Halfshaft - Vehicles Without: Integrated Wheel End (IWE)

Removal

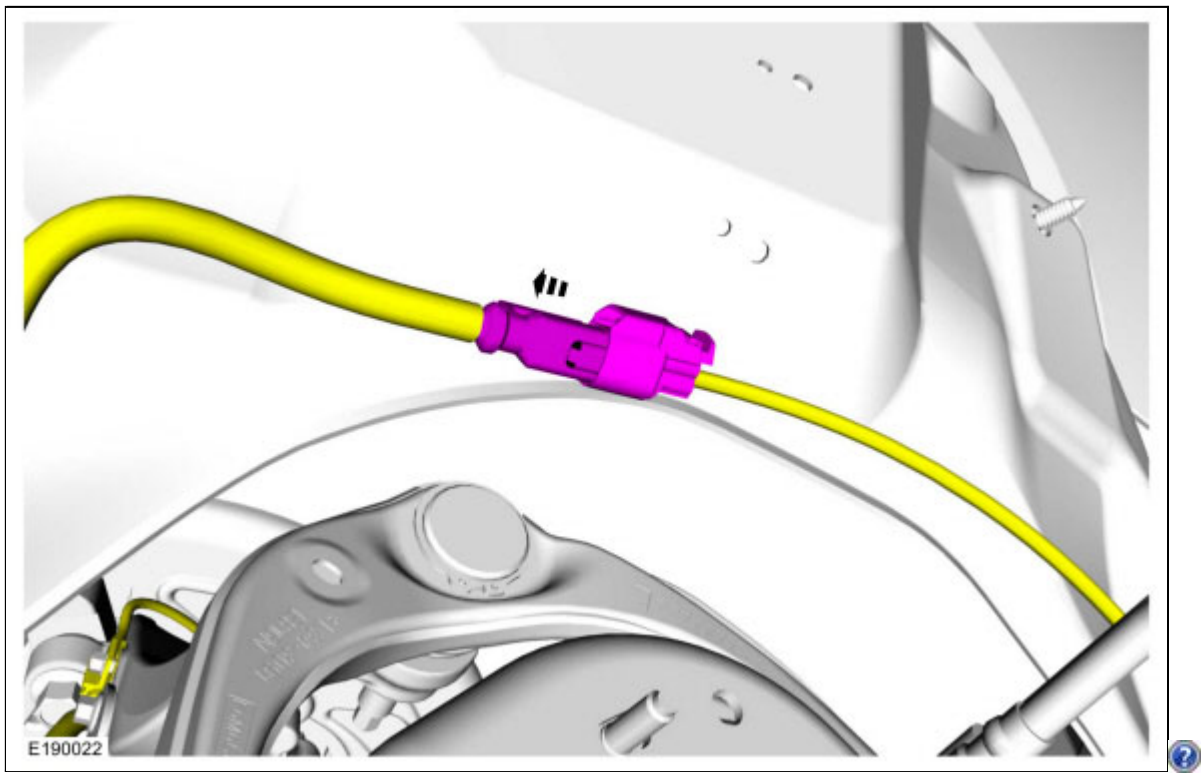
NOTICE: Suspension fasteners are critical parts that affect the performance of vital components and systems. Failure of these fasteners may result in major service expense. Use the same or equivalent parts if replacement is necessary. Do not use a replacement part of lesser quality or substitute design. Tighten fasteners as specified.

NOTE: *Left hand (LH) shown, right hand (RH) similar.*

1. **NOTE:** *If equipped.*

   Remove the front engine undershield.
   Refer to: Engine Front Undershield (501-02 Front End Body Panels, Removal and Installation).

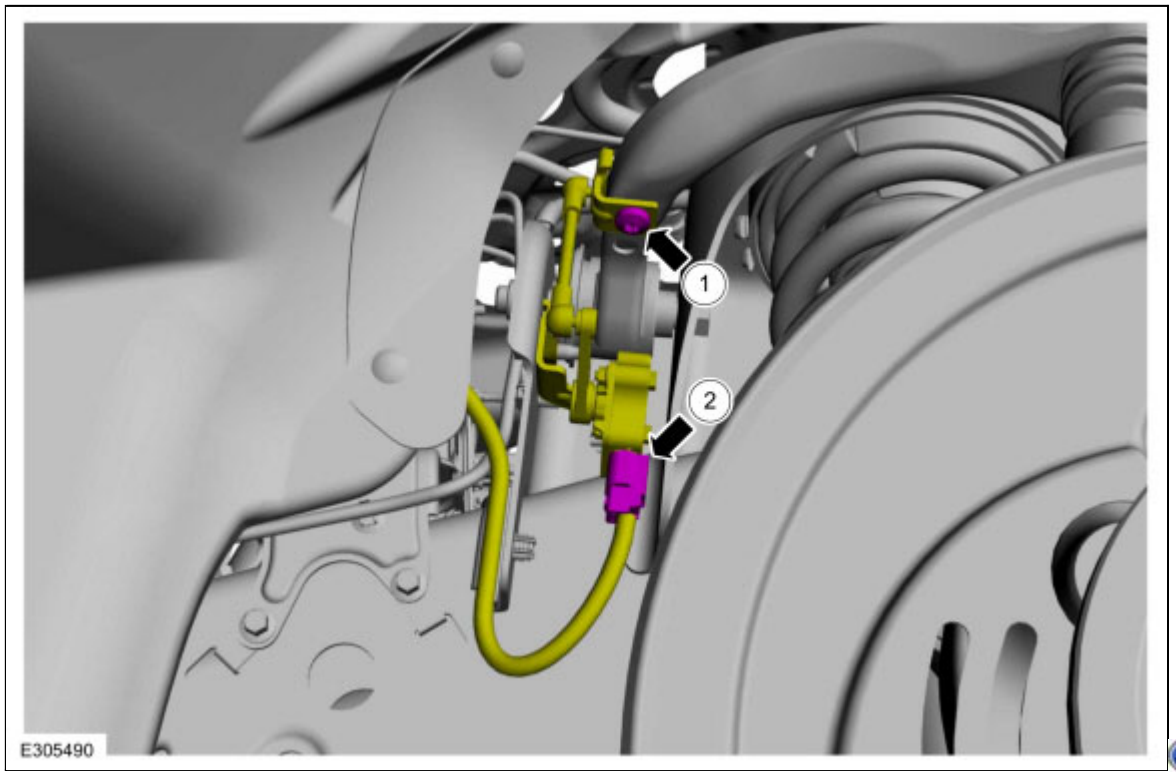
2. Disconnect the wheel speed sensor harness and position the harness aside.



