

2001 Ford Mustang V6-3.8L VIN 4
Vehicle > Technical Service Bulletins

EXHAUST SYSTEM - LEAKS/NOISE

TSB 04-21-6

11/01/04

EXHAUST LEAK - CRACKED OR SEPARATED RIGHT
SIDE EXHAUST PIPE - 3.8L AND 3.9L ENGINES

FORD:
1999-2004 Mustang

This article supersedes TSB 04-10-03 to update the service procedure.

ISSUE

Some 1999-2004 Mustang LX vehicles, equipped with a 3.8L or 3.9L engine may exhibit an exhaust leak. This may be due to a cracked or fractured right side exhaust pipe, just forward of the first catalytic converter. This crack may be due to condensation dripping onto the pipe.

ACTION

To service, order and install the appropriate Service Kit based on transmission type. The Kit contains a new inlet pipe, condensation shield and exhaust hanger.

SERVICE PROCEDURE

NOTE

ALL WELDS IN THIS REPAIR MUST BE MADE WITH 409 STAINLESS STEEL. OUTSOURCE WELDING AS NEEDED.

1. Open hood and disconnect the battery cable.
2. Raise the vehicle.

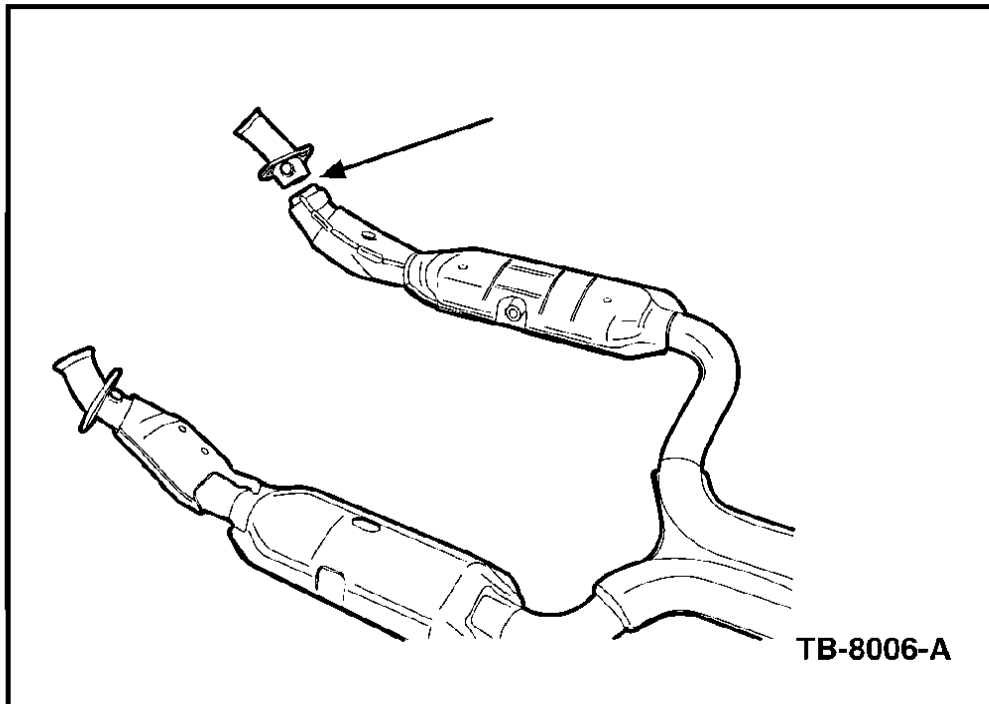


Figure 1

3. Inspect the right side inlet pipe for a crack or separation just forward of the first catalyist (Figure 1).
 - a. If the pipe is cracked, but is still in direct alignment with the rest of the pipe (has not shifted), go to the steps labeled "DIRECT ALIGNMENT".
 - b. If the pipe is misaligned or damaged, go to steps labeled "PIPE MISALIGNED OR DAMAGED".

