

TOYOTA, 4.7L
2007-11 TUNDRA / LAND CRUISER
2/4WD (NO AIR INJECTION)



PARTS INCLUDED

Ref.	Description	Qty
1)	Driver Side Header Assembly	1
2)	Passenger Side Header Assembly	1
3)	Header Flange Gaskets, 4.7L	2
4)	M10x1.25x35mm Hex Flange Bolt	6
5)	M10x1.25 Hex Flange Nut	6

TOOLS REQUIRED

Ref.	Description	Ref.	Description
1)	10mm, 12mm, 14mm Wrenches	6)	Pliers
2)	10mm, 12mm, 14mm Sockets	7)	Crescent wrench
3)	Ratchet and extensions	8)	Torque wrench
4)	Universal Joints	9)	Rust penetrant
5)	Small Pry Bar		

THY-514-M-C

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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) 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) If possible, soak all the stock hardware with WD40 prior to disassembly.
- 3) Unplug mass air flow sensor and remove air box lid.
- 4) Remove engine oil dip stick and unplug wires from power steering pump.
- 5) Remove skid plate.
- 6) Mark steering shaft at the rack and remove from rack, letting it hang to the side.
- 7) Unplug o2 sensor wiring from connector pipes.
- 8) Unbolt and remove both connector pipes saving the factory gaskets.
- 9) Carefully remove all the rubber inner-fender well aprons and front tires to gain better access to exhaust manifold. SUPPORT VEHICLE IN A SAFE MANNER!!!
- 10) Remove exhaust manifold heat shields.

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INSTALLATION PROCEDURES

- 11) Remove both exhaust manifolds and gaskets.
*NOTES: On passenger side, unbolt the heater hose brackets from the side of the cylinder head (two bolts) and the back of the cylinder head.
There is also one exhaust manifold nut on each side located right above the motor mounts. These are difficult to get to. These can be better accessed through the fender well with a long extension, preferably a 14mm mid length socket and a universal.*
- 12) Clean all traces of carbon from cylinder head.
- 13) Install both headers from the bottom of the vehicle with the supplied header flange gaskets in place.
- 14) Start threading all the nuts on exhaust manifolds but leave them loose at this time.
- 15) Install both catalytic pipes to the headers using the supplied hardware and factory gaskets leaving the connection loose at this time.
- 16) Tighten everything down starting with the new headers. Torque the nuts at the head to 20-25 ft. lbs. starting in the middle and working your way outward. *(NOTE) You may have to tie your transmission cable back away from the header using a zip tie or safety wire.* Tighten down the catalytic pipes and torque to factory spec.
- 17) Reinstall dip stick and power steering pump wires.
- 18) Reinstall air box lid and mass air flow wires.
- 19) Realign steering shaft on rack according to your marks and torque down to factory specs.
- 20) Reinstall all o2 sensors in there respective locations and plug into loom.
- 21) Reinstall rubber aprons, front tires and skid plate then torque to factory specifications.
- 22) Check all components for ample clearance around hoses, wires, etc.
- 23) Reconnect the battery. Start the engine and check for leaks.
- 24) Re-torque all hardware after approximately 20 minutes of operation.