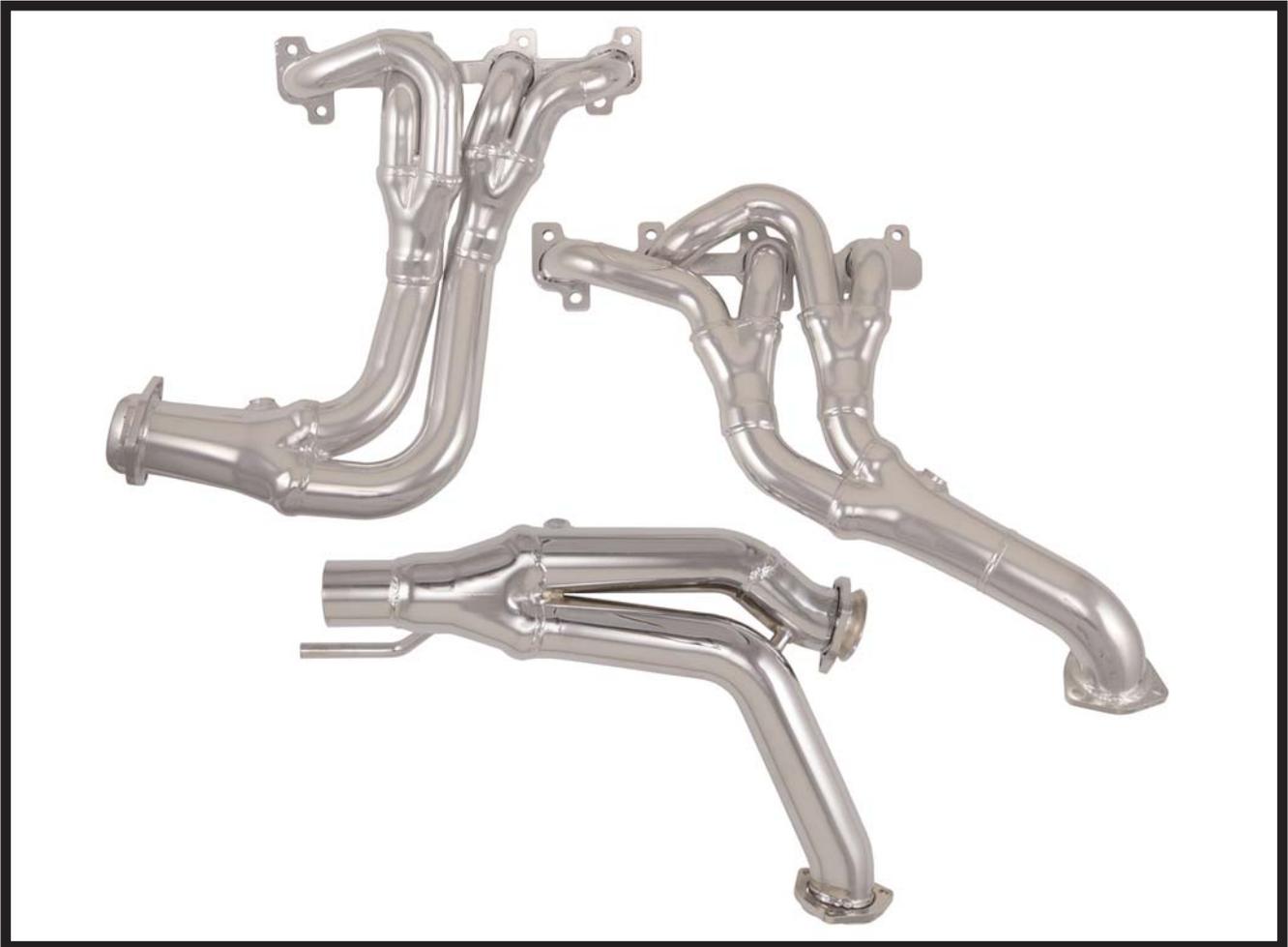


1999-04 JEEP GRAND CHEROKEE WJ, 4.7L V8
(OFF-ROAD "RACE" USE ONLY)



LEGALITY NOTES

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.

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.

