

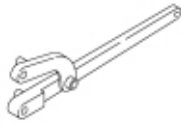

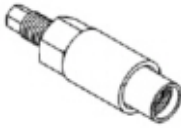

205-03 Front Drive Axle/Differential
Removal and Installation

2019 Ranger
Procedure revision date: 12/13/2018

Drive Pinion Flange and Seal

Base Part Number: 3N134

Special Tool(s) / General Equipment

 15030A	205-072 Universal Flange Holding Wrench
 E254789	205-208 (T83T-4676-A) Installer, Drive Pinion Oil Seal TKIT-1983-F TKIT-1983-FLM TKIT-1983-FX
	205-393 Installer, Drive Pinion Flange TKIT-1997-FH/FMH/FLMH
 E238661	205-D027 (D80L-1013-A) 2 or 3 Jaw Puller

Materials

Name	Specification
Motorcraft® SAE 75W-85 Premium Synthetic Hypoid Gear Lubricant XY-75W85-QL	WSS-M2C942-A

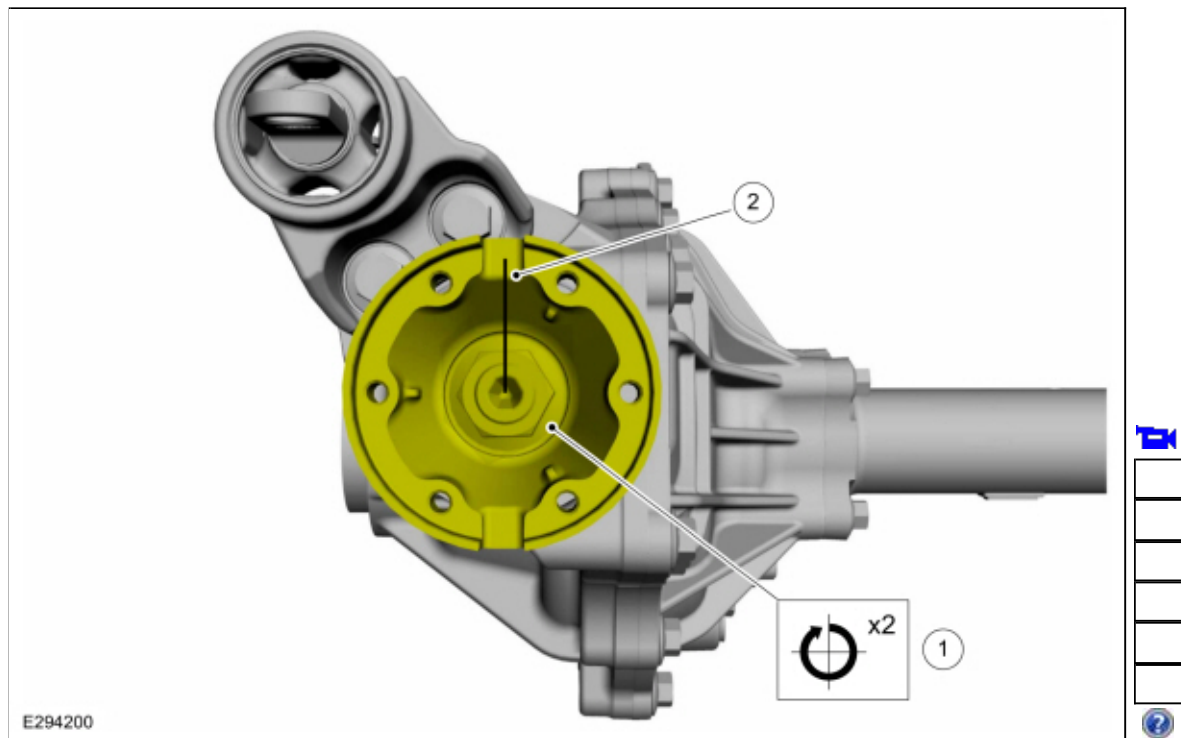
Removal

NOTICE: Exceeding the drive pinion bearing preload will damage the bearings.