DIRECT ALIGNMENT

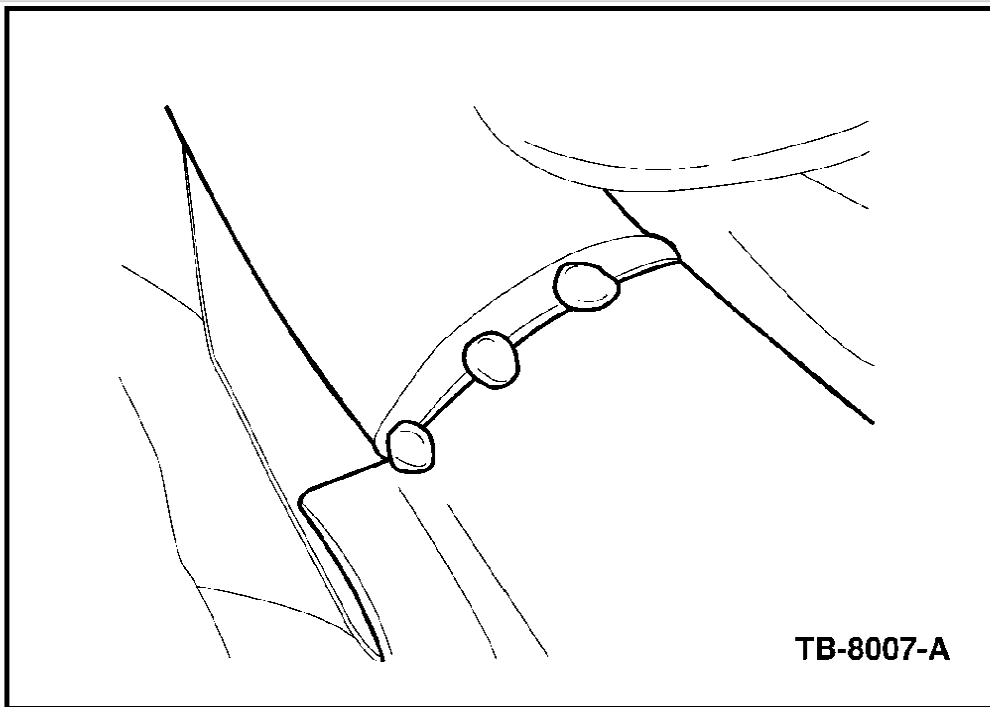


Figure 2

1. Tack weld the inlet pipe to the catalyst in three (3) places (Figure 2).
2. Remove the catalyst assembly from the vehicle, refer to Workshop Manual Section 309-00.
3. Remove the oxygen sensor near the area to be welded.
4. Wire brush the end of the converter to prepare for the weld.
5. Complete the weld with 409 stainless wire material.
6. Proceed to the INSTALLATION OF THE AIR CONDITIONER DRIP SHIELD.

INSTALLATION OF THE AIR CONDITIONER DRIP SHIELD

1. Loosen the bottom of the right front fender splash shield by removing the three (3) lower pushpin fasteners.
2. FOR CONVERTIBLES ONLY; Remove the front attachment for the right side X-brace.

