

2017 SUSPENSION

Rear Suspension - Bolt EV

SPECIFICATIONS

FASTENER SPECIFICATIONS

Reusable Threaded Fastener Tightening Specifications

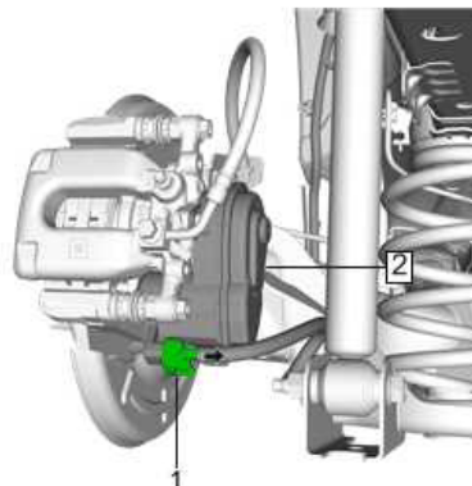
Application	Specification
	Metric (English)
NOTE: <i>All fasteners listed in this table can be reused after removal.</i>	
Rear Axle Bolt	
• First Pass:	160 N.m (118 lb ft)
• Final Pass:	30 - 45 Degrees
Rear Brake Hose Bracket Bolt	9 N.m (80 lb in)
Rear Shock Absorber Bolt	
• First Pass:	100 N.m (74 lb ft)
• Final Pass:	30 - 45 Degrees
Rear Suspension Shock Absorber Upper Mounting Nut	40 N.m (30 lb ft)
Rear Suspension Strut Bolt	22 N.m (16 lb ft)
Rear Wheel Hub Bolt	58 N.m (43 lb ft)

REPAIR INSTRUCTIONS

REAR WHEEL BEARING AND HUB REPLACEMENT

Removal Procedure

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



3. Disconnect Electrical Connector (1) @ Rear Park Brake Actuator (2)

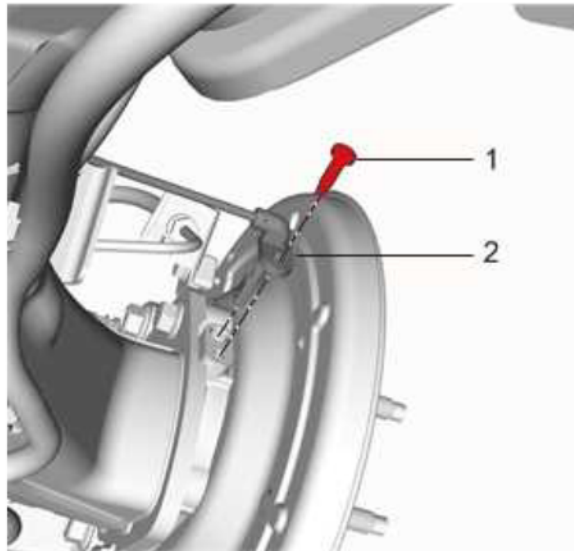


Fig. 2: Rear Wheel Speed Sensor And Bolt
Courtesy of GENERAL MOTORS COMPANY

4. Remove Rear Wheel Speed Sensor Bolt (1) @ Rear Brake Caliper Mount Plate
5. Remove Rear Wheel Speed Sensor (2) @ Rear Brake Caliper Mount Plate

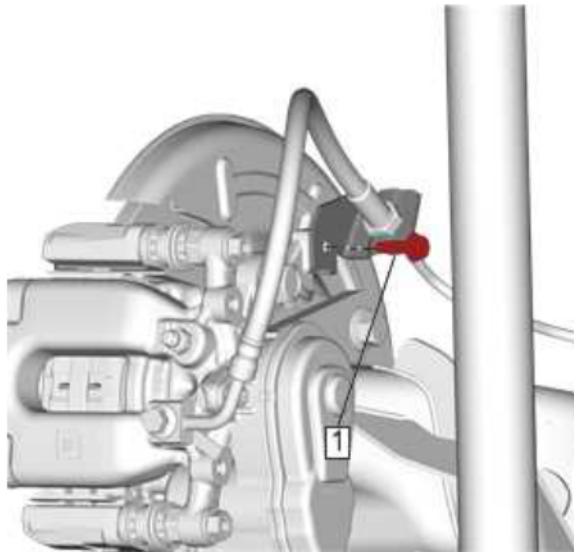


Fig. 3: Rear Brake Hose Bracket And Bolt
Courtesy of GENERAL MOTORS COMPANY

6. Remove Rear Brake Hose Bracket Bolt (1) @ Rear Brake Caliper Mount Plate
7. Remove Rear Brake Caliper Bracket @ Vehicle. Refer to [**Rear Brake Caliper Bracket Replacement**](#)

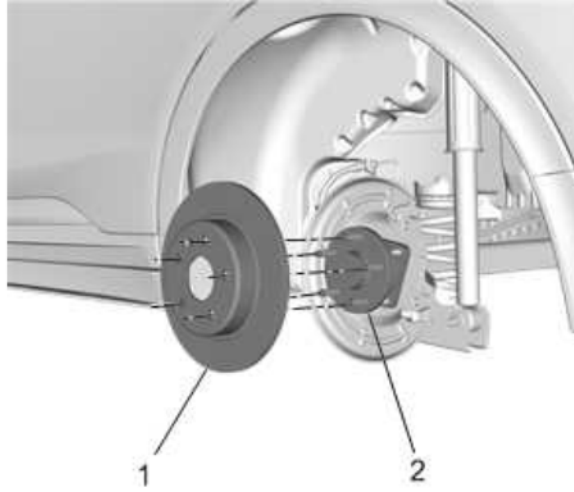


Fig. 4: Rear Brake Rotor And Rear Wheel Hub
 Courtesy of GENERAL MOTORS COMPANY

8. Remove Rear Brake Rotor (1) @ Rear Wheel Hub (2). Refer to [Rear Brake Rotor Replacement](#)

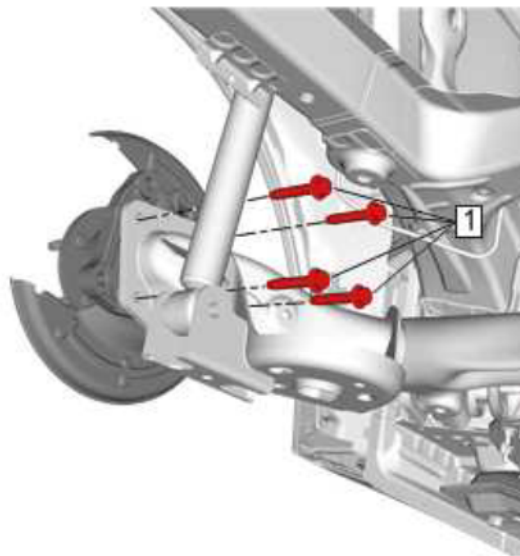


Fig. 5: Rear Wheel Hub Bolts
 Courtesy of GENERAL MOTORS COMPANY

9. Remove Rear Wheel Hub Bolts (1) (Qty: 4)

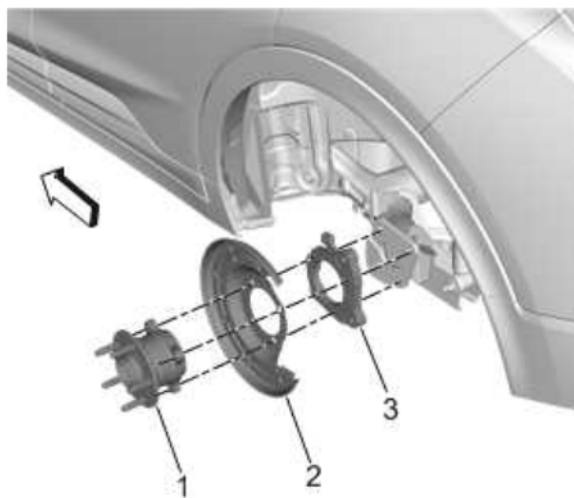


Fig. 6: Rear Wheel Bearing/Hub Assembly, Rear Brake Shield And Caliper Mount Plate
 Courtesy of GENERAL MOTORS COMPANY

10. Remove Rear Wheel Bearing and Hub Assembly (1) @ Rear Axle

11. Remove Rear Brake Shield (2) @ Rear Axle
12. Remove Rear Brake Caliper Mount Plate (3) @ Rear Axle

Installation Procedure

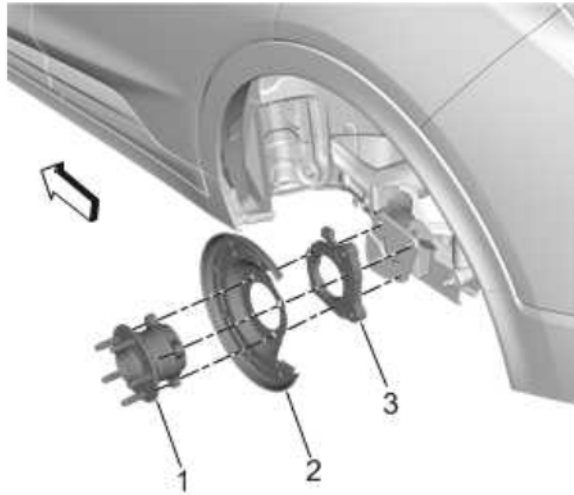


Fig. 7: Rear Wheel Bearing/Hub Assembly, Rear Brake Shield And Caliper Mount Plate
Courtesy of GENERAL MOTORS COMPANY

1. Install Rear Brake Caliper Mount Plate (3) @ Rear Axle
2. Install Rear Brake Shield (2) @ Rear Axle
3. Install Rear Wheel Bearing and Hub Assembly (1) @ Rear Axle

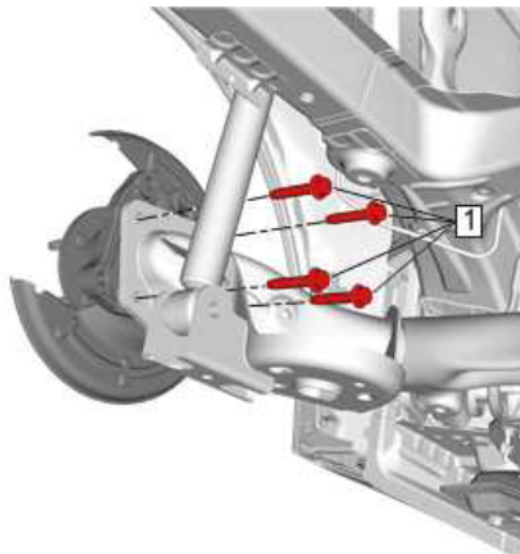


Fig. 8: Rear Wheel Hub Bolts
Courtesy of GENERAL MOTORS COMPANY

CAUTION: Refer to **Fastener Caution**

4. Install and tighten Rear Wheel Hub Bolts (1) (Qty: 4) to 58 N.m (43 lb ft)

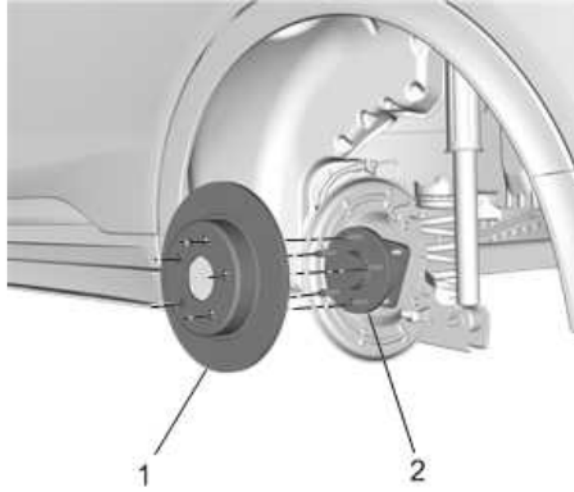


Fig. 9: Rear Brake Rotor And Rear Wheel Hub
 Courtesy of GENERAL MOTORS COMPANY

5. Install Rear Brake Rotor (1) @ Rear Wheel Hub (2). Refer to [Rear Brake Rotor Replacement](#)
6. Install Rear Brake Caliper Bracket @ Vehicle. Refer to [Rear Brake Caliper Bracket Replacement](#)

