Wheel Knuckle

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.

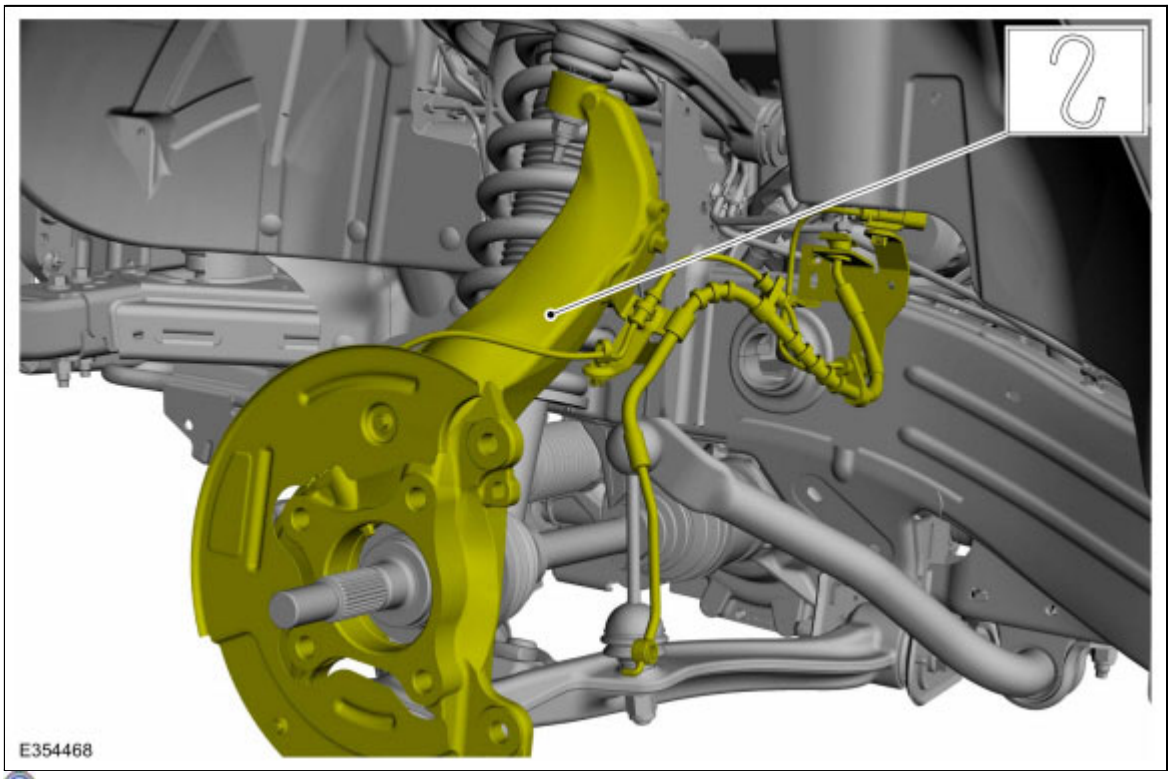
NOTE: *Removal steps in this procedure may contain installation details.*

1. Remove the front wheel bearing and wheel hub.
   Refer to: Front Wheel Bearing and Wheel Hub (204-01 Front Suspension, Removal and Installation).

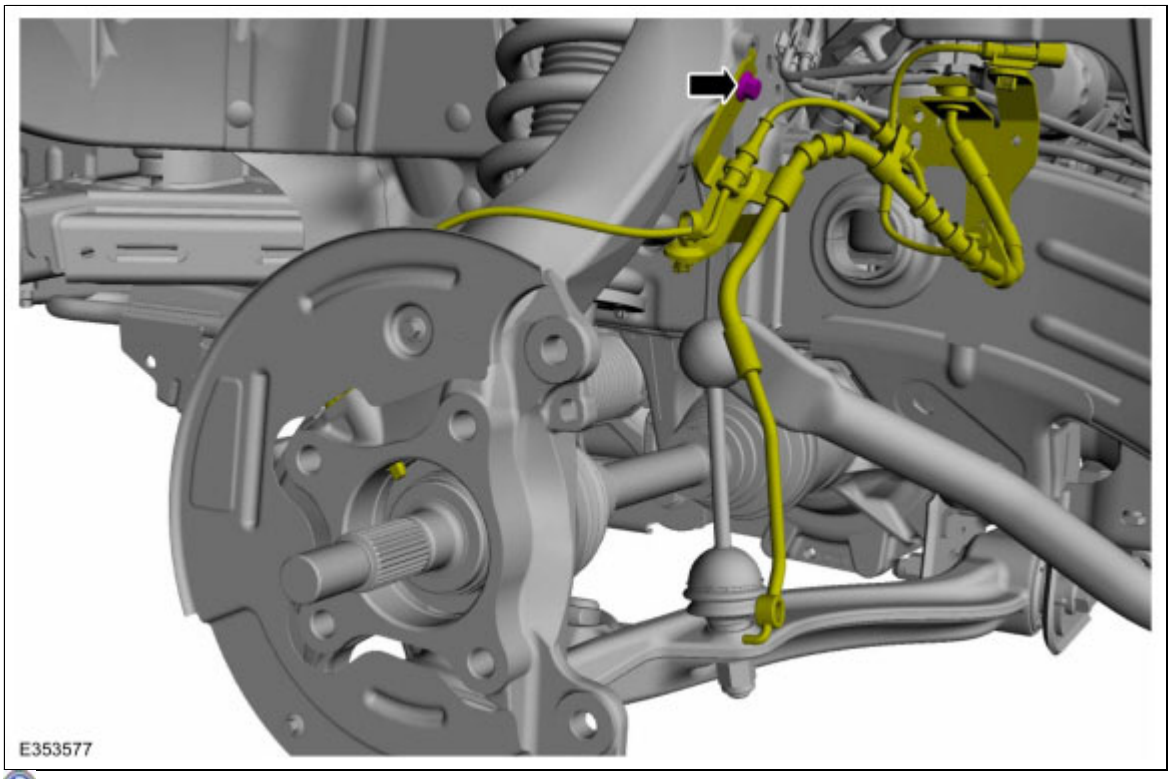
2. **NOTICE: Never allow the knuckle to hang from the upper and lower control arms or damage to the ball joints can occur.**

   NOTE: *Take care not to damage coating on suspension components.*

   Support the wheel knuckle assembly using mechanic's wire.