3. **NOTE:** *Removal steps may contain installation details.*

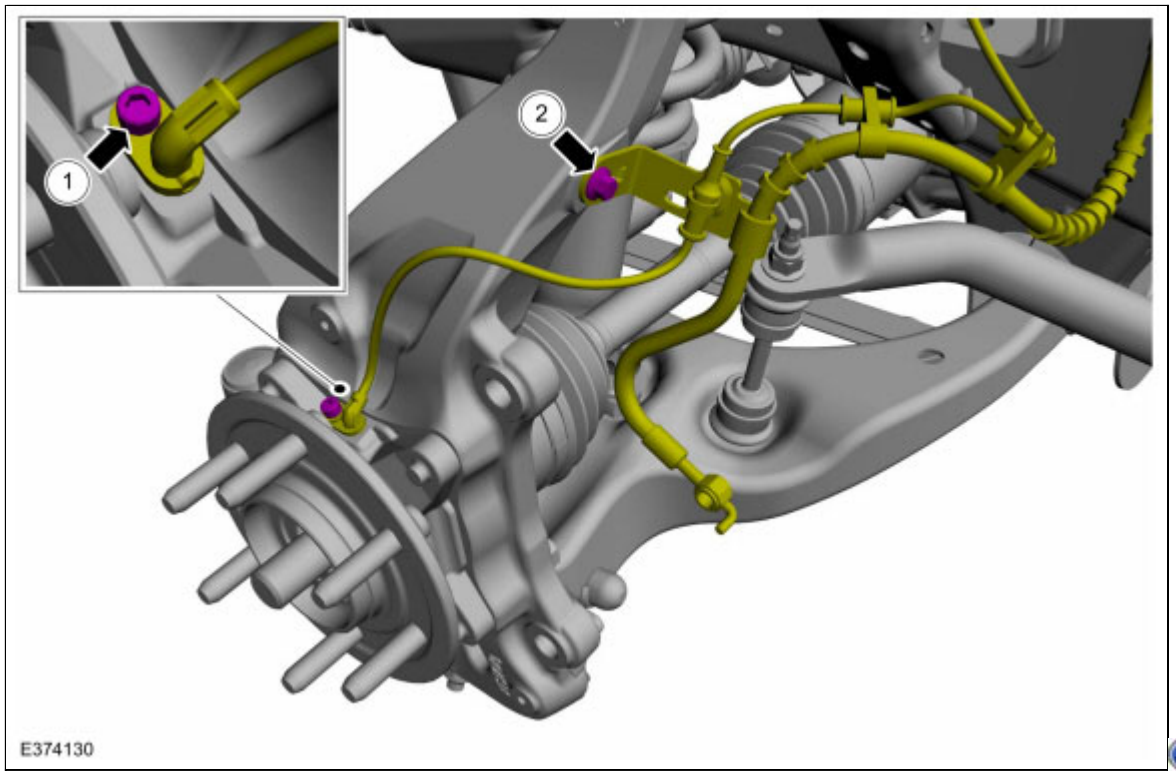
   Remove the brake disc.
   Refer to: Brake Disc (206-03 Front Disc Brake, Removal and Installation).

4.
   1. Remove the height sensor arm bracket screw.
      Torque : 177 lb.in (20 Nm)
   2. Disconnect the height sensor connector and keep aside the height sensor arm bracket.



5.

1. Remove the wheel speed sensor wire bracket bolt.
   Torque : 106 lb.in (12 Nm)
2. Remove the wheel speed sensor wire bracket bolt on the wheel knuckle and position aside the wheel speed sensor wire.
   Torque : 18 lb.ft (25 Nm)



6.

