

# **TECHNICAL REGULATIONS IAME SERIES ITALY 2024**

(according to original ACI Sport approval n° 20/2024 dated 30/01/2024)

# 1. GENERAL

For anything not expressly indicated in these IAME Series Italy 2024 Technical Regulations, reference is made to the RDS Karting Technical Regulations 2022, which shall be deemed to be reproduced here in full. Newly homologated chassis and bodies are also permitted for all categories in the TdM. V.A.L.M. s.r.l. may adopt additional safety systems if they are made mandatory by the National Sporting Authority during the

V.A.L.M. s.r.l. may adopt additional safety systems if they are made mandatory by the National Sporting Authority during the course of the year.

# 2. TECHNICAL SCRUTINEERING BEFORE THE RACE

Scrutineering and engine checks are carried out by scrutineers appointed by the ACI Federation. A maximum of two (2) engines and one (1) chassis of the same make and model per driver are allowed in each event. It is only possible to punch a second frame if the previously punched frame is damaged and cannot be repaired. The Competitor/Driver, before leaving the "Finish Service Park", after the end of the official qualifying practice, qualifying heats, pre-final, must inform and have the current state of the chassis checked by the ACI Technical Delegate, who will inform the Stewards of the outcome of the check and request, if necessary, authorisation to replace the damaged chassis. The replaced chassis must be of the same make and model as the one previously punched in the same event. Pre-race technical inspections of engines and chassis are carried out by means of barcodes provided by the Promoter. At any time during the event, checks may be carried out on the technical regularity of the punched material in race condition.

2.1 The engine data sheet is the reference document for engine checks.

**2.2** In the event of continuing doubts as to the complete originality and conformity of a part, the evidence shall be the comparison with the same part belonging to the sample engine made available by the Promoter.

**2.3** Throughout the event, with the authorisation of the Stewards, the Scrutineers may replace any engine part or accessory, as well as the engine itself of the Competitor's kart, with corresponding parts/accessories and engines owned by the Promoter. The Promoter, while guaranteeing the perfect efficiency and functioning of the material supplied as replacement, cannot in any case be held responsible for any malfunction occurring as a result of the replacement.

**2.4** The Stewards of the Meeting may, also on their own initiative, order scrutineering involving the subsequent non-use of the part checked. In case of conformity, the part shall be refunded by the Promoter to the Competitor. No reimbursement shall be made if the checks reveal that the part is not original.

**2.5** During each race and for the technical checks of the engine only, the Promoter may request the presence of its own specialised technician to support the ACI Technical Delegate. The control of the chassis and other parts is the responsibility of the Scrutineers appointed by ACI. The technical checks of the engine and/or of any other detail are carried out exclusively by Technical Stewards appointed by ACI for the event, in compliance with the RDS Karting Technical Regulations 2022; for any complaints and/or appeals please refer to the RSN ACI Sport and RDS Karting 2024.

**2.6** In specific cases, the Stewards of the Meeting may order the postponement of scrutineering at the Manufacturer's premises, with transport costs to be borne by the Promoter in the case of compliant material, or with costs to be borne by the Competitor concerned in the case of non-compliant material.

It is the obligation of the Promoter to ensure that the part(s), carefully sealed and accompanied by the report of the Stewards, are delivered to the Manufacturer's premises.

At the venue indicated by the Stewards of the Meeting, the part(s) must be checked in the presence of the Competitor and the Technical Delegate of the event, who must draw up the verification report to be sent to the President of the Stewards of the Meeting.



# **3. COMPLAINTS**

As stipulated by RSN ACI Sport and RDS Karting Sporting 2024.

# 4. AMENDMENTS TO THE REGULATION

In order to ensure the smooth running of IAME Series Italy 2024 and/or in case of force majeure, subject to authorisation by ACI Sport, the Promoter reserves the right to amend these Technical Regulations.

# 5. FUEL, LUBRICANT, TANK

**5.1** Only fuels commonly sold at petrol stations are permitted. The choice of petrol station for the compulsory supply of fuel as well as the RON number are indicated by the event organiser and stated in the individual Supplementary Regulations.

5.2 The fuel must not contain any additives other than the lubricant.

5.3 Lubricant X30 MINI/X30 JUNIOR/X30 SENIOR/X30 MASTER/KA100/S125S/S125M: Wladoil K2-T (CIK/FIA Karting registered)

5.4 Lubricant Z-I: CIK/FIA Karting registered lubricant

5.5 The tank must be of the removable type and have a minimum capacity of 8 litres (3 litres for X30 MINI).

**5.6** The use of the cooling system vent recovery tank and petrol tank is mandatory.

## 6. PNEUMATICS

X30 Mini	Slick	Wet
Ant.	KOMET K1D-M 10 x 4.00-5	KOMET K1D-W 10 x 4.00-5
Post.	KOMET K1D-M 11 x 5.00-5	KOMET K1D-W 11 x 5.00-5
X30 Junior/KA100		
Ant.	KOMET K3H 10 x 4.60-5	KOMET K1W 10 x 4.20-5
Post.	KOMET K3H 11 x 7.10-5	KOMET K1W 11 x 6.00-5
X30 Senior/X30 Master/S125S/S125M/Z-I		
Ant.	KOMET K3M 10 x 4.60-5	KOMET K1W 10 x 4.20-5
Post.	KOMET K3M 11 x 7.10-5	KOMET K1W 11 x 6.00-5

6.1 Tyre Inspection Tool

The MiniRAE Lite control instrument 'RAE Systems Inc. (USA) is used from the time trials to the final stage of the event. The control is carried out at the entrance to the start park, the tyre measurement may not exceed a value of 15 ppm. If this value is exceeded, the driver is not permitted to enter the start park.

# 7. ANNEXES

The following annexes form an integral part of this Regulation:

- 1 Data Sheet 364H IAME X30 WATERSWIFT 60cc
- 2 Data Sheet 254Y IAME X30 125cc
- 3 Data Sheet 348C Carburettor Tillotson HW27A
- 4 Data Sheet 401C IAME Reedjet 100cc
- 5 Data Sheet 409 IAME S125 125cc
- 6 Data Sheet 410 Carburettor Tillotson HW50A
- 7 Distribution control procedure

#### 8. OFFICIAL REGULATION



The present Regulations are published in both Italian and English. In case of any dispute, the Italian version of these Rules will take precedence.



# **TECHNICAL REGULATIONS X30 MINI**

# **1. AUTHORISED FRAMES**

Only chassis homologated for the Mini category, according to the ACI Sport and/or FIA Karting regulations, offered in the Manufacturers' catalogue, either with valid homologation or expired. If a chassis with CIK-FIA Mini Gr.3 homologation is used, all chassis components, bodywork, rear protection, braking system, must have the same CIK-FIA homologation.