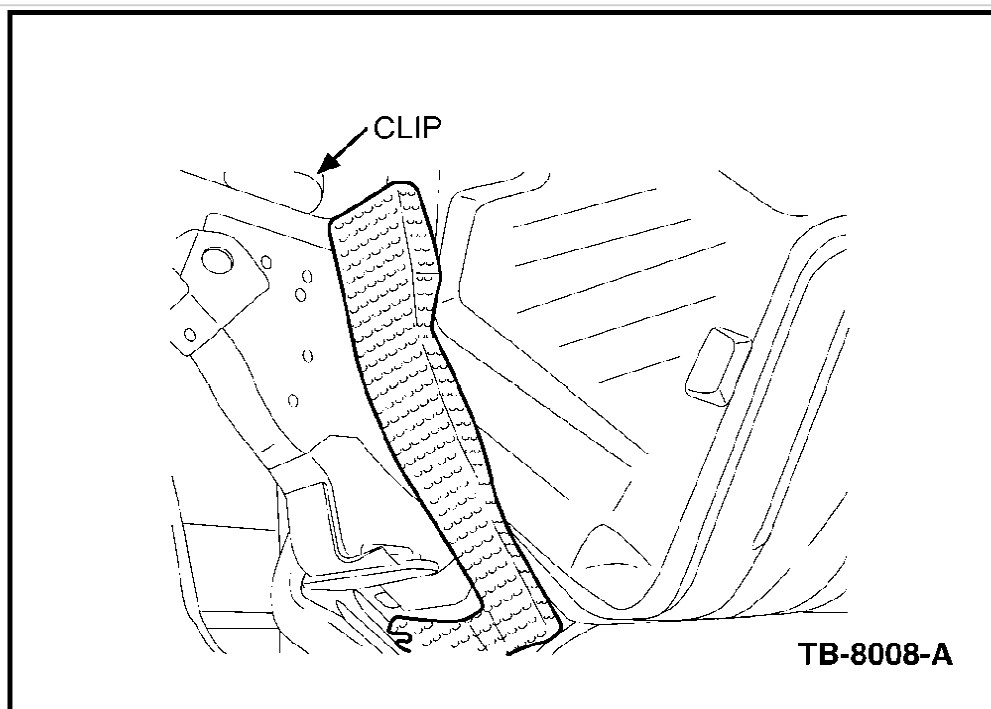


Figure 3

3. Locate the air conditioner condensate discharge tube and install the air conditioner drip shield over it, by installing the clip on the shield over the upper frame rail located just below the air conditioner drier bottle (Figure 3).

NOTE

THE SHIELD MUST LIE AS CLOSE TO THE FLOOR PAN AS POSSIBLE.

4. Lower the vehicle.
5. Push the shield clip down onto the rail.
6. Raise the vehicle.
7. Attach the lower leg of the shield in an existing bolt hole using the bolt provided in the Kit.
8. FOR CONVERTIBLES ONLY; Trap the shield between the X-brace and the cross member. Torque to 25 lb-ft (34 N.m).
9. Reinstall the pushpin fasteners in the fender splash shield.
10. Proceed to the INSTALLATION OF THE CATALYST HANGER.

INSTALLATION OF THE CATALYST HANGER TO THE TRANSMISSION

1. For vehicles equipped with a manual transmission, remove the damper on the tailshaft housing of the transmission. Vehicles with an automatic transmission proceed to Step # 2.
2. Install the catalyst assembly.

