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## 2024 IAME SERIES KSA TECHNICAL REGULATIONS

Final - 18 March 2023

### TECHNICAL REGULATIONS PART 1 OF 2 (GENERAL) (ARTICLE 1-5)

The FIA Karting Technical regulations apply for the IAME Series KSA. The English text is the authentic version. The Organizer of the series (The Track Jeddah) reserves the right to issue additional statements concerning the Technical Regulations from time to time following the agreement of the ASN. All such statements will be issued to all registered competitors by way of Competitors' Bulletins at the race meeting, posted to the address detailed on the Event Registration Form or by E-mail.

#### Article 1 CLASSIFICATION AND DEFINITION

1.1 Classification: Article 1 of the FIA Karting Technical Regulations.

##### Categories and Groups

Karts used in competition are divided into the following Groups and Categories:

##### Group 1:

- OK: Cylinder capacity of 125cc
- OK-Junior: Cylinder capacity of 125cc

##### Group 2:

- Mini: Cylinder capacity of 60cc

1.2 Definition: Article 1.2 of the FIA Karting Technical Regulations.

The definitions and abbreviations indicated hereafter will be adopted in the Regulations and their Appendices, and in all Supplementary Regulations, and they will be of a general use.

FIA	Fédération Internationale de l'Automobile
CIK-FIA	International Karting Commission
FIA KARTING	Championship organised by the CIK-FIA
ASN	National Club or National Federation recognized by the FIA as the sole holder of the sporting power in a country
ATF	Approval Form
HF	Homologation Form
HR	Homologation Regulations
SR	Sporting Regulations
TD	Technical Drawing
TR	Technical Regulations

#### 1.2.1 – General

##### 1.2.1.1 – Definition of a Kart

A kart is a single-seater land vehicle with bodywork elements but without a roof, cockpit or suspension. It has four non-aligned wheels that are in contact with the ground: the two front wheels control the steering, while the two rear wheels (connected by a one-piece axle) propel the kart. Only the tires may come into contact with the ground when the driver is on board. The main parts of a kart are the chassis, including the bodywork, the wheels and the engine. The driving position is on the seat, with feet to the front.

##### 1.2.1.2 – Kart Safety

Karts are only allowed to race if they comply with the TR and meet required safety Standards. All parts and components described in the TR must be designed and maintained in a way that does not present a danger for the driver, the other competitors or anybody else.

##### 1.2.1.3 – Chassis

The overall structure of a kart comprises the mechanical components and the bodywork. It includes any part that is interdependent of this overall structure.

##### 1.2.1.4 – Chassis Frame

The main supporting part of the kart is made of one piece (welded), and serves as a connecting base for the main and auxiliary chassis parts and components.

##### 1.2.1.5 – Wheel

Defined by the rim with a mounted pneumatic tire.



## 1.2.2 – Engine

### 1.2.2.1 – Cylinder cubic capacity

Determined by the bore and stroke of the engine's cylinder. The volume (V) is the swept volume of the piston between the top dead centre and the bottom dead centre. This volume is specified in cubic centimetres (cm<sup>3</sup>). For all cylinder capacity calculations, the number "pi" is taken to be 3.1416. Calculation of cylinder cubic capacity:  $V = 0.7854 \times d^2 \times l \times n$ , with d = bore, l = stroke and n = number of cylinders.

### 1.2.2.2 – Ducts or passages

Cylindrical or cylindrical-conical elements allowing for the passage of gases regardless of the length or position of these elements. The number of ducts or passages is the greater quantity of cylindrical or cylindrical-conical elements that transmit gases from the pump casing to the top of the piston, as well as those elements that transmit gases from the outside of the cylinder to the inlet ports, or from the exhaust ports to the outside of the cylinder.

### 1.2.2.3 – Inlet or exhaust port

Intersection between the cylinder periphery and the inlet or exhaust duct. This port is opened or closed by the passage of the piston.

### 1.2.2.4 – Power valve

Any system able to alter the normal exhaust port timing or the normal flow of exhaust gases, at any point between the piston and the final exhaust exit, when the engine is running.

### 1.2.2.5 – Decompression valve

Passive mechanical system whose sole purpose is to limit engine compression during the starting phase; once finished, the valve must close. It must remain stationary and inactive when the kart is on the track, with the engine running. Under no circumstance or at any time may this system reduce the volume of the engine's combustion chamber below the minimum allowed value.

### 1.2.2.6 – Radiator

Dedicated heat exchanger serving to cool liquid using air.