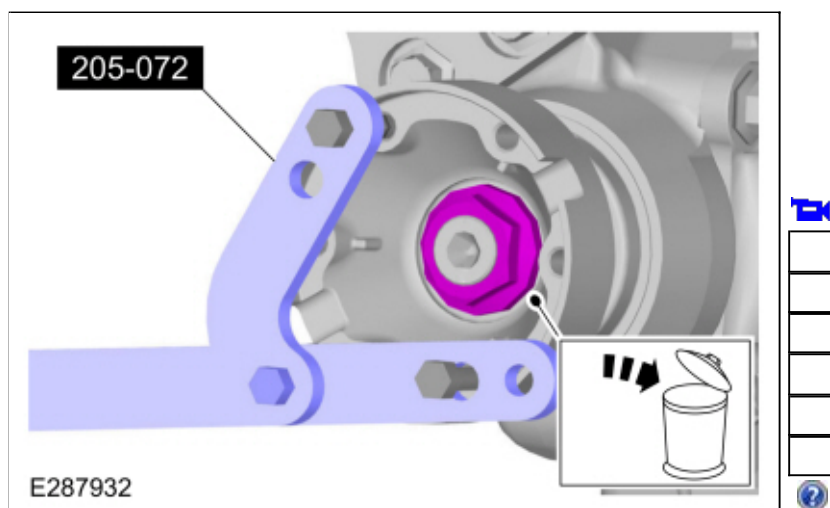
1. Remove the front brake pads.
Refer to: [Brake Pads](#) (206-03 Front Disc Brake, Removal and Installation).
2. Remove the front driveshaft.
Refer to: [Front Driveshaft](#) (205-01 Driveshaft, Removal and Installation).
3. **NOTE:** Rotational torque of the drive pinion flange must be measured and recorded using a Nm (lb-in)

torque wrench for correct pinion bearing preload when reassembled. This will be the torque-to-turn measurement.

1. Using a dial type torque wrench, measure and record the rotational torque of the drive pinion.
2. Index-mark the pinion flange and the drive pinion stem.



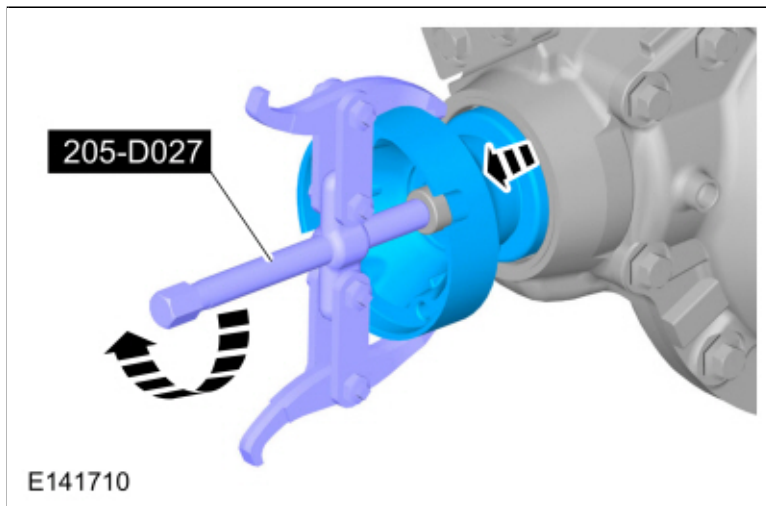
4. Using the special tool, remove and discard the pinion nut.
Use Special Service Tool: 205-072 Universal Flange Holding Wrench.