3. Remove the brake hose bracket bolt and position the brake hose aside.

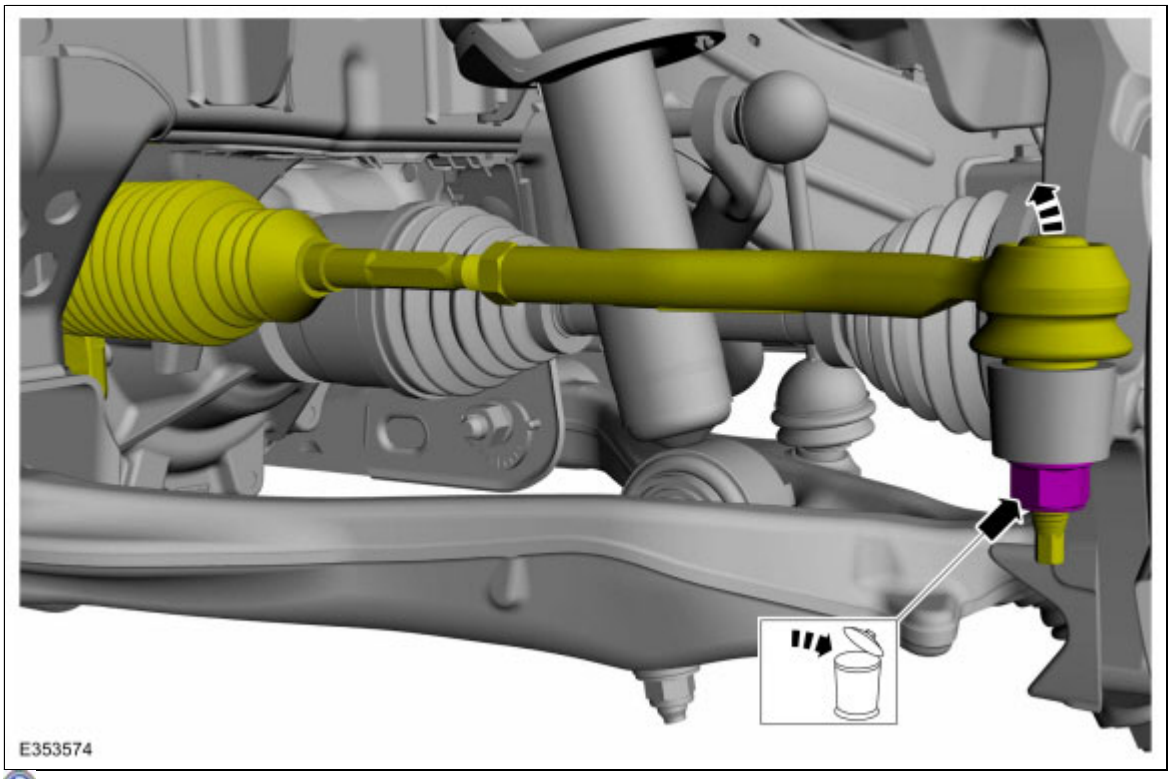


4. **NOTICE: Do not use a hammer to separate the outer tie-rod end from the wheel knuckle or damage to the wheel knuckle may result.**

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

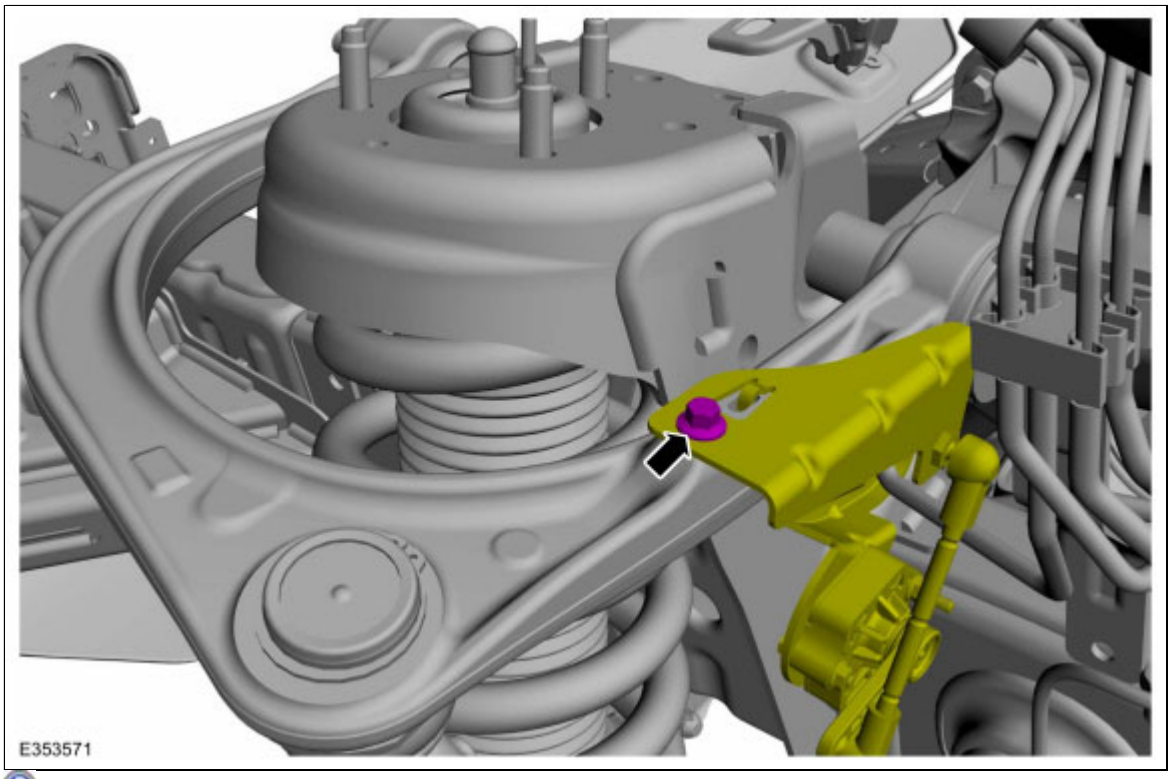
   NOTE: *Use the hex-holding feature to prevent the stud from turning while removing the nut.*

   Remove and discard the tie rod end nut and separate the tie rod end from the wheel knuckle.
   Use the General Equipment: Tie Rod End Remover