## 1.2.3 – Components and materials

### 1.2.3.1 – Mechanical component

*Any component necessary for propulsion, steering or braking, as well as any accessory, whether mobile or not, required for their normal operation.*

### 1.2.3.2 – Original or series part

*Any part that is made by the manufacturer of the equipment originally mounted on the kart or engine.*

### 1.2.3.3 – Composite

Material composed of several distinct components that, when combined, provide properties that none of the individual components possess.

### 1.2.3.4 – Data Processing

#### 1.2.3.4.1 Logging or acquisition

Any system (with or without memory) installed on a kart, allowing the driver to read, indicate, obtain or transmit data.

#### 1.2.3.4.2 Logging or acquisition

Transmission of data between a kart and another entity.

#### 1.2.3.4.3 Communication

Any communication system (e.g. radio, mobile phone, etc.) used to transmit data or voice data between a driver on the track and another entity or person.

#### 1.2.3.4.3 Signalization

Data provided to a driver by optical or acoustic means.

## 1.2.4 Measurements

### 1.2.4.1 Maximum

*Highest limit without tolerance.*

### 1.2.4.2 Minimum

*Lowest limit without tolerance.*

### 1.2.4.3 System of measurement

The units of measurement (including derived units) are those of the International System: length in metres (m), mass in kilograms (kg), time in seconds (s), temperature in degrees Celsius (°C), angle in degrees (°) and noise level in decibels (dB).

## 1.2.5 Orientation

All references to the orientation of the chassis, bodywork, engine, etc., are based on the forward driving direction of the kart.

## 1.2.6 Driver aids

Driver aids are any technologies or measures to assist the driver in driving.

## **Article 2 GENERAL PRESCRIPTION**

### **2.1 General acceptance**

The TR apply to all categories and classes. The kart and any modification made thereto must comply with the definitions and TR given here and/or with the specific regulations of the category in which the kart is entered. Anything that is not allowed in the TR is forbidden.

### **2.2 Modifications**

Any modification is forbidden if it is not explicitly allowed by the TR or decided by the CIK-FIA for safety reasons.

Modifications refer to any operation likely to change the initial aspect, dimensions, drawings or photographs of an original homologated part described in the HF or any other part regulated by the TR.

Any assembly or modification resulting in altering a regulatory dimension or impeding its control is assumed to be fraudulent and is therefore not allowed.

### **2.3 Adding of material or parts**

Reusing removed materials is not allowed. Rebuilding the chassis frame geometry following an accident is allowed by adding the materials necessary for the repair (additional metal for welding, etc.).

Repairing worn-out or damaged parts by adding or fixing materials is not allowed, unless otherwise stated in the TR.

### **2.4 Responsibility**

It is the duty of every driver/competitor to prove to the Scrutineers and Stewards that his kart complies with the SR of the competition and the TR.

### **2.5 Scrutineering**

During scrutineering, all allowed material according to the SR of the competition is marked and registered.

The chassis must be presented fully configured, with chassis assembled, bodywork and extra components.

The engines are marked at the lower sump and cylinder levels.

Competitors have to be able to show the relevant HF or ATF for any used equipment that has been homologated or approved.

For FIA Karting Championships, Cups and Trophies, scrutineering takes place before the official free practice.

### **2.6 Mass**

The masses indicated for each class are minimum values. It must be possible to control them at any time during an competition. The driver must be fully equipped for the driving conditions (with helmet, gloves and boots).

The mass measured at the scales, whatever their accuracy, is deemed to be official.

Any infraction found during a random control or after a race leads to the disqualification of the driver from the particular qualifying practice, heat or race.

### **2.7 Racing numbers and number plates**

Racing numbers must be black, in an Arial font on a yellow background.

For short circuits, they must be at least 15 cm high and have a 2 cm thick stroke.

For long circuits, they must be at least 20 cm high and have a 3 cm thick stroke.

Racing numbers must be bordered by a yellow background of at least 1 cm.

They must be fitted before scrutineering, on the front panel, rear wheel protection or rear number plate, and on both sides towards the rear of the bodywork.

The driver is responsible for ensuring that the required numbers are clearly visible to Timekeepers and Officials.

The number plates must be made of flexible opaque plastic and be visible at all times. They must be fixed without possibility of removal.

In Group 4, the number plate fitted at the back of the kart must be flat and have rounded corners (diameter of rounded corners 15 to 25 mm) with 220 mm sides.

It may be made of polyester. The racing number may be printed on the rear radiator.

For FIA Karting Championships, Cups and Trophies, the driver's name as well as the flag of his nationality must be displayed at the front of the lateral bodywork.

