

Front and Rear Suspension Modification Kit Installation

Installation Instructions Part Number

84817016

Kit Contents

| Description | Quantity |
|---------------------|----------|
| Front Jounce Cap | 2 |
| Front Spring Spacer | 2 |
| Rear Spring Spacer | 2 |
| Rear Anchor Plate | 2 |
| U-Bolt | 4 |
| Washer | 8 |
| Nut | 8 |
| Instruction sheet | 1 |

Tools Required

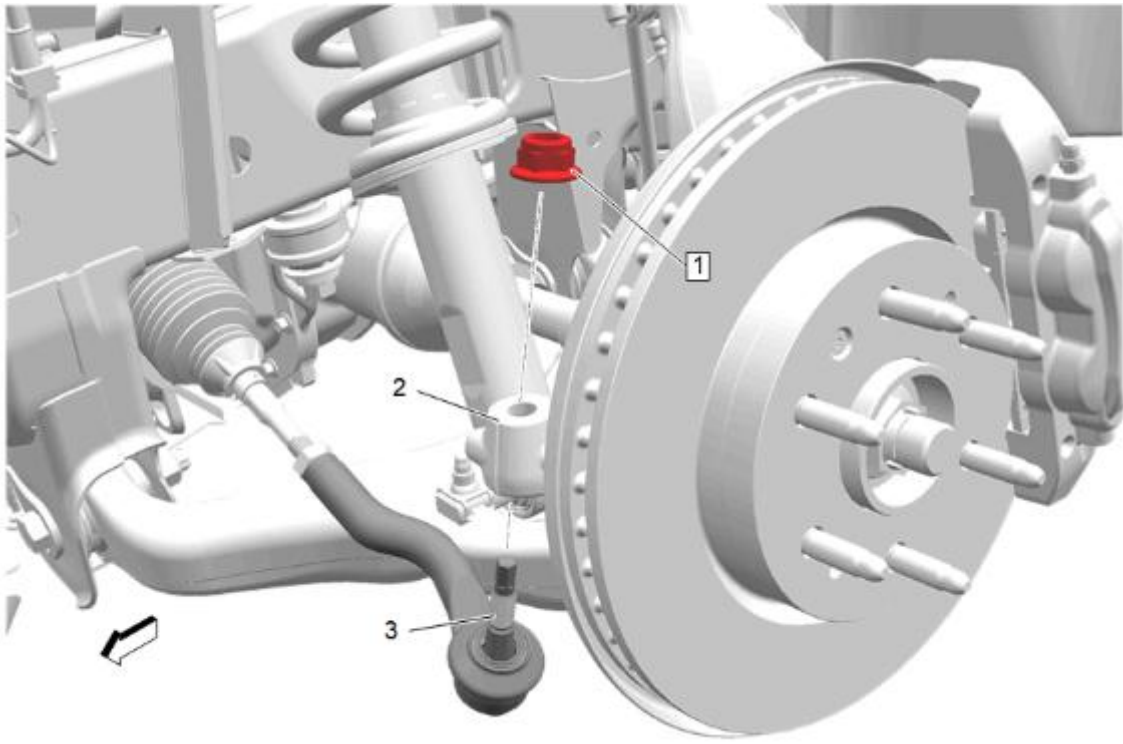
- *EN-45059* Torque Angle Meter
- *CH-48845* Strut Spring Compressor

Equivalent regional tools: Refer to [Special Tools](#) in Vehicle Service manual.

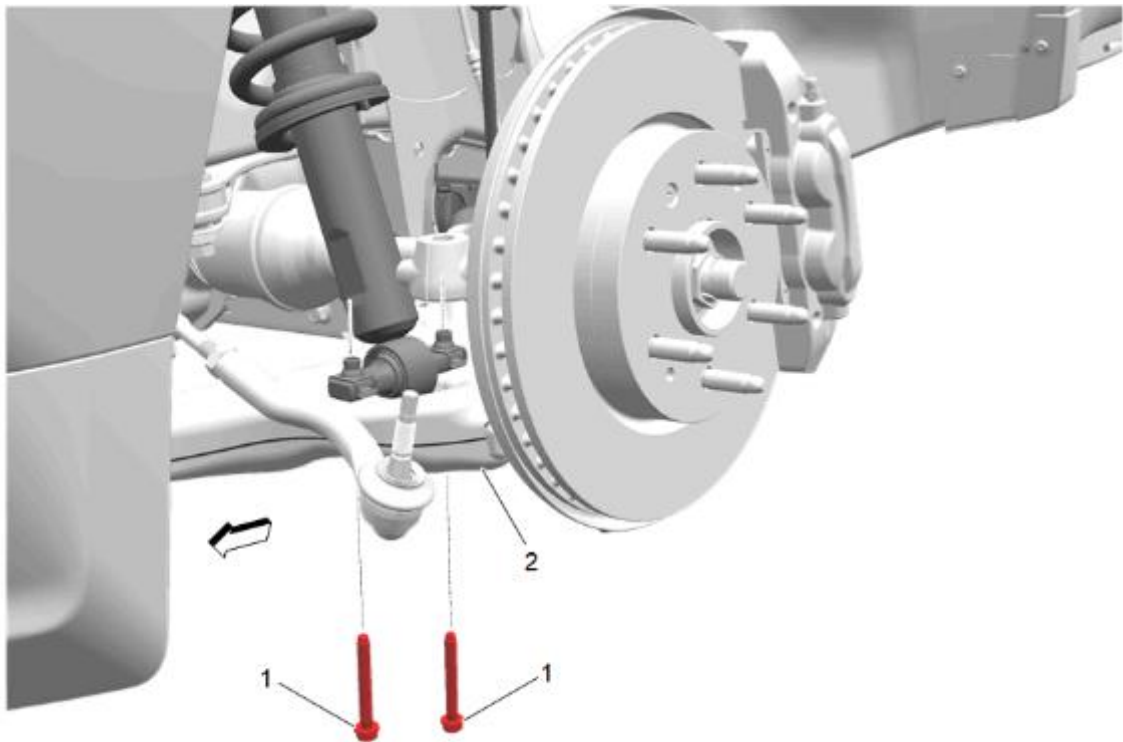
[Procedure](#)

Front Suspension Removal

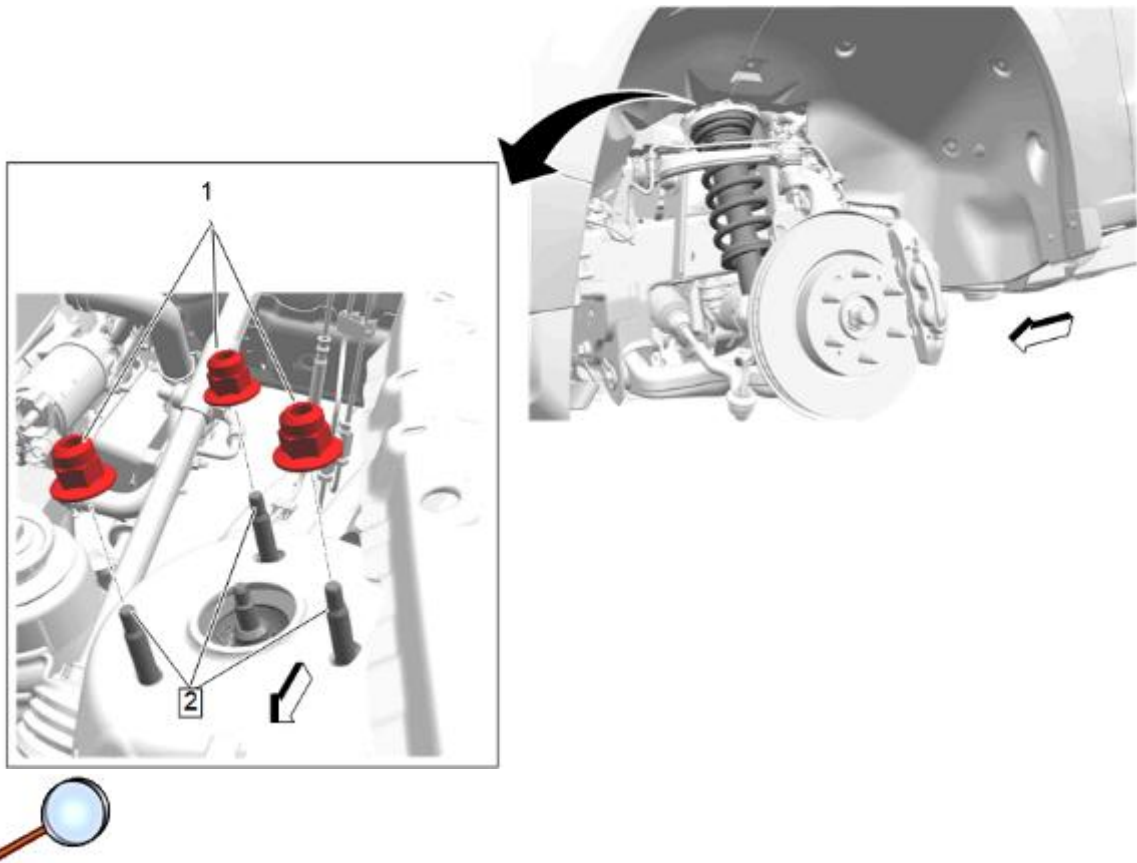
1. Raise and support the vehicle. Refer to [Lifting and Jacking the Vehicle](#) in Vehicle Service Manual.
2. Remove the front and rear wheel and tire assemblies. Refer to [Tire and Wheel Removal and Installation](#) in Vehicle Service Manual.



