



# for 1965-79 Pontiac V8s INSTALLATION INSTRUCTIONS

## **CATALOG #'s**

**Complete Heads** 

60575 (87cc - Hydraulic Roller Cam)

**60579 (87cc - Flat Tappet Cam)** 

60595\* (72cc - Hydraulic Roller Cam)

60599\* (72cc - Flat Tappet Cam)

61515\* (72cc - Hydraulic Roller Cam)

61519\* (72cc - Flat Tappet Cam)

61525\* (87cc - Hydraulic Roller Cam)

61529\* (87cc - Flat Tappet Cam)

Bare Heads

60509\* (Semi-Machined)

60569 (87cc)

60587\* (NHRA Legal - Stock/Super Stock)

60589\* (72cc)

#### **DESCRIPTION**

Designed for 1965-1979 389-455 c.i.d. Pontiac engines, these heads are patterned after the 1969-1970 Ram Air IV Pontiac cylinder head. Two styles are available: 87cc combustion chamber and a 72cc combustion chamber. Both heads have Ram Air IV port flanges. Performer RPM Pontiac heads produce outstanding horsepower with excellent low speed torque and throttle response. High flow exhaust ports require Ram Air IV headers or exhaust manifolds. On both versions, the deck surface is 5/8" thick for superior durability and head gasket retention. All factory accessory bosses are included for bolt-on convenience. Performer heads #60569 and #60579 have the exhaust heat cross-over machined and are street legal on 1965-1979 vehicles with 389-455 c.i.d. V8s without secondary air injection.

NOTE: In 1967-1968, Pontiac changed the valve angle from 17° to 14°. Edelbrock Pontiac cylinder heads use the later 14° valve angle. When installing Edelbrock Pontiac cylinder heads on 1965-1966 and some 1967 engines that came stock with the early 17° valve angle, compatibility of valves with pistons will need to be checked.

#60509 is a semi-machined version of the 72cc chamber head. Designed to be finished by professional cylinder head porters, this version comes with valve guides and seats installed, but with no port machine work or intake pushrod holes.

Complete heads are assembled with stainless steel, one-piece swirl-polished 2.11" intake and 1.66" exhaust valves with under-cut stems to promote excellent flow for more power. They also include 2-ring positive oil control seals, 7/16" rocker studs and 5/16" guideplates, Edelbrock Sure-Seat Valve springs #5767, retainers #9736, valve spring seats #5769, valve stem seals #9725 and valve keepers #9611. Complete cylinder heads are assembled and prepared for installation right out of the box.

#61515, 61519, 61525 and 61529 are complete cylinder heads that feature completely CNC ported combustion cambers for optimum flow and performance. #61519 and #61529 are equipped with valve springs that are ideal for use with hydraulic flat tappet camshafts. #61515 and #61525 are equipped with valve springs that are ideal for use with hydraulic roller camshafts. **NOTE: These cylinder heads have spark plug positions that have been relocated for better performance. Make sure to check piston clearance for compatibility.** 

Bare cylinder heads include guideplates and will have valve guides and seats installed, but will require final sizing and a valve job to match the valves you will be using. #60587 is a NHRA Legal (Stock and Super Stock) version of the #60589 head.

NOTE: Heads manufactured after 3-15-2002 or stamped with a 2074 and greater, have revised head bolt boss heights. Head bolt kit #8549 will be required for these cylinder heads covered by these instructions.

**ACCESSORIES:** Although Edelbrock Aluminum Cylinder Heads will accept OEM components (rocker arms, valve covers, intake manifold, etc.), we highly recommend that premium quality hardware be used with your new heads.

**HEAD BOLTS or STUDS:** Edelbrock Head Bolt Kit #8549 must be used with these cylinder heads. These cylinder heads will not accept stock length head bolts. To prevent stripping of head bolts or improper torque, you must use the correct length bolt in each location. See Figure 1 for head bolt location.

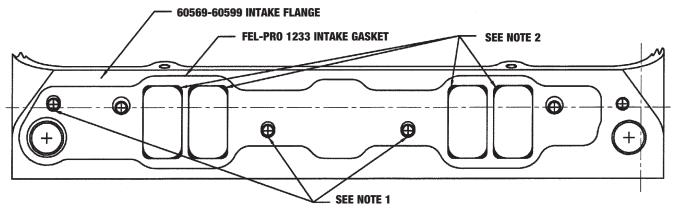
**ROCKER ARMS:** The valve springs supplied will accommodate valve lifts up to .575", which is much higher than stock rocker arms will allow. Roller rocker arms will be required if your camshaft has more than .500" lift. Stock rockers may require longer-than-stock pushrods to clear the valve springs.

**INTAKE MANIFOLD:** Although stock intake manifolds will fit, the Edelbrock Pontiac Cylinder Heads are matched in size and operating range with Edelbrock Performer RPM intake manifold #7156. If the Performer RPM is too tall to fit under your hood, you may use the Edelbrock Torker II manifold #5056. Additionally, any manifold that matches Edelbrock #7280 or Fel-Pro #1233 gaskets may be used. Manifolds may be used as-is, or port matched to the same size as the cylinder heads for optimum performance. For racing applications, use our Victor #2957 or #2956.

