

**PERFORMER TBI ALUMINUM CYLINDER HEADS**  
for Big-block Chevrolet V8s  
CATALOG #6049 (complete)  
**INSTALLATION INSTRUCTIONS**

PostScript Picture  
(Edelbrock BW Logo.eps)

Please study these instructions carefully before installing your new cylinder heads. If you have any questions or problems, do not hesitate to contact our **Technical Hotline at: (800) 416-8628** from 7:00 am to 5:00 pm, Monday through Friday, Pacific Standard Time or e-mail us at: [edelbrock@edelbrock.com](mailto:edelbrock@edelbrock.com).

**DESCRIPTION:** Designed for 1987-95 TBI-equipped big-blocks, these new 50-state emissions legal heads have a 100cc combustion chamber for an increase of over one full point of compression to 8.8:1 on 7.4L TBI engines. The result is a dramatic performance improvement in these late-model vehicles. They are assembled with top-quality components that include 1-piece, stainless steel, 2.19" intake and 1.88" exhaust valves, ARP 7/16" diameter rocker studs and ductile iron seats with a three-angle valve job. Features include stock port locations and 9/16" thick decks for superior gasket retention. Mark IV rocker arms, 3/8" diameter hardened pushrods, and valve train parts are required. This cylinder head is compatible with both early style Mark IV and late model Gen V and Gen VI blocks.

Complete cylinder heads are assembled with the following components: Stainless steel, one-piece, swirl-polished intake and exhaust valves with under-cut stems for increased flow; 2-ring positive oil control seals; 7/16" rocker studs and 3/8" guideplates; Edelbrock Sure-Seat Valve Springs #5745, retainers #9715, and valve keepers #9615. Complete cylinder heads are assembled and prepared for installation right out of the box.

**NOTE: 1991 AND LATER ORIGINAL EQUIPMENT NON-ADJUSTABLE ROCKER ARMS WILL NOT WORK WITH THESE HEADS. MARK IV-STYLE ADJUSTABLE ROCKER ARMS, LOCK-NUTS, AND 3/8" PUSHRODS ARE REQUIRED FOR INSTALLATION!**

**CAUTION:** Performer TBI cylinder heads #6049 should not be used on 502 c.i.d. (8.2L) engines due to excessive compression with the 100cc combustion chambers! Use Edelbrock Performer heads #6047 (110cc chambers) instead on 502 c.i.d. (8.2L) engines.

**TO COMPLETE YOUR INSTALLATION, YOU WILL NEED THE FOLLOWING ITEMS:**

- Head gaskets; Fel-Pro #1017-1 or #1037 (see installation instructions)**
- Intake manifold gaskets; GM #10181398 or equivalent**
- Exhaust gaskets; Fel-Pro #1411 or equivalent**
- Specific head bolts with hardened washers; (see instructions below)**
- Hardened 3/8" pushrods**
- Original equipment or OE-replacement rocker arms for Mark IV engines (adjustable)**
- Rocker arm lock-nuts or poly-locks (7/16"-20)**
- 14mm x 3/4" reach gasketed spark plugs; Champion RC-12YC or equivalent**

**ACCESSORIES:** Although Edelbrock Street Cylinder Heads will accept OEM components (valve covers, intake manifold, head bolts, 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 #8551 includes eight longer-than-stock bolts which must be used with these cylinder heads. If you use any other head bolts, you must use the eight head bolts and washers supplied with these heads in positions #15, #8, #2, and #7 in Figure 1.** These positions will not accept stock length head bolts.

**NOTE:** Head bolts may bottom out in blocks with blind bolt holes (Bowtie, 502 Mark V, etc.). Check for clearance, and if necessary shorten bolts or replace with a set specifically designed for use with blind holes, such as ARP #135-3607.

**ROCKER ARMS:** The valve springs supplied will accommodate valve lifts up to .600", which is much higher than stock rocker

arms will allow. Roller rocker arms will be required if your camshaft has more than .500" lift.

**NOTE:** A visual inspection of rocker arm to valve alignment is recommended. In some cases, it may be necessary to loosen and adjust the plate to get proper alignment. Make sure to re-torque the studs to recommended torque listed below.

**VALVE COVERS:** Because most roller rockers are physically larger than stock rockers, taller valve covers are usually required to clear them. Use Edelbrock Signature Series chrome valve covers #4680 or Elite Series polished aluminum valve covers #4280.

