

SHORTY SMOG HEADERS 2004-08 Ford F-150 Trucks V8-5.4L (2 & 4 WD) P/N 91673FLT (Black Paint) & 91673-1FLT (Ceramic Coated) C.A.R.B. EXEMPTION # D-115-19



NOTE: Read all instructions carefully before attempting the installation.

Thank you for making FLOWTECH HEADERS your choice in a high-performance exhaust system. Extensive testing has enabled FLOWTECH to offer the most advanced design in headers for your application. Due to the restricted room available in the engine compartment, your headers may be close to some body and chassis components. This condition is normal. The installation will take approximately 6-8 hours and requires the motor to be lifted to install the headers. However, the additional horsepower and improved performance will more than justify your efforts. Proper installation and maintenance will ensure long life and maximum performance from your FLOWTECH exhaust system.

BEFORE STARTING:

Your vehicle must be raised a minimum of 36 inches. A floor hoist is ideal. If no hoist is available we strongly urge the use of axle stands as a safety measure. This installation has a high degree of difficulty. We recommend professional installation of these headers.

<u>CAUTION!</u> Your truck should not be supported on a bumper jack prior to installing headers. Take the time to make a careful and complete header fitting into your vehicle properly.

- Place the vehicle in an adequately lit location where the floor is solid and flat. DO NOT work on a hot engine. Heat causes
 metal to expand and makes the removal of fasteners more difficult. Disconnect the battery cables from the battery to
 prevent electrical damage. Raise the front end for access to the exhaust manifold flanges. DO NOT DEPEND ON A JACK!
 Use iack stands and block the tires to safely support the vehicle.
- 2. Spray WD-40 or equivalent on all accessible fasteners, exhaust hangers and fittings before removing them.
- 3. From underneath the truck, unbolt the exhaust system and remove the factory Y-pipe to give you adequate clearance.
- 4. Remove inner fenderwells and heat shields.
- 5. Remove engine oil dip stick, collector nuts, heatshields and manifold bolts.
- 6. Starting with the driver's side, remove the driver's side manifold through the wheel wells.
- 7. Using a gasket scraper, remove all carbon deposits and high spots from the head surface. Apply a high temperature sealer to the exhaust pipe flare, to avoid problems due to the lack of space later in the installation.

- 8. While holding the header in place, slide the supplied gasket between the motor and the header. Start the bolts (most restricted first) and washers on the center holes before pressing the header to the head. Tighten the nuts and bolts to the factory specifications in an alternating pattern.
- 9. On the passenger's side, remove the inner fenderwell and unbolt the starter. Remove the motor mount nut and raise the engine up 1-2" to give you room to work.
- 10. Remove the nuts and studs attaching the factory exhaust manifold and remove the manifold.
- 11. Like the driver's side, use a gasket scraper to remove all carbon deposits and high spots from the head surface. Apply a thin coat of high temperature sealer to the exhaust pipe flare, to avoid problems due to the lack of space later in the installation.
- 12. Install the header from the bottom and tighten the supplied nuts and bolts to the factory specifications. Do not twist the header in as it will make the installation more difficult.
- 13. Install the starter and then install the motor mounts. Lower motor and tighten all hardware. Make sure that all bolts are tightened correctly as you don't want to have leaks after installation is complete.

NOTE: Due to the material and design on the factory Y-pipe, distortion from its original shape is common. This is caused by repeated heating and cooling of the assembly. This works as a stress-relieving process. This may cause the Y-pipe to not line up perfectly with the header collector. To make this easier, connect the least restricted side first and then force the Y-pipe into place.

- 14. Reconnect the exhaust system to the header using the hardware provided.
- 15. Make sure there is adequate clearance on plug wires, battery cables, wire looms, brake lines, coolant lines, etc.
- 16. Reconnect the battery cables, rechecking everything in the process.
- 17. Start the engine and let it warm up. Check for leaks. Shut engine off and let it cool down. Check to make sure all connections are tight.
- 18. When finished with the installation, give your vehicle a test drive checking carefully for any new noises. After several days of driving, re-tighten all the bolts.