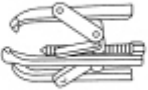




Crankshaft Pulley

Special Tool(s)

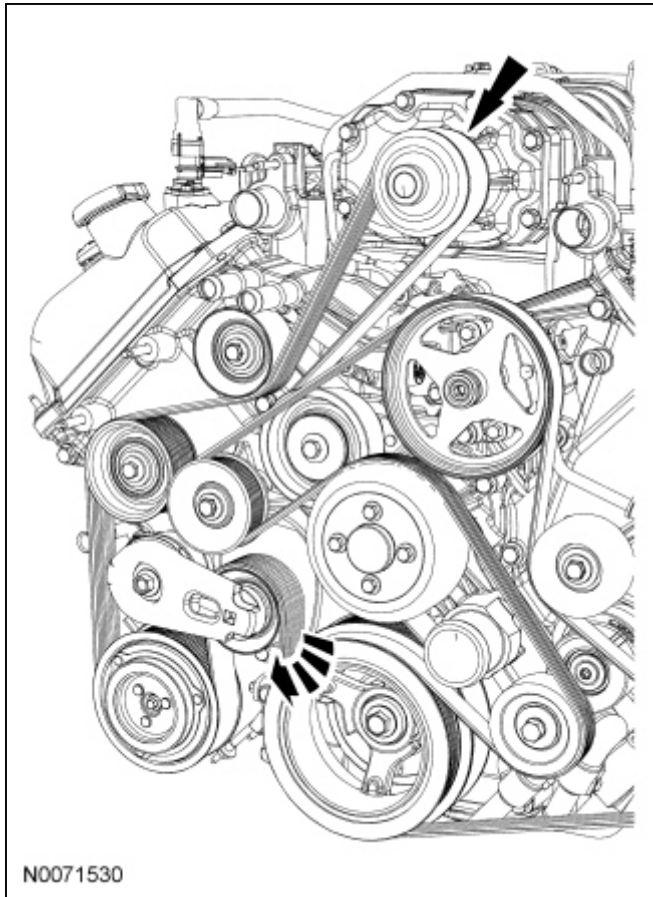
 ST1184-A	3 Jaw Puller 303-D121 or equivalent
 ST1287-A	Installer, Crankshaft Vibration Damper 303-102 (T74P-6316-B)
 ST1438-A	Strap Wrench 303-D055 (D85L-6000-A) or equivalent

Material

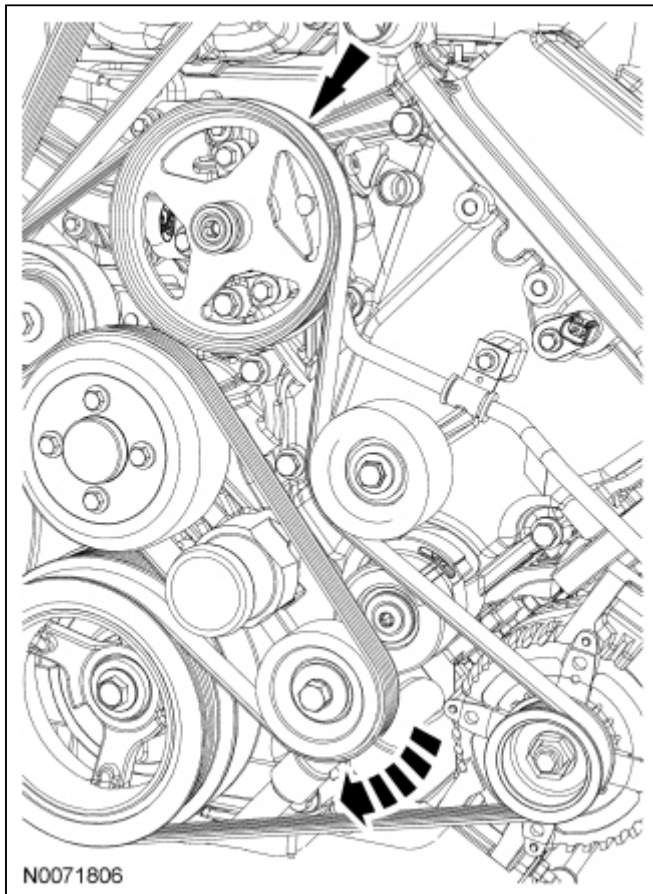
Item	Specification
Motorcraft® Metal Surface Prep ZC-31-A	—
Motorcraft® SAE 5W-50 Full Synthetic Motor Oil XO-5W50-QGT or equivalent	WSS-M2C931-B
Silicone Gasket and Sealant TA-30	WSE-M4G323-A4
Silicone Gasket Remover ZC-30	—