**INTAKE MANIFOLD:** Although stock intake manifolds will fit, the Edelbrock Performer Cylinder Heads are matched in size and operating range with Edelbrock Performer TBI or Performer Multi-Point EFI intake manifolds. For best results, use stock or Edelbrock intake manifolds listed as stock replacement parts for the year and model of your vehicle. GM intake manifold gaskets #10181398 are recommended. Apply Gasga-cinch

Edelbrock #9300 to intake surfaces of the heads, and the back side of intake gasket. Do not use cork or rubber end seals supplied with gaskets; instead, use O2 sensor-safe automotive RTV Silicone sealer. Apply a 1/4" bead along front and rear of block, overlapping gaskets at the four corners. Torque manifold bolts to 25 ft./lbs.

**EXHAUST HEADERS:** Some exhaust manifolds have excessively large openings and will not seal properly. Please check exhaust gasket seal before installation and notify Edelbrock if this problem occurs in your installation. Exhaust ports are CNC profiled to match Fel-Pro #1411 exhaust gaskets which are recommended for this application.

**VALVE SPRING SEAT/LOCATORS:** If hardened valve spring seats are preferred for your application, valve spring seats,

#5770 (set of 16), are available. This spring seat/locator is designed for the #5745 valve springs that are standard in the #6049 complete cylinder heads. The spring seat locator has a register for the I.D. of the inner spring that has a .795" dia. and the seat O.D. is 1.52". The spring seat thickness is .060".

**SPARK PLUGS:** Use 14mm x 3/4" reach gasketed spark plugs. Heat range will vary by application and may range from Champion N-9Y to N-14Y (or equivalent). If required for header clearance, use Champion RC-12YC or equivalent which are 1/4" shorter than "N" series plugs. **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. For 454 and smaller Mark IV engines use Fel-Pro head gasket #1017-1 or equivalent. For 454 Gen V and Gen VI engines use Fel-Pro head gasket #1037 or equivalent. Be sure that the surface of the block and the surface of the head is thoroughly cleaned to remove any oily film before installation. Use alcohol or lacquer thinner on a lint-free rag to clean. Apply liquid teflon or suitable thread sealer to head bolt threads. Torque short bolts to 65 ft./lbs. and long ones to 75 ft./lbs. in three steps 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. (short bolts; #11, #5, #4, and #10), 75 ft./lbs. (long bolts; all others)
Rocker stud torque:	.45 ft./lbs.
Combustion chamber volume:	.100 cc
Deck thickness:	.9/16"
Valve Seats:	Hardened, interlocking, compatible with unleaded fuels
Valve Size:	Intake- 2.19", Exhaust- 1.88"
Valve Stem Diameter:	.11/32"
Valve Spring Diameter:	1.54"
Valve Spring Installed Height:	1.975"
Valve Spring Seat Pressure:	.120 lbs.
Max. Valve Lift:	.600"

#### Bolt Boss Height

**A = 3.38"**  
**B = 2.88"**  
**C = 4.44"**  
**D = 1.38"**

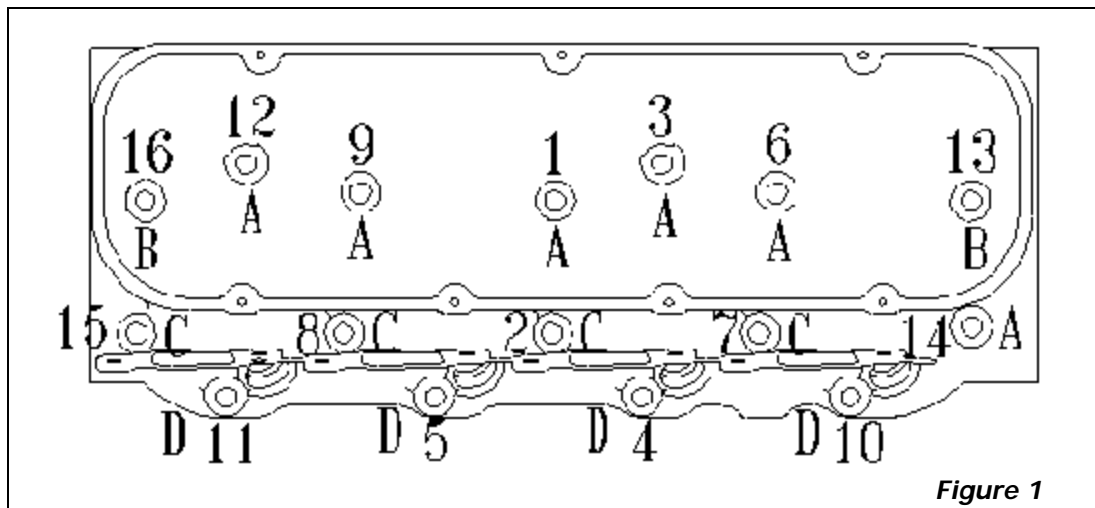


Figure 1

PLEASE complete and mail your warranty card. Be sure to write the model number of this product in the "Part # \_\_\_\_" space.

THANK YOU.

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