



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.

THY-293Y-L

TRI-Y HEADER SYSTEM

**2015-17 FORD MUSTANG
5.0L**

PARTS INCLUDED

Ref.	Description	Qty
1)	Driver Side Header Assembly	1
2)	Passenger Side Header Assembly	1
3)	Driver Side Inlet Tube	1
4)	Passenger Side Inlet Tube	1
5)	Grommet, Male	2
6)	Grommet, Female	2
7)	2-1/2" Coupler Clamp	2
8)	M10-1.25 X 25mm Bolt	1
9)	M10-1.25 X 35mm Bolt	2
10)	3/8" Fender Washer	2
11)	Hex Flange Nut M10-1.25	2
12)	Hex Flange Nut M8-1.25	2

TOOLS REQUIRED

Ref.	Description	Ref.	Description
1)	3/8" Drive Ratchet and Extensions	4)	8mm, 10mm, 12mm, 14mm Wrenches
2)	7/8" Box wrench or O2 Sensor Socket	5)	WD40 or equivalent
3)	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.

TECH SUPPORT: (951)739-5900

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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.

INSTALLATION PROCEDURE

passenger side disassembly

- 1) Disconnect positive battery cable.
- 2) Remove engine cover.
- 3) Disconnect and remove the oxygen sensors (it will be necessary to remove some of them from their clips to accommodate the new header system.)
- 4) Remove the passenger side connector pipe/ catalytic converter assembly. The inside nut can be removed from the top.
- 5) Remove 15mm nut attaching the motor mount to frame (this is easily done from the top of the engine.)
- 6) Position a floor jack and a block of wood on the flat area of the engine block just forward of the transmission. Jack the engine up just enough to separate the mount from the frame.
- 7) Remove the nut retaining the ground cable taking care not to twist the stud/bolt out together.
- 8) Remove the four 13mm bolts/ studs attaching the mount to the engine.
- 9) Raise the engine up approximately 2 inches. At this point, you should make sure that the engine is not contacting the strut tower brace or anything on the driver's side.
- 10) Remove the mount.

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INSTALLATION PROCEDURE

passenger side disassembly cont.

- 11) Remove the 10mm and 13mm nuts from the starter and remove the wiring harness.
- 12) Remove the three 10mm bolts attaching the starter to the engine.
- 13) Loosen and remove all exhaust manifold nuts and remove manifold. (retain nuts, gaskets, and factory Torca clamps for reuse.)

passenger side assembly

- 1) Ensure that the cylinder head is free of all carbon and debris.
- 2) With the engine still raised, slip the header into position. It may be easier to remove the top two rear exhaust manifold studs.
- 3) You will have to lower or raise the engine a slight amount to seat the header to the head.
- 4) **Start all nuts while the header is loose.**
- 5) Tighten the header nuts starting with the inside out in a staggered pattern (top to bottom)
It will take a combination of sockets, extensions, universal and wrenches to complete this. Some nuts are easiest to access from the top with a wrench. You may have to reinstall the mount and lower the engine to do this.
- 6) Once the header is fully tight, position the motor mount back into position and lower the engine enough to start all four 13mm bolts/studs.
- 7) Tighten the four 13mm nuts.
- 8) Fully lower the engine and reinstall and tighten the 15mm nut securing the mount to the frame.
- 9) Reinstall the starter and associated wiring

A NOTE ABOUT THE PRIMARY OXYGEN SENSOR:

It will be necessary to undo the main harness from the engine in order to reach the new location on the header. Be sure to secure the wires so they don't come into contact with the header.

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INSTALLATION PROCEDURE

driver side disassembly

- 1) Disconnect and remove the oxygen sensors (it will be necessary to remove some of them from their clips to accommodate the new header system.)
- 2) Mark steering shaft and the universal joint on the rack for alignment later.
- 3) Loosen and remove the bolt attaching the steering shaft to the steering rack using a size T40 torx bit socket.
- 4) Slide the shaft into the column and then out of the way.
- 5) Remove 15mm nut attaching the motor mount to frame (this is easily done from the top of the engine.)
- 6) Position a floor jack and a block of wood on the flat area of the engine block just forward of the transmission.
- 7) Jack the engine up just enough to separate the mount from the frame.
- 8) Remove the four 13mm bolts/ studs attaching the mount to the engine.
- 9) Raise the engine up approximately 2 inches. At this point, you should make sure that the engine is not contacting the strut tower brace or anything on the passenger side
- 10) Remove the mount.
- 11) Loosen and remove all exhaust manifold nuts and remove the manifold/catalytic converter as well as the connector pipe (retain nuts, gaskets and factory Torca clamps for reuse.)

driver's side side assembly

- 1) Ensure that the cylinder head is free of all carbon and debris.
- 2) Remove the top, rear exhaust manifold stud using a Torx size E8 external socket.
- 3) Thread the supplied 10mm x 1.25 x 25mm bolt part way in the hole you removed the stud from and with the engine still raised, slip the header into position.

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INSTALLATION PROCEDURE

driver's side side assembly

- 4) You will have to slide the header into position under the bolt and then on the studs.
 - 5) You may find it easiest to remove some of the studs.
 - 6) You will have to lower or raise the engine a slight amount to seat the header to the head.
 - 7) **Start all nuts while the header is loose.**
 - 8) Tighten the header nuts starting with the inside out in a staggered pattern (top to bottom). It will take a combination of sockets, extensions, universal and wrenches to complete this. Some nuts are easiest to access from the top with a wrench. You may have to reinstall the mount and lower the engine to do this.
 - 9) Once the header is fully tight, position the motor mount back into position and lower the engine enough to start all four 13mm bolts/studs.
 - 10) Tighten the four 13mm nuts.
 - 11) Fully lower the engine and reinstall and tighten the 15mm nut securing the mount to the frame.
 - 12) Reinstall the steering shaft in the reverse order you disassembled it.
 - 13) Reinstall both front O2 sensors (Remember that you will need to separate the harnesses to accommodate the new header system.)
 - 14) Slide the exhaust system as far back towards the rear of the car as it will go. Slide the factory Torca clamps back as far as they will go.
 - 15) Carefully slide the supplied coupler clamps onto the outlets of the headers but do not tighten.
 - 16) Work both connectors into place and slide the factory clamps over the connectors but do not tighten.
 - 17) Locate the two unused studs coming off the floor inside of the transmission tunnel.
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INSTALLATION PROCEDURE

- 18)** Loosely mount the supplied brackets two the studs with the 8mm nuts provided.
- 19)** Assemble the grommets and hardware as seen in Figure A.
But leave loose at this time.
- 20)** Once all the components are in place and you are satisfied with positioning, you may tighten all the hardware.
- 21)** Check all electrical connections and make sure that you have ample clearance around them.
- 22)** Reconnect the battery and replace the engine cover.
- 23)** Start the engine and check for leaks.

Figure A

