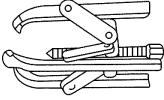
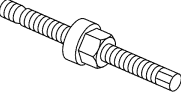


## IN-VEHICLE REPAIR

### Crankshaft Pulley

#### Special Tool(s)

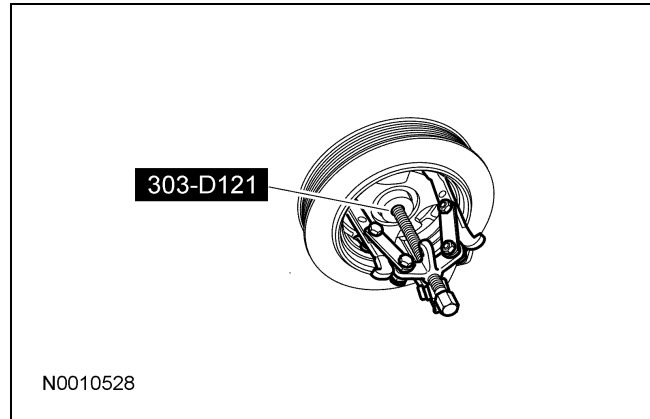
 <p>ST1184-A</p>	<p>3-Jaw Puller 303-D121</p>
 <p>ST1287-A</p>	<p>Installer, Crankshaft Vibration Damper 303-102 (T74P-6316-B)</p>

#### Material

Item	Specification
Motorcraft Metal Surface Prep ZC-31	—
Silicone Gasket Remover ZC-30	—
Silicone Gasket and Sealant TA-30	WSE-M4G323-A4

#### Removal

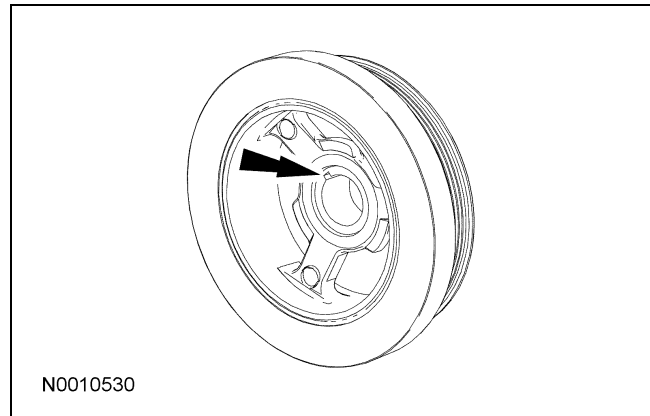
1. With the vehicle in NEUTRAL, position it on a hoist. For additional information, refer to Section 100-02.
2. Remove the air cleaner outlet pipe. For additional information, refer to Section 303-12.
3. Remove the accessory drive belt. For additional information, refer to Section 303-05.
4. Remove the crankshaft pulley bolt and washer.
  - Discard the crankshaft pulley bolt.
5. Using the special tool, remove the crankshaft pulley.



#### Installation

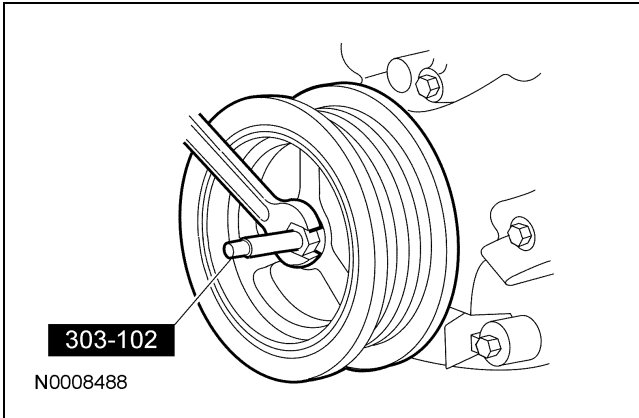
1. **NOTE:** If not secured within 4 minutes, the sealant must be removed and the sealing area cleaned. To clean the sealing area, use silicone gasket remover and metal surface prep. Follow the directions on the packaging. Failure to follow this procedure can cause future oil leakage.

Apply silicone gasket and sealant to the Woodruff key slot in the crankshaft pulley.



**IN-VEHICLE REPAIR (Continued)**

- Using the special tool, install the crankshaft pulley.



- Using a new crankshaft pulley bolt, install the bolt and washer and tighten the bolt in 4 stages.
  - Stage 1: Tighten to 90 Nm (66 lb-ft).
  - Stage 2: Loosen 360 degrees.
  - Stage 3: Tighten to 50 Nm (37 lb-ft).
  - Stage 4: Tighten an additional 90 degrees.
- Install the accessory drive belt. For additional information, refer to Section 303-05.
- Install the air cleaner outlet pipe. For additional information, refer to Section 303-12.