In Group 4, they may be displayed on each side of the bubble- shield.

The flag and name letters must be at least 3 cm high.

For FIA Karting Championships, Cups and Trophies, the CIK-FIA may require advertising on the front panel and front fairing. In all other competitions, only the organiser's advertising is permitted; in that case, the organiser must supply the stickers. This advertising must not be more than 5 cm high and may only be affixed to the upper or lower part of the number plate.

### **2.8 Data logging**

Data logging is allowed but must be done according to the category in which the kart is entered.

All sensors that are not permitted must be removed during the official competition.

### **2.9 Telemetry**


A telemetry system via Bluetooth or Wi-Fi is allowed for the transfer of data from the logger to a computer so long as it is integrated in the logger. The transfer of data is only allowed when the engine is not running.



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## 2.10 Battery

Only sealed, leakproof, maintenance-free batteries are allowed.

The user instructions prescribed by the manufacturer must be respected. The presence of "CE" and  markings on lithium batteries must be checked.

## 2.11 Transponder

Only the transponder provided by the series or competition organiser can be used.

The transponder must be placed on the back of the seat, as vertical as possible with the antenna facing the ground and in the lowest position possible.

## 2.12 Connections between kart and driver

Any connections, mechanical by cable or tube or electronic, between the kart (or a system mounted on it) and the driver are not allowed.

## 2.13 Driving aids

Unless authorised by the TR, driving aids in any shape or form (mechanical or electrical) are not allowed.

## Article 3 KART AND EQUIPMENT SAFETY

- 3.1 Kart Safety: Article 2.2 of the FIA Karting Technical Regulations  
Karts are only allowed to race if they are in a condition which meets the safety standards and if they comply with the Regulations. They must be designed and maintained in such a way as to allow the respect of the Regulations and as not to represent a danger for the Driver and other participants.
- 3.2 Equipment Safety: Article 2.2 of the FIA Karting Technical Regulations
- 3.4 The driver must at all times wear a homologated helmet, overalls and a karting body protection, as well as gloves, boots. Wearing a scarf, muff, or any loose clothes around the neck, even inside the overalls, is not allowed. Long hair must be completely contained in the helmet, the balaclava or the overalls.
- 3.4 Helmets: Helmets must comply with the following prescriptions:
- For drivers under 15 years old:
    - Snell-FIA CM (Snell-FIA CMS2016 and Snell-FIA CMR2016)
    - Snell-FIA CMH (Snell-FIA CMS2007 and Snell-FIA CMR2007)
  - For drivers over 15 years old:
    - Snell-Foundation K2015, K2020, SA2015 and SA2020
    - FIA 8859-2015 (no longer accepted after 31.12.2035),
    - FIA 8878-2024 (accepted from 01.01.2024), FIA 8860-2010,
    - FIA 8860-2018 and FIA 8860-2018-ABP
    - Snell-FIA CM (Snell-FIA CMS2016 and Snell-FIA CMR2016)
    - Snell-FIA CMH (Snell-FIA CMS2007 and Snell-FIA CMR2007)
- See Appendix "RECOGNISED STANDARDS FOR HELMETS IN KARTING" for markings. Helmets must have an efficient and unbreakable visor for the eye opening. Visors must feature the logo of the manufacturer and the production date. Any modification to the above list is published in a CIK-FIA bulletin.
- In accordance with Appendix L of the International Sporting Code (Chapter III, Article 1.4), the addition of any device to a helmet, aerodynamic or otherwise, is allowed if it was homologated with the helmet concerned. Helmets that meet the Snell-FIA CM/CMH Standards may continue to be used by drivers after 15 years of age without limitation.
- For helmets with 8858-2010 Helmet M6 anchorages (HANS attachment points), the M6 anchorages cannot be used in karting for safety reasons.
- 3.5 Overalls: Fabric overalls must have either:
- a «Level 2» CIK-FIA homologation granted according to CIK-FIA Standard 2013-1 or
  - be Grade 1 or Grade 2 Karting Overalls complying with FIA Standard 8877-2022.
- See [www.fiakarting.com](http://www.fiakarting.com) for the complete lists of homologated overalls.
- Leather overalls complying with the Standards defined by the FIM are allowed. For competitions on long circuits, leather overalls complying with the FIM standards (motorbikes, 1.2 mm thickness) or Grade 2 Karting Overalls complying with FIA Standard 8877-2022 are mandatory.
- NOTE** Current FIA-homologated overalls (Standard CIK-FIA N2013-1) are accepted during their useful life, which is indicated on the label of the overalls, but not beyond 31.12.2029.
- 3.6 Gloves: Gloves must completely cover the hands and wrists or must comply with FIA Standard 8877-2022.
- 3.7 Shoes: Shoes must cover the feet and protect the ankles or must comply with FIA Standard 8877-2022.



