

# 711 Clone Class Box Stock

## 711.1 CLUTCH:

### Δ711.1.1 SPORTSMAN AND JUNIOR:

Sportsman and Junior classes must run a shoe type clutch. Drum may be stamped or billet steel. No cooling fins may be either machined into drum or added on. Disc clutches are not allowed.

### Δ711.1.2 SENIOR:

Senior classes must run a stamped or billet steel, shoe clutch only.

## 711.2 FUEL TANK:

Must be floor mounted.

## 711.3 CARBURETOR:

Huayi or Rui\*ing only. All stock carb gaskets must be present. Choke assembly must be functioning, cannot be altered, and must remain flat. Choke bore must be cast. Venturi: 0.615" No-Go. Back carb bore: 0.751 No-Go. Emulsion tube is non-tech. 0.066" No-Go (No-Go cannot pass all the way through.). Main jet: 0.042" No-Go. Low speed idle jet is non tech Jet may not be drilled through to outside air. Throttle shaft 0.115 minimum. Butterfly 0.037" minimum. Butterfly screw must remain stock.

## 711.4 FUEL PUMP:

Any pulsed type fuel pump is allowed. Fuel pump must be pulsed from the valve cover. \*Any other way to pulse must be approved by the WKA Tech Official for the race weekend.

## 711.5 AIR FILTER:

After market air filter adapters are allowed. Maximum length: 1.375". Loss of air filter during a race does not constitute a reason for disqualification.

## 711.6 BLOCK:

Block must remain stock. Maximum bore is 2.685". Stroke is 2.123", plus 0.010" or minus 0.005". No pop-up allowed. Mating surfaces of block and cylinder head are non-tech items. Surfacing of both to correct for gasket failure and meet cc check is allowed. No welding on block.

## Δ711.7 CYLINDER HEAD

No porting, grinding or modification. Valve seats may have two or three angles: Two angle seats have a 30° top and a 45° valve face. Three angle valve seats have angles of 30° at the top, 45° at the valve face and 60° at the base. Intake seat is 0.897" maximum. Exhaust seat is 0.862 maximum. Head gasket must be stock configuration. Gasket must be steel; copper or aluminum not allowed. Minimum head gasket thickness is 0.008". One or two head gaskets are allowed with no maximum thickness. Sealer may be used.

### 711.7.1 COMBUSTION CHAMBER VOLUME:

Minimum volume 26.5cc as measured through the spark plug hole using the LSD tool and with head on the engine. See section 504 WKA 2014 Technical Manual for instructions how to use the LAD tool to check cylinder head volume.

## 711.8 VALVE TRAIN:

Valve train will remain stock. No polishing. No grinding. No alterations. Stock OEM rocker arms only. Stock valve springs only. Maximum wire diameter is 0.071". maximum spring pressure is 10.8 lbs at height of 0.850". Spring retainer measurements – exhaust 0.250" MIN, intake 0.230" MIN. Intake valve diameter – 0.985" ± 0.005" with 45° angle. Exhaust valve diameter – 0.948" + or – 0.005" with 45\* angle. Lash cap on exhaust valve only.

Valve stem seals are optional on intake and exhaust valves. Seal lip – 0.027” maximum. Stock lifters. Minimum valve installed height is 0.815”. Valve spring shims are allowed.

### **711.9 ROD:**

Stock rod only. Rod may be honed. No other modifications allowed.

### **711.10 PISTON AND RINGS:**

Stock piston and rings only.

### **711.11 CRANKSHAFT:**

Stock crankshaft only, no modifications. Crankshaft journal is 1.180” maximum and 1.168” minimum.

### **711.12 CAMSHAFT:**

Camshaft must meet these specifications. Maximum running lift on exhaust is 0.242” taken on valve spring retainer with zero lash. Maximum running lift on intake is 0.238” taken on valve spring retainer with zero lash. Intake lift at the push rod – maximum 0.225”, minimum 0.215”. Exhaust lift at the push rod – maximum 0.232”, minimum 0.222”. Duration check for intake and exhaust lobes. Intake duration of 218.5° at 0.050” lift / 85.5° at 0.200” lift. Exhaust duration of 221.5° at 0.050” lift / 96.5° at 0.200” lift. (All checks will allow + 2° for wear and gauge variances.)

