



## SCAVENGER SERIES ELITE HEADERS

### 409S<sub>3</sub> Stainless Steel



WARNING: The product accompanying this document is legal only for off-highway use (except in California or states that have adopted California emission standards), racing use or for use on pre-emission-controlled motor vehicles/motor vehicle engines (pre-1966 domestic vehicles certified to California standards, pre-1968 domestic vehicles certified to federal standards and all pre-1968 foreign vehicles), per the manufacturer's application guide.

Note: Installation of this product requires an adequate work space, general mechanic's tools, general mechanical "know how" and a reasonable level of experience. Most auto enthusiasts with these resources will have little difficulty installing these headers. However you should carefully read these instructions before attempting to install these headers. If in doubt, consult a professional mechanic. (Better to do it now than to get stuck halfway through the installation.)

Check to make sure that you have received the proper parts for your installation. The header number will be stamped on the engine flange. If you are unsure you have received the proper parts call before you start work.

Be sure to work safe! Whenever you work under the vehicle be sure that it is located on level, solid ground and is supported by adequate safety stands. **Remember: hot asphalt will not support most jack stands!**

Many factors affect the installation of headers, some of which are; broken or aftermarket motor mounts, accidents that impact the configuration of the frame, and/or the installation of different engines or aftermarket cylinder heads.

**Attention Customers breaking in new engines:** Due to the extreme heat generated during the break-in process, the appearance of the ceramic coating may be altered in certain areas. The protection characteristics and thermal barrier properties of the coating is never compromised. It is recommended that a cast iron manifold or old set of headers be used for this process.

The purchaser is responsible for following all installation instructions and safety guidelines supplied with your new Flowmaster Performance Exhaust Product. Flowmaster Performance exhaust assumes no responsibility for damages resulting from improper operation, misuse, abuse, or lack of reasonable care, or any problems resulting from incompatibility with other manufacturer's products.

Flowmaster uses sealing beads on its headers. We have found that when installed correctly, the raised bead around each port increases the pressure exerted on the gasket directly adjacent to the port and effectively prevents leaking gaskets. It is normal for the flange to be raised off the cylinder head the thickness of the sealing bead. It is important when installing the header, to install all bolts loosely, and then tighten evenly to ensure the flat installation of the flange. The torque sequence from one flange to another will vary, but generally every bolt on a header should be first fit snug, starting from the inside of the flange working out, alternating from top to bottom so that the bolt connects the flange to the manifold to the point where they barely touch. Second, using the same inside-out pattern, tighten each bolt until finished. This method will help prevent leakage and will give the user the best possible performance out of their new set of headers.

Flowmaster



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Note: These headers are designed to clear factory power steering. You will need a new bracket to lower the power assist ram mount on the frame. Use Flowmaster bracket part no. 6656B or equivalent.

- 1) Place the vehicle in a location where the floor is solid and flat, with adequate lighting. Do not attempt to work on a hot engine. Heat causes metal to expand and makes removal of fasteners difficult at best. **Disconnect the battery cables from the battery.** Raise the front of the vehicle to obtain adequate access to the bottom exhaust manifold flanges. Use large base jack stands to support the vehicle. Do not rely on the jack! Block the tires to prevent the vehicle from rolling off of the jack stands.
- 2) Disconnect the spark plug wires by grasping and gently twisting the spark plug wire boots. Do not pull on the wires! Brush or blow off any debris which may have collected around the manifolds or spark plugs. This will help prevent foreign matter from entering the combustion chamber when the manifolds are removed. Spray WD-40 or some type of penetrating lubricant on all accessible exhaust manifold fasteners and fittings before attempting to remove them.
- 3) Typically the exhaust pipes in these early vehicles are corroded to the extent that they are difficult to modify for use with the new headers, these instructions contemplate the removal of old components and the installation of a new exhaust system by an exhaust shop. These instructions cover only the installation of the new headers. The necessary exhaust system modifications should be left to an exhaust shop.
- 4) Unbolt the driver's side exhaust manifold and remove. Remove the gaskets and any gasket material or carbon deposits that remain on the head surface.
- 5) Apply anti-seize to the header bolts. (Small head 3/8" x 1" bolts and lock washers included.) Apply a thin coat of high temp sealant to both sides of the supplied header gasket. Permatex Ultra-Copper High Temp sealant is recommended. Use of a sealant that is not designed to be used with O2 sensors will cause O2 sensors to be inoperative. (Also note that if excessive sealant is applied, clumps may fall into the exhaust system and may clog the system.) Bolt the header to the head, don't forget the lock washers.
- 6) Unbolt the passenger side exhaust manifold and remove. Remove the gaskets and any gasket material or carbon deposits that remain on the head surface. As with the driver's side, apply anti-seize and gasket sealant and bolt the header to the engine.
- 7) Re-install the spark plug wires and looms taking care not to let any wires rest on the header tubes. Reconnect the battery cable. Make sure that all rubber hoses and wires are kept away from the headers. Otherwise, the heat from the headers could damage these components.
- 8) After the exhaust modifications have been made to connect the exhaust system to the new headers, re-check everything. Make sure that all bolts are tight.
- 9) Start the engine and check for leaks. Allow the engine to warm up, then shut the engine off and allow it to cool. Recheck the header bolts and other fasteners for correct tightness.
- 10) Periodically check and retighten the header bolts.

#### Parts List

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|------------------------------------|--|
| (1) Drivers Side Header Assembly.  | (2) 3" to 2½" Header Reducer Tube      |
| (1) Passenger Side Header Assembly | (2) Ball Connector Flange              |
| (16) 3/8" x 1" Header Bolts        | (4) 3/8"-16 x 2¼" Ball Collector bolts |
| (20) 3/8" Lock Washers             | (4) 3/8"-16 Hex Nut                    |
| (2) Header Gaskets                 | (4) 3/8" Flat Washers                  |
| (1) Flowmaster Decal               |  |