## **Article 4 GENERAL PRESCRIPTION FOR GROUP 2 KARTS**

- 4.1 Chassis: Article 4 of the FIA Karting Technical Regulations  
All Group 2 chassis (OK, OK-Junior and KZ2 categories) must be homologated. They shall be described in the Manufacturer's catalogue and on a descriptive form called «Homologation Form» to be stamped by the ASN, according to the model drawn up by the CIK-FIA. Chassis will be homologated in every three years for a three-year validity period. Modifications to the chassis-frame (e.g.: position of tubes) are allowed only in the respect of the dimensions described on the Homologation Form, and if the curves are moved only on the tube where they were at the homologation.

## **Article 5 ORGANIZER'S SUPPLEMENTARY PROVISIONS**

- 5.1 Scrutineering  
A mandatory check will be carried out before the start of Practice at every Round. It must be possible to identify the homologated equipment using the technical descriptions (drawings, dimensions, etc.) on the homologation form. For any used equipment, which has been homologated, each competitor shall be able to submit the relative homologation forms to identify the homologated equipment. For identification and control it must be possible to identify the homologated equipment.
- 5.1.1 Each Driver will be entitled to submit to Scrutineering the following equipment:
- 5.1.1.1 One (1) chassis with a valid 2010 or newer FIA Karting / CIK-Homologation.
- 5.1.1.2 Two (2) engines of the same type per driver and category for the event.
- 5.2 Chassis Homologation  
Chassis must have a valid 2010 or newer FIA Karting / CIK-Homologation. Front brakes are not allowed.
- 5.2.1 The use of the front fairing retaining system CIK / FIA Karting 2015-2020, as per CIK drawings N. 2c and 2d, is mandatory. The technical committee reserves the right to refuse front fairings, front fairing retaining systems or other components that do not meet the required standards. The front fairing must be CIK / FIA Karting homologated and must remain in the correct position at any time of a competition (qualifying or races), as described in the Technical drawings number 2.2.1 and 3.2.1  
The use of CIK/FIA homologated front fairings is mandatory in all classes.
- 5.2.2 Chassis for X30 Mini class  
Traditional chassis with a valid "MINI KART" homologation approved by ASNs members of the FIA Karting and in compliance with CIK prescriptions requirements.
- 5.2.2.1 Definition of the chassis  
Chassis must be in compliance with the following
- Traditional chassis with a valid "MINI KART" homologation approved by ASNs members of the CIK-FIA and in compliance with FIA Karting prescriptions.
  - Rear shaft max. diameter: 30mm
  - Wheelbase 900/950mm (+/-5mm)
  - Rear track width max. 115cm
  - Ceramic ball bearings are forbidden
  - Mechanical or hydraulic brakes
  - Front brakes forbidden
  - Steel or cast iron brake discs (Aluminium/Ceramic/Carbon are forbidden)
  - Aluminium or magnesium wheels allowed
  - Rear wheel protection must be CIK homologated
  - Full chain guard is mandatory
  - Chassis protection are allowed as long as they are made of strong material and do not provide any advantage
- 5.3 Amount of Equipment (Chassis)  
Drivers will be allowed one (1) chassis only. However if damage occurs to a chassis previously scrutinized for the Event, and if in the opinion of the Scrutineer it is not practical to repair in time, one alternative chassis of the same make and model as the damaged chassis may be scrutinized, in order to continue the Event.
- 5.4 Amount of Equipment (Engines)  
Only 2 (two) engine are allowed for each driver and category for Scrutineering and use per event.
- 5.5 Fuel and Oil
- 5.5.1 The organizer will supply the fuel for the competitors on the race day.
- 5.5.2 Fuel will be 95 octane supplied by local pumps, premixed at 4% with Motul Grand Prix 2T.
- 5.5.3 Each competitor must hand in his fuel tank empty to the organizers during scrutineering.



