IAME X30 - TECHNICAL REGULATIONS

1. FUEL

1.1 The oil mixture ratio shall be 4%/6%.

1.2 It is forbidden to add any liquid and/or power-boosting chemicals in the fuel

2. WEIGHT

2.1 X30 Senior: 162 Kg

2.2 X30 Master: 175 Kg

3. INSPECTIONS

3.1 The technical stewards have the right to inspect any part to the point that it can no longer be employed. Inspected parts resulting as regular will be replaced to the driver at no cost. Any part resulting irregular will not be refunded.

3.2 In any moment, the technical officials have the right to replace any part, any accessory or even the entire engine.

3.3 The Promoter, while guaranteeing the perfect efficiency and operation of the supplied material, will in no case be held liable for any malfunction occurring as a result of the replacement.

3.4 The technical forms are the main comparison reference for Scrutineers.

3.5 In case of doubts on the engine parts conformity, the comparison with the sample engine will be the definitive probating element.

3.6 In case of extremely controversial events during engines scrutineering, the Scrutineers 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).

3.7 Controls can be carried on the engines, in race conditions, at any time of the Event.

4. ENGINE IAME X30 125cc RL TaG - X30 SENIOR - X30 MASTER

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

4.2 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.

4.3 No heat treatment or surface treatment are allowed. The Entrant is liable for the conformity of its own equipment.

4.4 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.

4.5 The pictures on the original homologation forms are as well valid to identify the engine and the parts.

4.6 The engines must be provided with their original serial number.

4.7 No modification, improvement, polishing, addition or removal of material of any engine part is allowed.

4.8 Each engine internal or external part has to be installed in its original position and functioning according to the original design specs.

4.9 The tolerances reported on homologation form are necessary to comprise all the machining, assembling and settling tolerances.

4.10 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.

4.11 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/FIA Karting Technical Regulations.

4.12 Diagrams and volume chart **:** refer to engine homologation form

4.13 All the templates described in the engine technical form of the engine and available to the Technical Stewards, are to be considered valid and certified by the Manufacturer instruments in order to determine the conformity of the part whose control they are designed for.

5. CYLINDER HEAD

5.1 The cylinder head has to be strictly original.

5.2 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.

5.3 The squish minimum value must be in compliance with the engine technical form prescription at all points.

5.4 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.

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

6. CYLINDER

6.1 Strictly original and provided with the security pin and original IAME markings.

6.2 Polishing, sandblasting, trimming or adjustments are not allowed.

6.3 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.

6.4 No heat treatment or surface treatment are allowed.

6.5 The number of cylinder gaskets is limited to ONE. Only IAME original gaskets allowed. Minimum ticknes is 0,32

6.6 No head gasket is admitted.

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

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

7. CRANKCASE, CRANKSHAFT, CON-ROD, CRANKPIN

7.1 Strictly original and without any modification.

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

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

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

7.5 Only original big end cage (X30125431), small end cage (E-10440/E-10441) and original washers (X30125436/X30125437) allowed.

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

8. BEARINGS

8.1 Only crankshaft bearings 6206 C4 and balance shaft 6202 C3/C4/C4H and 6005 C3/C4 steel ball and polyamide cage are allowed.

8.2 Oblique contact prohibited.

8.3 Ceramic balls prohibited.

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

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

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

9.7 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.

10. PISTON, RING AND PIN

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

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

11. REED BLOCK

11.1 Strictly original without any modification.

11.2 No gasket planes machining is allowed.

11.3 Original reed valve cover without any modification is allowed.

11.4 Reed block/crankcase gasket thickness is 1mm (admitted tolerance +/- 0.3mm).

11.5 Conveyor/reed block gasket thickness is 0.8mm (admitted tolerance +/- 0.3mm).

12 REED PETALS

12.1 Only Fiberglass (min. thickness 0.30mm) original IAME marked reed petals are allowed.

12.2 Use of Carbon fibre is forbidden.

13. CARBURETTOR

13.1 Only the Tillotson HW-27A carburettor supplied together with the engine in its original configuration (same brand, same model, same reference) is admitted.

