

Integrated Wheel End (IWE)

Special Tool(s) / General Equipment

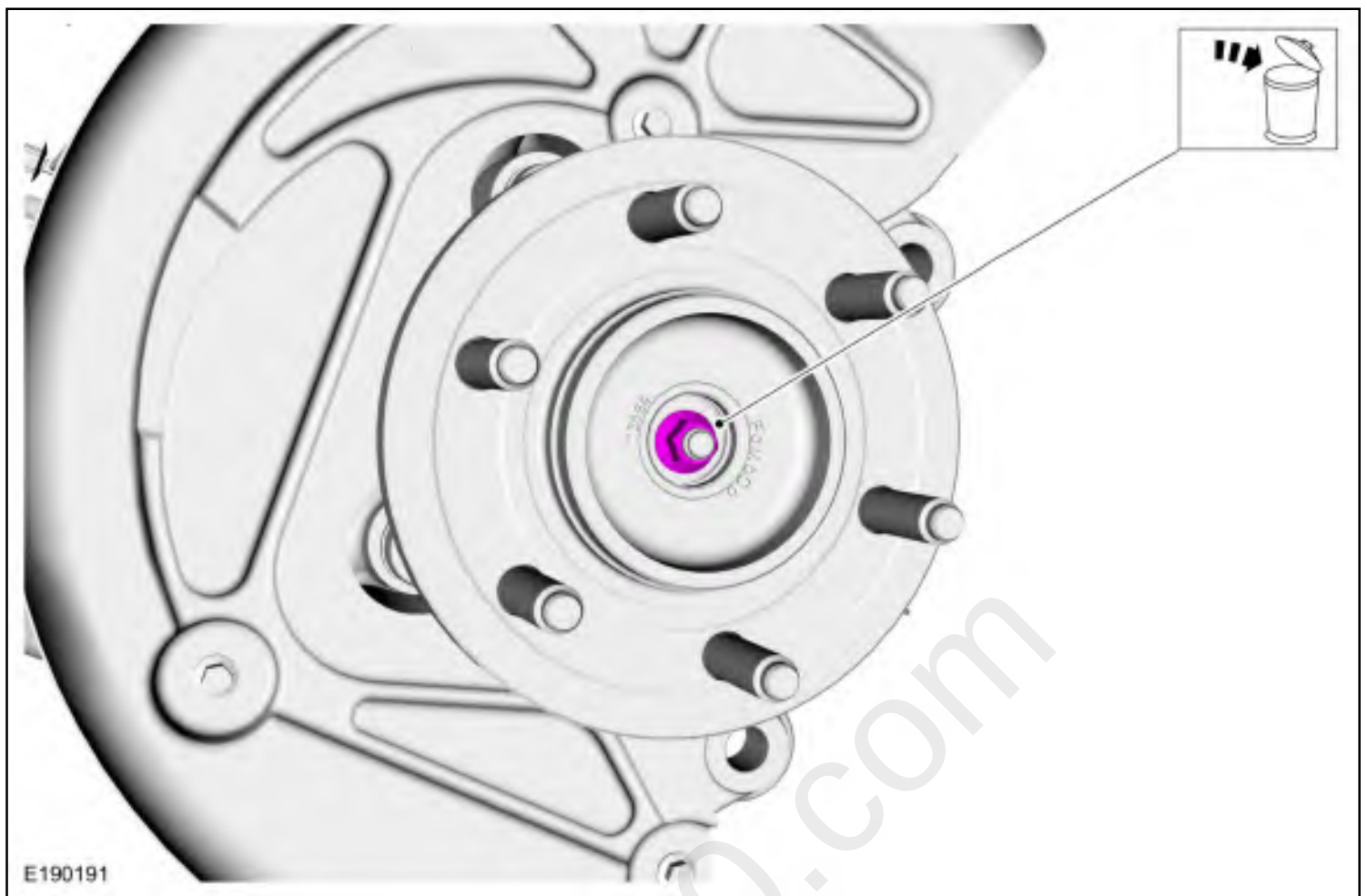
	204-592 Separator, Lower Arm Ball Joint TKIT-2006C-FFMFLM TKIT-2006C-LM TKIT-2006C-ROW
Tie Rod End Remover	

Removal

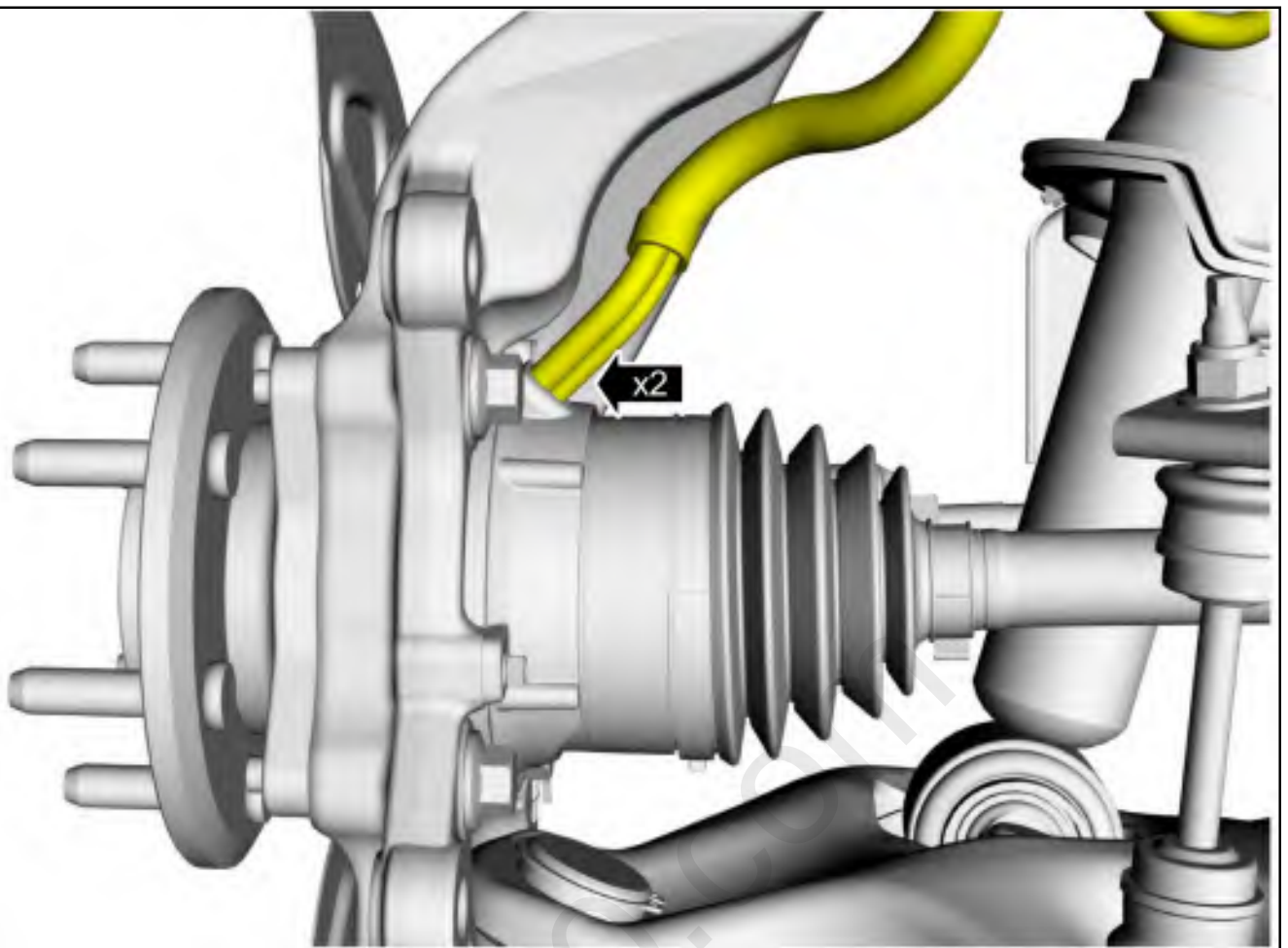
1. Remove the brake disc.
Refer to: [Brake Disc](#) (206-03 Front Disc Brake, Removal and Installation).
2. Remove the wheel hub nut dust cap.