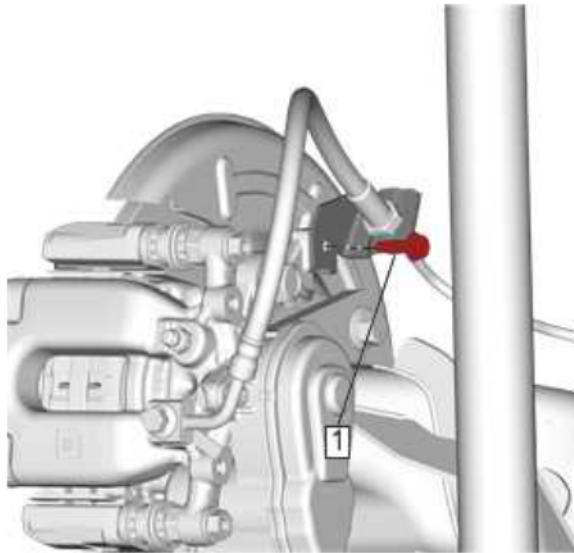


Fig. 10: Rear Brake Hose Bracket And Bolt
 Courtesy of GENERAL MOTORS COMPANY

7. Install and tighten Rear Brake Hose Bracket Bolt (1) @ Rear Brake Caliper Mount Plate to 9 N.m (80 lb in)

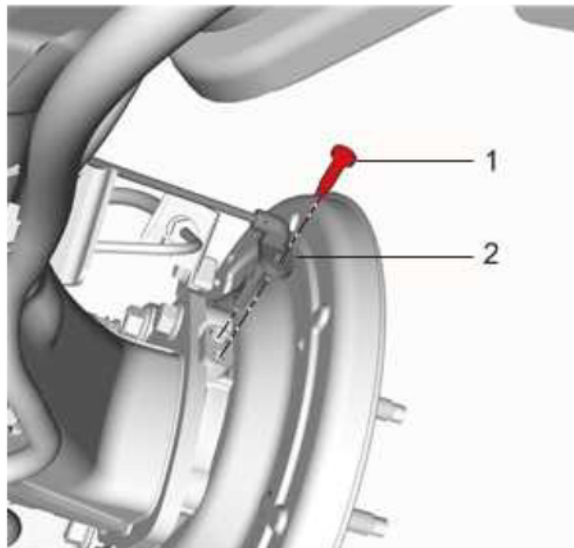


Fig. 11: Rear Wheel Speed Sensor And Bolt
 Courtesy of GENERAL MOTORS COMPANY

8. Install Rear Wheel Speed Sensor (2) @ Rear Brake Caliper Mount Plate
9. Install and tighten Rear Wheel Speed Sensor Bolt (1) @ Rear Brake Caliper Mount Plate. Refer to [Rear Wheel Speed Sensor Replacement](#)

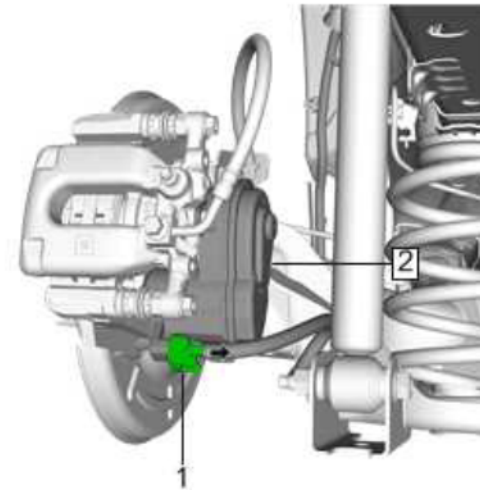


Fig. 12: Electrical Connector And Rear Park Brake Actuator
 Courtesy of GENERAL MOTORS COMPANY

10. Connect Electrical Connector (1) @ Rear Park Brake Actuator (2)
11. Install the rear tire and wheel assembly. Refer to [Tire and Wheel Removal and Installation](#)
12. Lower the vehicle.

STRUT AND SHOCK ABSORBER INSPECTION

- NOTE:** The shock absorber assembly **DOES NOT** have to be removed from the vehicle to perform the following inspection procedure.
- NOTE:** A light film of oil on the top portion of the lower shock absorber tube is normal. **DO NOT** replace the shock absorber for this condition.

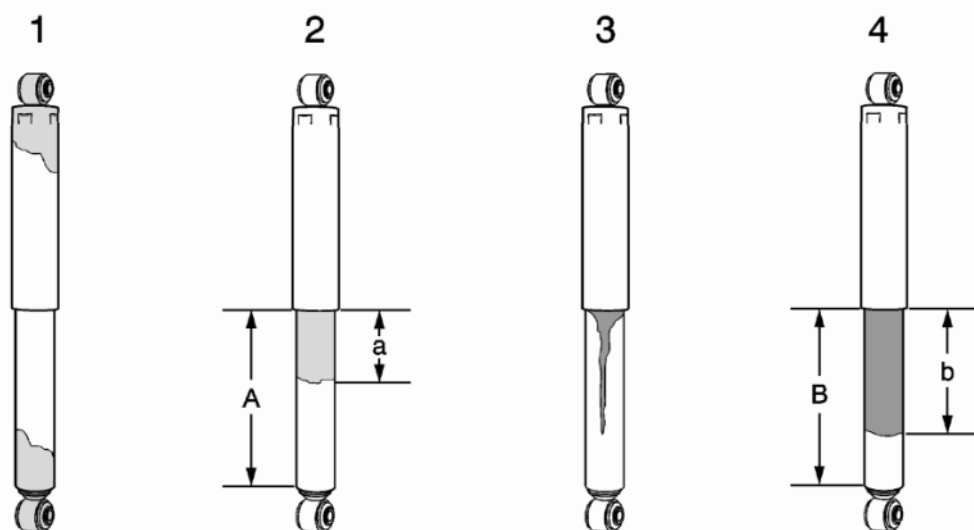


Fig. 13: Identifying Shock Absorber Conditions
 Courtesy of GENERAL MOTORS COMPANY

Condition 1

Oil or fluid residue only on the bottom or top of the shock absorber and not originating from the shaft seal, is not a shock absorber related problem. DO NOT replace the shock absorber, look for other external leaks.

Condition 2

Light film/residue on approximately 1/3 (a) or less of the lower shock tube (A) and originating from the shaft seal, is a NORMAL condition. DO NOT replace the shock absorber.

Condition 3

Oil drip or trail down the lower shock tube and originating from the shaft seal, is an ABNORMAL condition. Replace the shock absorber. Refer to [Shock Absorber Replacement](#).

Condition 4

An extreme wet film of oil covering more than 1/3 (b) of the lower shock tube and originating from the shaft seal (B), is an ABNORMAL condition. Replace the shock absorber. Refer to [Shock Absorber Replacement](#).

Inspection

1. Verify the customer's concern is present. If the concern is present, continue to the next step. If the concern is not present, then the vehicle is operating normally.

NOTE: The shock absorber assembly DOES NOT have to be removed from the vehicle to perform the following inspection procedure.

2. Raise and support the vehicle. Refer to [Lifting and Jacking the Vehicle](#).
3. Visually inspect each of the shock absorbers for external fluid leaks. Refer to the following conditions 1, 2, 3 and 4 for visual inspection.
 - If conditions 1 or 2 are found, continue to step 4.
 - If conditions 3 or 4 are found, replace shock absorber. Refer to [Shock Absorber Replacement](#).
4. Use your hands in order to lift up and push down on each corner of the vehicle 3 times. Remove your hands from the vehicle. If the corner motion exceeds 2 cycles, replace the shock absorber. If the shock absorber does not exceed 2 cycles, NO repair is necessary.

REAR SHOCK ABSORBER BUMPER REPLACEMENT

Special Tools

- CH-51095 Shock Absorber Strut Nut Wrench

Equivalent regional tools: [Special Tools](#)

Removal Procedure

1. Raise and support the vehicle. Refer to [Lifting and Jacking the Vehicle](#)
2. Remove the rear tire and wheel assembly. Refer to [Tire and Wheel Removal and Installation](#)
3. Remove Rear Wheelhouse Liner. Refer to [Rear Wheelhouse Liner Replacement](#)

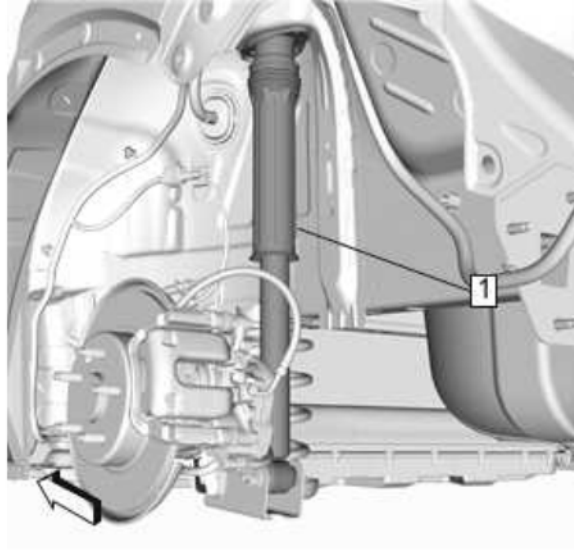


Fig. 14: Rear Shock Absorber

Courtesy of GENERAL MOTORS COMPANY

4. Remove Rear Shock Absorber (1) @ Vehicle. Refer to [Shock Absorber Replacement](#)



Fig. 15: Shock Absorber Strut Nut Wrench

Courtesy of GENERAL MOTORS COMPANY

5. Use the CH-51095 shock absorber strut nut wrench (1) or equivalent to remove the rear suspension shock absorber upper mounting nut.

