

Installation Instructions for 3" Mandrel Bent S.S. Single Rear Muffler Exhaust  
By Applied GMC

To work on the manifold lift the front end off the ground with a jack stand and remove the inside fender panel.

Several small screws hold the panel in place at the wheel opening.

1. Remove the muffler and tailpipe all the way.
2. Remove the manifolds and clean the head surface. Make sure no gasket material or carbon build up is on the surface. Also make sure the bolts are clean.
3. Install the Thorley headers using the instructions provided by them in the box. Please note the following:
  - 3.1. In order to install the left header you must remove 9/16ths headed 3/8ths bolt that holds the transmission oil dipstick in place, the dipstick can be disconnected in the center at the union. Pull the top part up and out of the way. Be careful not to bend it to much and do not try to remove the oil dipstick tube. The header flange must go over and between the tube and head surface.
  - 3.2. Start all bolts using star washers & silicone cement or Loctite 271 on threads to keep them tight. Use 65lbs. of torque to tighten the end and re-tighten once, instead of the specifications provided by Thorley.
  - 3.3. Installing the right side is easy. On a 403 engine, you must use a 45 degree angle fitting, provided in the kit, on the oil cooler lines. Check your oil cooler lines, if they are brittle or old they should be replaced. You should be able to find the lines at a parts store or hydraulic shop for \$50-\$75.00
4. To install the pipes begin by placing all 6 header collector bolts in place loosely. Slip the 2.5" pipes over the header adapters, do this for each one. Once they are in place take the 2.5" clamps and loosely clamp over the connections.
5. Now slip the "y" pipe adapter into the 2.5" pipes. Make sure the "y" pipe is inline with the hole in the frame.
6. Now that the "y" pipe and 2.5" pipes are in place, go back and tighten the 6 header collector bolts and the 2.5" clamps at the pipes coming from the headers. Install the 2.5" clamps onto the 2.5" pipe & "y" adapter connections and tighten.
7. Place the 3" elbow in to the frame.
8. Connect the "Y" pipe to the elbow using the small piece of tubing. If the tube is too big, then it can be cut to size. Loosely place a 3" clamp over both sides of the connection.
9. Install the two large sections of tubing by slipping them thru the frame and into the elbow, using the coupler provided between the two pieces. Clamp on loosely at the elbow and both sides of the coupler.
10. To install the muffler slip the inlet end over the long piece of tubing. The muffler may have to be dented slightly, approx. 1/16", to fit into the frame cross member OR the hole in the cross member may be grinded in order to fit the muffler.
11. Now install our 3" tailpipe by slipping the end into the muffler outlet. Use a 3" clamp loosely at the slip fit.
12. Now that everything is in place, go back and check for clearance and tighten all clamps.