# 2. DEFINITION OF FRAMES

The frames must meet the following requirements:

**2.1** Conventional chassis according to ACI Sport/FIA Karting regulations, with valid or expired homologation for the MINI category.

2.2 Front, side, front spoiler and rear bumper, with valid or expired ACI Sport/CIK/FIA Karting homologation.

2.3 Front fairing fastening system as per RDS Karting Technical Regulation 2022 art. 4.14.2.

#### 3. ENGINE

**3.1** Any modification or addition to the engine and its accessories is forbidden, unless expressly authorised. IAME considers as modification any action that modifies the original appearance and/or measurements of a component. Any modification and/or installation resulting in the alteration of a measurement or the impossibility to verify it is strictly forbidden. The Competitor/Conductor is held responsible for the conformity of his/her equipment.

**3.2** The only engine authorised for the entire event is the original IAME X30 WATERSWIFT 60cc and strictly in accordance with the reference data sheet (technical characteristics, measurements, weights, diagrams and tolerances prescribed by the manufacturer). The pictures on the homologation sheet are also valid to identify the engine and components.

**3.3** Engines must bear the original serial number. Modifications, removal or addition of parts is not permitted. All internal and external engine components must be installed in their original position and must function according to the manufacturer's technical specifications, performing the function for which they were designed.

**3.4** The machining, assembly and adjustment tolerances indicated on the engine data sheet refer exclusively to manufacturing tolerances. No intervention on the engine is therefore permitted even if the final measurements obtained fall within the limits prescribed by the tolerances.

**3.5** In order to maintain the characteristic reliability, any kind of modification is prohibited. The maximum and minimum authorised values are verified according to the method prescribed by the FIA Karting Technical Regulations, including the control method for the combustion chamber volume.

**3.6** Any uncertainties relating to measurements not mentioned in the engine data sheets or in these regulations may be resolved by comparison with the same sample part, at the Promoter's disposal, and in compliance with the tolerance requirements as per FIA Karting regulations.

**3.7** All the jigs listed in the engine data sheets and available to the scrutineers are to be considered as valid tools certified by the Manufacturer for the purpose of determining the conformity of the part for which they are intended.

**3.8** Table of Diagrams: Ref. Technical Data Sheet X30 WaterSwift 60cc engine



### 4. HEADLINE

4.1 The header must be original.

**4.2** The spark plug body clamped on the cylinder head must not extend beyond the top of the combustion chamber. The minimum squish size must comply with that indicated on the engine data sheet.

**4.3** Squish must be measured on the engine under racing conditions. The tin wire used to measure squish must have a diameter of 1.5 mm. The original IAME template code 10215 is the reference for checking the cylinder head profile.

# 5. CYLINDER

5.1 Only original cylinders with barrel locking pin and marking are permitted.

**5.2** Processing such as polishing, sandblasting, trimming or any other modification is not permitted. Only reaming/lapping of the barrel is permitted. Neither heat treatment nor surface treatment is permitted.

**5.3** Modification of the diagram is only permitted with the replacement of the cylinder base gasket. The number of cylinder base gaskets is not limited. Original gaskets.

**5.4** No gaskets are allowed between cylinder and head. In addition to measuring the opening angles, the original IAME template code ATT-005 is the reference for checking the distance of the upper edge of the lights from the head support plane.

5.5 Cylinder heat shielding permitted, provided that it cannot be removed while the kart is running.

**5.6** Starting with the engine with serial no. 011150, only cylinders with the markings as indicated in the reference data sheet may be used.

# 6. CRANKCASE, CRANKSHAFT, CONNECTING ROD

6.1 Only original and unmodified parts are permitted.

**6.2** Only piston rod head (IAME part number B-10431) and piston rod foot (IAME part number A-60440) roller cages, as well as washers (IAME part number E-38436), which are strictly original, are authorised.

6.3 Sealing rings original and fitted as original, cable side inside crankcase.

#### 7. BEARINGS

7.1 Bearings may only be replaced with others that are strictly original: crankshaft bearing No. IAME 10400-D (6204 C4).

7.2 Angular contact bearings are prohibited.

7.3 Only bearings with steel rings and rolling elements are permitted.

**7.4** Bearings that do not bear the correct, clearly visible classification number as described in the regulations are expressly forbidden.

7.5 The bearings must be mounted with the balls visible from inside the housing.

7.6 In order to achieve the correct axial clearance, spacers may be used behind the bearings.

**7.7** All internal engine parts must be of the Manufacturer's origin, in the same number as prescribed by the Manufacturer and fitted in the prescribed position.



## 8. PISTON, RING, PIN

**8.1** Only original and unmodified parts in accordance with the engine data sheet are permitted.

# 9. CARBURATOR

**9.1** Only the use of the carburettor supplied with the engine in its original configuration (same make, same model, same reference) is permitted for the category:

9.2 X30 Mini: Tillotson HW-31A carburettor

9.3 Only original accessories delivered with the carburettor and indicated on the data sheet are authorised.

**9.4** The needle valve spring is free.

9.5 The position of the carburettor is free (i.e. with the petrol pump positioned upwards or downwards).

**9.6 It** is compulsory to use all carburettor spacers in the order indicated in the data sheet, conforming to the engine data sheet, without any modification, and the corresponding original gaskets.

#### **10. INTAKE SILENCER**

**10.1** The intake silencer must be the one originally supplied with the engine (same make, same model, same reference), i.e. IAME mod. MINI SWIFT homologated CSAI 01/SA/14. The intake pipe must have an internal diameter of 23mm max. Externally for protection, grilles, protective tiles are optional.

**10.2** The rubber connection connecting the intake silencer to the carburettor must be compulsorily fitted and in accordance with the type-approval certificate. The sponge filter element, if used, must be intact.

**10.3** All injection and/or spraying systems of any kind are prohibited.

#### **11. TRANSMISSION**

**11.1** The engine is equipped with a transmission system of the dry centrifugal clutch type.

**11.2** All interventions aimed at extending clutch slip beyond the indicated maximum engagement speed are expressly forbidden.

**11.3** Clutch dragging must start at max. 4,500 rpm, causing the kart to move forward with the driver on board and in racing trim.

11.4 The clutch must be fully disengaged at max. 6,500 rpm under all conditions.

11.5 The verification of this value may be carried out with instruments designed for this purpose.

**11.6** Each competitor/driver is held responsible for the good condition of the friction material on the clutch rotor as well as the cleanliness of the friction parts.

**11.7** Checking the correct functioning of the clutch and the drive regime may be carried out by the stewards at any time during the race, even after the finish.

**11.8** The UniLog clutch control system manufactured by Unipro may be used, in which case the Competitor/Conductor must be provided with the cable/holder kit while the tool is provided for use by the Promoter.

11.9 Only original IAME Z10/ Z11 sprockets are permitted.



# 12. ACCENSION

**12.1** Only the original ignition, without any modification, is permitted, i.e. SELETTRA ignition part number IAME A-61951 and coil part number IAME A-61955.