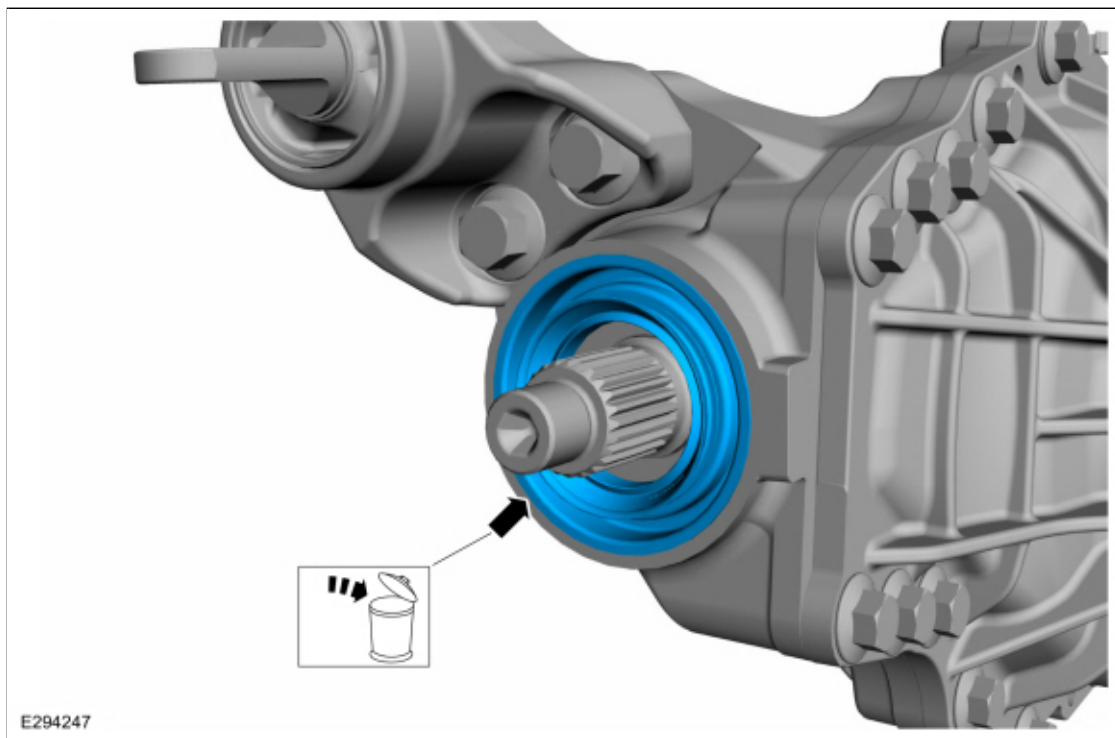
5. **NOTICE: Do not use power tools to remove the pinion flange.**

Using the general equipment, remove the pinion flange.

Use Special Service Tool: [205-D027 \(D80L-1013-A\) 2 or 3 Jaw Puller](#).



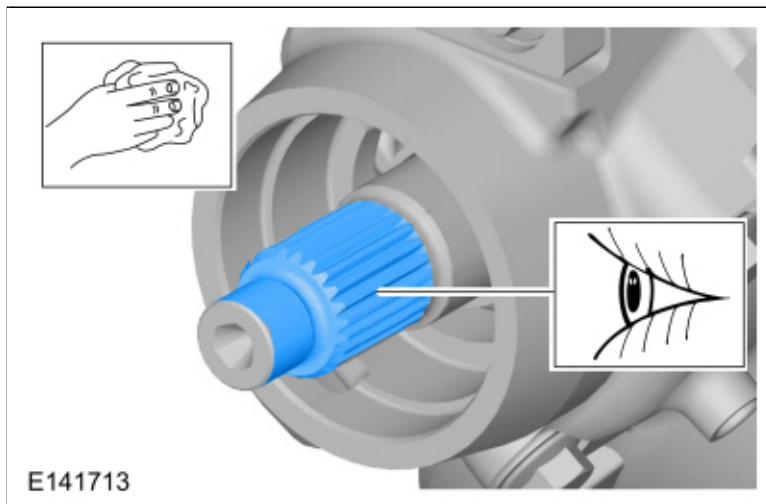
6. Using a general equipment, remove and discard the drive pinion seal.