Removal

1. With the vehicle in NEUTRAL, position it on a hoist. For additional information, refer to [Section 100-02](#).
2. Remove the cooling fan assembly. For additional information, refer to [Section 303-03A](#).
3. Rotate the Supercharger (SC) drive belt tensioner clockwise and remove the drive belt from the [SC](#) drive pulley.

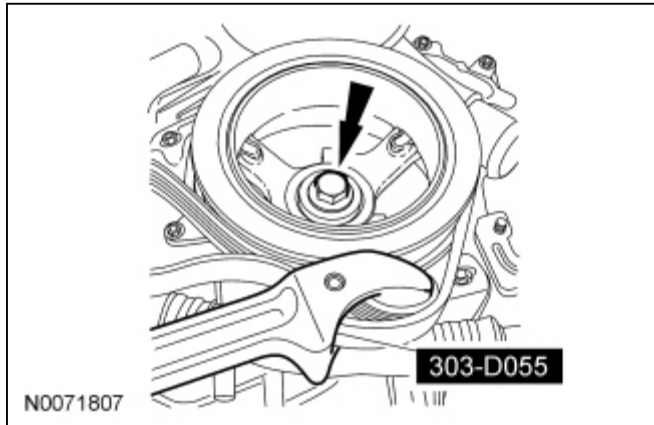


4. Rotate the accessory drive belt tensioner clockwise and remove the accessory drive belt from the power steering pump pulley.

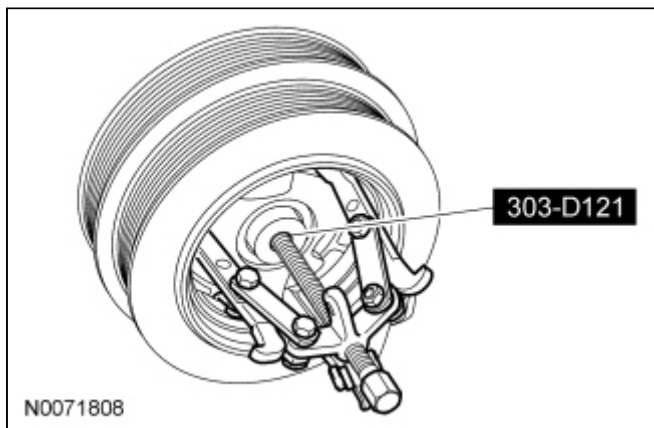


5. Position the accessory drive belt and SC drive belt away from the crankshaft pulley.

- Using the Strap Wrench, remove the crankshaft pulley bolt and the washer.
 - Discard the bolt.



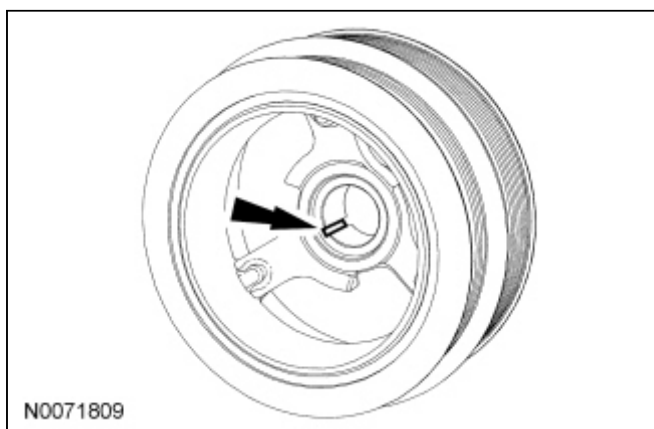
- Using the 3 Jaw Puller, remove the crankshaft pulley.