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- 5.5.4 The organizers will fill up the tank to the mark set by the competitor.
- 5.5.5 After each run, the competitor must hand the fuel tank back to the organizers before leaving the parc-ferme area.
- 5.5.6 The competitor will get back the fuel tank going in to the pregrid area.
- 5.5.7 It is forbidden to add any liquid and/or power-boosting chemicals into the petrol.
- 5.5.8 The volume of the fuel in the tank must be over or equal to 1.5 litres at all times. (except Mini)
- 5.5.9 The Scrutineers, following the decision of the Stewards, have the right to change/replace any driver's petrol at their discretion, at any time during the official heats.
- 5.5.10 Evaluation of the fuel at the racetrack will be made with one or all of the following test devices:
  - a. Dynatron DT- 47 Fuel Meter Test
  - b. Specific Gravity Test
  - c. Water Solubility Test
- 5.5.11 If non-conformity is ascertained, further tests will be conducted at the cost of the Entrant/Driver. An invoice will be provided.

5.6 Lubricant  
The official oil for the IAME Series KSA is the FIA Karting approved Motul Grand Prix 2T

5.7 Tires

5.7.1 Dry Tires

Category	Tire Make	Tire Model	Size
Mini	Komet	K2D-M	Front: 10 x 4.00-5 Rear: 11 x 5.00-5
Junior	MG	SH	Front: 10 x 4.60-5 Rear: 11 x 7.10-5
Senior			

5.7.2 Tires Availability  
Tires needed for free practice are available through The Track Jeddah.

5.8 Racing Numbers

Racing numbers must comply with the provisions of Article 3.7 of the FIA Karting Technical Regulations.

- a. Racing numbers must be black, in an Arial font on a yellow background.  
For short circuits, they must be at least 15 cm high and have a 2 cm thick stroke.
- b. For long circuits, they must be at least 20 cm high and have a 3 cm thick stroke.  
Racing numbers must be bordered by a yellow background of at least 1 cm.
- c. They must be fitted before scrutineering, on the front panel, rear wheel protection or rear number plate, and on both sides towards the rear of the bodywork.
- d. The driver is responsible for ensuring that the required numbers are clearly visible to Timekeepers and Officials.
- e. The number plates must be made of flexible opaque plastic and be visible at all times.
- f. The flag and name letters must be at least 3 cm high.



## TECHNICAL REGULATIONS PART 2 OF 2 (ENGINES) (ARTICLE 6-10)

### Article 6. ENGINES

The FIA Karting Technical regulation also applies for the IAME Series KSA. The English text is the authentic version. The Track Jeddah reserves the right to issue additional statements concerning the Technical Regulations (previously approved by the ASN proposing the series and the FIA Karting) from time to time following the agreement of the ASN presenting the series, all such statements will be issued to All registered competitors by way of Competitors Bulletins at the race meeting, and/or posted to the email address detailed on the Event Registration Form.

#### 6.1 Technical Regulations

All Technical Regulations available on: [www.iameseriesksa.com](http://www.iameseriesksa.com)

### Article 7 IAME X30 125cc RL TaG – X30 JUNIOR / SENIOR

Any modification on the engine and its accessories, if not expressly authorized, is forbidden. IAME considers as modifications any action changing the initial aspect and dimensions of an original part. Any modification and/or installation having as a consequence to alter a dimension and/or its control possibility is strictly forbidden. The Entrant is liable for the conformity of their equipment.

7.1 The following original homologation forms of the engine are the integral parts of the technical regulations:

7.1.1 «254Y» Parilla 125cc X30 LIMIT. 16000

7.1.2 «348B» Carburettor Tillotson HW27-A – and «293E» Carburettor TRYTON HB27-C 26mm

7.1.3 «254S» Parilla 125cc X30 LIMIT. 16000 – Valid for old Exhaust Plant/Inlet Silencer only (pages 5 and 24)

7.2 Only the IAME X30 125cc-RL-TaG, original and strictly in compliance with the manufacturer's technical form (technical features, sizes, weights, diagrams with the tolerances prescribed by the manufacturer) is admitted. The pictures on the original homologation forms are as well valid to identify the engine and the parts.

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

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

7.4.1 Any tuning is forbidden: the maximum and minimum allowed values and the volume of the combustion chamber have to be measured according to the FIA Karting Technical Regulations.

#### 7.5 Diagrams and Volume Chart: IAME X30

Refer to Homologation form «254Y»

#### 7.6 Cylinder Head

7.6.1 The cylinder head has to be strictly original. Only the thread repairing by means of an M14 x1,25 helicoi 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.

7.6.2 The squish (distance between piston and the cylinder head) with the engine technical form prescriptions at all points. The thickness of the tin wire (50% tin minimum.) used for the squish measurement must have a 1,5mm diameter. Measurements must be taken with the engine in racing conditions at any time during the event. The original IAME gauge n. ATT-025/1 is the reference to measure the cylinder head profile. The gauge shape must match with the dome profile, the squish area and the gasket plane.