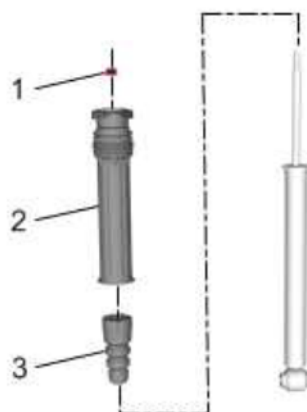


Fig. 16: Rear Shock Absorber Upper Mounting Nut, Mount And Bumper

Courtesy of GENERAL MOTORS COMPANY

6. Remove Rear Suspension Shock Absorber Upper Mounting Nut (1)
7. Remove Rear Shock Absorber Mount (2) @ Rear Shock Absorber
8. Remove Rear Shock Absorber Bumper (3) @ Rear Shock Absorber

Installation Procedure

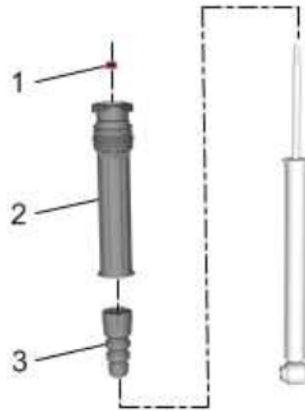


Fig. 17: Rear Shock Absorber Upper Mounting Nut, Mount And Bumper
Courtesy of GENERAL MOTORS COMPANY

1. Install Rear Shock Absorber Bumper (3) @ Rear Shock Absorber
2. Install Rear Shock Absorber Mount (2) @ Rear Shock Absorber
3. Install Rear Suspension Shock Absorber Upper Mounting Nut (1)



Fig. 18: Shock Absorber Strut Nut Wrench
Courtesy of GENERAL MOTORS COMPANY

4. Use the CH-51095 shock absorber strut nut wrench (1) or equivalent to tighten the rear suspension shock absorber upper mounting nut.

CAUTION: Fastener Caution

5. Install and tighten Rear Suspension Shock Absorber Upper Mounting Nut to 40 N.m (30 lb ft)

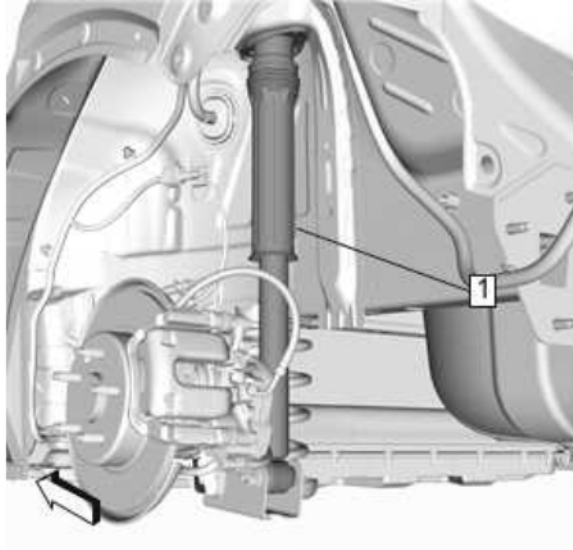


Fig. 19: Rear Shock Absorber

Courtesy of GENERAL MOTORS COMPANY

6. Install Rear Shock Absorber (1) @ Vehicle. Refer to [Shock Absorber Replacement](#)
7. Install Rear Wheelhouse Liner. Refer to [Rear Wheelhouse Liner Replacement](#)
8. Install the rear tire and wheel assembly. Refer to [Tire and Wheel Removal and Installation](#)
9. Lower the vehicle.

REAR SHOCK ABSORBER MOUNT REPLACEMENT

Special Tools

- CH-51095 Shock Absorber Strut Nut Wrench

Equivalent regional tools: [Special Tools](#)

Removal Procedure

1. Raise and support the vehicle. Refer to [Lifting and Jacking the Vehicle](#)
2. Remove the rear tire and wheel assembly. Refer to [Tire and Wheel Removal and Installation](#)
3. Remove Rear Wheelhouse Liner. Refer to [Rear Wheelhouse Liner Replacement](#)

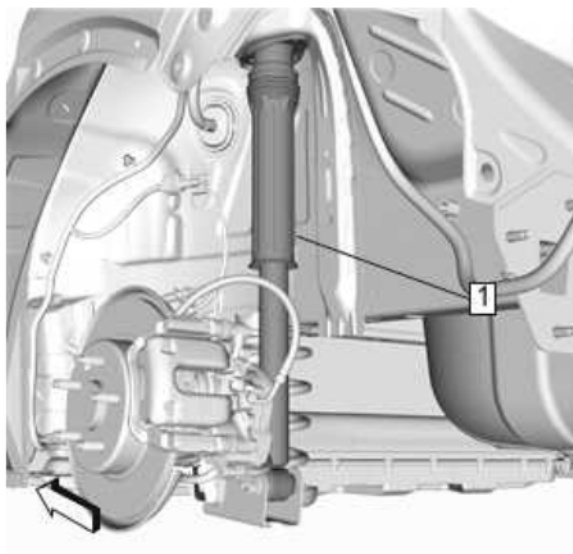


Fig. 20: Rear Shock Absorber

Courtesy of GENERAL MOTORS COMPANY

4. Remove Rear Shock Absorber (1) @ Vehicle. Refer to [Shock Absorber Replacement](#)



Fig. 21: Shock Absorber Strut Nut Wrench
Courtesy of GENERAL MOTORS COMPANY

5. Use the CH-51095 shock absorber strut nut wrench (1) or equivalent to remove the rear suspension shock absorber upper mounting nut.

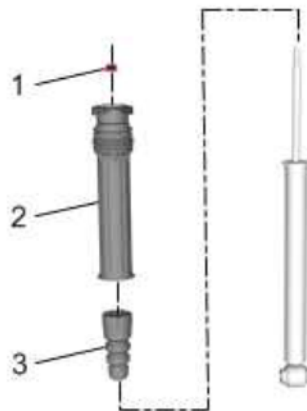


Fig. 22: Rear Shock Absorber Upper Mounting Nut, Mount And Bumper
Courtesy of GENERAL MOTORS COMPANY

6. Remove Rear Suspension Shock Absorber Upper Mounting Nut (1)
7. Remove Rear Shock Absorber Mount (2) @ Rear Shock Absorber

Installation Procedure

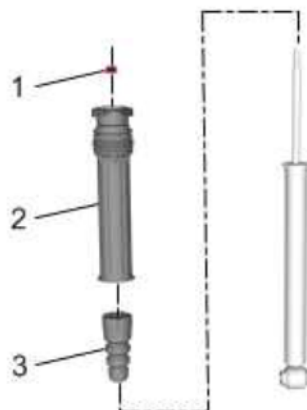


Fig. 23: Rear Shock Absorber Upper Mounting Nut, Mount And Bumper
Courtesy of GENERAL MOTORS COMPANY

1. Install Rear Shock Absorber Mount (2) @ Rear Shock Absorber
2. Install Rear Suspension Shock Absorber Upper Mounting Nut (1)



Fig. 24: Shock Absorber Strut Nut Wrench
Courtesy of GENERAL MOTORS COMPANY

3. Use the CH-51095 shock absorber strut nut wrench (1) or equivalent to tighten the rear suspension shock absorber upper mounting nut.

CAUTION: Refer to **Fastener Caution**

4. Install and tighten Rear Suspension Shock Absorber Upper Mounting Nut to 40 N.m (30 lb ft)

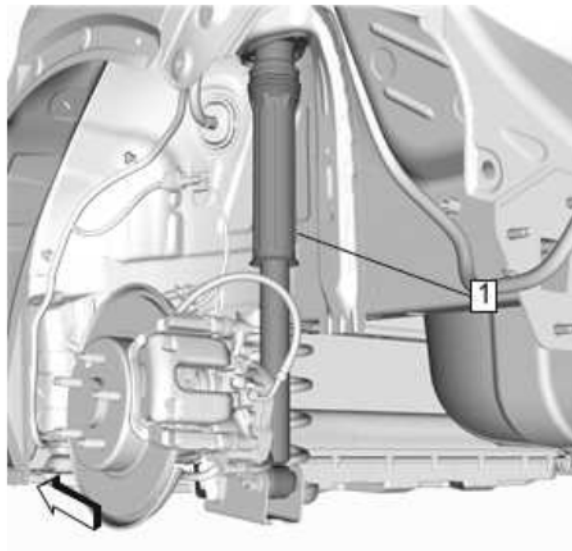


Fig. 25: Rear Shock Absorber
Courtesy of GENERAL MOTORS COMPANY

5. Install Rear Shock Absorber (1) @ Vehicle. Refer to **Shock Absorber Replacement**
6. Install Rear Wheelhouse Liner. Refer to **Rear Wheelhouse Liner Replacement**
7. Install the rear tire and wheel assembly. Refer to **Tire and Wheel Removal and Installation**
8. Lower the vehicle.

SHOCK ABSORBER REPLACEMENT

Removal Procedure

1. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle**
2. Remove the rear tire and wheel assembly. Refer to **Tire and Wheel Removal and Installation**

3. Remove Rear Wheelhouse Liner. Refer to [Rear Wheelhouse Liner Replacement](#)
4. Support the rear axle with a hydraulic jack stand.

