



RPM XTREME LT-4 CNC CYLINDER HEADS
For 1995 and 1996 Chevrolet LT-4 Engines
Catalog #61939 (Complete)
Catalog #61929 (Bare)
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 or e-mail us at Edelbrock@Edelbrock.com.

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: Edelbrock RPM XTreme LT-4 CNC cylinder heads are designed for street/high performance use on LT-4 5.7L Small block Chevrolet engines (C.A.R.B. E.O. is pending, call Edelbrock for detailed information). They can also be used on 1992 through 1997 LT-1 5.7L equipped vehicles, but it may not be legal for installation in street driven vehicles depending on the laws in your area. Edelbrock RPM XTreme LT-4 heads feature high velocity 195cc intake ports, 75cc exhaust ports and 54cc combustion chambers. Complete heads come assembled with valvetrain parts capable of operating up to 6500 rpm. Higher rpm applications will require the use of suitable valvetrain parts like larger valve springs and retainers. Other outstanding features include phosphor-bronze valve guides, hardened valve seats and premium one-piece stainless steel high-flow 2.020" intake and 1.570" exhaust valves, heat-treated machined steel retainers, valve locks, rocker studs and hardened washers, along with heavy duty valve springs which work with cams having valve lifts up to .600". Spring load at .600" lift is 320 lbs. Check camshaft manufacturer's spring load specifications when using other than Edelbrock camshafts. These powerful heads use the stock location for intake and exhaust flanges and bolt holes, and centerbolt valve cover rails for compatibility with original equipment and aftermarket parts. Bolt holes for exhaust and intake flanges and rocker studs are fitted with helicoil inserts for increased strength. LT-4 heads are available either bare or complete.

Complete cylinder heads are assembled using the following components:

- Stainless steel, one-piece, swirl-polished intake and exhaust valves with under-cut stems for increased flow
- Rocker studs and hardened washers for use with stud-mounted rocker arms
- High quality viton lip seals with metal jacket
- Edelbrock Sure-Seat valve springs, beehive style coil with ovate-section wire #5768
- Retainers #9707
- Valve keepers #9657
- Valve spring locator/seal assemblies TBD, Call Edelbrock Technical Support

Complete cylinder heads are assembled and prepared for trouble-free installation right out of the box. **Bare cylinder heads will have valve guides and seats installed, but will require final sizing of the valve guides and a valve job to match the valves you will be using.**

Hardware & Parts Required for Installation

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

- Head gaskets; GM #10168457 or Fel-Pro #1074 or equivalent.
- Intake manifold gaskets; GM # 12367777 or Fel-Pro #1284 (Will require port matching).
- Exhaust gaskets; Fel-Pro #1404 or equivalent.
- Edelbrock head bolt kit #8550; (see instructions below).
- 14mm x 3/4" reach gasketed spark plugs, Champion RC-12YC or equivalent.
- Pushrods; stock length, hardened steel or chromoly
- Stud-mounted adjustable rocker arms (non-self-aligning).

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. A minimum of 0.100" clearance is recommended for both intake and exhaust. If other than stock valve sizes are used, they may 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 may be required. Actual valve-to-piston clearance should be specified by your camshaft manufacturer. If these cylinder heads are used on small bore engines, valve-to-bore clearance should also be checked, and the top of the bore notched for clearance, if necessary.

ACCESSORIES: Although Edelbrock RPM XTreme LT-4 Heads will accept most OEM components (valve covers, intake manifold, etc.), we highly recommend that premium quality hardware be used with your new heads:

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 #8550 includes all bolts which must be used with these cylinder heads. Stock head bolts may be used if they meet these specs for length: 1-3/4" (short bolts); 3" (medium bolts); 3 - 13/16" (long bolts). Bolts not meeting these specs do not have enough thread engagement for use with hardened washers. The recommended hardened washers are GM #10051155, ARP #200-8511, or equivalent.

Rocker Arms and Valve Train: Stock (stamped type) rockers cannot be use with these cylinder heads. Non-self-aligning stud-mounted rocker arms along with guideplates and hardened steel pushrods must be used. The valve springs supplied will accommodate valve lifts up to .600".

