

**FORD:**  
2003-2005 Excursion

2003-2007 F-Super Duty  
2004-2009 E-Series

This article supersedes TSB **07-23-14** to update the Issue Statement, Service Procedure and Part List.

### **ISSUE**

Some 2003-2007 F-Super Duty, 2003-2005 Excursion and 2004-2009 E-Series vehicles equipped with a 6.0L engine, may exhibit oil contamination into the cooling system due to an internally leaking oil cooler heat exchanger.

### **ACTION**

Follow the Service Procedure steps to correct the condition.

### **SERVICE PROCEDURE**

#### **NOTE**

ONLY USE THIS PROCEDURE IF OIL IN COOLANT IS VERIFIED, EGR COOLER WILL BE INSPECTED FOR INTERNAL LEAKS DURING OIL COOLER SERVICE.

1. Replace the oil cooler heat exchanger following Workshop Manual (WSM), Section 303-01 Removal and Installation, Oil Cooler, and Disassembly and Assembly, Oil Cooler, instructions.

#### **NOTE**

ENSURE THAT THE OIL RESERVOIR IS CLEAN OF ANY DEBRIS AND THAT THE SCREEN AT THE BOTTOM OF THE RESERVOIR IS NOT DAMAGED.

#### **NOTE**

LEAKING OIL COOLERS ARE FREQUENTLY CAUSED BY RESTRICTED COOLANT PASSAGES WITHIN THE OIL COOLER HEAT EXCHANGER. THESE RESTRICTIONS CAN ALSO CAUSE DAMAGE BY OVERHEATING THE EGR COOLER.

2. Prior to reassembly, remove and check the EGR cooler for leaks using the 2008 6.4L F-Super Duty or LCF EGR cooler block off adapters.

#### **NOTE**

A DEFECTIVE EGR COOLER CAN CAUSE COOLANT TO VENT OUT OF THE DEGAS BOTTLE AND APPEAR SIMILAR TO HEADGASKET FAILURE.

- a. Remove the EGR cooler from the engine following WSM, Section 303-08.
- b. Install block off adapters using standard screws and washers. (Figure 1)

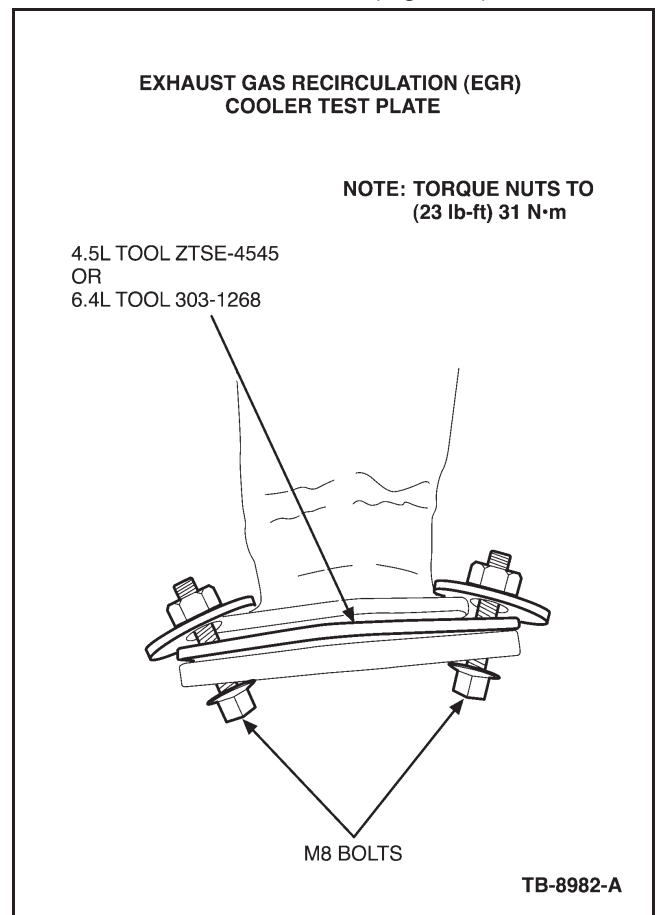


Figure 1 - Article 09-18-12

**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 09-18-12 (Continued)

- c. Install shop air adapter and regulator and pressurize cooler to 30 psi (207 kPa). Listen for leaks.