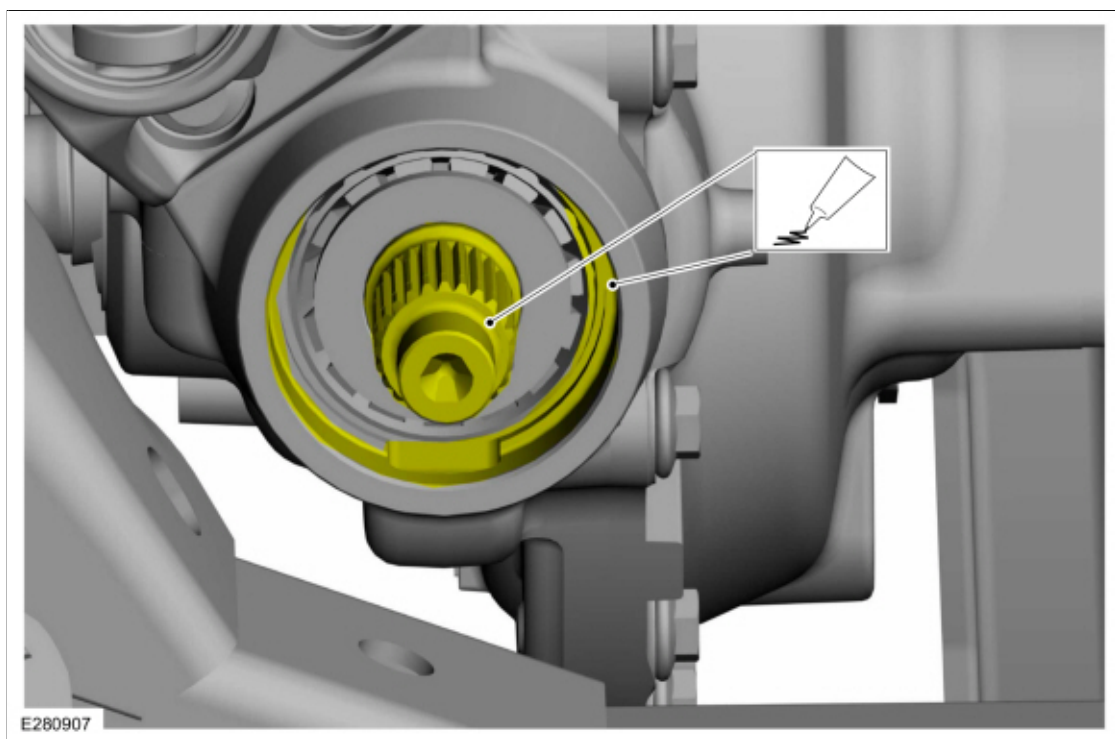
Installation

1. Clean and inspect the pinion flange mating surfaces and pinion seal surface.

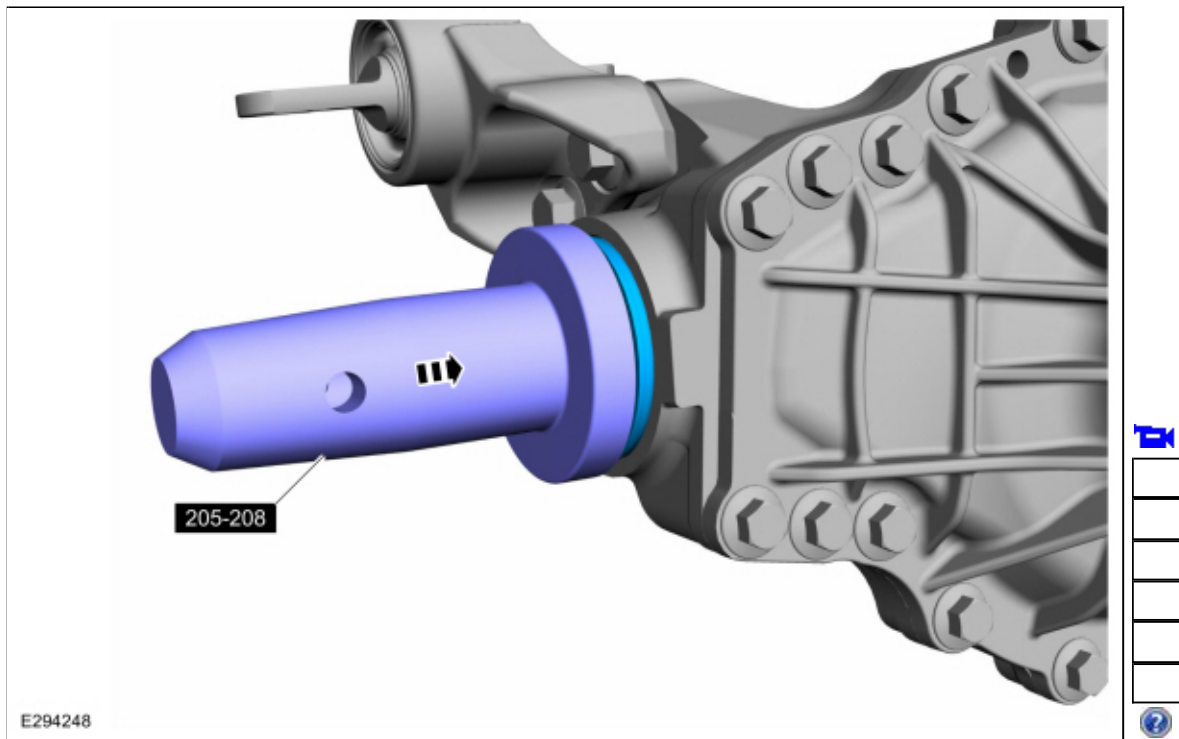




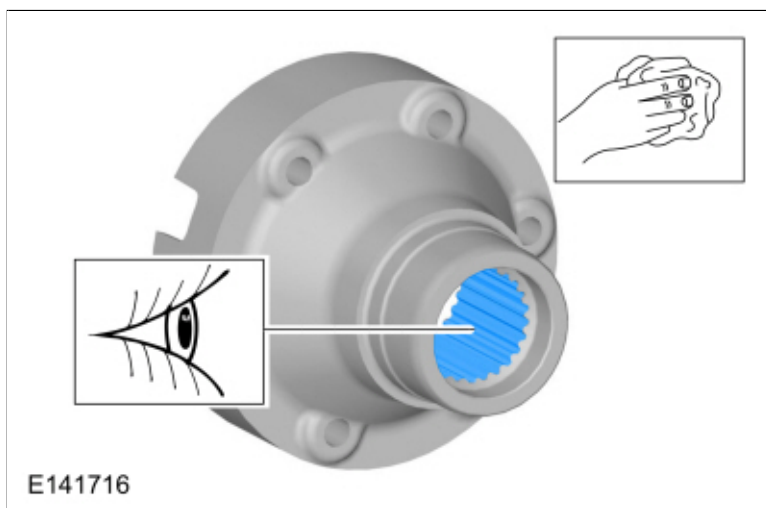
2. Lubricate the pinion seal mating surface and pinion splines.
Material: Motorcraft® SAE 75W-85 Premium Synthetic Hypoid Gear Lubricant / XY-75W85-QL (WSS-M2C942-A)



3. Using the special tool, install the new pinion seal.
 Use Special Service Tool: [205-208 \(T83T-4676-A\) Installer, Drive Pinion Oil Seal](#).