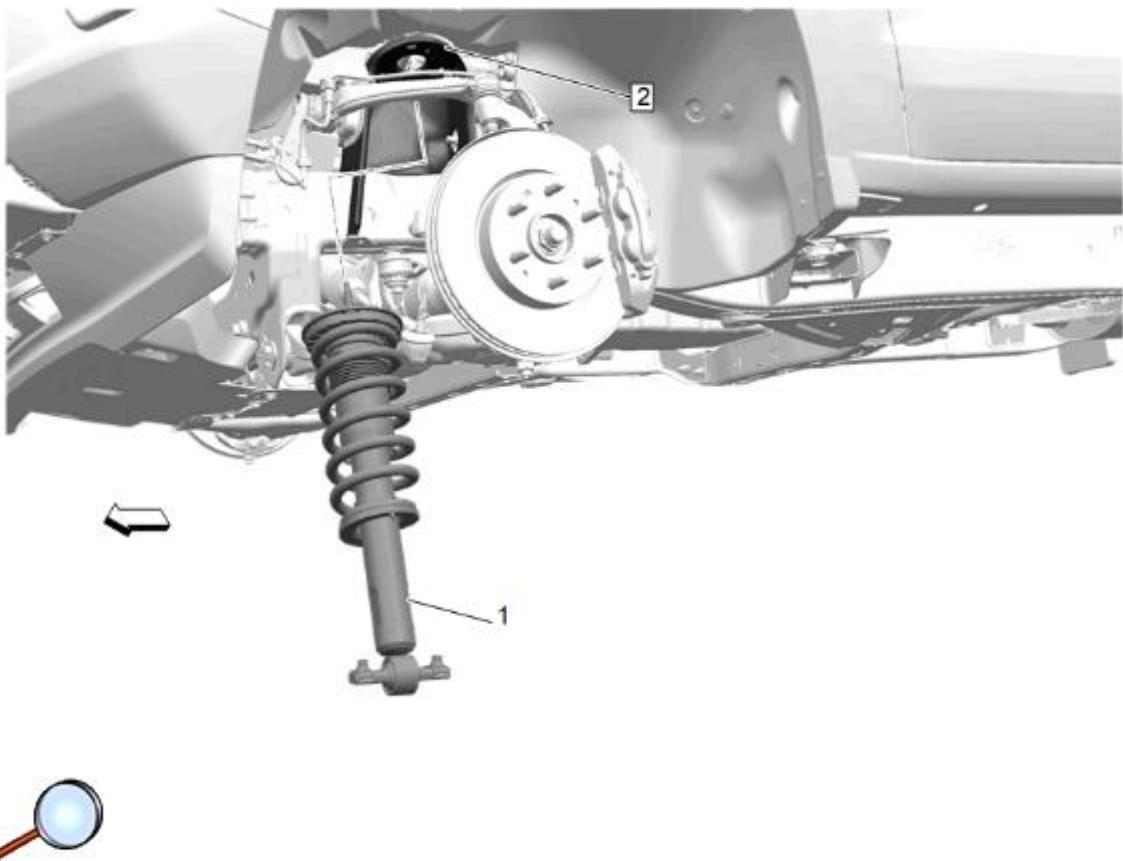
3. Remove outer tie rod nut (1) and separate outer tie rod (3) from steering knuckle (2). Retain outer tie rod nut.



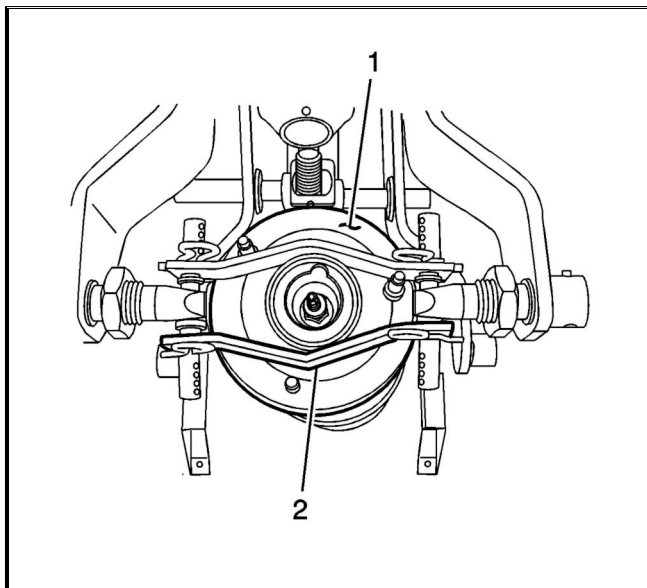
4. Remove the front shock absorber lower bolts (1) from lower control arm (2). Retain bolts.



5. Remove the front shock absorber nuts (1) from shock absorber studs (2). Retain nuts.



- Note:** The rotor may have to be turned outward to make room to pull the shock through.
6. Remove the front shock absorber and spring assembly (1) from the vehicle.

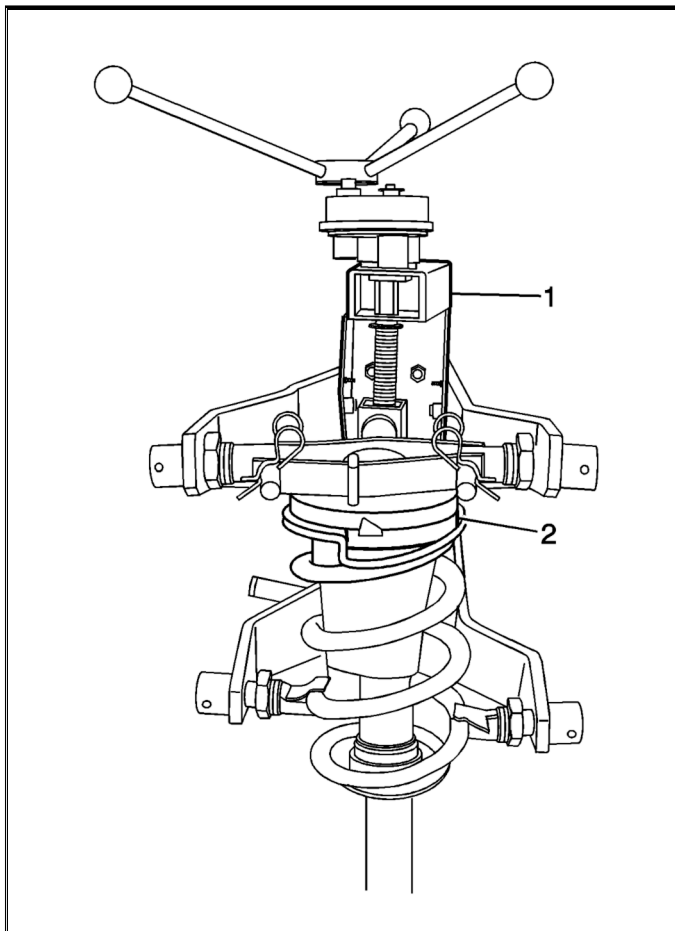


Warning: Use only the CH-48845 Spring Compressor when servicing suspension components on this vehicle. Other tools may not be strong enough for the springs on this vehicle and you could be injured if you do not use Special Tool CH-48845. Failure to do so could result in serious personal injury.

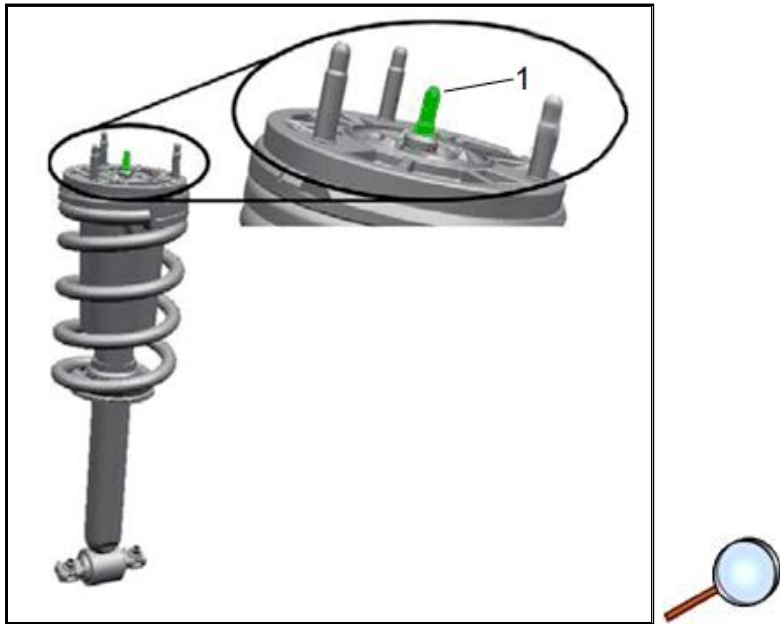
Note: ONLY use hand tools to perform the following service procedure.

7. Position the front shock absorber assembly (1) in the upper retaining bracket of the *CH-48845* compressor (2).

Ensure the front shock absorber assembly is centered.

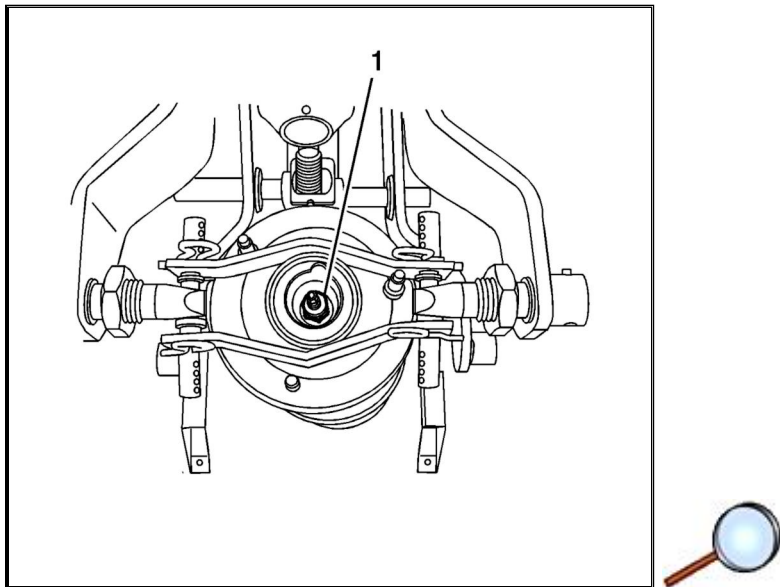


8. Use the *CH-48845* compressor (1) to compress the front spring (2).

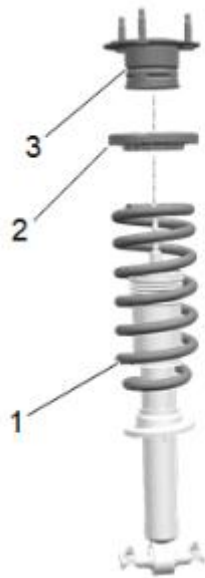


Note: DO NOT USE VICE GRIPS. DO NOT HOLD ANYWHERE ON DAMPER ROD. HOLD FEATURE SHOWN ABOVE.