3. Remove and discard the wheel hub nut.

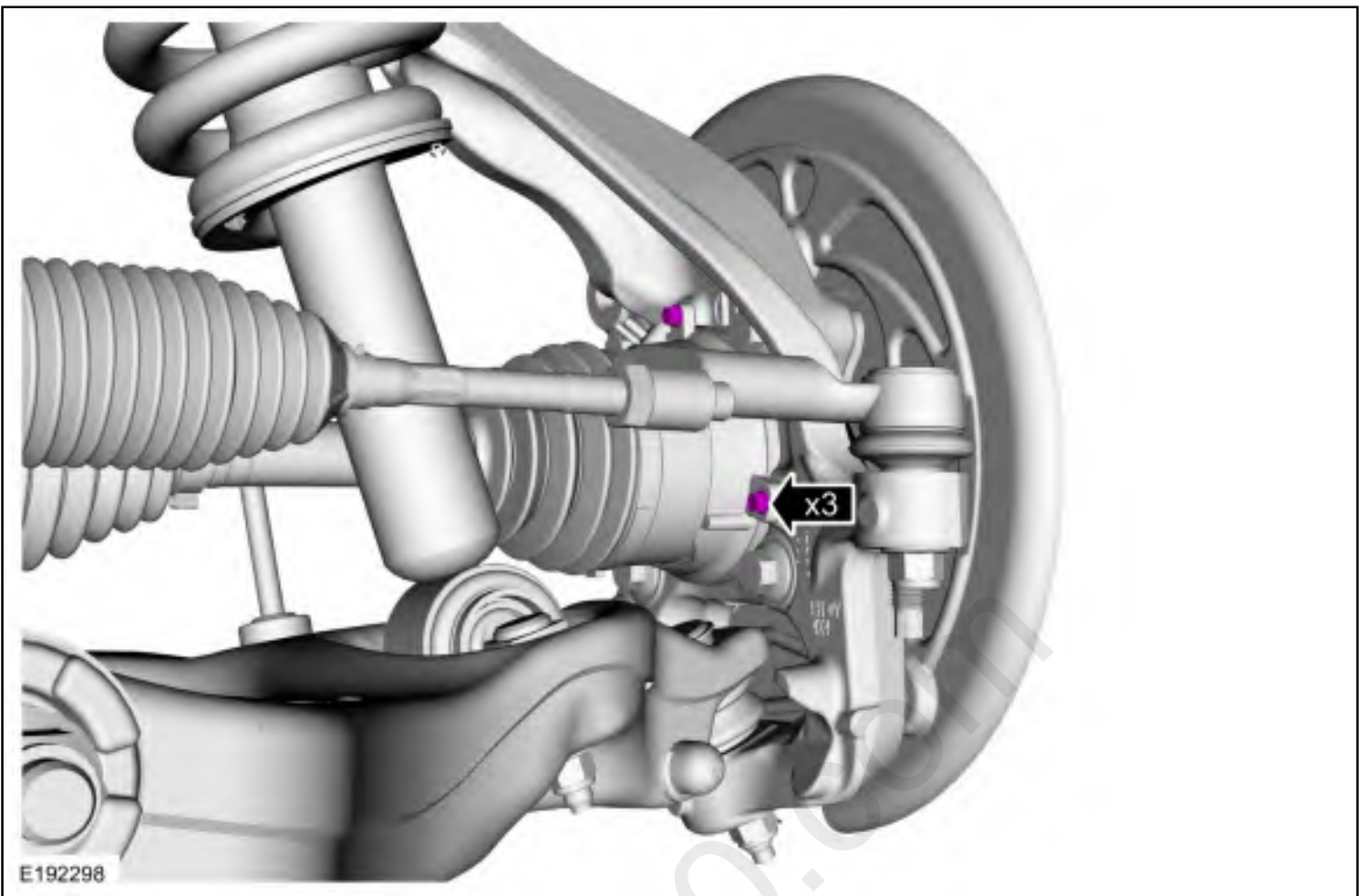


4. Disconnect the vacuum tubes from the IWE and position aside.



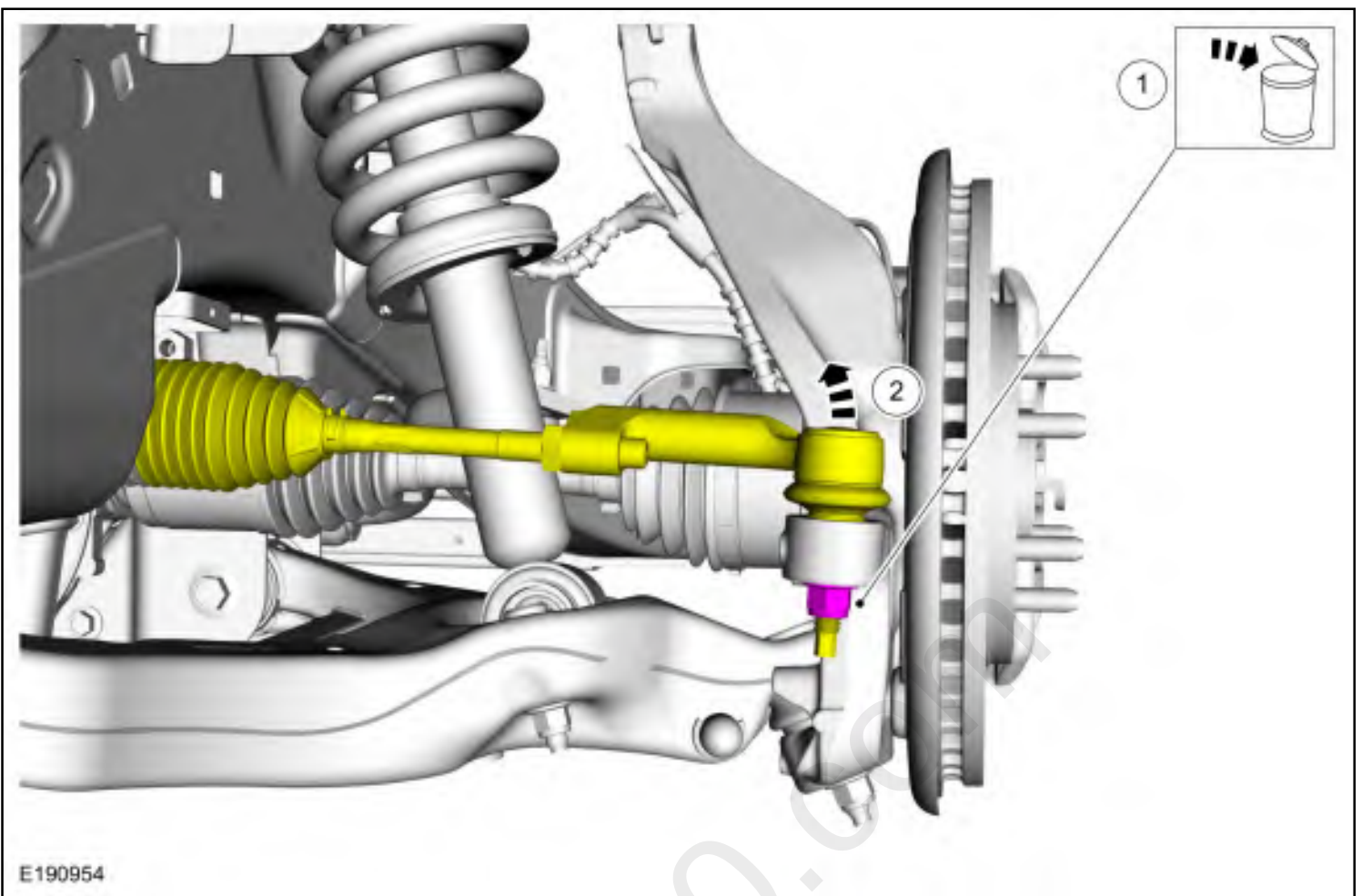
E193165

5. Remove the IWE-to-wheel knuckle retaining bolts.

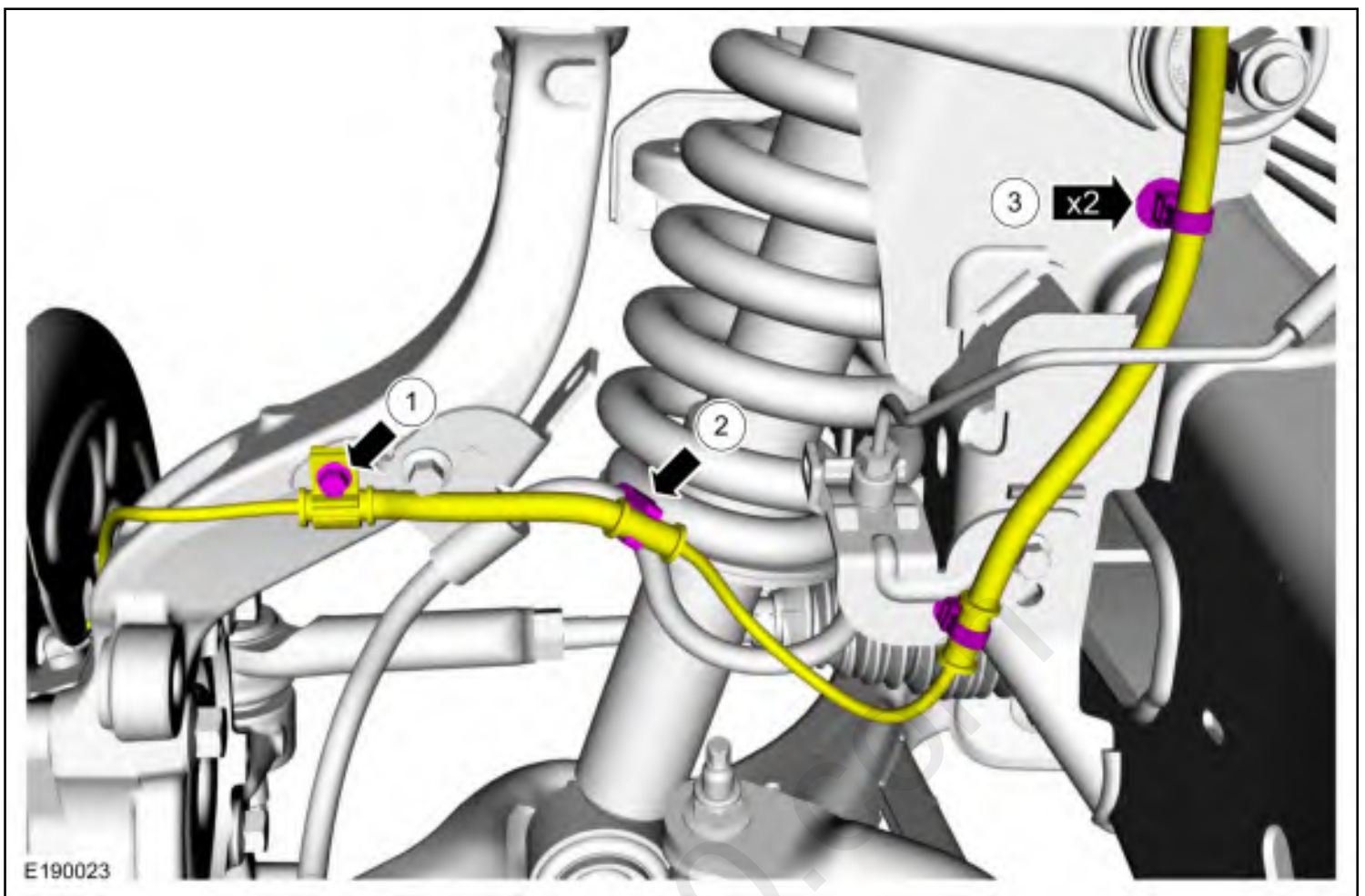


1. Remove and discard the outer tie rod end nut.
2. **NOTICE: Do not use a hammer to separate the outer tie-rod end from the wheel knuckle or damage to the wheel knuckle may result.**