**12.2** The entire ignition system must remain strictly original.

12.3 The battery must in all cases remain connected to the ignition system and mounted on the chassis.

## 13. SPARK PLUG AND SPARK PLUG CAP

**13.1** Only NGK B9EG - B10EG - BR9EG - BR10EG spark plugs, original and unmodified, are permitted.

**13.2** The spark plug must be mounted with its original gasket. The insulation must not extend beyond the spark plug body and the length of the spark plug body must not exceed 18.5 mm.

**13.3** Original spark plug cap, as delivered with the engine (IAME code 10543 (NGK TB05EMA) or IAME code 10544 (PVL 401 222 / Selettra 6000721001 5KOhm).

#### **14. EXHAUST SYSTEM AND SILENCER**

**14.1** The original muffler mounted on the engine must comply with the engine data sheet, without any modification in structure (magnetic material) or dimensions.

14.2 The exhaust manifold must in all cases comply with the data sheet.

**14.3** The use of a single original exhaust gasket is mandatory and the gas tightness between the cylinder and the manifold must be guaranteed at all times.

14.4 Exhaust gas temperature probe not permitted.

#### 15. COOLING

**15.1** The cooling system must be as originally delivered: only one original IAME radiator (cod. T-8601) and one original IAME water pump (blue/black plastic or aluminium) as supplied with the engine.

**15.2** The use of the original conductor pulley combined with the transmission OR rings is mandatory. The type of transmission OR is free.

**15.3** Original, IAME marked, blue water hoses as delivered with the engine. The number of radiator support brackets is not limited.

**15.4** Original IAME approved and optional two- or three-way thermostats. The two-way thermostat housing can also be installed without the thermostat inside and function as a fitting. Connection for authorised water temperature probe, even without a thermostat.

15.5 The only permissible coolant is water, without any additives.

**15.6** Shielding on the radiator is permitted, adhesive or mechanical, provided that it cannot be removed while the Kart is running.

# **16. STARTING**

**16.1** The integrated start/stop system must always be fitted with all its components in perfect working order and correctly connected.



# **TECHNICAL REGULATIONS X30 JUNIOR - X30 SENIOR - X30 MASTER**

# **1. AUTHORISED FRAMES**

Only chassis homologated according to the CIK/FIA Karting regulations, offered in the Manufacturers' catalogue and complying with Article 2 of the FIA Karting regulations, whether with valid or expired homologation, are allowed.

# 2. DEFINITION OF FRAMES

The frames must meet the following requirements:

2.1 Conventional chassis according to CIK/FIA Karting regulations, with valid or expired homologation.

2.2 Magnetic steel rear axle with a maximum diameter of 50 mm.

**2.3** The use of a 'closed' type chain cover is mandatory.

**2.4** CIK/FIA Karting homologated rear brake.

2.5 Front brakes not permitted

**2.6** Front, side bodywork, front spoiler and rear bumper with valid or expired CIK/FIA Karting homologation.

2.7 Front fairing fastening system as per RDS Karting Technical Regulation 2022 Art. 4.14.4

2.8 For all details not mentioned in the articles concerning chassis, the CIK/FIA Karting regulations apply.

#### 3. ENGINE

**3.1** Any modification or addition to the engine and its accessories is forbidden, unless expressly authorised. IAME considers as modification any action that modifies the original appearance and/or measurements of a component. Any modification and/or installation resulting in the alteration of a measurement or the impossibility to verify it is strictly forbidden. The Competitor is held responsible for the conformity of its equipment.

**3.2** The only engine authorised for the entire event is the original IAME X30 125 RL TaG and strictly in accordance with the reference data sheet (technical characteristics, measurements, weights, diagrams and tolerances prescribed by the manufacturer). The pictures contained in the data sheet are also valid to identify the engine and its components.

**3.3** The engines must bear the original serial number.

**3.4** Modification, removal or addition of parts is not permitted. All internal and external engine components must be installed in their original position and must function according to the manufacturer's technical specifications, performing the function for which they were designed.

**3.5** The machining, assembly and adjustment tolerances indicated on the engine data sheet refer exclusively to manufacturing tolerances. No intervention on the engine is therefore permitted even if the final measurements obtained fall within the limits prescribed by the tolerances.

**3.6** In order to preserve the characteristic reliability, any kind of modification is prohibited. The maximum and minimum authorised values are verified according to the method prescribed by the CIK/FIA Karting Technical Regulations, including the control method for the combustion chamber volume.

**3.7** Any uncertainties relating to measurements not mentioned in the engine data sheets or in these regulations may be resolved by comparison with the same sample part, at the Promoter's disposal, and in compliance with the tolerance requirements as per CIK/FIA Karting regulations.



**3.8** All the jigs listed in the engine data sheets and available to the scrutineers are to be considered as valid tools certified by the Manufacturer for the purpose of determining the conformity of the part for which they are intended.

**3.9** Table of Diagrams: Engine data sheet ref.

# 4. HEADLINE

**4.1** The header must be the original.

**4.2** The spark plug body clamped on the cylinder head must not extend beyond the top of the combustion chamber.

4.3 The minimum squish size must comply with that indicated on the engine data sheet.

4.4 Squish must be measured on the engine under racing conditions.

**4.5** The tin wire used to measure the squish must have a diameter of 1.5 mm.

4.6 The original IAME template code ATT-025/1 is the reference for checking the profile of the header.

#### 5. CYLINDER

5.1 Only original cylinders with barrel locking pin and marking are permitted.

**5.2** Processing such as polishing, sandblasting, trimming or any other modification is not permitted. Only reaming/lapping of the barrel is permitted. Neither heat treatment nor surface treatment is permitted.

5.3 Modification of the diagram is only permitted with the replacement of the cylinder base seal.

5.4 The number of cylinder base seals is not limited.

5.5 Gaskets between cylinder and head are not permitted.

**5.6** In addition to the measurement of the opening angles, the original IAME template code ATT-025/2 is the reference for checking the distance of the upper edge of the lights from the head support plane. The original IAME jig code ATT-035/1 is the reference for visually checking the lights.

5.7 Cylinder heat shielding permitted, provided that it cannot be removed while the kart is running.

#### 6. CRANKCASE, CRANKSHAFT, CONNECTING ROD

**6.1** Only original and unmodified parts are permitted.

6.2 The original IAME ATT-035/3 template is the reference for checking the reed valve seat.

6.3 The original IAME ATT-035/4 template is the reference for checking the distance between the cylinder centring pins.

6.4 The original IAME ATT-035/5 template is the reference for checking the height of the cylinder base plane.

**6.5** Connecting rod head roller cage (part no. X30125431) and connecting rod foot (part no. E-10440 or E-10441) as well as the washers (part no. X30125436 or X30125437), strictly original.

