

DOUG THORLEY HEADERS

BY SUMMIT INDUSTRIES

THY-309

CHEVY/ GMC TRUCKS & SUVs
4.8L, 5.3L, 6.0L No air inj.
2002-06 2/4WD



PARTS INCLUDED

- 1 - Passenger side header
- 1 - Driver side header
- 1 - Collector gasket (9309-P)
- 1 - Collector gasket (9309-D)
- 2 - Header gaskets (9310)

HARDWARE INCLUDED

- 6 - 3/8"-16 x 2.00" Hex head bolts
- 6 - 3/8"-16 Hex nuts
- 6 - 3/8" Star lock washers
- 6 - 3/8" Flat washers

TOOLS REQUIRED

- 8mm, 10mm, 13mm Wrenches
- 9/16" Sockets
- Ratchet and extensions
- Torque wrench
- Rust penetrant
- Rubber mallet

WARRANTY NOTES

- 1) The utmost care is taken at Thorley Headers to maintain the highest standards of quality. However, Thorley Headers cannot control the installation of the product. For this reason, the Thorley Headers warranty covers only the replacement of the components - not the labor for the installation.
- 2) The use of any type of "header wrapping" voids the warranty. Using any sort of wrapping material on the headers destroys the tubing's ability to dissipate heat, causing very rapid deterioration of the metal and the subsequent failure of the headers.
- 3) The chrome plating applied to all Thorley headers is a high-nickel chrome finish applied to retard corrosion. This is a "heat" chrome to preserve the metal. This finish is not "show chrome" intended for the sake of appearance. This high-nickel chrome turns colors and approaches black as it cooks into the metal. The brilliance of the chrome finish is not covered under the warranty. Contamination of the surface by foreign substances may produce other color patterns. This can be prevented by routine cleaning.

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WARRANTY NOTES

- 4) Retain all paperwork pertaining to the purchase of your Thorley product. Save your receipt!
Your limited warranty is not valid without a receipt of purchase.

LEGALITY NOTE

The installation of headers onto any vehicle must be performed in accordance with all governmental regulations that might pertain to the particular vehicle receiving the headers. Please call your Thorley Headers distributor if there are any questions regarding the legality of the installation. **The Executive Order (“E.O.”) number for this part number is D-540-1.**

INSTALLATION NOTES

- 1) It is important that you read the entire instruction sheet before initiating any installation.
- 2) Thorley headers are designed to fit only factory installed engine and transmission combinations. We cannot guarantee that Thorley headers will fit in the case of “engine swaps” or “transmission swaps”.
- 3) Due to restricted room in the engine compartment, your headers may come close to certain body and chassis components. This is normal for an installation of this type. However, a careful inspection must be completed to insure that the distances and placement are reasonable and logical, especially with regard to electrical, fuel, and brake components.
- 4) Because of the requirement to raise the engine to facilitate header installation, the engine mounts should be carefully inspected at that point of the installation. It is highly recommended that questionable or deteriorated engine mounts be replaced during the installation of the headers. In some cases, the engine mounts need to be loosened and repositioned to provide optimum header clearance from some components.
- 5) Because of car-to-car variations, Thorley Headers strongly recommends that these headers be installed by a competent exhaust shop that has welding and fabrication capabilities.

INSTALLATION PROCEDURES

WARNING! - Do not rely on bumper jacks or chassis jacks for support during header installation. The subject vehicle should be raised and supported with jacking equipment and jackstands or ramps intended for undercarriage auto maintenance. It is extremely dangerous to work under an improperly raised and/or supported vehicle.

WARNING! - Make certain there is ample clearance around components such as brake lines, brake proportioning valves, fuel lines, hoses and pumps, and electrical components and wires. In some cases it may be necessary to relocate items that may be adversely affected by exhaust system heat.

NOTE: These procedures are documented on factory standard-equipped vehicles with original configuration compliance. Any modification of the subject vehicle may dictate modification to these procedures.

- 1) Disconnect the battery.
- 2) Spray all exhaust component fasteners with rust penetrant and allow to soak thoroughly to prevent possible breakage of bolts.
- 3) Starting with the passenger side, move water lines above the oil filler neck and out of the way. Remove water line bracket attached to the front coil mount on the valve cover. Set aside for now.
- 4) Carefully remove spark plug wires.
- 5) Remove oil dipstick bracket using a 15mm socket. Wiggle dipstick tube out and set aside.
- 6) Remove all stock manifold bolts and save for Thorley header install.
- 7) Raise the front of the vehicle approximately 24 inches and support it with jack stands or other suitable supports. (**WARNING!** - Do not rely on bumper jacks or chassis jacks for support during header installation. The subject vehicle should be raised and supported with jacking equipment and jackstands or ramps intended for undercarriage auto maintenance. It is extremely dangerous to work under an improperly raised and/or supported vehicle.)

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- 8) Using a 15mm socket and long extension loosen and remove factory collector bolts and remove manifold and gasket through the top of the vehicle.
- 9) Using a rubber mallet you will need to tap the heat shield back a little to clear new header. (The heat shield is located on the fire wall just below the A/C condenser.
- 10) Install new header and header gasket from above the vehicle using the factory header bolts.
- 11) After all header bolts are in, starting in the middle and working your way out, torque to 30-31 ft. lbs.
- 12) Re-install factory dipstick tube and tighten. Install dipstick.
- 13) Re-install factory spark plug wires.
- 14) Re-install water line bracket.
- 15) Using Thorley supplied hardware, connect the factory connector pipe to the Thorley header with factory collector gasket and tighten the collector bolts securely.
(You may or may not have to use the Thorley supplied collector gasket depending on the condition of the factory gasket.)
- 16) While under the truck remove connector pipe bolts from the Driver side.
- 17) Carefully remove spark plug wires from Driver side.
- 18) Remove battery terminal bracket using a 10mm located in front of the manifold.
- 19) Remove the manifold bolts and save for Thorley installation and remove manifold.
- 20) Align Thorley header and gasket and install using factory bolts and tighten the same way as you did on the Passenger side.

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- 21) Using Thorley supplied hardware, connect the factory connector pipe to the Thorley header with factory collector gasket and tighten the collector bolts securely.
(You may or may not have to use the Thorley supplied collector gasket depending on the condition of the factory gasket.)
- 22) Re-install the battery terminal bracket.
- 23) Re-install all spark plug wires.
- 24) Reconnect the battery. Start the engine and check for leaks.
- 25) Because the header bolts will initially stretch when hot, we recommend adhering to the following steps:
 - a) Retighten the header bolts to 35 ft/lbs after approximately twenty minutes of operation.
(Note: Remember the engine will be hot at this time. Protect yourself accordingly.)
 - b) Check and retighten the header bolts to 35 ft/lbs after the first month of operation.