#### 7.7 Cylinder

Only the original cylinder can be employed. Polishing, sandblasting, trimming or adjustments are not allowed. Only re-boring is allowed. In case of doubt, the shape and the height of the transfers have to be compared to the cylinder of the sample engine. No heat treatment or surface treatment is allowed. The diagram adjustment is allowed only by means of the cylinder gasket replacement. Only original gaskets are allowed. No head gasket is admitted.

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

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



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- 7.8 Crankcase, Crankshaft, Con-Rod, Crankpin  
Strictly original and without any modification.  
The original IAME gauge ATT-035/3 is the reference to check the reed block housing plane  
The original IAME gauge ATT-035/4 is the reference to check the distance between the indexing pins of the cylinder  
The original IAME gauge ATT-035/5 is the reference to check the height of the cylinder base plane  
Only original big end cage (X30125431), small end cage (E-10440/E-10441) and original washers (X30125436/X30125436EX) allowed.  
Oil seals must be installed in the correct position, concave side facing inside the crankcase.
- 7.9 Bearings  
Only crankshaft bearings 6206 C4 and balance shaft 6202 C3/C4/C4H and 6005 C3/C4 steel ball and polyamide cage are allowed.  
Oblique contact prohibited. Ceramic balls prohibited.  
The bearings must be mounted with balls visible from the inside of the crankcase.  
All bearings not reporting the correct and clearly visible classification number, as described in the present regulations, are expressively forbidden.  
The use of spacer shims behind the bearings is allowed to obtain the correct axial clearance.  
All internal parts of the engine must be of manufacturer origin, the same number as the assembly of the factory and mounted in the same direction.
- 7.10 Piston, Ring and Pin  
Strictly original without any modification and in compliance with the engine technical form.  
The IAME original gauge ATT-035/2 is the reference to check the piston head shape.
- 7.11 Reed Block  
Strictly original without any modification. No gasket planes machining is allowed. Free screws. Original reed valve cover without any modification is allowed. Reed block/crankcase gasket thickness is 1mm (admitted tolerance +/- 0.3mm). Conveyor/reed block gasket thickness is 0.8mm (admitted tolerance +/- 0.3mm).
- 7.12 Reed Petals  
Only fiberglass (min. thickness 0.30mm) or carbon fibre (min. thickness 0.24mm) original IAME marked reed petals are allowed. Mixing of carbon fibre and fibreglass petals is forbidden.
- 7.13 Carburettor  
7.13.1 Carburettor Tillotson HW27-A & Carburettor Tryton HB27-C 26mm  
Carburettor positioning (i.e. with pump in upper or in lower position) is free.  
Carburettor gasket thickness is 1 mm (admitted tolerance +/- 0.3mm).  
Any injection and/or spraying system is forbidden.  
  
In case of doubt the carburetor must be compared to the sample carburetor.
- 7.14 Clutch  
The centrifugal clutch must engage at max. 4.000 RPM moving the kart with driver on board and in racing conditions. The clutch must be completely triggered at max. 6.000 RPM in any condition, this measurement can eventually be checked with proper instruments.  
Each driver will be responsible for the wear status of the clutch padding material and friction parts cleaning, since the proper clutch operation might be checked at any moment of the event, and even after each phase. The original IAME gauge ATT-047/4 is the reference to check the clutch drum. The tool must not enter into the clutch drum in perpendicular position respect to the clutch drum axis.
- 7.15 Ignition  
7.15.1 Only original ignitions, either Digital "K" Selettra or Selettra "S" or Digital PVL systems are allowed, without any modification. Scrutineers, following a decision of the Stewards, have the right to ask for the replacement of the whole ignition system or any part thereof at any moment before starting the race. The organizer will not be liable for any eventual breakdown occurred after the replacement.  
7.15.2 Only the electronic CDI box type "C" (16000 RPM) is allowed and must be fixed on the chassis or on the engine or on the engine (plant Digital S) 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.







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

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

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

7.16 Sparkplug

- 7.16.1 Only the following NGK sparkplugs, strictly original and without any modification, are allowed: BR9EG - BR10EG
- 7.16.2 The sparkplug must be installed with its original gasket.
- 7.16.3 The insulator must not exceed the sparkplug body and the length of the sparkplug body itself must be max. 18,5 mm.