6.6 Sealing rings original and fitted as originally, i.e. cable side inside engine crankcase.



# 7. BEARINGS

**7.1** Only ball crankshaft bearings 6206 C4 and SKF roller bearings BC1-3342 B are permitted. The combination of ball and roller crankshaft bearings on the same motor is not permitted. Only balance shaft ball bearings 6202 C3 / C4 / C4H and 6005 C3 / C4 with steel balls and polyamide cage are permitted.

7.2 Angular contact bearings are prohibited.

7.3 Only bearings with steel rings and rolling elements are permitted.

**7.4** Bearings that do not bear the correct, clearly visible classification number as described in the regulations are expressly forbidden.

7.5 Ball bearings must be mounted with the balls visible from inside the housing.

7.6 In order to achieve the correct axial clearance, spacers may be used behind the bearings.

**7.7** All internal engine parts must be of the Manufacturer's origin, in the same number as prescribed by the Manufacturer and fitted in the prescribed position.

## 8. PISTON, RING, PIN

8.1 Only original and unmodified parts in accordance with the engine data sheet are permitted.

8.2 The original IAME template code ATT-035/2 is the reference for checking the shape of the piston crown

## 9. INTAKE UNIT AND REED VALVE

- 9.1 Only original and unmodified parts are permitted.
- 9.2 No machining or surface finishing of the parcel surfaces is permitted.
- 9.3 The conveyor must be original and unmodified.
- 9.4 The carburettor seat must remain strictly original.
- 9.5 Lamellar pack/base gasket thickness 1 mm (tolerance allowed +/- 0.3 mm).
- 9.6 Conveyor/flap gasket 0.8 mm thick (tolerance allowed +/- 0.3 mm).

### **10. REED VALVE**

- 10.1 Original IAME vetronite lamellas (min. thickness 0.30mm) are permitted
- **10.2** Original IAME carbon fibre slats (min. thickness 0.24 mm) are permitted.
- 10.3 The combination of carbon and vetronite slats is prohibited, even if original.
- 10.4 The modification of the shape of the slats is expressly forbidden.

### **11. CARBURATOR**

**11.1** Only the Tillotson HW27A carburettor supplied with the engine in its original configuration may be used.

**11.2** Only accessories supplied with the carburettor and shown on the data sheet are permitted. The needle valve spring is free.



11.3 The position of the carburettor is free (i.e. with the petrol pump positioned upwards or downwards).

**11.4** The original IAME template code ATT-035/2 is the reference for checking the carburettor intake duct.

11.5 Sprayer height reference jig: ATT-035/12

## **12. INTAKE SILENCER**

**12.1** Original intake silencer (part no. X30125740) as supplied with the engine.

12.2 Carburettor gasket 1 mm thick (permitted tolerance +/- 0.3 mm)

12.3 Suction pipes must have an internal diameter of 23 mm max. Protective grilles or tiles are optional.

**12.4** The rubber connection with air filter that connects the intake silencer to the carburettor must be compulsorily fitted and comply with the type-approval certificate. The sponge filter element must be intact.

12.5 All injection and/or spraying systems of any kind are prohibited.

12.6 In case of rain, the only permissible protection is the original IAME SKE005-PN-IAME

#### **13. TRANSMISSION**

**13.1** All interventions aimed at extending clutch slip beyond the indicated maximum engagement speed are expressly forbidden.

**13.2** Clutch dragging must start at max. 4.000 rpm, causing the kart to move forward with the driver on board and in racing trim. Full clutch dragging must take place at max. 6,000 rpm under all conditions. This value can be checked with instruments designed for this purpose.

**13.3** Each competitor/driver is responsible for the good condition of the friction material on the clutch rotor and for the cleanliness of the friction parts.

**13.4** Checking the correct functioning of the clutch and the drive regime may be carried out by the stewards at any time during the race, even after the finish.

**13.5** The original IAME template code ATT-047/4 is the reference for checking the clutch bell. The jig, positioned perpendicular to the axis of the clutch bell, must not enter.

**13.6** The UniLog clutch control system manufactured by UniPro may be used, in which case the Competitor/Conductor must be supplied with the cable/holder kit while the tool is in use by the Promoter.

**13.7** Only original IAME Z10/Z11/Z12/Z13 sprockets are permitted.

#### 14. ACCENSION

14.1 Only the original ignition, without any modifications, both SELECTRA 'DIGITAL S' and SELECTRA 'DIGITAL K' are permitted.

14.2 The entire ignition system must remain strictly original.

14.3 Only type 'C' electronic control units (16000 rev. limiter) are permitted.

**14.4** The electronic control unit must be attached to the frame (DIGITAL K system) or the engine (DIGITAL S system), leaving the side bearing the markings clearly visible.

**14.5** It is expressly forbidden to make any changes to the fastening system of the stator to the crankcase, the shape or thickness of the rotor reference key, the keyways on the rotor and the drive shaft.



**14.6** The original ATT-035/7 template is the reference for verifying the correct position of the phase reference notch on the rotor.

14.7 The battery must in all cases remain connected to the ignition system and mounted on the chassis.

## 15. CANDLE

**15.1** Only NGK spark plugs are permitted: B9EG - B10EG - BR9EG - BR9EIX - BR10EG - BR10EIX - *R6252K-105 - R6254E-105*, original and without any modifications.

**15.2** The spark plug must be mounted with its original gasket. The insulation must not extend beyond the spark plug body and the length of the spark plug body must not exceed 18.5 mm.

**15.3** Original spark plug cap, as delivered with the engine (part no. IAME 10543 (NGK TB05EMA) or part no. IAME 10544 (PVL 401 222 / Selettra 6000721001 5KOhm).

## **16. EXHAUST SYSTEM AND SILENCER**

**16.1** Original muffler conforming to the type approval fiche, without any modification in the structure (magnetic material) or dimensions.

**16.2** The only authorised intervention is the drilling of the seat for the installation of the exhaust gas temperature sensor.

16.3 Original exhaust manifold as per data sheet.

16.4 Original exhaust manifold with 22.7 mm restriction specifically for X30 Junior, as per data sheet.

**16.5** The fitting of at least one gasket between cylinder and exhaust manifold is mandatory and original. Thickness optional.

16.6 Gas tightness between the cylinder and the exhaust manifold must be ensured at all times.

16.7 Exhaust manifold reference jig: ATT-035/9

#### 17. COOLING

**17.1** The cooling system must be original: one original IAME radiator (cod. T-8000B or T-8001) and one original IAME pump (blue/black plastic or aluminium) as supplied with the engine.

**17.2** The use of the original conductor pulley (blue/black plastic or aluminium) combined with the transmission OR rings is mandatory. The type of transmission OR is free.

17.3 Original, IAME-marked, blue water hoses as delivered with the engine.

**17.4** The number of radiator support brackets is not limited. Original IAME brackets as represented in the engine data sheet.

