

DOUG THORLEY **HEADERS**

A DIVISION OF SUMMIT INDUSTRIES, INC.

THY-563Y-LS-C LONG TUBE TRI-Y HEADERS

2005-2009 TOYOTA 4RUNNER / LEXUS GX470 4.7L V8, 2WD/4WD (RACE ONLY)



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 Doug Thorley Headers distributor if there are any questions regarding the legality of the installation. **There is no Executive Order ("E.O.") number for this part at this time.** 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.

WARRANTY NOTES

The utmost care is taken at Doug Thorley Headers to maintain the highest standards of quality. However, Doug Thorley Headers cannot control the installation of the product. For this reason, the Doug Thorley Headers warranty covers only the replacement of the components, not the labor for the installation.

- 1. 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.*
- 2. Retain all paperwork pertaining to the purchase of your Doug Thorley Headers product. Save your receipt, your limited life time warranty is not valid without the original proof of purchase.*

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PARTS INCLUDED

- Driver Side Header Assembly (1)
- Passenger Side Header Assembly (1)
- Header Gasket (set of 2) (1)
- Circular Crush Gasket (small) (2)
- M6-16 Flange Head Bolts (4)
- M10-1.25 Flange Nuts (4)
- M10-1.25X30mm Flange Head Bolts (4)
- 12" O2 Harness Extension (2)

TOOLS REQUIRED

- 3/8" Drive Ratchet and Extensions
- 7/8" Box wrench or o2 Sensor Socket
- 8mm, 10mm, 12mm, 14mm Sockets
- 8mm, 10mm, 12mm, 14mm, Wrenches
- WD40 or Equivalent

INSTALLATION NOTES

1. It is important that you read the entire instruction sheet before initiating any installation.
2. Doug Thorley Headers are designed to fit only factory installed engine and transmission combinations. We cannot guarantee that Doug 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 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, Doug Thorley Headers strongly recommends that these headers be installed by a competent exhaust shop that has welding and fabrication capabilities.

INSTALLATION PROCEDURE NOTES

WARNING! – DO NOT RELY ON BUMPER JACKS OR CHASSIS JACKS FOR SUPPORT DURNING HEADER INSTALLATION. THE VEHICLE SHOULD BE RAISED AND SUPPORTED WITH JACKING EQUIPMENT AND JACKSTANDS OR RAMPS INTENEDED FOR UNDERCARRIAGE AUTO MAINTENANCE. IT IS EXTREMELY DANGEROUS TO WORK UNDER ANY IMPROPERLY RAISED AND/OR SUPPORTED VEHICLE.

WARNING! – MAKE CERTAIN THERE IS AMPLE CLEARANCE AROUND CLEARANCE AROUND COMPONENTS SUCH AS BRAKE LINES, BRAKE PROPORTIUNIONING VALVES, FUEL LINES, HOSES AND PUMPS, AND ELECTRICAL COMPANENETS AND WIRES. IN SOME CASES IT MAY BE NECESSARY TO RELOCATE ITEMS THAT MAY BE ADVERSELY AFFECTED BY EXHAUST SYSTEM HEAT.

INSTALLATION PROCEDURES (NOTE: THESE PROCEDURES ARE DOCUMENTED ON FACOTRY STANDARD-EQUIPPED VEHICLES WITH ORIGINAL CONFIGURATION COMPLIANCE. **ANY** MODIFICATION OF THE SUBJECT VEHICLE MAY DICTATE MODIFICATION TO INSTALLATION PROCEDURES.)

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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.
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 to the motor. 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 heat shield from driver side.
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.

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 removed, 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 driver side with exception to the oil dip stick .
8. Install the wire harness heat shield (driver side).
9. Install the supplied o2 harness extensions and o2 sensors. NOTE: You will notice that the first couple of times you start the vehicle that it will not stay running. This is normal, and the ECU will correct this by the second or third time you start the engine.

Enjoy your new headers and thank you for your purchase!

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RETURN POLICY

Returns to Doug Thorley Headers (DTH) will only be accepted from direct sell customers within 30 days of the original invoice date. All returns will require a Return Merchandise Authorization (RMA) number provided by Doug Thorley Headers. Customers are responsible for all shipping charges unless other arrangements with Doug Thorley Headers have been made. Doug Thorley Headers reserves the right to refuse any package returned to our facility without prior authorization. Returned products can be subject to a 20% restocking fee.

Doug Thorley Headers does suggest that when shipping an item back to us, carriers such as UPS and FEDEX, or any providers that offers a signature requirement and insurance coverage be used. Doug Thorley Headers is not responsible for any lost or damaged packages along with the customer will be responsible for all shipping charges and risk of loss during the return shipment.

Doug Thorley Headers does not accept a return of an item that is damaged, used/installed, or special ordered parts. If you receive an item that has been damaged, please inform Doug Thorley Headers within 72 hours of delivery in order for Doug Thorley Headers to begin a claim.

Please keep the original packaging and contents as FEDEX and UPS may require an inspection of the item. If this inspection is required then the carrier in which your item was handled through may contact you to set up a time and date. All claims to sub-component shortages or missing parts must be made within 10 days of delivery.

If any you have any questions about returning or missing an item, please contact us at **951-739-5900** or email at **info@doughthorleyheaders.com**

WARRANTY COVERAGE

Unless otherwise specified, Doug Thorley Headers header products are warranted against defective materials and workmanship for as long as the original consumer purchaser owns said header product. Doug Thorley Headers exhaust products defined as any component “downstream” of a Doug Thorley Header product or OE factory exhaust manifold, are warranted against defective material and workmanship for a period of five (5) years from the original consumer purchase date. These limited warranties are offered solely to the original purchaser and are non-transferable. Proof of purchase is required for all warranty claims.

These warranties shall be limited to the repair, adjustment, and/or replacement of defective parts at the discretion of Doug Thorley Headers. Authorized product return will be repaired or replaced at the discretion of Doug Thorley Headers. All warranties become void if any product shows evidence of any modification done without the express consent of Doug Thorley Headers and includes mishandling, bending, welding, mutilation of parts, and insulating wrap products. Doug Thorley Headers is not responsible for any other expenses involved in a warranty claim including any labor costs incurred by the customer in relation to defective parts and/or shipping cost to or from Doug Thorley Headers. Doug Thorley Headers is not responsible for any damages, whether consequential, special, contingent or otherwise, expenses or injury that may arise from the use of Doug Thorley Headers products.

The bluing and discoloration of chrome exhaust products is considered normal, as is the dulling of ceramic coated products, and as such, coating are not covered under the terms of the warranty. Environmental exposure and rust apparent during the extended life of products is also considered normal and excluded from the warranty. Any Doug Thorley Headers product that has been discontinued from new sales for a period of five (5) years or longer will no longer be eligible for replacement under the terms of warranty, the repair of any defective parts will be the only option. Any non-defective not-installed product may be returned for any reason within thirty (30) calendar days of receipt, and will be subject to a 20% restocking/repackaging fee.