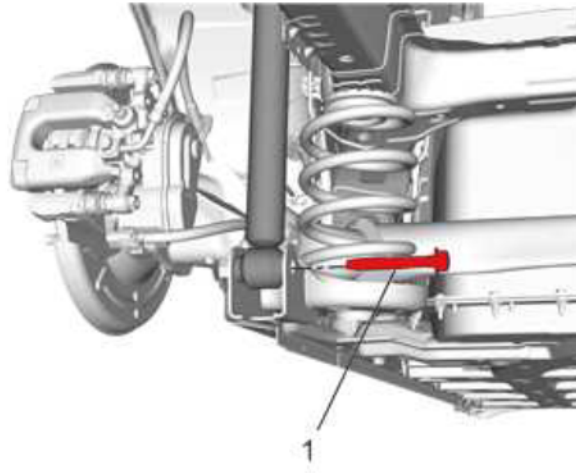


Fig. 26: Rear Shock Absorber Bolt

Courtesy of GENERAL MOTORS COMPANY

5. Remove Rear Shock Absorber Bolt (1) @ Rear Axle
6. Remove the hydraulic jack stand from the vehicle.

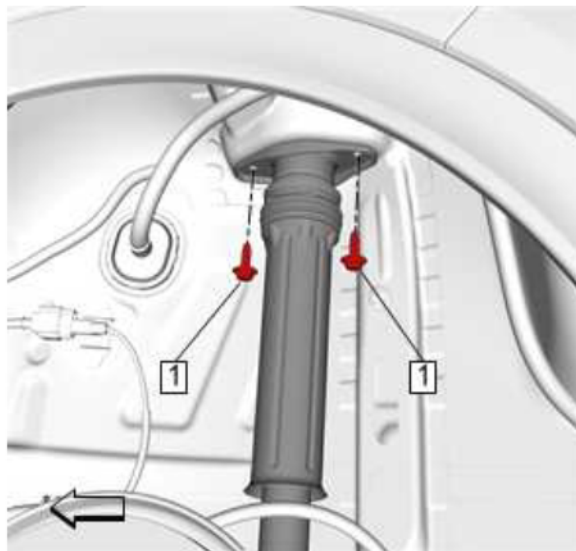


Fig. 27: Rear Suspension Strut Bolts

Courtesy of GENERAL MOTORS COMPANY

7. Remove Rear Suspension Strut Bolts (1) (Qty: 2)

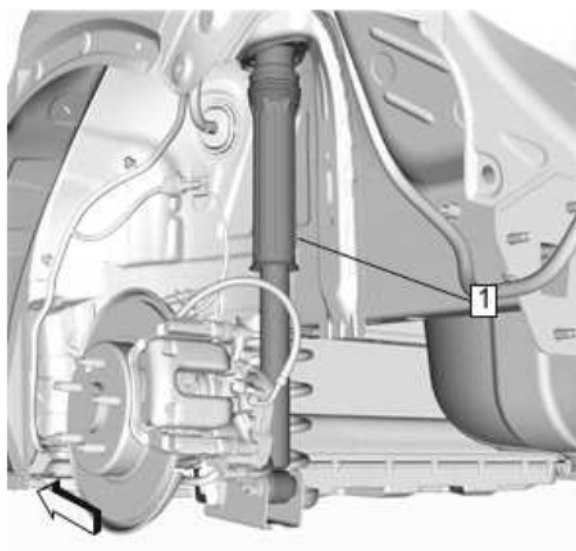


Fig. 28: Rear Shock Absorber
Courtesy of GENERAL MOTORS COMPANY

8. Remove Rear Shock Absorber (1) @ Vehicle

Installation Procedure

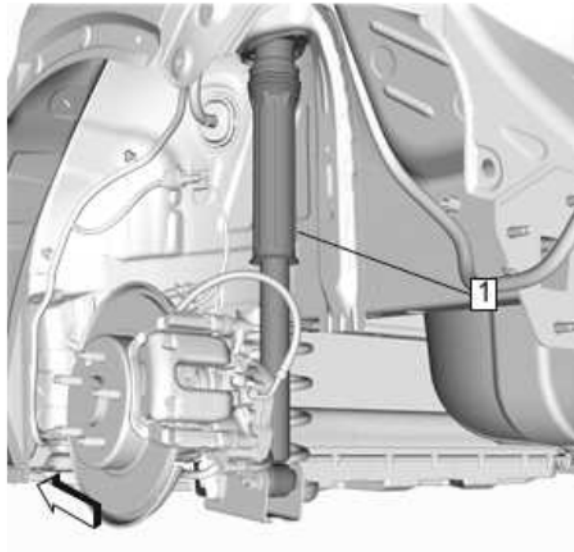


Fig. 29: Rear Shock Absorber
Courtesy of GENERAL MOTORS COMPANY

1. Install Rear Shock Absorber (1) @ Vehicle

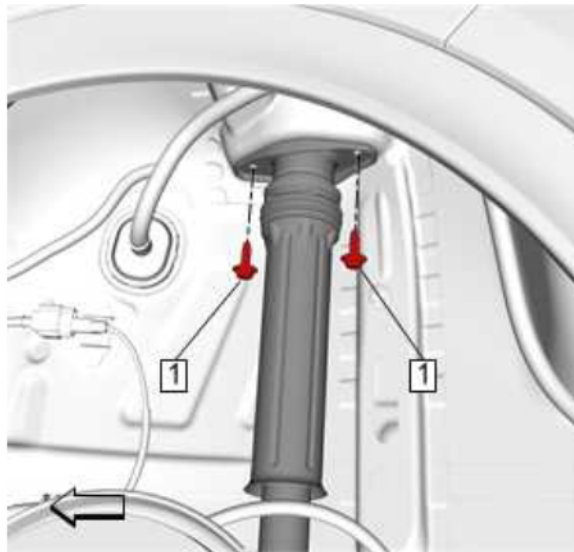


Fig. 30: Rear Suspension Strut Bolts
Courtesy of GENERAL MOTORS COMPANY

CAUTION: Refer to **Fastener Caution**

2. Install and tighten Rear Suspension Strut Bolts (1) (Qty: 2) to 22 N.m (16 lb ft)
3. Raise and support the rear axle with a hydraulic jack stand.

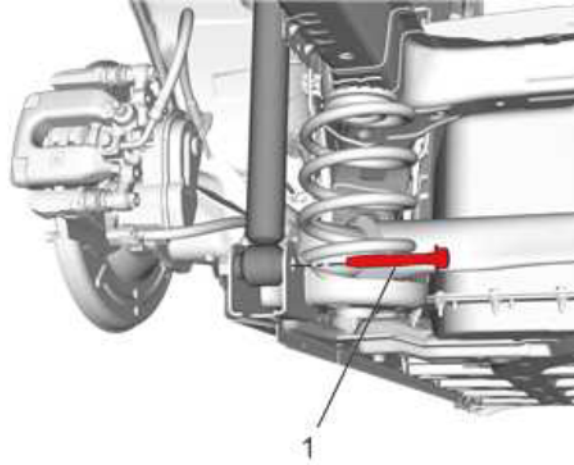


Fig. 31: Rear Shock Absorber Bolt

Courtesy of GENERAL MOTORS COMPANY

4. Install and tighten Rear Shock Absorber Bolt (1) @ Rear Axle
 1. First Pass: 100 N.m (74 lb ft)
 2. Final Pass: 30 - 45 Degrees
5. Remove the hydraulic jack stand from the vehicle.
6. Install Rear Wheelhouse Liner. Refer to [Rear Wheelhouse Liner Replacement](#)
7. Install the rear tire and wheel assembly. Refer to [Tire and Wheel Removal and Installation](#)
8. Lower the vehicle.

REAR COIL SPRING REPLACEMENT

Removal Procedure

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

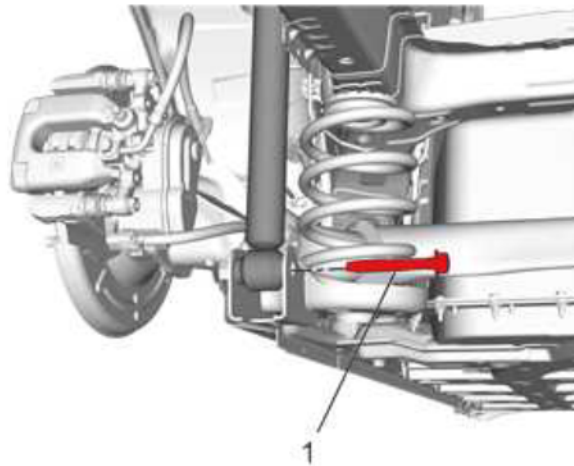


Fig. 32: Rear Shock Absorber Bolt

Courtesy of GENERAL MOTORS COMPANY

3. Support the rear axle with a hydraulic jack stand.
4. Remove Rear Shock Absorber Bolt (1) @ Rear Axle

NOTE: KEEP supporting the rear axle with the hydraulic jack stand to prevent the rear brake hose and rear wheel speed sensor harness from being damaged.

5. Using the hydraulic jack stand, slowly lower the rear axle until the tension is not applied to the rear brake hose and rear wheel speed sensor harness.

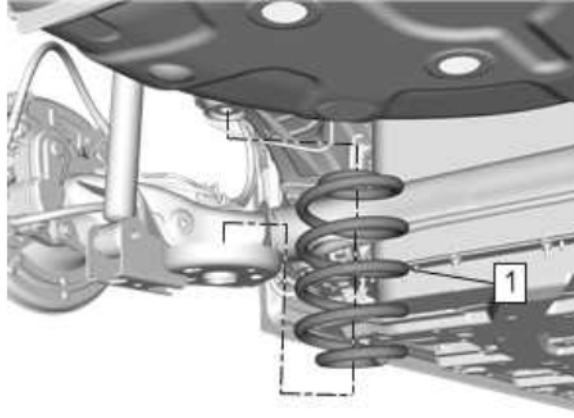


Fig. 33: Rear Coil Spring

Courtesy of GENERAL MOTORS COMPANY

6. Remove Rear Coil Spring (1) @ Vehicle

Installation Procedure

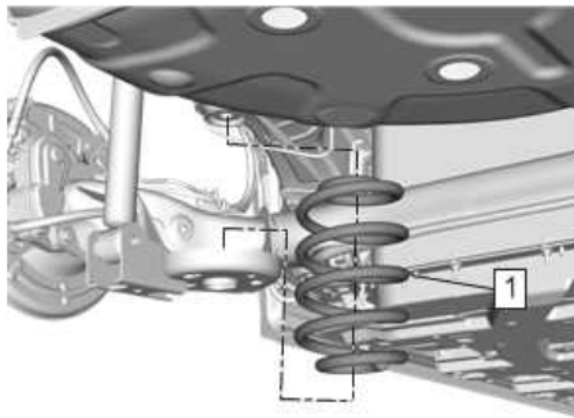


Fig. 34: Rear Coil Spring

Courtesy of GENERAL MOTORS COMPANY

1. Install Rear Coil Spring (1) @ Vehicle

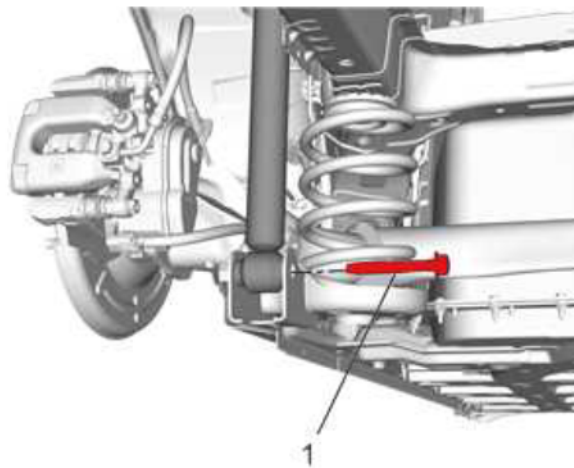


Fig. 35: Rear Shock Absorber Bolt

Courtesy of GENERAL MOTORS COMPANY

- 2. Raise the hydraulic jack stand in order to install the rear shock absorber bolt.
- 3. Install and tighten Rear Shock Absorber Bolt (1) @ Rear Axle. Refer to [Shock Absorber Replacement](#)
- 4. Remove the hydraulic jack stand.
- 5. Install the rear tire and wheel assemblies. Refer to [Tire and Wheel Removal and Installation](#)
- 6. Lower the vehicle.