3. Support the rear of the assembly with a jack stand.
4. Loosely tighten to the exhaust manifold.

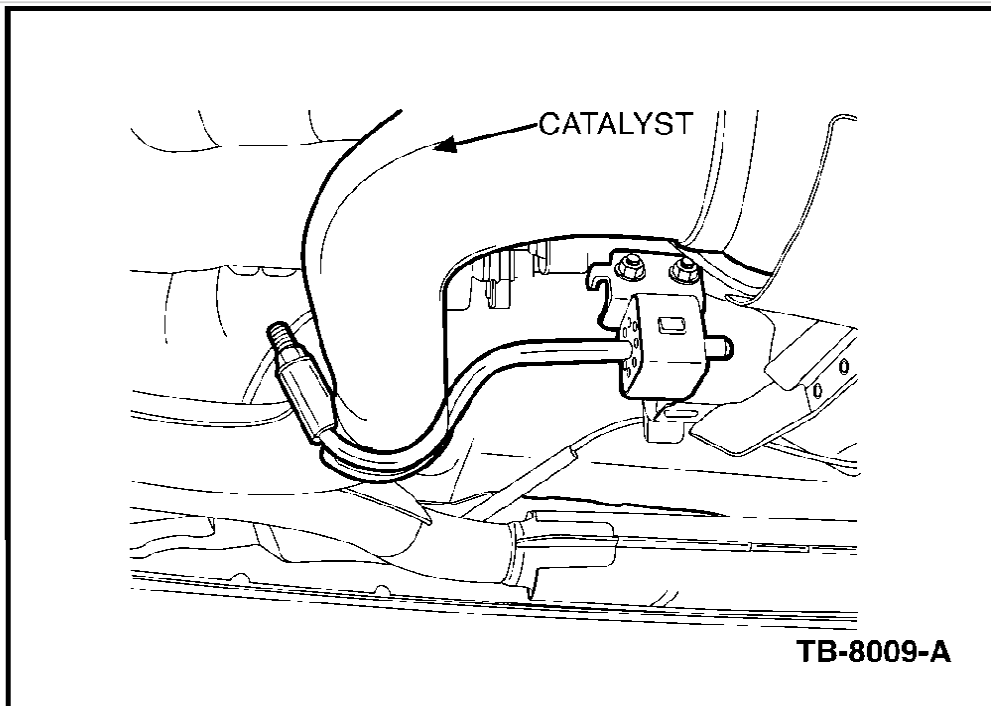


Figure 4

5. Loosely install the hanger rod and U-clamp around the exhaust pipe near the "Y" of the catalyist (Figure 4).
6. Slide the rubber isolator and bracket onto the rod with the bracket nuts facing the passenger side of the vehicle (Figure 4).
7. Adjust the catalyist height and U-clamp so that the rubber isolator bracket will attach to the transmission extension housing (using the rearward holes - Figure 4).
8. Install the two (2) bolts provided in the Kit and tighten to 18 lb-ft (25 N.m).
9. Adjust the jack stand so the hanger rod is in the center of the isolator.
10. Tighten the U-clamp fasteners to 29 lb-ft (40 N.m).
11. Remove the jack stand.
12. Tighten the catalyist to the exhaust manifold fasteners to 30 lb-ft (41 N.m).
13. Attach the muffler inlet pipe and tighten to 26 lb-ft (35 N.m).
14. Check the system for grounding.

15. Lower the vehicle.
16. Reconnect the battery.
17. Start the engine and check for exhaust leaks.

PIPE MISALIGNED OR DAMAGED

NOTE

IF THE INLET PIPE IS NOT IN DIRECT ALIGNMENT OR WAS DAMAGED, INSTALL THE INLET PIPE PROVIDED IN THE KIT.

1. Remove the catalyst assembly from the vehicle, refer to Workshop Manual Section 309-00.
2. The supplied inlet pipe will not fit into the catalyst shell until the small section of the old pipe is removed. To do this, start by placing a small shop rag into the pipe to keep dust and debris from entering into the catalyst.

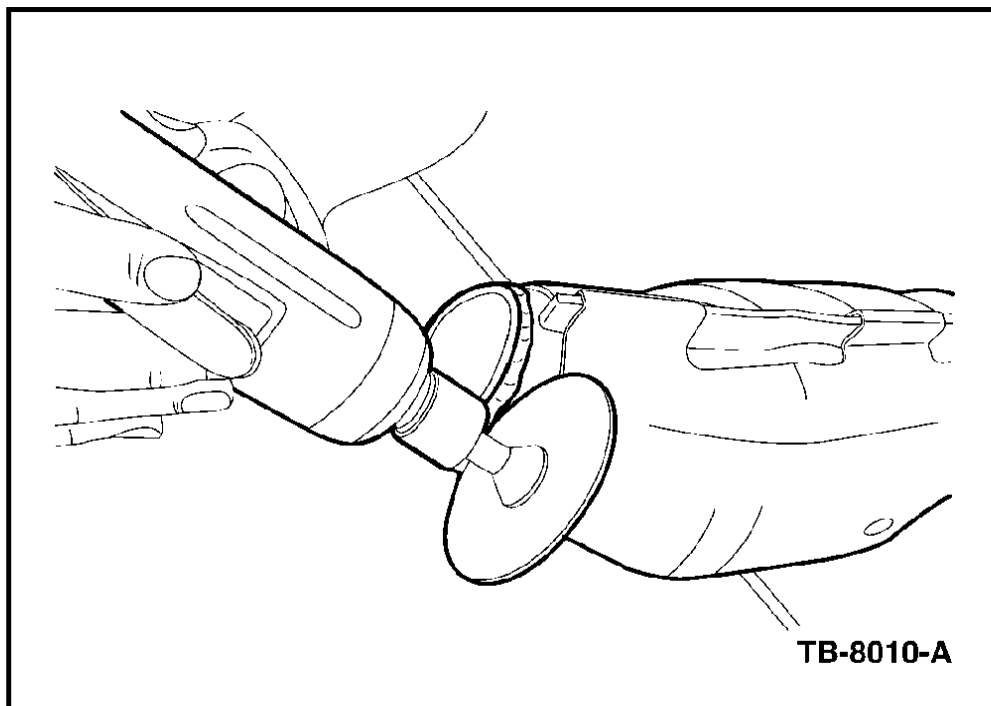


Figure 5

3. Cut around the exhaust tube (on the catalyst side of the weld) using a die grinder (Figure 5).

NOTE

CUT AS CLOSE TO THE WELD AS POSSIBLE. IT MAY BE NECESSARY TO TRIM NO MORE THAN A 1/4 INCH (6.5 MM) FROM THE END OF THE HEAT SHIELD FOR ADDITIONAL CLEARANCE.

