

Article No.  
02-20-4

## ENGINE—7.3L—EXTERNAL OIL LEAK DIAGNOSIS FOR 7.3L DIT ENGINES

**FORD:** 1994-1997 F SUPER DUTY  
1995-2003 E SERIES  
1999-2003 SUPER DUTY F SERIES  
2000-2003 EXCURSION

### ISSUE

The valley in the top of the crankcase has a drain hole machined slightly to the right of center at the rear. Any leak in the "vee" of the engine could result in a drippage down the back of the engine. This leak could be perceived as an oil leak in the rear of the engine including, but not limited to, the rear main crankshaft seal and oil pan gasket.

### ACTION

Most oil leaks occur at a seal. Oil flows downhill. Start looking for the leak at the top front of the engine and work toward the rear and then down the back of the block. The majority of suspected main seal leaks are actually oil flowing down the back of the block from the engine valley. The valley in the top of the crankcase has a drain hole machined slightly to the right of center at the rear. Any leak in the "V" of the engine could result in a drippage from the rear crankshaft seal area. The engine receives an ultraviolet leak detector dye in the initial factory oil fill to assist you in leak detection before the first oil change. A black light is required to illuminate the ultraviolet leak detector dye.

### SERVICE INFORMATION

Oil leaks flow downhill. Start looking at the top for anything that leaks in the "V" of the drains to the back and down the rear of the engine.

Visually inspect plugs, fittings, and hose clamps for seepage.

There is no high-pressure oil at the head gasket. Replacement of the head gasket seal is not likely to repair a leak.

Check for loose connections and missing "O-ring" seals.

If a leak is suspected at the high-pressure pump, inspect the mounting gasket for imperfections in the seal bead. Replacing the high-pressure pump is not a suitable repair for an oil leak. Replace only the gasket. The gasket is torque sensitive. The correct torque is between 17-19 Lb-ft (23-26 N•m).

A slight film of oil and dust at the junction of the halves of the turbocharger is normal. It does not call for service action unless it is dripping.

A small amount of oil in the intake deposited by the positive crankcase ventilation system is normal.

**OTHER APPLICABLE ARTICLES:** NONE  
**WARRANTY STATUS:** INFORMATION ONLY  
**OASIS CODES:** 401000, 499000

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**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.