REAR COIL SPRING INSULATOR REPLACEMENT

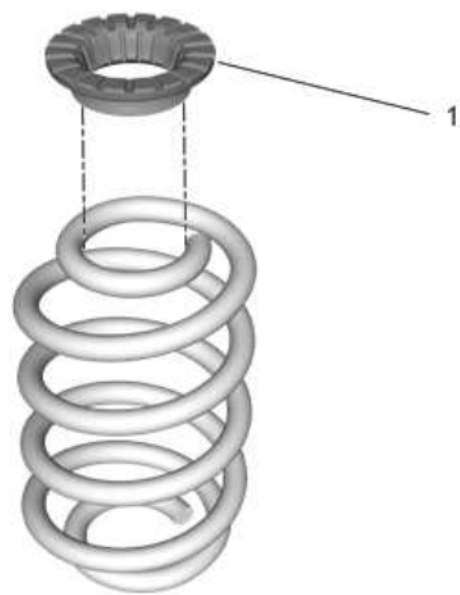


Fig. 36: Rear Coil Spring Insulator
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures	
1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle	
2. Remove the rear tire and wheel assemblies. Refer to Tire and Wheel Removal and Installation	
3. Remove Rear Coil Spring. Refer to Rear Coil Spring Replacement	
1	Rear Coil Spring Insulator

REAR COIL SPRING LOWER INSULATOR REPLACEMENT

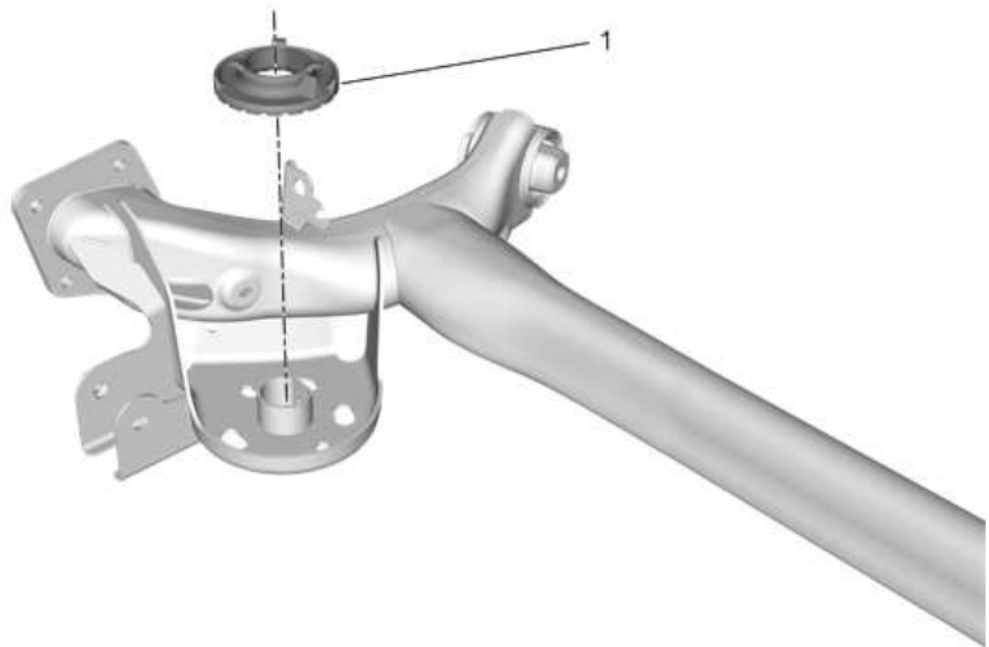


Fig. 37: Rear Coil Spring Lower Insulator
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures 1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle 2. Remove the rear tire and wheel assemblies. Refer to Tire and Wheel Removal and Installation 3. Remove Rear Coil Spring. Refer to Rear Coil Spring Replacement	
1	Rear Coil Spring Lower Insulator

REAR AXLE REPLACEMENT

Special Tools

- **DT-50187** Rear Axle Supporter

Equivalent regional tools: [Special Tools](#)

Removal Procedure

1. Raise and support the vehicle. Refer to [Lifting and Jacking the Vehicle](#)
2. Remove the rear tire and wheel assemblies. Refer to [Tire and Wheel Removal and Installation](#)
3. Remove Rear Wheelhouse Liner @ Vehicle. Refer to [Rear Wheelhouse Liner Replacement](#)

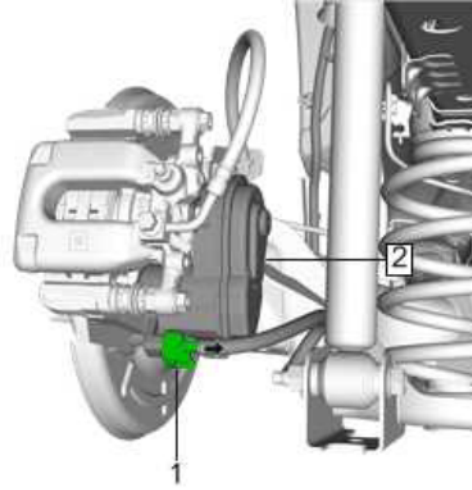


Fig. 38: Electrical Connector And Rear Park Brake Actuator

Courtesy of GENERAL MOTORS COMPANY

4. Disconnect Electrical Connector (1) (Qty: 2) @ Rear Park Brake Actuator (2)

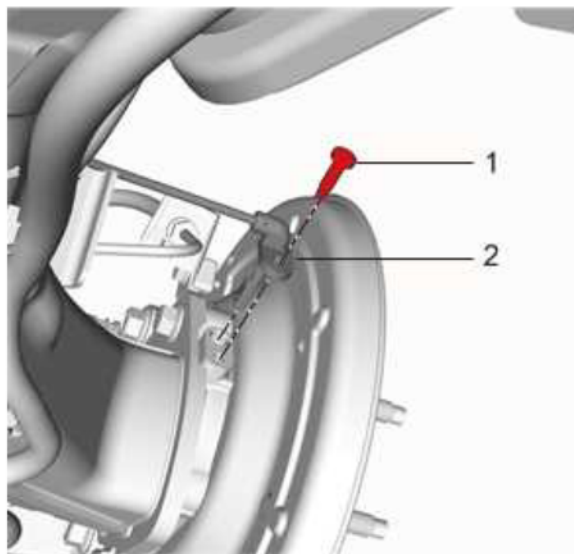


Fig. 39: Rear Wheel Speed Sensor And Bolt

Courtesy of GENERAL MOTORS COMPANY

5. Rear Wheel Speed Sensor Bolt (1) (Qty: 2) @ Rear Brake Caliper Mount Plate
6. Remove Rear Wheel Speed Sensor (2) (Qty: 2) @ Rear Brake Caliper Mount Plate

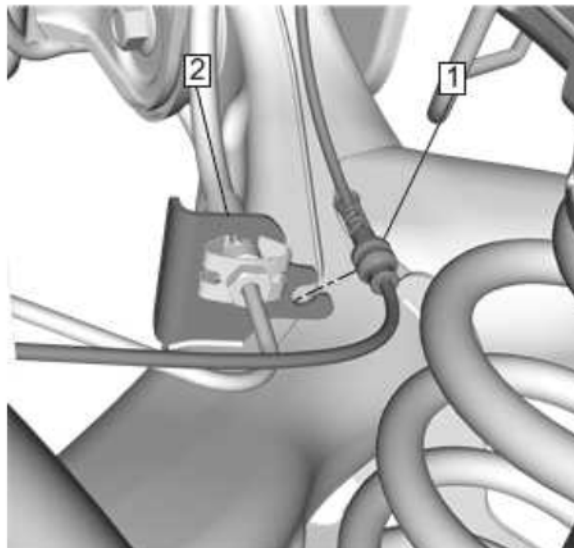


Fig. 40: Rear Wheel Speed Sensor Wiring Harness

Courtesy of GENERAL MOTORS COMPANY

7. Unclip Rear Wheel Speed Sensor Wiring Harness (1) (Qty: 2) @ Rear Axle Mounted Bracket (2)

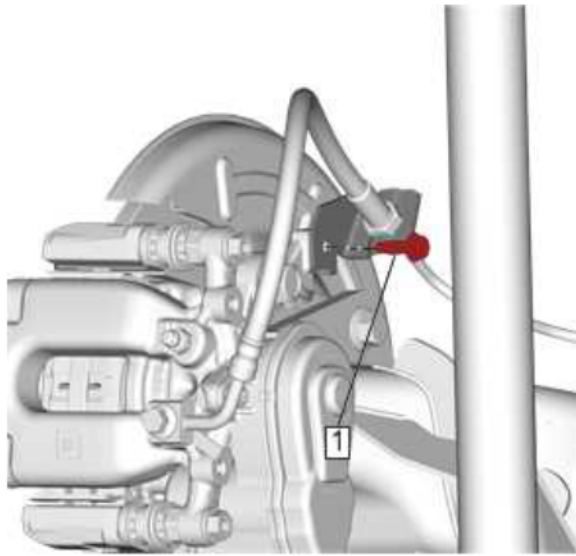


Fig. 41: Rear Brake Hose Bracket And Bolt
Courtesy of GENERAL MOTORS COMPANY

8. Remove Rear Brake Hose Bracket Bolt (1) (Qty: 2) @ Rear Brake Caliper Mount Plate

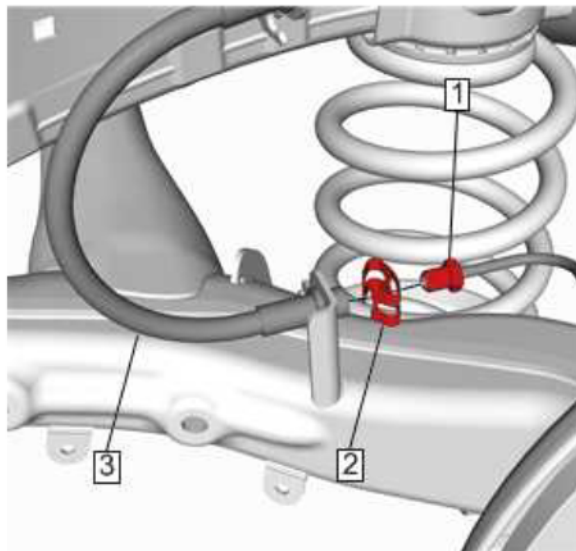


Fig. 42: Rear Brake Pipe Fitting, Rear Brake Hose And Retainer
Courtesy of GENERAL MOTORS COMPANY

9. Remove Rear Brake Pipe Fitting (1) (Qty: 2) @ Rear Brake Hose (3)
10. Remove Rear Brake Hose Retainer (1) (Qty: 2)
11. Separate Rear Brake Hose (3) (Qty: 2) @ Rear Axle
12. Remove Rear Brake Caliper (Qty: 2) @ Vehicle. Refer to [Rear Brake Caliper Replacement](#)
13. Remove Rear Brake Caliper Bracket (Qty: 2) @ Vehicle. Refer to [Rear Brake Caliper Bracket Replacement](#)

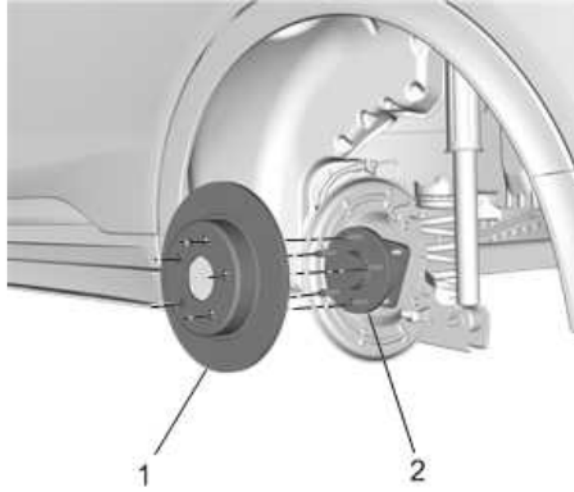


Fig. 43: Rear Brake Rotor And Rear Wheel Hub
 Courtesy of GENERAL MOTORS COMPANY

14. Remove Rear Brake Rotor (1) (Qty: 2) @ Rear Wheel Hub (2). Refer to [Rear Brake Rotor Replacement](#)
15. Remove the body wiring harness clips from the rear axle.