CAUTION: GM LT-4 heads are factory-equipped with "self-aligning" rocker arms. These rocker arms have a stamped recess on the valve tip end to guide the rocker arm on the valve stem which allows the rocker arm to guide the pushrod. **Edelbrock RPM XTreme LT-4 CNC PN 61929 and 61939 cylinder heads are not compatible with "self-aligning" rocker arms due to the use of 8mm stem valves rather than the factory diameter of 11/32".**

Valve Covers: RPM XTreme LT-4 heads will accept centerbolt valve covers. Edelbrock centerbolt pattern #4246 and 4247 will work with RPM XTreme LT-4 heads.

Intake Manifold: Clean gasket surfaces. Do not use cork or rubber end seals. Use RTV silicone sealer instead. Apply a 1/4" high bead across each block end seal surface, overlapping the intake gasket at the four corners. This method will eliminate end seal slippage. Install gaskets and intake manifold to factory specifications. Torque to recommended 25 ft.-lbs. in the factory sequence if using the OEM manifold. Refer to factory service manual for further information, or the installation instructions if you are using an aftermarket intake.

Exhaust Headers: Any header or manifold designed for original equipment heads will fit Edelbrock RPM XTreme LT-4 CNC Cylinder Heads. Exhaust ports are CNC-profiled to match Fel-Pro #1404 exhaust gaskets, which are recommended for these applications.

Spark Plugs: Use 14mm x 3/4" reach gasketed spark plugs. Heat range may vary by application, but we recommend Champion RC-12YC (or equivalent) for most street-driven applications. Use anti-seize on the plug threads to prevent galling in the cylinder head, and torque to 10 ft./lbs. Do not overtighten sparkplugs!

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 Teflon pipe sealant or suitable sealer to head bolt threads. Apply 30W oil or suitable lubricant under side of bolt heads and washers. Torque to 65 ft./lbs. in three steps (40, 55, 65) following the factory tightening sequence (see Figure 1). A re-torque is recommended after initial start-up and cool-down (allow 2-3 hours for adequate cooling).

SPECIFICATIONS

Head Bolt Torque: 65 ft./lbs. (in steps of 40, 55, 70)
Rocker Stud Torque: 45 ft./lbs.
Combustion Chamber Volume: 54 cc
Deck Thickness: 5/8"
Valve Seats: Hardened ductile iron, compatible with any fuel
Valve Size: (PN 61939) Intake 2.020"
. Exhaust 1.570"
Valve Spring Diameter: 1.300"
Valve Spring Installed Height: 1.800"
Valve Spring Seat Pressure:
. 135 lbs. Pressure seated. @ .600" lift: 320 lbs.
Max. Valve Lift:600"

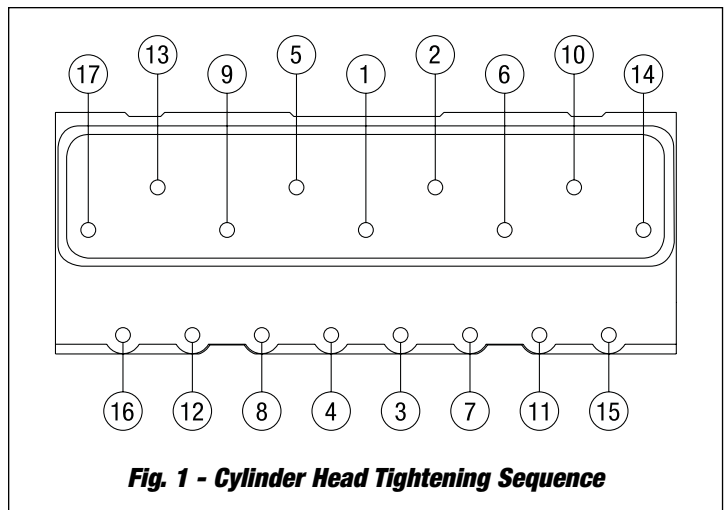


Fig. 1 - Cylinder Head Tightening Sequence



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