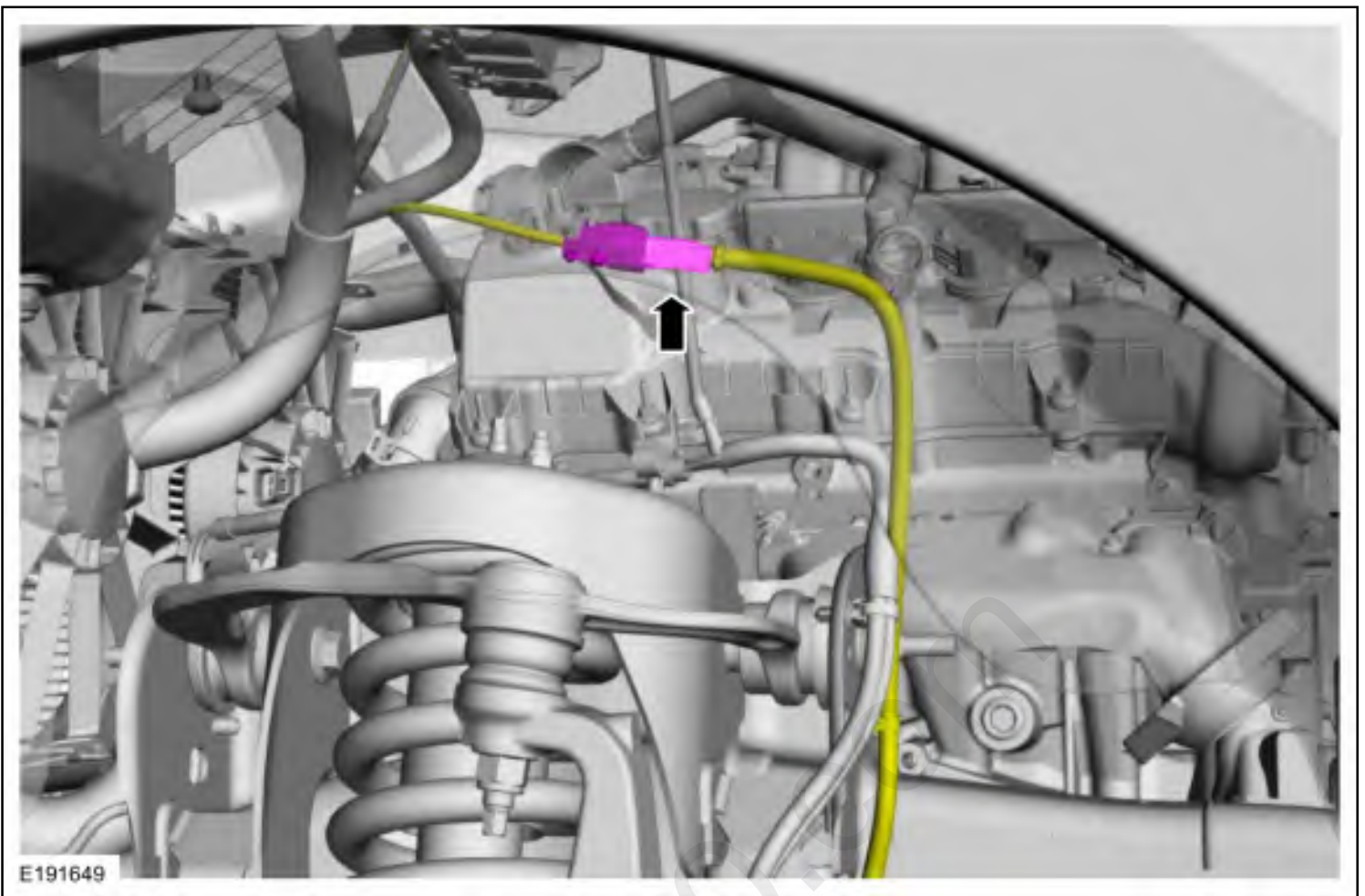
Separate the outer tie rod end from the wheel knuckle.
Use the General Equipment: Tie Rod End Remover



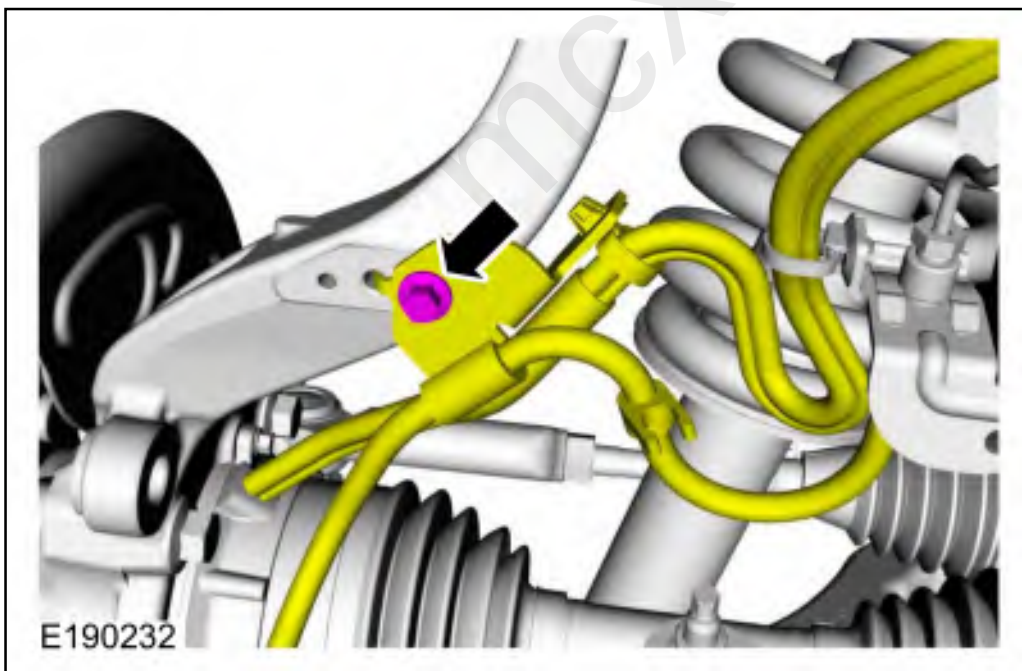
1. Remove the wheel speed sensor wire bracket bolt.
2. Unclip the wheel speed sensor wire from the brake hose.
3. Unclip the 2 wheel speed sensor wire retainers and position aside the wheel speed sensor wire.



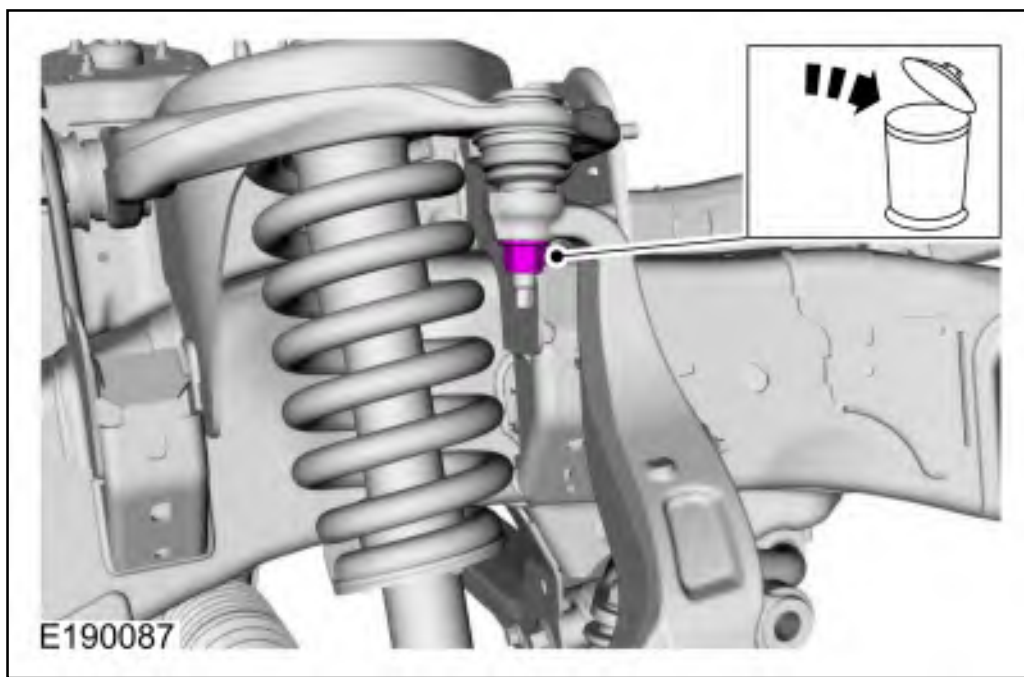
8. Disconnect the wheel speed sensor electrical connector.



