

# DOUG THORLEY HEADERS

BY SUMMIT INDUSTRIES

THY-218Y1/ THY-218Y1-S

FORD 6.8L V-10  
1999-04 CLASS "A" MOTORHOME  
F53 CHASSIS



## PARTS INCLUDED

- 1 - Right side header
- 1 - Left side header
- 1 - Connector pipe
- 1 - Header Adapter pipe
- 2 - Header gaskets
- 2 - 3-Bolt gasket

## HARDWARE INCLUDED

- 20 - M8 x 1.25 x 25mm Header bolts
- 20 - 3/8" Star lock washers
- 6 - 7/16"-14 x 1-1/4" Hex head bolts
- 6 - 7/16"-14 Hex nuts
- 6 - 7/16" Flat washers
- 6 - 7/16" Split lock washers
- 2 - 2-1/2" Muffler clamps
- 1 - Dipstick spacer

## TOOLS REQUIRED

- Sawzall
- 3/8", 7/16", 9/16", 1/2", 3/4", 7/8" Wrenches
- 10mm, 13mm Wrenches
- 9/16" Line (flare nut) wrench
- 5/16", 7/16", 1/2", 9/16" Sockets
- 3/8", 7/16" Deep sockets
- 15mm Deep socket
- 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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- 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. This part number is considered a legal replacement part on vehicles that have a catalytic converter, as long as all original emission control devices are connected and functioning properly. As a result, **the Executive Order ("E.O.") number for this part is D-540-2.**

## 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.***

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## 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.) You may want to remove the fender wells to make it easier before starting.
- 3) Using a 7/8" wrench loosen O2 sensors from the connector pipe.
- 4) Using a 15mm socket wrench loosen all bolts on connector pipe and remove connector pipe.
- 5) If necessary, use an adjustable crescent wrench loosen and remove the EGR bolt from the driver side manifold.
- 6) Remove dipstick tube from driver side and the EGR tube (if equipped).
- 7) Using a 13mm socket, remove the nuts attaching the manifold to the heads on both driver and passenger side.
- 8) Remove both manifolds and the studs in the heads.

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- 9) Install driver side header using supplied gasket and hardware. Loosely attach the EGR (if equipped) bolt and torque header bolts to 23 ft/lbs starting in the center working your way outward. Then tighten down EGR tube.
- 10) Next install passenger side header. Attach the two headers together with connector pipe and supplied muffler clamps. Next, torque header bolts to 23 ft/lbs starting in the center working your way outward. Then tighten muffler clamps
- 11) Attach the adapter pipe using the stock rubber hanger between the stock catalytic converter and the 3-bolt flange on the end of the header assembly using supplied hardware and gaskets. Tighten all bolts.
- 12) Reconnect O2 sensors
- 13) Reinstall both factory fenderwells.
- 14) Check all bolts to make sure everything is tightened and no wires are resting on the headers. Make sure there is ample clearance around the new headers.
- 15) Reconnect the battery cables.
- 16) Start the engine, check for leaks and test drive. Then let engine cool and then re-torque the header bolts.
- 17) Periodically check and retighten the header bolts.