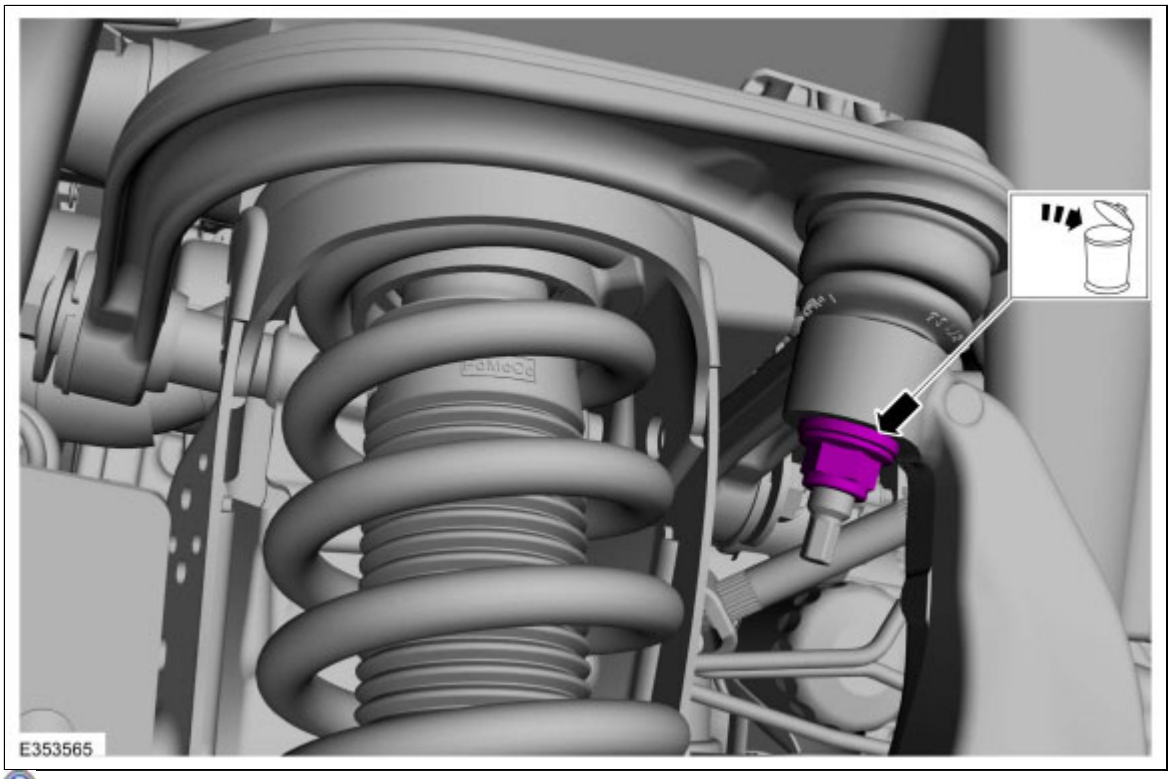
5. **NOTICE: The suspension height sensors must be disconnected prior to servicing suspension components. Damage to the suspension height sensors and/or the vehicle dynamic suspension system may occur.**

   If equipped.
   Remove the height sensor arm bracket bolt and position aside the bracket.



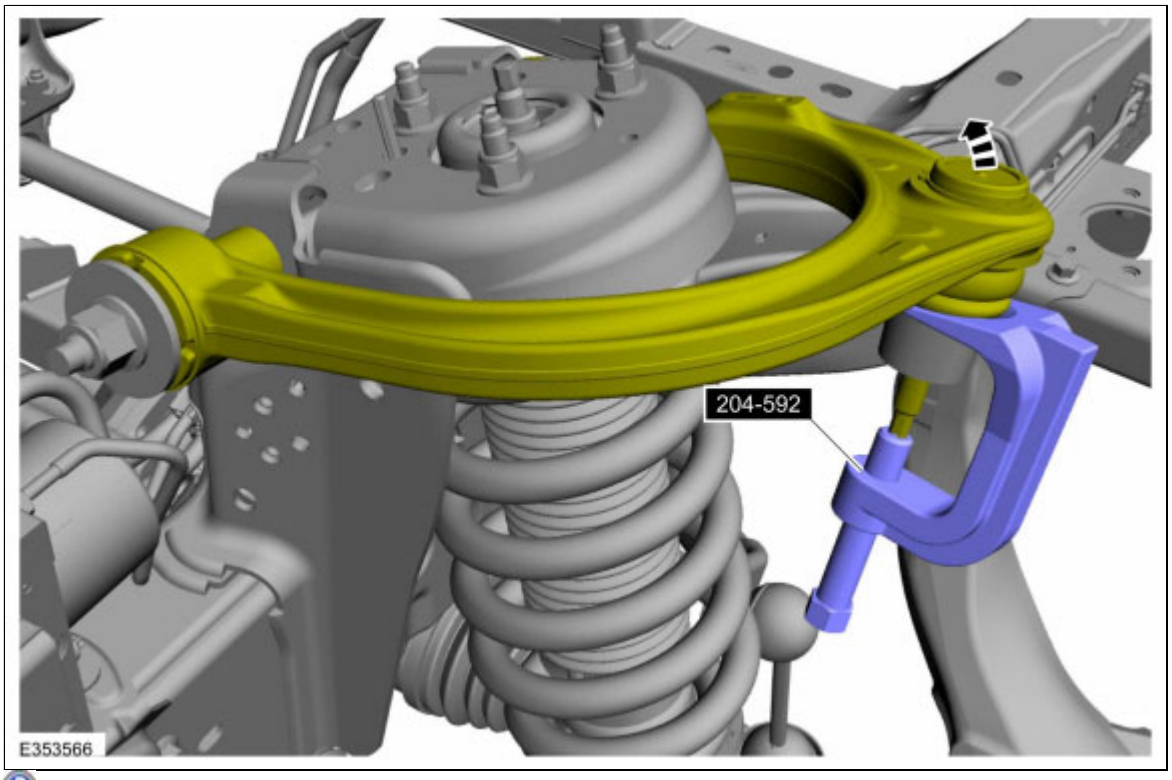
6. **NOTE:** *Use the hex-holding feature to prevent the stud from turning while removing the nut.*

   Remove and discard the upper ball joint nut.