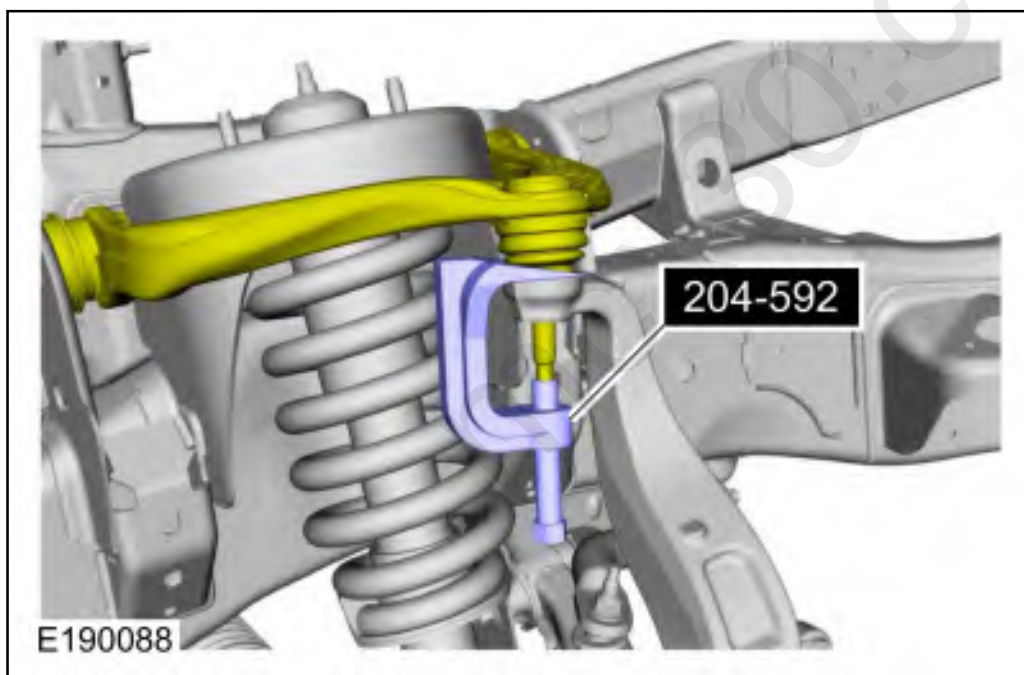
9. Remove the front brake flexible hose bracket bolt and position the brake hose aside.



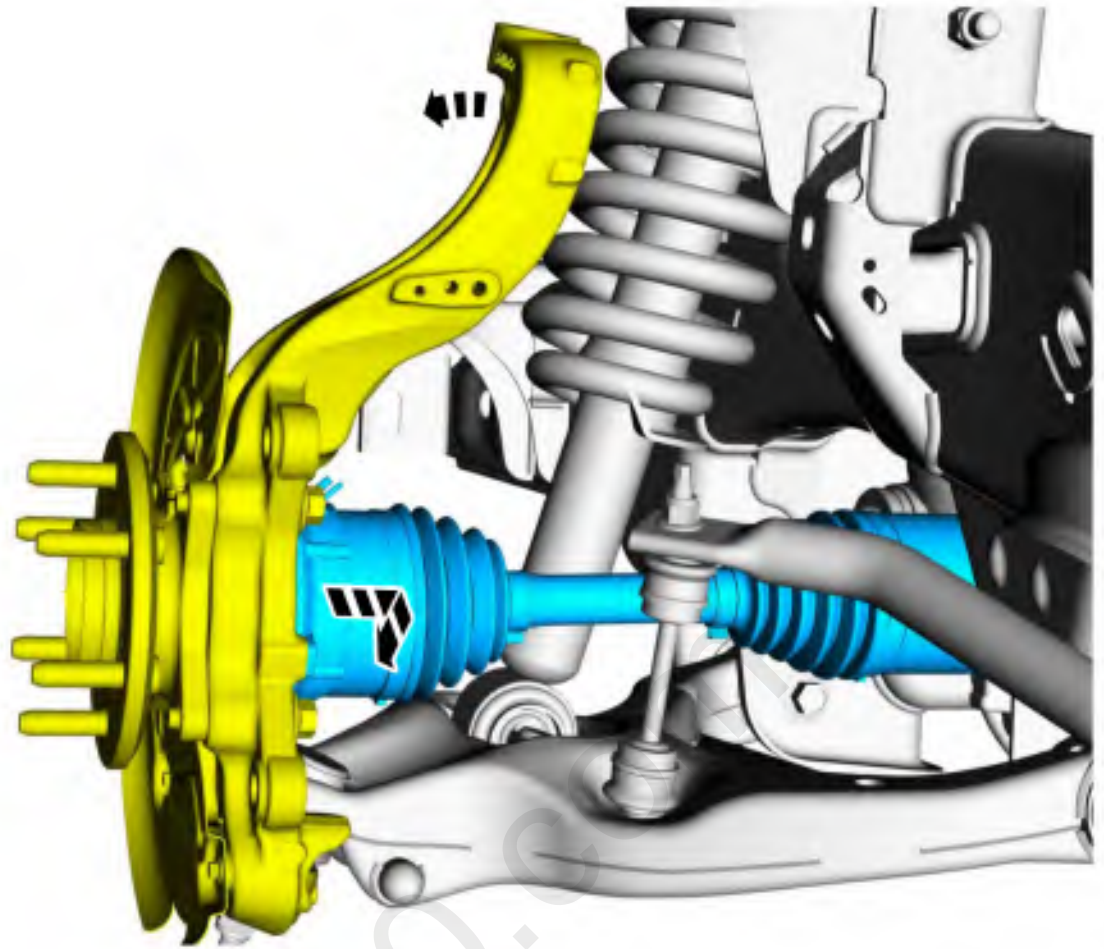
10. Remove and discard the upper ball joint nut.



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

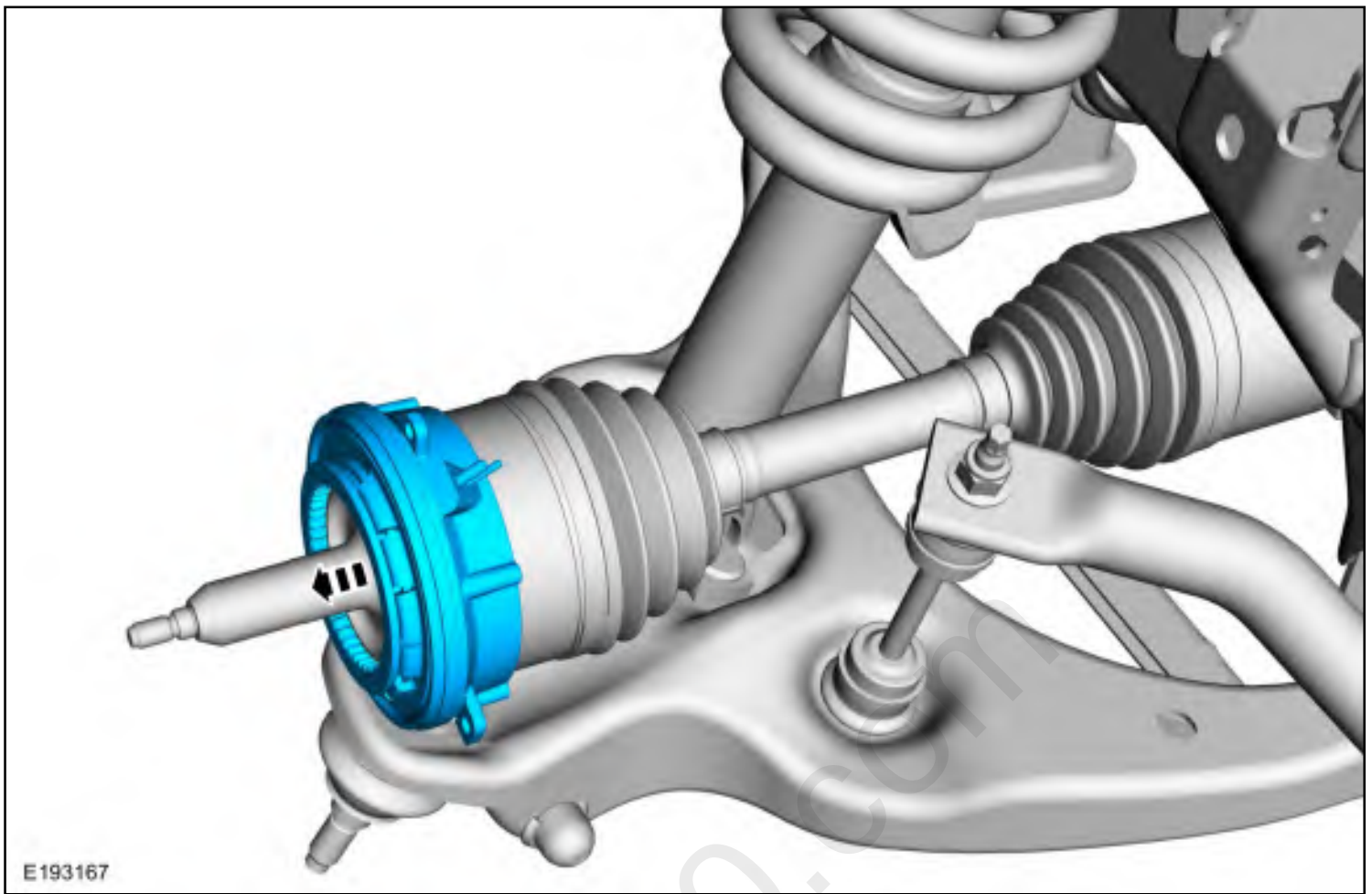


12. Position the wheel knuckle to gain access and remove the CV shaft joint outboard end and IWE disconnect from the steering knuckle hub bearing.



