

# 2016 F-Series

## KZ Rules & Regulations as per CIK/FIA

KZ2 and KZ1 engines must be described in the Manufacturer's catalogue and be the subject of a descriptive form called "Homologation Form" from the model established by the CIK/FIA. Homologation forms must be supplied by competitor during technical inspections.

### 1. IGNITION

### 2. SPARK PLUG

### 3. INLET SILENCER

### 4. EXHAUST

### 5. The following tolerances are allowed:

### 6. Without tolerance, at all times and whatever the conditions may be:

### 7. Method for measuring the opening angles of the inlet and exhaust ports:

### 8. KZ 2

### 9. KZ 1, KZ 2,

### 1. Ignition

The ignition system used must be homologated by the CIK-FIA. For the KZ1 and KZ2 categories, the ignition system used must be of analog type and any variable ignition system (system of progressive advance and delay) is forbidden. For ignitions with an external and projecting rotor, a protection system covering the rotating parts must be mounted. Any electronic system allowing an auto-control of the parameters of functioning of the engine while the kart is in motion is forbidden.

### 2. Spark plug

In all categories, the ignition spark plug must be mass-produced and remain strictly original. The spark plug barrel and the electrode insulation (electrodes not included) tightened on the cylinder head must not extend beyond the upper part of the combustion chamber dome

### 3. INLET SILENCER

In all categories, an inlet silencer homologated by the CIK-FIA is mandatory. For the KZ1 and KZ2 categories: ducts of 30 mm maximum. The obligatory homologated intake silencer must be used under strict observance of the following points:

- If the rubber bush is reversible, it may only be cut on one side, the unused one located in the body of the silencer.
- The part of the bush linking the silencer to the carburetor must be visible at all times and must be on the outside of the silencer. It allows the rear face of the silencer to be connected to the cylindrical shoulder of the carburetor.

#### **4. EXHAUST**

In all categories, it must be made with magnetic steel. In KZ2 and KZ1, the exhaust must be homologated. The exhaust system shall discharge behind the Driver and shall not operate at a height of more than 45 cm from the ground. The exhaust silencer outlet, the external diameter of which must be more than 3 cm. It is forbidden for the exhaust in any way to pass forward and across the plane in which the Driver is seated in his normal driving position. All systems of «power valve» are forbidden.

#### **5. The following tolerances are allowed:**

- Connecting rod centerline: +/- 0.2 mm
- Piston stroke: - engine assembled: +/- 0.2 mm
- Crankshaft alone: +/- 0.1 mm
- Ignition, engine: +/- 2°
- Homologated gearbox:
- Value obtained after 3 engine rotations: +/- 3°
- Exhausts of all 125cc engines: +/- 1 mm

#### **6. Without tolerance, at all times and whatever the conditions may be:**

- Cubic capacities.
- Diameter of the carburetor venturi.
- Mass measurement.
- Combustion chamber volume.
- Any minimum and maximum value

#### **7. Method for measuring the opening angles of the inlet and exhaust ports**

In order to make the measurement more accurate, a 0.20 mm thick and 5 mm wide wedge will be used to establish the start and finish of the measurement. This wedge will be gripped at the chord axis of each port, between the edge of the upper part of the piston ring or of the piston and its intersection with the edge of the inlet or exhaust port. The position by which the gripping of the wedge will permit the measurement of the largest possible angle will be considered as the beginning and the end of the measurement of the angle. This wedge may be set in position through the inside of the cylinder or through the duct of the exhaust port to be checked. It will not be mandatory on any account for the

wedge to be placed in a horizontal or vertical position. The reading will be carried out using a graduated disc with a minimum diameter of 200 mm or a digital display measuring device operated by a coder.

## **8. KZ2**

Only reed-valve intakes are authorized.

The original parts of the homologated engine must always comply with and be similar to the photographs, drawings and physical dimensions described on the Homologation Form. Modifications allowed: All modifications to the homologated engine are allowed except:

a) Inside the engine:

- stroke,
- bore (outside the maximum limits),
- connecting rod centerline,
- number of transfer ducts and inlet ports in the cylinder and crankcase,
- number of exhaust ports and ducts.

The creation of new exhaust ducts or ports is forbidden.

- Adding of inserts in the ducts.
- Restrictions according to the specific regulations.

b) Outside the engine:

- number of carburetors and diameter of choke,
- external characteristics of the fitted engine, except for machining necessary for the application of bar code stickers.

Modification of the external appearance of the engine does not include the fixations of the carburetor, of the ignition, of the exhaust, of the clutch or of the engine itself, provided that their homologated position is not modified.

## **9. KZ 1, KZ 2,**

\* Power unit: it must not be possible to dissociate the engine from the gearbox. Engine case must be made of only 2 parts (vertical or horizontal). Only inserts for crankshaft bearings and fixing elements (drilled holes, dowels) are authorized.

\* Water cooled single-cylinder engine with reed-valve intake, one circuit only, homologated by the CIK-FIA.

\* Maximum cylinder cubic capacity: 125 cc.

\* Reed-valve box (dimensions and drawing) according to the Homologation Form. Reed-valve box cover: free.

\* Carburetor made of aluminum, with a venturi type diffuser with a maximum diameter of 30 mm round. The carburetor must remain strictly original. The only settings allowed may be made to: the slide, the needle, the floaters, the float chamber, the needle shaft (spray), the jets and the needle kit, subject to all the interchanged parts being of Dell'Orto origin. The incorporated petrol filter and the plate may be removed; if they are kept, they must be original.

\* Gearbox: homologated by the CIK-FIA (including the primary torque). Minimum 3 and maximum 6 ratios. Check of the ratios using a graduated disc with a minimum diameter of 200 mm or a digital coder;

the degree decimals given on the Homologation Form must be mentioned in tenths of degrees and not in minutes. For the homologation of the gearbox, the Manufacturer(s) and the model and type must appear on the Homologation Form.

\* In KZ2: hand-operated and exclusively mechanical gearbox control without a servo system. Any system of ignition cutting is forbidden.

\* In KZ1: hand-operated or electro-mechanical gearbox control.

\* Total exhaust opening angle of 199° maximum, irrespective of the value indicated on the homologation form (to be read with a graduated circle of a minimum diameter of 200 mm or with a digital device).

\* Volume of the combustion chamber: 11 cc minimum, measured in accordance with the method described.

\* Spark plug: free make (mass-produced and strictly original). The body of the spark plug (electrodes not included), tightened on the cylinder head, and must not extend beyond the upper part of the dome of the combustion chamber.

\* Dimensions of the threaded spark-plug housing- length: 18.5 mm; pitch: M 14 x 1.25.

\* Identifications: machined flat spaces of 30 mm x 20 mm for the attachment of the specified identification stickers:

- At the front of the cylinder,
- On the upper part of the reed box housing for the half sumps.

\* It is allowed to add a mass to the ignition rotor; it shall be fixed by at least 2 screws, without any modification to the homologated rotor.

\* Exhaust: homologated and the magnetic steel sheet metal thickness of which must be 0.75 mm minimum.

\* Exhaust silencer: homologated, mandatory use.

\* Tires: 5''.

- KZ1: MG open compound.

- KZ2: MG open compound.

\* Minimum weight: KZ 1, 2: 385LBS.