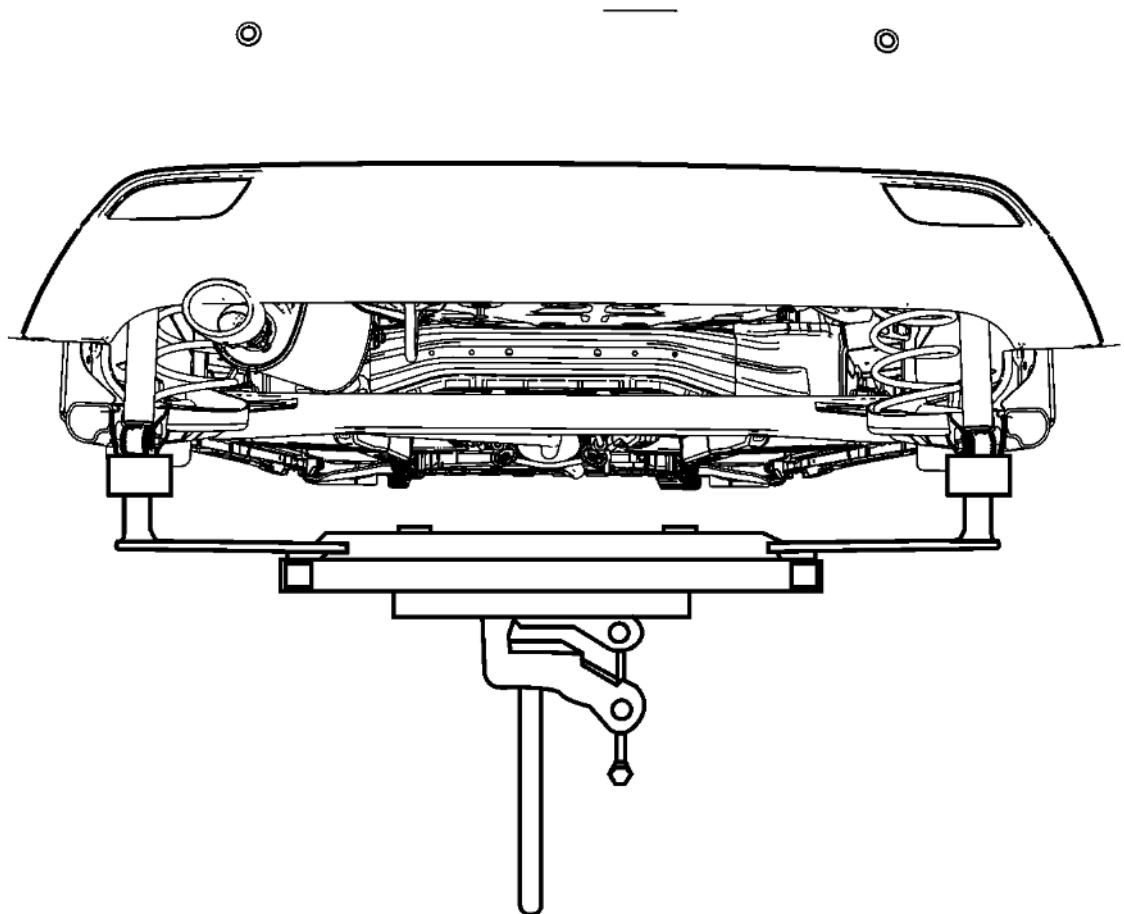


Fig. 44: Hydraulic Jack Stand And DT-50187
 Courtesy of GENERAL MOTORS COMPANY

16. Support the rear axle with the DT-50187 rear axle supporter and a hydraulic jack.

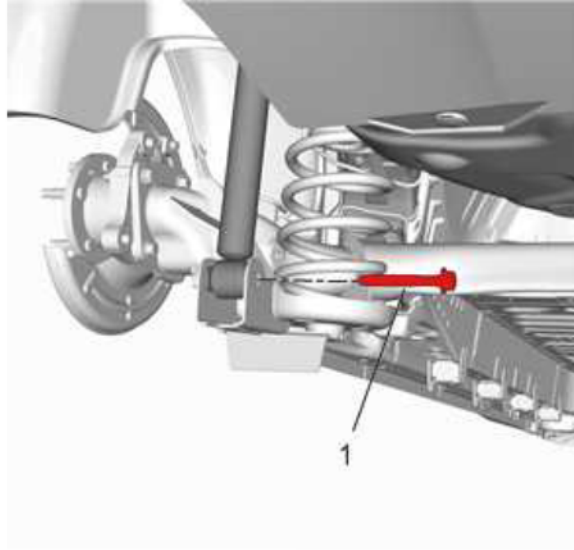


Fig. 45: Rear Shock Absorber Bolt

Courtesy of GENERAL MOTORS COMPANY

17. Remove Rear Shock Absorber Bolt (1) (Qty: 2) @ Rear Axle
18. Lower the hydraulic jack stand.
19. Remove Rear Coil Spring (Qty: 2). Refer to [Rear Coil Spring Replacement](#)
20. Remove Rear Coil Spring Lower Insulator (Qty: 2). Refer to [Rear Coil Spring Lower Insulator Replacement](#)

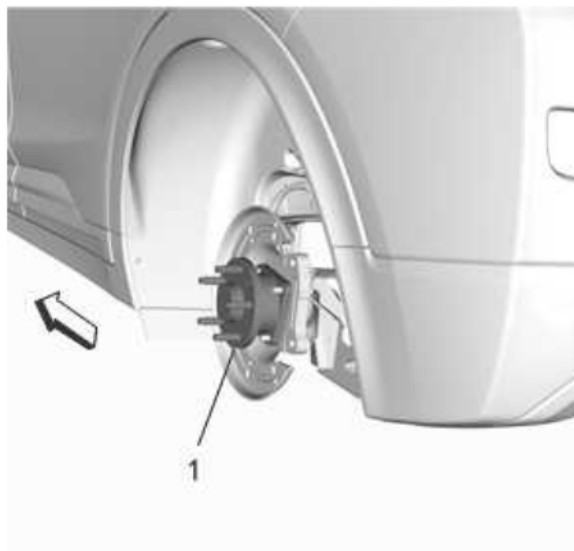


Fig. 46: Rear Wheel Bearing and Hub Assembly

Courtesy of GENERAL MOTORS COMPANY

21. Remove Rear Wheel Bearing and Hub Assembly (1) (Qty: 2) @ Rear Axle. Refer to [Rear Wheel Bearing and Hub Replacement](#)

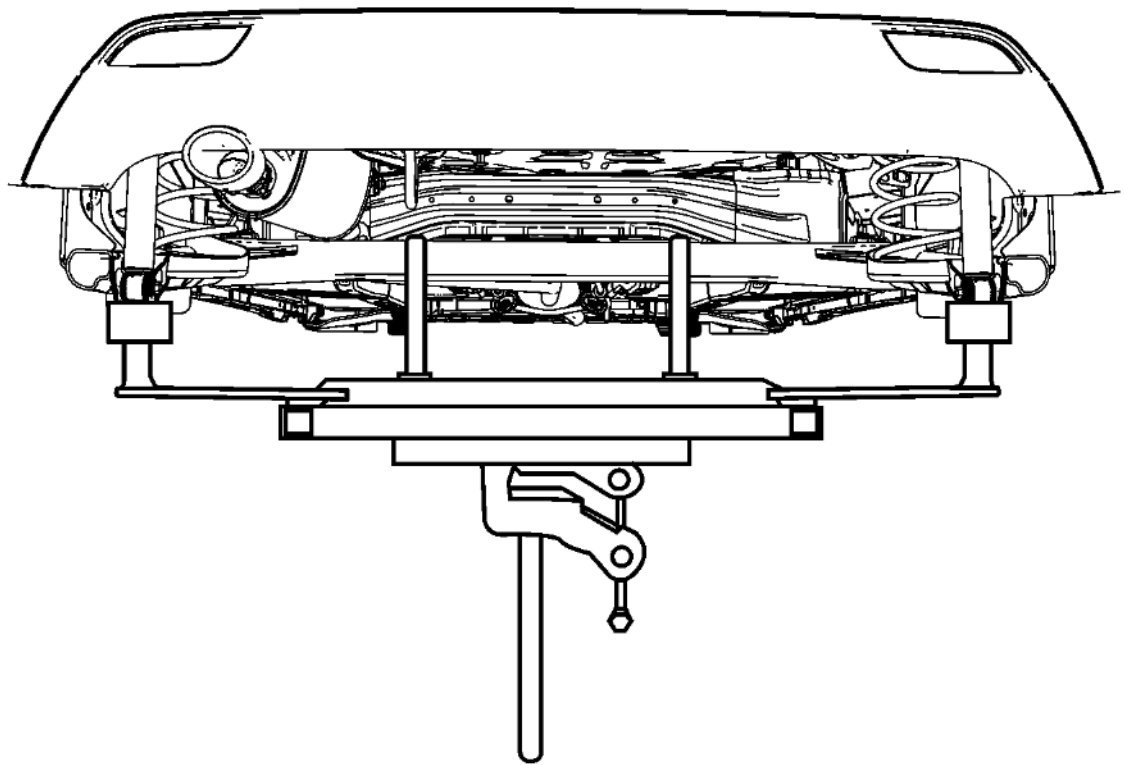


Fig. 47: Hydraulic Jack Stand And DT-50187
Courtesy of GENERAL MOTORS COMPANY

22. Support the DT-50187 rear axle with the rear axle supporter and hydraulic jack.

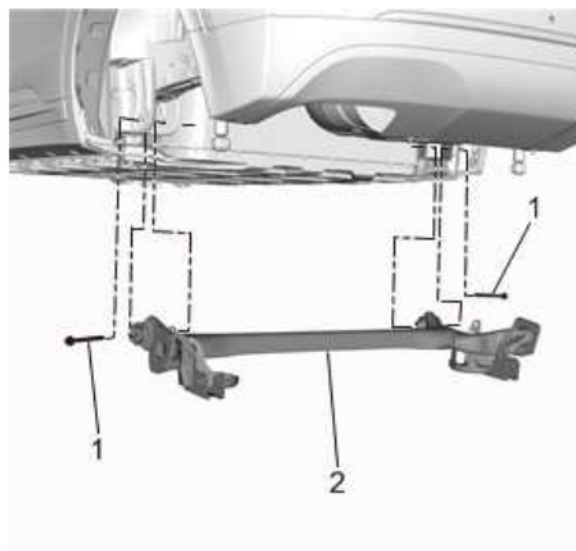


Fig. 48: Rear Axle And Bolts
Courtesy of GENERAL MOTORS COMPANY

23. Remove Rear Axle Bolts (1) (Qty: 2)
24. Slowly lower the hydraulic jack stand to remove the rear axle (2) from the vehicle.
25. Remove the rear axle from the hydraulic jack stand with the DT-50187 rear axle supporter.