4. Grind the edge of the converter to remove the entire factory weld. This will allow the short section of the pipe to

come out.

5. Wire brush the end of the converter to prepare for the weld.
6. Remove the rag and any contaminants from the converter.
7. Reinstall the oxygen sensor into the tube to assist in alignment.

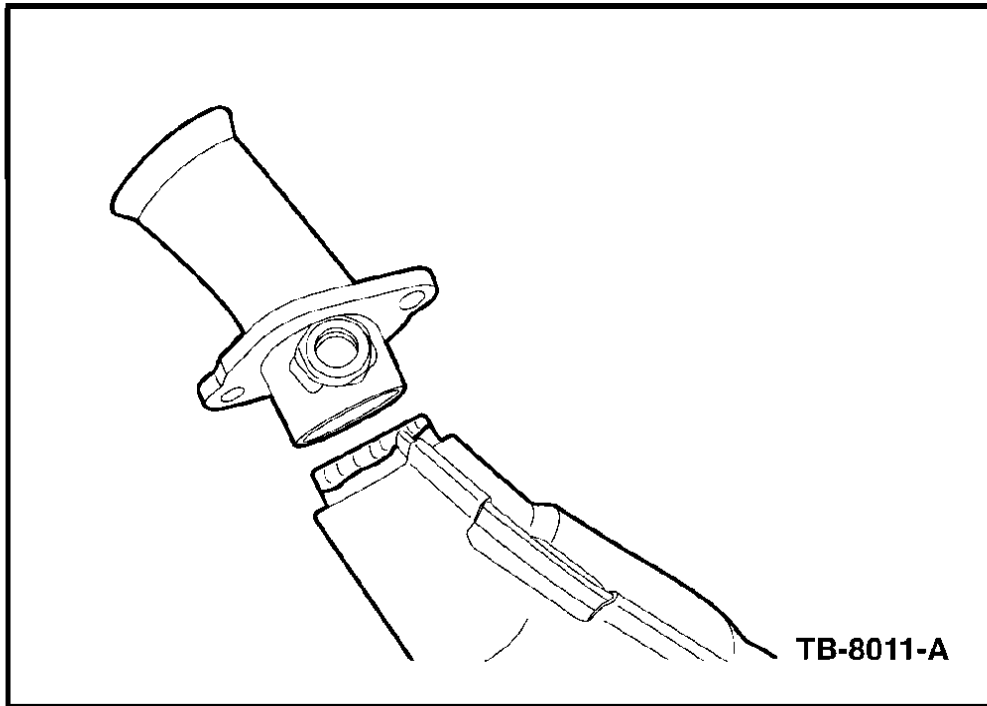


Figure 6

8. Slide the revised inlet tube into the catalyst shell. Turn it so the oxygen sensor aligns with the crimp in the catalyst shell (Figure 6).
9. Install the catalyst assembly onto the vehicle.
10. Use a jack stand to support the rear of the assembly and loosely attach the bolts at the manifold (the correct height of the catalyst at the rear will be set by the new hanger support that is provided in the Kit).
11. For vehicles equipped with manual transmissions, remove the damper on the tailshaft housing of the transmission.