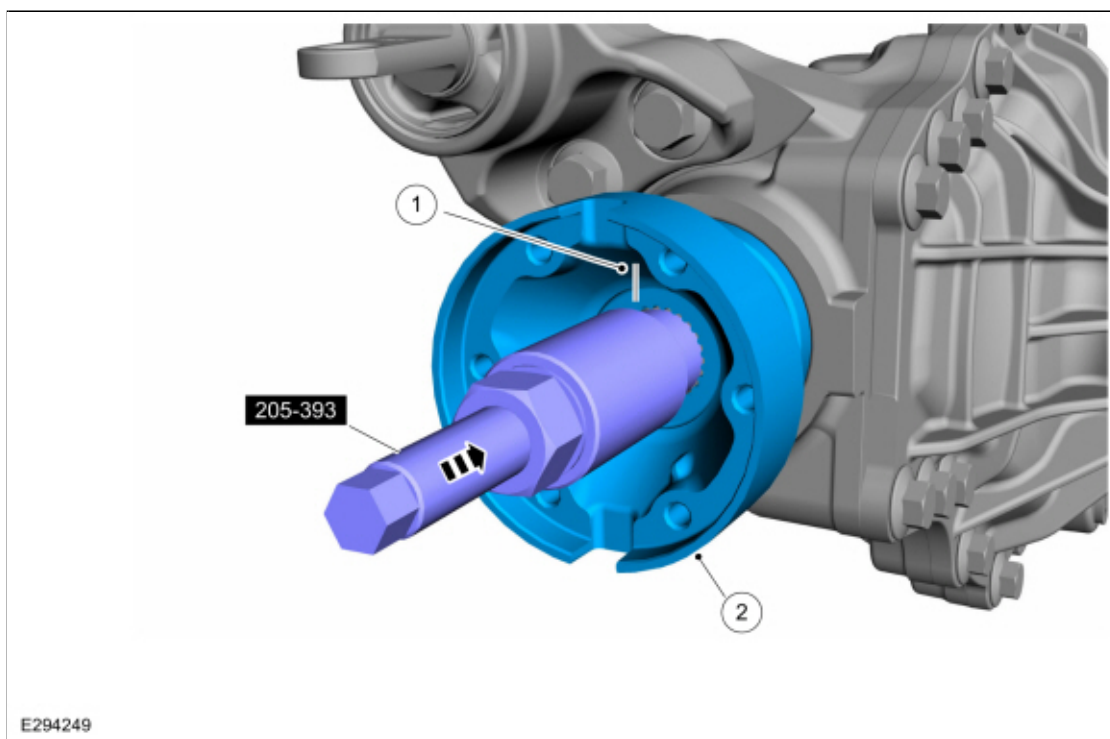


4. Clean and inspect the pinion flange mating surfaces and pinion seal surface.



5. **NOTE:** Make sure drive pinion flange and drive pinion stem are phased correctly using previously applied mark.

1. Align the index marks made during removal.
2. Install the pinion flange.
Use Special Service Tool: [205-393 Installer, Drive Pinion Flange](#).



6. **NOTICE:** Do not loosen the pinion nut to reduce drive pinion bearing preload. Install a new drive pinion collapsible spacer and pinion nut if drive pinion bearing preload reduction is necessary. If a new collapsible spacer must be installed for pinion bearing preload reduction, install the nut supplied with the new spacer or damage to the component may occur.

NOTE: Tighten the pinion nut, rotating the pinion occasionally to make sure the drive pinion bearings are seating correctly. Take frequent drive pinion bearing preload readings by rotating the drive pinion gear with a Nm (lb-in) torque wrench. The final reading must be 0.56 Nm (5 lb-in) more than the initial reading taken during removal.

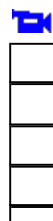
NOTE: When installing the drive pinion flange and pinion nut with no differential carrier installed, the drag torque (torque to turn) should be 1.8 to 3.3 Nm (16-29 in-lbs).

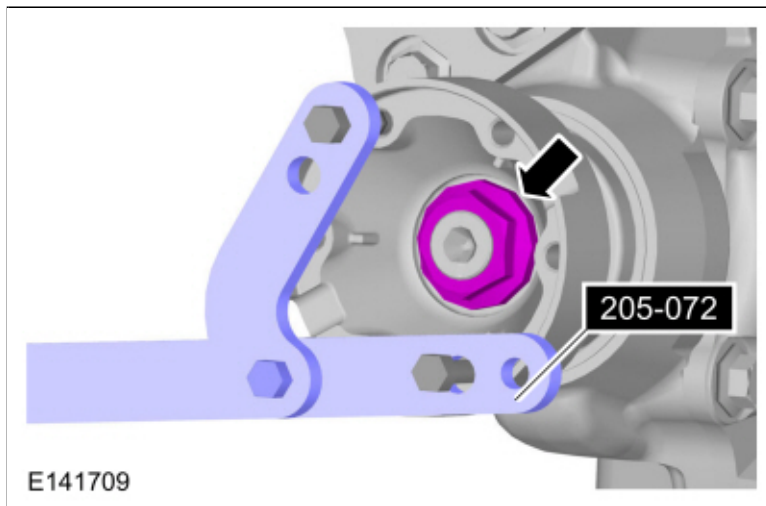
NOTE: Make sure that a new nut is installed.

Using the special tool, install the new pinion nut.

Use Special Service Tool: 205-072 Universal Flange Holding Wrench.

Torque: 221 lb.ft (300 Nm)





7. Check the front differential fluid level.
Refer to: [Differential Fluid Level Check](#) (205-03 Front Drive Axle/Differential, General Procedures).
8. Install the front driveshaft.
Refer to: [Front Driveshaft](#) (205-01 Driveshaft, Removal and Installation).
9. Install the front brake pads.
Refer to: [Brake Pads](#) (206-03 Front Disc Brake, Removal and Installation).

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