplugs are allowed, strictly original and without any modification.

**5.16.2** The sparkplug must be installed with its original gasket.

**5.16.3** The insulator must not exceed the sparkplug body and the length of the sparkplug body itself must be max. 18,5 mm. (CIK technical regulations appendix 7).

**5.16.4** Original spark plug cap, as delivered with the engine (IAME p.n. 10544).

## **5.17 EXHAUST**

**5.17.1** Only the original muffler and exhaust manifold as supplied with the engine are allowed and must be kept strictly original and in compliance with the homologation form, therefore no modification in structure or in dimensions is allowed.

**5.17.2** Drilling and welding operations on the muffler are allowed only to install a temperature probe.

**5.17.3** 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 manifold, filling of the exhaust manifold with liquid through the exhaust port and check for leaks. The proper sealing of the exhaust system is at Driver's responsibility.

**5.17.4** One original gasket only between cylinder and exhaust manifold is allowed, the use of the original exhaust spacer is allowed and not mandatory

**5.17.5** The use of the original 22.7mm restricted exhaust manifold as described in the tech form is mandatory in the X30 Junior category. No modifications allowed.

**5.17.6** The use of the exhaust silencer as described in the attachment n.7 is mandatory at all moments.

## **5.18 COOLING**

The cooling system must be in its original configuration: only one IAME original radiator (p.n. T-8000B or T-8001), only one IAME original simple water pump (aluminium or plastic black/blue), only one IAME original water pump pulley (aluminium or plastic black/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.

Radiators shields, either adhesive or mechanic are allowed but should not be removable when the kart is in motion.

Original water hoses as delivered with the engine (black or blue).

Water pump driving belt type is free. Belt must operate on the water pump pulley.

## **5.19 STARTING**

**5.19.1** 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.

## **5.20 SPROCKETS**

Only IAME original Z10/Z11/Z12/Z13 sprockets are admitted.