#### PONTIAC CYLINDER HEAD INTAKE MANIFOLD - GASKET FITTING:

**NOTE 1:** The position of the intake port entry on all Edelbrock Pontiac cylinder heads has the same roof height as a Pontiac 455 Super Duty cylinder head. This was done to provide the best performing intake port while maintaining a stock Pontiac port location. The Fel-Pro 1233 intake manifold gasket has a port roof to intake manifold bolt hole centerline dimension that is .06" lower than 455 Super Duty head dimension. When installing the Fel-Pro 1233 intake gasket on Edelbrock Pontiac cylinder heads, align the gasket with the intake port entries. Three of the bolt holes in the gasket will have to be elongated as shown in the illustration.

**NOTE 2:** The radii of the intake port entry corners on Edelbrock Pontiac cylinder heads is 3/16" to maximize the cross-sectional area through smallest part of the port. The corners of the intake port openings of a Fel-Pro 1233 intake manifold gasket are 3/8". If you are using the intake manifold without port-matching the runner exits or if you port match to the 3/8" radius, you do not have to modify the corners of the port openings in the gasket. If you are port-matching to the 3/16" radii in the cylinder head, then the corners of the gasket port opening should be modified.



**VALVE COVERS:** Use Edelbrock Signature Series chrome valve covers #4456 or Elite Series polished aluminum valve covers #4256.

**WARNING**: Some of the valve cover bolt holes on these cylinder heads break through into the intake ports. Make sure to always use thread sealer on the bolts at these bolt locations. If using studs, make sure to always use Loctite to prevent the studs from coming loose and falling into the intake ports.

**EXHAUST HEADERS:** Any header or manifold designed for Ram Air IV heads will fit the Edelbrock Pontiac Cylinder Heads. Exhaust ports are CNC-profiled to a high-flow "D" shape. However, Edelbrock #7281 or Fel-Pro #1436 round exhaust gaskets are recommended for this application. Do not change size or shape of exhaust ports in heads!

**SPARK PLUGS:** Use 14mm x 3/4" reach gasketed spark plugs. Heat range will vary by application and may range from Champion RC-9YC to RC-14YC (or equivalent). For typical street use, Champion RC-12YC equivalent should work well. Use anti-seize on the plug threads to prevent galling in the cylinder head, and torque to 10 ft./lbs. **Do not overtighten spark plugs!** 

**LUBRICANTS:** For added performance and protection, we recommend using Edelbrock performance lubricants.

Engine Lubricant					
Zinc Additive	-	P/N 1074			
High Performance Break-In Oil	SAE 30	P/N 1070			
Engine Assembly Lube	-	P/N 1075			

#### INSTALLATION

Installation is the same as for original equipment cylinder heads. Consult service manual for specific procedures, if necessary. For 389-455 engines, use Edelbrock #7381, Fel-Pro #1016 or equivalent head gaskets. **NOTE:** Edelbrock Cylinder Head Gasket Set #7382 may also be used. This gasket set includes all necessary gaskets for cylinder head installation, including cylinder head, intake, exhaust, waterneck and valve cover gaskets. 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. Coat threads, washers, and underside of bolt heads with motor oil for accurate torque readings. Torque upper row of bolts to 105 ft./lbs., torque lower row of bolts to 95 ft./lbs. in three even increments (see Fig. 1). Start in center and work out towards ends. A re-torque is recommended after initial start-up and cool-down (allow 2-3 hours for adequate cooling).

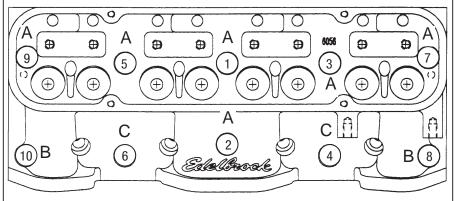


Figure 1- Head Bolt Boss locations and Tightening Sequence

**Note:** Torque upper row of bolts to 105 ft./lbs., torque lower row of bolts to 95 ft./lbs. in three even increments. Coat threads, washers, and underside of bolt heads with motor oil for accurate torque readings. Start in center and work out towards ends following numbered sequence. Re-torque all head bolts after initial warm-up and cool-down.

Head Bolt Locations (#8549):						
(see Figure 1)						
<u>Qty.</u>	Bolt length	<b>Boss location</b>				
12	4.25"	Α				
4	4.00"	В				
4	2.25"	С				
20	Hardened washers					

Replacement valves are available separately as follows:				
INTAKE VALVES	1 ONLY	SET OF 8		
2.11" for #60575, 60569, 60579, 61525, 61529	#9781	#9780		
2.11" for #60595, 60589, 60599, 61515, 61519 (+.120")	#9750	#9751		
EXHAUST VALVES	1 ONLY	SET OF 8		
1.66" for #60575, 60569, 60579, 61525, 61529	#9783	#9782		
1.66" for #60595, 60589, 60599, 61515, 61519 (+.120")	#9752	#9753		

### **SPECIFICATIONS**

Head bolt torqu	ue:	105 ft./lbs. (upper row);	Valve Size:	Intake- 2.11",Exhaust- 1.66"
		95 ft./lbs. (lower row)	Valve Spring Diameter:	1.45"
Combustion chamber volume:			Valve Spring Installed Height:	1.800"
	87 cc:	(60575, 60569, 60579, 61525,	Valve Spring Seat Pressure:	128 lbs (Flat Tappet Cam)
		61529)		150 lbs (Hydraulic Roller Cam)
	72 cc	(60595, 60589, 60599, 61515, 61519)	Max. Valve Lift (#6057X & 6059X):	.575"
Valve Seats:		Hardened, interlocking, compatible with any fuel	Push rod dia. (guide plate slot):	5/16"
			Deck thickness:	5/8"
Valve Stem Dia	ameter:	11/32"		