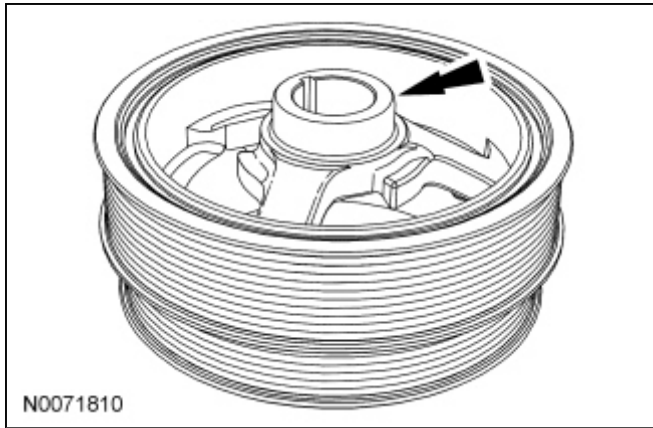
Installation

- 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.

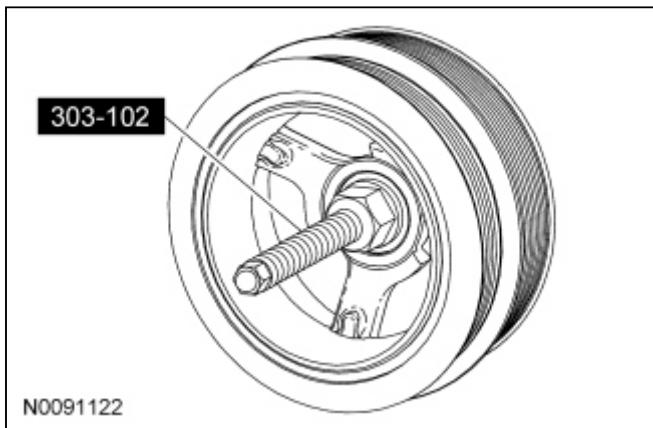
Apply silicone gasket and sealant to the Woodruff key slot on the crankshaft pulley.



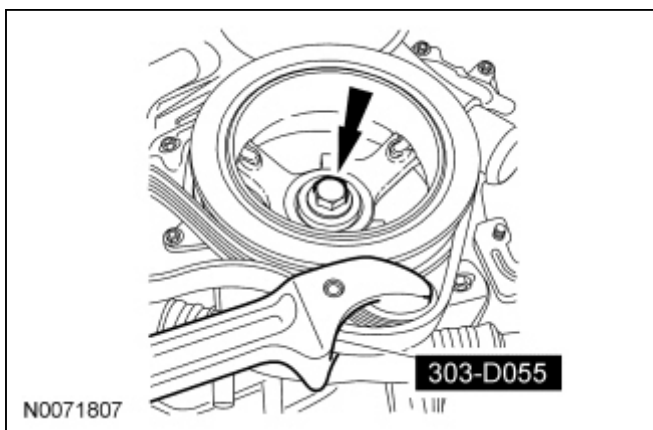
- Lubricate the crankshaft pulley sealing surface with clean engine oil prior to installation.