**17.5** Original IAME approved and optional two- or three-way thermostats. The two-way thermostat housing can also be installed without the thermostat inside and function as a fitting. Connection for authorised water temperature probe, even without a thermostat.

17.6 The only permitted coolant is water, without any additives.

17.7 Radiator shielding permitted, adhesive or mechanical, provided it cannot be removed while the kart is running .

# **18. STARTING**

**18.1** The integrated start/stop system must always be fitted with all its components in perfect working order and correctly connected.



# **TECHNICAL REGULATION Z-I**

## **1. AUTHORISED CHASSIS**

Only chassis for gearbox categories, homologated according to the CIK/FIA Karting regulations, proposed in the Manufacturers' catalogue and complying with Article 2 of the CIK/FIA Karting regulations, either with valid homologation or expired, are allowed.

## 2. DEFINITION OF CHASSIS

2.1 Conventional chassis according to CIK/FIA Karting regulations, with Group 2 homologation, category KZ2, valid or expired.

2.2 Magnetic steel rear axle with a maximum diameter of 50 mm.

2.3 Chain cover in accordance with CIK/FIA Karting regulations for categories with gearbox.

2.4 Homologated CIK/FIA Karting braking system according to CIK/FIA Karting regulations for categories with gearbox.

**2.5** Front fairing, side bodywork, front spoiler and rear bumper with valid or expired CIK/FIA Karting homologation.

2.6 Front fairing fixing system as per RDS Karting Technical Regulations 2022 art. 4.14.4.

2.7 For all details not mentioned in the articles concerning chassis, the CIK/FIA Karting regulations apply.

#### 3. ENGINE

**3.1** Only IAME engines are allowed, single-cylinder type with reed valve, with CIK/FIA Karting homologation for KZ categories, valid or expired.

**3.2** The original components of the homologated engine must always comply with and be similar to the photos, drawings, material and physical size described in the homologation fiches and, in any case, original IAME components.

3.3 The Competitor is held responsible for the conformity of his equipment.

**3.4** Engines must carry their original serial number.

**3.5** The maximum and minimum authorised values are verified according to the method prescribed by the CIK/FIA Karting Technical Regulations, including the control method for the combustion chamber volume.

**3.6** Minimum combustion chamber volume: 11 cm<sup>3</sup>+2 cm<sup>3</sup> insert =13 cm<sup>3</sup>, measured as described in Appendix 1.

# 4. CARBURETTOR

**4.1** Dell'Orto type VHSH, Ø 30 mm., aluminium, standard production, factory original, with "Venturi" diffuser Ø 30 mm max., verifiable with 30.1 mm max. pass/no pass buffer.

# **5. INTAKE SILENCER**

5.1 Intake silencer with valid CIK/FIA Karting homologation, with 2 inlet ducts  $\emptyset$  30mm.

#### 6. IGNITION - SPARK PLUG

**6.1** Ignition system with valid CIK/FIA Karting homologation.

6.2 Free-brand, mass-produced spark plug.



**6.3** The spark plug base (electrodes not included) clamped onto the cylinder head must not exceed the top of the combustion chamber dome. Size: 18.5mm M14x1.25.

### 7. MUFFLER AND EXHAUST SILENCER

7.1 Exhaust silencer as described in the respective homologation form.

7.2 Exhaust silencer with CIK/FIA Karting homologation for KZ categories.

7.3 Muffler and exhaust silencer according to CIK/FIA Karting Technical Drawing No. 20.

#### 8. COOLING

**8.1** Cooling exclusively by water (H2O) with only one circuit, according to Art 2.16.4 CIK/FIA Karting Technical Regulations (with engine reference homologation).

## 9. CHANGE

9.1 In accordance with what is described in the respective homologation sheet of the engine.

- 9.2 Minimum 3 gears, maximum 6 gears.
- 9.3 Manual mechanical gearbox control
- 9.4 All electric and non-electric power assistance systems are prohibited.

#### **10. MODIFICATIONS**

**10.1** All modifications of the homologated engine are authorised with the exception of:

- 10.2 The stroke
- 10.3 The bore (beyond the maximum limitation)
- 10.4 The connecting rod spacing
- 10.5 The number of transfer channels and ports in the cylinder and crankcase
- 10.6 The number of ports and exhaust ducts
- **10.7** The restrictions according to specific standards
- 10.8 The number of carburettors and diameter of the Venturi
- 10.9 External appearance of the installed engine

**10.10** Modifications from the outside of the engine, changing the colour of parts, cutting cooling connections and changing the way they are attached (including but not limited to the carburettor, ignition, exhaust, clutch or engine connections themselves) are not considered to be modifications, provided they do not change their approved position.



# **KA100 TECHNICAL REGULATIONS**

# **1. AUTHORISED FRAMES**

Only chassis homologated according to the CIK/FIA Karting regulations, offered in the Manufacturers' catalogue and complying with Article 2 of the FIA Karting regulations, whether with valid or expired homologation, are allowed.

## 2. DEFINITION OF FRAMES

The frames must meet the following requirements:

2.1 Conventional chassis according to CIK/FIA Karting regulations, with valid or expired homologation.

2.2 Magnetic steel rear axle with a maximum diameter of 50 mm.

**2.3** The use of a 'closed' type chain cover is mandatory.

**2.4** CIK/FIA Karting homologated rear brake.

2.5 Front brakes not permitted

**2.6** Front cover, side bodywork, front spoiler and rear bumper with valid or expired CIK/FIA Karting homologation.

2.7 Front fairing mounting system as per RDS Karting Technical Regulation 2022 Art. 4.14.4.

2.8 For all details not mentioned in the articles concerning chassis, the CIK/FIA Karting regulations apply.

#### 3. ENGINE

**3.1** Any modification or addition to the engine and its accessories is forbidden, unless expressly authorised. IAME considers as modification any action that modifies the original appearance and/or measurements of a component. Any modification and/or installation resulting in the alteration of a measurement or the impossibility to verify it is strictly forbidden. The Competitor is held responsible for the conformity of its equipment.

**3.2** The only engine authorised for the entire event is the original IAME Reedjet 100cc and strictly in accordance with the reference data sheet (technical characteristics, measurements, weights, diagrams and tolerances prescribed by the manufacturer). The pictures contained in the data sheet are also valid to identify the engine and its components.

**3.3** The engines must bear the original serial number.

**3.4** Modification, removal or addition of parts is not permitted. All internal and external engine components must be installed in their original position and must function according to the manufacturer's technical specifications, performing the function for which they were designed.

**3.5** The machining, assembly and adjustment tolerances indicated on the engine data sheet refer exclusively to manufacturing tolerances. No intervention on the engine is therefore permitted even if the final measurements obtained fall within the limits prescribed by the tolerances.