9. Use the appropriate size wrench to hold the front shock absorber shaft (1).



10. Use the appropriate tools to remove the front shock absorber stud nut (1).



11. Remove and save the front shock absorber upper mount (3), front spring upper seat (2) and spring (1).



12. Remove and save the front shock absorber bumper (2) and boot (1).



13. Remove and DISCARD the front spring spacer (2).
14. Remove and save the lower spring isolator (1).
15. Repeat steps 3 through 14 for opposite side.

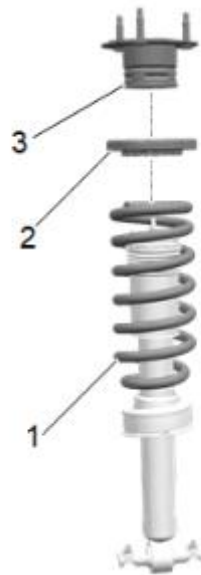
Front Suspension Install



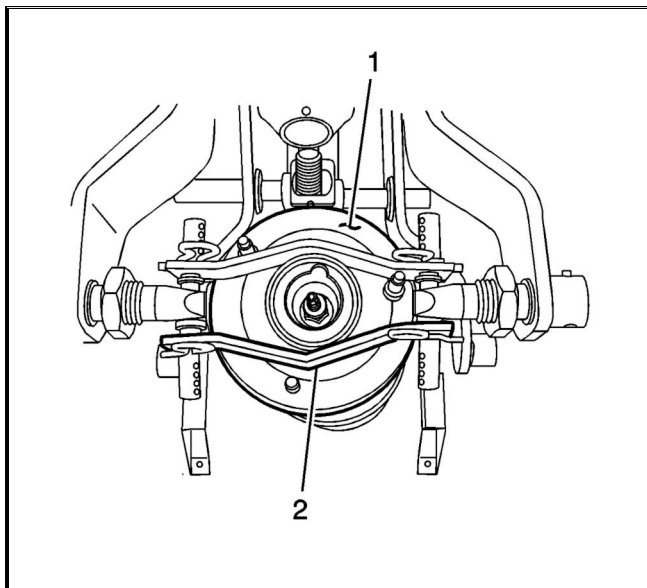
1. Install the provided lower spacer (1) to the front shock absorber assembly. Make sure to align the tab with the alignment hole.
2. Install the previously removed lower spring isolator (2) on top of the lower spring spacer (1) with the locating tab in the depression in the spacer.
3. Install the provided jounce cap (3).



4. Install front boot (1) and front shock absorber bumper (2).

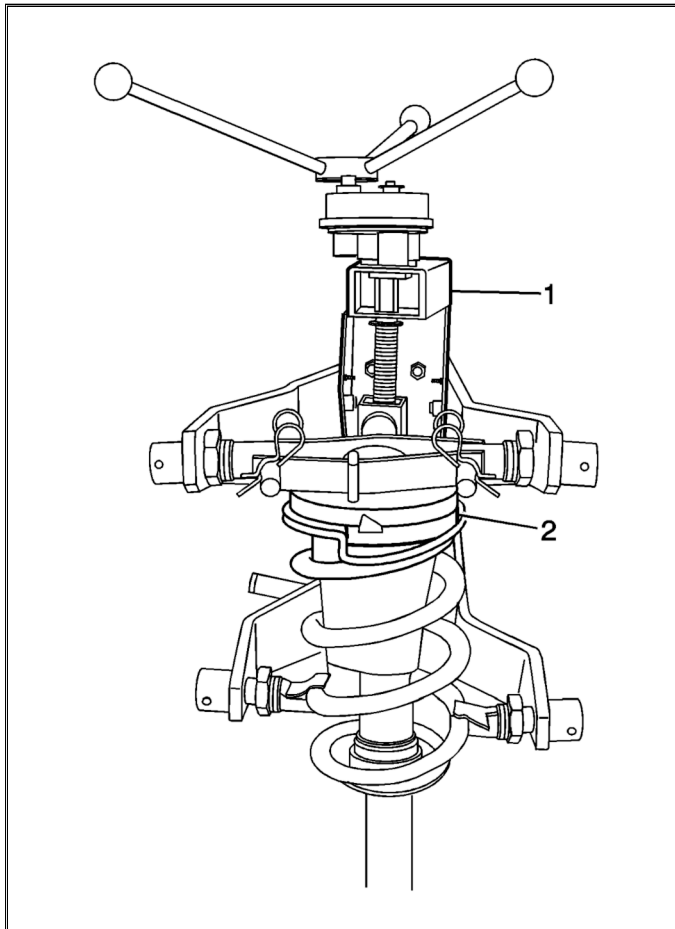


5. Install the front shock absorber spring (1), front spring upper seat (2) and upper mount (3).

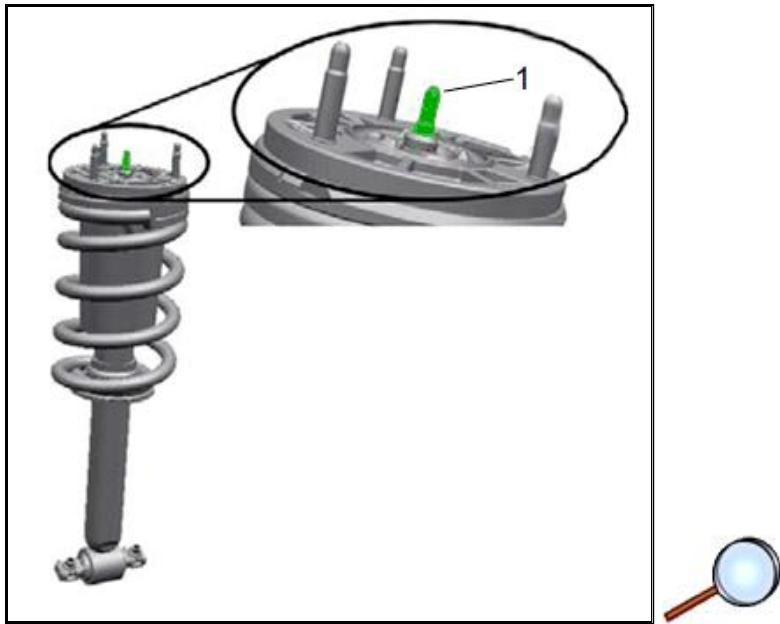


6. Position the original front shock absorber (1) in the upper retaining bracket of the *CH-48845* compressor (2).

Ensure the front shock absorber assembly is centered.

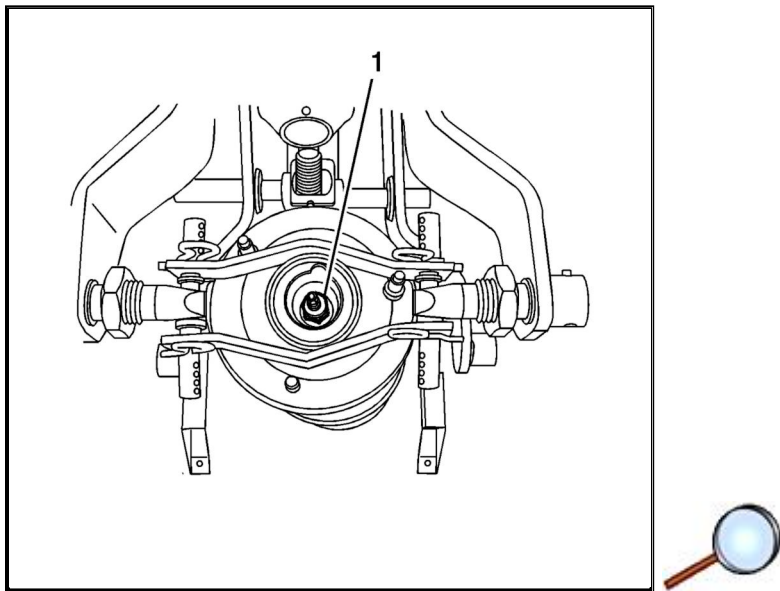


7. Use the *CH-48845* compressor (1) to compress the front spring (2).



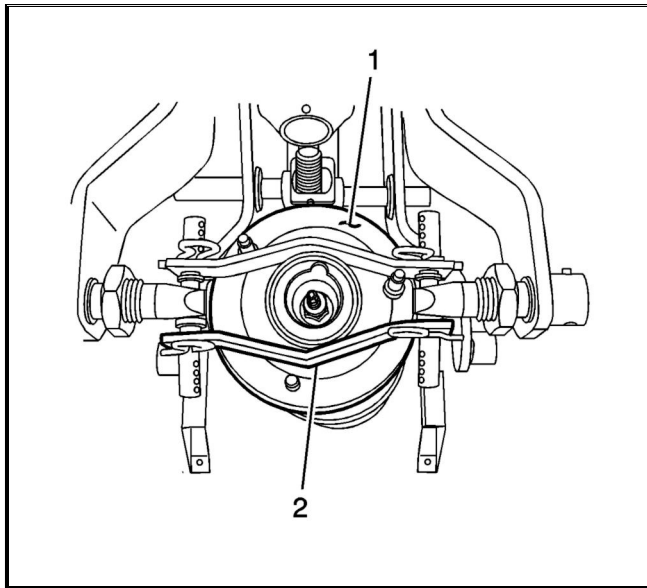
Note: DO NOT USE VICE GRIPS. DO NOT HOLD ANYWHERE ON DAMPER ROD.