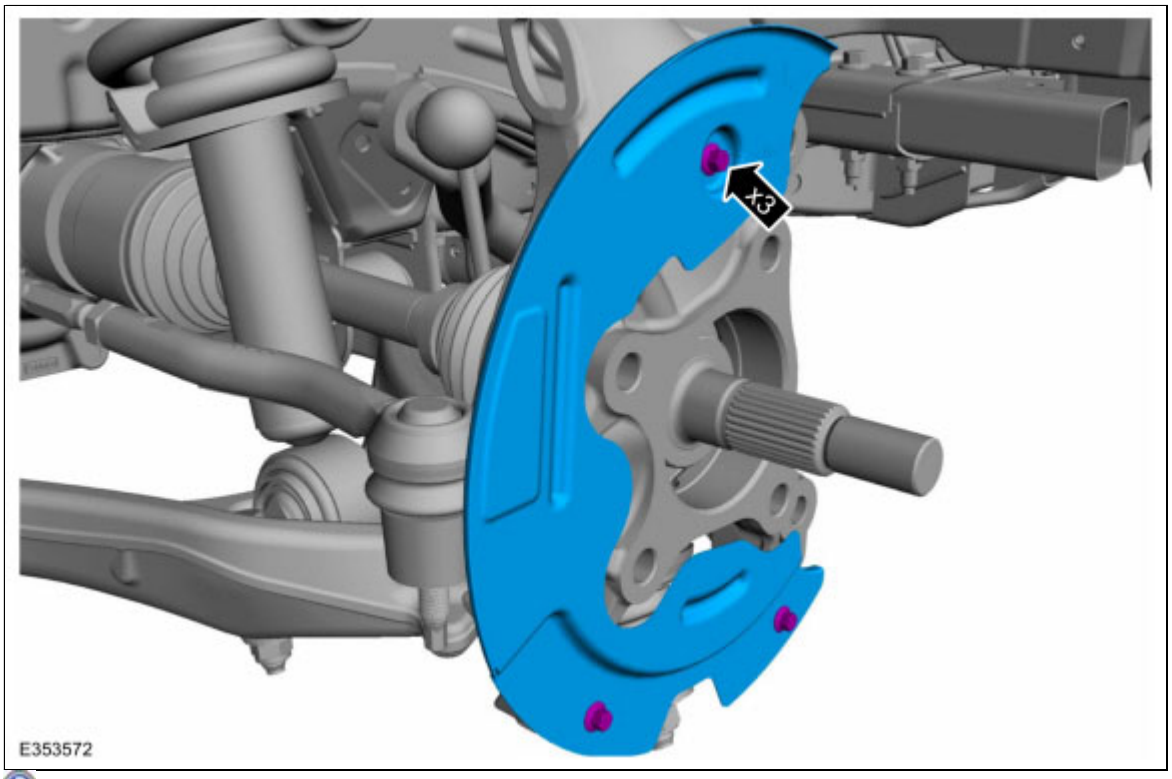


7. **NOTE:** *Be sure not to damage the ball joint boot when installing the Ball Joint Separator.*

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



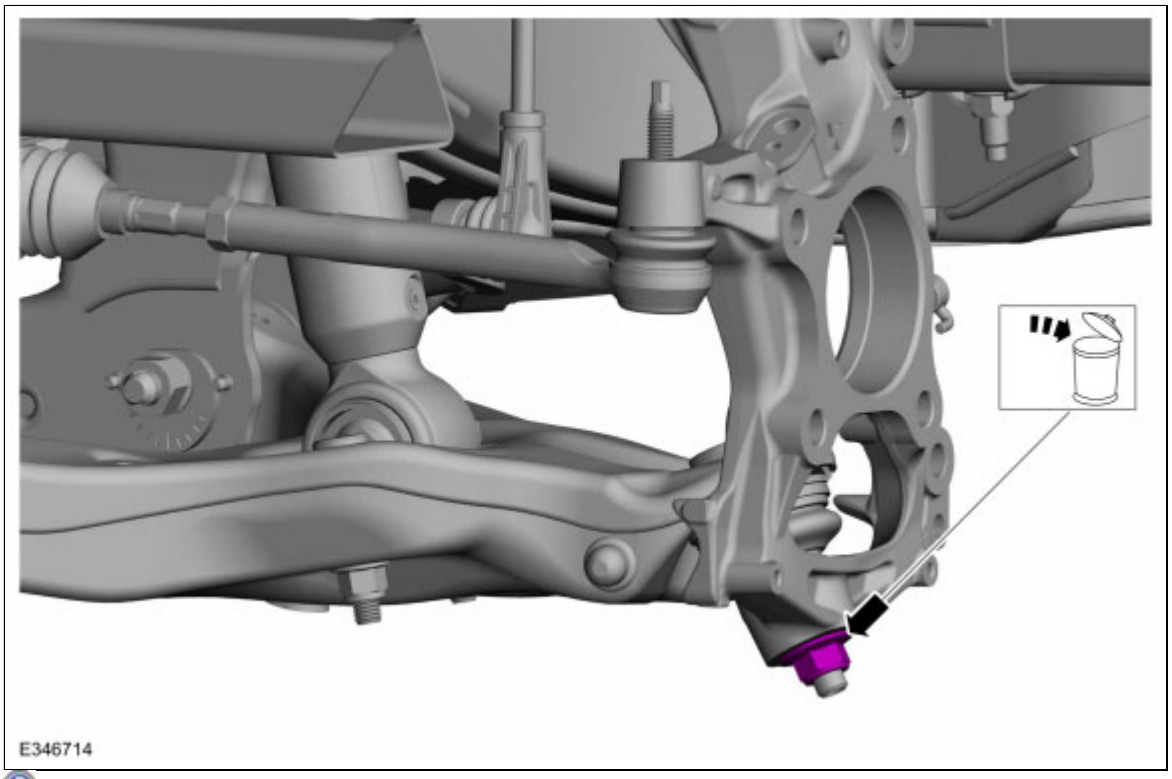
8. Remove the brake disc shield bolts and the brake disc shield.



9. **NOTICE: Never allow the knuckle to hang from the upper and lower control arms or damage to the ball joints can occur.**

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

   Remove and discard the lower ball joint nut.

