



M-9430-F543

2003-05 F150 and 2005 F250 5.4L 3V SS Shorty Headers INSTALLATION INSTRUCTIONS

NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR AGREEMENT AND WRITTEN PERMISSION OF FORD RACING PERFORMANCE PARTS.

Please visit www.fordracingparts.com for the most current instruction information

**!!! PLEASE READ ALL OF THE FOLLOWING INSTRUCTIONS CAREFULLY PRIOR TO INSTALLATION.
AT ANY TIME YOU DO NOT UNDERSTAND THE INSTRUCTIONS, PLEASE CALL THE FORD RACING TECHLINE AT
1-800-367-3788 !!!**

OVERVIEW:

This kit is designed for the use in 2003-05 F150s and 2005 F250s with 5.4L 3V engines. The use of a floor hoist is recommended. If you do not have access to one, use a hydraulic floor jack and jack stands to raise the vehicle.

**!!! CAUTION: JACK STANDS MUST BE USED ON A LEVEL SURFACE AND BE SECURELY SEATED. FAILURE TO
DO SO MAY RESULT IN PERSONAL INJURY OR VEHICLE DAMAGE !!!**

!!! CHECK HEADER KIT CONTENTS BEFORE STARTING WORK ON THE VEHICLE !!!

PARTS INCLUDED IN KIT:

- (16) M8 x 20mm header bolts
- (4) M10 x 1.5 x 65mm exhaust studs
- (4) M10 x 1.5 stud nuts
- (1) 1/2" P-clamp
- (1) **10 – 16 self-tapping screw
- (1) *6" long piece of thermal insulation with adhesive
- (1) Left header
- (1) Right header
- (2) Port gaskets
- (1) Instruction Sheet

INSTALLATION INSTRUCTIONS:

!!! PERFORM THE FOLLOWING WORK ON A COLD VEHICLE ONLY !!!

- STEP 1:** Disconnect negative battery cable.
- STEP 2:** Loosen and slide back exhaust clamp (Y-pipe-to-exhaust pipe).
- STEP 3:** Disconnect and remove CMS sensors located on catalytic converter (1 per side).
- STEP 4:** Remove exhaust manifold-to-Y-pipe nuts (2 per side).
- STEP 5:** Remove bolts at Y-pipe hanger-to-transmission cross member (2).

Factory Ford shop manuals are available from Helm Publications, 1-800-782-4356



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- STEP 6:** Support transmission.
- STEP 7:** Remove nuts from transmission mount (2).
- STEP 8:** Remove catalytic converter heat shield bolts from transmission cross member (1 per side).
- STEP 9:** Remove nuts and thru bolts from transmission cross member (2 per side).
- STEP 10:** Remove transmission cross member.
- STEP 11:** Partially lower Y-pipe, disconnect HEGO sensors (1 per side).
- STEP 12:** Remove Y-pipe.
- STEP 13:** Remove oil dipstick tube (1 fastener on cylinder head).
- STEP 14:** Remove driver's side lower exhaust manifold nuts and studs (4 per side), accessible from underneath.
- STEP 15:** Remove driver's side upper exhaust manifold nuts and studs (4 per side), accessible from top and thru inner fender.
- STEP 16:** Remove driver's side exhaust manifold (removable from underneath).
- NOTE:** On vehicles with automatic transmissions, locate shift cable on driver's side. Cover shift cable with supplied insulation* in area of exhaust header. Lift cable as high as possible without causing shift cable to bind. Secure cable to cab with supplied clip and self-tapping screw**.
- STEP 17:** Remove starter motor and wiring.
- STEP 18:** Remove passenger side motor mount nuts (2).
- STEP 19:** Lift passenger side of engine approximately 1.50".
- STEP 20:** Remove passenger side lower exhaust manifold nuts and studs (4 per side), accessible from underneath.
- STEP 21:** Remove passenger side upper exhaust manifold nuts and studs (4 per side), accessible from top and thru inner fender.
- STEP 22:** Remove passenger side exhaust manifold (removable from underneath).
- STEP 23:** Install Y-pipe-to-header studs (2 per side).
- STEP 24:** Install driver's side header and gasket.

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- STEP 25:** Torque header bolts to 25NM +/- 3.8NM (8 per side).
- STEP 26:** Install oil dipstick tube.
- STEP 27:** Torque oil dipstick tube bolt to 9NM +/- 1.4NM.
- STEP 28:** Lower passenger side of engine.
- STEP 29:** Install motor mount nuts (2).
- STEP 30:** Torque motor mount nuts to 103NM.
- STEP 31:** Install passenger side header and gasket.
- STEP 32:** Torque header bolts to 25NM +/- 3.8NM (8 per side).
- STEP 33:** Install starter motor and wiring.
- STEP 34:** Torque starter motor bolts to 25NM.
- STEP 35:** Install Y-pipe.
- STEP 36:** Torque Y-pipe nuts to 40NM +/- 6NM (2 per side).
- STEP 37:** Install CMS sensors (1 per side).
- STEP 38:** Torque CMS sensors to 47.5NM +/- 7.2NM.
- STEP 39:** Install Y-pipe-to-exhaust pipe clamp.
- STEP 40:** Torque clamp fasteners to 47.5NM +/- 7.2NM.
- STEP 41:** Install transmission cross member.
- STEP 42:** Install transmission cross member thru bolts and nuts.
- STEP 43:** Torque transmission cross member nuts to 90NM.
- STEP 44:** Install transmission mount nuts (2).
- STEP 45:** Torque transmission mount nuts to 103NM.
- STEP 46:** Connect battery cable.

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