E193166

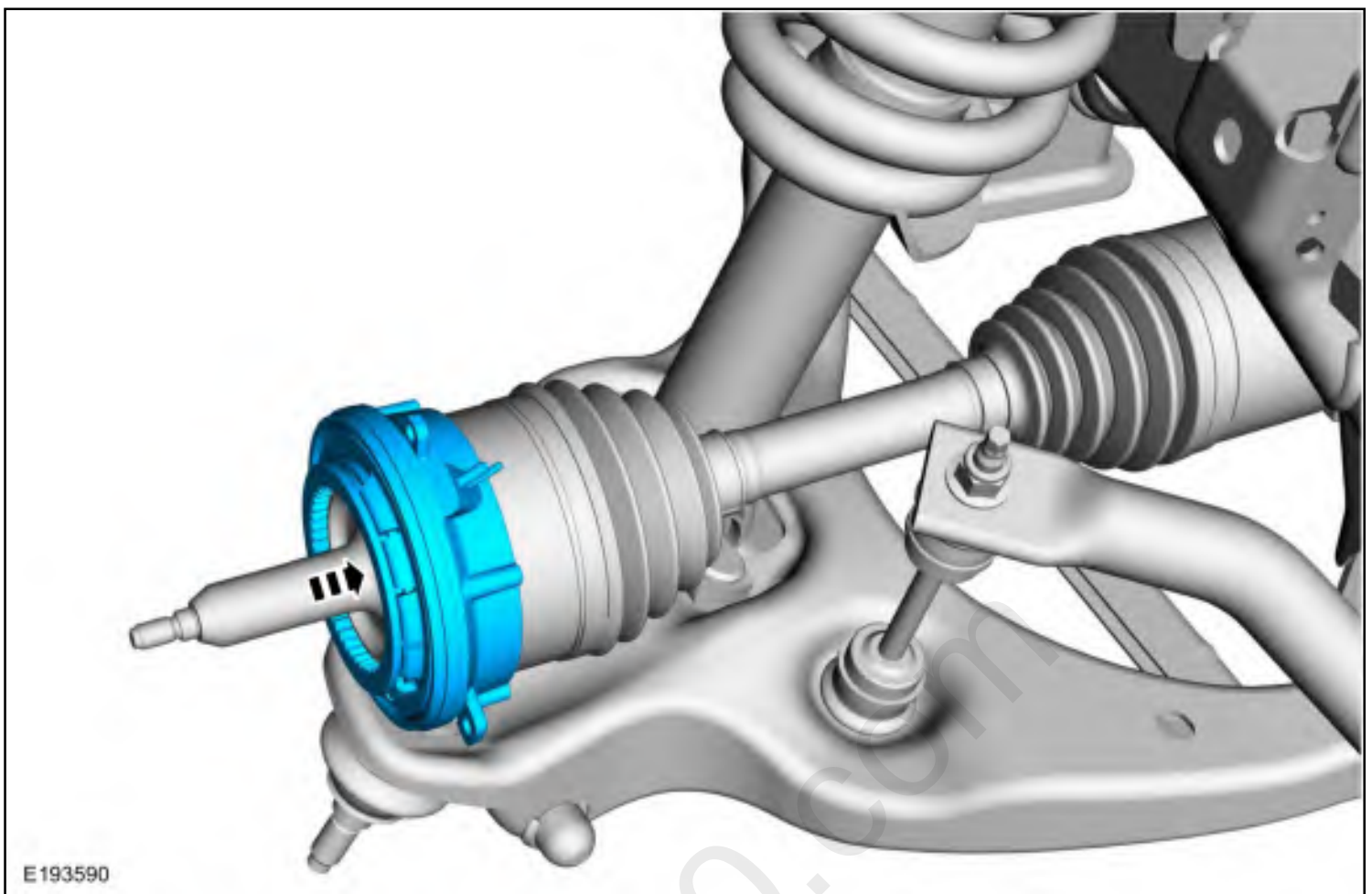
13. Remove the IWE disconnect from the outboard CV joint housing.



Installation

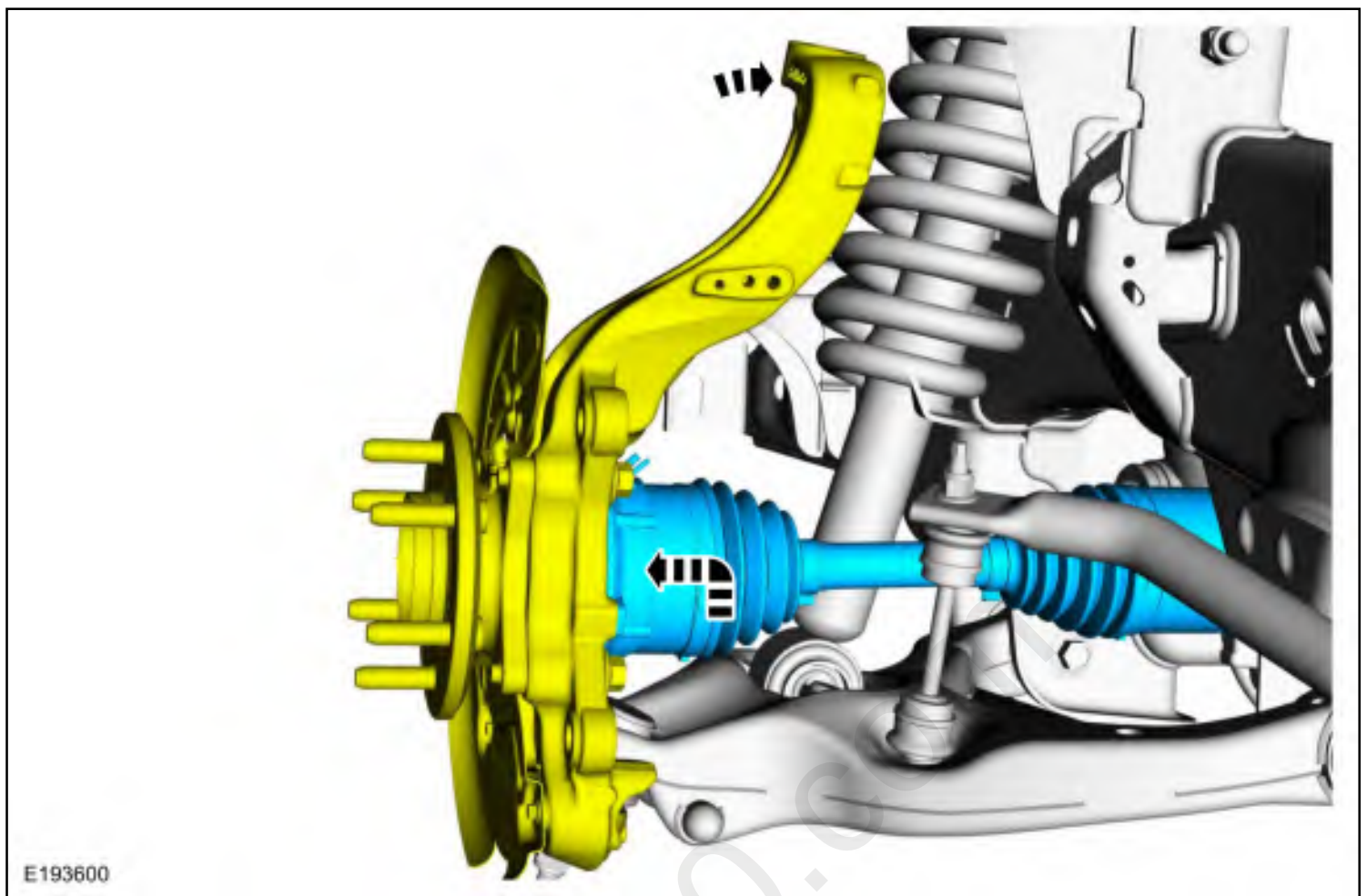
1. **NOTICE:** Do not dislodge the IWE seal spring when installing the IWE on halfshaft outboard end or component damage may occur.

Install the IWE onto the halfshaft outboard end making sure the IWE splines line up to the outboard halfshaft splines.

