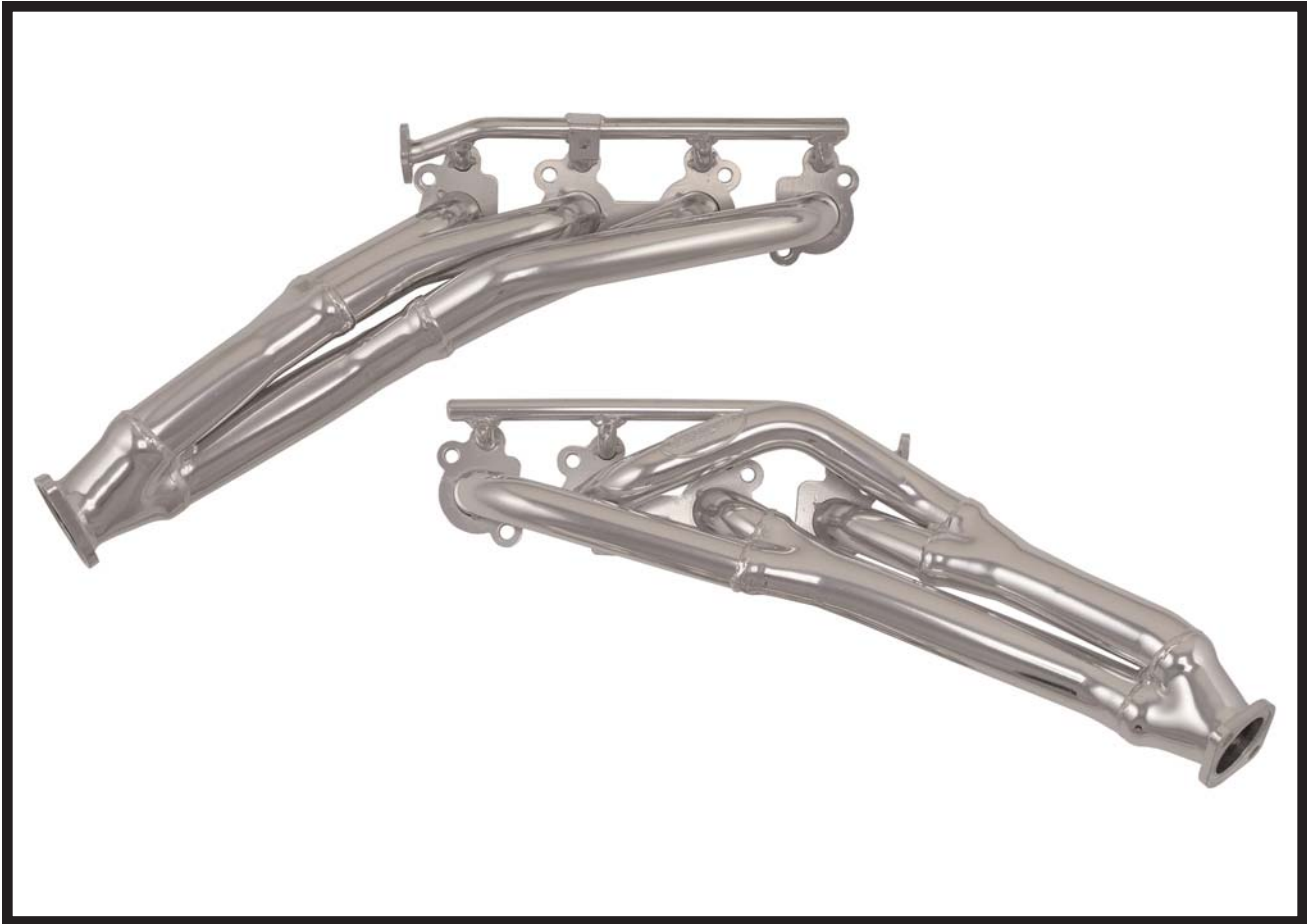


2005-09 TOYOTA 4RUNNER / LEXUS GX470
4.7L V8, 2WD/4WD (RACE USE ONLY)



LEGALITY NOTES

The installation of exhaust headers onto any vehicle must be performed in accordance with all governmental regulations that pertain to the particular vehicle receiving the headers. Please call your Doug Thorley Headers distributor if there are any questions regarding the legality of the installation.

These exhaust headers **DO NOT** comply with California Air Resource Board regulations and are **NOT LEGAL** for sale or use on pollution controlled vehicles in the state of California. These headers are intended for use on vehicles that are involved in closed course racing applications only. They will be referred to as “RACE USE ONLY” in any other location in this instruction sheet, or any marketing information.