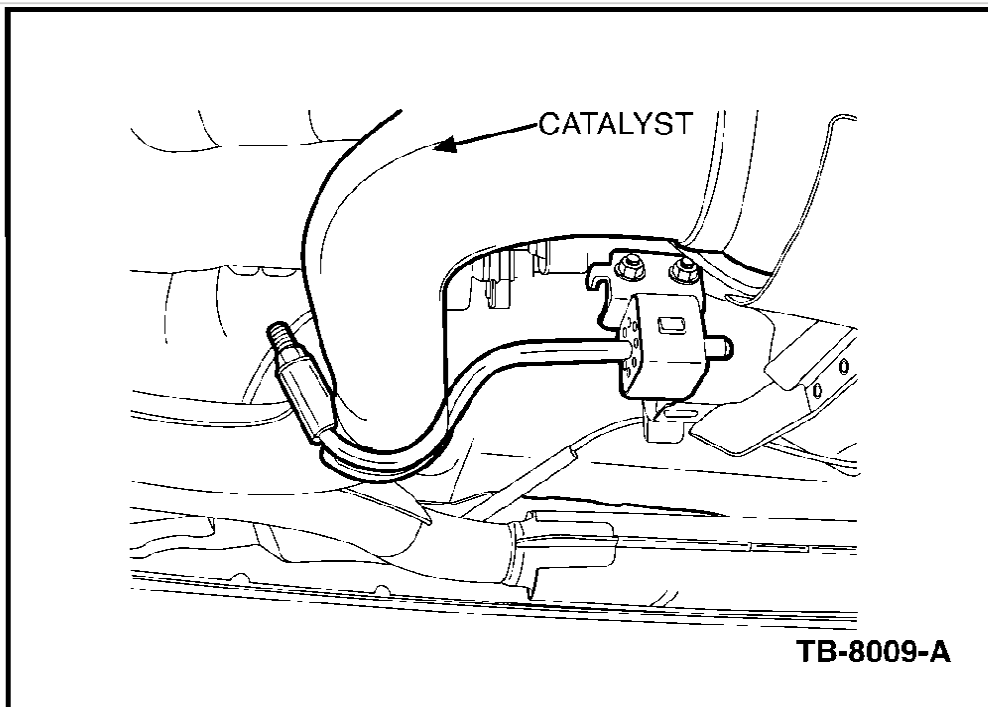


Figure 7

12. Loosely install the hanger rod and U-clamp around the catalyst pipe near the "Y" of the assembly (Figure 7).
13. Slide the rubber isolator and bracket onto the rod with the nuts facing the passenger side of the vehicle.
14. Adjust the catalyst height and U-clamp, so the isolator bracket will attach to the transmission extension housing (use rearward holes).
15. Install the two (2) bolts that are included in the Kit and tighten to 18 lb-ft (25 N.m).
16. Adjust the jack stand, so the hanger rod is in the center of the isolator.
17. Tighten U-clamp to 29 lb-ft (40 N.m).
18. Remove the jack stand.
19. Tighten the catalyst to manifold attaching bolts by alternating each nut to 30 lb-ft (41 N.m).