**3.6** In order to preserve the characteristic reliability, any kind of modification is prohibited. The maximum and minimum authorised values are verified according to the method prescribed by the CIK/FIA Karting Technical Regulations, including the control method for the combustion chamber volume.

**3.7** Any uncertainties relating to measurements not mentioned in the engine data sheets or in these regulations may be resolved by comparison with the same sample part, at the Promoter's disposal, and in compliance with the tolerance requirements as per CIK/FIA Karting regulations.



**3.8** All the jigs listed in the engine data sheets and available to the scrutineers are to be considered as valid tools certified by the Manufacturer for the purpose of determining the conformity of the part for which they are intended.

### 3.9 Table of Diagrams:

Engine data sheet ref.

### 3.10 HEAD

**3.11** The header must be the original one.

3.12 The spark plug body clamped on the cylinder head must not extend beyond the top of the combustion chamber.

**3.13** The minimum squish size must comply with that indicated on the engine data sheet.

3.14 The tin wire used to measure the squish must have a diameter of 1.5 mm.

**3.15** The original IAME ATT-063/1 template is the reference for checking the conformity of the dome profile. The profile of the template must match the profile of the dome at all points.

3.16 The original IAME ATT-063/2 template is the reference for checking the volume of combustion chambers.

#### **4 CYLINDER**

4.1 Only original cylinders with barrel locking pin and original IAME marking are permitted.

**4.2** Processing such as polishing, sandblasting, trimming or any other modification is not permitted. Only reaming/lapping of the barrel is permitted. Neither heat treatment nor surface treatment is permitted.

**4.3** Modification of the diagram is only permitted with the replacement of the cylinder base seal.

4.4 The number of cylinder base seals is not limited.

**4.5** It is permissible to use only one gasket between cylinder and head of free thickness among those available original IAME: ref. IAA-40200-0.05 or IAA-40200-0.10 or IAA-40200-0.15.

4.6 The original IAME ATT-063/3 and ATT-063/5 jigs are the reference for checking the lights.

4.7 The original IAME ATT-063/CL template is the reference for visual verification of cylinder liner conformity.

#### **5 CRANKCASE, CRANKSHAFT, CONNECTING ROD**

5.1 Strictly original crankcase, crankshaft, connecting rod without any modifications

**5.2** Only the original connecting rod head roller cages (X30125431), connecting rod foot (E-10440 or E-10441) and washers (X30125436 or X30125437) are permitted.

5.3 The sealing rings must be fitted correctly, cable side towards the inside of the crankcase and without any modifications.

#### **6 BEARINGS**

- 6.1 Only type 6205 TNH C4 journal bearings are permitted.
- 6.2 Angular contact bearings are prohibited.



#### 6.3 Not permitted ceramic balls

6.4 The bearings must be mounted with the balls visible from inside the housing

**6.5** Bearings that do not bear the correct, clearly visible classification number as described in the regulations are expressly forbidden.

6.6 In order to achieve the correct axial clearance, spacers may be used behind the bearings.

**6.7** All internal engine parts must be of the Manufacturer's origin, in the same number as prescribed by the Manufacturer and fitted in the prescribed position.

#### 7 PISTON - SEGMENT - PIN

7.1 Only original and unmodified parts in accordance with the engine data sheet are permitted.

7.2 The original IAME ATT-063/4 template is the reference for checking the shape of the piston crown.

#### 8 SLAT GROUP

8.1 Only original and unmodified parts in accordance with the engine data sheet are permitted.

8.2 No changes are permitted to the lamella support planes

**8.3** The gasket thickness between the slat and base assembly is 1 mm (tolerance allowed +/- 0.3 mm).

8.4 The gasket thickness between the conveyor and crankcase is 0.8 mm (tolerance allowed +/- 0.3 mm).

#### **9 REED VALVE**

**9.1** Only original and IAME-marked vetronite (min. thickness 0.25mm) or carbon fibre slats (min. thickness 022mm) are permitted.

9.2 Any modification of the slats is prohibited

9.3 The combination of carbon and vetronite slats is prohibited, even if original.

## **10 CARBURATOR**

**10.1** Only the Tillotson HW-33A carburettor as originally supplied with the engine may be used.

**10.2** Only accessories supplied with the carburettor and shown on the data sheet are permitted. The needle valve spring is free.

**10.3** The needle valve spring is free.

10.4 The position of the carburettor is free (i.e. with the petrol pump positioned upwards or downwards).

10.5 The carburettor gasket thickness is 1 mm (tolerance allowed +/- 0.3 mm).

**10.6** The original IAME ATT-063/8 and ATT 063/9 templates are the reference for checking the shape of the carburettor inlet duct. The shape of the duct must correspond at all points and over the entire length with the profile of the template.

10.7 The original IAME ATT 047/5D template is the reference for checking screw holes.



## **11 INTAKE SILENCER**

**11.1** Only the original IAME intake silencer (IAG-90000G) as supplied with the engine may be used.

**11.2** Protective grilles for the intake ducts are optional.

**11.3** The rubber connection with air filter that connects the intake silencer to the carburettor must be compulsorily fitted and in accordance with the type-approval fiche. The sponge filter element must be intact.

**11.4** All injection and/or spraying systems of any kind are prohibited.

11.5 In case of rain, the only protection allowed is the original IAME IAG-90000-W

#### **12 TRANSMISSION**

**12.1** All interventions aimed at extending clutch slip beyond the indicated maximum engagement speed are expressly forbidden.

**12.2** Clutch dragging must start at max. 4.000 rpm, causing the kart to move forward with the driver on board and in racing trim. Full clutch dragging must take place at max. 6,000 rpm under all conditions. This value can be checked with instruments designed for this purpose.

**12.3** Each competitor/driver is responsible for the good condition of the friction material on the clutch rotor and for the cleanliness of the friction parts.

**12.4** Checking the correct functioning of the clutch and the drive regime may be carried out by the stewards at any time during the race, even after the finish.

**12.5** The original IAME template code ATT-047/4 is the reference for checking the clutch bell. The jig, positioned perpendicular to the axis of the clutch bell, must not enter.

**12.6** The UniLog clutch control system manufactured by UniPro may be used, in which case the Competitor/Conductor must be supplied with the cable/holder kit while the tool is in use by the Promoter.

**12.7** Only original IAME Z10/Z11 sprockets are permitted.

#### **13 IGNITION**

**13.1** Only the original Selettra 2-pole analogue system may be used without any modifications.

**13.2** Interventions in the stator fastening system to the crankcase, the shape or thickness of the rotor reference key, the keyways on the rotor and the drive shaft are expressly forbidden.

**13.3** The original IAME ATT-063/10 template is the reference for verifying the correct position of the phase reference mark on the rotor.

**13.4** The battery must in all cases remain connected to the ignition system and mounted on the chassis.

#### 14. CANDLE

**14.1** Only NGK spark plugs are permitted: B9EG - B10EG - B11EG - BR9EG - BR10EG - BR11EG, original and without any modifications.

