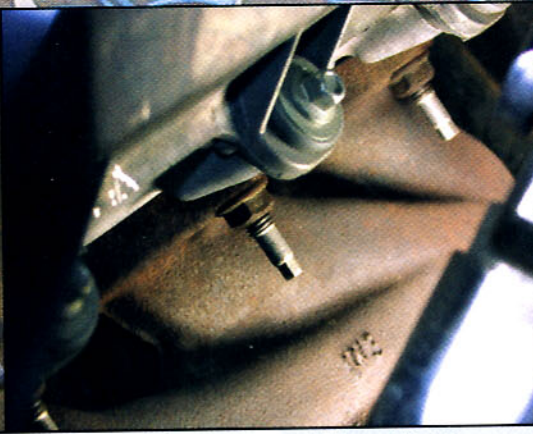




1 A pair of shorty headers are a popular upgrade with today's late-model, computer controlled engines. These ceramic coated headers are from Gibson Performance. We installed them and the company's cat-back exhaust onto this F-150.



2 The factory exhaust manifolds work fine, but the airflow can be improved by replacing them with headers. The method to do so is to unbolt and remove the studs.



3 Gibson's R&D technician Shawn Seidelman, began the F-150 installation by unbolting the factory Y-pipe from the manifolds.



4 Meticulously, each bolt and stud had to be removed from the engine's cylinder head.



5 Seidelman, had to remove the truck's 4wd input shaft to remove the driver's side manifold from the vehicle.



6 With the studs removed, the cylinder head is exposed and the area needed to be cleaned before bolting on a new Gibson gasket and the header.



7 Removing the passenger side manifold was a bit more difficult. Seidelman had to move the starter aside and lift the engine a couple of inches before gaining enough room to remove the manifold.



8 Here's a comparison between the factory exhaust manifold and the Gibson ceramic coated header. The header uses thick flanges and bolts directly to the factory Y-pipe without any modifications.



9 With enough space between the engine and the frame, the Gibson header is maneuvered into the passenger side position.



10 Once the passenger side header is in place, Seidelman reinstalled the starter motor, which was removed to make additional room.

11 It's a tight fit, but the headers bolt onto the factory cylinder heads with the supplied gasket and hardware.

12 Once the headers are secured, the factory Y-pipe is bolted to the header flange.

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13 In addition to replacing the exhaust manifolds, we also wanted to replace the restrictive factory exhaust system.



14 The entire system is clamped together and Seidelman simply unbolted the clamps so that the exhaust could be removed.



15 Unhooking the muffler and tubing from the exhaust hangers allowed Seidelman to remove it.



16 One problem we faced in trying to reconnect the factory Y-pipe was that there wasn't enough room to maneuver it. Seidelman had to temporarily remove the transmission transfer case shield.



17 With the transfer case shield out of the way, it was easier for Seidelman to maneuver the Y-pipe to fit together and fit the Gibson system onto the end.



18 The head pipe is slipped into the rear of the Y-pipe that exits out from the catalytic converters.



19 Seidelman marks two inches on each pipe to ensure that it slips up to that point. This allows the system to fit together properly.



20 The muffer is slipped onto the head pipe up to the two-inch mark and the rest of the system is assembled in the same manner.



21 The rear tailpipe section is slipped into the muffer and the system is checked to make sure it all fits together.



22 Gibson's exhaust systems can be clamped together but Seidelman recommends to at least add a tack weld to ensure it stays that way due to vibration.

23 The remaining piece of the tailpipe was installed, along with a polished, stainless steel tip. Once this was done, the truck went on the dyno and it gained an additional 13 horsepower and 21.6 lbs.-ft. of torque.



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