

## FOR SMALL BLOCK CYLINDER HEAD FOR SMALL BLOCK Chevy Engines PART #777669 INSTALLATION INSTRUCTIONS

**PLEASE** study these instructions carefully before beginning this installation. If you do not feel comfortable performing this installation, it is recommended to have the installation completed by a qualified engine builder. 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:** The Edelbrock ROX Victor cylinder head is designed for all out racing applications on small block Chevy engines that have a 4.5" bore spacing. It is based on the GM factory racing head and is intended to be compatible with CNC programs that were developed for the factory head. This head also includes threaded oil drain back provisions to allow control over the flow rate of oil drain back into the block. This head does not include valve seats or quides.

**NOTE:** Prior to standard machining and heat treating procedures, this cylinder head was subjected to a process know as Hot Isostatic Pressing (HIP). During this process the casting is exposed to heat in excess of 900° F and inert gas pressures of nearly 30,000 psi. This combination of heat and pressure eliminates any gas pores remaining from when the head was originally cast. By elevating the material density of the cylinder head to nearly the level of billet aluminum, significantly increased durability and longevity under extreme conditions is achieved.

## **INSTALLATION INFORMATION**

**CHECKING ENGINE CLEARANCES:** As with any competition engine build, it is highly recommended that valve-to-piston clearances are checked prior to installation and corrected to minimum specs, if necessary. Minimum intake valve clearance should be .080". Minimum exhaust valve clearance should be .100". The point of minimum intake valve to piston clearance will usually occur somewhere between 5° and 20° After Top Dead Center during valve overlap. The point of minimum exhaust valve to piston clearance will usually occur 20° to 5° Before Top Dead Center during valve overlap. Some pistons may require notching depending upon the valves selected for your application. Also make sure that there is adequate clearance between the valves and the cylinder wall, as well as the rocker arms to the valve cover and the rocker arm to the valve cover rail (intake only).

**REQUIRED MACHINE WORK:** The intake and exhaust ports as well as the valve seat bores have been deliberately left undersized to allow sizing and shaping to the preference of the head porter. Valve seats and guides must be purchased, installed and finished before installing the head. Machining of the pushrod provisions has been omitted to allow for custom shaping according to the preferences of the engine builder. The supplied oil drain back plugs are designed to be drilled to control the flow rate of oil drain back. If maximum oil drain back is desired, the plugs can be left out entirely. **Do not install the plugs without drilling them or severe engine damage will occur.** 

**ROCKER ASSEMBLIES:** Shaft mounted rocker arms are required. Edelbrock recommends the use of Jesel or T&D rocker shaft assemblies. Heli-coils for the standard ROX configuration have been supplied to ensure the stability of the rocker system. These will need to be installed by the engine builder.

**PISTONS:** Valve angles are 10.5° by 3.4° cant intake and 6.7° by 2.2° cant exhaust. Pistons designed for a GM ROX type head are generally compatible, or can be made to work with minimal machine work. Check with your preferred piston manufacturer to see if they carry an application specific part number.

**VALVES AND VALVE SPRINGS:** Valve length will need to be determined by the engine builder once the valve seats have been installed in their desired location. These cylinder heads are equipped with a 1.675" valve spring pocket diameter. Edelbrock strongly recommends the use of a hardened steel cup or shim below the valve spring to prevent damage to the head. Refer to cam manufacturer for recommended spring pressures.

**INTAKE MANIFOLDS:** Edelbrock makes Two-Piece Spider Victor manifolds designed specifically to work with ROX cylinder heads. These intakes are available with a standard flange for conventional deck height blocks, or with .500" extended flanges and end rails for use on tall deck applications without the need for spacers. Each application will require a valley plate in addition to the spider for a complete installation. Refer to the table below for applications:

Part #	Description	Flange Thickness	Required Valley Plate
#2848	Two-Piece Spider	Standard	#2851
#28488	Two-Piece Spider	1.070"	#28518

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 Part #777669
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 Rev. 5/11 - AJ/mc
 Brochure #63-777669