

• **ENGINE—EXHAUST—TURBO-INDUCED EXHAUST MOAN/DRONE AT 1600-1800 RPM—6.0L BUILT PRIOR TO 9/29/2003**

• **NOISE—VIBRATION—TURBO-INDUCED EXHAUST MOAN/DRONE AT 1600-1800 RPM—6.0L BUILT PRIOR TO 9/29/2003**

**Article No.
04-9-4**

FORD: 2003-2004 EXCURSION, F SUPER DUTY

ISSUE

Some 2003-2004 Super Duty F-Series and Excursion vehicles built before 9/29/2003 with a 6.0L engine may exhibit a turbo-induced exhaust moan/drone between 1600-1800 RPM.

ACTION

To service, neutralize the exhaust system. It may also be necessary to install a revised turbocharger pedestal mounting bracket if it is not already installed. Refer to the following Service Procedure.

SERVICE PROCEDURE

1. Inspect exhaust system, confirm hangers and isolators are properly positioned. Correct any bent or damaged hangers and/or bound up isolators.
2. Loosen turbocharger exhaust down pipe (6N646) at the V-band clamp and connecting flange at the catalyst inlet pipe.
3. Confirm proper turbocharger downpipe alignment to catalyst inlet pipe. With turbo downpipe in a neutralized position retighten turbo downpipe V-band clamp at turbo and connecting flange at catalyst.
4. Re-evaluate for exhaust/turbo moan. If condition is corrected return the vehicle to customer. If not corrected, proceed to step 5.
5. Remove turbocharger and turbocharger pedestal mounting bracket per Workshop Manual Section 303 to verify part number on mounting bracket.

- a. If part number on the bracket is 1846207C1, perform REASSEMBLY OF TURBOCHARGER AND MOUNTING PEDESTAL, AND NEUTRALIZE EXHAUST below before performing final torque procedure of pedestal to block and reinstalling/refastening turbocharger.
- b. If part number on the bracket is not 1846207C1, replace the turbocharger pedestal mounting bracket with service part number 3C3Z-6N639-BA. Perform REASSEMBLY OF TURBOCHARGER AND MOUNTING PEDESTAL, AND NEUTRALIZE EXHAUST below before performing final torque procedure of pedestal to block and reinstalling/refastening turbocharger.

REASSEMBLY OF TURBOCHARGER AND MOUNTING PEDESTAL, AND NEUTRALIZE EXHAUST

NOTE
PROPER ASSEMBLY AND TORQUE SEQUENCE OF THE TURBO LEFT HAND SIDE (LHS) Y-PIPE (6K854) AND RIGHT HAND SIDE (RHS) STRAIGHT-PIPE (6K854) CONNECTIONS, TO TURBO, EGR COOLER, AND EXHAUST MANIFOLDS, IS CRITICAL TO ENSURE THE DURABILITY OF THE EXHAUST PIPE FLEX BELLOWS, AND MINIMIZE TURBO INDUCED EXHAUST MOAN/DRONE NOISE.

NOTE
APPLY HIGH TEMPERATURE NICKEL ANTI-SEIZE LUBRICANT (F6AZ-9L494-AA) TO BOLT THREADS PRIOR TO REASSEMBLY.

1. Loosen the V-band clamp at the EGR cooler.

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. Warranty Policy and Extended Service Plan documentation determine Warranty and/or Extended Service Plan coverage unless stated otherwise in the TSB article. The information in this Technical Service Bulletin (TSB) was current at the time of printing. Ford Motor Company reserves the right to supersede this information with updates. The most recent information is available through Ford Motor Company's on-line technical resources.

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NOTE

DO NOT REMOVE METAL GASKET BETWEEN THE EGR COOLER AND THE UP-PIPE.

- Loosen the M8 bolts at the intermediate flat flanges connecting the exhaust Y-pipe to the RHS exhaust straight pipe.

NOTE

DO NOT REMOVE METAL GASKET BETWEEN THE RHS EXHAUST STRAIGHT PIPE AND Y-PIPE FLANGES.

- Loosen the two M8 bolts securing the RHS straight pipe to the RHS exhaust manifold.
- Loosen the M8 bolts at the LHS Y-pipe to the LHS exhaust manifold.
- Reposition the Y-pipe and straight pipe lower legs from the exhaust manifolds to provide a straight inner and outer pipe alignment through the flex bellows and eliminate any distortion in the bellows.
- Using hand tools snug the flat flange fasteners between the Y-pipe and straight pipe.
- Re-secure with the V-band clamp at the EGR cooler. Final torque to 6 N•m (53 lb-in).

