



EDELBROCK VICTOR 24° PRO-PORT CYLINDER HEAD

For Big Block Chevrolet

Part #61439 & #614369

INSTALLATION INSTRUCTIONS

PLEASE study these instructions carefully before beginning this installation. Most installations can be accomplished with common tools and procedures. However, you should be familiar with and comfortable working on your vehicle. If you do not feel comfortable performing this installation, it is recommended to have the installation completed by a qualified mechanic. If you have any questions, please call our **Technical Hotline** at: **1-800-416-8628**, 7:00 am - 5:00 pm, Pacific Standard Time, Monday through Friday.

IMPORTANT NOTE: *Proper installation is the responsibility of the installer.*

Improper installation will void warranty and may result in poor performance and engine or vehicle damage.

DESCRIPTION: Edelbrock Victor 24° Pro-Port Big Block Chevrolet cylinder heads are designed for high rpm or large displacement big block Chevrolet applications using rectangular port heads. Exhaust ports are raised .624" for greatly improved flow paths and more power. The unmachined combustion chambers can be shaped to facilitate a variety of high compression ratios and the rocker stud bosses are reinforced for valve train stability. For maximum head gasket retention, these heads include two auxiliary head bolt holes (**Note:** *If machining the intake port exposes these holes, they must be plugged to prevent oil consumption*). These heads can be machined to accommodate all standard location rectangular port Victor series intake manifolds. These heads will fit all 1965 and later big block Chevrolet blocks. The valve seats and valve guides for recommended valve sizes have been supplied but not installed, and will need to be professionally fitted. Please note that cylinder heads #614369 have undergone a professional Hot Isostatic Pressing (HIP) treatment prior to machining. This process significantly improves metal density and tensile strength and therefore may affect ideal tool speed and other aspects of the machining process. The head is supplied semi-finished with .090" of stock added to the deck and no intake rocker stud or pushrod machining.

INSTALLATION PROCEDURE

IMPORTANT NOTES: The #61439 heads are designed for a 4.470" bore or larger. Intake valves should measure 5.700" or longer and exhaust valves should measure at least 5.600" in length.

ACCESSORIES & INSTALLATION ITEMS: We highly recommend that premium quality hardware be used with your new heads. See our catalog for details. To order a catalog, call **(800) FUN-TEAM**, or visit our website at: **www.Edelbrock.com**.

Head Bolts: High quality head bolts or head studs with hardened washers must be used to prevent galling of the aluminum bolt bosses. Edelbrock Head Bolt Kit #8554 can be used with all 1965 and later big block Chevrolet engine blocks. The head bolt boss heights and required bolt lengths are listed below (**See Fig. 1**), along with the head bolt tightening sequence. The bolt bosses adjacent to the exhaust port exits (position 2, 7, 8, and 15), require a 5.50" long head bolt. These bosses have been raised to provide more material thickness between the head bolt boss counterbore and the exhaust port wall. Many of the other head bolt boss heights have also been adjusted to prevent head bolt bottoming in Mark IV, Gen V, and Gen VI engine blocks.

NOTE: *Bolt length on positions 13 and 16 must be carefully checked. It is likely that the bolt will need to be shortened by one to two threads to prevent bottoming out on blocks with blind bolt holes.*

Shaft Style Rocker Arms: When using shaft style rocker arms, Edelbrock recommends the use of Jesel or T&D rockers. Custom systems may be required depending on the pushrod machining.

Screw-In Stud Rocker Arms: The exhaust rocker stud bosses are made with extra long thread inserts and hole depth to allow exhaust rocker studs with extra long installation thread length to improve rocker stud durability. Select the appropriate rocker arm studs for your application.

Valve Covers: The valve cover flange is designed to work with Gen V and Gen VI style valve covers with an o-ring seal valve cover gasket, as well as Mark IV type valve covers. Use Edelbrock Signature Series chrome valve covers #4680 or Elite Series polished aluminum valve covers #4280.