1. Place the rear axle on the hydraulic jack stand with the DT-50187 rear axle supporter.

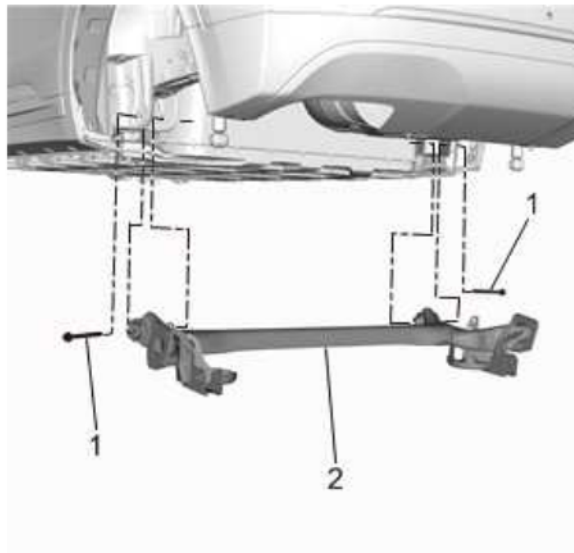


Fig. 49: Rear Axle And Bolts

Courtesy of GENERAL MOTORS COMPANY

2. Using the hydraulic jack stand, raise the rear axle (2) to the correct position.
3. Hand tighten Rear Axle Bolts (1) (Qty: 2)

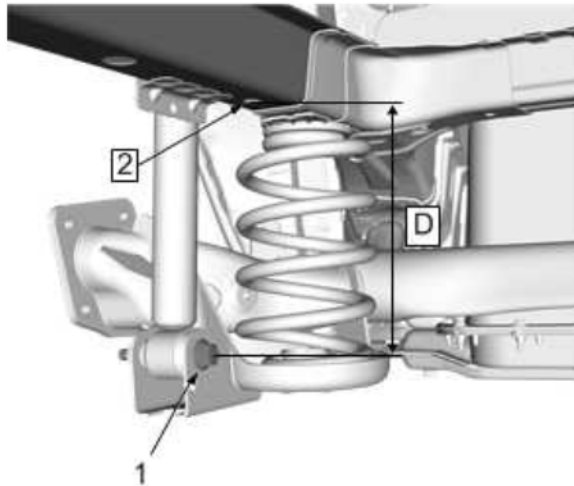


Fig. 50: Identifying D Dimension

Courtesy of GENERAL MOTORS COMPANY

NOTE: The rear axle to body retaining bolts must be tightened with the axle at the correct suspension height.

4. Using the rear axle supporter and the hydraulic jack stand, raise the rear axle to the right suspension height specification (D). Refer to [Trim Height Specifications](#)

CAUTION: Refer to [Fastener Caution](#)

5. Tighten Rear Axle Bolts (Qty: 2)
 1. First Pass: 160 N.m (118 lb ft)
 2. Final Pass: 30 - 45 Degrees
6. Lower the hydraulic jack stand.
7. Install the body wiring harness clips to the rear axle.

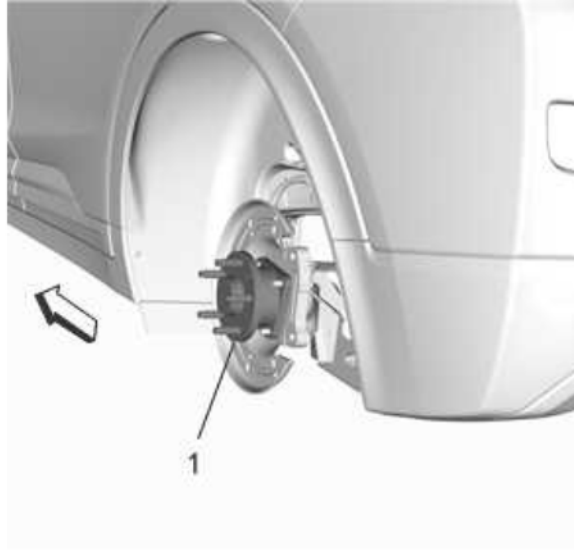


Fig. 51: Rear Wheel Bearing and Hub Assembly

Courtesy of GENERAL MOTORS COMPANY

8. Install Rear Wheel Bearing and Hub Assembly (1) (Qty: 2) @ Rear Axle. Refer to [Rear Wheel Bearing and Hub Replacement](#)
9. Install Rear Coil Spring Lower Insulator (Qty: 2). Refer to [Rear Coil Spring Lower Insulator Replacement](#)
10. Install Rear Coil Spring (Qty: 2). Refer to [Rear Coil Spring Replacement](#)

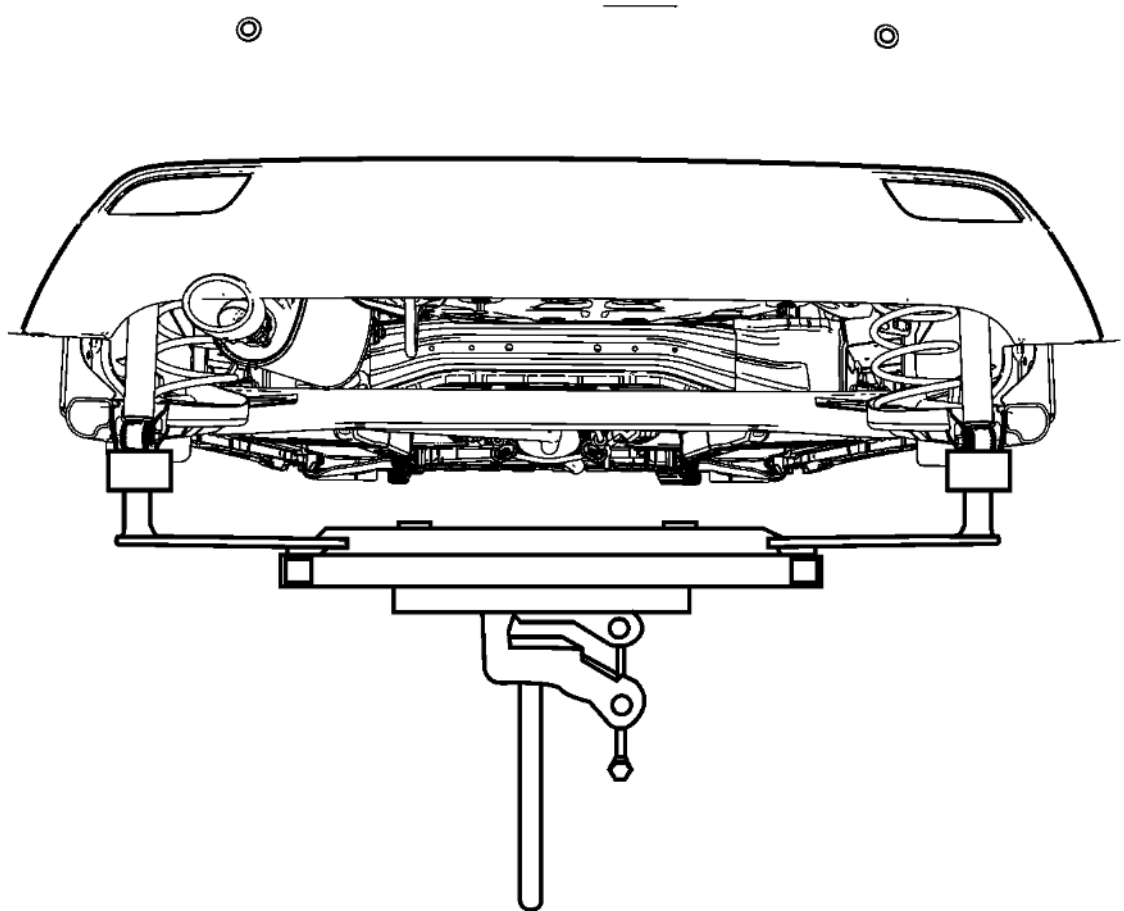


Fig. 52: Hydraulic Jack Stand And DT-50187

Courtesy of GENERAL MOTORS COMPANY

11. Support the rear axle with the DT-50187 rear axle supporter and hydraulic jack.

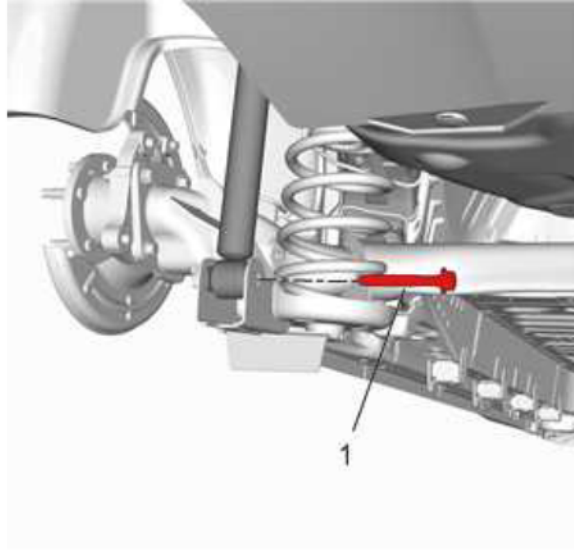


Fig. 53: Rear Shock Absorber Bolt

Courtesy of GENERAL MOTORS COMPANY

12. Install and tighten Rear Shock Absorber Bolt (1) (Qty: 2) @ Rear Axle
 1. First Pass: 100 N.m (74 lb ft)
 2. Final Pass: 30 - 45 Degrees
13. Remove the hydraulic jack with the rear axle supporter from the rear axle.