**14.2** The spark plug must be mounted with its original gasket. The insulation must not extend beyond the spark plug body and the length of the spark plug body must not exceed 18.5 mm.



**14.3** Original spark plug cap, as delivered with the engine (IAME code 10543 (NGK TB05EMA) or IAME code 10544 (PVL 401 222 / Selettra 6000721001 5KOhm).

# **15 EXHAUST SYSTEM**

**15.1** Original muffler and exhaust manifold conforming to the homologation fiche, without any modification in structure (magnetic material) or dimensions.

**15.2** Gas tightness between the cylinder and the exhaust manifold must be ensured at all times.

**15.3** The exhaust gas tightness can be checked at any time by plugging the outlet of the exhaust pipe and filling it with liquid through the exhaust port.

**15.4** The fitting of at least one gasket, original, between cylinder and exhaust manifold is mandatory.

**15.5** The use of a spacer between the exhaust manifold and the cylinder is prohibited.

**15.6** The original IAME ATT-063/7 and ATT-063/6 templates are the reference for verifying the conformity of the exhaust manifold.

# **16 STARTING**

**16.1** The integrated start/stop system must always be fitted with all its components in perfect working order and correctly connected.



# **TECHNICAL REGULATIONS S125S - S125M**

# **1. AUTHORISED FRAMES**

Only chassis homologated according to the CIK/FIA Karting regulations, offered in the Manufacturers' catalogue and complying with Article 2 of the FIA Karting regulations, whether with valid or expired homologation, are allowed.

# 2. DEFINITION OF FRAMES

The frames must meet the following requirements:

2.1 Conventional chassis according to CIK/FIA Karting regulations, with valid or expired homologation.

2.2 Magnetic steel rear axle with a maximum diameter of 50 mm.

**2.3** The use of a 'closed' type chain cover is mandatory.

**2.4** CIK/FIA Karting homologated rear brake.

2.5 Front brakes not permitted

2.6 Front, side bodywork, front spoiler and rear bumper with valid or expired CIK/FIA Karting homologation.

2.7 Front fairing fastening system as per RDS Karting Technical Regulation 2022 Art. 4.14.4

2.8 For all details not mentioned in the articles concerning chassis, the CIK/FIA Karting regulations apply.

# 3. ENGINE

**3.1** Any modification or addition to the engine and its accessories is forbidden, unless expressly authorised. IAME considers as modification any action that modifies the original appearance and/or measurements of a component. Any modification and/or installation resulting in the alteration of a measurement or the impossibility to verify it is strictly forbidden. The Competitor is held responsible for the conformity of its equipment.

**3.2** The only engine authorised for the entire event is the original IAME S125 and strictly in accordance with the reference data sheet (technical characteristics, measurements, weights, diagrams and tolerances prescribed by the manufacturer). The pictures contained in the data sheet are also valid to identify the engine and its components.

**3.3** The engines must bear the original serial number.

**3.4** Modification, removal or addition of parts is not permitted. All internal and external engine components must be installed in their original position and must function according to the manufacturer's technical specifications, performing the function for which they were designed.

**3.5** The machining, assembly and adjustment tolerances indicated on the engine data sheet refer exclusively to manufacturing tolerances. No intervention on the engine is therefore permitted even if the final measurements obtained fall within the limits prescribed by the tolerances.

**3.6** In order to preserve the characteristic reliability, any kind of modification is prohibited. The maximum and minimum authorised values are verified according to the method prescribed by the CIK/FIA Karting Technical Regulations, including the control method for the combustion chamber volume.

**3.7** Any uncertainties relating to measurements not mentioned in the engine data sheets or in these regulations may be resolved by comparison with the same sample part, at the Promoter's disposal, and in compliance with the tolerance requirements as per CIK/FIA Karting regulations.



**3.8** All the jigs listed in the engine data sheets and available to the scrutineers are to be considered as valid tools certified by the Manufacturer for the purpose of determining the conformity of the part for which they are intended.

#### 3.9 Table of Diagrams:

Engine data sheet ref.

## 4. CYLINDER HEAD

**4.1** The header must be the original.

4.2 The spark plug body clamped on the cylinder head must not extend beyond the top of the combustion chamber.

4.3 The minimum squish size must comply with that indicated on the engine data sheet.

4.4 Squish must be measured on the engine under racing conditions.

**4.5** The tin wire used to measure the squish must have a diameter of 1.5 mm.

4.6 The original IAME template code ATT-077-1 is the reference for checking the profile of the header.

#### 5. CYLINDER

5.1 Only original cylinders with barrel locking pin and marking are permitted.

**5.2** Processing such as polishing, sandblasting, trimming or any other modification is not permitted. Only reaming/lapping of the barrel is permitted. Neither heat treatment nor surface treatment is permitted.

5.3 Modification of the diagram is only permitted with the replacement of the cylinder base seal.

5.4 The number and thickness of cylinder base gaskets is not limited. Original IAME gaskets.

**5.5** Gaskets between cylinder and head are permitted. The number and thickness of gaskets is not limited. Original IAME gaskets.

5.6 The original IAME jig No. ATT-077-3 is the reference for measuring the main and secondary transfers.

5.7 The original IAME template No. ATT-077-4 is the reference for measuring the main and secondary exhaust ports.

5.8 The original IAME jig No. ATT-077-5 is the reference for checking the shape and dimensions of all racking.

5.9 The height of the cylinder block must be measured from the base plane of the cylinder to the top plane of the barrel.

5.10 Cylinder heat shielding permitted, provided that it cannot be removed while the kart is running.

## 6. CRANKCASE, DRIVESHAFT, ASSE D'ACCOPPIAMENTO, CONNECTING ROD

6.1 Only original and unmodified parts are permitted.

6.2 The original IAME ATT-077-7 template is the reference for checking the reed valve seat.

6.3 The original IAME ATT-077-8 template is the reference for checking the distance between the cylinder centring pins.

**6.4** The original IAME ATT-077-9 template is the reference for checking the height of the cylinder base plane.



**6.5** Connecting rod head roller cage (part no. TZC-50200), connecting rod foot cage (part no. IFC-50350), washers (part no. TZC-70101) and coupling axle (part no. TZC-40200), strictly original.

6.6 Sealing rings original and fitted as original, i.e. cable side inside engine crankcase. No modifications permitted.

#### 7. BEARINGS

**7.1** Only SKF roller bearings BC1 1442 D (35398A. Only 6202 C4 and 6202 TN9/C4H, 6203 TN1 C4 balance shaft ball bearings with steel balls and polyamide cage are permitted.

7.2 Angular contact bearings are prohibited.

7.3 Bearings with ceramic balls or rollers are expressly prohibited.

**7.4** Bearings that do not bear the correct, clearly visible classification number as described in the regulations are expressly forbidden.