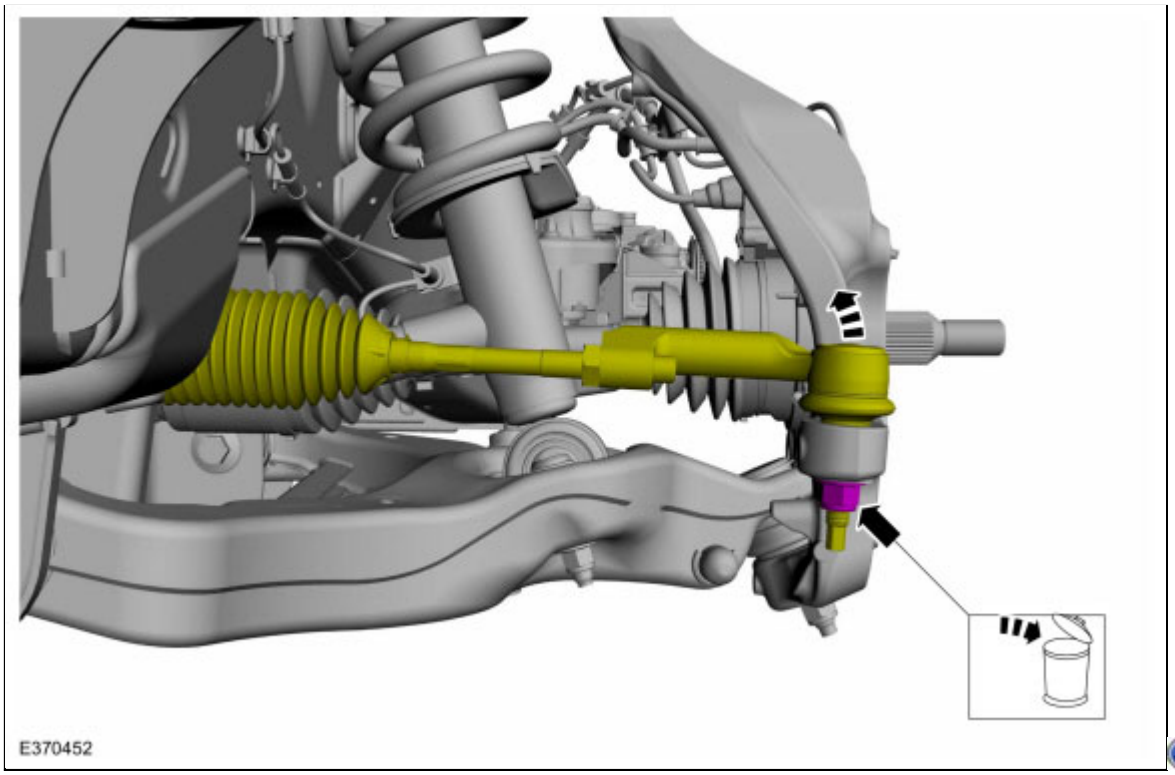
- **NOTE:** *Use the hex-holding feature to prevent the stud from turning while removing the nut.*

  Remove and discard the outer tie rod end nut.
  Torque : 85 lb.ft (115 Nm)

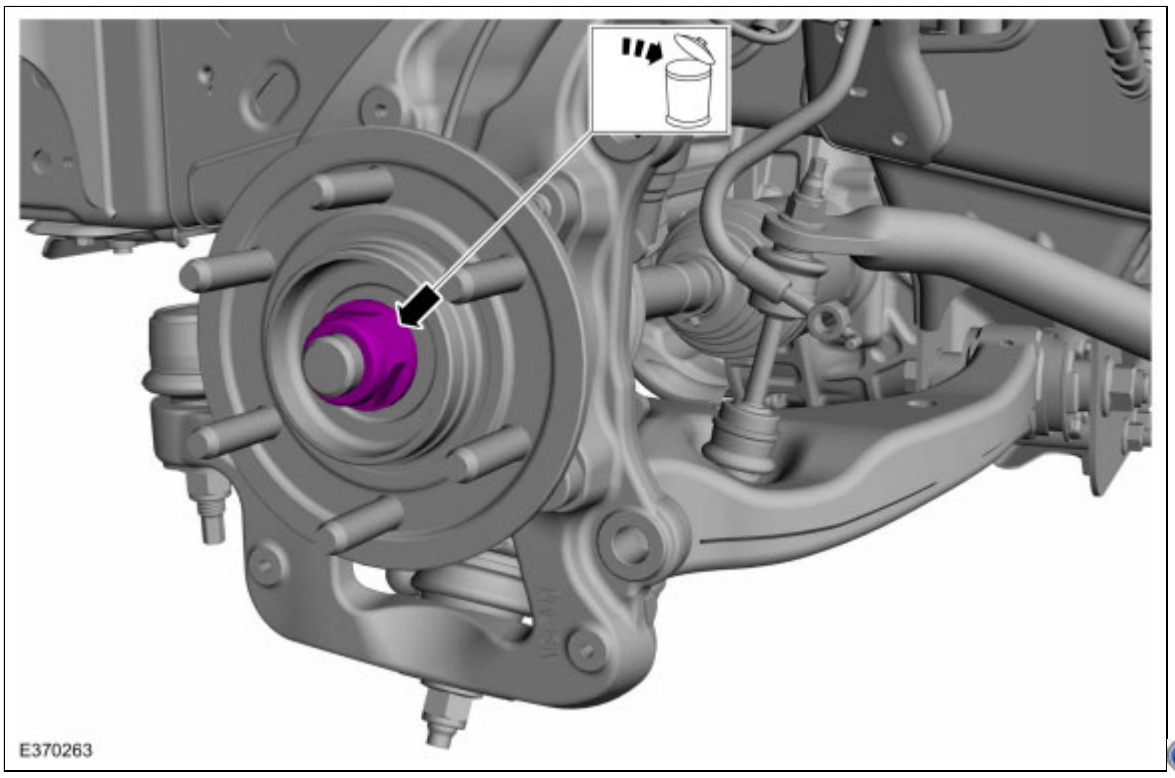
- **NOTICE: Do not use a hammer to separate the outer tie-rod end from the wheel knuckle or damage to the wheel knuckle may result.**

  NOTICE: Use care when installing the tie rod separator or damage to the outer tie-rod end boot may occur.