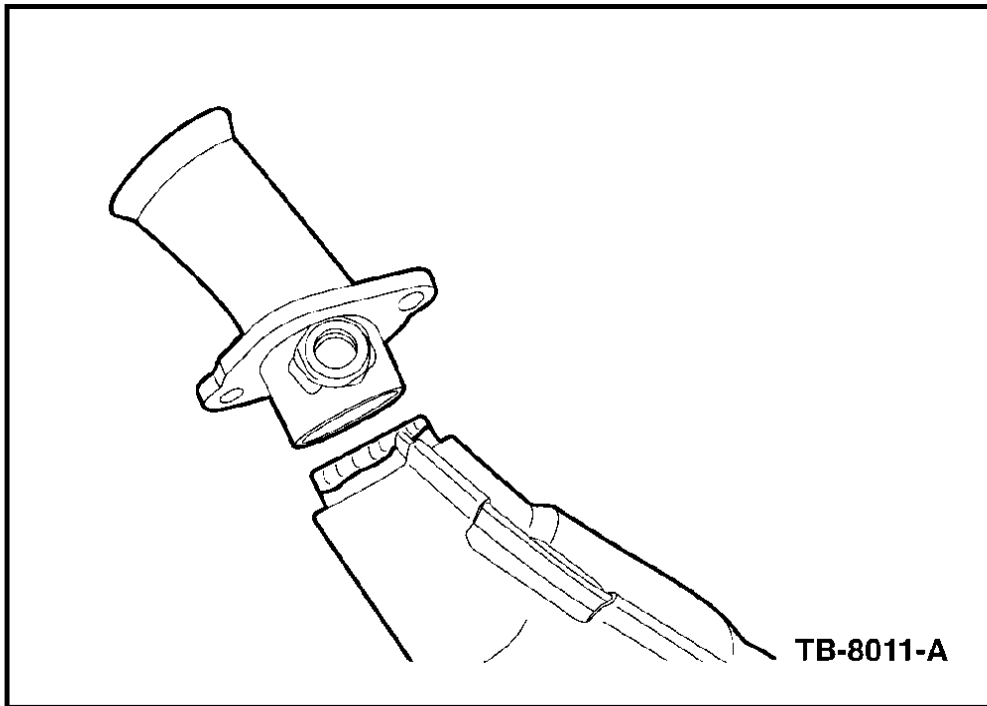


Figure 8

NOTE

MAKE SURE THAT THE OXYGEN SENSOR ALIGNS WITH THE CRIMPED FLANGE ON TOP OF THE CATALYST BEFORE TACK WELDING (FIGURE 8).

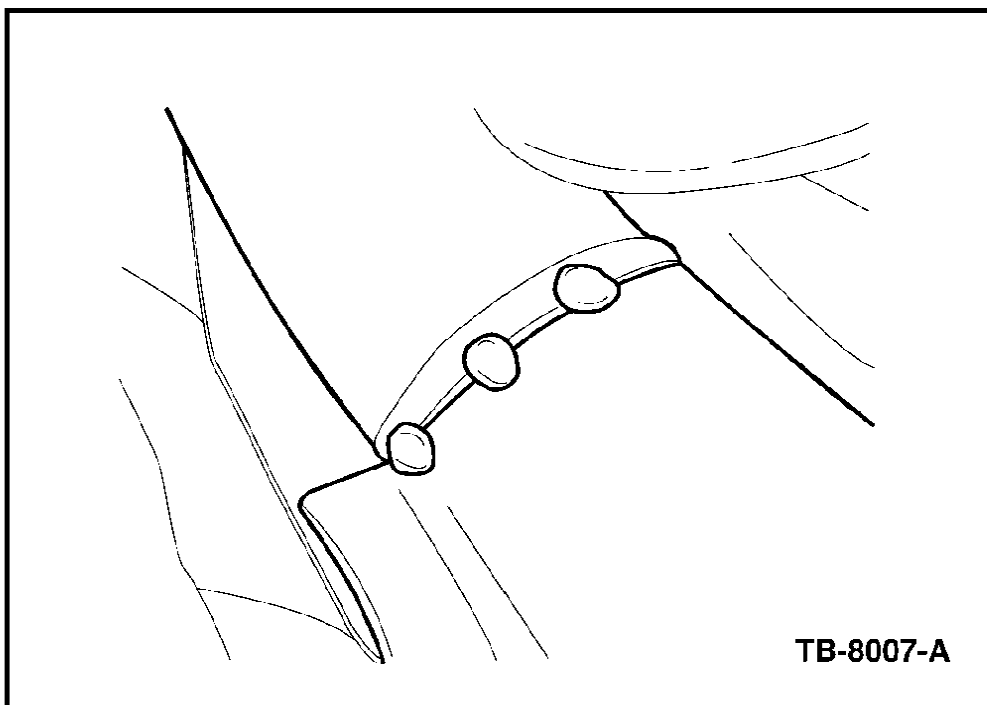


Figure 9

20. Tack weld the revised inlet pipe to the catalyst in three (3) places (Figure 9).
21. Remove the catalyst assembly from the vehicle (refer to Section 309-00 of the Workshop Manual).
22. Remove the oxygen sensor.
23. Complete the weld using stainless wire to assure a lasting weld.
24. Proceed to the INSTALLATION OF THE AIR CONDITIONER DRIP SHIELD.

INSTALLATION OF THE AIR CONDITIONER DRIP SHIELD

1. Loosen the bottom of the right front fender splash shield by removing the three (3) lower pushpin fasteners.
2. FOR CONVERTIBLES ONLY: Remove the front attachment for the right side X-brace.

