



VICTOR 24° CYLINDER HEAD  
For Big Block Chevrolet  
Catalog #s 77409, 77419, 77459, & 77469  
INSTALLATION INSTRUCTIONS

PLEASE study these instructions carefully before installing your new Edelbrock Victor 24° Cylinder Heads for Big Block Chevrolet Engines. If you have any questions or problems, do not hesitate to contact our Technical Hotline at: 1-800-416-8628, from 7am-5pm PST, Monday-Friday, or via e-mail at: [Edelbrock@Edelbrock.com](mailto:Edelbrock@Edelbrock.com). Please remember to fill out and mail your warranty card. Please include the part number in the "Part #\_\_\_\_" space. Thank you.

- *Note: Proper installation is the responsibility of the customer. Improper or incomplete installation could result in poor performance, related component damage, potential severe engine damage, vehicle fire, and will void your warranty. If you do not feel comfortable installing these parts, we recommend having the installation performed by a professional mechanic.*
- **DESCRIPTION:** For big block Chevrolet competition engines in high rpm or large displacement applications using rectangular port heads. Rectangular intake ports are raised .100" and exhaust ports are raised .750" for greatly improved flow paths and more power. 119cc open-style combustion chambers facilitate high compression ratios and rocker stud bosses are reinforced for valve train stability. For maximum head gasket retention, these heads include two auxiliary head bolt holes (*Note: These bolt holes must be plugged off if not in use*). These heads will accommodate all standard location rectangular port Victor series intake manifolds. These heads will also fit all 1965 and later big block Chevrolet blocks. The valve seats and valve guides have been machined for recommended valve sizes and will need final clearances to be checked by the engine builder. The exhaust ports are 146cc, and are raised .750" for better flow. We recommend Edelbrock intake #2917 for a matched port intake.
- **IMPORTANT NOTES:** The #77409 and #77419 heads are designed for a 4.470" bore or larger while the #77459 and #77469 heads require a 4.310" or larger bore. Intake valves should measure 5.600" or longer and exhaust valves should measure at least 5.500" in length. The unique valve locations and angles require Edelbrock guide plate #38-6067 for proper valve train geometry, and also require stud girdle #7796 (For #77409 & 77419) or #7797 (For #77459 & 77469).
- **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](http://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 in *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.

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.

Guideplates: Use Edelbrock part #38-6067 guideplates.

Rocker Arms: Aftermarket roller rocker arms must be used for this cylinder head when using screw-in studs.

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: Edelbrock Race Cylinder Heads are matched in size and operating range with Edelbrock Victor series intake manifolds. Additionally, any manifold that matches Fel-Pro gasket #1211, 1275, or equivalent, may be used. Rectangular port intake manifolds may be used as-is, or port matched to the same configuration as the cylinder heads for optimum performance.

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. *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. 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:

Part #77409, 77419, 77459, 77469

Head Bolt Torque	70 ft/lbs
Rocker Stud Torque	45 ft/lbs
Combustion Chamber Volume	119cc
Deck Thickness	9/16"
Valve Seats	Hardened, Interlocking, Compatible with Any Fuel
Recommended Valve Sizes	Intake - 2.19"-2.30"(maximum) Exhaust - 1.88"-1.94"(maximum)
Recommended Valve Length	Intake - 5.600" or Longer as Needed for Proper Installed Height Exhaust - 5.500" or Longer as Needed for Proper Installed Height
Valve Stem Diameter	11/32"
Valve Spring Pocket Diameter	1.750"

HEAD BOLT BOSS HEIGHT CHART			
Letter	Boss Height	Recommended Bolt Length	Qty.
A	3.38"	4.19"	6
B	3.38"	4.50"	2
C	4.69"	5.50"	4
D	1.38"	2.19"	4

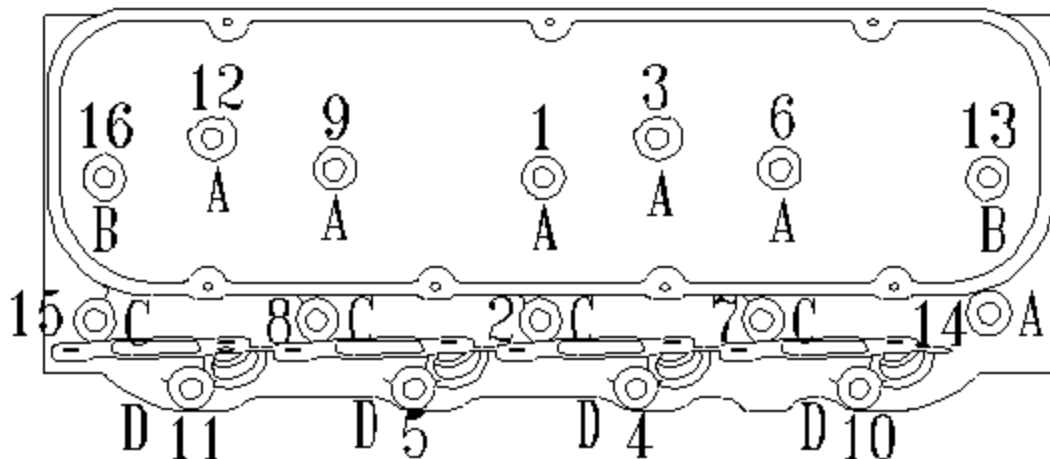


Figure 1 - Torque Sequence and Bolt Boss Type

Edelbrock Corporation • 2700 California St. • Torrance, CA 90503

Technical Hotline: (800) 416-8628 • Office: (310) 781-2222

E-Mail: Edelbrock@Edelbrock.com