

# VICTOR Jr. CNC CYLINDER HEADS For Chrysler 426-572 HEMI Catalog #61169, 61175, 61179, 61189 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:** These Victor Jr. cylinder heads are designed for high output 650+ hp Chrysler 426-572 engines. They feature fully CNC'd combustion chambers and CNC blended seats for optimal air flow performance. These cylinder heads also feature a revised exhaust valve angle to accommodate larger intake valves. They also feature brass tubes installed in exhaust pushrod holes to allow maximum clearance with minimal port intrusion.

**NOTE:** Complete cylinder heads, #61175 and #61179, are assembled and prepared for installation right out of the box. Bare cylinder heads w/ valves, #61189, are shipped with reamed and machined valve stem guides, as well as a valve job to match the included intake and exhaust valves. Customer must supply their own valve springs, retainers, valve stem seals and valve locks. Bare heads, 61169, are shipped with reamed and semi-finished valve stem guides and seats. Bare heads will require final sizing and a valve job to match the specific valves being used.

## **IMPORTANT NOTES: READ BEFORE BEGINNING INSTALLATION!**

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

Head Gaskets (Min. Bore 4.375"): Edelbrock #7347 or Fel	l-Pro
#1104	

- □ Intake Manifold Gaskets: Fel-Pro #1234
- Exhaust Gaskets: Fel-Pro #1462
- ☐ Edelbrock Head Bolt Kit: Edelbrock #8513 or ARP 145-3901

**CHECKING PISTON-TO-VALVE, VALVE-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 (**Min Clearance 0.030**").

**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 column 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, #8513, includes all bolts which must be used with these cylinder heads.

**Rocker Arms and Valve Train:** These heads are designed to use stock offset rocker arm and valve train components.

**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 Jr. CNC Chrysler cylinder heads will accept factory style, Gen 2, HEMI valve covers and valve cover gaskets.

**Intake Manifold:** Although the stock intake manifolds will fit, the Victor Jr. heads should be matched with an appropriate high performance manifold. Follow the manifold or gasket manufacturer's recommendations for installation.

**Exhaust Headers:** Although the stock exhaust manifolds/headers will fit these Victor Jr. cylinder heads, it is highly recommended to match these heads with appropriate high performance exhaust headers. Follow the header manufacturer's recommendations for installation procedures.

**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.

**Spark Plug Tube 0-rings** Edelbrock has included lower spark plug tube 0-rings with PN 61175 & 61179 cylinder heads. The purpose of these 0-rings is to help seal the spark plug tube from leaking oil into the cylinder when checking or changing spark plugs. It is still expected that a small amount of oil can enter the chamber even with the lower 0-ring installed, but the volume will be greatly reduced. These 0-rings get installed into the head in the machined groove down by the spark plug threads. The 0-rings must be lightly oiled prior to test fitting the spark plug tube with the valve cover off of the head. The tube should push into the lower 0-ring with light force. If a lot of force is required to push/twist the tube through the lower 0-ring there

is an issue. Stop the process, assess the problem and try again. If spark plug tubes install successfully, remove the tubes and install the valve cover. Following valve cover installation, insert the spark plug tube using the OE O-ring for the spark plug tube seal at the valve cover interface (not included with heads).

**NOTE:** The use of these lower spark plug tube 0-rings is not required. Simply remove and discard if not using.

**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 cylinder head bolts in three steps following the factory tightening sequence **(See Figure 1)**.

#### **SPECIFICATIONS:**

Head Bolt Torque: See Figure 1, or use head bolt

manufacturer's specifications

Deck Thickness: 5/8"
Combustion Chamber Volume: 170 cc

Valve Size (Except for 61169): Intake - 2.320"

Exhaust - 1.940"

Valve Seats: Hardened ductile iron, non-

interlocking, compatible with

unleaded fuel

Valve Spring Diameter: 1.540" Valve Spring Installed Height: 1.880"

Valve Spring Seat Pressure:

Hydraulic Roller Cam 151 lbs. @ 1.880" Flat Tappet Cam 133 lbs. @ 1.880"

Valve Spring Open Pressure Hydraulic Roller Cam

Hydraulic Roller Cam 414 lbs. @ .600" Lift Flat Tappet Cam 349 lbs. @ .600" Lift

Max. Valve Lift: .700"
Coil Bind 1.120"

Replacement Valve Springs: #5821 - Hydraulic Roller Cam #5792 - Flat Tappet Cam

# Victor Jr. Cylinder Head Bolt Torque Spec

(Torque specs below only apply if using ARP Ultra-Torque Fastener Assembly Lubricant; included with head ARP head bolt kits. If using other fastener lubricant(s), please use manufacturer's recommended torque specs.)

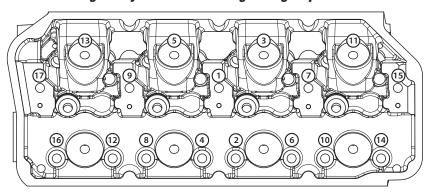
First Pass: Torque all bolts, in sequence, to 25 ft./lbs.

Second Pass: Torque all bolts, in sequence, to 40 ft./lbs.

Final Pass: Torque all bolts, in sequence, to 80 ft./lbs..

NOTES: A head bolt re-torque is recommended after initial start-up and cool-down (allow 2-3 hours for adequate cooling).

## Fig. 1 - Cylinder Head Bolt Tightening Sequence



**Exhaust Side** 

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