

FORD:
2009 Escape

MERCURY:
2009 Mariner

This article supersedes TSB **09-11-6** to update the Service Procedure and Part List.

ISSUE

Some 2009 Escape and Mariner vehicles, equipped with 3.0L engine, may exhibit an intermittent knocking or thumping type noise from the cylinder head. After engine temperature reaches 210-220 °F (99-104 °C), the noise is typically heard from the rear of the engine as the vehicle comes to a stop. An example would be coming to a stop at the end of a highway exit ramp. Noise will continue 45-60 seconds and then diminish. Noise will occur again once engine reaches 210-220 °F (99-104 °C) and vehicle comes to another stop.

ACTION

Follow the Service Procedure steps to correct the condition.

SERVICE PROCEDURE

1. Is noise a 45-60 second knock/thump from a hot engine as the vehicle comes to a stop?
 - a. Yes - Go to Step 2.
 - b. No - Stop as this procedure does not apply. Proceed with normal Workshop Manual (WSM), Section 100-04 diagnostics.
2. Using Chassis Ears, isolate the noise to Right Hand (RH) (Bank 1) or Left Hand (LH) (Bank 2) cylinder head. Noise is typically heard as 45-60 second knock/thump as the vehicle comes to a stop after engine reaches 210-220 °F (99-104 °C).
 - a. Isolate noise to RH - Listen to the cylinder head by the variable camshaft timing (VCT) solenoid connectors. There will also be a vibration felt at the VCT solenoid connector when noise is present. Noise from RH - go to Step 3.

- b. Isolate noise to LH - Listen to the cylinders 4 and 6 valve cover fasteners (number 6 is by the coolant pump). There will be a significant difference in transmitted noise between the cylinder 4 and 6 fasteners when noise is present. Noise from LH - go to Step 4.

NOTE

THE RH AND LH NOISES HAVE DIFFERENT CAUSES. FOLLOW ALL STEPS CAREFULLY FOR PROPER DIAGNOSIS AND REPAIR.

3. Replace the RH cylinder head per Workshop Manual (WSM), Section 303-01B.
 - a. Verify repair by repeating Step 2. If noise is still present then proceed with normal engine NVH diagnostics per WSM, Section 100-04.
4. Remove LH valve cover. Refer to WSM, Section 303-01.
 - a. Rotate the engine clockwise until cylinder number 6 exhaust cam lobes are pointing up and valves are fully closed. Exhaust camshaft needs to be left in this position for all bearing caps in Step 4b. (Figure 1)

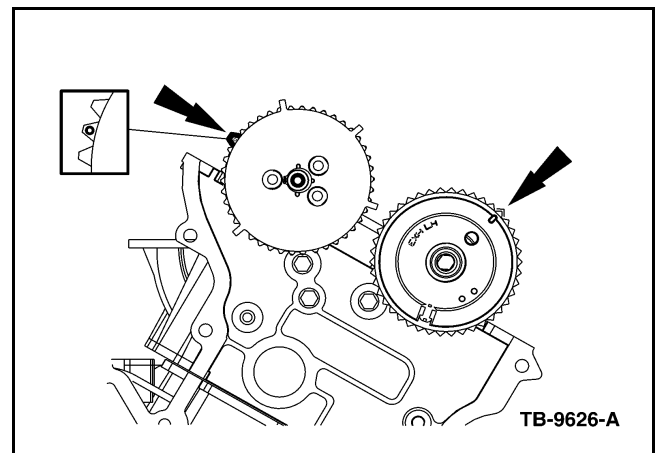


Figure 1 - Article 09-17-8

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.

TSB 09-17-8 (Continued)

- b. On the LH exhaust camshaft only, starting at the front of the engine with the thrust bearing cap (1L), perform the following on all 5 camshaft bearing caps: (Figure 2)

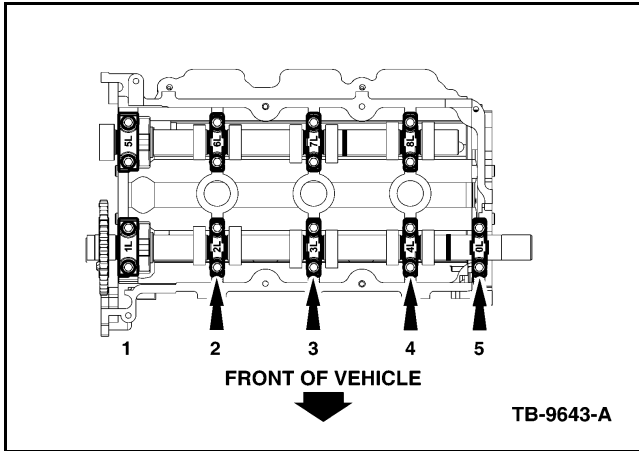


Figure 2 - Article 09-17-8

NOTE

EACH CAM CAP MUST BE COMPLETELY REMOVED AND INSTALLED, PER INSTRUCTIONS, BEFORE PROCEEDING TO NEXT CAM CAP OR DAMAGE TO THE ENGINE MAY OCCUR.

- (1) Loosen both bolts.
- (2) Remove cap.
- (3) Install cap and push cap toward intake camshaft while tightening bolts, excluding thrust bearing cap (1L).
- (4) Torque bolts to 89 lb-in (10 N•m) starting with bolt closest to intake camshaft.
- (5) Proceed to next cam cap.

NOTE

CYLINDER HEAD CAMSHAFT BEARING CAPS MUST BE ASSEMBLED IN THEIR ORIGINAL POSITIONS AND ORIENTATION. FAILURE TO INSTALL THE CAMSHAFT BEARING CAPS IN THEIR ORIGINAL POSITIONS AND ORIENTATION MAY RESULT IN SEVERE ENGINE DAMAGE.

- c. Install the LH valve cover. Refer to WSM, Section 303-01.

- d. Verify repair by repeating Step 2. If noise is still present then proceed with normal engine NVH diagnostics per WSM, Section 100-04.

PART NUMBER	PART NAME
AL8Z-6049-A	RH Cylinder Head
9L8Z-6584-A	RH Valve Cover Gasket
9L8Z-6584-B	LH Valve Cover Gasket

WARRANTY STATUS: Eligible Under Provisions Of New Vehicle Limited Warranty Coverage
IMPORTANT: Warranty coverage limits/policies are not altered by a TSB. Warranty coverage limits are determined by the identified causal part.

OPERATION	DESCRIPTION	TIME
091708A	2009 Escape, Mariner 3.0L Engine: Replace The RH Cylinder Head. Includes Time To Road Test And Diagnose (Do Not Use With Any Other Labor Operations)	9.4 Hrs.
091708B	2009 Escape, Mariner 3.0L Engine: Remove The LH Valve Cover, Remove And Install LH Exhaust Camshaft Bearing Caps. Includes Time To Road Test And Diagnose (Do Not Use With Any Other Labor Operations)	2.1 Hrs.
091708C	2009 Escape, Mariner 3.0L Engine: Replace The RH Cylinder Head, Remove And Install LH Exhaust Camshaft Bearing Caps. Includes Time To Road Test And Diagnose (Do Not Use With Any Other Labor Operations)	9.5 Hrs.

DEALER CODING

BASIC PART NO.
6049

CONDITION
CODE
07