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LONG TUBE TRI-Y HEADERS

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PARTS INCLUDED

Ref.	Part Number	Description	Qty
1)	00-901-02844	Driver Side Header Assembly	1
2)	00-901-02845	Passenger Side Header Assembly	1
3)	00-901-02848	Y-pipe Assembly	1
4)	07-31-48372	Header Gasket Kit (set of 2)	1
5)	01-5308125025-27	M8-1.25x25mm Hex Flange Head Bolt	16
6)	01-10061616-2-27	3/8-16x2" Hex Head Bolt	6
7)	01-310616-27	3/8-16 Hex Nut	12
8)	01-4106-27	Flat Washer, 3/8"	12

TOOLS REQUIRED

Ref.	Description	Ref.	Description
1)	3/8" Drive Ratchet and Extensions	5)	8mm, 10mm, 12mm, 14mm Wrenches
2)	7/8" Box wrench or O2 Sensor Socket	6)	Metric Allen Wrench Set
3)	9/16" Box Wrench and Socket	7)	WD40 or equivalent
4)	8mm, 10mm, 12mm, 14mm Sockets		

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) Any chrome plating applied to DTH header components is a high-nickel chrome finish applied to retard corrosion. This is a commercial quality "heat" chrome designed to protect the metal from the environment only. This finish is not "show chrome" and is not intended for the sake of appearance. This high-nickel chrome will turn colors and approach black as it cooks into the metal. The initial 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.
- 4) 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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INSTALLATION NOTES

Installation of these headers will trigger a CEL (check engine light). This can be corrected with either a performance tune or tuner, and/or an o2 sensor simulator offered by various aftermarket companies.

- 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.

INSTALLATION PROCEDURE

OE MANIFOLD REMOVAL

- 1) Disconnect battery terminals.
- 2) Coat all hardware with WD-40 or equivalent penetrant.
- 3) Mark the locations of all four O2 sensors. Carefully remove the oxygen sensors set aside.
NOTE: Do not remove oxygen sensors while the exhaust system or sensors are hot, doing so can damage the sensors.
- 4) Remove the hardware securing the factory y-pipe assembly to the original exhaust manifolds and the exhaust system inlet. Remove the foactory y-pipe assembly from the vehicle.
NOTE: It is possible that your vehicle has a different variation of y-pipe and exhaust inlet than which the Doug Thorley Header system has been designed for. In this case you will need to have the new y-pipe assembly modified to attach it to your exhaust system.
- 5) Remove the nuts securing the driver and passenger factory exhaust manifold heat shields, and remove the heat shields.
- 6) Remove the 8 bolts securing each factory exhaust manifold, and remove the manifolds from the vehicle.
- 7) Disconnect the wiring, and remove the starter from the motor.

TECH SUPPORT: (951)739-5900

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INSTALLATION PROCEDURE

- 8) Clean all traces of carbon deposits from the cylinder head exhaust port surfaces.

HEADER INSTALLATION

- 1) Using the supplied M8-1.25x25mm Hex Flange Head Bolts and driver side Header Gasket (with EGR slot), loosely mount the Driver Side Header to the motor. Do not fully tighten bolts at this time.
- 2) Using a floor jack or equivalent proper equipment, support the motor in order to allow for the removal of the passenger side motor mount.
- 3) With the engine properly supported, remove the passenger side motor mount to allow the installation of the new Passenger Side Header. If needed, the engine can be raised in order to gain clearance to install the Passenger Side Header.
- 4) Feed the Passenger Side Header into place, and using the remaining M8-1.25x25mm Hex Flange Head Bolts and passenger side Header Gasket, loosely mount the Passenger Side Header to the motor. Do not fully tighten bolts at this time.
- 5) Reinstall the starter and connect all wiring.
- 6) Lower the engine and reinstall the passenger side motor mount. Fully tighten motor mount and starter hardware to factory specifications.
- 7) Install the new Y-pipe Assembly to the headers using the supplied 3/8-16x2" Hex Head Bolts, Nuts and Washers. (Fig. 1) Be sure to feed the y-pipe hanger into the rubber mount before installing any hardware. Do not fully tighten at this time.



Fig. 1

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INSTALLATION PROCEDURE

- 8)** Reinstall the O2 sensors. Make sure that the front O2 sensors are going to the forward most bungs on the headers and the rear to the rear bungs. Route wiring in manner that will not make contact with the headers or y-pipe.
- 9)** With the headers and y-pipe assembly in the best possible orientation, tighten all header bolts to factory specification by starting at the center and working your way outward.
- 10)** Now, fully tighten the y-pipe to header hardware. Using the extra six 3/8-16 Hex Nuts, "double nut" the y-pipe to header hardware.
- 11)** Reconnect battery and double check for any possible clearance issues between components and the headers.
- 12)** Start engine and check for leaks. Re-torque all hardware after approximately 20 minutes of operation.