



IAME SERIES ASIA 2023 TECHNICAL REGULATIONS

1.0 ENGINES – GENERAL REGULATIONS

1.1 Only engines bearing markings from the Asian Zone is accepted. The markings are SEA, SGP, MY, RL, 17, PRC, JPN, IDN etc. All engines must be accompanied by an Engine Identification card.

1.2 The following class / engines / Homologation Form will be used –

Cadet	IAME X30 Water Swift 60cc	<i>364D IAME X30 Water Swift 60cc – Tillotson HW-31A</i>
Junior	IAME X30 125cc	<i>254U IAME X30 125cc with Tillotson HW-27A</i>
Senior	IAME X30 125cc	<i>254U IAME X30 125cc with Tillotson HW-27A</i>
Master	IAME X30 125cc	<i>254U IAME X30 125cc with Tillotson HW-27A</i>
Clubman	IAME X30 125cc	<i>254U IAME X30 125cc with Tillotson HW-27A</i>

1.3 The Driver is liable for the conformity of his equipment.

1.4 Engines must be provided with their original serial number.

1.5 Engines must be original and strictly in compliance with the manufacturer's technical form like technical features, size and weight, diagrams with the tolerances prescribed by the manufacturer.

1.6 The relevant homologation forms, available on the Website, are an integral part of the Supplementary Regulations.

1.7 Tuning, improvement, modification, installation, adjunction, polishing, sandblasting, trimming, adjustment, heat treatment, surface treatment, addition or removal of material, or action having as a consequence the alteration of a dimension, aspect, or control possibility, to or of the original engine or accessories is forbidden unless expressly authorised.

1.8 Engines and parts thereof have to be installed in their original positions and function in accordance to their original design specifications.

1.9 The tolerances reported on the original homologation forms are necessary in comprising all machining, assembly and setting tolerances. Nevertheless, no intervention is allowed on the engine, regardless of whether the modified dimensions remain within the prescribed tolerances.

1.10 The maximum and minimum allowed values and volume of the combustion chamber shall be measured according to the CIK Technical Regulations.



2.0 IAME X30 WATER SWIFT 60CC

2.1 Diagrams and Volume Chart

2.1.1 As per homologation form.

2.2 Cylinder Head

2.2.1 The cylinder head must be original.

2.2.2 The sparkplug body tightened on the cylinder head must not protrude from the upper part of the combustion chamber dome.

2.2.3 The squish must be in compliance with the homologation form. The tin wire (minimum 50% tin) used for the squish measurement must have a 1.5mm diameter. Measurement must be taken with the engine in racing conditions at any time during the event.

2.2.4 The original IAME gauge n. 10215 is the reference to measure the cylinder head profile conformity. The gauge shape must match with the dome profile, squish area and gasket plane.

2.3 Cylinder

2.3.1 The cylinder must be original

2.3.2 Only re-boring is allowed.

2.3.3 In case of doubt, the shape and height of the transfers shall be compared to a cylinder from a sample engine.

2.3.4 A diagram adjustment is allowed only by means of a cylinder gasket replacement.

2.3.5 Only one cylinder gasket of 0.40mm +/- 0.05 thickness is admitted.

2.3.6 No head gasket is admitted.

2.3.7 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.

2.4 Crankcase, Crankshaft, Con-rod, Crankpin

2.4.1 Parts must be original and without any modification. Only the original big end cage (IAME B-10431) original washers (IAME E-38436) and original small end cage (IAME A-60440) are allowed.

2.5 Bearings

2.5.1 Only original crankshaft ball bearings (IAME p.n. 10400-D 6204 C4) are allowed.

2.5.2 Ball bearings with oblique contacts are forbidden.

2.5.3 Only bearings with steel balls and rings are allowed. Ceramic is forbidden.

2.6 Piston, Ring and Pin

2.6.1 Strictly original without any modification and in compliance with the homologation form.

2.7 Carburettor

2.7.1 Only the Tillotson HW-31A carburettor (venturi max. diam. 17.15mm) 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 homologation forms are allowed, needle valve spring is free.

- 2.7.2 Carburettor positioning (i.e. with pump in upper or in lower position) is free. All carburettor spacers and gaskets are mandatory and must be in compliance and in the same order as indicated on the technical form.
- 2.7.3 The inlet silencer must be original as supplied with the engine (same brand, same model and same reference – IAME mod. MINI SWIFT with CSAI 01/SA/14 homologation) with max 22mm internal diameter intake tubes. Protective grids are optional.
- 2.7.4 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.
- 2.7.5 Any injection and/or spraying system is forbidden.

