

2004-10 FORD F150 / F250 / F350, 2006-10 EXPEDITION  
5.4L, 2WD/4WD



## 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.

The C.A.R.B. Executive Order ("E.O.") number for this part number is **D-540-3**. Currently the approval includes 2004-07 model years only, but we are working to revise the approval to include all model years for this product. The E.O. number is clearly stated on a metal tag welded to the driver side header for smog technicians to locate as needed.

REV. A  
08-50-4

## THY-221-SS-C

### STAINLESS SHORTIE HEADERS

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#### PARTS INCLUDED

Ref.	Part Number	Description	Qty
1)	00-901-02850	Driver Side Header Assembly	1
2)	00-901-02851	Passenger Side Header Assembly	1
3)	01-5308125025-27	Hex Flange Head Bolt, M8-1.25X25mm	16
4)	01-4605-27	Star Lock Washer, 8mm	16
5)	01-5310125050-27	Hex Flange Head Bolt, M10-1.25X50mm	4
6)	01-7410125-27	Hex Flange Nut, M10-1.25	4

#### 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

- 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

#### **DRIVER SIDE OE MANIFOLD REMOVAL**

- 1) Disconnect the negative battery terminal.
- 2) Raise the vehicle at least 24 inches and support it with jack stands or other suitable supports.
- 3) Starting on the driver side, remove the air intake tube and air box.
- 4) Unscrew the O2 from the connector pipe and unplug the O2 from the top and remove the O2 sensor.

*NOTE: Use caution when removing the O2, unplug first, twisting the wires could damage the O2 sensor.*

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**INSTALLATION PROCEDURE**

- 5) Disconnect both of the connector pipes from the stock manifolds. Slide the Driver side connector pipe out towards the front of the truck and the Passenger side should be moved back as far as possible.
- 6) Remove the engine oil dipstick tube.
- 7) Undo the nuts and remove the manifold. Then remove the factory studs using 5mm socket. Save the factory header gaskets as they will be reused with the new headers
- 8) Clean all traces of carbon from cylinder head & header gasket if necessary.

**DRIVER SIDE HEADER INSTALLATION**

- 1) Install the factory gasket on the back two ports with two supplied bolts on top leaving enough room for the flange to slide under the bolt head.
- 2) Place the header on the block, then install the other factory gasket in the front. Install the rest of the supplied hardware. Then tighten down the header starting in the middle and work your way outward.
- 3) Reinstall the engine oil dipstick tube.

**PASSENGER SIDE OE MANIFOLD REMOVAL**

- 1) Remove the starter.
- 2) Remove the passenger side inner fender well.  
*NOTE: It maybe necessary to remove the passenger side wheel. Be careful not to damage the ABS wire.*
- 3) Starting on the driver side, remove the air intake tube and air box.
- 4) Unscrew the O2 from the connector pipe and unplug the O2 from the top and remove the O2 sensor.  
*NOTE: Use caution when removing the O2, unplug first, twisting the wires could damage the O2 sensor.*
- 5) With the motor safely supported, undo the motor mount nuts and remove the motor mount plate.
- 6) Carefully jack up the side of the motor approximately 2" from a safe location.

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### INSTALLATION PROCEDURE

- 7) Remove all studs and nuts from the cylinder head. Then remove the manifold from the inner fender well.
- 8) Remove the heat shield assembly from the upper control arm mount.

### PASSENGER SIDE HEADER INSTALLATION

- 1) Install the front of new header through the fender well then the back of the header. Let the header rest in the engine compartment.
- 2) Install the factory gasket keeping it in place with a bolt mounted in the top hole third from the front of the truck. Leave room for the header flange to slide under the bolt head.
- 3) Install the rest of the supplied 8mm hardware. Tighten down starting in the middle and working your way outward.
- 4) Safely and slowly lower the motor back down and reassemble the motor mount and plate.
- 5) Reinstall the factory connector pipes using the supplied 10mm bolts and hardware.
- 6) Reinstall all the O2 sensors back into the connector pipes and plug back in at the motor.
- 7) Reinstall the starter.
- 8) Reinstall the air intake tube and air box.
- 9) Double check all work, check all bolts to make sure everything is tightened and no wires are resting on the header.
- 10) Reconnect battery and start the engine. After engine is started check for leaks.
  - a) Retighten the header bolts to 35 ft/lbs after approximately twenty minutes operation.  
*NOTE: Remember the engine will be hot at this time. Protect yourself accordingly.*
  - b) Check and retighten the header bolts to 35 ft/lbs after the first month of operation.
  - c) Follow the "Relearning Process" as described in your Owner's Manual.
- 11) If there are no leaks, reinstall the inner fender well securing the ABS wire appropriately. Reinstall wheel if it was removed.