

Mustang 5.0 Conversion

part 3 (fuel & exhaust)

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Moving on to the fuel delivery system, all of the original Mustang parts were used to save money. I found a tank with pump and filter out of a newer Bronco but it must have been gold plated under all of the rust because the guy at my least favorite junkyard (emphasis on junk) wanted a fortune for it. I extended the mounting bracket for the Mustang fuel pump, which fit into the gas gauge and fuel pickup port of the original Bronco tank. The fuel filter mounting bracket was bolted to the body in a location that allowed all of the Mustang lines and connectors to be used (photo 1).



with vacuum quick connects. There are a total of four solenoids and a vacuum reservoir that control the exhaust gas recycle valve (EGR), vapor recovery canister purge, manifold air injection, and catalytic con-

verter air injection. I mounted these components on the firewall to keep all of these connectors and lines intact (photo 3).

A few small projects were left in the engine compartment. The electric fan was



The rubber tubing that connected sections of the original fuel line was replaced with high-pressure fuel line and clamps. I used the Bronco fuel line as the return line and installed a new 3/8 steel line for the supply line.

This fuel system operates at about 70 PSI meaning that a leak could spray a lot of high-pressure fuel in places other than into the intake manifold with catastrophic results. Much care and attention should be given to the routing, materials, and fittings used in the system. The inertia switch from the Mustang was mounted in engine compartment as shown in photo 2. It stops the fuel pump in case of a collision. Not only a good idea, it's the law.

The emissions control solenoid valves were modularized and mounted on a bracket



mounted in the Bronco fan shroud by cutting a spacer ring out of plywood and screwing and gluing it in place. A bracket to mount the air cleaner was fabricated by welding some tabs to a piece of tubing. It bolted up next to the radiator and protruded back to support the air box.

EXHAUST SYSTEM

The final step was the exhaust system (photo 4). I didn't even consider dual exhaust. The front drive shaft, transfer case, and protection of the fuel lines would require some real compromises with ground clearance. The Bronco had a very nice thermally insulated channel that allowed the new exhaust system to be tucked tight to the body.

The system was built around a



4

Magnaflow 3 inch catalytic converter and muffler. 2 1/2 inch tubing was used from the headers to the Y-pipe. The second stage air injection was plumbed into the port on the catalytic converter to keep the emissions system intact and ODB compliant.

Only one problem occurred on the first test drive. There was an excessive amount of backlash and noise in the rear differential. Turned out that the side gears were shot. I installed a Trac-Loc system with new bearings, seals, and brakes. Problem solved.

I have put about 2000 trouble free miles on the Bronco since the retrofit and it has been a pleasure to drive. It starts and runs beautifully and doesn't care if it's at 5000 feet or 12000 feet. Gearing of the ZF transmission, NP 208 transfer case, differentials, and tire size worked out perfectly in my opinion. Drivability is superb around town and on the highway. Seventy-five MPH is an effortless 2400 RPMS with highway mileage at about 17 MPG. I'm getting about 14 MPG around town and in the hills. Low range works great for rough off road 4 wheeling were first gear is a very low walking speed at 2000 RPMS and fifth gear is good for about 25 MPH.

I spent about \$3000 on the entire project. That included the Trac-Loc system and new brakes all the way around. I hope to get many years of reliable service out of the Bronco. As a side note, I think the Mustang engine would be awesome in a Classic Bronco. That may be my next project. 🚗



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