  Separate the outer tie rod end from the wheel knuckle.
  Use the General Equipment: Tie Rod End Remover

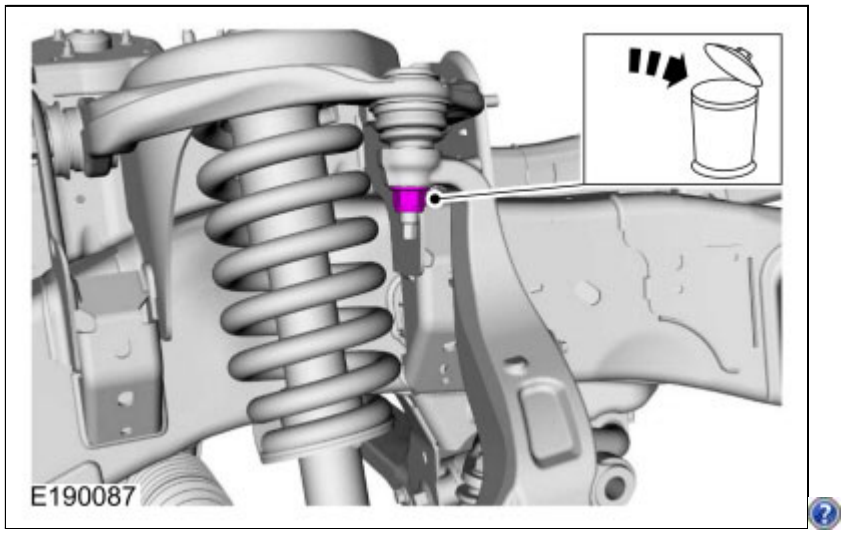


7. Remove and discard the wheel hub nut.
   Torque : 184 lb.ft (250 Nm)



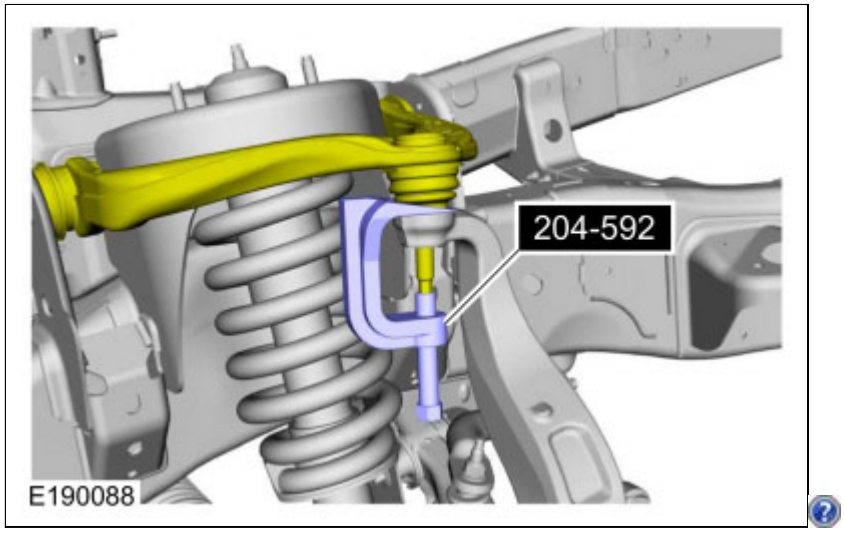
8. **NOTE:** *Use the hex-holding feature to prevent the stud from turning while removing the nut.*

   Remove and discard the upper ball joint nut.
   Torque : 46 lb.ft (63 Nm)



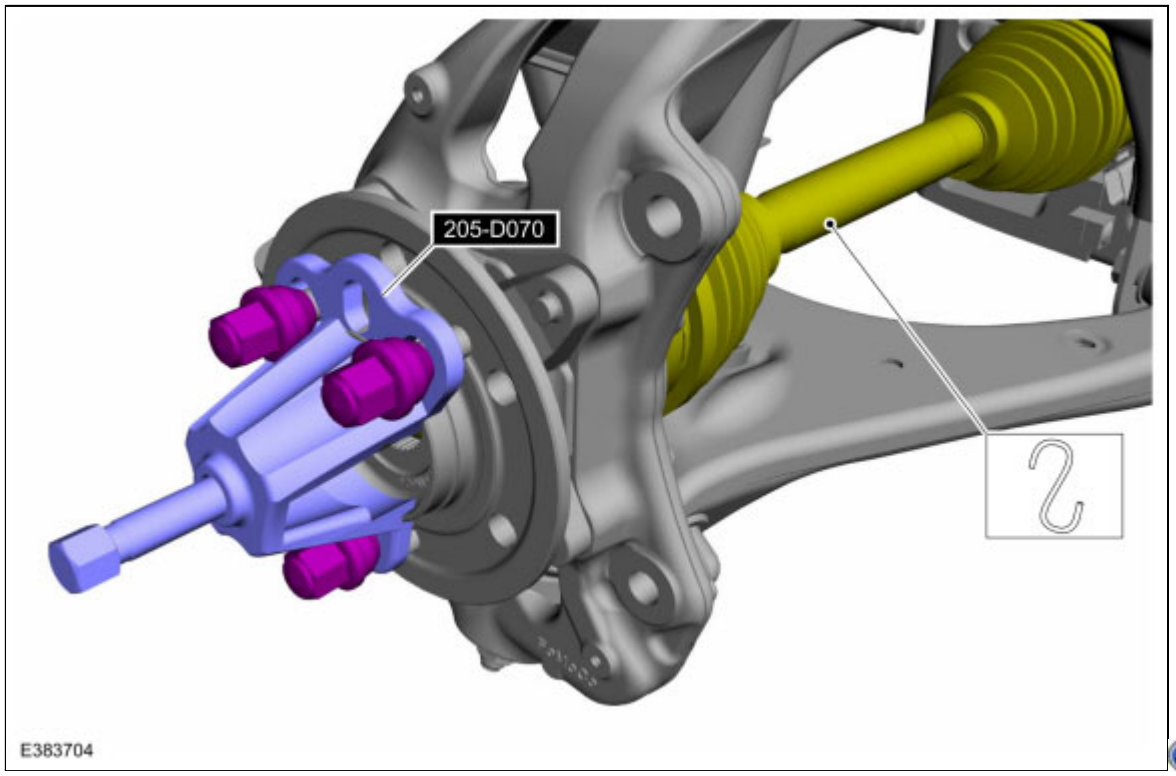
9. **NOTE:** *Be sure not to damage the ball joint boot when installing the Ball Joint Separator.*

