

1. IAME KA100 Rules and Regulations:

* Must be USA engine.

* Note: All measurements are in inches unless otherwise stated.

* Homologation Document listed on the FKC website will be used for anything not listed below.

* No external modifications of any type including air scoops or heat retention additions.

001.1 Air Box:

OEM air box shall be as manufactured with two (2) 23mm tube (No Go). One (1) 0.200" drain hole is allowed.

The OEM filter (IAME # 10751-1) must be used. Any external forms of air ducts forcing air inside of air box is illegal. Rain covers are legal during rainy conditions as long as it does not act as a ram air device.

* Air filter is not required in declared rain condition.

001.2 Fuel Filter:

Any fuel filter is permitted. If utilized, it must be between the tank and carburetor.

001.3 Carburetor:

Tillotson HW-33A shall be OEM as manufactured. The carburetor including the finish of the venturi and bore, the arm, throttle shaft, butterfly, slide assembly for jetting and/or manifold shall be OEM and not modified. OEM needle jets are required. Engine and carburetor shall match the specs and carburetor shall be mounted as specified by manufacturer.

*Bypassing fuel or air to the motor in any way other than as manufactured is illegal.

001.4 Reed Cage:

Only OEM fiberglass reeds are allowed with a minimum thickness of 0.011". Manifold shape and design shall remain as manufactured; grinding or polishing the reed cage or manifold is illegal. Removal of excess loose rubber at manufactured parting lines, resurfacing rubber contact surface to reeds and gasket surface, de-burring and minor grinding at reed attachment screws are allowed. Reed screws are non-tech.

001.5 Spark Plug:

Must be as manufactured, OEM spark plug washer, head temp sensor or indexing washer may be used.

Any of the following plugs may be used: NGK B10EG, BR10EG, 6254-105 or R6252K-105

001.6 Spark Plug Boot:

OEM part PVL #10544 or NGK #8636 (TB05EMA)

001.7 Cylinder Head:

Cylinder head shall be OEM as manufactured; head shall be the same profile as the IAME gauge. Only modification allowed is spark plug thread repair.

001.8 Cylinder Head Gasket:

Gasket is not required, but using gasket and changing the cylinder head gasket to adjust the squish is allowed. Thickness of the copper gasket is a non-tech item. Minimum squish is .041" using 0.60 50/50 solder.

001.9 Cylinder:

Ports must remain as manufactured, known stock part may be used as a comparison. Bore and stroke shall be per manufacturer spec and will be taken as raced. Any internal modification such as adding, removing or grinding material is prohibited.

001.10 Base Gaskets:

Gasket required, changing base gaskets is allowed to obtain exhaust port height. Thickness of the gasket is a non-tech item.

001.11 Bearings, Seals, O-Rings and Gaskets:

May be replaced with aftermarket equivalent. No ceramic or exotic bearings.

001.12 Crankcase:

Crankcase shall be as manufactured; metal removal or polishing is not allowed except for de-burring and or repair from rod failure. Main bearing pocket repair is allowed provided the pockets are not relocated during the process. Bearings and seals must be OEM as manufactured; replacement bearings shall be a standard bearing with steel or plastic retainers with same width and diameter as stock. Dual-row, ceramic or angular contact bearings are illegal. Seals shall be as manufactured and shall not have the spring removed, trimmed or installed backwards. Any internal modification such as adding, removing or grinding material is prohibited unless it is for minor repairs as stated above.

001.13 Crankshaft and Rod:

The crankshaft shall be OEM as supplied from the manufacturer; crank shall be the same manufacturer as the motor. Plastic or aluminum crankshaft stuffing supplied by the manufacturer is required. Removing metal, shot peening, polishing or counterweight plugging is illegal. Weights must match that of the supplied specifications. Rod must be OEM as manufactured; removing metal or modifying rod is illegal. Any rod bearing is legal.

001.14 Piston and Ring:

Piston and ring shall be OEM as supplied from the manufacturer.

001.15 Ignition:

Ignition shall be OEM as manufactured. Flywheel key must be in place and not modified.

001.16 Header and Pipe:

Shall be OEM as manufactured; intentional header and pipe modifications are illegal. Interchanging, plating or ceramic-coating is illegal. The system shall be intact at the start and finish of the race as manufacturer intended. One hole for EGT probe is allowed in the header. If probe is not in place hole must be plugged. Must use OEM gasket, only one is permitted. Excessive leakage in any part of the exhaust system is illegal and competitor could be DQ'ed,

001.18 Junior Header

Junior header shall be 22mm (No-Go)

001.19 Starter & Battery:

Competitor is allowed to remove the starter and battery if they choose. The starter ring gear must remain in place.

001.20 Clutch:

Clutch shall be OEM as manufactured and within factory spec. Oiling clutch is illegal. Clutch cannot be adjustable and must pass clutch test: while on the kart stand competitor will start engine and by holding the brake and applying throttle RPM must not exceed 6000.

001.21 Timing Procedure:

1. Insert dial indicator in spark plug hole
2. Zero at TDC
3. Roll piston back 0.200" before TDC
4. Roll piston forward to align timing marks
5. Dial indicator must read between 0.080" – 0.106" before TDC

IAME KA100 Spec

Maximum Stroke

Maximum Bore

Minimum Complete Crank Weight Minimum Clutch Diameter (83 mm) Timing (Minimum – Maximum)

KA100 Junior Header (No-Go)

0.041" 0.011" 1.420" 1.295" 102mm 54.05mm 48.53mm 1820g 3.267"

0.080" – 0.106" 22mm

Carburetor Spec

504.20 IAME KA100 Tillotson Carburetor HW-33A Spec:

Venturi 24.10mm (No-Go) Bore 28.10mm (No-Go) Minimum Shutter Thickness

0.948" 1.106" 0.030"