13.2 Only the accessories supplied together with the original carburettor and represented on the carburettor technical form are allowed.

13.3 Needle valve spring is free.

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

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

13.6 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.

14. INLET SILENCER

14.1 The inlet silencer (p.n. 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.

14.2 Protective grids are optional.

14.3 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.

14.4 Any injection and/or spraying system is forbidden.

14.5 The “old” inlet silencer is aloved to use until 31.12.2020. All size and info is included in the Fiche.

15. CLUTCH

15.1 The centrifugal clutch must engage at max. 4.000 RPM moving the kart with driver on board and in racing conditions.

15.2 The clutch must be completely triggered at max. 6.000 RPM in any condition, this measurement can eventually be checked with proper instruments.

15.3 Each driver will be responsible for the wear status of the clutch padding material and friction parts cleaning.

15.4 The proper clutch operation might be checked at any moment of the event, and even after each phase.

15.5 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.

16. IGNITION

16.1 Only original ignitions, either Selettra Digital “K” or Selettra Digital “S” systems are allowed, without any modification.

16.2 Scrutineers have the right to ask for the replacement of the whole ignition system or part at any moment before starting the race.

16.3 The organizer will not be liable for any eventual breakdown occurred after the replacement.

16.4 Only the electronic CDI box type "C" (16000 RPM) is allowed and must be fixed on the chassis or on the engine.

16.5 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.

16.6 Modifications on the stator fixing, on the shape and thickness of the rotor key and on the rotor and crankshaft slots are forbidden.

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

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

17. SPARKPLUG

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

17.2 The sparkplug must be installed with its original gasket.

17.3 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).

17.4 Original spark plug cap, as delivered with the engine (IAME p.n. 10544 og 10543).

18. EXHAUST

18.1 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. No modification in structure or in dimensions is allowed.

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

18.3 The complete sealing of the exhaust gas between the cylinder and the exhaust manifold must be guaranteed at all times.

18.4 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.

18.5 The proper sealing of the exhaust system is at Driver's responsibility.

18.6 One original gasket only between cylinder and exhaust manifold is allowed.

18.7 The use of the original exhaust spacer is allowed and not mandatory, then also one extra original gasket can be used. Totaly two gaskets are then allowed.

18.8 The use of the original 22.7mm restricted exhaust manifold as described in the tech form is allowed and not mandatory. No modifications allowed.

18.9 The use of the exhaust silencer X30125723-K is allowed and not mandatory.

19. COOLING

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

19.2 Only one IAME original water pump pulley (aluminium or plastic black/blue) are allowed and in compliance with the homologation form.

19.3 The number of radiator support brackets is not limited.

19.4 Only original IAME thermostats are allowed and their use is optional. The thermostat case can be installed without the thermostat capsule inside, and work as a fitting.

19.5 Only water with no other additive is allowed for cooling.

19.6 Radiators shields, either adhesive or mechanic are allowed but should not be removable when the kart is in motion. If the shield demands it you can use optional support to the radiator.

19.7 Water pump driving belt type is free.

19.8 Belt must operate on the water pump pulley.

20. STARTING

20.1 The engine is provided with an on board electric starter.

20.2 The original on board starting system has to be installed with all its components and properly connected and functioning.

21. SPROCKETS

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

IAME X30 – SPORTING REGULATIONS

1. Grupering av klassen X30

1.1 Klassen X30 blir delt inn i to gruperinger.

1.2 X30 Senior er gruperingen som blir kjørt på alle nasjonale løp med mindre arangøren sier noe annet i sine tilleggsregler.

1.3 X30 Senior følger NBF sin alders besetemelse. Fra og med det året man fyller 14 år

1.4 X30 Master kjøres kun om det blir opplyst i tilleggsreglene.

1.5 X30 Master kan kjøre fra og med det året man fyller 24 år