

Local Option Sportsman Rules

4/30/2010 (see change in camshaft rule)

Engine: 6 hp OHV 196cc Engine

Fuel: Pump Gas

Cylinder Head: Stock cylinder head only. Machining of gasket surface allowed. No addition of material in ports or to cylinder head allowed. Valve seats have two angles, 45° bottom and .30° top. Inside diameter of valve seats must be stock. Valve seats must appear stock and must be in stock position. All four stock head bolts must be in place. Minimum head gasket thickness is .009". More than one gasket may be used. Cylinder head guide plate for pushrods must remain stock. No other alterations to the stock head are permitted.

Bore and Stroke: Stock bore is 2.685" and may be over bored to 2.718" Stroke is 2.123" +/- .005".

Connecting Rod: Billet aluminum or Stock rods, with or "without bearing inserts allowed. No titanium rods allowed. Rod length is non tech.

Combustion Chamber Volume: 25.0 cubic centimeter minimum with piston at TDC using prescribed procedure.

Carburetor: Stock Huayi types allowed. All stock carburetor gaskets and insulators must be present. Choke bore must be as cast. Venturi .615" NO-GO. Rear carburetor bore .751" NO-GO. Air filter adapter of 1.375" max length allowed. No air rams. Pulse-type fuel pump is mandatory. Fuel pump must be pulsed from either the crankcase or the valve cover. Choke assembly may be removed. Jets, orifices and emulsion tube are non-tech (except .615" no-go on Venturi). Throttle shaft, screw, washer, and butterfly must be stock and must be present. Stock intake runner gasket configuration only. One extra gasket may be used with restrictor plates. No other alterations are permitted.

Ignition system: Ignition timing is non-tech. Box Stock Project ignition module only. No modifications of any type allowed. Spark plug connector must be stock.

Piston: Must be stock dished piston with no modifications.

Valve Train: Stock valve-train only in stock configuration except any single valve springs and valve spring shims are allowed. No additional support for rocker studs permitted. No polishing, lightening or knife edging of valves, 1 mm minimum on edge of valve. Valves must be one angle only, 45°. Valve length is non-tech. Outside face of valve head may not be below the combustion chamber floor. (i.e. don't sink the valves) Valve cover may be drilled for fuel pump pulse fitting, otherwise, it must remain unaltered. Valve Cover gasket is non-tech.

Camshaft: DP spec cam only. Profile check taken at pushrod must match + / - 3° to spec cam. Max lift of .260" to be checked at valve spring retainer with zero lash. Compression release must remain on the cam. Current approved spec cams: Dyno 216. Any other cam that meets cam profile is okay.

Special Note: Valve guide wear can give false valve lift readings when checking off the front of the valve spring retainer. It is advised to take readings at several other points around the retainer (back and both sides) if wear is suspected of giving a false, unfavorable reading.

Cam Degree Profile Checked a Pushrod	Lift	Intake	Exhaust
Open	.020"	17° BTDC	50.5° BBDC
Open	.050"	2° BTDC	35° BBDC
Open	.200"	60° BTDC	21° ABDC
Maximum Lift	.246"		.246"
Close	.200"	24.5° BBDC	62° BTDC
Close	.050"	36.5° ABDC	2° BTDC
Close	.020"	51.5° ABDC	13° ATDC

Or stock camshaft maybe used, you must declare your camshaft when you enter tech. Maximum running lift on exhaust is .242" taken on valve spring retainer with zero lash. Maximum running lift on intake is .238" taken on valve spring retainer with zero lash. Camshaft base circle measurement: .865" -.005 "+ .010".

Crankshaft: Stock factory crankshaft only with stock factory timing gear in factory location. No modifications to crankshaft allowed. Aftermarket steel main bearings of non self-aligning type, with or without seal are allowed. No ceramic bearings. Crankshaft journal diameter is 1.180", 1.168" minimum.

Block: Stock block, as cast and produced with no alterations or modifications other than those specifically permitted. Block head mating surface may be machined, however, no piston pop out is allowed. Blocks may be welded for repairs as long as the repair does not constitute a functional modification to the block. No welding to block from cooling fins upward. All bolt bosses in block may be drilled and tapped for repairs or other uses. Additional side cover gaskets as required for crankshaft thrust are permitted. All parts associated with the governor and the low oil sensor may be removed plugging any associated holes.

Flywheel: Approved SFI certified billet aluminum flywheel only. No machining or alteration of any kind allowed. Minimum weight for flywheel is 3.3lbs. Stock timing key must be used (no offset timing keys). A flat washer or spacer may be used, and is recommended, between the flywheel and the nut. Stock pull starter must be used. Current approved flywheels: ARC 6619,

Header and Muffler: Multi stage header okay. Maximum length - 22". Header may be bent in any configuration to keep it away from the driver and the muffler will not extend past the rear bumper. The RLV B-91 muffler/silencer is mandatory and may not be modified in anyway. Header must be securely wrapped from flange to muffler prior to the race. No loop headers.

Clutch: Drum/Shoe type Clutch only, Any Driver, Any Rear Gear and #35 Chain.

Tire: Firestone YKF or YGF

No other alterations to or from stock components are allowed.