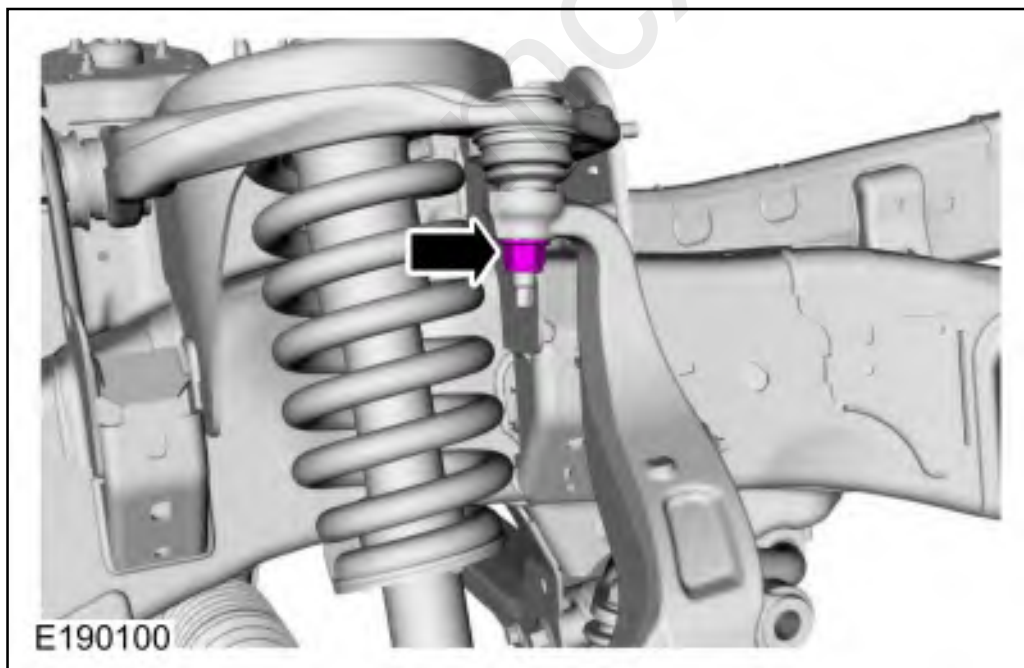


2. **NOTE:** Allow the wheel knuckle to swing outward while keeping the halfshaft pushed inward.

Once clearance is available, install the halfshaft outboard end into the wheel knuckle hub bearing.

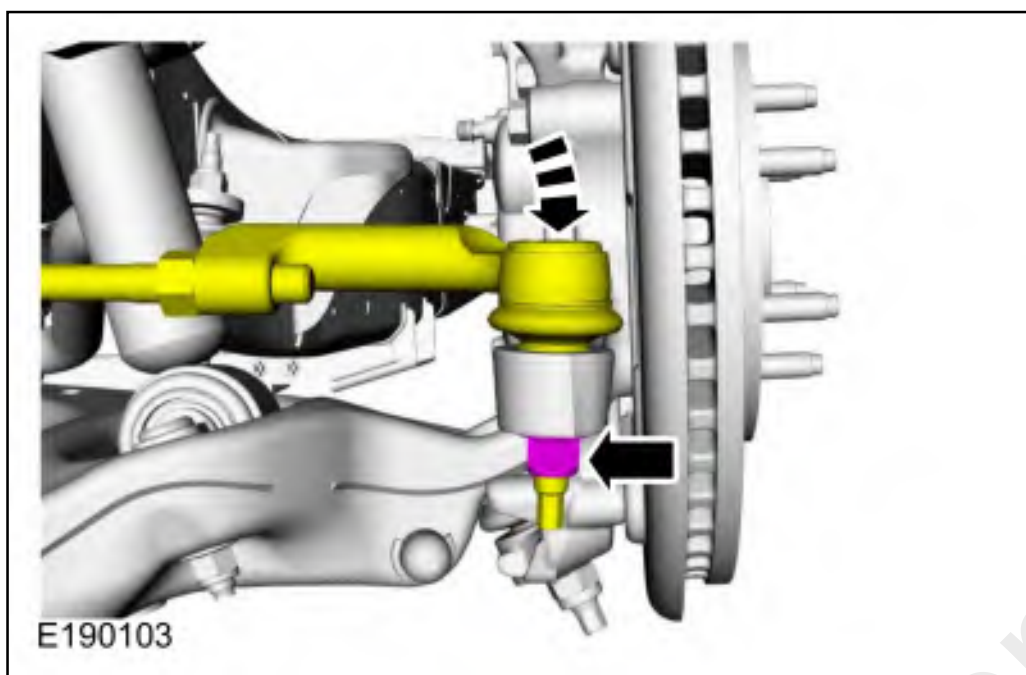


3. Connect the upper ball joint and install a new nut.
Torque: 46 lb.ft (63 Nm)

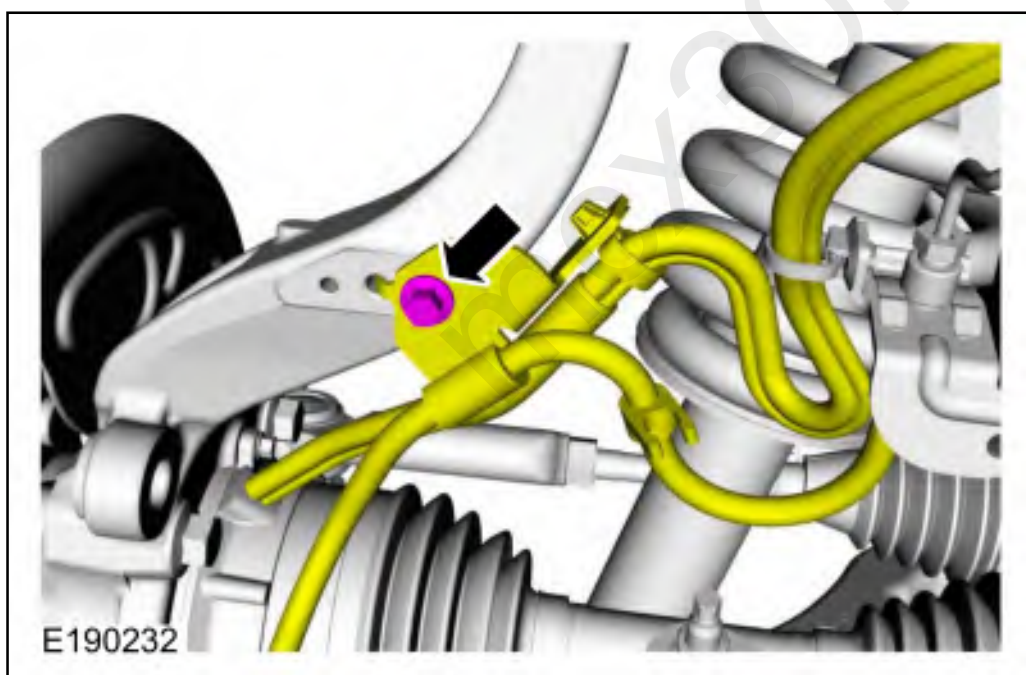


4. Connect the tie rod and install a new nut.

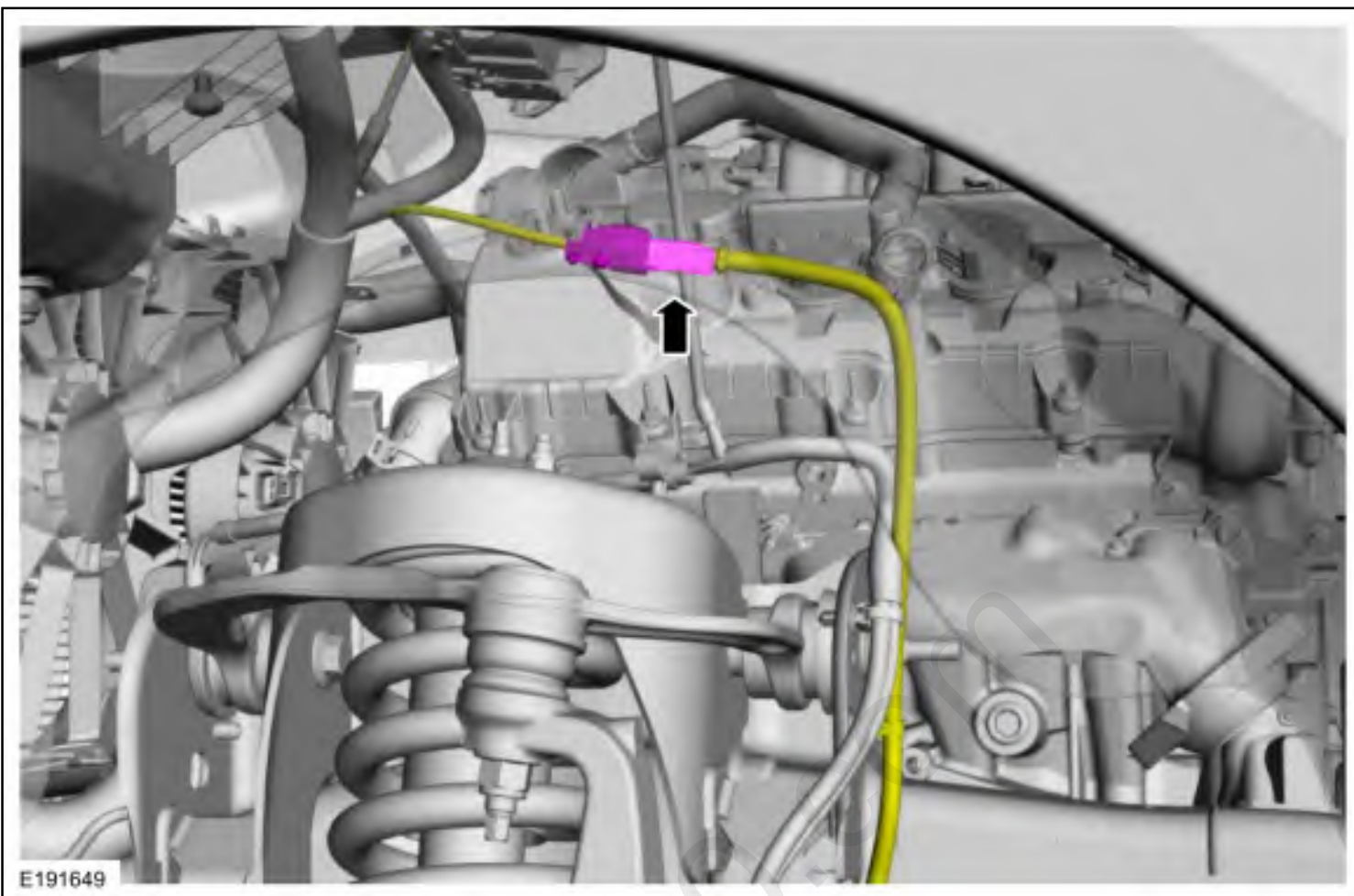
Torque: 85 lb.ft (115 Nm)



