## **IN-VEHICLE REPAIR**

# Drive Pinion Flange and Drive Pinion Seal

#### Special Tool(s)

Contraction of Contra	Holding Fixture, Drive Pinion Flange 205-126 (T78P-4851-A)
ST1257-A	
	2-Jaw Puller 205-D072 (D97L-4221-A) or equivalent
ST2026-A	
ST1325-A	Installer, Drive Pinion Oil Seal 205-133 (T79P-4676-A)
	Installer, Drive Pinion Flange
	205-002 (TOOL-4858-E)

#### Material

Item	Specification
SAE 75W-140 High Performance Rear Axle Lubricant XY-75W140-QL	WSP-M2C192-A
Premium Long-Life Grease XG-1-C	ESA-M1C75-B
Threadlock and Sealer TA-25	WSK-M2G351-A5

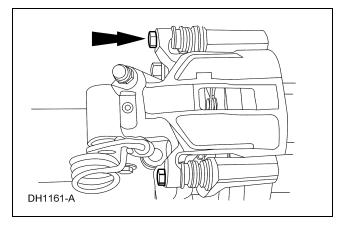
#### Removal

1. With the vehicle in NEUTRAL, position it on a hoist. For additional information, refer to Section 100-02.

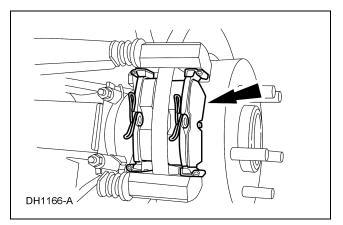
2. **NOTE:** The wheels and disc brake calipers must be removed to prevent brake drag during drive pinion bearing preload adjustment.

Remove the wheel and tire assembly. For additional information, refer to Section 204-04.

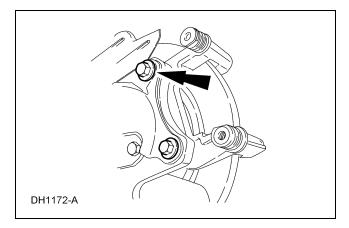
- 3. Remove the 4 disc brake caliper bolts and the 2 disc brake calipers.
  - Using mechanic's wire, support the 2 disc brake calipers.



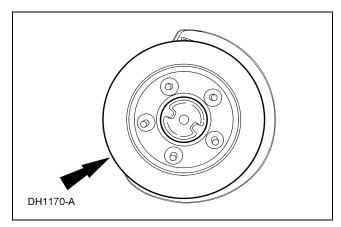
4. Remove the disc brake pads.



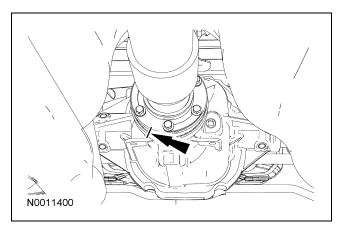
5. Remove the 4 disc brake caliper anchor bolts and remove the 2 disc brake caliper anchors.



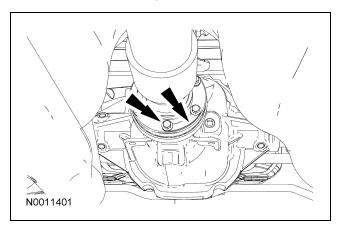
6. Remove the 2 brake discs.



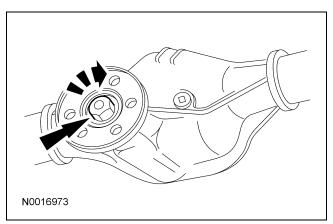
7. Index mark the constant velocity (CV) joint and pinion flange for correct alignment during installation.



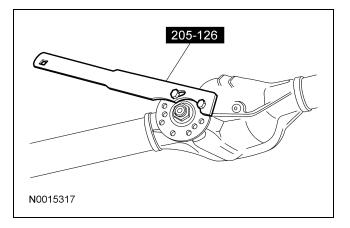
- 8. Remove the 6 CV joint bolts and 3 CV joint washers, then disconnect the CV joint from the pinion flange.
  - Using mechanic's wire, position the driveshaft aside.
  - Discard the CV joint bolts.



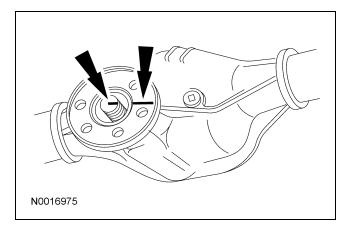
9. Using a Nm (lb-in) torque wrench on the pinion nut, record the torque required to maintain rotation of the pinion gear through several revolutions.



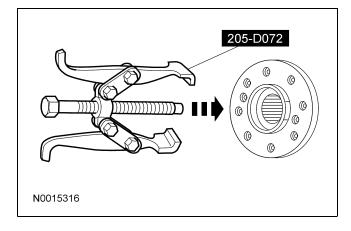
10. Using the special tool to hold the pinion flange, remove and discard the pinion nut.



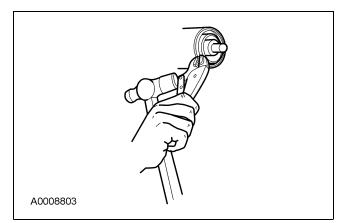
11. Index mark the pinion flange in relation to the drive pinion stem to make sure of correct alignment during installation.



