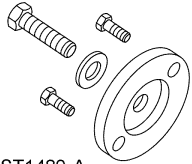
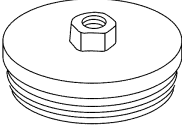
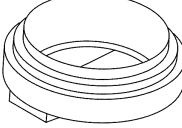
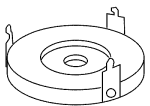
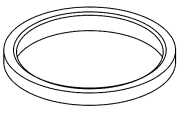
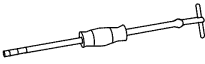


IN-VEHICLE REPAIR

Crankshaft Rear Seal

Special Tool(s)

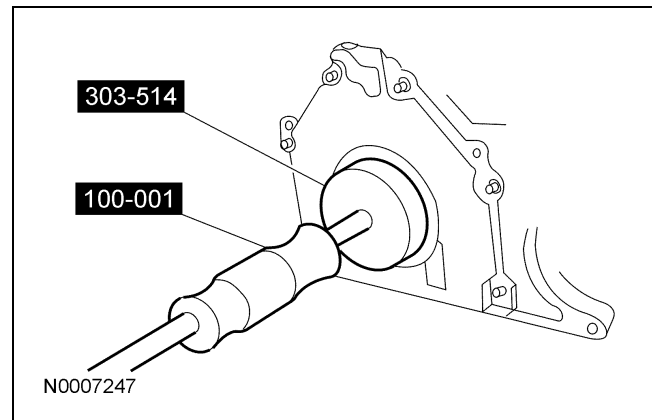
 <p>ST1480-A</p>	Installer, Crankshaft Rear Seal 303-518 (T95P-6701-DH)
 <p>ST1382-A</p>	Remover, Crankshaft Rear Seal 303-519 (T95P-6701-EH)
 <p>ST1479-A</p>	Installer, Crankshaft Rear Seal 303-516 (T95P-6701-BH)
 <p>ST1481-A</p>	Remover, Crankshaft Rear Oil Slinger 303-514 (T95P-6701-AH)
 <p>ST1482-A</p>	Installer, Crankshaft Rear Oil Slinger 303-517 (T95P-6701-CH)
 <p>ST1185-A</p>	Impact Slide Hammer 100-001 (T50T-100-A)

Material

Item	Specification
Motorcraft Metal Surface Prep ZC-31	—
Silicone Gasket Remover ZC-30	—
Silicone Gasket and Sealant TA-30	WSE-M4G323-A4
Gasket Maker TA-16	WSK-M2G348-A5
Motorcraft SAE 5W-20 Premium Synthetic Blend Motor XO-5W20-QSP (in Canada Motorcraft SAE 5W-20 Super Premium Motor Oil CXO-5W20-LSP12) or equivalent	WSS-M2C930-A

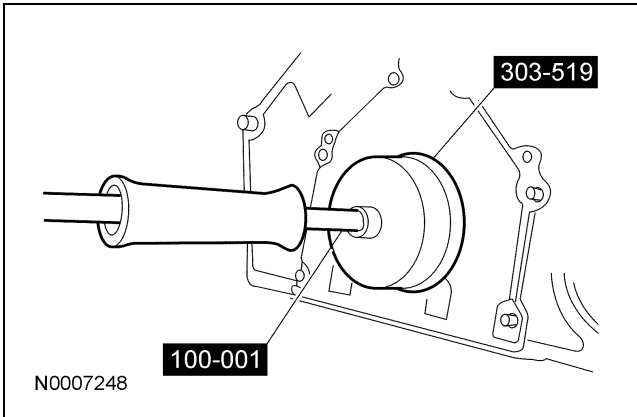
Removal

1. Remove the flywheel or flexplate. For additional information, refer to Lower End Components — Exploded View, Flexplate, Flywheel and Crankshaft Rear Seal and Flexplate or Flywheel in this section.
2. Remove the engine-to-transmission spacer plate.
3. Using the special tools, remove the crankshaft oil slinger.
 - Discard the crankshaft oil slinger.



IN-VEHICLE REPAIR (Continued)

4. Using the special tools, remove the crankshaft rear seal.
 - Discard the crankshaft rear seal.



5. Remove the 2 oil pan-to-crankshaft rear seal retainer plate bolts.
6. Remove the 6 bolts and the crankshaft rear seal retainer plate.

