



GROUP
Engine

MODEL
All Models

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DATE
December 2010

TECHNICAL SERVICE BULLETIN

SUBJECT: ENGINE OIL PUMP REPLACEMENT GUIDELINES
DURING SHORT BLOCK REPLACEMENT

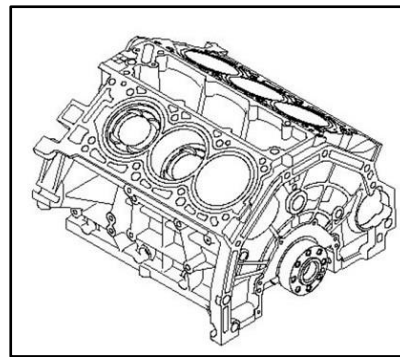
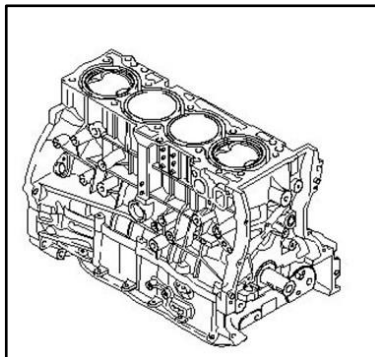
★ NOTICE

This bulletin has been revised to include additional information. New/revised sections of this bulletin are indicated by a black bar in the margin area.

This bulletin provides guidelines to Engine Oil Pump replacement during Short Block replacement or internal engine repair.

★ NOTICE

A new or remanufactured engine sub-assembly (long block) is shipped with a new oil pump already installed, so this bulletin does not pertain to the installation of new or remanufactured engines.



Short Engine Assembly (Short Block) Examples

★ NOTICE

New or remanufactured short engine assemblies (short block) are NOT shipped with a new oil pump installed, and the oil pump must be ordered separately if it needs to be replaced.

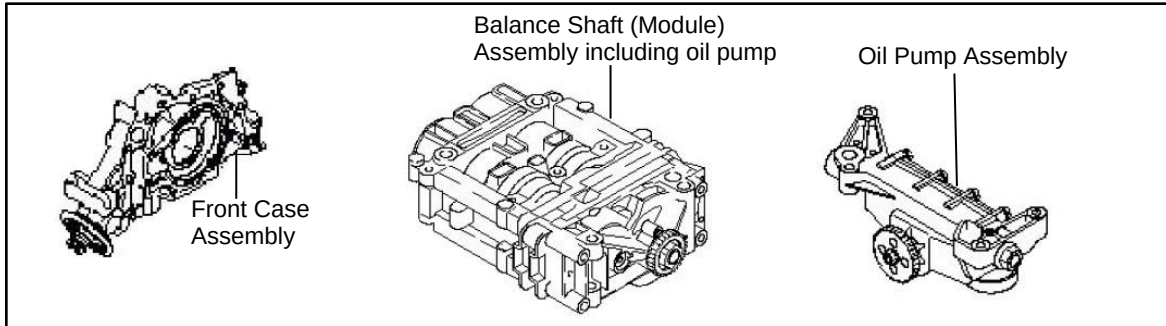
File Under: <Engine>

Circulate To: ☒ General Manager ☒ Service Manager ☒ Parts Manager
☒ Service Advisor(s) ☒ Technician(s) ☒ Body Shop Manager ☒ Fleet Repair

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Examples of the Engine Oil Pump Assembly



Please refer to the appropriate Parts Catalogs for applicable part numbers and descriptions of related parts.

Inspection Procedure and Guidelines:

1. Inspect the incident engine using the **Engine Core Data Form** included in (TSB: ENG 042); then proceed to step #2.

★ NOTICE

Refer to TSB: ENG 042 published March 2009 (Remanufactured Engine Program) for details. Depending on the engine diagnosis results, the repair may not require a short or long block replacement to resolve the condition.