2.8 Clutch

- 2.8.1 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 forbidden.
- 2.8.2 The centrifugal clutch must engage at max. 4500 RPM moving the kart with the driver on board and in racing conditions. The clutch must be completely triggered at max. 6500 rpm in any condition. This measurement can eventually be checked with proper instruments. The driver is responsible for the wear status of the clutch padding material and cleaning of the friction parts. Proper operation of the clutch might be checked at any time during the event or after each phase.

2.9 Ignition

- 2.9.1 Only original Selettra ignition (p.n. IAME-61951) and coil (p.n. IAME A-61955) without modification are allowed.
- 2.9.2 The battery must be fixed to the chassis and connected to the ignition system at all times.

2.10 Spark Plug

- 2.10.1 Only the following NGK spark plugs, strictly original and without any modification are allowed.
- 2.10.2 B8EG, B9EG, B10EG
- 2.10.3 BR8EG, BR9EG, BR10EG
- 2.10.4 BR8EIX, BR9EIX, BR10EIX
- 2.10.5 BR8ECMIX, BR9ECMIX, BR10ECMIX
- 2.10.6 B8ES, B9ES, B10ES
- 2.10.7 B8EGV, B9EGV, B10EGV
- 2.10.8 The spark plug must be installed with its original gasket
- 2.10.9 The insulator must not exceed the spark plug body and the length of the spark plug body itself must be max. 18.5mm (CIK Technical Regulations Appendix 7)
- 2.10.10 The spark plug cap must be original as delivered with the engine (IAME p.n. 10543 and 10544)

2.11 Exhaust

- 2.11.1 Only the original muffler and header as supplied with the engine are allowed and must be kept in compliance with the homologation form, therefore no modification in structure or dimension is allowed.
- 2.11.2 Drilling and welding operations on the muffler are allowed only on the support provided and only for the installation of a temperature probe.

- 2.11.3 The complete sealing of the exhaust gas between the cylinder and the exhaust manifold must be guaranteed at all times.
- 2.11.4 The control of the sealing of the exhaust gas can be performed at any time through occlusion of the outlet hole of the exhaust header, filling of the exhaust header with liquid through the exhaust port and checking for leaks. The proper sealing of the exhaust system is the Driver's responsibility.
- 2.11.5 The exhaust manifold (diameter 28.5mm) must be strictly original and in compliance with the technical form. Only one original gasket is allowed.

- 2.12 Differential Reading Between Exhaust and Inlet
- 2.12.1 Checks will be conducted as follows: - Install the graduated disc or encoder onto the crankshaft. Insert the feeler gauge (wedge) 0.2 x 5mm at the centre of the inlet port. Rotate the crankshaft counter clockwise (seen from the clutch side), and take the piston skirt in contact with the feeler gauge. Set the graduated disc or encoder to zero. Rotate the crankshaft clockwise enough to lift the piston and release the feeler gauge. Rotate the crankshaft counter clockwise to lower the piston until exhaust port is open. Insert the feeler gauge in the centre of the exhaust port. Rotate the crankshaft clockwise and take the piston ring in contact with the feeler gauge. Check the disc or encoder reading. To be legal it must be 30.0° minimum and 31.0° maximum.

- 2.13 Differential Reading Between Exhaust and Transfers
- 2.13.1 Checks will be conducted as follows: Install the graduated disc or encoder onto the crankshaft. Insert the feeler gauge (wedge) 0.2 x 5mm at the centre of the exhaust port. Rotate the crankshaft clockwise (seen from the clutch side) and take the piston ring in contact with the feeler gauge. Set the graduated disc or encoder to zero. Rotate the crankshaft counter clockwise to lower the piston until the transfer ports are open. Insert the feeler gauge into one of the transfer ports. Rotate the crankshaft clockwise and take the piston ring in contact with the feeler gauge. Check the disc or encoder reading. To be legal it must be minimum 19.5° and maximum 20.5°.