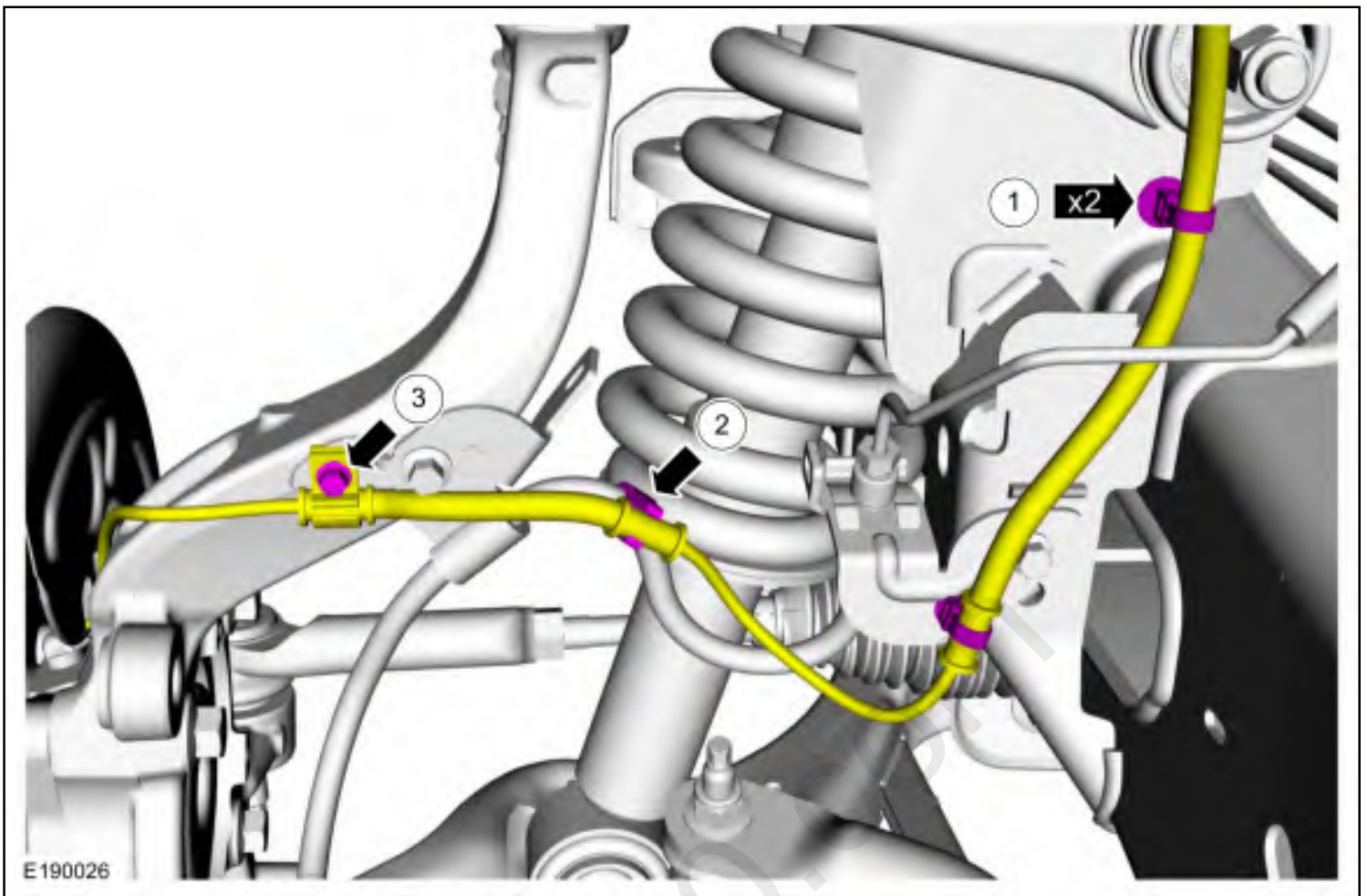
5. Position the front brake flexible hose bracket and install the bolt.
Torque: 22 lb.ft (30 Nm)



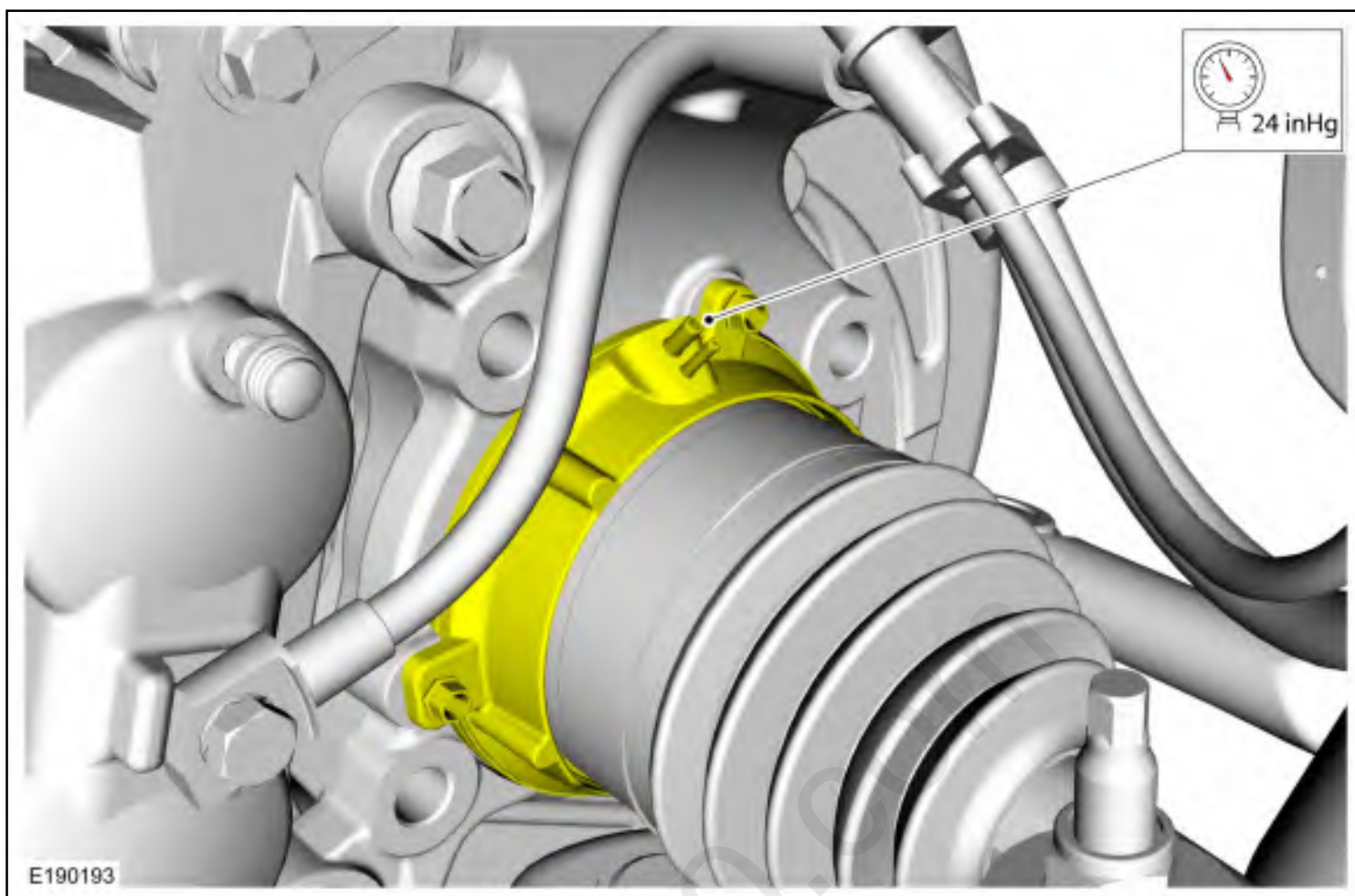
6. Position the harness and connect the wheel speed sensor harness.