   Separate the upper ball joint from the wheel knuckle.
   Use Special Service Tool : 204-592 Separator, Lower Arm Ball Joint



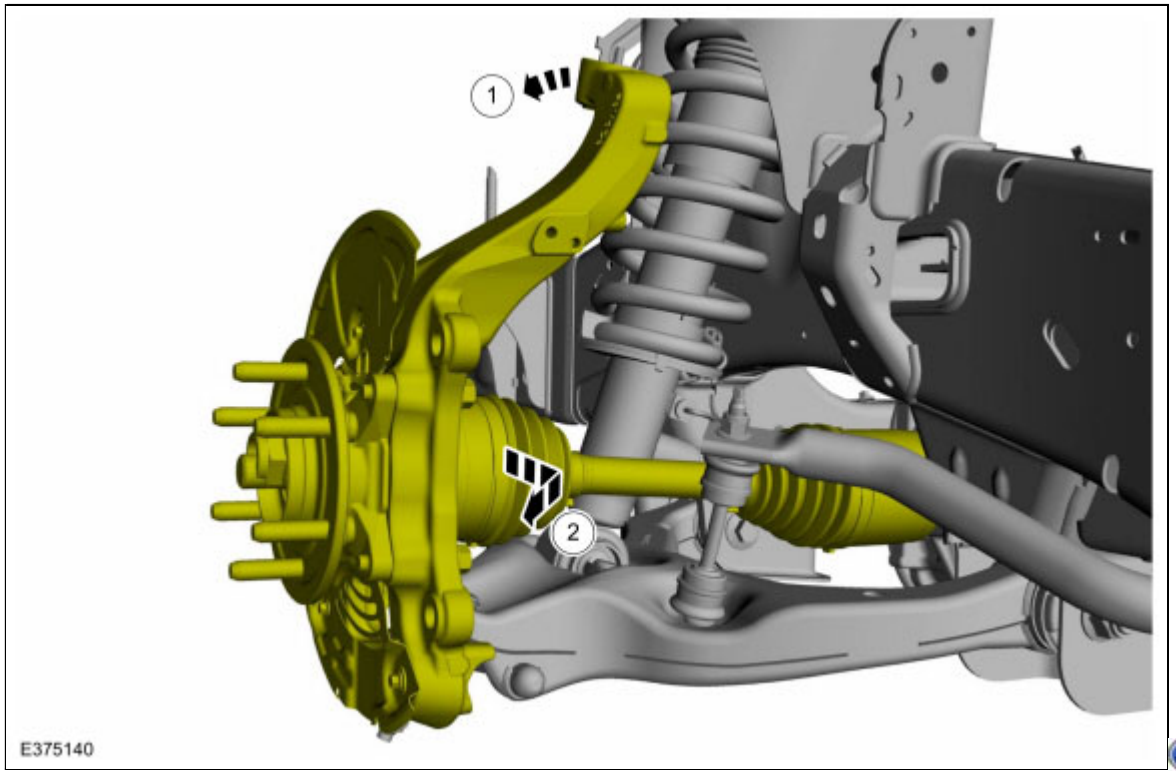
10. **NOTICE: Do not bend the inner joint more than 18 degrees and the outer joint more than 45 degrees. Damage to the shaft will occur.**

    Using the special tool, press the halfshaft from the wheel bearing and hub. Support the halfshaft in a level position.
    Use Special Service Tool : 205-D070 (D93P-1175-B) Remover, Front Wheel Hub



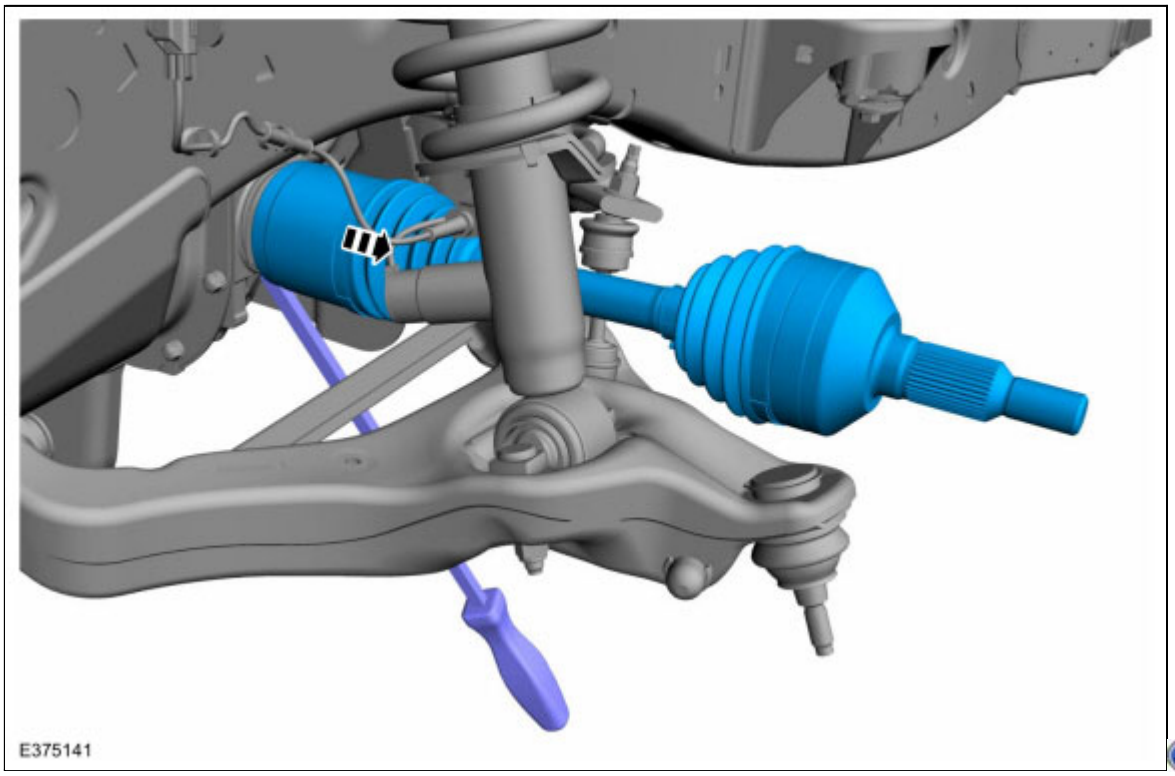
11.