- 2.14 Cooling
- 2.14.1 The cooling system must be in its original configuration. Only one IAME original radiator (p.n. T-8601) is allowed. Only one simple water pump of any make is allowed. The number of radiator support brackets is not limited. Only simple or bypass IAME original thermostats are allowed and their use is optional. Only water with no additives is allowed for cooling. Radiator shields, either adhesive or mechanical are allowed but should not be removable when the kart is in motion.
- 2.14.2 Water pump hoses are free
- 2.14.3 The belt can operate with or without the water pump pulley.
- 2.14.4 Water pump pulley is free.

- 2.15 Starting
- 2.15.1 The engine is provided with an on-board electric starter. The original on-board starting system must be installed and properly connected with all components.
- 2.15.2 The use of an external starter is authorised only in the event that a mechanical or electrical problem prevents the operation of the starting system.

- 2.16 Sprockets
- 2.16.1 Only IAME original Z10 or Z11 sprockets are admitted.

3.0 IAME X30 125cc RL TaG – X30

3.1 Diagrams and Volume Chart

3.1.1 As per homologation form.

3.2 Cylinder Head

3.2.1 The cylinder head must be original.

3.2.2 Only thread repairing by means of an M14x1.25 helicoil of the same length as the original thread is allowed.

3.2.3 The spark plug body tightened on the cylinder head must not protrude from the upper part of the combustion chamber dome.

3.2.4 The squish must be in compliance with the homologation form. The tin wire (minimum 50% tin) used for the squish measurement must have a 1.5mm diameter. Measurement must be taken with the engine in racing conditions at any time during the event.

3.2.5 The original IAME gauge n. ATT-025/ is the reference to measure the cylinder head profile conformity. The gauge shape must match with the dome profile, squish area and gasket plane.

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

3.3 Cylinder

3.3.1 The cylinder must be original.

3.3.2 Only re-boring is allowed.

3.3.3 In case of doubt, the shape and height of transfer shall be compared to cylinder from the sample engine.

3.3.4 A diagram adjustment is allowed only by means of cylinder gasket replacements. The number of cylinder gaskets is not limited. Cylinder gaskets must be original.

3.3.5 No head gasket is admitted.

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

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

3.3.8 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 numbers prior to M3521/B3059 can be equipped with the marked cylinder.

Engines with serial numbers subsequent to M3521/B3059 cannot be equipped with the non-marked older cylinder.

3.4 Crankcase, Crankshaft, Con-rod, Crankpin

3.4.1 Parts must be original and without any modification. Only the original big end cage (X30125431) original washers (X30125436) and original small end cage (E-10440) are allowed.

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

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

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

3.5 Bearings

- 3.5.1 Steel and plastic cages are allowed.
- 3.5.2 Only original crankshaft ball bearings (6206, C3 or C4) and counter balancing shaft ball bearings (6202, C3 or C4 and 6005, C3 or C4) are allowed.
- 3.5.3 Ball bearings with oblique contacts are forbidden.
- 3.5.4 Only bearings with steel balls and rings are allowed. Ceramic is forbidden.

3.6 Piston, Ring and Pin

- 3.6.1 Strictly original without any modification and in compliance with the homologation form.
- 3.6.2 The IAME original gauge ATT-035/2 is the reference to check the piston head shape.

3.7 Reed Block

- 3.7.1 Must be strictly original without modification. No gasket planes machining is allowed. Free screws. Only original reed valve cover without modification is allowed.
- 3.7.2 Reed block/crankcase gasket thickness is 1mm (admitted tolerance +/-0.3mm)
- 3.7.3 Conveyor/reed block gasket thickness is 0.8mm (admitted tolerance +/-0.3mm)

3.8 Reed Petals

- 3.8.1 Only fibreglass (min. 0.3mm) or carbon fibre (min. 0.24mm) original IAME marked reed petals are allowed. Mixing of fibreglass and carbon fibre petals is forbidden.

3.9 Carburettor

- 3.9.1 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 homologation form are allowed, needle valve springs is free.
- 3.9.2 Carburettor positioning (i.e. with pump in upper or in lower position) is free. Carburettor gasket thickness is 1mm (admitted tolerance +/-0.3mm).
- 3.9.3 Only the new IAME X30inlet silencer model will be allowed (SKU: X30125740) in dry conditions. In the event of a wet race, both the new IAME X30 inlet silencer (SKU: X30125740) and the IAME X30 inlet silencer (10743-C1) will be allowed. The inlet silencer must be original with max 22mm internal diameter intake tubes. Protective grids are optional.
- 3.9.4 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.
- 3.9.5 Any injection and /or spraying system is forbidden.
- 3.9.6 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.