2. If a short block replacement has been determined as the repair option with any of the following conditions, then ALWAYS replace the oil pump with a new pump.
 - Low or no oil pressure.
 - Excessive foreign/metallic debris found inside the oil pan or the oil pick-up screen.
 - Continuous engine knocking noise (after isolating the accessory drive component such as the power steering pump, air conditioning compressor, water pump, or alternator).
 - Engine friction damage such as piston/cylinder wall scuffing, main/rod bearing/journal scuffing, excessively worn thrust bearing, or seizing of rotating components.
 - Overheated engine that caused internal engine damage.

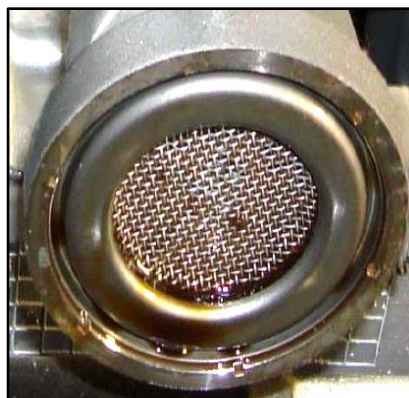
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3. If a short block replacement is not required and none of the existing conditions from step #2 have been found, refer to the following inspection points of the engine oil pump prior to reuse.
- Rotate the oil pump by hand (rotor/sprocket) to confirm that it rotates freely without much resistance. Replace oil pump if internal binding damage is encountered.
 - Visually inspect the condition of the front main oil seal in the oil pump (engines using a front case assembly oil pump) for wear, damage, or visual leaks. Replace the front main oil seal if necessary to ensure a proper seal.

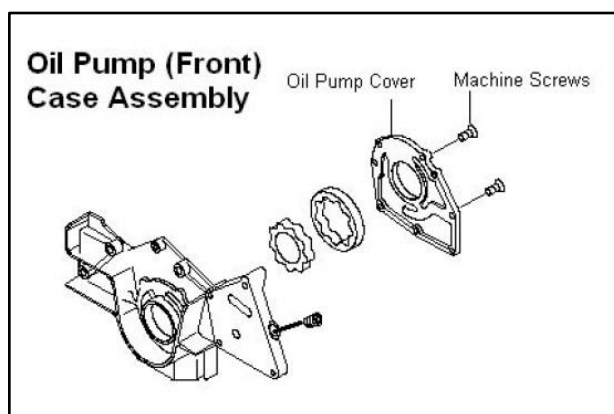
*** NOTICE**

If the front main oil seal is found partially pushed out from the front case assembly, you should check for excessive crankshaft thrust endplay before replacing the seal.

- Visually inspect and clean the Oil Pickup Screen Assembly, replace only if damaged.



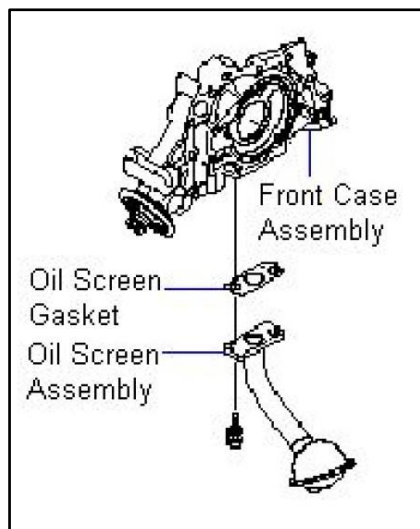
- (For engines using front case assembly oil pumps) inspect and re-tighten the machine screw fasteners of the new oil pump cover if necessary.



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- (For engines using front case assembly oil pumps) inspect the connection between the front case assembly and the oil screen assembly. Replace the oil screen gasket if necessary. Re-tighten the bolt fasteners of the oil pickup screen if necessary.



★ NOTICE

Proper sealing of the oil pump cover and the oil pickup screen to the oil pump front case body is important to ensure proper oil pressure delivery during engine operation.

WARRANTY INFORMATION:

This bulletin provides additional service information during engine diagnosis and repair. Normal warranty policy will apply.