8. Use the appropriate size wrench to hold the front shock absorber shaft (1).

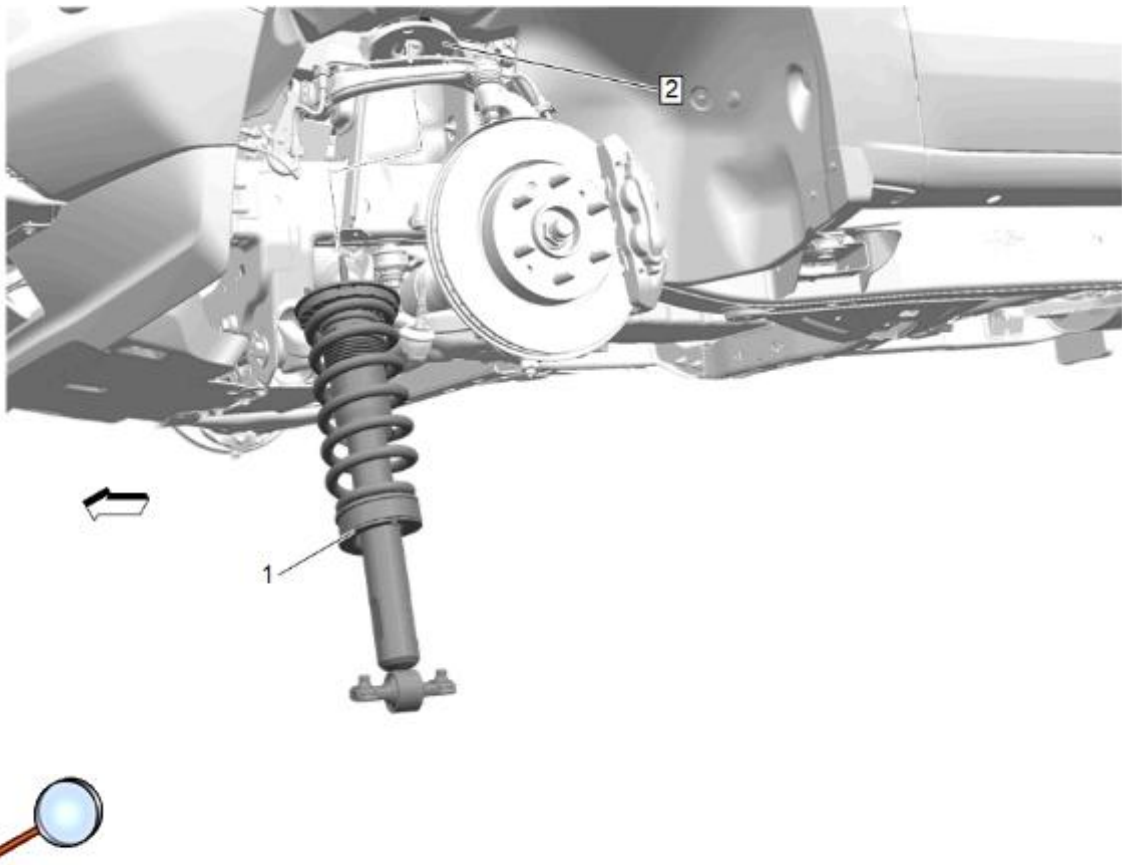


Caution: Use the correct fastener in the correct location. Replacement fasteners must be the correct part number for that application. Fasteners requiring replacement or fasteners requiring the use of thread locking compound or sealant are identified in the service procedure. Do not use paints, lubricants, or corrosion inhibitors on fasteners or fastener joint surfaces unless specified. These coatings affect fastener torque and joint clamping force and may damage the fastener. Use the correct tightening sequence and specifications when installing fasteners in order to avoid damage to parts and systems.

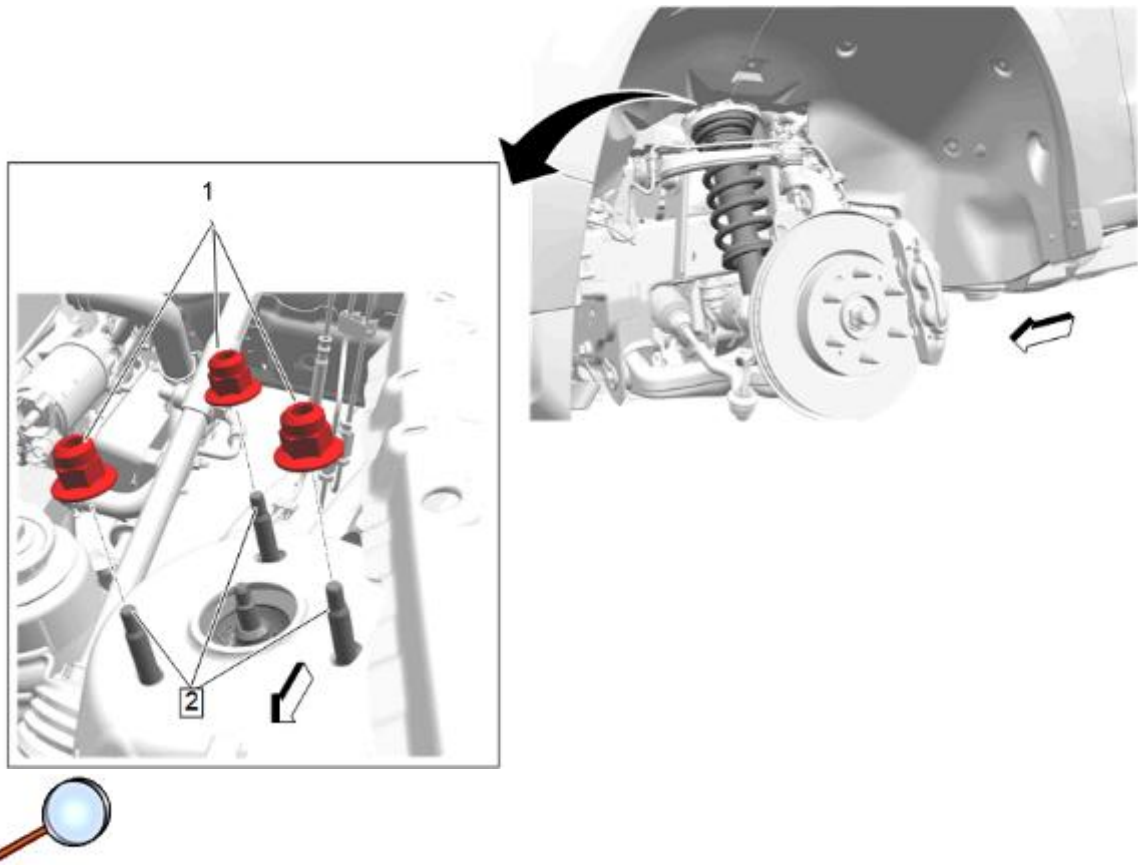
9. Use the appropriate tools to install the NEW front shock absorber stud nut (1) and tighten to **58N•m (43 lb ft)**.



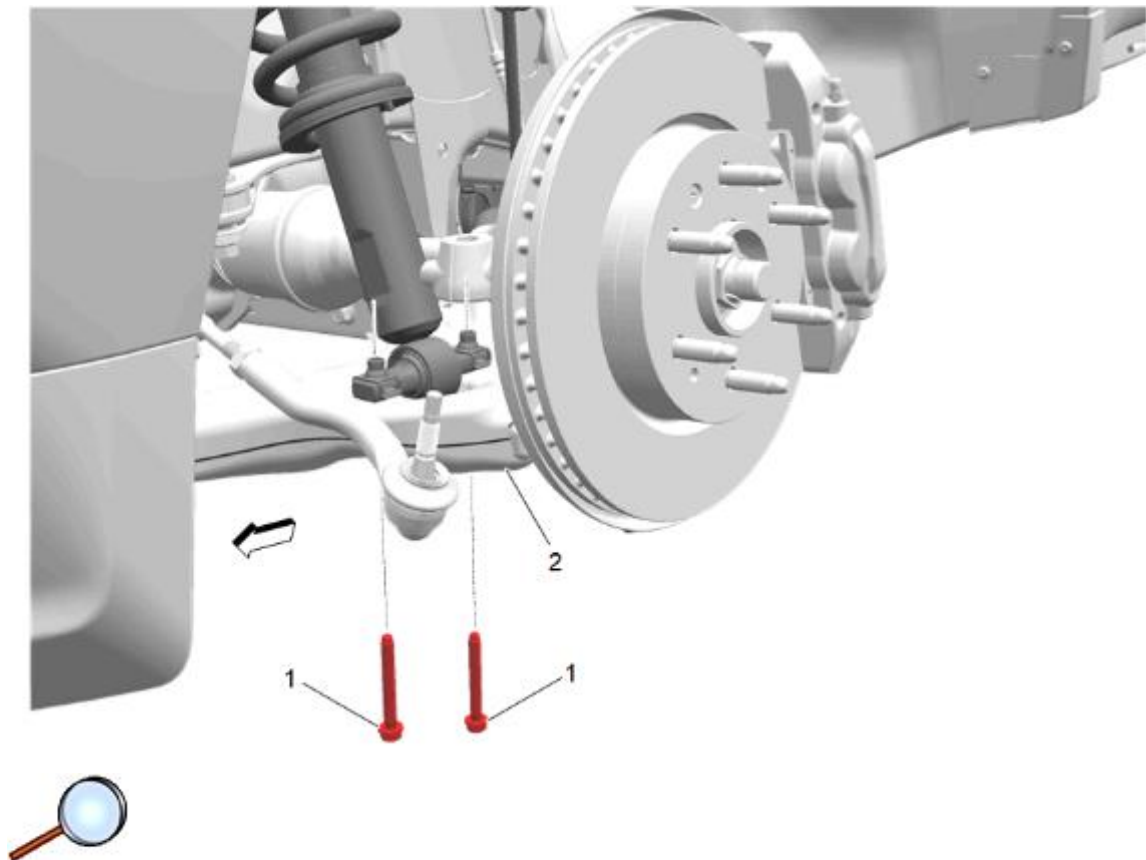
10. Remove the front shock absorber assembly (1) from the *CH-48845* compressor (2).