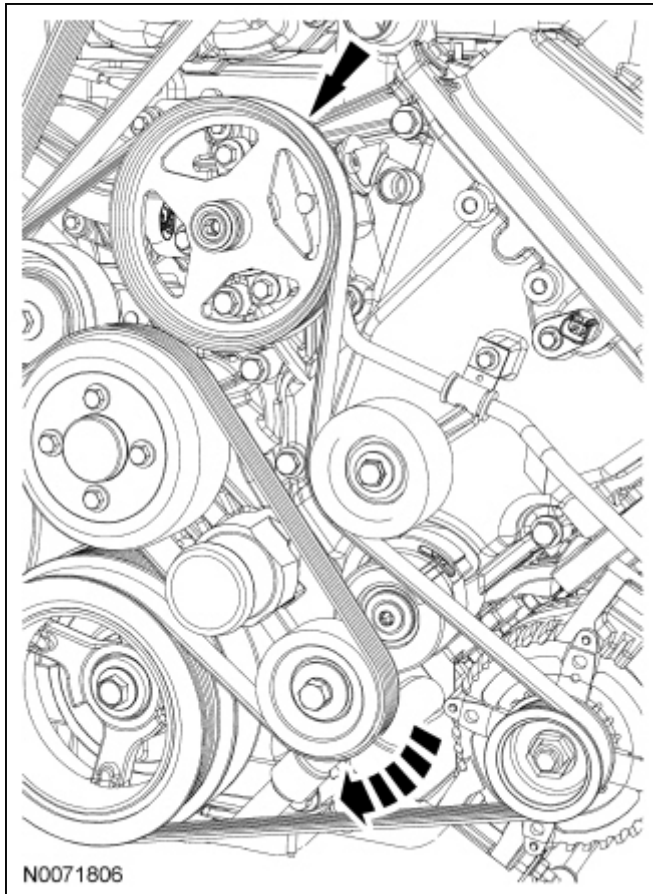
- Using the Crankshaft Vibration Damper Installer, install the crankshaft pulley.



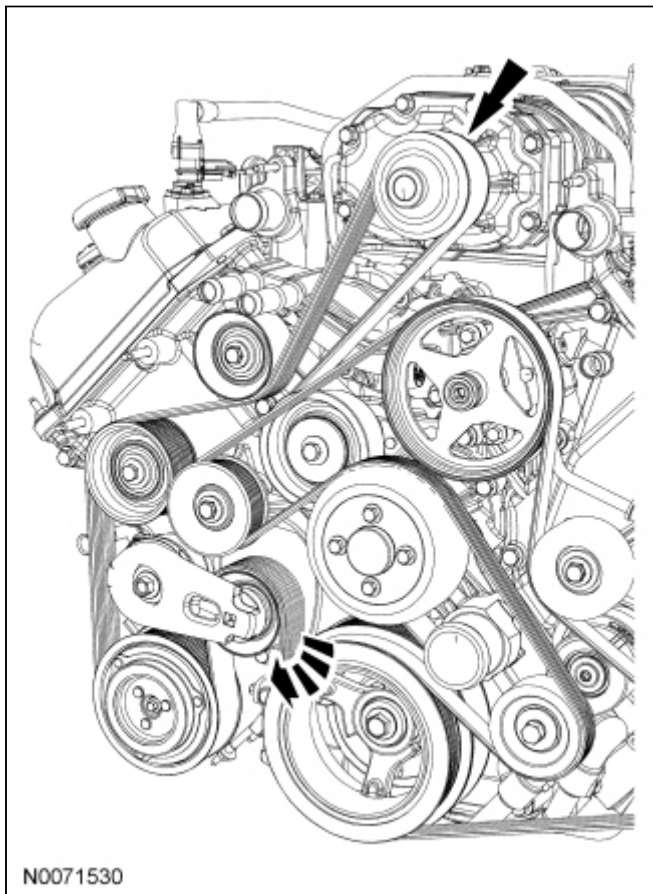
- Using the Strap Wrench, install a new crankshaft pulley bolt and the original washer, tighten the bolt in 4 stages:
 - Stage 1: Tighten to 120 Nm (88 lb-ft).
 - Stage 2: Loosen one full turn.
 - Stage 3: Tighten to 50 Nm (37 lb-ft).
 - Stage 4: Tighten an additional 90 degrees.



- Position the accessory drive belt and [SC](#) drive belt onto the crankshaft pulley.
- Rotate the accessory drive belt tensioner clockwise and install the accessory drive belt onto the power steering pump pulley.



7. Rotate the [SC](#) drive belt tensioner clockwise and install the drive belt onto the [SC](#) drive pulley.



8. Install the cooling fan assembly. For additional information, refer to [Section 303-03A](#) .
