

FORD:
2003-2005 Excursion

2003-2007 F-Super Duty
2004-2008 E-350, E-450, E-550

This article supersedes TSB **08-23-8** to update the Service Procedure.

ISSUE

Some 2003-2007 F-Super Duty 250-750, 2003-2005 Excursion and 2004-2008 E-Series vehicles built on or before 9/30/2008 may exhibit fuel in engine coolant, due to leaks in the cylinder head fuel injector area. Symptoms may include fuel in engine coolant and coolant expulsion from the degas bottle.

ACTION

Follow the Service Procedure steps to correct the condition.

SERVICE PROCEDURE

Inspect the degas bottle for evidence of fuel in the engine coolant and not oil or combustion gases. If diesel fuel is present, refer to the following Service Procedure. If not, follow normal diagnostics and/or other applicable articles.

NOTE

IT IS VERY IMPORTANT TO ENSURE A COMPLETE FLUSHING OF THE ENGINE COOLING SYSTEM IS PERFORMED TO REMOVE ALL CONTAMINANTS FOLLOWING REPAIR.

1. Drain coolant from cooling system.

NOTE

FAILURE TO DRAIN THE COOLING SYSTEM PRIOR TO PRESSURIZATION WILL RESULT IN AN INABILITY TO DIAGNOSE LEAK SOURCE.

2. Remove all injectors from both cylinder heads. Refer to Workshop Manual (WSM), Section 313-04C.
3. Wipe injector bore clean of oil and fuel.
4. Fit the cooling system pressure tester, refer to WSM, Section 303-03. (Do not add coolant)

5. Apply 10 psi (69 kPa) of air pressure to sealed cooling system. It is suggested to use a hand operated pressure tester or regulated shop air with tee in degas hose to degas bottle.

NOTE

FAILURE TO DRAIN THE COOLING SYSTEM PRIOR TO PRESSURIZATION WILL PREVENT BUBBLES FROM FORMING WHEN SPRAYED WITH SOAP AND WATER SOLUTION.

6. Spray a 50/50 mixture of dish soap and water generously inside each injector bore. Ensure cylinder head injector bore casting is coated with a soap layer.
7. Inspect each injector bore for bubbles. A light and mirror or bore-scope may aid in pinpointing a leak location. Most common area is between the two injector fuel sealing O-rings in the sealing area on the side nearest the cylinder glow plug. (Figure 1)



Figure 1 - Article 09-26-1

- a. Replace cylinder head if leaking through casting. Refer to WSM, Section 303-01C.
- b. Flush cooling system, refer to other applicable service bulletins for proper cooling system flush procedures.

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