1. Position the wheel knuckle to gain access.
2. Remove the CV shaft joint outboard end.

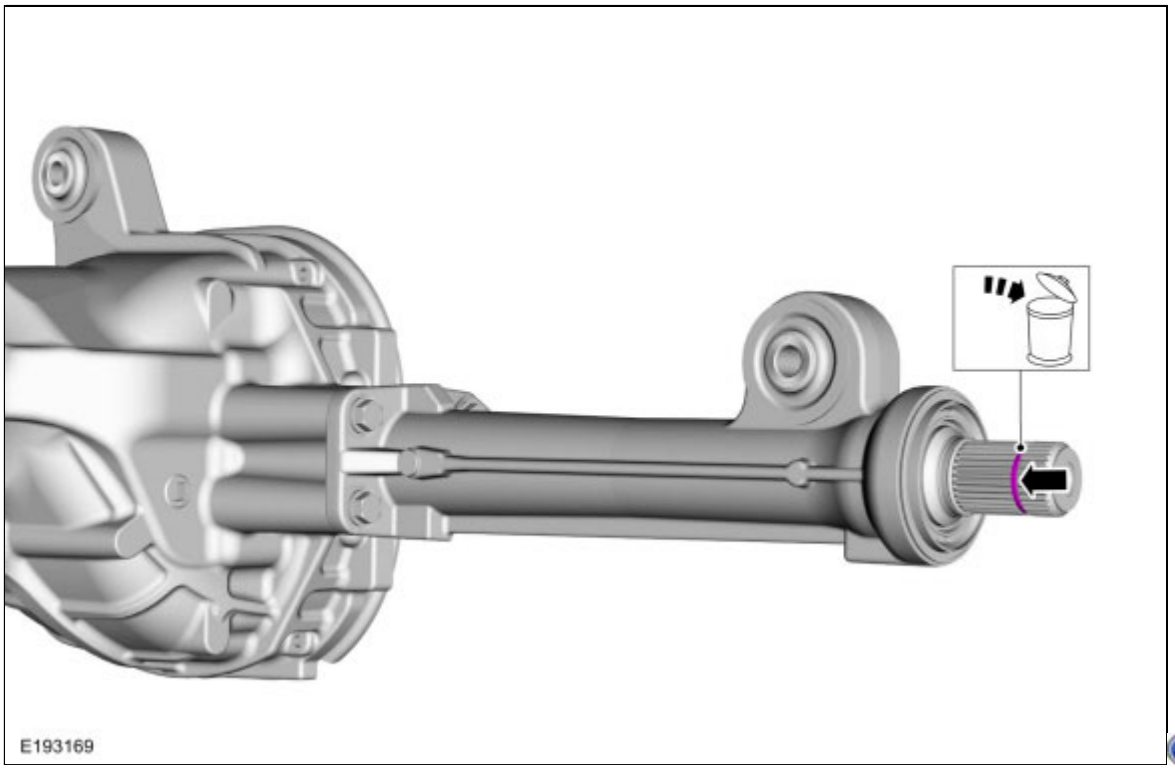


12. **NOTE:** *Use care to not cause damage to the components.*

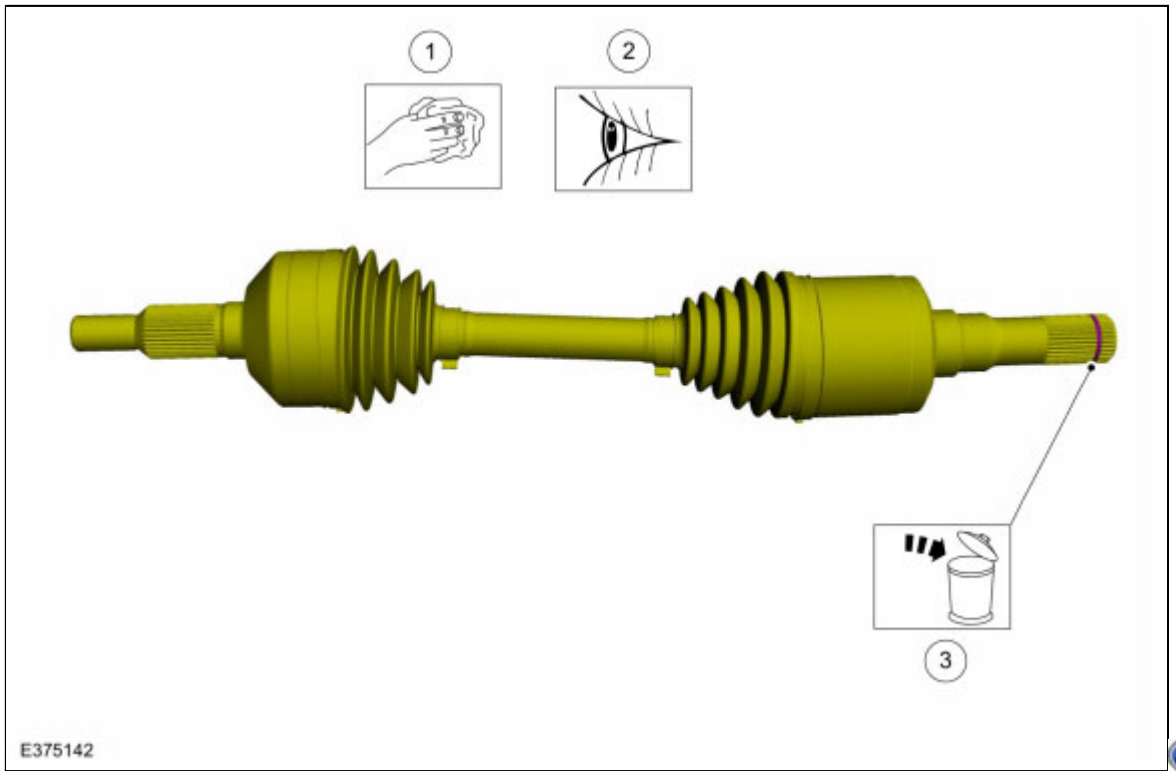
Using the tire lever, remove the halfshaft from the differential and the intermediate shaft.
Use the General Equipment: Tire Lever



