



Office use only:
Control Number:
Assigned Group:
Effective for Race Year: 2024

2024 Inboard Rule Change Proposal

Name: Buddy Benedict
APBA #: 16483
E-mail: wbenedict@twc.com
Telephone: 812-228-6282
Date: 11-18-23

Note: Proposals must be submitted to the Inboard Office by December 1, 2023 to be considered.
E-mail completed form to: inboardracing@apba.org or melildon@yahoo.com
US mail to: APBA Inboard Office, 8039 Stone Barn Dr, West Chester, Ohio 45069

Check all that apply:

General Safety Rule	<input type="checkbox"/>
General Racing Rule	<input type="checkbox"/>
Stock Class Technical Rule *	X
Modified Class Technical Rule *	<input type="checkbox"/>

Affected Class(es):

Specific Rule Information: [Note: All fields must be completed for consideration.]

Rule 45 E350 Class

Author's VERY BRIEF Summary of Proposed Action:

5.3 Litre Engine rule proposal

Affected Rule:

Additional engine package in Rule 45

Proposed rule:

See attached file

Reason for change:

Allow the modern 5.3 litre Chevy LS series engine into class.

45.6 General Motors 5.3 Liter engine

Below are the engine rules for the 5.3 Liter engine option, stating specifically what is allowed for its use. Any modification or components not listed below are not allowed.

45.6.1 Engine Parameters: Maximum displacement – 5.442 Liters, Compression ratio – 10.15:1 Max

45.6.2 Block: Stock cast iron production GM V-8 block with casting numbers: 12567392, 12567393, 12551358. No grinding or lighting allowed.

45.6.3 Crankshaft: Steel magnetic crankshafts only, Minimum weight 50 lbs. including balancing. Unaltered in any way. Stroke: (3.622 + or - .010). Main journals (2.559 in) and rod journals (2.100 in). Maximum undercut is .030. 24 tooth reluctor wheel only.

45.6.4 Connecting Rods: Any stock or stock replacement magnetic steel rods. Rod length is: (6.098 in.) Press fit or floating pin allowed but floating pin preferred. Minimum weight is: (600 grams)

45.6.5 Pistons: Any stock or stock replacement piston may be used. No portion of the piston may protrude above the block and no top coated pistons may be used. Rings must be in stock configuration on the pistons. Maximum size allowed is: (.040 over). Minimum weight is: (550 grams).

45.6.6 Piston Rings: Must be stock or stock replacements. First and second ring thickness is 1.50mm and oil control is 3.00mm. No gapless rings allowed. File fit are allowed.

45.6.7 Camshaft: Any brand camshaft with the maximum lift value of (0.553) for the intake or exhaust may be used.

45.6.8 Heads: GM factory heads P/N 706 and 862 allowed. Heads must remain unaltered in any way except for flat milling of deck surface. Valves, valve guides, and valve seals are GM factory parts or factory replacements only. Intake and exhaust runners must be as cast. No porting allowed. Combustion chamber minimum is 59cc. Intake runner volume: (200cc +/- 2cc) Exhaust runner volume: (70cc +/- 2cc). Factory 1.7 ratio rocker arms must be used. Rocker arm trunion upgrade allowed. No gasket/port matching allowed.

45.6.9 Valves & Valvetrain: Must be solid stem factory or factory replacement valves. Maximum intake diameter is 1.890in and maximum exhaust diameter is 1.550in. Stock diameter (.0842in) magnetic steel hydraulic roller lifters or solid roller lifters allowed. Single or double roller timing chain only. Stock size pushrods (5/16"), steel spring retainer and single beehive valve springs with maximum outside diameter 1.290(+/- .010 in). No titanium or any other exotic materials may be used for any valve/valvetrain part.

45.6.10 Intake Manifold: Edelbrock LS Performer RPM Intake P/N 7118 for use with carbureted motors. Intake must remain factory stock. No modifications allowed. No porting or polishing allowed.

45.6.11 Carburetor: Holley 4412 or HP#80583-1 allowed. Venturi size: 1.375", Throttle bore: 1.687". The carburetor must pass top and bottom dimension tool specs. Choke plate may be removed but no removal of choke housing. No other visible modifications allowed on or inside the carburetor. Standard boosters only and must be tightly mounted. No annular boosters. Epoxying or safety wiring of boosters recommended. No vacuum leaks. No turtles or other induction performance enhancing devices. No other systems allowed. The use of two return springs is mandatory. An over-center throttle stop is recommended. Carburetor adapter (Spacer) Bicknell #376 (Max. 1.00") only, no modification allowed to adapter except for attaching hardware such as a throttle bracket. An additional

maximum size thickness straight bore spacer of 1.00" may also be used.
Maximum of 3 gaskets for a total thickness of 0.266" allowed.

45.6.12 Ignition: MSD LS Controller only. P/N 6010 or 6014 or 60143 for 24 tooth reluctor wheel crankshaft.

45.6.13 Oil System: Any factory or aftermarket oil pan allowed. May be wet sump or dry sump systems. Maximum of 3 stages for dry sump systems. Oil coolers allowed "Aeroquip" type oil lines only.

45.6.14 Fuel Pump and Lines: Any electric fuel pump may be used. All pumps must be connected to oil pressure switch. No pressurized tanks. No plastic fuel lines. No fuel lines shall be ran through drivers compartment.

45.6.15 Fuel: See general technical rule 40.18.12 "A" through "E" only allowed.

45.6.16 Starter & Flexplate: Any stock or aftermarket starter may be used. Any 11 inch Flywheel/flexplate may be used (SFI Certified preferred).

45.6.17 Miscellaneous: The following items may be of any manufacture: gaskets, spark plugs, wires, bearings, filters, fuel lines, hoses, fittings, valve covers, breathers, nuts, bolts, washers, fittings and exhaust system unless specified in these rules.

45.6.18 Cam Lift Inspection:

Tools required: One dial indicator capable of measuring up to 600 thousandths lift.

Procedure: Rotate engine in normal direction till #1 cylinder is at top dead center.

Set dial indicator on intake valve spring retainer and zero out. Rotate engine and measure maximum lift. Repeat procedure on exhaust valve.

Note: If hydraulic lifters are being used, a solid lifter must be used in place of the hydraulic ones.