7.5 In order to achieve the correct axial clearance, spacers may be used behind the bearings.

**7.6** All internal engine parts must be of the Manufacturer's origin, in the same number as prescribed by the Manufacturer and fitted in the prescribed position.

#### 8. PISTON, RING, PIN

8.1 Only original and unmodified parts in accordance with the engine data sheet are permitted.

8.2 The original IAME template code ATT-077-6 is the reference for checking the shape of the piston crown

#### 9. INTAKE UNIT AND REED VALVE

**9.1** Only original and unmodified parts are permitted.

9.2 No machining or surface finishing of the slat support surfaces is permitted.

9.3 The conveyor must be original and unmodified.

9.4 The carburettor seat must remain strictly original.

9.5 Conveyor/flap gasket 0.8 mm thick (tolerance allowed +/- 0.3 mm).

#### **10. REED VALVE**

10.1 Original IAME carbon fibre slats (min. thickness 0.24 mm) are permitted.

**10.2** The modification of the shape of the slats is expressly forbidden.

#### **11. CARBURATOR**

**11.1** Only the carburettor supplied with the engine in its original configuration, i.e. the Tillotson HW50A carburettor, may be used.

11.2 Only accessories supplied with the carburettor and represented in the reference data sheet are permitted.

**11.3** The needle valve spring and the valve control fork are free.

11.4 The position of the carburettor is free (i.e. with the petrol pump positioned upwards or downwards).



11.5 Carburettor gasket 1 mm thick (permitted tolerance +/- 0.3 mm)

**11.6** The original IAME jigs code ATT-063/8 and ATT-063/9 are the reference for checking the diameter and shape of the carburettor intake duct.

**11.7** The IAME jig code ATT-047-5M is the reference for checking the diameter of holes L and H.

**11.8** The original jigs code ATT-077-10 and ATT-077-11 are the reference for checking the diameter of the petrol holes.

## 12. AIRBOX

**12.1** Original intake silencer (part no. X30125740) as supplied with the engine. Intake pipes must have an internal diameter of 23 mm max.

**12.2** Optional protective grids.

**12.3** The rubber connection with air filter that connects the intake silencer to the carburettor must be compulsorily fitted and in conformity with the type-approval fiche. The sponge filter element must be intact.

**12.4** All injection and/or spraying systems of any kind are prohibited.

12.5 In case of rain, the only protection allowed is the original IAME SKE005-PN-IAME

## **13. TRANSMISSION**

**13.1** Clutch dragging must start at max. 4,000 rpm, causing the kart to move forward with the driver on board and in racing trim.

**13.2** The clutch must be fully disengaged at max. 6,000 rpm under all conditions. This value can be checked with instruments designed for this purpose.

**13.3** Each competitor/driver is responsible for the good condition of the friction material on the clutch rotor and for the cleanliness of the friction parts.

**13.4** The control of the correct functioning of the clutch and of the dragging regime can be carried out by the Stewards at any time during the race, also after the finish. The original IAME template code ATT-047/4 is the reference for checking the clutch bell. The jig, positioned perpendicular to the axis of the clutch bell, must not enter.

**13.5** Only original IAME Z10/Z11/Z12/Z13 sprockets are permitted.

**13.6** The UniLog clutch control system manufactured by UniPro may be used, in which case the Competitor/Conductor must be supplied with the cable/holder kit while the tool is in use by the Promoter.

**13.7** All interventions aimed at extending clutch slip beyond the indicated maximum engagement speed are expressly forbidden.

# 14. <mark>IGNITION</mark>

14.1 Only SELETTRA 'Digital S' ignition is permitted. The entire ignition system must remain strictly original.

14.2 Only 'N'-type electronic control units (15,000 rpm limiter) are permitted.

**14.3** The electronic control unit must be attached to the engine leaving the side bearing the marking clearly visible.



**14.4** It is expressly forbidden to make any changes to the fastening system of the stator to the crankcase, the shape or thickness of the rotor reference key, the keyways on the rotor and the drive shaft.

**14.5** The original ATT-035/7 template is the reference for verifying the correct position of the phase reference notch on the rotor.

14.6 The battery must in all cases remain connected to the ignition system and mounted on the chassis.

## 15. CANDLE

**15.1** Only NGK spark plugs are permitted: B9EG - B10EG - BR9EG - BR9EIX - BR10EG - BR10EIX - R6252K-105 - R6254E-105, original and without any modifications.

**15.2 The spark** plug must be mounted with its original gasket. The insulation must not extend beyond the spark plug body and the length of the spark plug body must not exceed 18.5 mm.

**15.3** Original spark plug cap, as delivered with the engine (part no. IAME 10543 (NGK TB05EMA) or part no. IAME 10544 (PVL 401 222 / Selettra 6000721001 5KOhm).

## **16. EXHAUST SYSTEM AND SILENCER**

**16.1** Original muffler conforming to the type approval fiche, without any modification in the structure (magnetic material) or dimensions.

**16.2** The only authorised intervention is the drilling of the seat for the installation of the exhaust gas temperature sensor.

**16.3** Original exhaust manifold as per data sheet.

16.4 The fitting of at least one gasket between cylinder and exhaust manifold is mandatory and original.

**16.5** The use of one or more exhaust shims IAME code S1NH20500 (thickness 3 mm +/- 0.5) to adjust the length of the exhaust is permissible.

**16.6** A gasket must be interposed between each element of the exhaust manifold assembly: cylinder, manifold, spacer or spacers, if any.

**16.7** Gas tightness between the cylinder and the exhaust manifold must be ensured at all times.

**16.8** The exhaust gas tightness can be checked at any time by plugging the exhaust manifold outlet and filling it with liquid through the exhaust opening.

# 17. COOLING

**17.1** The cooling system must be original: one original IAME radiator (cod. T-8000B or T-8001) and one original IAME pump (blue/black plastic or aluminium) as supplied with the engine.

**17.2** The use of the original drive pulley (blue/black plastic or aluminium) combined with drive belts is mandatory. Free pulley drive belts. The use of the pulley and its drive belts is compulsory.

**17.3** The number of radiator support brackets is not limited. Original IAME brackets as represented in the engine data sheet.

**17.4** Original IAME approved and optional two- or three-way thermostats. The two-way thermostat housing can also be installed without the thermostat inside and function as a fitting. Connection for authorised water temperature probe, even without a thermostat.



17.5 The only permitted coolant is water, without any additives.

17.6 Radiator shielding permitted, adhesive or mechanical, provided that it cannot be removed while the Kart is running.

**17.7** Original, IAME-marked, blue water hoses as delivered with the engine.

**17.8** The combination of plastic or aluminium water pumps with plastic or aluminium pulleys is permitted.

**17.9** All preheating of the cooling circuit is prohibited.

## **18. STARTING**

**18.1** The integrated start/stop system must always be fitted with all its components in perfect working order and correctly connected.