Intake Manifolds: Choosing the correct intake manifold will depend upon your specific engine combination. Please consult with your engine builder or contact Edelbrock via our **Technical Hotline** at **1-800-416-8628** for information regarding intake manifold selection.

Exhaust Headers: Any header or manifold designed for original equipment heads will fit the Edelbrock Race Cylinder Heads. Fel-Pro exhaust gaskets, #1411, #1412, or equivalent are recommended for this application. It is recommended to check proper clearance between the exhaust flange and the head bolt relief.

Spark Plugs: Use 14mm x 3/4" reach, gasketed spark plugs. Heat range for competition applications will vary. We recommend the use of **anti-seize** on the spark plug threads to prevent galling in the cylinder head, and torque to 10 ft/lbs. **DO NOT OVERTIGHTEN.**

INSTALLATION:

Note: Prior to assembly, the following should be checked:

1. Valve to Cylinder Wall Clearance
2. Piston to Valve Clearance
3. Piston Dome to Combustion Chamber Clearance
3. Rocker Arm to Valve Cover Clearance
4. Rocker Arm to Valve Cover Rail Clearance (intake only)

Installation is the same as for original equipment cylinder heads. Consult a service manual for specific procedures, if necessary. For 454 and small Mark IV engines, use Fel-Pro head gasket #1017-1, or equivalent. For 502 c.i.d. Gen V and Gen VI engines, use Fel-Pro head gasket #1047 or equivalent. Lay the head gasket on the deck surface of the head, verifying that the gasket does not overhang into the chamber at any point. A larger bore head gasket must be used if a visible overhang is present to prevent premature head gasket failure. Be sure that the surface of the block and the surface of the head are cleaned

thoroughly to remove any oily film before installation. Use alcohol or lacquer thinner on a lint-free rag to clean. Apply liquid Teflon PST or suitable thread sealer to head bolt threads that thread into coolant passages. Torque the head bolts to 70 ft/lbs in three steps, following the factory tightening sequence (**See Fig. 1**). A re-torque is recommended after initial start-up and cool-down (Allow 2-3 hours for adequate cooling).

SPECIFICATIONS:

Head Bolt Torque:	70 ft./lbs.
Rocker Stud Torque:	45 ft./lbs.
Deck Thickness:	.715"
Valve Seats:	Hardened, interlocking, compatible with any fuel
Recommended Valve Length:	Intake - 5.725", Exhaust - 5.525"
Valve Spring Pocket Diameter:	1.76"

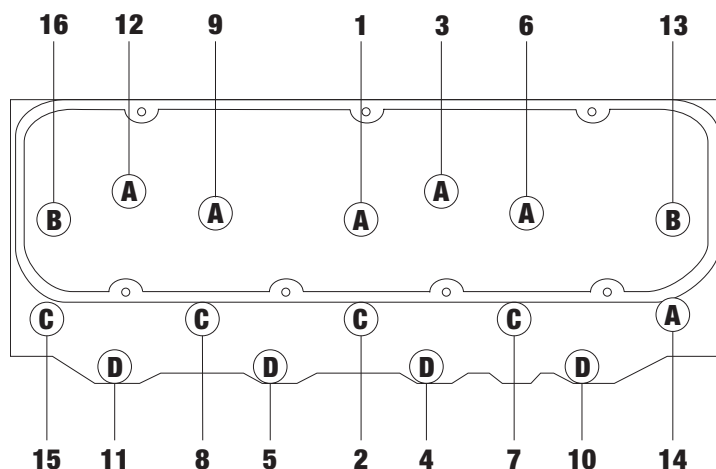


Figure 1 - Cylinder Head Bolt Torque Sequence and Bolt Boss Height Chart
Torque Bolts to 70 ft./lbs In The Sequence Shown

Bolt Height and Bolt Length			
<u>Letter</u>	<u>Bolt Height</u>	<u>Recommended Bolt Length</u>	<u>Qty.</u>
A	3.47"	4.19"	6
B	3.47"	4.50"	2
C	4.78"	5.50"	4
D	1.47"	2.19"	4



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