

SPORTSMAN ENGINE

Engine Specs:

This class is reserved for North American passenger car V-8 engines with stock OEM cast iron block and heads.

1. Normally aspirated engines only.
2. All engine parts must have casting or part numbers on them for identification.
 - Engine maximum overbore cubic inches (C.I.).
 - GM Crate – 4.00” bore x 3.480” stroke 350.
 - Chevy 350 - 4.00” bore x 3.480” stroke + .070” 363 C.I.
 - Ford 351 – 4.00” bore x 3.500” stroke + .060” 363 C.I.
 - Chrysler 360 – 4.00” bore x 3.578” stroke + .020” 364 C.I.
 - Chrysler 340 – 4.04” bore x 3.313” stroke + .060” 360 C.I.

Cylinder Heads:

1. Stock cast iron OEM American passenger car cylinder heads.
2. Chevy bow-tie, Dart 180 or 200, Chrysler W-2 and Ford competition heads are permitted. All identification numbers must be visible and unaltered.
3. Factory valve spacing and angles must remain unaltered.
4. NO aluminum heads.

Rods:

1. OEM stock production or aftermarket solid steel rods only.

Crankshaft:

1. Any steel or cast iron crankshaft is permitted providing it maintains stock stroke for engine being used.
2. Aftermarket OEM replacement crankshafts with holes drilled through crankpins are permitted providing they maintain stock specifications and appearance.
3. NO lightweight crankshafts permitted. 45lb minimum weight.
4. The minimum rod and main journal sizes must be manufacture specifications less factory undersize. Stock mains 2” rod journals.

Pistons:

1. Any brand three ring flat top aluminum pistons.

Camshaft:

1. Any make hydraulic or flat tapped camshaft is allowed.
2. No roller cams.
3. Shaft rockers are not allowed.
4. Engines with stock OEM shaft rockers are allowed.
5. Roller rockers with optional ratios are allowed.
6. Lifters must maintain stock OEM diameters.
7. Lifter bores must remain in stock OEM positions and angles, but may be rebushed for wear.
8. A flat steel lifter galley plate may be used to prevent engine damage in case of push rod failure.

Intake Manifold:

1. OEM stock cast iron 2 barrel intake manifold permitted.
2. Optional aluminum 4 barrel spec manifold may be used:
 - Chevy 350 – Brodix # HV1011 Ford 350 – Edelbrock # 2981 – 2980 Ford 347 2921
 - Chrysler 340 – Edelbrock # 2915 Chrysler w/W-2 heads # 2920

Carburetor:

1. Any American stock OEM 2 barrel carburetor with up to 1-11/16" throttle bore with no adapter plate is acceptable on 2 barrel cast iron manifold.
2. Holley carburetor # 4412 or stock 4412HP may also be used. Spacer adapter of no more than 1/16" including gasket.
3. Modifications that will be permitted, any other modification will NOT be permitted:
 - Holes drilled in the throttle plates for proper idling.
 - Drilling, tapping and plugging of unused vacuum ports.
 - Welding or throttle shaft to linkage arm.
 - Drilling of idle or high speed air correction jets.
 - Milling of center carburetor body metering block surface a max. of .015" on each side.
 - Removal of choke plate and shaft.
 - Jets may be changed as needed.

Ignition:

1. Distributor must be stock OEM or stock type aftermarket.
2. Stock OEM or stock type aftermarket coil and module.
3. No trigger ignition.
4. On H.E.I. ignition systems coils must remain in the stock location and system must remain as manufactured.
5. Must maintain OEM firing order.
6. Only one (1) coil allowed on car.
7. Only one (1) 12 volt battery permitted.
8. No step up transformer or any other device that increases voltage allowed.
9. No traction control devices or form of braking devices that controls traction allowed.

Lubrication System:

1. No dry sump systems allowed.
2. Steel oil pans only.
3. The oil pan must have a 1" inspection hole on the left side for checking connecting rods.
4. No external oil pumps or Accu-sumps allowed.
5. No form of engine evacuation system by internal or external driven pumps or by connection between exhaust system and valve covers, intake manifold or oil pan allowed.
6. Oil coolers are permitted providing they are mounted under the hood or under the left wing panel.

Water Pump:

1. Water pump must be cast iron or aluminum.
2. Radiator fan must be steel.
3. No electric cooling fans or pumps allowed.

Fuel Pump:

1. Must remain in stock location for make engine.
2. Must be driven as stock OEM equipment.
3. No electric fuel pumps allowed.

Fuel:

1. Racing or pump fuel only.
2. No nitrous or any other fuel additives.
3. All fuel subject to random testing.

Any infraction of the engine or fuel specifications as mentioned above may result in disqualification, suspension and/or fines.

Crate Engine:

1. May use GM factory sealed crate engine # 88958602.
2. Engine must remain as manufactured by GM.

3. Engines may not have GM factory seals tampered with. Anyone found tampering with a crate engine may be disqualified, suspended or have to run by open rules.
4. Distributors must remain stock as supplied by GM (unaltered in any way).
5. Only GM replacement valve springs may be used # 10212811. Valve Springs must not exceed 80lbs.
6. One Holley 650 cfm carburetor required. Only # 4777 and # 80777 are permitted.
7. Carburetor must remain in stock form. Exceptions for modifications listed under open carburetor rules.
8. A maximum 1" unaltered single hole spacer plate is allowed.
9. Must maintain stock venturi and throttle bore dimensions. Primary 1-1/4", Secondary 1-5/16".
10. Must pass carburetor go/no-go gauge measurements.
11. Rocker Arm ratio 1.5 to 1 only.
12. Track Tech inspector must be notified before any work is done to a crate engine and all work must be documented.