### NOTE

FOR VERY SMALL LEAKS, IT MAY BE REQUIRED THAT EGR COOLER REMAIN SUBMERGED FOR UP TO 15 MINUTES TO AID IN LEAK IDENTIFICATION. THIS TIME IS NEEDED TO ALLOW SMALL LEAKS TO DISPLACE ENOUGH WATER FROM THE COOLANT PASSAGES TO BECOME EVIDENT.

- d. Submerge the EGR cooler horizontally in the water, with the coolant ports pointing upward. Manipulate the cooler under water to purge all trapped air from the internal coolant passages. (Figure 2)

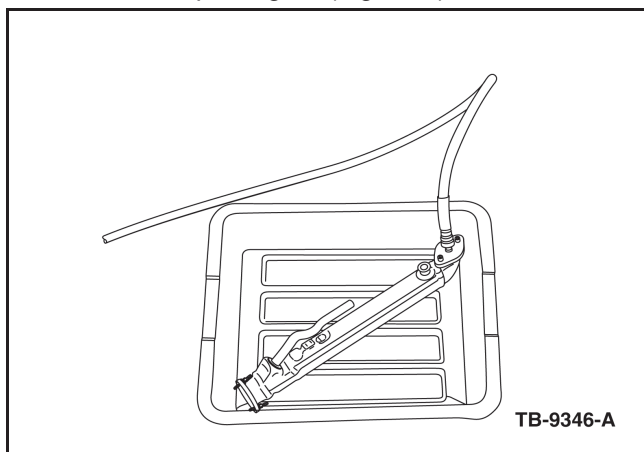


Figure 2 - Article 09-18-12

- e. Inspect for continuous bubbles escaping from the coolant ports.
  - (1) If continuous bubbles identify a leak, replace the EGR cooler. Proceed to Step 3.
  - (2) If bubbles do not identify a leak, do not replace the EGR Cooler. Install and proceed to Step 3.
3. Flush cooling and heater system together using the latest service procedure. Refer to other applicable articles.
4. Use Radiator Refiller tool to fill cooling system. Refer to WSM, Section 303-03.
5. Replace the degas bottle pressure cap due to oil contamination.
6. Change engine oil and oil filter.

PART NUMBER	PART NAME
3C3Z-9P456-AE 4C3Z-9P456-AF	EGR Cooler (Built Before 9/29/2003) EGR Cooler (Built 9/29/2003 And After)
3C3Z-6A642-CA 9C3Z-8101-A	Oil Cooler Kit Cap - Degas Bottle

**OTHER APPLICABLE ARTICLES:** 05-2-5, 08-23-1  
**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
091812A	2003 F-Super Duty, Excursion 6.0L: Install The Oil Cooler Kit Includes Time To Test And Replace The EGR Cooler If Necessary, And Change The Oil And Filter (Do Not Use With 6642A, 9456A, 9424A, 9600A, 8005A, 9438A)	5.7 Hrs.
091812A	2004-2007 F-Super Duty, 2004-2005 Excursion 6.0L: Install The Oil Cooler Kit Includes Time To Test And Replace The EGR Cooler If Necessary, And Change The Oil And Filter (Do Not Use With 6642A, 9456A, 9424A, 9600A, 8005A, 9438A)	6.1 Hrs.
091812A	2004-2009 Econoline 350/450/550 6.0L: Install The Oil Cooler Kit Includes Time To Test And Replace The EGR Cooler If Necessary, And Change The Oil And Filter (Do Not Use With 6642A, 9456A, 9424A, 9600A, 8005A, 9438A)	7.9 Hrs.

### DEALER CODING

BASIC PART NO.  
6A642

CONDITION  
CODE  
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