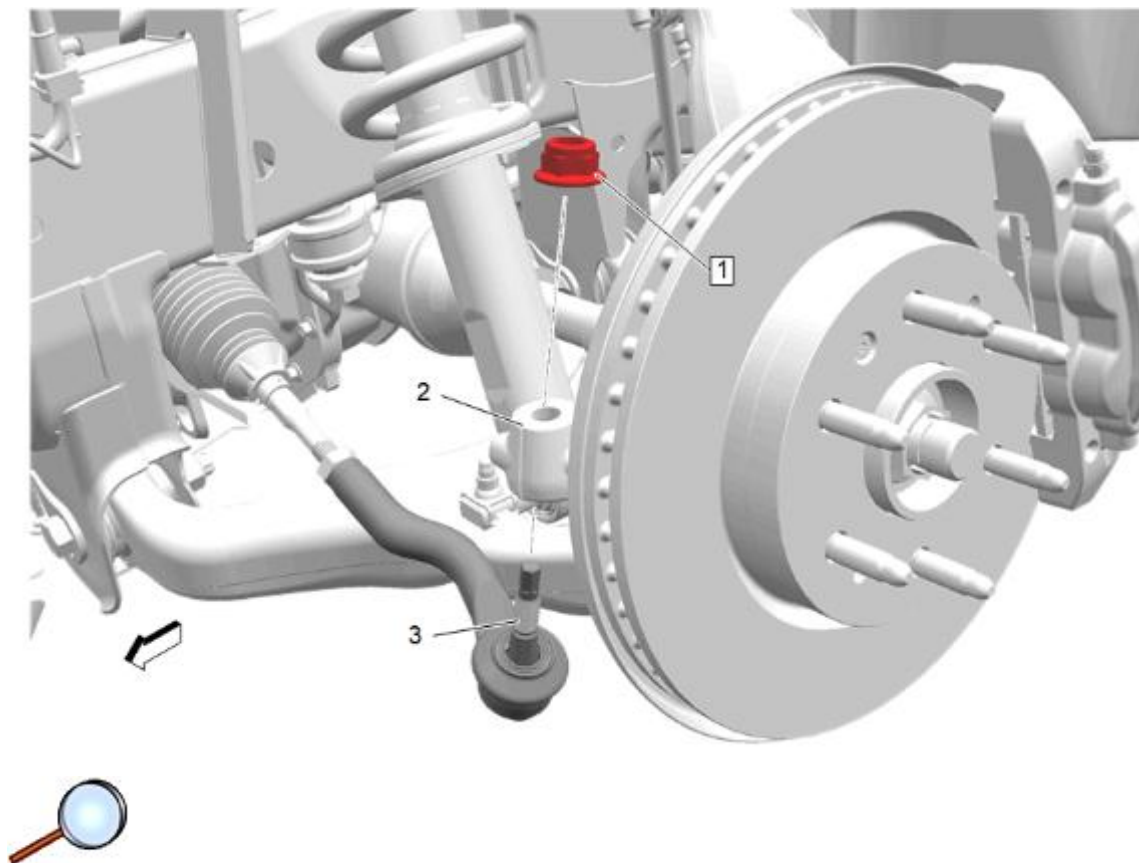
11. Install the front shock absorber and spring assembly (1) to the vehicle.



12. Install the nuts (1) to the front shock absorber studs (2). Tighten nuts to **58 N•m (43 lb ft)**



13. Install the front shock absorber lower bolts (1) to lower control arm (2). Tighten bolts to **50 N.m (37 lb ft)**.



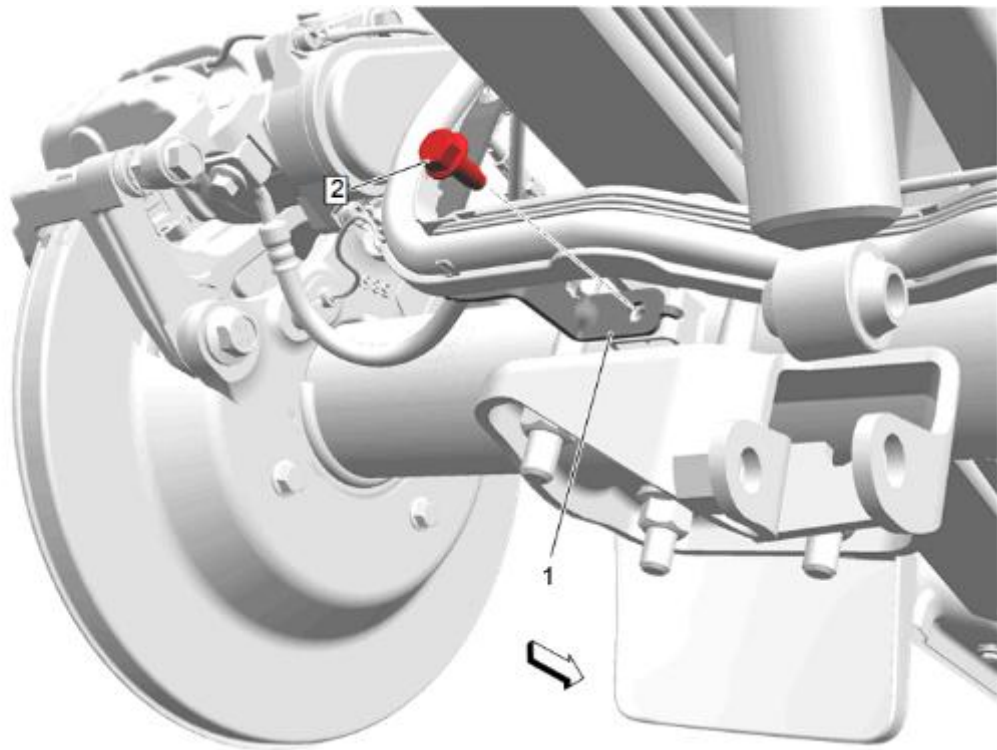
14. Install the outer tie rod (3) to the steering knuckle (2) and install outer tie rod nut (1).
15. Use the *EN-45059* meter to tighten the outer tie rod nut (1).

Tighten

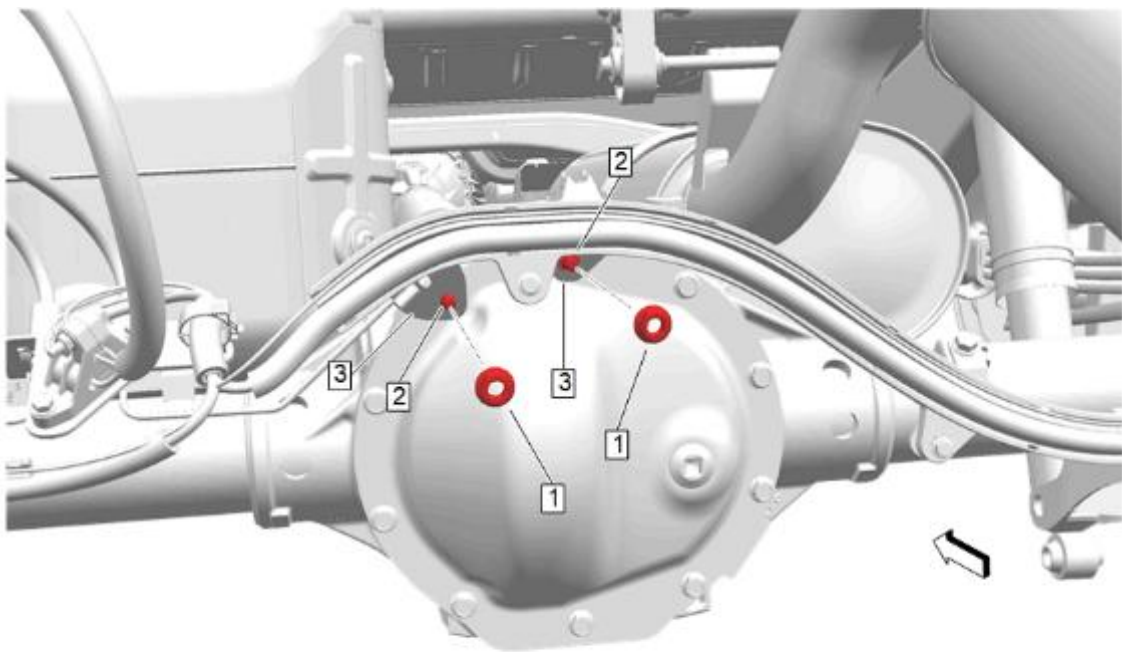
- 15.1. First Pass: **35 N.m (26 lb ft)**
15.2. Final Pass: **(89–95 degrees)**
15.3. Repeat steps 1 through 15.3 for opposite side.

Rear Suspension Removal

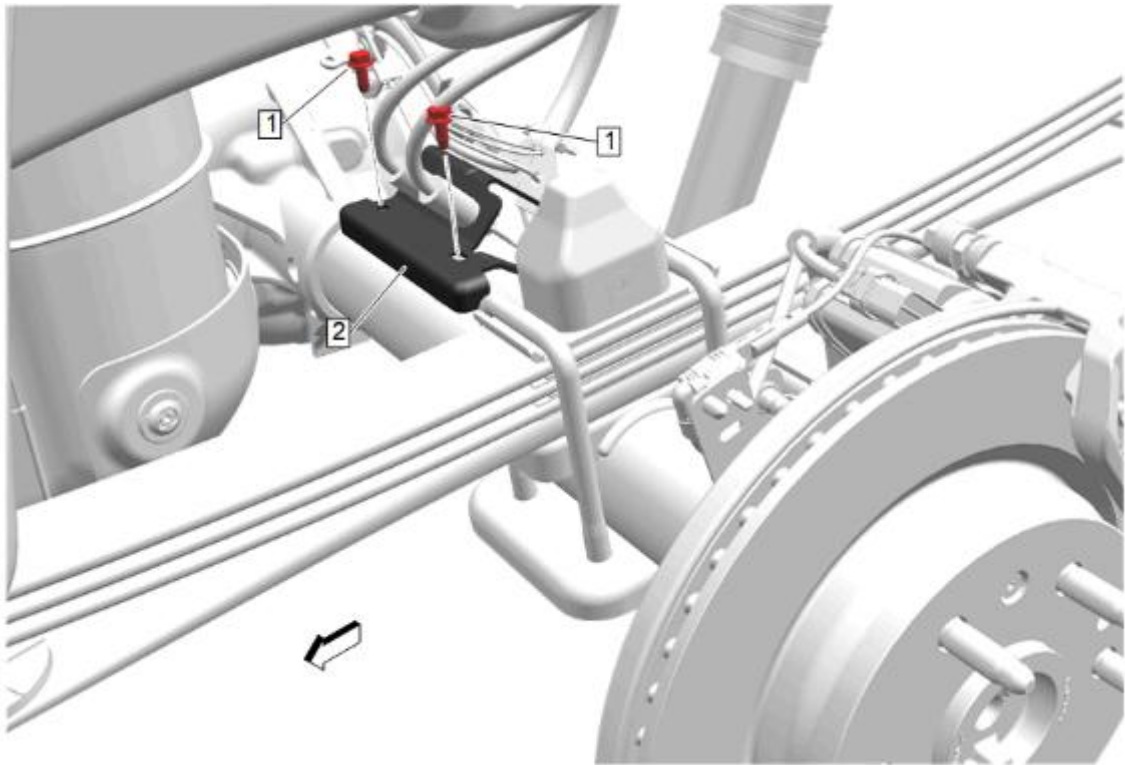
1. Remove and retain the lower shock absorber bolt (1).
2. Remove lower shock (3) from anchor plate (2).