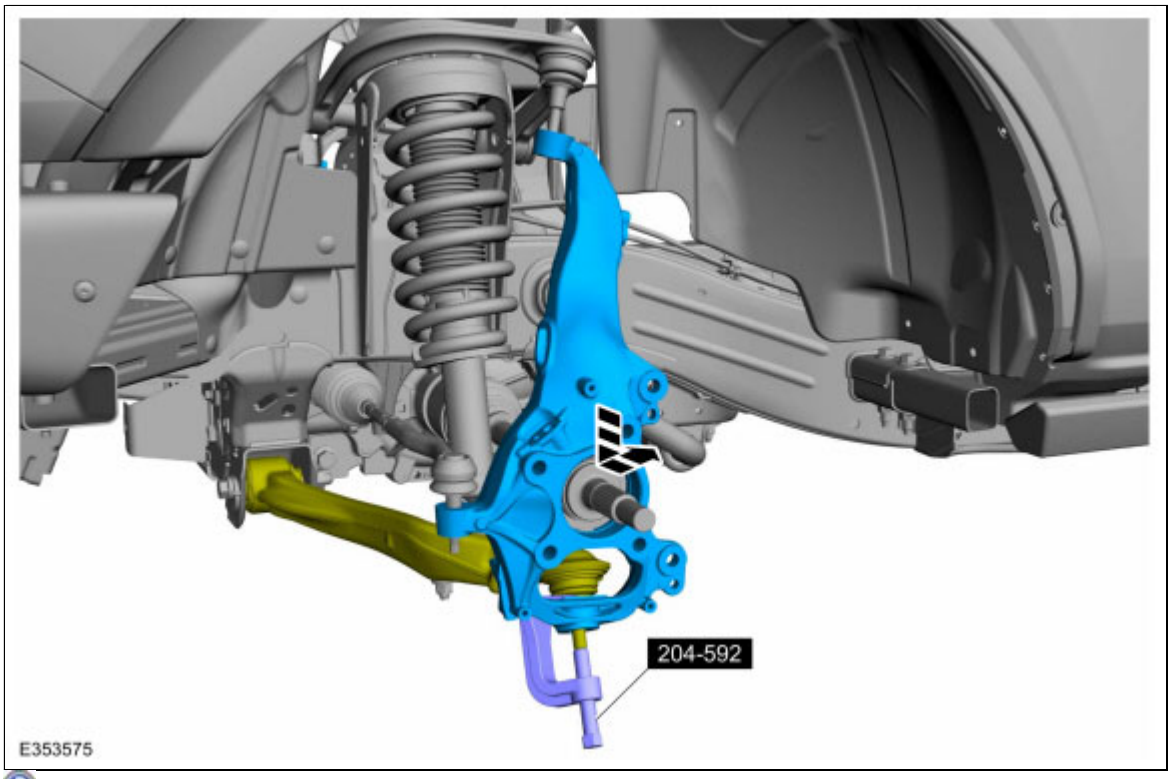


10. **NOTICE: Do not use a prying device or separator fork between the ball joint and the wheel knuckle. Damage to the ball joint or ball joint seal may result.**

    NOTICE: Use care when releasing the lower arm and wheel knuckle into the resting position or damage to the ball joint seal may occur.

    NOTICE: Do not damage the ball joint boot while installing the special tool.

