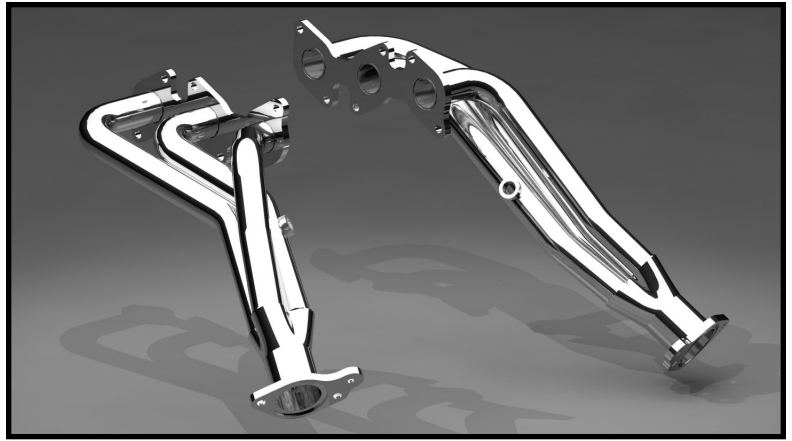


# DOUG THORLEY HEADERS

BY SUMMIT INDUSTRIES

THY-515-L

TOYOTA 4.0L  
2005-07 TACOMA/ FJ CRUISER/  
X-RUNNER, 2/4WD  
(OFF-ROAD USE ONLY)



## PARTS INCLUDED

1 - Driver side Header Assembly  
1 - Pass. side Header Assembly

## HARDWARE INCLUDED

4 - M10-1.25 x 35mm Hex Flange Bolts

## TOOLS REQUIRED

10mm, 12mm, 14mm Wrenches  
12mm, 14mm Sockets Deep/ Shallow  
Ratchet and extensions  
Crescent wrench  
Torque wrench  
Rust penetrant  
High-temp sensor-safe silicon sealer  
(rated at 600 degrees+)

08-50-43342 REV. B

## 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. **These headers are not legal for sale or use on pollution controlled vehicles and are intended for off-road use only.**

## 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.

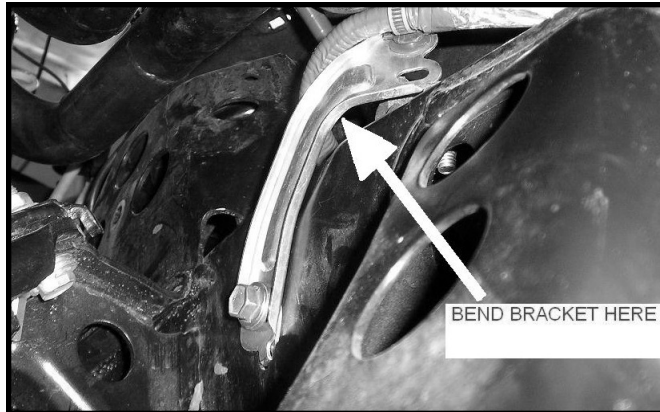
**NOTE:** These procedures are documented on factory standard-equipped vehicles with original configuration compliance. Any modification of the subject vehicle may dictate modification to these procedures.

- 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.)
- 3) Disconnect and remove the intake "S" tube.
- 4) Unplug the O2 sensor harnesses from the top area of the transmission.
- 5) Unbolt the exhaust manifolds and mounting brackets from each side.
- 6) Remove the stock exhaust manifolds from below the vehicle. **Note: Be sure to save all the stock gaskets and hardware as they will be used on the new system.**
- 7) With the manifolds removed, unscrew the O2 sensors and set aside. *Note: Do not attempt to remove O2 sensors or any other hardware while the engine is hot. Doing so may result in the thread damage.*

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- 8) X-Runner models only - Bend bracket away from the motor to gain clearance between the header and the wires. Move the wires away from the headers so they are damaged by the heat. (SHOWN HERE)



- 9) (Note: The use of high-temp sensor-safe silicon sealer between the header flange and header gasket is recommended.) From the bottom, install the stock header gasket over the studs and secure the header to the cylinder head using the stock nuts. Leave the hardware loose at this time.
- 10) Reattach the bracket going from the bell housing to the collector flange. With the stock gasket in place attach the supplied 10mm bolts to the collector flange, leaving them loose. *Note: If the gasket is damaged, contact your local Toyota dealer for a replacement.*
- 11) When you are satisfied with the positioning, tighten the head bolts starting in the middle working your way outward, then tighten the bolts at the collector.
- 12) When all components are tightened down, reinstall both of the O2 sensors and reconnect the harness to the top of the bell housing.
- 12) Re-install the air box and intake tube after checking the header for proper clearance from any hoses or lines. Wipe excess oil, grease and fingerprints off the headers with acetone or equivlant.
- 13) Reconnect the battery. Start the engine and check for leaks.
- 14) Re-torque all hardware after approximately 20 minutes of operation