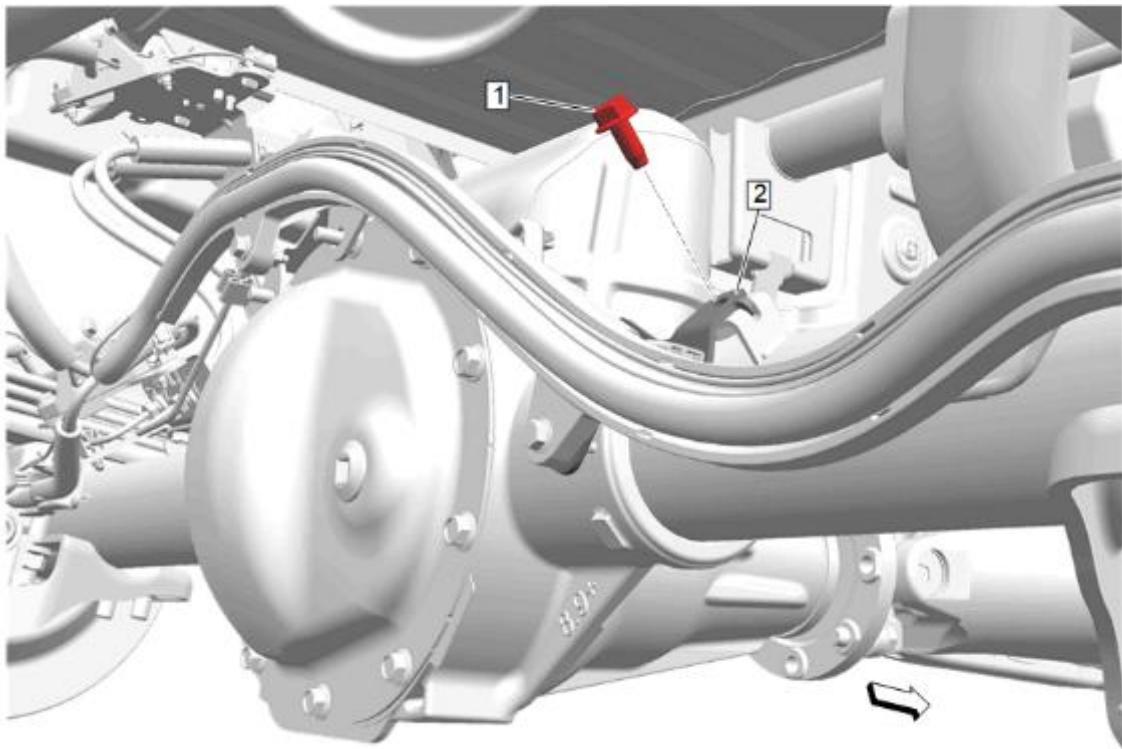
3. Remove and retain bolt (2) from bracket (1). Reposition bracket (1). Repeat for opposite side.



4. Remove and retain the nuts (1) from the studs (2) on rear differential.
5. Disengage brackets (3) from studs (2).

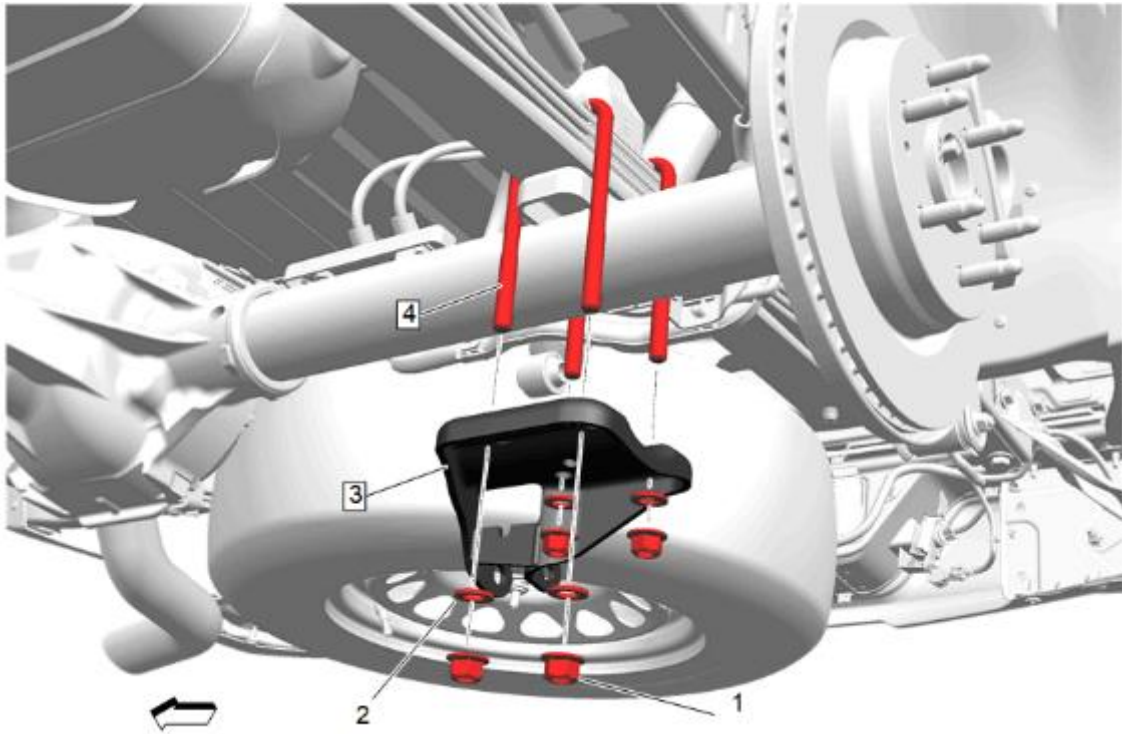


6. Remove and retain the bolts (1) from the bracket (2). Reposition bracket.



7. Remove and retain the bolt (1) from the bracket (2). Reposition bracket.

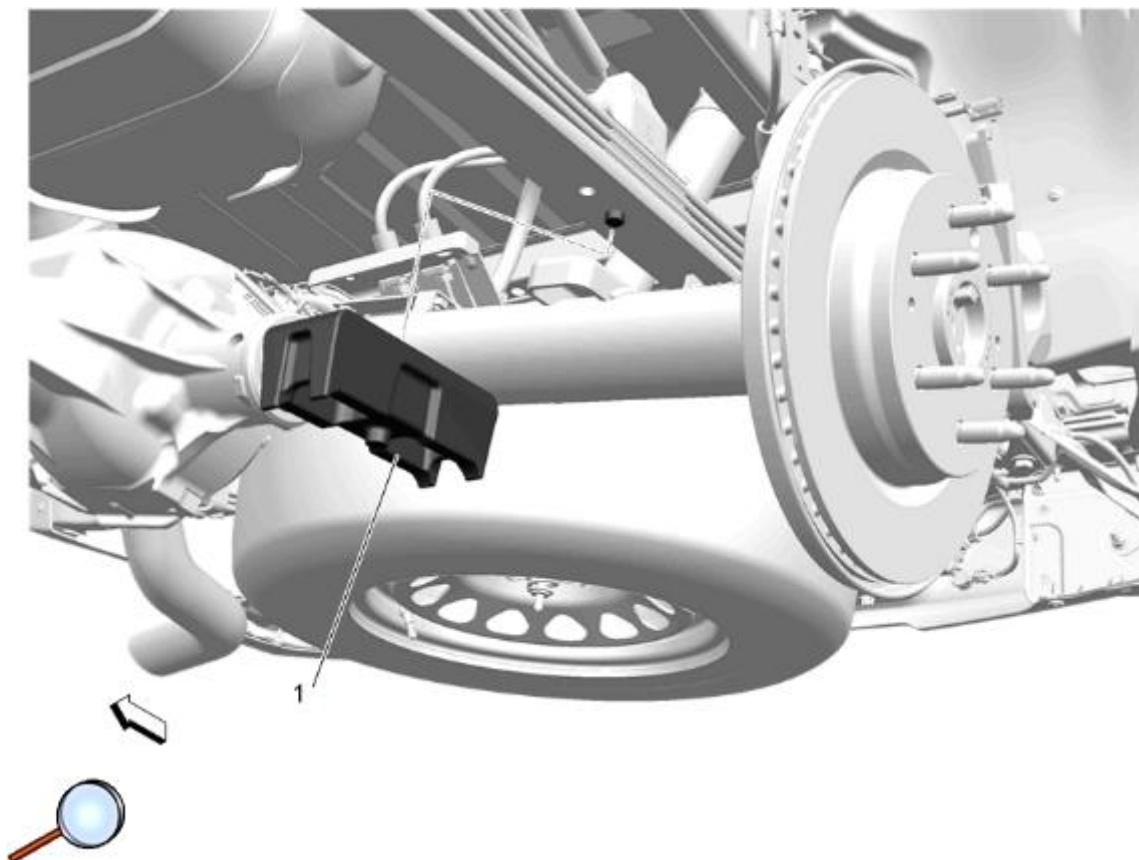
8. Support the rear axle independently in order to relieve the tension on the leaf springs.