12. Using the special tool, remove the pinion flange.



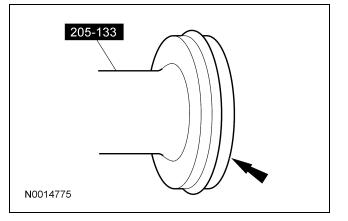
13. Force up on the metal flange of the drive pinion seal. Install gripping pliers and strike with a hammer until the drive pinion seal is removed.



### Installation

- 1. Lubricate the new drive pinion seal with grease.
- 2. CAUTION: If the new drive pinion seal becomes misaligned during installation, remove the drive pinion seal and install a new drive pinion seal.

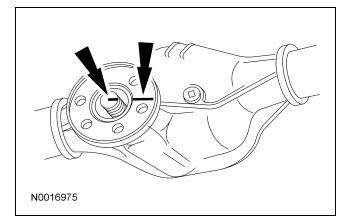
Using the special tool, install a new drive pinion seal.



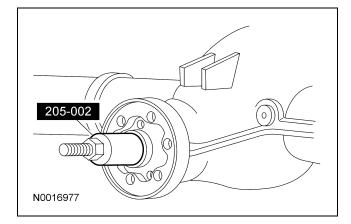
3. Lubricate the pinion flange splines with axle lubricant.

4. **NOTE:** Disregard the scribe marks if a new pinion flange is being installed.

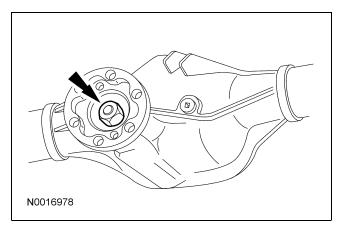
Align the pinion flange with the drive pinion shaft.



5. Using the special tool, install the pinion flange.



6. Position the new pinion nut.

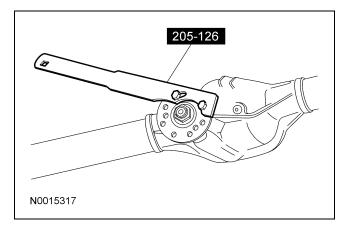


7. CAUTION: Under no circumstances is the pinion nut to be backed off to reduce drive pinion bearing preload. If reduced drive pinion bearing preload is required, a new drive pinion collapsible spacer and pinion nut must be installed.

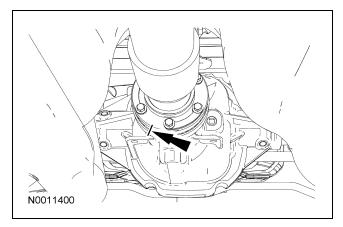
#### **CAUTION:** Remove the special tool while taking drive pinion bearing preload readings with the Nm (lb-in) torque wrench.

Using the special tool to hold the pinion flange, tighten the pinion nut.

- Rotate the drive pinion occasionally to make sure the drive pinion bearings are seating correctly.
- Install a Nm (lb-in) torque wrench on the pinion nut.
- Rotating the drive pinion through several revolutions, take frequent drive pinion bearing preload readings until the original recorded drive pinion bearing preload reading is obtained.
- If the original recorded drive pinion bearing preload is lower than specifications, tighten to the appropriate specifications for used drive pinion bearings. If the drive pinion bearing preload is higher than specification, tighten the pinion nut to the original reading as recorded. For additional information, refer to the Specifications portion of this section.



8. Position the driveshaft and align the index marks on the pinion flange.

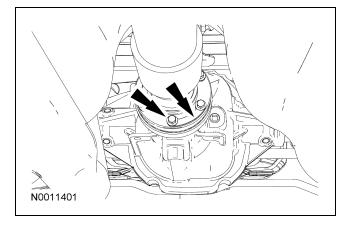


9. CAUTION: If new CV joint bolts are not available, coat the threads of the original CV joint bolts with Threadlock and Sealer.

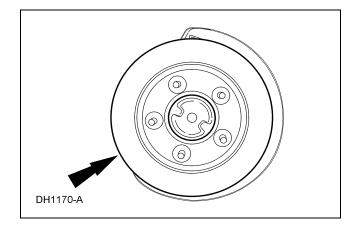
**NOTE:** Tighten the CV joint bolts evenly in a star pattern.

Connect the CV joint to the pinion flange, then install the 6 new CV joint bolts and CV joint washers.

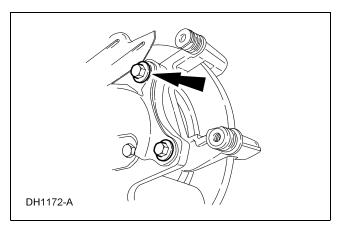
• To install, tighten to 55 Nm (41 lb-ft).



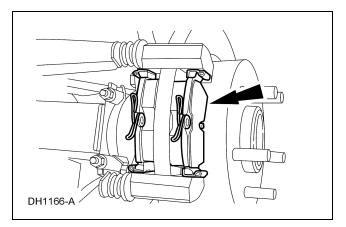
10. Install the 2 brake discs.



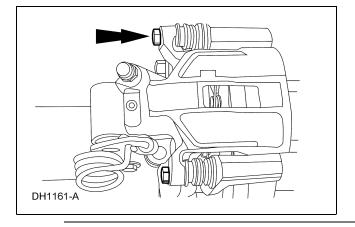
- 11. Install the 2 disc brake caliper anchors, then install the 4 disc brake caliper anchor bolts.
  - Tighten to 103 Nm (76 lb-ft).



12. Install the disc brake pads.



- 13. Install the 2 disc brake calipers and the 4 disc brake caliper bolts.
  - Tighten to 33 Nm (25 lb-ft).



14. Install the wheel and tire assembly. For additional information, refer to Section 204-04.