

2010 Mercury Mountaineer

2010 ENGINE Exhaust System - Explorer, Explorer Sport Trac & Mountaineer

This pinpoint test is intended to diagnose the following:

- Exhaust system

PINPOINT TEST A: DRUMMING NOISE

A1 CHECK THE EXHAUST SYSTEM

- Start the engine.
- Increase the engine rpm until the noise is the loudest. Note the engine rpm.
- Ignition OFF.
- Add approximately 9 kg (20 lb) of weight to the exhaust system. First place the weight at the tail pipe and test, then at the front pipe.
- Start the engine.
- Increase the engine rpm and listen for the drumming noise. Note the engine rpm if the noise occurs.
- Ignition OFF.
- Determine the amount of vibration that occurs with the drumming noise.
- **Is the noise/vibration reduced or eliminated, or does the noise/vibration occur at a different rpm?**

Yes: REFER to EXHAUST SYSTEM ALIGNMENT. TEST the system for normal operation.

No: CONDUCT a diagnosis on other suspect systems. REFER to NOISE, VIBRATION & HARSHNESS.

GENERAL PROCEDURES

EXHAUST SYSTEM ALIGNMENT

All vehicles

NOTE: Do not use oil or grease-based lubricants on the isolators. These lubricants may cause deterioration of the rubber. This can lead to separation of the isolator from the exhaust hanger bracket during vehicle operation. Use only water-based lubricants on the isolators.

NOTE: Exhaust fasteners are of a prevailing torque design. Use only new fasteners with the same part number as the original. Torque values must be used as specified during reassembly to make sure of correct retention of exhaust components.

NOTE: Always install new gasket and nuts whenever an exhaust joint is loosened.

1. With the vehicle in NEUTRAL, position it on a hoist. For additional information, refer to JACKING & LIFTING.

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- Loosen all fasteners joining the exhaust system components.

NOTE: Do not fully torque the exhaust Y-pipe dual catalytic converter-to-exhaust manifold joint.

- Position the exhaust Y-pipe dual catalytic converter to the exhaust manifold and loosely tighten all nuts to stiffen the joint enough to maintain position.

- Tighten to 8 Nm (71 lb-in) and then add additional torque if needed to stiffen the joint.

NOTE: Make sure that the tab on the muffler assembly is seated inside the notch on the tail pipe before tightening the Torca® clamp.

- Tighten the muffler assembly-to-tail pipe Torca® clamp.

- Tighten to 48 Nm (35 lb-ft).



Fig. 1: Locating Muffler Assembly-To-Tail Pipe Torca® Clamp
Courtesy of FORD MOTOR CO.

- Confirm that the exhaust isolators are at zero load.

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NOTE: The production muffler assembly is a one-piece design. The service muffler assembly is serviced with 2 pieces.

- NOTE:** If the muffler has not been removed from the vehicle, this muffler inlet pipe joint will not be present.

NOTE: If installing a service muffler kit, the coupling will be welded into position on the muffler inlet pipe.

NOTE: The factory muffler inlet pipe will not have an alignment nub.

If equipped, and not welded to the muffler inlet pipe, make sure that the service exhaust coupler is against the alignment nub and is positioned approximately at the 2 o'clock position facing the muffler. If the muffler inlet pipe does not have an alignment nub, center the exhaust coupler over the muffler inlet pipe joint and position it at approximately the 2 o'clock position facing the muffler.

- Tighten to 47 Nm (35 lb-ft).

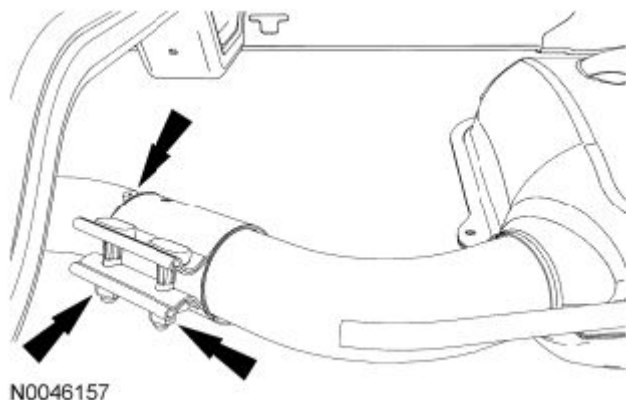


Fig. 2: Locating Muffler Inlet Pipe Joint
Courtesy of FORD MOTOR CO.

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7. **NOTE:** The production muffler assembly is a one-piece design. The service muffler assembly is serviced with 2 pieces.

NOTE: If the muffler has not been removed from the vehicle, this muffler inlet pipe joint will not be present.

NOTE: If installing a service muffler kit, the coupling will be welded into position on the muffler inlet pipe.

NOTE: The factory muffler inlet pipe will not have an alignment nub.

If equipped, and not welded to the muffler inlet pipe, make sure that the service exhaust coupler is against the alignment nub and is positioned approximately at the 2 o'clock position facing the muffler. If the muffler inlet pipe does not have an alignment nub, center the exhaust coupler over the muffler inlet pipe joint and position it at approximately the 2 o'clock position facing the muffler.

- Tighten to 47 Nm (35 lb-ft).

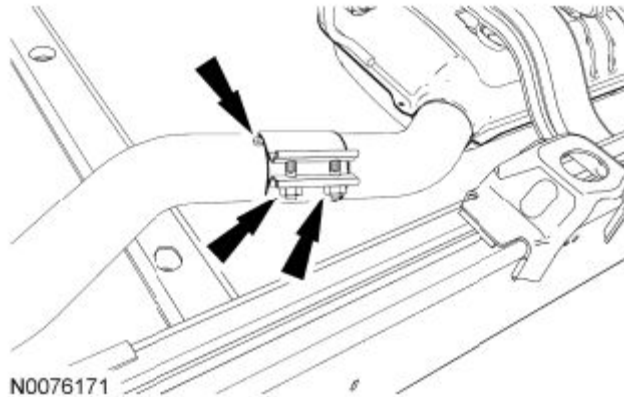


Fig. 3: Locating Muffler Inlet Pipe Joint
Courtesy of FORD MOTOR CO.

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8. Confirm that the exhaust isolators are at zero load.

All vehicles

9. Tighten the exhaust Y-pipe dual catalytic converter-to-muffler assembly bolts.
 - Tighten to 40 Nm (30 lb-ft).
10. Confirm that the exhaust isolators are at zero load.
11. **NOTE: RH shown in illustration, LH similar.**

Tighten the exhaust Y-pipe dual catalytic converter-to-exhaust manifold nuts.

- Tighten to 40 Nm (30 lb-ft).

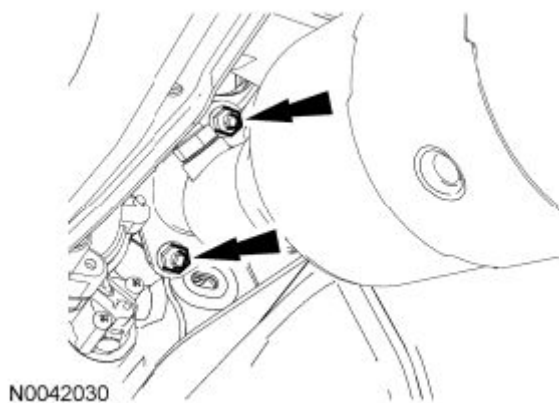


Fig. 4: Locating Exhaust Y-pipe Dual Catalytic Converter-To-Exhaust Manifold Nuts
Courtesy of FORD MOTOR CO.