



VICTOR BIG-BLOCK CHRYSLER CYLINDER HEADS

For Chrysler B/RB V8 Engines

Catalog #77919, 77929, 77939 & 77949

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 your warranty and may result in poor performance and engine or vehicle damage.

DESCRIPTION: Designed for race applications using 1961-1978 Chrysler B 361, 383 and 400 c.i.d. and RB 413, 426 wedge and 440 c.i.d. engines; Victor cylinder heads are ideally suited for larger displacement and high RPM applications and feature 72cc Dual-Quench design combustion chambers to facilitate high compression ratios. All Victor Chrysler heads have 100cc exhaust ports; #77919 & #77929 have 280cc intake ports while #77939 & #77949 have larger Max Wedge style 290cc intake ports. The intake ports are raised .650" and the exhaust ports are raised .250" to improve flow. The intake port is also extended .950" to eliminate the need for intake manifold spacers. The exhaust flange has been extended out .300" in order to provide dry exhaust bolt/stud holes. Exhaust bolt holes feature helicoil thread inserts for added strength and durability. Valve cover rails have also been raised to provide increased rocker arm clearance. Spark plugs have been re-oriented to a 15-degree angle to improve combustion efficiency. Other features include phosphor-bronze valve guides, interlocking, ductile iron valve seats and premium one-piece, stainless steel, high-flow 2.200" intake and 1.810" exhaust valves (*Valves included with #77929 & #77949 only*). **Due to the increased intake runner width, offset intake rockers are required. The amount of offset will vary depending on deck height, lifter type and camshaft base circle. IMPORTANT: Before porting the cylinder head intake runner, fit the cylinder head to the block and verify pushrod clearance to the cylinder head. At times, the cylinder head pushrod area may need to be relieved for appropriate clearance providing the correct offset rocker is used. Before you begin this process, you need to install the cam & lifters that will eventually be used in this engine. After the process has been completed, you need to let your head porter know the pushrod area of the intake port wall could be limited and care needs to be taken in this area so you don't machine through the intake runner surface. Heads will accept standard exhaust rocker arms.** These heads use the stock intake, exhaust, and valve cover bolt hole patterns, and stock rocker shafts, for compatibility with original equipment, as well as aftermarket parts.

NOTE: Complete cylinder heads are assembled with intake and exhaust valves, but will require installation of valve springs (matched to the camshaft being used), valve spring seats, retainers, and locks. **Bare cylinder heads will have valve guides and seats installed, but will require final guide sizing and a valve job to match the valves you will be using.**

INSTALLATION PROCEDURE

IMPORTANT NOTES: READ BEFORE BEGINNING INSTALLATION!

For a successful installation, the Edelbrock Performer RPM Cylinder Heads require some components other than original equipment parts. To complete your installation, you will need the following items:

- ☐ Edelbrock Valley Cover Plate #7798 (for 440 c.i.d.) or #7799 (for 383 c.i.d.)
- ☐ Head gaskets; Edelbrock #7325
- ☐ Intake manifold gaskets; Edelbrock #7225 (#77919 & #77929 only; #77939 & #77949 should use Fel-Pro #1218)
- ☐ Exhaust gaskets; Edelbrock #7226

NOTE: Edelbrock Cylinder Head Gasket Set #7366 may also be used in place of individual gaskets. This set contains all gaskets necessary for cylinder head installation, including cylinder head, intake (requires valley cover plate), exhaust, and valve cover gaskets.

- ☐ Edelbrock head bolt kit #8592 (see instructions below)
- ☐ 14mm x 3/4" reach gasketed spark plugs (heat range to be determined by specific application)
- ☐ Adjustable offset rocker arm assembly (see note)

- ☐ Pushrods compatible with adjustable rocker arm assembly. Required length will be approximately 9.500" (440 c.i.d.), or 8.500" (383 c.i.d.). These longer than stock pushrods are available through most valvetrain part manufacturers.

CHECKING PISTON-TO-VALVE, PISTON-TO-BORE AND PISTON-TO-HEAD CLEARANCES:

Prior to installation, it is highly recommended that valve-to-piston clearances are checked and corrected to minimum specs, if necessary. These cylinder heads have larger-than-stock valve sizes and will not work with the valve pockets in stock pistons, especially if a high lift cam is used. The use of aftermarket pistons and/or custom machining to your pistons is required. Actual valve-to-piston clearance should be specified by your camshaft manufacturer. Valve-to-bore clearance should also be checked, and the top of the bore notched for clearance, if necessary.

ACCESSORIES: Although Edelbrock Cylinder Heads will accept OEM components (valve covers, intake manifold, etc.), we highly recommend that premium quality hardware be used with your new heads. Continue to next page for hardware recommendations.

Head Bolts or Studs: High quality head studs or head bolts with hardened washers must be used to prevent galling of the aluminum bolt bosses. Edelbrock head bolt kit #8592 includes all bolts which must be used with these cylinder heads.

