# ENGINE—ENGINE OIL SYSTEM PRIMING PROCEDURES—SERVICE TIPS

FORD: 1995-1997 PROBE, THUNDERBIRD 1995-2000 CONTOUR 1995-2002 CROWN VICTORIA, ESCORT, MUSTANG, TAURUS 2000-2002 FOCUS 2002 THUNDERBIRD 1995-1996 BRONCO 1995-1997 AEROSTAR, F-250, F-350 1995-2002 E SERIES, EXPLORER, F-150, RANGER, WINDSTAR 1997-2002 EXPEDITION 1999-2002 SUPER DUTY F SERIES 2000-2002 EXCURSION 2001-2002 ESCAPE, EXPLORER SPORT TRAC, EXPLORER SPORT

LINCOLN: 1995-1998 MARK VIII 1995-2002 CONTINENTAL, TOWN CAR 2000-2002 LS 1998-2002 NAVIGATOR 2002 BLACKWOOD

MERCURY: 1995-1997 COUGAR 1995-1999 TRACER 1995-2000 MYSTIQUE 1995-2002 GRAND MARQUIS, SABLE 1999-2002 COUGAR 1995-2002 VILLAGER 1997-2002 MOUNTAINEER

## ISSUE

Reports of premature engine failure suggest some overhauled, new and/or remanufactured engine oil systems are not correctly primed prior to initial engine start-up, after being installed in the vehicle. This may cause oil starvation during initial engine start-up.

## **ACTION**

Prior to starting a new, overhauled or remanufactured engine, the oil pump and oil system should be primed to eliminate the possibility of oil starvation at start-up. Refer to the following Service Information for details.

## SERVICE INFORMATION

## **Overhead Cam Engines (OHC):**

Overhead cam engines use a G-rotor pump design and is driven by the crankshaft. If the engine is overhauled, the oil pump (prior to assembly) should be fed oil through the oil pick-up passage, prior to installing the pick-up tube and screen assembly. This can usually be accomplished by rotating the oil pump while oil is being fed into the oil pump inlet. Once the oil pump is primed, the oil pump can then be installed onto the engine.

Remanufactured engines are usually cold tested before leaving the plant. As a result, the oil pump should not have to be removed from the engine and primed.

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Overhead cam engines, whether overhauled or remanufactured, prior to starting the engine, ensure the engine crankcase is filled to specification with engine oil. Disable the fuel supply to the fuel injectors (disable inertia fuel shut-off switch) and crank the engine in fifteen (15) second increments, until the oil pump is primed. An oil pressure gauge can be used to assist in determining when oil pressure is obtained.

#### NOTE

#### ENSURE THE INERTIA FUEL SHUT-OFF SWITCH IS RE-ENABLED PRIOR TO ATTEMPTING TO START ENGINE.

#### **Overhead Valve Engines (OHV):**

Overhead valve engines (push-rod type) use an oil pump driven by the camshaft via an intermediate shaft connected to the distributor or camshaft synchronizer assembly.

Whether the engine is overhauled or remanufactured, the oil pump should be primed prior to starting the engine. If the engine is overhauled, ensure the crankcase is filled to specification with engine oil and using an engine oil pump priming tool kit, (commercially available) rotate oil pump until it is primed. An oil pressure gauge can be used to assist in determining when oil pressure is obtained. If a remanufactured engine is being installed, after the installation has been completed, ensure the crankcase is filled to specification with engine oil. Disable the fuel supply to the fuel injectors (disable inertia fuel shut-off switch) and crank the engine in (15) second increments, until the oil pump is primed. An oil pressure gauge can be used to assist in determining when oil pressure is obtained.

#### NOTE

#### ENSURE THE INERTIA FUEL SHUT-OFF SWITCH IS RE-ENABLED PRIOR TO ATTEMPTING TO START ENGINE.

Regardless of engine design, it is extremely important that the engine oil pump is correctly primed, prior to initial engine start-up.

OTHER APPLICABLE ARTICLES: NONE WARRANTY STATUS: INFORMATION ONLY OASIS CODES: 401000, 497000, 499000