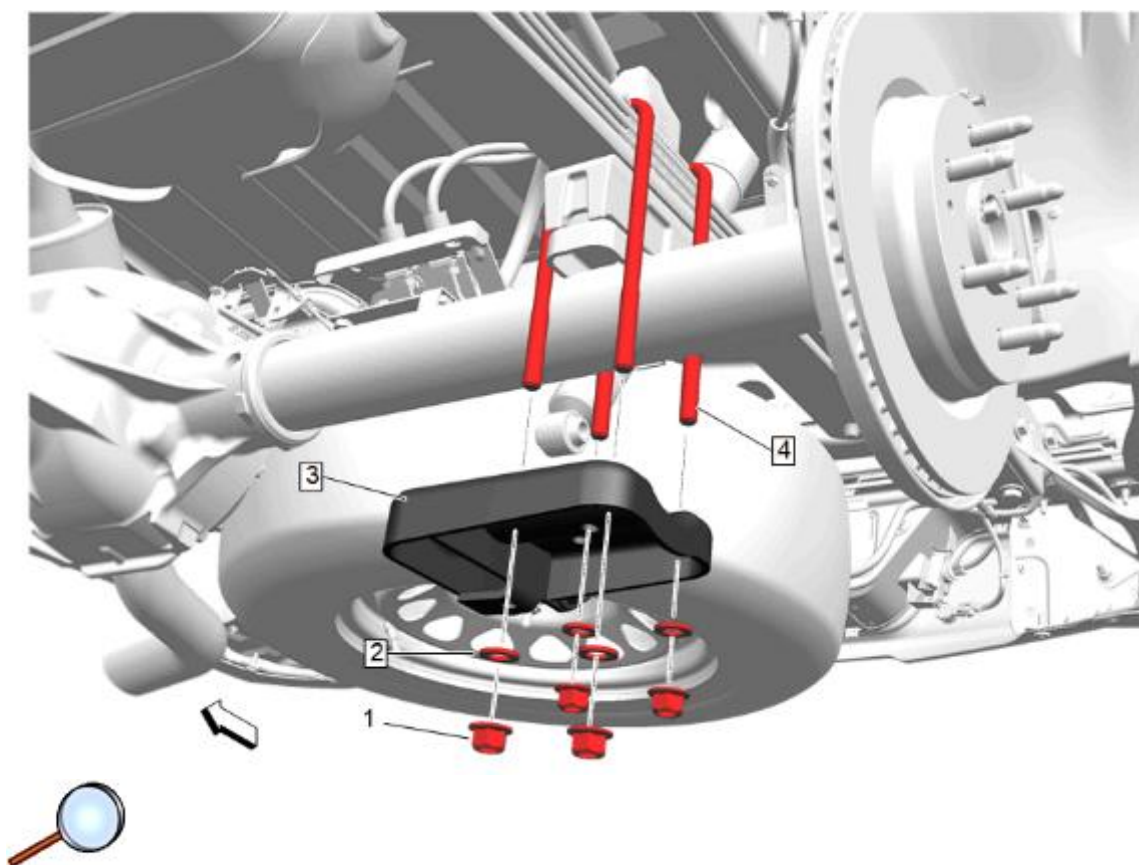
9. Remove and DISCARD the U-bolt nuts (1) and washers (2).
10. Remove and DISCARD the U-bolts (4).
11. Remove and DISCARD the anchor plate (3).

Rear Suspension Install

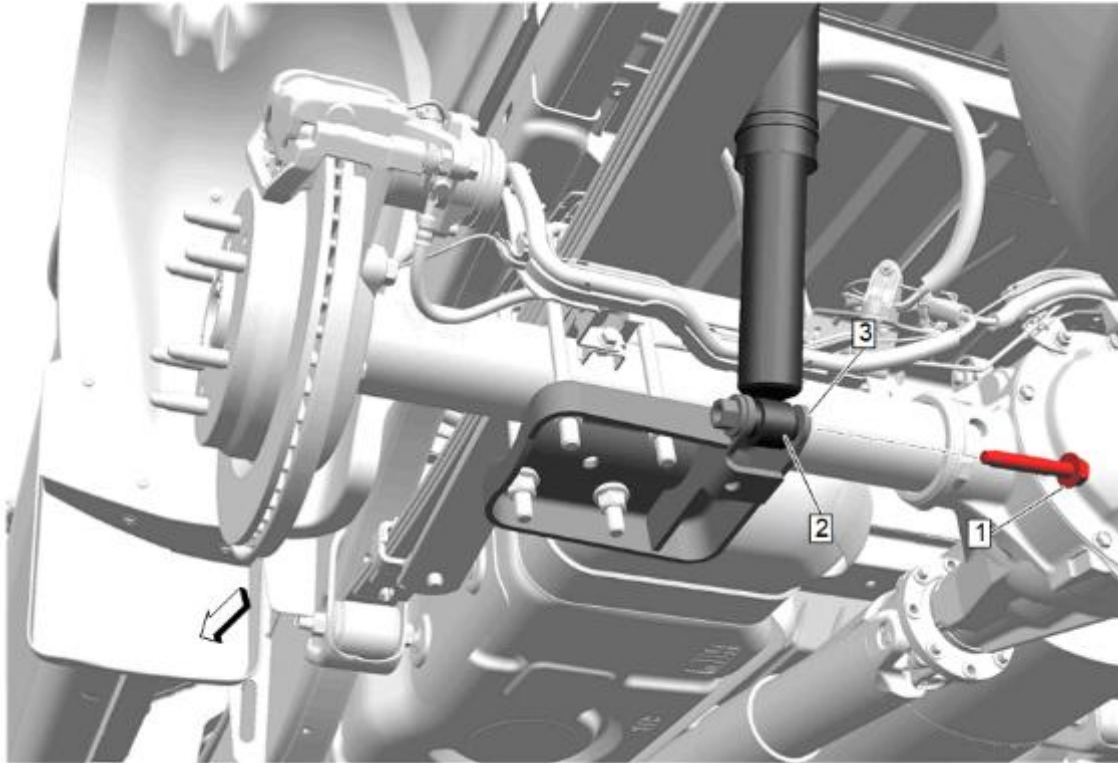
1. **Re-install the axle to the leaf spring using the provided leaf spring spacers, U-bolts, anchor plates, nuts and washers:**



- 1.1. Install the NEW leaf spring spacer (1).
- 1.2. Raise the rear axle until it touches the leaf spring and applies light compression to the leaf spring.

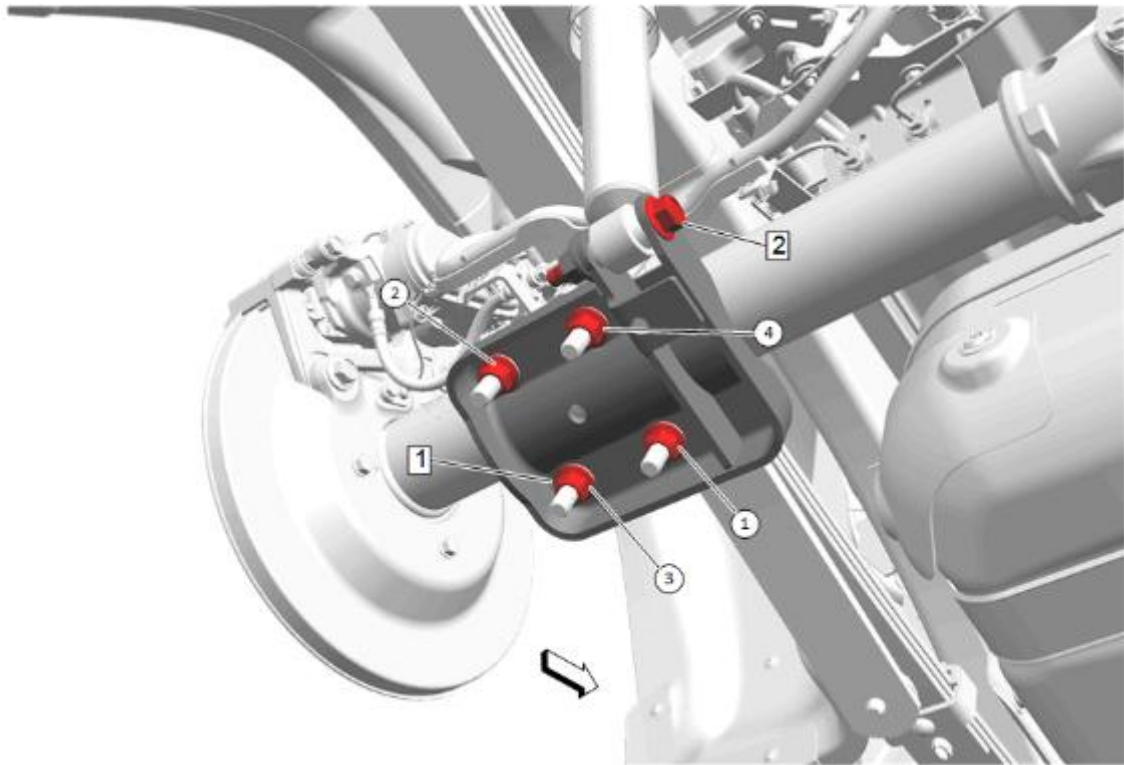


- 1.3. Install the NEW U-bolts (4).
- 1.4. Install the NEW anchor plate (3).
- 1.5. Install the NEW washers (2) and NEW U-bolt nuts (1). Run U-bolt nuts down until slack in U-bolt joint is snug. **DO NOT TORQUE U-BOLT NUTS AT THIS TIME!**

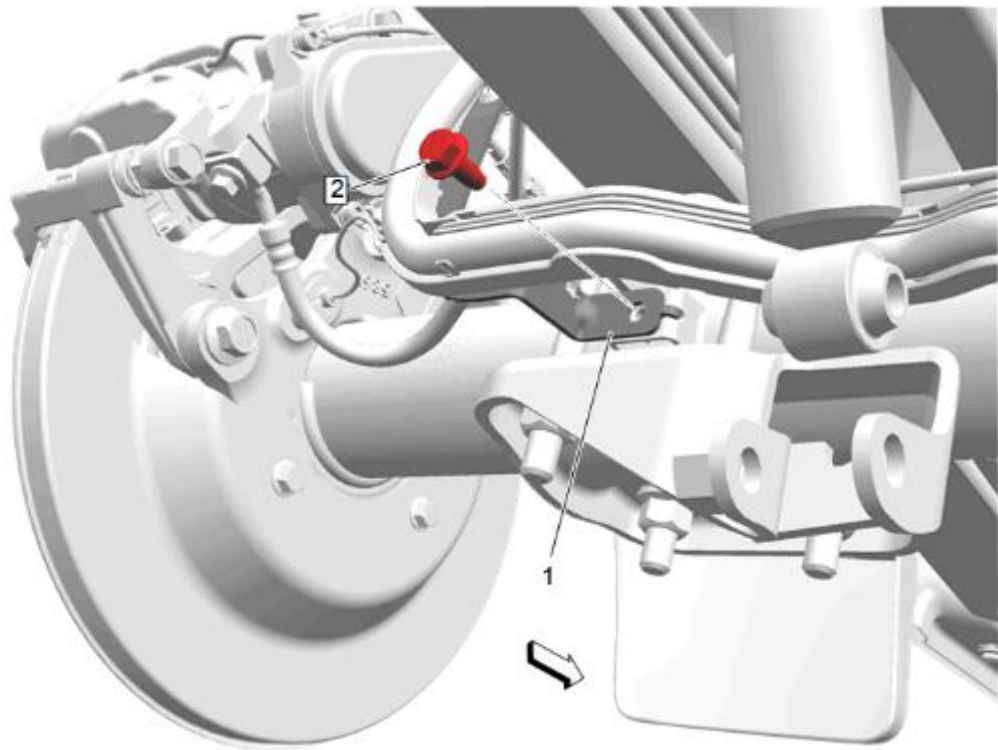


Note: Anchor plate clevis may need to be opened slightly with tool if lower shock does not slide in freely.