3.10 Clutch

- 3.10.1 The centrifugal clutch must engage at max. 4000 RPM moving the kart with driver on board and in racing conditions. The clutch must be completely triggered at max. 6000 RPM in any condition. This measurement can eventually be checked with proper instruments. The driver is responsible for the wear status of the clutch padding material and cleaning of the friction parts. Proper operation of the clutch might be checked at any time during the event or after each phase.
- 3.10.2 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 a perpendicular position respective to the clutch drum axis.

3.11 Ignition

- 3.11.1 Only original Selettra Digital K or S ignition systems without modification are allowed.
- 3.11.2 Only the electronic CDI box type C(16000 RPM) is allowed and must be fixed on the chassis or engine. The markings on the electronic box are compulsory and must be clearly visible without disassembly. Obscuring of the markings is forbidden.
- 3.11.3 Modifications to the stator fixing, shape and thickness of the rotor key, and rotor and crankshaft slots are forbidden.
- 3.11.4 The battery must be fixed to the chassis and connected to the ignition system at all times.
- 3.11.5 The IAME original gauge ATT-035/7 is the reference to check the correct position of the phase reference marking on the rotor.

3.12 Spark Plug

- 3.12.1 Only the following NGK spark plugs, strictly original and without any modification are allowed.
- 3.12.2 B8EG, B9EG, B10EG
- 3.12.3 BR8EG, BR9EG, BR10EG
- 3.12.4 BR8EIX, BR9EIX, BR10EIX
- 3.12.5 BR8ECMIX, BR9ECMIX, BR10ECMIX
- 3.12.6 B8ES, B9ES, B10ES
- 3.12.7 B8EGV, B9EGV, B10EGV
- 3.12.8 The spark plug must be installed with its original gasket.
- 3.12.9 The insulator must not exceed the spark plug body and the length of the spark plug body itself must be max. 18.5mm (CIK Technical Regulations Appendix 7)
- 3.12.10 The spark plug cap must be original as delivered with the engine (IAME p.n. 10543 and 10544)

3.13 Exhaust

- 3.13.1 Only the original muffler and header as supplied with the engine are allowed and must be kept in compliance with the homologation form, therefore no modification in structure or dimension is allowed. Only the Junior exhaust manifold is allowed, in compliance with the homologation form.
- 3.13.2 Drilling and welding operations on the header are allowed only for the installation of a temperature probe.
- 3.13.3 The complete sealing of the exhaust gas between the cylinder and the exhaust header must be guaranteed at all times. The control of the sealing of the exhaust gas can be performed at any time through the occlusion of the outlet hole of the exhaust manifold, filling of the exhaust manifold with liquid through the exhaust port and checking for leaks. The proper sealing of the exhaust system is at Driver's responsibility.
- 3.13.4 One original gasket only between cylinder and exhaust manifold is allowed, the use of the original exhaust spacer is allowed and not mandatory.
- 3.13.5 In all cases the exhaust system must be in compliance with the phonometric measurement.

3.14 Differential Reading Between Exhaust and Transfers

- 3.14.1 Checks will be conducted as follows: Install the graduated disc or encoder onto the crankshaft. Insert the feeler gauge (wedge) 0.2 x 5mm at the centre of the exhaust port. Rotate the crankshaft clockwise (seen from the clutch side) and take the piston ring in contact with the feeler gauge. Set the graduated disc or encoder to zero. Rotate the crankshaft counter clockwise to lower the piston until the transfer ports are open.



Insert the feeler gauge into one of the transfer ports. Rotate the crankshaft clockwise and take the piston ring in contact with the feeler gauge. Check the disc or encoder reading. To be legal it must be minimum 24° and 25°.

3.15 Cooling

3.15.1 The cooling system must be in its original configuration. Only one IAME original radiator (p.n. T-80008 or T-8001) is allowed. Only one simple water pump of any make is allowed. The number of radiator support brackets is not limited. Only simple or bypass IAME original thermostats are allowed and their use is optional. Only water with no additives is allowed for cooling. Radiator shields, either adhesive or mechanical are allowed but should not be removable when kart is in motion.

3.15.2 Water pump hoses are free.

3.15.3 The belt can operate with or without the water pump pulley.

3.15.4 Water pump pulley is free.

3.16 Starting

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

3.17 Sprockets

3.17.1 Only IAME original Z10, Z11, Z12 and Z13 sprockets are admitted.