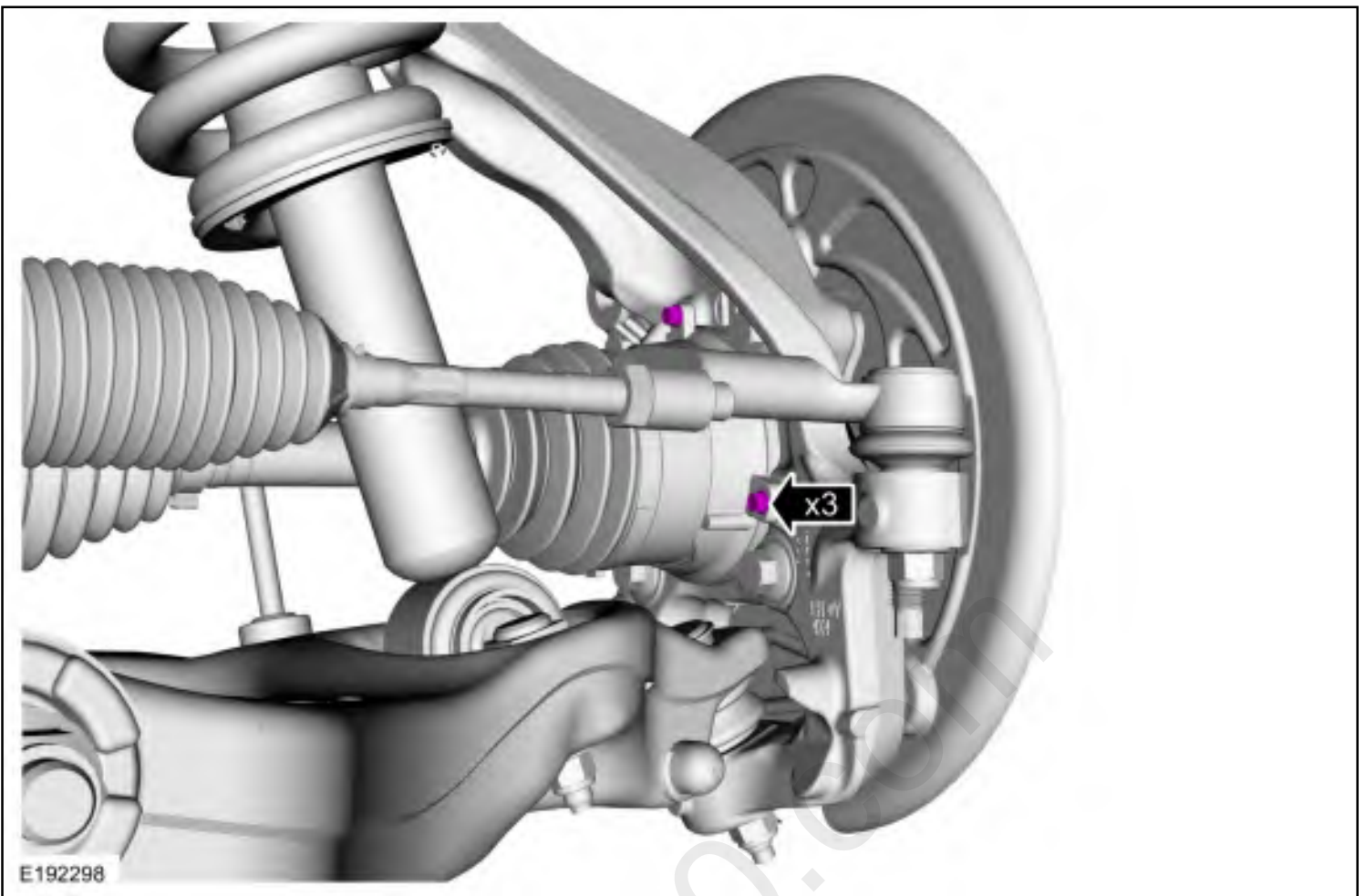
1. Position the wheel speed sensor wire and clip the 2 wheel speed sensor wire retainers.
 2. Clip the wheel speed sensor wire to the brake hose.
 3. Install the wheel speed sensor wire bracket bolt.
- Torque: 106 lb.in (12 Nm)*



8. Using a hand vacuum pump apply and hold 24 inHg of vacuum to the IWE actuator through the large port on IWE to retract the actuator.



9. Install the IWE-to-wheel knuckle retaining bolts.
Torque: 106 lb.in (12 Nm)



10. **NOTICE:** Measure the depth of the CV shaft threaded end to the inner bearing race (shown in illustration). The minimum depth is 15.5 mm (0.61 in). If the depth is less than 15.5 mm (0.61 in) rotate the CV shaft to clear a binding condition between the IWE and CV splines. Installing the axle nut and tightening without the proper depth of protrusion will result in damage to the IWE.

Measure the CV shaft threaded end to the inner bearing race.



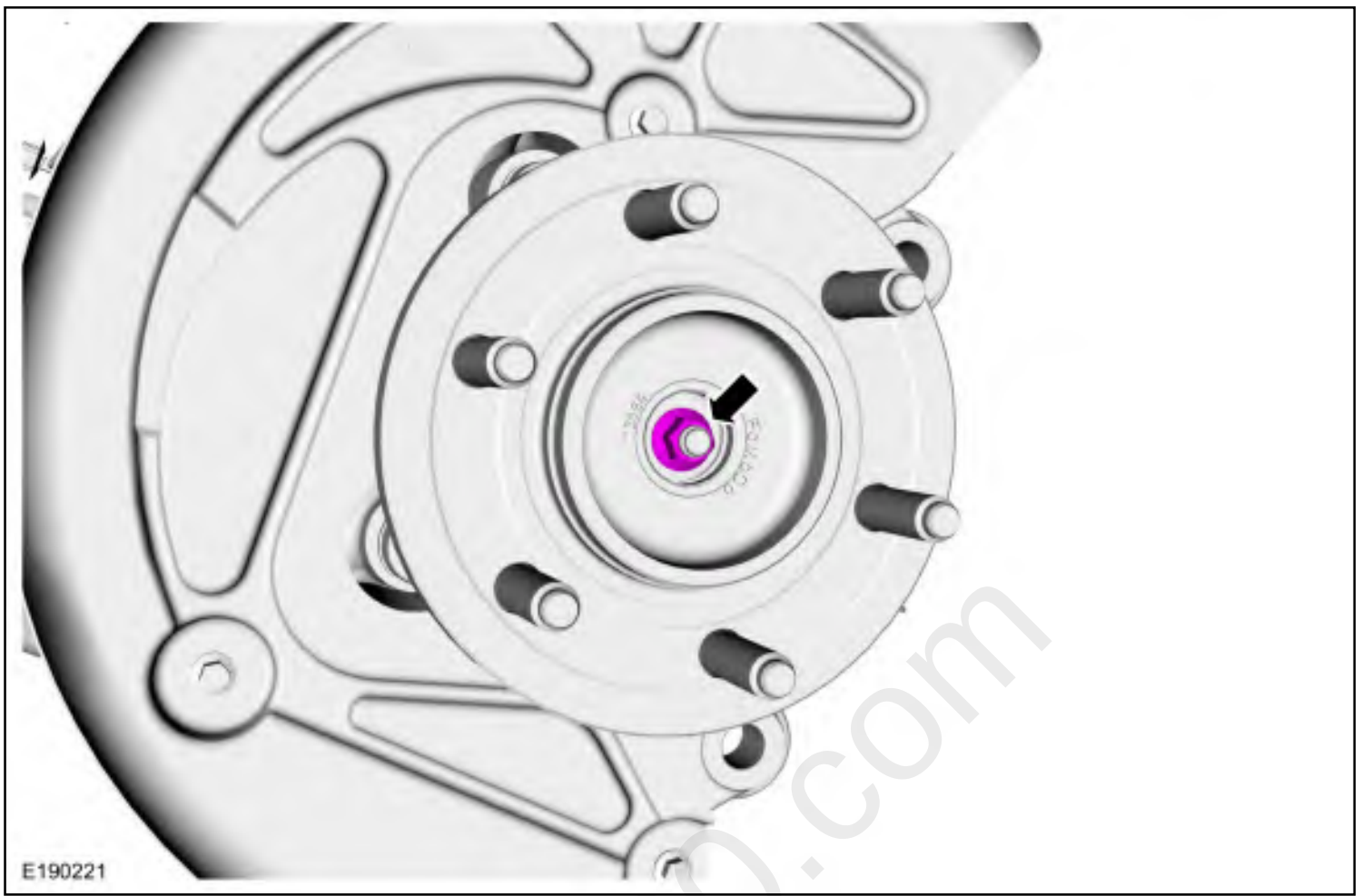
E190195



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

NOTE: *With vacuum still applied to the IWE.*

- Install the new the axle nut.
Torque: 30 lb.ft (40 Nm)
- Verify free rotation of the hub with no CV joint rotation. No clicking or grinding noise should be present.
- Release vacuum and rotate bearing slightly to engage actuator (may hear single click when IWESystem engages). Verify hub and CV joint rotate together.



12. **NOTE:** *If the dust cap to bearing interface is damaged, damaged parts must be replaced.*

Install the dust cap.



13. Install the brake disc.

Refer to: [Brake Disc](#) (206-03 Front Disc Brake, Removal and Installation).