

## Oil Pump

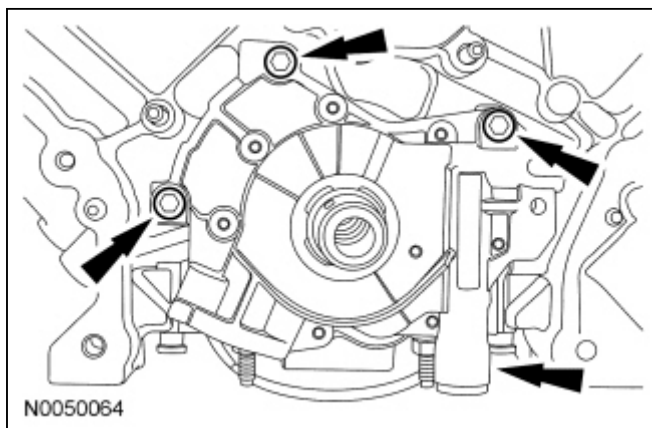
### Material

Item	Specification
Motorcraft® Metal Surface Prep ZC-31-A	—

### Removal

**NOTICE:** During engine repair procedures, cleanliness is extremely important. Any foreign material, including any material created while cleaning gasket surfaces that enters the oil passages, coolant passages or the oil pan, can cause engine failure.

1. With the vehicle in NEUTRAL, position it on a hoist. For additional information, refer to [Section 100-02](#).
2. Remove the timing drive components. For additional information, refer to [Timing Drive Components](#) in this section.
3. Remove the oil pump screen and pickup tube. For additional information, refer to [Engine Lubrication Components — Exploded View](#) and [Oil Pump Screen and Pickup Tube](#) in this section.
4. Remove the 3 bolts and the oil pump.

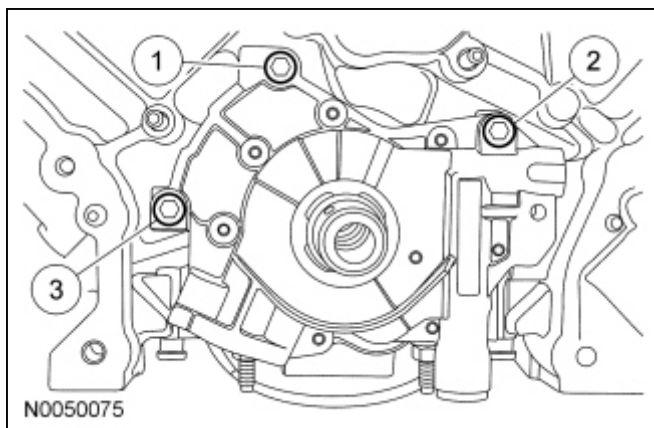


### Installation

1. **NOTICE:** 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.

Clean the sealing surfaces with metal surface prep. Follow the directions on the packaging.

- Inspect the mating surfaces.
2. Install the oil pump and 3 bolts.
    - Tighten the bolts in the sequence shown to 10 Nm (89 lb-in).



3. Install the oil pump screen and pickup tube. For additional information, refer to [Engine Lubrication Components — Exploded View](#) and [Oil Pump Screen and Pickup Tube](#) in this section.
  4. Install the timing drive components. For additional information, refer to [Timing Drive Components](#) in this section.
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