7.17 Exhaust

- 7.17.1 Only original IAME exhaust are allowed, both old and new types. Part number X30125718 & X30125715
- 7.17.2 Senior exhaust must be equipped with exhaust pipe X30125365 for old type or X30125370 for new type.
- 7.17.3 Junior exhaust must be equipped with exhaust pipe X30125366 for old type or X30125370J for new type.

7.18 Cooling

Maximum radiator size 410mm x 230mm.  
Aluminium & Plastic water pumps are allowed.  
The number of radiator support brackets is not limited.  
Only simple or by pass original IAME thermostats are allowed and their use is optional.  
Only water with no other additive is allowed for cooling.  
Radiators shields, either adhesive or mechanic are allowed but should not be removable when the kart is in motion.  
Water pump driving belt type is free. Belt must operate on the water pump pulley.

7.19 Starting

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

7.20 Sprockets

Only Z10 – Z11 – Z12 sprockets are admitted.

7.21 Inspections

- 7.21.1 The engine technical inspection is performed by Scrutineers. The Scrutineers have the right to inspect any part to the point that it can no longer be used. In the case that the inspected item is found to be conforming it will be replaced to the driver at no cost. Any part found to be non-conforming, will not be refunded.
- 7.21.2 At any moment, the Scrutineers, following a decision of the Stewards, have the right to replace any part, any accessory or even the entire engine.
- 7.21.3 The technical forms are the main comparison reference for Scrutineers. In case of doubts on the engine parts conformity, the comparison with the sample engine will be the definitive probating element.

## Article 8 IAME X30 Water Swift 60cc TaG – (Mini Category)

Any modification on the engine and its accessories, if not expressly authorized, is forbidden. IAME considers as modifications any action changing the initial aspect and dimensions of an original part. Any modification and/or installation having as a consequence to alter a dimension and/or its control possibility are strictly forbidden. Polishing, sandblasting, trimming or adjustments are not allowed. No heat treatment or surface treatment is allowed. The Entrant is liable for the conformity of its own equipment. Any tuning is forbidden: the maximum and minimum allowed values and the volume of the combustion chamber have to be measured according to the procedure described on the CIK Technical Regulations.

8.1 The following original homologation forms of the engine:

8.1.1 «364H» IAME X30 WATER SWIFT – 60cc RL TaG

8.2 Only the IAME X30 WATERSWIFT 60cc 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 permitted. The pictures on the original homologation forms are as well valid to identify the engine and the parts.

8.3 The engines must be provided with their original serial number. No modification, improvement, polishing, addition or removal of material of any engine part is allowed. Each engine internal or external part has to be installed in its original position and functioning according to the original design specification.



- 8.4 The tolerances reported on the homologation forms are necessary to comprise all the machining, assembling and settling tolerances. Nevertheless, the Entrant is absolutely not allowed to make any intervention on the engine, even if the characteristic dimensions after his intervention will still be within the prescribed tolerances.
- 8.5 Any tuning is forbidden: the maximum and minimum allowed values and the volume of the combustion chamber have to be measured according to the CIK Technical Regulations.
- 8.6 In any moment, the technical officials, following a decision of the Stewards, have the right to replace any part, any accessory or even the complete engine.
- 8.7 DIAGRAMS TABLE:  
Refer to technical form of the engine
- 8.8 Cylinder Head:
- 8.8.1 Strictly original. The sparkplug body tightened on the cylinder head must not protrude from the upper part of the combustion chamber dome.
- 8.8.2 The squish minimum value must be as prescribed on the engine technical form. The thickness of the tin wire (50% tin minimum.) used for the squish measurement must have a 1,5mm diameter. The original IAME gauge n. 10215 is the reference to check the cylinder head profile conformity. The gauge shape must match with the dome profile, the squish area and the gasket plane.
- 8.9 Cylinder:  
Only the original cylinder can be employed. Polishing, sandblasting, trimming or adjustments are not allowed. Only re-boring is allowed. In case of doubt, the shape and the height of the transfers have to be compared to the cylinder of the sample engine. No heat treatment or surface treatment is allowed. The diagram adjustment is allowed only by means of the cylinder gasket replacement. Only one cylinder gasket, identical to the original one (0.40mm +/- 0.05 mm) is admitted. No head gasket is admitted. The original IAME gauge n. ATT-005 is the reference to measure the distance of the upper edge of the ports from the cylinder head plane.
- 8.10 Crankcase, Crankshaft, Con-rod, Crankpin  
Only original parts are allowed, without any modification. Only strictly original big end cage (IAME B-10431), original washers (IAME E-38436) and original small end cage (IAME A-60440) are allowed.  
Oil seals must be installed in the correct position, cave side looking inside the crankcase
- 8.11 Bearings  
Strictly original: crankshaft ball bearings p.n. IAME: 10400-D (6204 C4). Ball-bearing with oblique contacts are forbidden. Only bearings with steel balls and rings are authorized. (Ceramic is forbidden). Shims can be added behind the main roller bearings to reach the correct axial play. All bearings not reporting the correct and clearly visible classification number, as described in the present regulations, are expressively forbidden.
- 8.12 Piston, Ring and Pin  
Strictly original without any modification and in compliance with the engine technical form.
- 8.13 Carburettor  
Only the Tillotson HW-31A carburettor supplied together with the engine in its original configuration (same brand, same model, same reference) is admitted.
- 8.13.1 Only the accessories supplied together with the original carburettor are allowed; diaphragms, diaphragm gaskets and the needle valve spring are free. 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.
- 8.13.2 In case of doubt the carburettor must be compared to the sample carburettor.
- 8.13.3 Inlet silencer strictly original as supplied together with the engine (same brand, same model, same reference) that is IAME mod. MINI SWIFT with CSAI 01/SA/14 homologation. Inlet hose max. internal diameter must be 22mm. Protective grids are optional.
- 8.13.4 The rubber manifold with air filter connecting the inlet silencer to the carburettor is mandatory, it must installed and in compliance with the homologation form.
- 8.13.5 Any injection and/or spraying system is forbidden.
- 8.14 Clutch  
The engine is supplied with a dry centrifugal clutch system. Any intervention intended to extend the sliding of the clutch hub beyond the prescribed limit is strictly forbidden. The centrifugal clutch must engage at max. 4.500 RPM moving the kart with driver on board and in racing conditions. The clutch must be completely engaged at max. 6.500 RPM in any condition, this measurement can eventually be checked with proper instruments. Each driver is responsible for the wear status of the clutch padding material and friction parts cleaning, since the proper clutch operation might be checked at any moment of the event, and even after each phase.