13. Right-hand side.
    - Remove and discard the circlip.



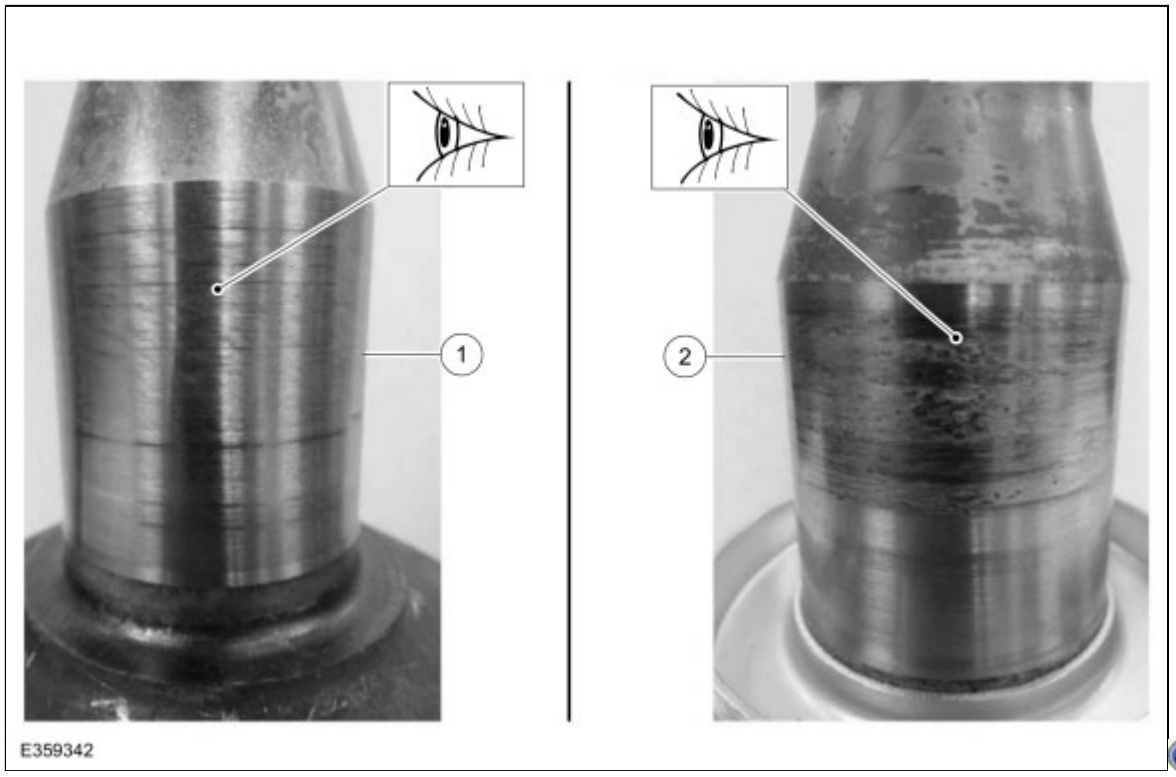
14.
    1. Clean the inner and outer halfshaft ends.
    2. Inspect the inner and outer halfshaft ends.
    3. Remove and discard the circlip.



15.

Inspect the inner CV housing.