NOTE

BEFORE FINAL TORQUE OF TURBO PEDESTAL FASTENERS, PLACE TURBOCHARGER ONTO MOUNTING PEDESTAL AND CHECK Y-PIPE FLANGE TO TURBO FLANGE MATING ALIGNMENT. IF NOT ALIGNED, REPOSITION TURBO AND PEDESTAL FOR PROPER FLUSH ALIGNMENT TO MATING Y-PIPE FLANGE.

- Final torque pedestal fasteners to 31 N•m (23 lb-ft).
- Complete turbocharger installation, final torque turbo mounting fasteners per Workshop Manual Section 303 instructions.
- Re-secure LHS Y-pipe V-band clamp at the turbo. Final torque to 12 N•m (9 lb-ft).

- Check for good alignment and fit of the lower LHS Y-pipe and RHS straight pipe flanges at the mating exhaust manifold outlets. Secure the LHS Y-pipe and RHS straight pipe to the exhaust manifold outlets using M8 bolts (two (2) per side). Using hand tools snug fasteners evenly to position the pipe flanges square to the pipe and parallel to the exhaust manifold flanges. There should be an equal gap spacing between the pipe flange and exhaust manifold flange at both the top and bottom bolts (Figure 1).

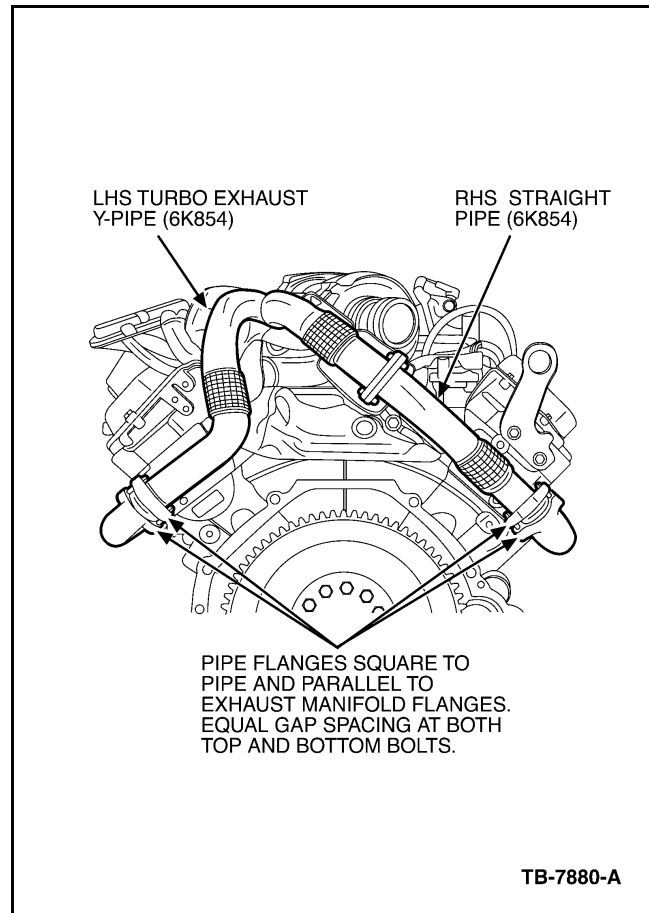


Figure 1 - Article 04-9-4

- Final torque LHS Y-pipe to RHS straight pipe flat flange fasteners to 27 N•m (20 lb-ft).
- Final torque LHS Y-pipe and RHS straight pipe exhaust manifold flange fasteners to 27 N•m (20 lb-ft).
- Re-secure exhaust down pipe V-band clamp and final torque to 10 N•m (89 lb-in).
- After complete reassembly, road test vehicle to confirm no exhaust leaks and exhaust moan condition is resolved.

PART NUMBER	PART NAME
3C3Z-6N639-BA	Pedestal Bracket

OTHER APPLICABLE ARTICLES: NONE

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

OPERATION	DESCRIPTION	TIME
040904A	Inspect Exhaust (Includes Time To Neutralize And Adjust Exhaust If Necessary) Perform Road Test To Re-Evaluate If Noise Is Corrected	1.2 Hrs.
040904B	Inspect Exhaust (Includes Time To Neutralize And Adjust Exhaust If Necessary) Perform Road Test To Re-Evaluate Noise Is Still Present Verify Correct Turbocharger Pedestal Replace If Necessary (Includes Time To Remove And Install Turbocharger)	3.6 Hrs.

DEALER CODING

BASIC PART NO.
6N639

CONDITION
CODE
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