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

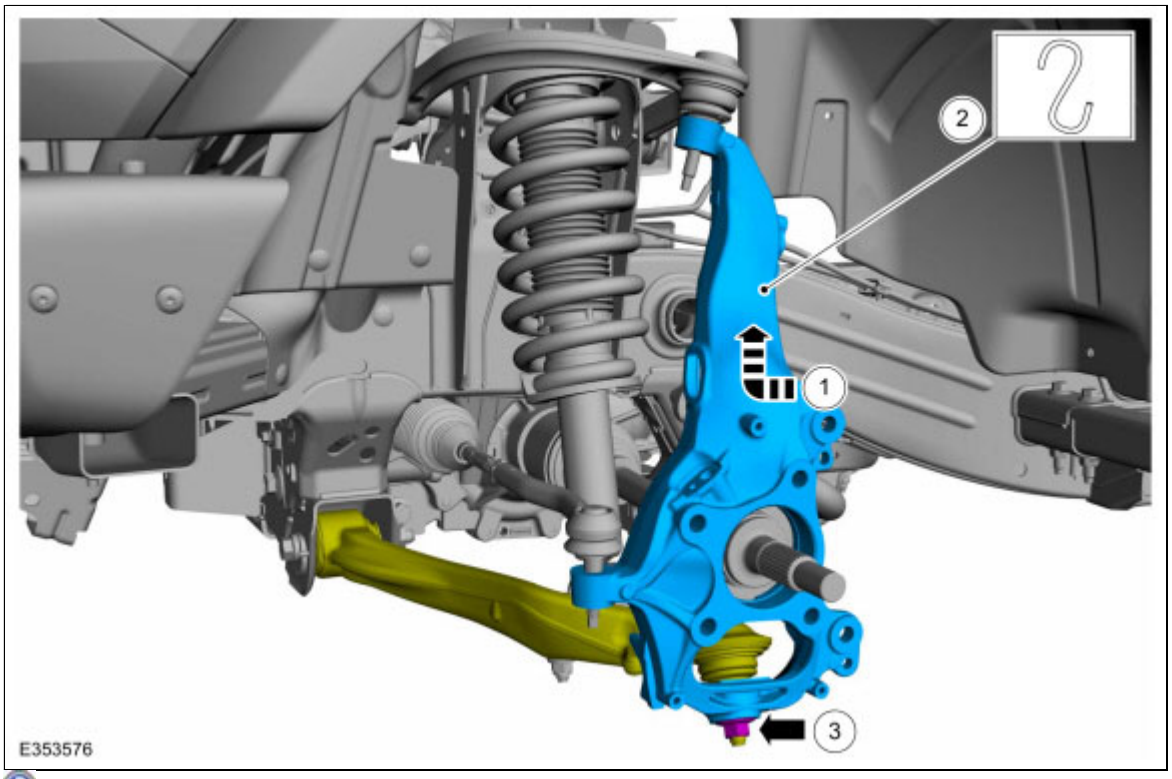


Installation

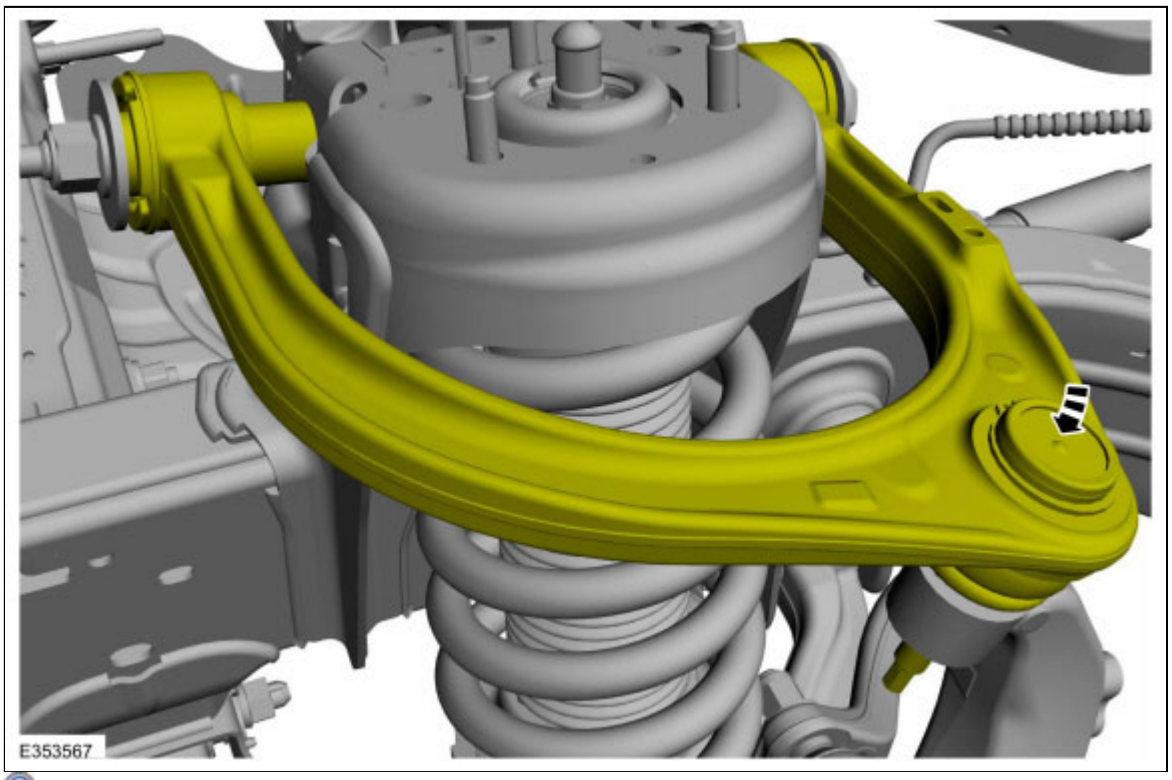
NOTICE: Tighten the suspension bushing fasteners with the suspension raised by a jack to curb height or with the weight of the vehicle resting on the wheels and tires. Otherwise, damage to the bushings may occur.

1. **NOTICE: Never allow the knuckle to hang from the upper and lower control arms or damage to the ball joints can occur.**

    1. Install the wheel knuckle.
    2. Support the wheel knuckle assembly using mechanic's wire.
    3. Install the new lower ball joint nut.
       Torque : 85 lb.ft (115 Nm)

