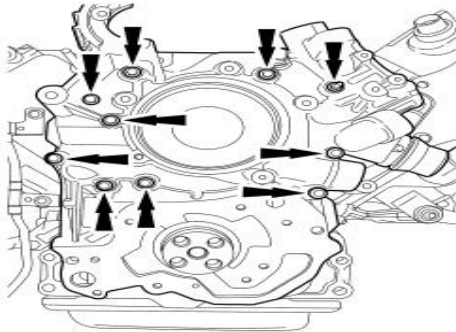


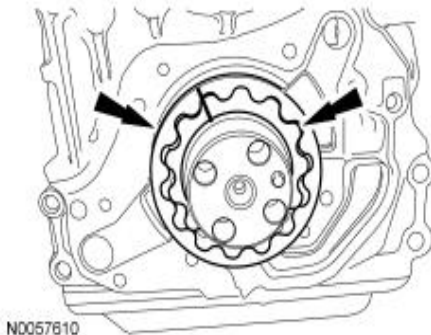
TECHNICAL SERVICE BULLETIN

TSB #:	FMS-12222015	Engine:	6.4L Powerstroke
Date:	12/22/2015	Title:	6.4L Powerstroke Front Main Seal Installation Instructions



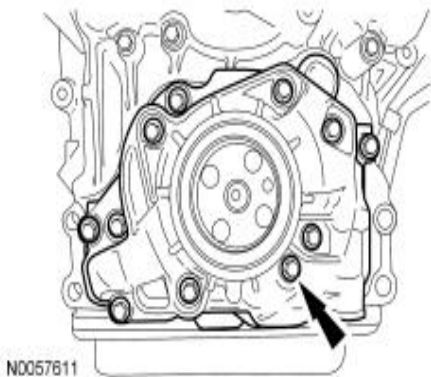
N0065836

- Position the engine front cover and loosely install the 10 bolts.
- Install a new O-ring seal. Install the coolant inlet port and bolt.
- Tighten to 13 Nm (115 lb-in).



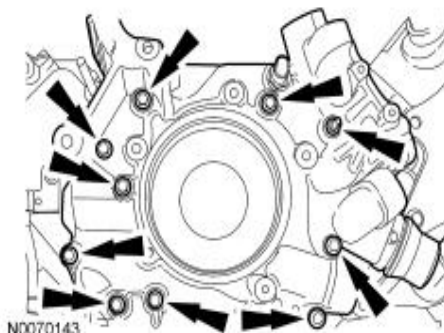
N0057810

- **NOTE:** If reusing the original oil pump drive rotors, install the oil pump drive rotors with the marks pointing outward. Replacement oil pump drive rotors will have no marks and orientation is not necessary.
- Lubricate the inner drive rotor with clean engine oil and install onto the crankshaft. Lubricate the outer drive rotor with clean engine oil and mesh with the inner drive rotor.



N0057811

- Install a new press-in-place gasket, the oil pump housing and the 11 bolts.
- Tighten the 7 long bolts to 31 Nm (23 lb-ft).
- Tighten the 4 short bolts to 22 Nm (16 lb-ft).

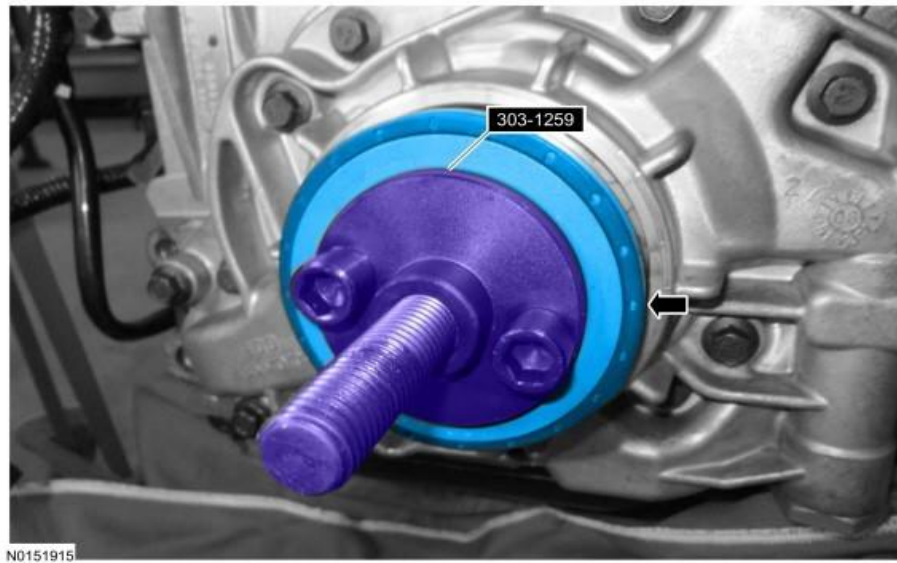


N0070143

- Tighten the 10 engine front cover bolts.
- Tighten to 31 Nm (23 lb-ft).