### **Δ711.13 FLYWHEEL AND IGNITION:**

The following flywheels are the only approved flywheels: (1) ARC Model 6619, ARC 6625, ARC 6626 (2) PVL, (3) Raceseng REV WHEEL – FINNED – S1, all at a minimum weight of 3 pounds 2 ounces. The Speed Karts Steel Billet S1 flywheel is also approved at a minimum weight of 5 pounds, 3 ounces. The stock flywheel is no longer approved and may not be used. No machining or alterations of any kind are allowed. Ignition coil must be stock, but ignition timing is non-tech. The flywheel may be run with or without a key. Stock pull starter or handheld electric starter may be used.

### **Δ711.14 HEADER PIPE:**

Exhaust pipe / header must not have exposed sharp edges. No aftermarket coatings of any type are allowed. Header / exhaust pipe must be wrapped if the pipe design exposes the driver to burns. Studs allowed for header pipe attachment to block. Header / exhaust pipe MAY NOT PROTRUDE inside of exhaust port.

#### **Δ711.14.1 HEADER PIPE SPORTSMAN AND JUNIOR:**

Sportsman and Junior header pipe must be single stage maximum 0.750” outside diameter, 0.635” ID inside measurement. Maximum length on header and muffler is 15” and minimum is 10”.

### **711.15 MUFFLER**

No aftermarket coatings of any type are allowed.

#### **711.15.1 MUFFLER – SPORTSMAN AND JUNIOR:**

Muffler must be RLV Mini 91. Box Stock, Threaded Nipple. No grinding. ID is 0.685” ± 0.005”. Rear baffle holes maximum ID is 0.1285”. Inner baffle holes maximum ID is 0.0965”. Muffler must be screwed on end of header pipe, not welded.

#### **Δ711.15.2 MUFFLER – SENIOR:**

Muffler must be a RLV 91\_L type with 0.1285” no-go holes. Muffler may be welded onto pipe.

### **711.16 STARTER:**

Pull starter must be present and remain stock. Pull starter may be rotated for a better cranking angle.

### **711.17 ENGINE OIL RECOVERY SYSTEM:**

Engine oil recovery system (catch can) mandatory.

### **711.18 OIL SENSOR:**

Oil sensor may be removed.

### **711.19 GOVERNOR:**

Governor and governor components are non-tech.

### **711.20 SIDE COVER GASKETS:**

2 gaskets maximum

### **711.21 AFTER MARKET COATINGS:**

No aftermarket coatings of any type are allowed except on blower housing shroud.

### **711.22 SHEET METAL:**

All sheet metal must be used as supplied with the engine.

### **OVKA local option, Muffler**

In addition to the RLV 91\_L type. RLV B91 XL are allowed.

### **OVKA local option, 212cc addition**

All the same specs. above apply with the exception as follows:

#### **BLOCK:**

Block must remain stock. Maximum bore is 2.756". Stroke is 2.165", plus 0.010" or minus 0.005". No pop-up allowed. Mating surfaces of block and cylinder head are non-tech items. Surfacing of both to correct for gasket failure and meet cc check is allowed. No welding on block.

#### **CYLINDER HEAD:**

Hemi or non hemi type allowed.

Valve springs can be 18# seat pressure at installed height on the hemi type head only. 10.8# for all non-hemi heads. All installed heights are with shims.

#### **VALVE TRAIN:**

Valve train will remain stock. No polishing. No grinding. No alterations. Stock OEM rocker arms only. Maximum spring pressure is 18 lbs at height of 0.850". Spring retainer measurements – exhaust 0.250" MIN, intake 0.230" MIN. Intake valve diameter – 1.064" ± 0.005" with 45° angle. Exhaust valve diameter – 0.988" + or – 0.005" with 45\* angle. Lash cap on intake and exhaust valves allowed. Valve stem seals are optional on intake and exhaust valves. Seal lip – 0.027" maximum. Stock lifters. Minimum valve installed height is 0.815". Valve spring shims are allowed.

#### **CARBURETOR:**

In addition to the Huayi and Rui\*ing, SP brand is also allowed. (stock on Predator brand 212's)