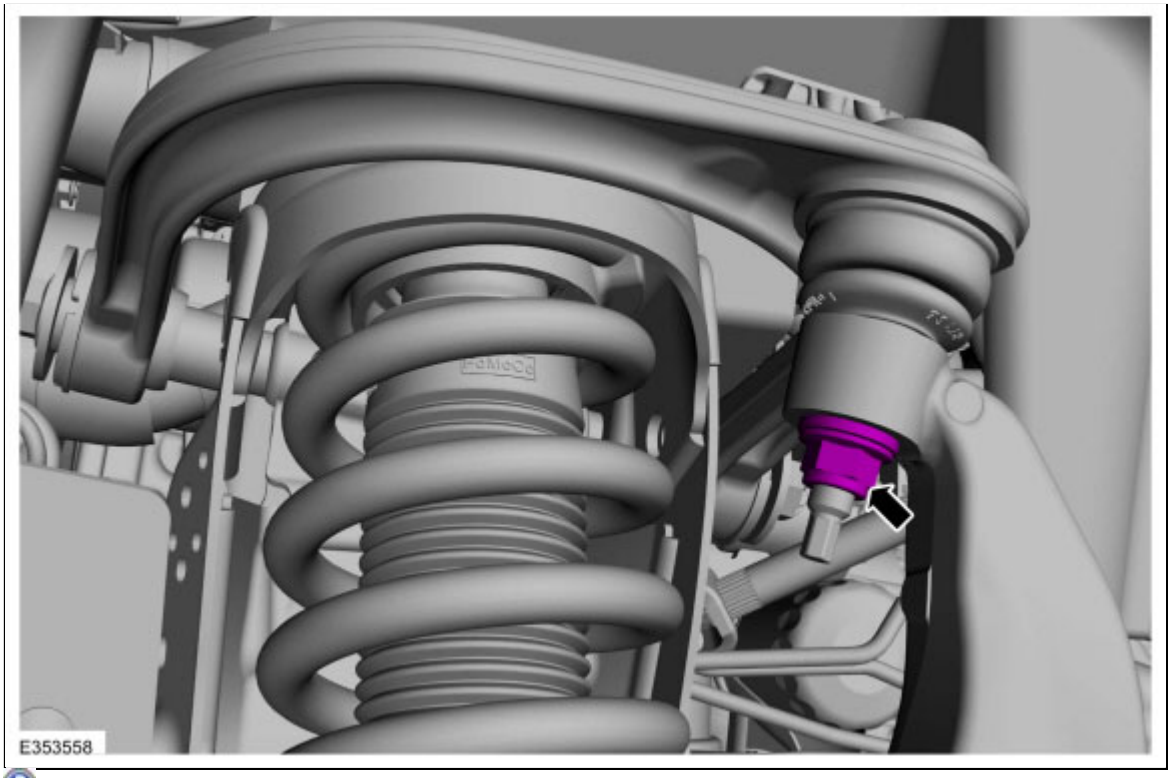


2. Attach the upper ball joint to the wheel knuckle.

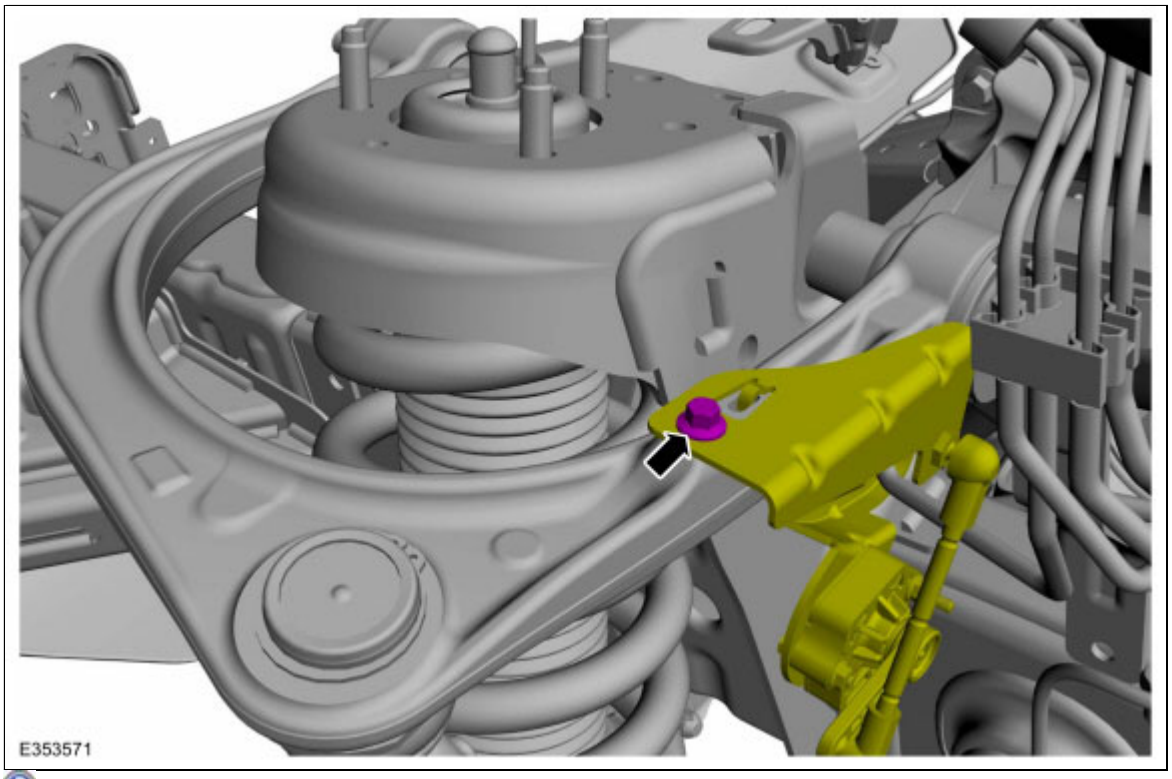


3. Install the new upper ball joint nut.

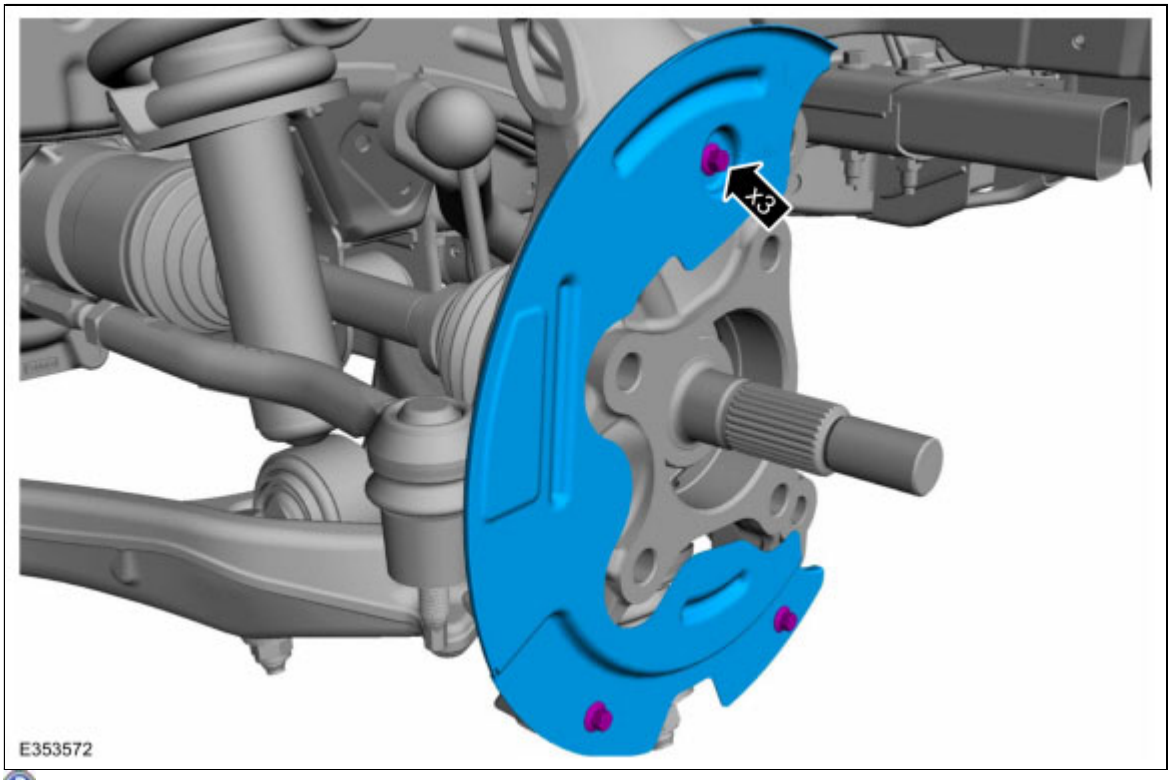
Torque : 46 lb.ft (63 Nm)