Installation

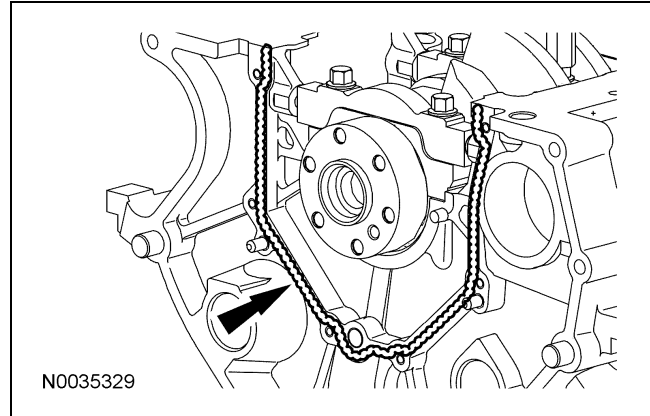
1. **⚠ CAUTION: Do not use metal scrapers, wire brushes, power abrasive discs or other abrasive means to clean the sealing surfaces. These tools cause scratches and gouges which make leak paths. Use a plastic scraping tool to remove all traces of old sealant.**

NOTE: Clean the sealing surfaces with silicone gasket remover and metal surface prep. Follow the directions on the packaging. Failure to follow this procedure can cause future oil leakage.

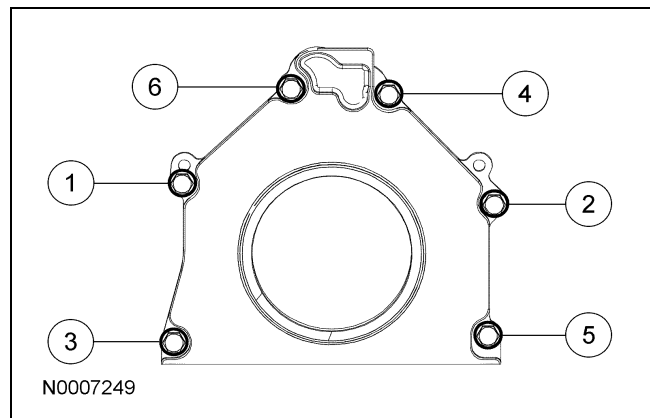
Clean and inspect the mating surfaces.

2. **NOTE:** The rear crankshaft seal retainer plate on Romeo built engines does not have a sealant groove. Gasket maker must be applied to the rear crankshaft seal retainer mating surface on the engine block.

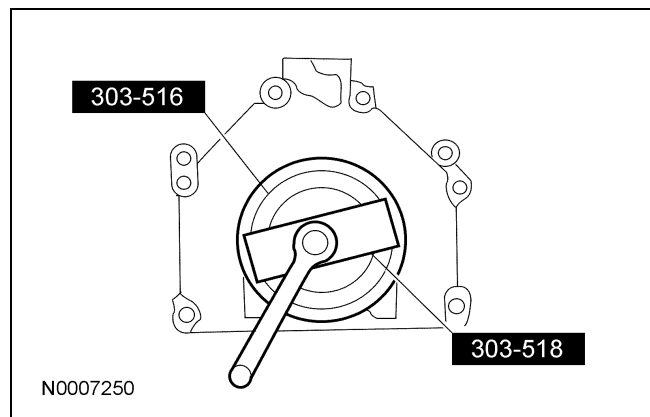
Apply a bead of gasket maker to the rear crankshaft seal retainer mating surface on the engine block.



3. Install the crankshaft rear seal retainer plate and the 6 bolts in the sequence shown.
 - Tighten to 10 Nm (89 lb-in).

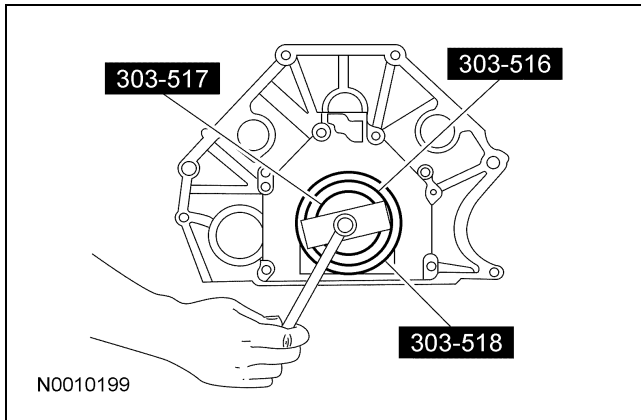


4. Install the 2 crankshaft rear seal retainer plate-to-oil pan bolts.
 - Tighten to 20 Nm (15 lb-ft) then rotate an additional 60 degrees.
5. **NOTE:** Lubricate the inner lip of the crankshaft rear seal with clean engine oil. Using the special tools, install the crankshaft rear seal.



IN-VEHICLE REPAIR (Continued)

6. Using the special tools, install the crankshaft rear oil slinger.



7. Install the engine-to-transmission spacer plate.
8. Install the flywheel or flexplate. For additional information, refer to Lower End Components — Exploded View, Flexplate, Flywheel and Crankshaft Rear Seal and Flexplate or Flywheel in this section.