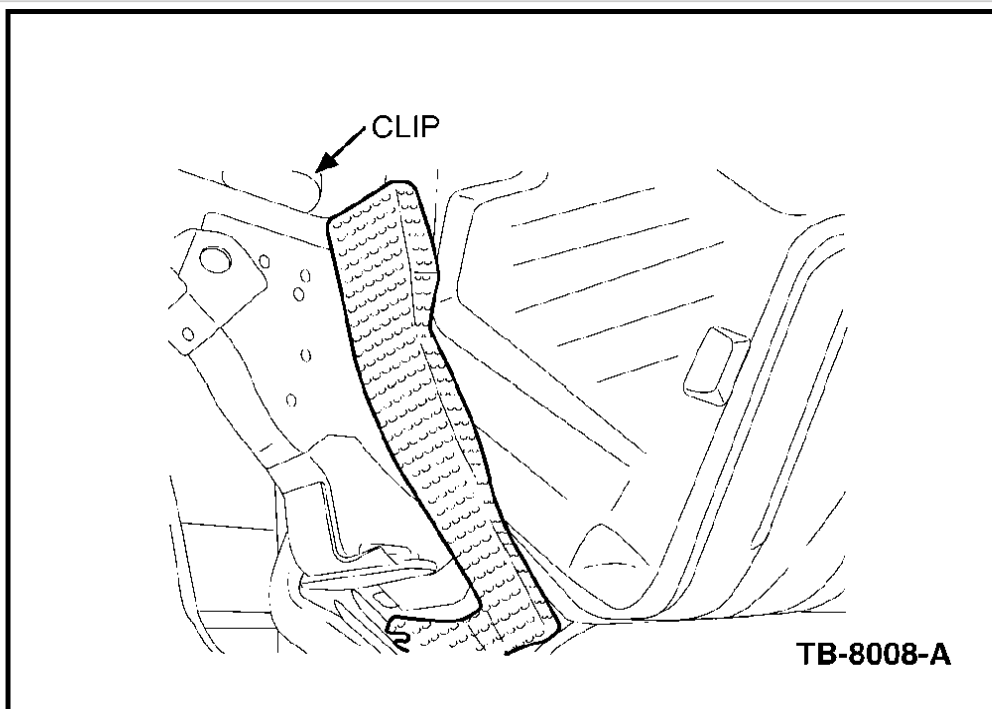


Figure 10

3. Locate the air conditioner condensate discharge tube and install the air conditioner drip shield over it, by installing the clip on the shield over the upper frame rail located just below the air conditioner drier bottle (Figure 10).

| PART NUMBER | PART NAME |
|---------------|--------------------------------------|
| 3R3Z-5H264-MT | Exhaust Kit (Manual Transmission) |
| 3R3Z-5H264-AT | Exhaust Kit (Automatic Transmission) |

NOTE

THE SHIELD MUST LIE AS CLOSE TO THE FLOOR PAN AS POSSIBLE.

4. Lower the vehicle.
5. Push the shield clip down onto the rail.
6. Raise the vehicle.
7. Attach the lower leg of the shield in an existing bolt hole by installing the bolt provided in the Kit.
8. FOR CONVERTIBLES ONLY: Trap the shield between the X-brace and the crossmember. Tighten to 25 lb-ft (34 N.m).
9. Reinstall the pushpin fasteners in the fender splash shield.
10. Proceed to INSTALLATION OF THE CATALYST SYSTEM.

INSTALLATION OF THE CATALYST SYSTEM

1. Install the catalyst system into the vehicle, using the isolator bracket at the transmission.
2. Tighten the catalyst to the exhaust manifold fasteners to 30 lb-ft (41 N.m).
3. Attach the muffler inlet pipe and tighten to 26 lb-ft (35 N.m).
4. Check the system for grounding.
5. Lower the vehicle.
6. Reconnect the battery.
7. Start the engine and check for exhaust leaks.

WARRANTY STATUS: Eligible Under Provisions Of New Vehicle Limited Warranty Coverage And Emissions Warranty Coverage

DEALER CODING

CONDITION BASIC PART NO. CODE 5H264 01

NOTE: The information in Technical Service Bulletins is intended for use by trained, professional technicians with the knowledge, tools, and equipment to do the job properly and safely. It informs these technicians of conditions that may occur on some vehicles, or provides information that could assist in proper vehicle service. The procedures should not be performed by "do-it-yourselfers". Do not assume that a condition described affects your car or truck. Contact a Ford, Lincoln, or Mercury dealership to determine whether the Bulletin applies to your vehicle.

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