

DOUG THORLEY HEADERS

BY SUMMIT INDUSTRIES

THY-117Y

DODGE 5.7L HEMI
2004-05 RAM 1500 2/4WD



PARTS INCLUDED

- 1 - Driver side header
- 1 - Passenger side header
- 1 - Driver side connector pipe
- 1 - Passenger side connector pipe
- 2 - 3-bolt flange (2-1/2" I.D.)
- 2 - Header gaskets
- 4 - 2-1/2" Collector gaskets

HARDWARE INCLUDED

- 17 - M8 x1.25 x30mm Header bolts
- 17 - M8 Star lock washers
- 12 - 3/8"-16 x 1-1/4" Hex head bolts
- 12 - 3/8"-16 Hex nuts
- 12 - 3/8" Star lock washers
- 12 - 3/8" Flat washers

TOOLS REQUIRED

- Mig welder
- Sawzall
- 10mm, 13mm Wrenches
- 9/16" Line (flare nut) wrench
- 3/8", 9/16" Sockets
- Ratchet and extensions
- Crescent wrench
- Torque wrench
- Rust penetrant

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-540-3.**

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) 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.)
- 3) Spray all exhaust component fasteners with rust penetrant and allow to soak thoroughly to prevent possible breakage of bolts.
- 4) Disconnect the oxygen sensor lead wire at the point where it plugs into the wiring loom (next to the catalytic converter). The sensor can remain in the connector pipe until the connector pipe is removed from the vehicle. (Note: Failure to disconnect the oxygen sensor lead wire before removing the oxygen sensor can seriously damage the oxygen sensor.)
- 5) Cut both stock connector pipes directly in front catalytic converter, just in front of the weld bead on the front of each of the catalytic converters. (*You may want to cut a couple inches in front of the weld to ensure you have enough tube to work with.*)
- 6) Unbolt and remove the stock exhaust manifolds.

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- 7) Using masking tape, tape head flange gasket to the header flange, making it easier for installation.
- 8) Install the driver side header and supplied header gasket from under the vehicle using the supplied M8x1.25x30mm header bolts and M8 star lock washers. Do not fully tighten, allowing some movement of the header.
- 9) Install the passenger side header and supplied header gasket from under the vehicle using the supplied M8x1.25x30mm header bolts and M8 star lock washers. Do not fully tighten, allowing some movement of the header.
- 10) Install new connector pipes to the headers with supplied hardware and gaskets (**The longer of the two connector pipes will be mounted on the passenger side**). Locate where you must weld the catalytic converter adapter flange in front of O.E. catalytic converter. Then re-install O2 sensors.
- 11) Tighten all manifold bolts and connector pipe bolts. Bolt the catalytic converter adapter flange to the connector pipes to ensure proper positioning before welding.
- 12) Weld the catalytic converter adapter flange to O.E. catalytic converter as much as possible, to obtain correct "clocking".
- 13) Unbolt O.E. catalytic converter adapter flange and remove catalytic converter assembly from vehicle to complete welding.
- 14) Re-install catalytic converter assembly using supplied hardware and gaskets. Tighten all bolts.
- 15) Connect the oxygen sensor wire to O.E. harness.
- 16) Reconnect the battery. Start the engine and check for leaks.
- 17) 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.