NOTICE: The new crankshaft seal and wear sleeve must not be separated.

Position the new crankshaft front seal on the crankshaft.



NOTE: The new crankshaft front seal must be installed with the spacer.

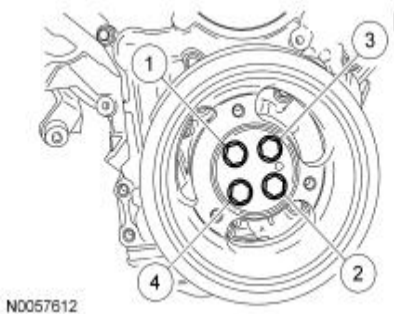
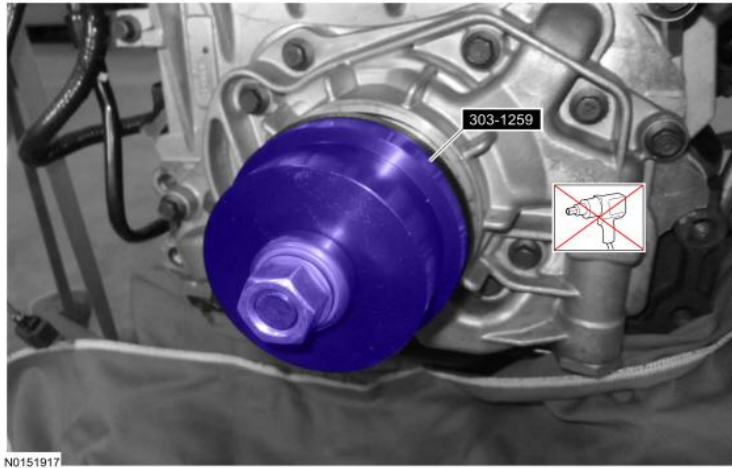
The dots on the spacer should be facing the dots on the crankshaft front seal.

Position the crankshaft front seal spacer on the crankshaft front seal.

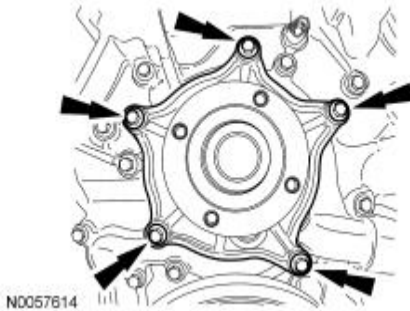


IMPORTANT: Use care when installing the crankshaft front seal, damage can occur if the Crankshaft Seal Installer is over tightened.

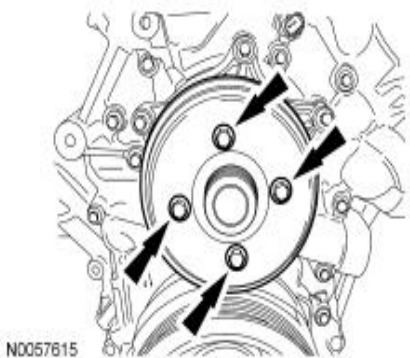
NOTE: Only use hand tools to install the crankshaft front seal. Using the Crankshaft Seal Installer, install the crankshaft front seal and wear sleeve assembly.



- **NOTICE:** To prevent engine damage, always install 4 new bolts when
- **NOTE:** Apply a light coat of engine oil to the bolts prior to installing the bolts. Install the crankshaft vibration damper and 4 new bolts. Tighten the bolts in 2 stages, in the sequence shown.
- **Stage 1:** Tighten to 68Nm (50 lb-ft).
- **Stage 2:** Tighten an additional 90 degrees.



- **NOTE:** Install a new O-ring seal on the coolant pump.
- Install the coolant pump and the 5 bolts.
- Tighten to 31 Nm (23 lb-ft).



- Install the coolant pump pulley and the 4 bolts.
- Tighten to 31 Nm (23 lb-ft).