THY-563Y-LS-C

LONG TUBE TRI-Y HEADERS

2005-09 TOYOTA 4RUNNER / LEXUS GX470
4.7L V8, 2WD/4WD (RACE USE ONLY)

PARTS INCLUDED

Ref.	Description	Qty
1)	Driver Side Header Assembly	1
2)	Passenger Side Header Assembly	1
3)	Header Gasket (set of 2)	1
4)	Circular Crush Gasket (small)	2
5)	M6-16 Flange Head Bolts	4
6)	M10-1.25 Flange Nuts	4
7)	M10-1.25 Flange Head Bolts	4
8)	12" O2 Harness Extension	2

TOOLS REQUIRED

Ref.	Description	Ref.	Description
1)	3/8" Drive Ratchet and Extensions	5)	WD-40
2)	7/8" Box wrench or O2 Sensor Socket		
3)	8mm, 10mm, 12mm, 14mm Sockets		
4)	8mm, 10mm, 12mm, 14mm Wrenches		

WARRANTY NOTES

- 1) The utmost care is taken at Doug Thorley Headers ("DTH") to maintain the highest standards of quality. However, DTH cannot control the installation of the product. For this reason the warranty covers only the replacement of the components, it does not cover labor for the installation.
- 2) The use of any type of "header wrapping" immediately 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 composition of the metal and the subsequent failure of the headers.
- 3) Retain all paperwork pertaining to the purchase of your DTH product. Save your receipt!
Your limited warranty is not valid without a receipt of purchase.

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LONG TUBE TRI-Y HEADERS

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INSTALLATION NOTES

- 1) It is important that you read the entire instruction sheet before beginning any installation.
- 2) 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 ensure that the distances and placement are reasonable and logical, especially with regard to electrical, fuel, and brake components.
- 3) Because of car-to-car variations, DTH strongly recommends that these headers be installed by an experienced installation shop that has welding and fabrication capabilities.

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.

INSTALLATION PROCEDURE

OE MANIFOLD REMOVAL

- 1) Disconnect both battery terminals.
- 2) Unplug all four O2 sensors from the wiring harnesses. Completely remove the two primary catalytic O2 sensors from the exhaust system.

NOTE : Do not attempt to remove O2 sensors or hardware while the engine is hot. Doing this may result in thread damage.

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INSTALLATION PROCEDURE

- 3) Remove the complete exhaust y-pipe assembly from the vehicle and set aside. Retain gaskets and hardware.
- 4) Remove the bolt securing the engine oil dip stick tube to the manifold. Remove the dip stick tube.
- 5) Remove the four bolts securing the driver side exhaust manifold heat shield. Remove the heat shield.
- 6) Remove the four bolts securing the passenger side exhaust manifold heat shield. The heat shield cannot be removed yet, with the motor secured to the frame.
- 7) The motor must be raised approximately 2" in order to allow the removal of the heat shield. In order to do this remove the two passenger side motor mount bolts where the motor mount meets the frame. Using a vehicle jack or equivalent, position a small 2x4 piece of wood directly under the motor mount and carefully lift the motor until just enough clearance has been made to remove the heat shield. Remove the heat shield. Do not lower the motor at this time.
- 8) To gain access to the lower bolts directly above the engine mount, it may be necessary to completely remove the mount from the engine block. This applies to both sides.
- 9) Remove the nuts securing the air injection rails to the driver and passenger factory manifolds
- 10) Remove wire harness heatshield from driverside.
- 11) Remove all factory exhaust manifold hardware. Remove both the passenger and driver side exhaust manifolds from the vehicle. Retain all hardware.
NOTE: The air injection rails are flexible, however you may need to carefully pry the rail away from the manifolds in order to facilitate removal. If this is required, do so carefully.
- 12) Inspect the cylinder heads for debris or carbon build-up, and clean if necessary.

THY-563Y-L-C

LONG TUBE TRI-Y HEADERS

**2005-09 TOYOTA 4RUNNER / LEXUS GX470
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INSTALLATION PROCEDURE

HEADER INSTALLATION

- 1) With the engine still raised, install the passenger side header and gasket to the motor and start all the nuts. Leave loose at this time.
- 2) Work the dip stick tube in between tubes #1 and #2 while the header is still loose.
- 3) Re-install engine mount and lower the engine into the correct position on the frame. Both sides.

NOTE: Access will be easier if the front wheels and tires are remove if you have the means.
- 4) Work the smog rail flange back into position and start the two supplied m6 bolts.
- 5) Tighten all nuts starting with the center working your way out alternating end to end.
- 6) Tighten the smog rail bolts.
- 7) Repeat this process for the driverside with exception to the oil dip stick .
- 8) Install the wire harness heatshield (driverside).
- 9) Install the supplied o2 harness extensions and o2 sensors.