4. If equipped.
   Position the height sensor arm bracket and install the bolt.
   Torque : 53 lb.in (6 Nm)

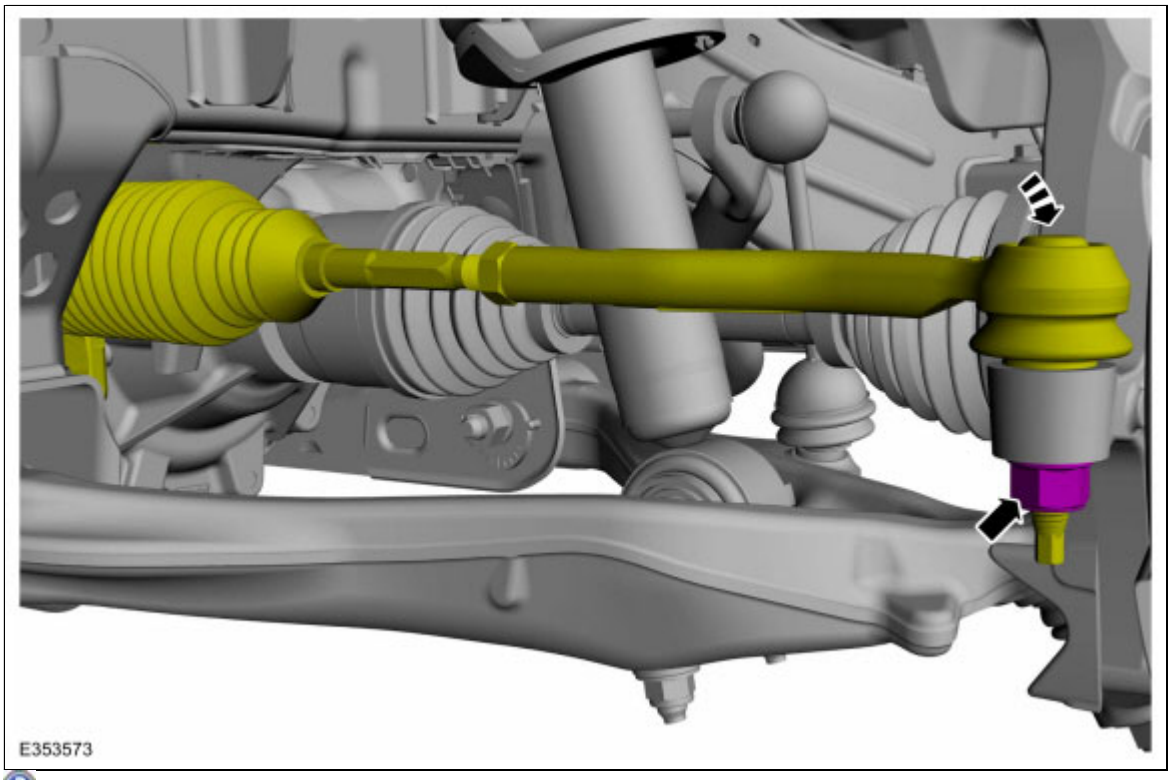


5. Install the brake disc shield and the brake disc shield bolts.
   Torque : 80 lb.in (9 Nm)

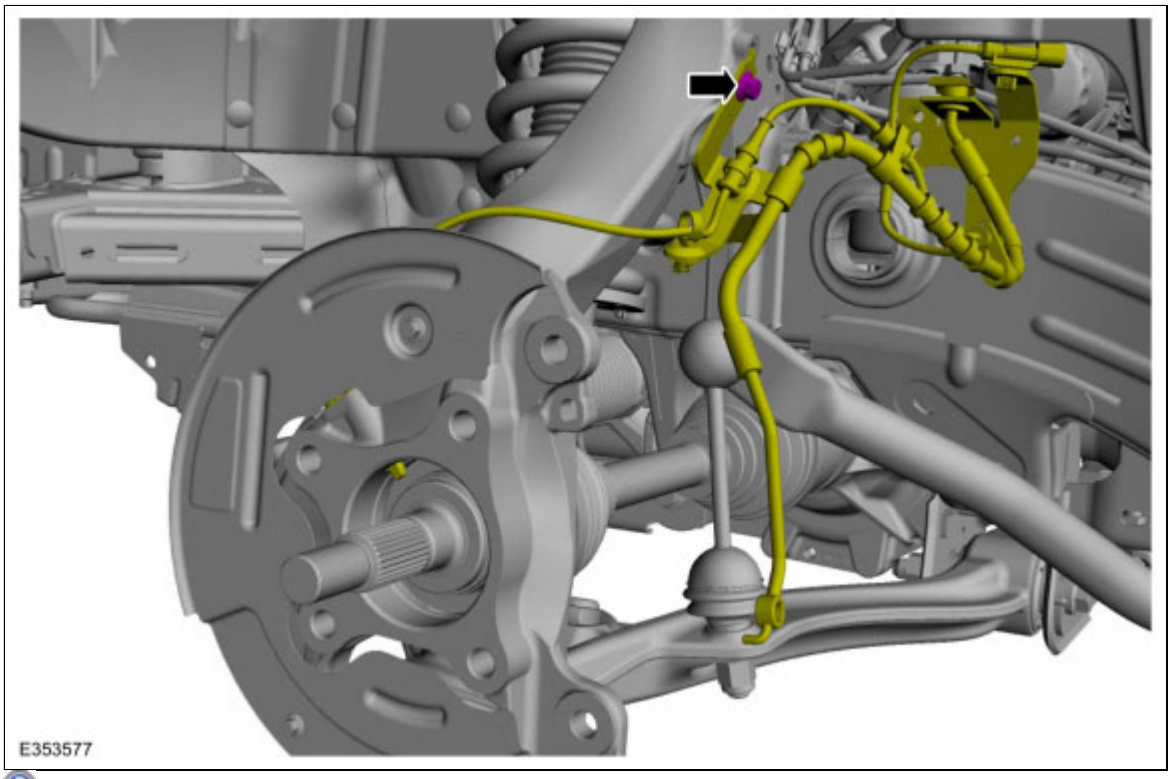


6. **NOTE:** *Use the hex-holding feature to prevent the stud from turning while removing the nut.*

   Position the tie rod end and install the new tie rod end nut.
   Torque : 46 lb.ft (63 Nm)



7. Position the brake hose and install the brake hose bracket bolt.
   Torque : 17 lb.ft (23 Nm)



8. Install the front wheel bearing and wheel hub.
   Refer to: Front Wheel Bearing and Wheel Hub (204-01 Front Suspension, Removal and Installation).

9. If equipped.
   - Calibrate the suspension height sensor. Connect the scan tool and carry out the Ride Height Calibration routine. Follow the scan tool directions.

10. Check and if necessary adjust front camber.
    Refer to: Front Camber and Caster Adjustment (204-00 Suspension System - General Information, General Procedures).

11. Check and if necessary adjust front toe.
    Refer to: Front Toe Adjustment (204-00 Suspension System - General Information, General Procedures).