

## **613 80CC AND 125CC MOTO ENGINES**

### **613.0 ENGINES:**

Mass produced, single-cylinder, motorcycle engines of up to 85cc displacement for JUNIOR CLASSES and 125cc displacement for SENIOR CLASSES, currently available production approved by WKA: Junior engines Honda CR80 Reed, Kawasaki KX80 Reed, Suzuki RM80 Reed, TM80 Reed and Yamaha YZ80 Reed. Senior engines Honda CR125, Kawasaki KX125, Suzuki RM125, Yamaha YZ125, Gilera 125cc, and TM125 Motocross. WKA reserves the right to handicap the TM engine by weight or other means. Engines must be totally OEM components unless otherwise specified herein. No Grand Prix engine parts such as power valve cylinders, GP cases, etc., are allowed. Stationary power valve plugs in standard position may be used. No after market active power valve systems are allowed. Exhaust port dimensions are non-tech. Use of non-production components will subject participant to disqualification and suspension of license privileges.

### **613.1 125CC SR. CARBURETOR:**

One normally aspirated, float bowl-type, single-Venturi carburetor. Size open. Intake manifold and reed assembly open. No pumper-type carburetors, axle or electric fuel pumps allowed. Must be pulse-driven fuel pump.

### **613.2 80CC JR. CARBURETOR:**

One normally aspirated, single-Venturi 28.5mm (1.1220" No Go), float bowl-type Must be Mikuni TM, Keihin PE or Keihin PWK series carburetor. No machining of the venturi bore is allowed between the slide and the engine side of the carburetor. No power jets. Float bowl extensions and modifications are allowed. No pumper-type carburetors or axle or electric fuel pumps allowed. Must be pulse-driven fuel pump. Intake manifold and reed block must be OEM. Modifications to manifold and reed cage are allowed. Reeds are non-tech. Air filter/air box adapters are allowable up to 1.25" in length. (See Figure 551.2c).

### **613.3 CRANKSHAFT & CONNECTING ROD:**

Must be OEM components with no alterations, i.e., no boring of holes, no machining of surfaces or counter balances. Connecting rod and/or piston pin location may not be altered. Polishing and/or shot peening are allowed, however, no lightening of reciprocating components is allowed.

### **613.4 CYLINDER HEAD:**

Water inlets and/or outlets may be modified for after-market fittings and/or hoses.

### **613.5 EXTERNAL MODIFICATIONS:**

All exterior engine components must be recognizable as OEM parts. No after-market cylinders, heads, case-halves, etc. are allowed. The kick-start boss may be altered to facilitate the use of a straight intake manifold. However, evidence of the original kick-start boss must be obvious.

### **613.6 IGNITION:**

Stator, rotor or flywheel, must be OEM and may not move by any remote device. Ignition may not control fuel induction or traction in any manner. Ignition control box is "Non-Tech" but shall conform to and be defined as the spark control device that is designed for that specific purpose and is not connected (electronically) to any other component of the engine. Ignition curve "may not" be changed while kart is in motion and the selector switch "may not" be installed where it is accessible to the driver when the kart is in motion. The ignition box shall not control any other device that may be connected the engine that in any way is to adjust, control or otherwise effect any component, part or system on the vehicle or engine. Ignition box must be of standard production type and readily available over, the counter, in North America.

### **613.7 EXHAUST SYSTEM:**

Must use an approved fixed pipe including: OEM, Pro Circuit, FMF, DMC 125, DGM-FG, RLV. All pipes must meet noise abatement and safety requirements. All fore and aft exhaust systems must have a blunt, closed or rolled surface end. Any projection over 0.25" in length must have a minimum 2"OD blunt surface. Exhaust systems mounted in a cross/bar position inside rear bumper with longest part of stinger rotated down will be accepted. (See Figure 552.2.).

### **613.8 PISTON ASSEMBLY:**

Open, including piston, ring, wrist pin and circlips, except no lightening of components. Coating allowed.

### **613.9 TRANSMISSION:**

Transmission must be OEM. OEM means that original parts and ratios must be in use. All components of transmission must be of original production, motocross engine design. Maximum six forward speeds with manual actuation. No air, electric, or hydraulic shifters allowed.

### **613.10 MISC. SPECIFICATIONS:**

OEM water pump must be utilized; no axle-mounted water pumps allowed. Chain guard required. Overflow bottles for carburetor and radiator mandatory. Clutch must be original, oil-type. Dry clutches are not allowed.

### **613.11 BORE/STROKE:**

Bore must not exceed one millimeter greater than stock, factory dimension; Stroke must be plus or minus 0.010" of stock, factory dimension.