Rocker Arms and Valve Train: Adjustable rocker arms must be used. **NOTE: These heads require offset rocker arms for the intake valves and may require some clearancing around the pushrods. These parts are available from various valvetrain manufacturers. CAUTION: Make sure to verify pushrod clearance first before performing any modifications or porting to the intake ports.** A stock offset rocker arm may be used for the exhaust valves. Use supplied spacer shims as needed to ensure adequate clearance between pushrods and intake port walls.

CAUTION: Before installing rocker shafts, check for burrs or other obstructions on the machined saddles where the shaft sits. Remove any burrs and clean saddles thoroughly, if necessary.

Valve Covers: Edelbrock Victor cylinder heads accept 1963 and later stock valve covers. They also will accept Edelbrock valve covers #4491.

Intake Manifold: Although stock intake manifolds will fit, Edelbrock Victor Chrysler Cylinder Heads #77919 & #77929 are matched in size and operating range with Edelbrock Victor Intake Manifolds: #2886 for B engines, and #2954 for RB engines. Edelbrock #7225 intake gaskets (if used with stock style valley pan) on "B" or "RB" engines, Fel-Pro intake manifold gaskets #1214 for "B" or #1215 for "RB" engines, and Mopar performance #P4286825 for "B" and #P4286826 for "RB" engines are recommended. Edelbrock Victor Chrysler Cylinder Heads #77939 & #77949 should be matched with an appropriate Max Wedge manifold such as Edelbrock Super Victor #2893 (RB only). Follow the manifold or gasket manufacturer's recommendations for installation.

Exhaust Headers: Some headers or exhaust manifolds designed for original equipment heads will have reduced spark plug boot clearance. Check and make sure there is enough header/manifold-to-spark plug clearance BEFORE INSTALLING CYLINDER HEAD ON ENGINE. Exhaust ports are CNC-profiled to match Edelbrock #7226 exhaust gaskets which are recommended for this application.

Spark Plugs: Use 14mm x 3/4" reach gasketed spark plugs. Heat range will vary by application.

NOTE: Use anti-seize on the plug threads to prevent galling in the cylinder head, and torque to 10 ft./lbs. Do not overtighten sparkplugs! If short reach plug is used, poor performance and possible engine damage may occur.

INSTALLATION: Installation is the same as for original equipment cylinder heads. Consult service manual for specific procedures, if necessary. Be sure that the surface of the block and the surface of the

head are thoroughly cleaned to remove any oily film before installation. Use alcohol or lacquer thinner on a lint-free rag to clean. Apply oil or suitable thread lubricant to head bolt threads and the underside of bolt heads and washers. Torque to 70 ft./lbs. in three steps (40, 55, 70) following the factory tightening sequence (**See Figure 1**). Install your Edelbrock Valley Cover. Apply a continuous 1/8" bead of automotive RTV silicone sealer to end sealing surfaces on block and along bottom of intake flange on the cylinder head where it will meet the valley cover. Pay special attention to the corners of the cylinder heads where they meet the end seal surfaces (Use a bit more silicone here). Position the valley cover in place and tighten bolts to 10-12 ft./lbs., starting in the center and working your way to the ends. Then, place intake manifold in position and torque manifold bolts to 25 ft. lbs.

NOTES:

- 1) Rocker shaft hold-down studs, nuts and washers for 2 places marked "(S)" in each head are supplied in this kit.
- 2) Double nut both studs and screw them in until they reach the bottom. Install rocker shaft, factory concave washer and hard washer supplied with this kit. Apply 30W oil to fine threads and under nuts and washers and torque nuts to 25 ft./lbs.
- 3) A head bolt 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. (in steps of 40, 55, 70)
Rocker Shaft Bolt Torque:	25 ft./lbs.
Combustion Chamber Volume:	72 cc
Deck Thickness:	5/8"
Valve Seats:	Hardened ductile iron, interlocking, compatible with any fuel
Valve Size (77929 only):	Intake- 2.200", Exhaust - 1.810"

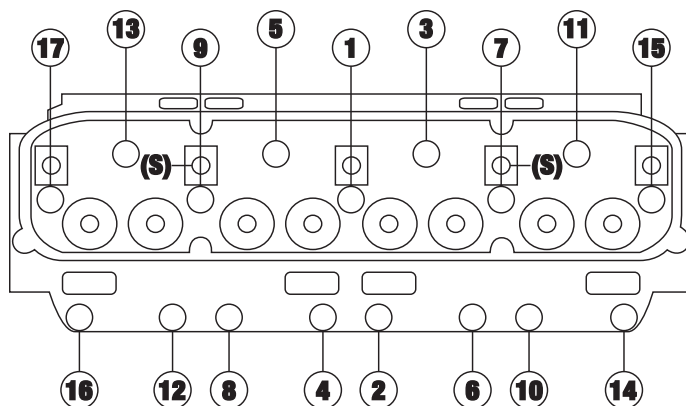


Fig. 1 - Cylinder Head Bolt Tightening Sequence

Edelbrock LLC • 2700 California St. • Torrance, CA 90503
Tech Line: 1-800-416-8628