Round 1	29 March 2024
Round 2	20 April 2024
Round 3	25 May 2024
Round 4	31 August 2024
Round 5	14 September 2024

#### 8.15 Ignition

Original ignition only, that is SELETTRA p.n. IAME A-61951 and coil p.n. IAME A-61955. Without any modification.

8.15.1 Scrutineers, following a decision of the Stewards have the right to ask for the replacement of the whole ignition system or part thereof at any moment before starting the race. The organizer will not be liable for any eventual breakdown occurred after the replacement.

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

#### 8.16 Sparkplug

8.16.1 Only the following NGK sparkplugs, strictly original and without any modification, are allowed: BR9EG - BR10EG

8.16.2 The sparkplug must be installed with its original gasket.

8.16.3 The insulator must not exceed the sparkplug body and the length of the sparkplug body itself must be max. 18.5 mm.

#### 8.17 Exhaust

Only the original exhaust pipe is allowed as supplied with the engine and must be kept strictly original and in compliance with the homologation form.

8.17.1 No modifications in structure or in dimensions are allowed.

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

8.17.3 The exhaust manifold (Ø28,5mm) must be strictly original and in compliance with the technical form. Only one original exhaust gasket is allowed

8.17.4 Exhaust temperature probes are not allowed.

#### 8.18 Cooling

The cooling system must be in its original configuration: only one IAME original radiator (p.n. T-8601), only one IAME original simple water pump (black or blue) are allowed and in compliance with the homologation form.

8.18.1 Only simple or by pass original IAME thermostats are allowed and their use is optional.

8.18.2 Cooling only by water, no other additives allowed.

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

8.18.4 The use of the original water pump pulley activating the water pump through O rings is mandatory.

#### 8.19 Starting

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

8.19.1 The use of an external starter is authorized only in the event that a mechanical or electrical problem prevents the starting system operation.

#### 8.20 Sprockets

Only IAME original clutch drums with built-in Z10 or Z11 sprockets are allowed.

#### 8.21 Inspections

8.21.1 The engine technical inspection is performed by the Scrutineers. The Scrutineers have the right to inspect any part to the point that it can no longer be employed. If this is the event, the inspected part that comes out to be regular will be replaced to the driver at no cost. Any part found out irregular, will not be refunded

8.21.2 In any moment, the Scrutineers, following a decision of the Stewards, have the right to replace any part, any accessory or even the entire engine

8.21.3 The technical forms are the main comparison reference for Scrutineers. In case of doubts on the engine parts conformity, the comparison with the sample engine will be the definitive probating element.