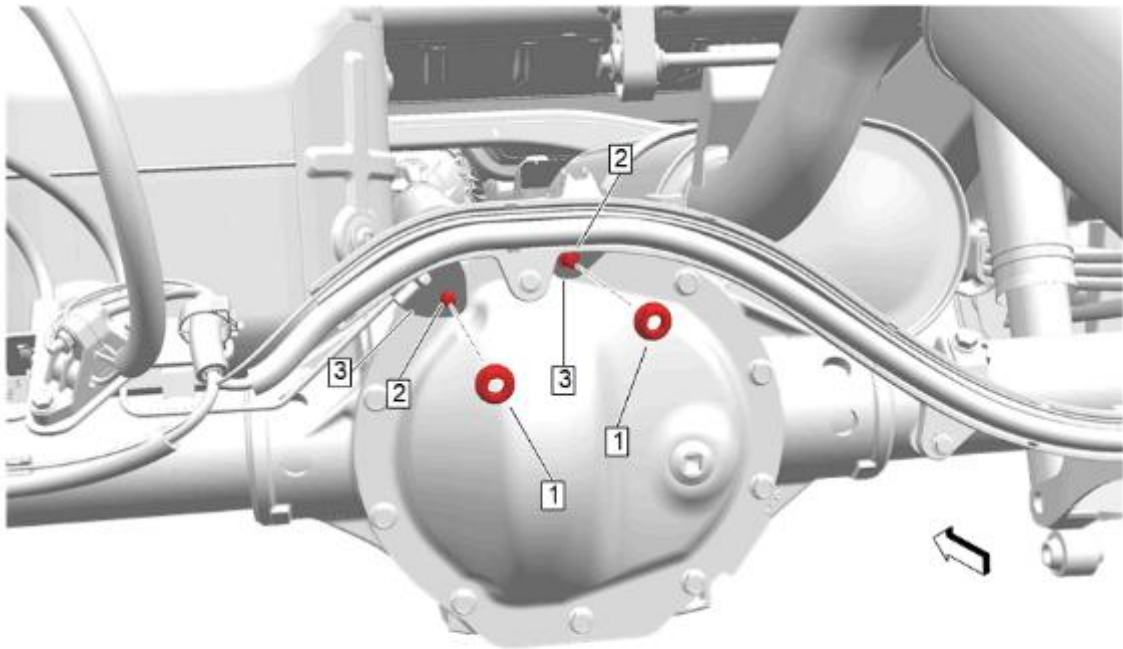
2. Install lower shock (2) to anchor plate clevis (3).
3. Install lower shock bolt (1).



4. Tighten the lower shock bolt (2) to 160 N.m (118 lb ft).
5. Tighten the U-bolt nuts (1) in sequence 1-4 to:
 - 5.1. First Pass: **80 N·m (59 lb ft)**
 - 5.2. Second Pass: **Loosen 180 degrees**
 - 5.3. Third Pass: **80 N·m (59 lb ft)**
 - 5.4. Final Pass: **120–140 degrees**

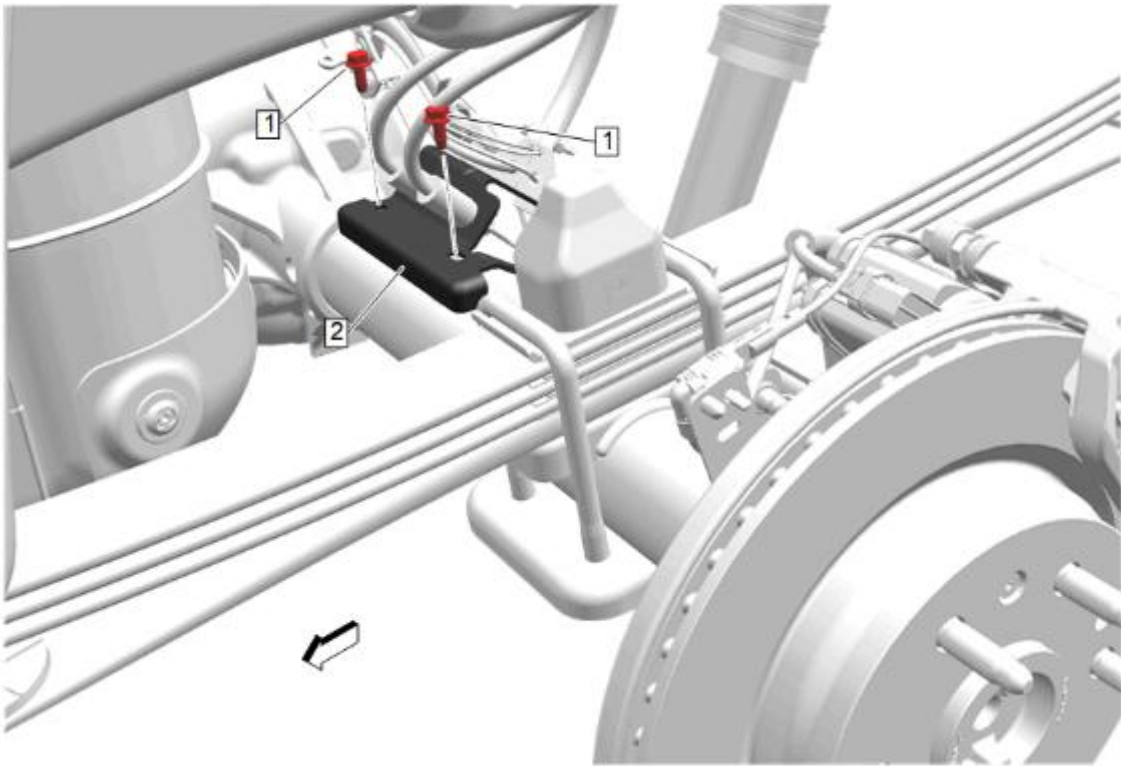


6. Reposition bracket (1) and install bolt (2). Repeat for opposite side. Tighten bolts to 22 N.m (16 lb ft).

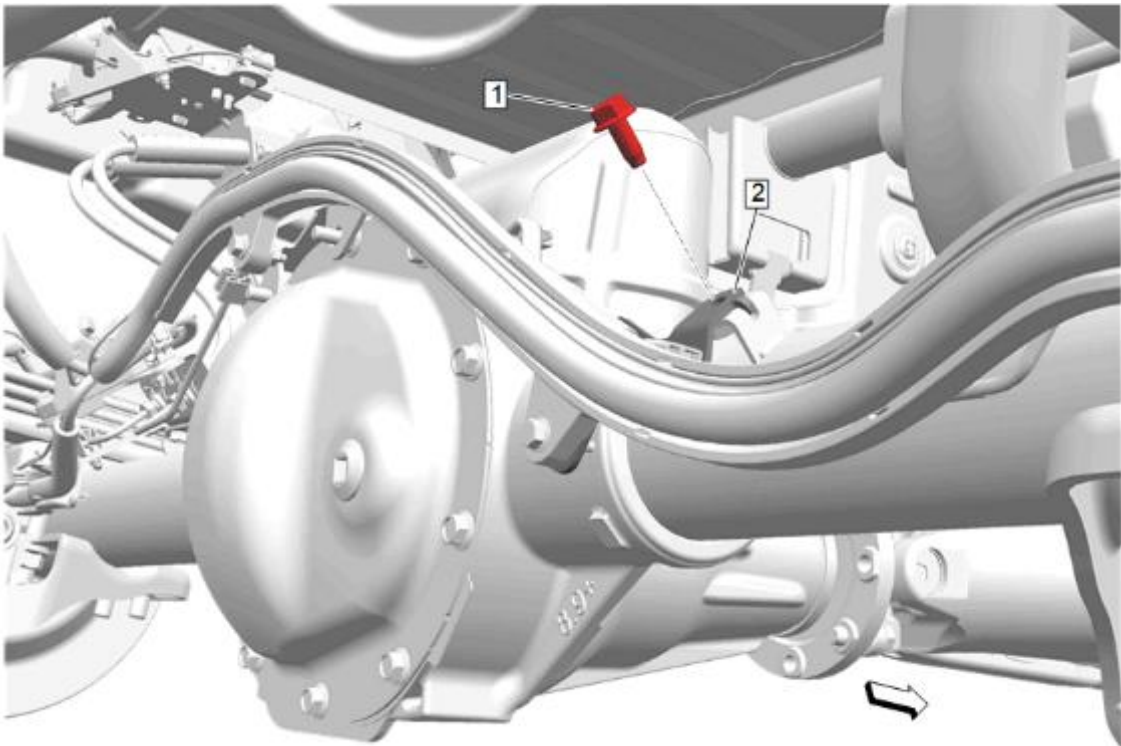


7. Engage brackets (3) to the studs (2) on rear differential.

8. Install the nuts (1) to the studs (2) on rear differential. Tighten the nuts to 22 N.m (16 lb ft).



9. Reposition bracket (2) and install the bolts (1). Tighten bolts to 22 N.m (16 lb ft).



10. Reposition bracket (2) and install the bolt (1). Tighten bolt to 22 N.m (16 lb ft).

11. Install the front and rear wheel and tire assemblies. Refer to [Tire and Wheel Removal and Installation](#) in Vehicle Service Manual.
12. Lower the vehicle.
13. Measure the front wheel alignment and adjust to spec if necessary. Refer to [Wheel Alignment Measurement](#) in Vehicle Service Manual.
14. After 500 miles of driving, check torque on U-bolts and re-torque as necessary.