1. Normal or acceptable wear.
2. Abnormal or excessive wear.

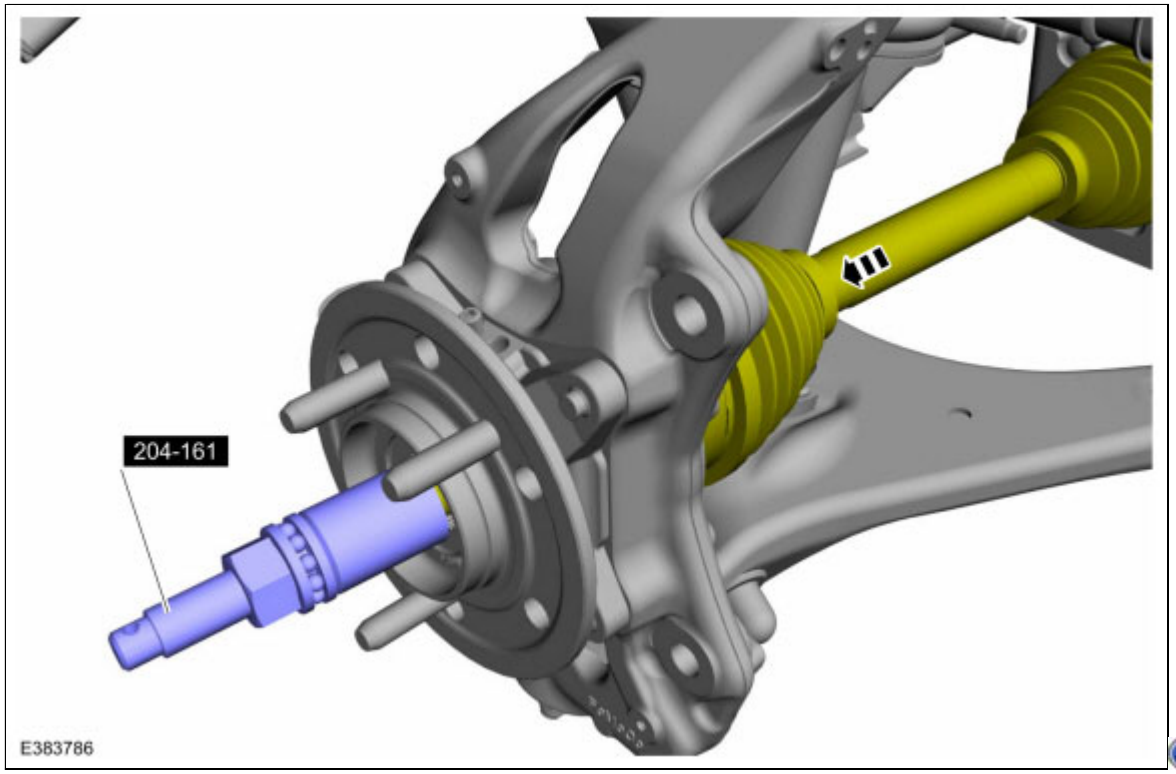


Installation

1. If the LH halfshaft is removed, replace the LH axle shaft seal.
   Refer to: Axle Shaft Seal (205-03 Front Drive Axle/Differential, Removal and Installation).

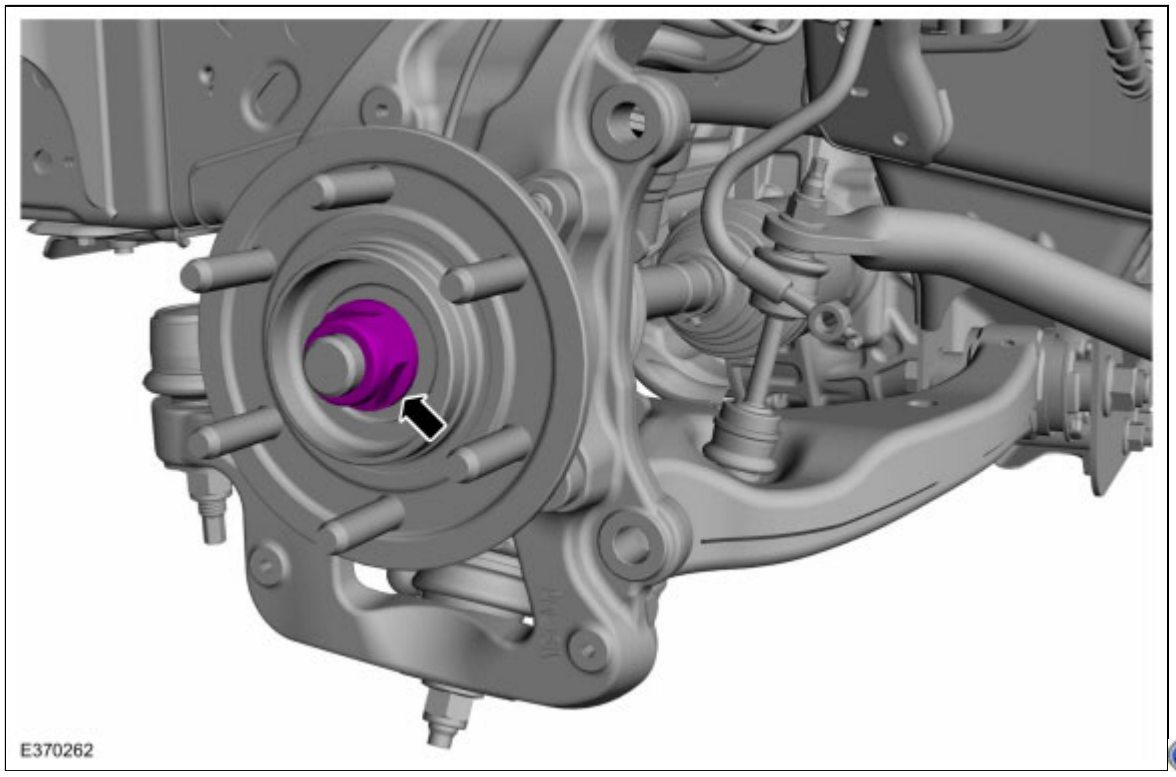
2. To install, reverse the removal procedure.

3. Pull the halfshaft into the front wheel bearing and wheel hub.
   Use Special Service Tool : 204-161 (T97P-1175-A) Installer, Halfshaft



4. **NOTICE: Verify the spline engagement by checking for spline lash before installing the wheel hub nut or component damage may occur.**

   1. Install the new the wheel hub nut.
      Torque : 184 lb.ft (250 Nm)
   2. Verify free rotation of the hub with no CV joint rotation. No clicking or grinding noise should be present.



5. Check the front differential fluid level.
   Refer to: Differential Fluid Level Check (205-03 Front Drive Axle/Differential, General Procedures).

6. If equipped with dynamic suspension, calibrate the suspension height sensor. Connect the scan tool and carry out the Ride Height Calibration routine. Follow the scan tool directions.