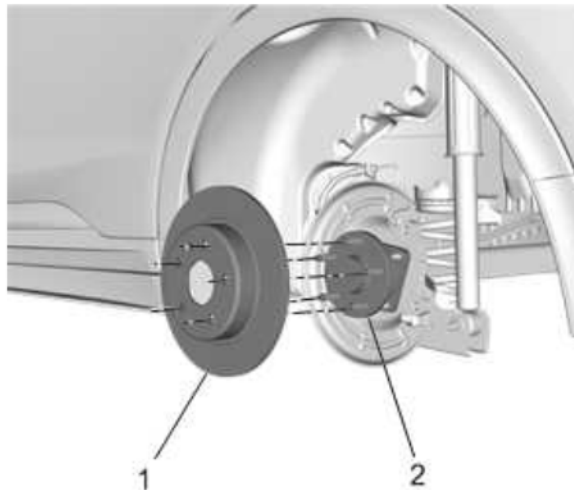


Fig. 54: Rear Brake Rotor And Rear Wheel Hub

Courtesy of GENERAL MOTORS COMPANY

14. Install Rear Brake Rotor (1) @ Rear Wheel Hub (2). Refer to [**Rear Brake Rotor Replacement**](#)
15. Install Rear Brake Caliper Bracket (Qty: 2) @ Vehicle. Refer to [**Rear Brake Caliper Bracket Replacement**](#)
16. Install Rear Brake Caliper (Qty: 2) @ Vehicle. Refer to [**Rear Brake Caliper Replacement**](#)

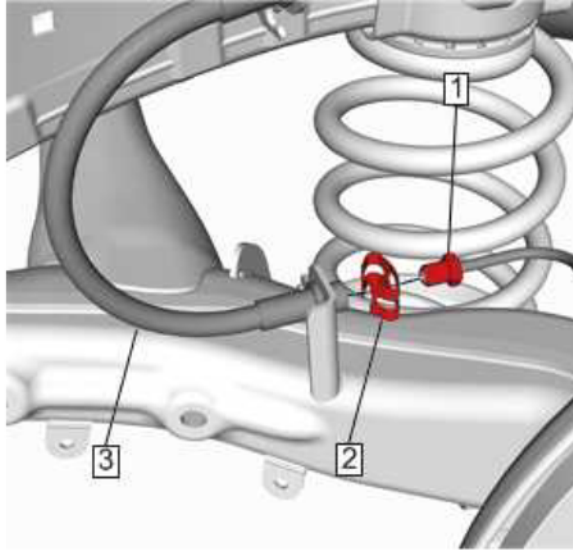


Fig. 55: Rear Brake Pipe Fitting, Rear Brake Hose And Retainer
 Courtesy of GENERAL MOTORS COMPANY

17. Install Rear Brake Hose (3) (Qty: 2) @ Rear Axle
18. Install Rear Brake Hose Retainer (2) (Qty: 2)
19. Install and tighten Rear Brake Pipe Fitting (1) (Qty: 2) @ Rear Brake Hose (3). Refer to [Rear Brake Hose Replacement](#)

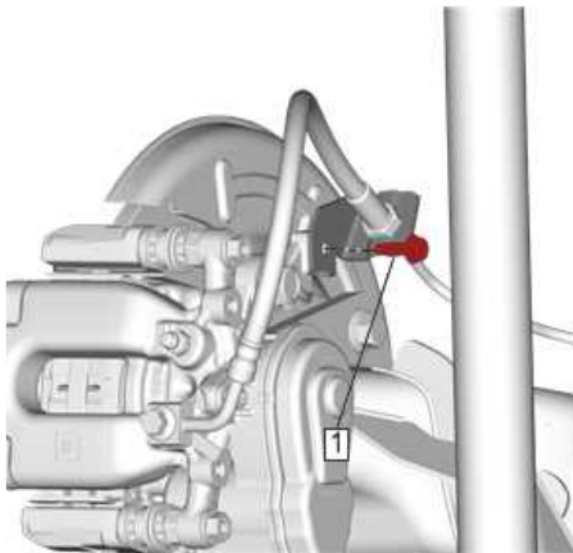
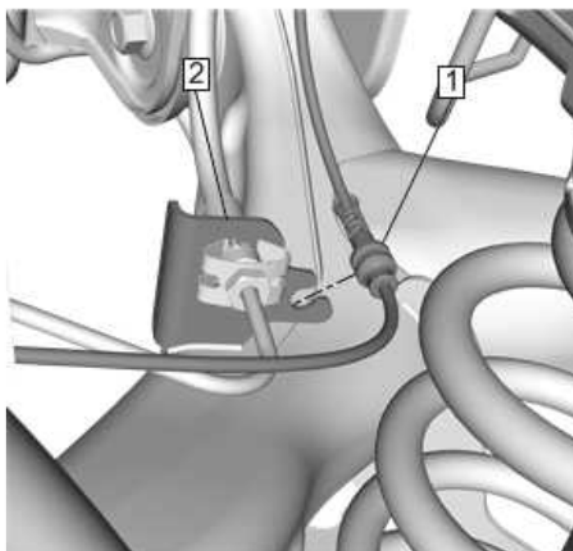


Fig. 56: Rear Brake Hose Bracket And Bolt
 Courtesy of GENERAL MOTORS COMPANY

20. Install and tighten Rear Brake Hose Bracket Bolt (1) (Qty: 2) @ Rear Brake Caliper Mount Plate to 9 N.m (80 lb in)



21. Install Rear Wheel Speed Sensor Wiring Harness (1) (Qty: 2) @ Rear Axle Mounted Bracket

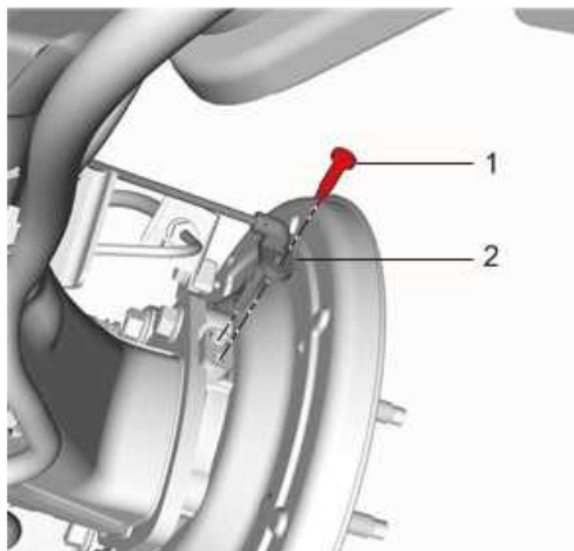


Fig. 58: Rear Wheel Speed Sensor And Bolt
Courtesy of GENERAL MOTORS COMPANY

22. Install Rear Wheel Speed Sensor (2) (Qty: 2) @ Rear Brake Caliper Mount Plate
23. Install and tighten Rear Wheel Speed Sensor Bolt (1) (Qty: 2) @ Rear Brake Caliper Mount Plate. Refer to **Rear Wheel Speed Sensor Replacement**

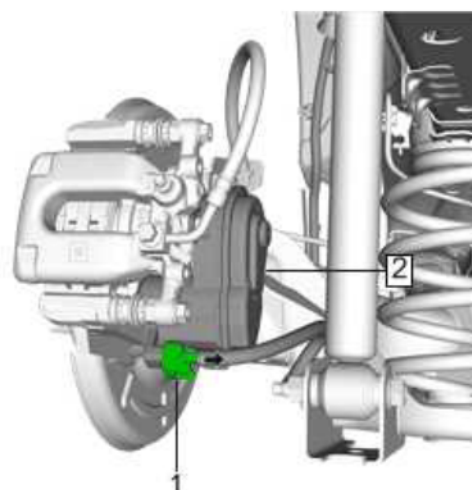


Fig. 59: Electrical Connector And Rear Park Brake Actuator
Courtesy of GENERAL MOTORS COMPANY

24. Connect Electrical Connector (1) (Qty: 2) @ Rear Park Brake Actuator (Qty: 2)
25. Install Rear Wheelhouse Liner (Qty: 2) @ Vehicle. Refer to **Rear Wheelhouse Liner Replacement**
26. Install the rear tire and wheel assemblies. Refer to **Tire and Wheel Removal and Installation**
27. Lower the vehicle.

WHEEL STUD REPLACEMENT

Special Tools

- **CH-43631** Ball Joint Remover

Equivalent regional tools: **Special Tools**

Removal Procedure

1. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle**

2. Remove the rear tire and wheel assembly. Refer to [Tire and Wheel Removal and Installation](#)

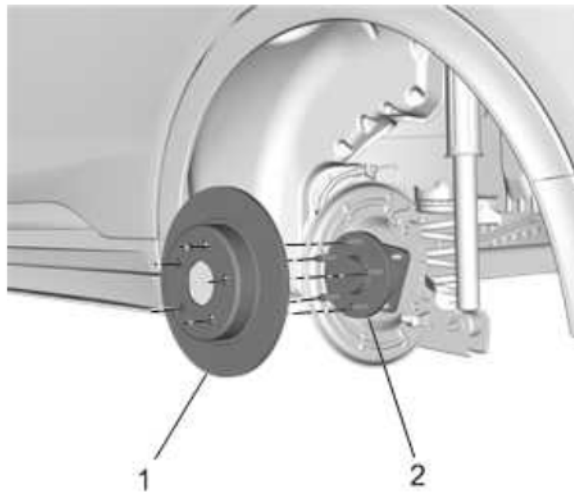


Fig. 60: Rear Brake Rotor And Rear Wheel Hub
Courtesy of GENERAL MOTORS COMPANY

3. Remove Rear Brake Rotor (1) @ Rear Wheel Hub (2). Refer to [Rear Brake Rotor Replacement](#)

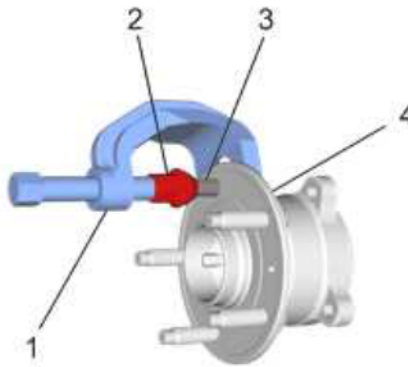


Fig. 61: Ball Joint Remover, Wheel Hub, Wheel Stud And Wheel Nut
Courtesy of GENERAL MOTORS COMPANY

4. Install a wheel nut (2) flush with the end of the wheel stud (3).
5. Using the **CH-43631** ball joint remover (1), remove the wheel stud (3) from the wheel hub (4).

Installation Procedure

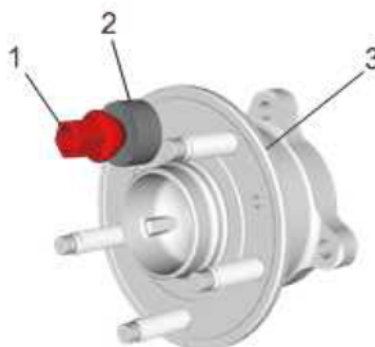


Fig. 62: Wheel Bearing/Hub Flange, Flat Washers And Wheel Nut
Courtesy of GENERAL MOTORS COMPANY

1. Install the NEW wheel stud into the wheel bearing/hub (3).
2. Add enough washers (2) in order to draw the stud into the hub.
3. Install and tighten the wheel nut (1) until the head of the wheel stud is fully seated against the back of the bearing hub flange (3).
4. Remove the wheel nut (1) and the washers (2).

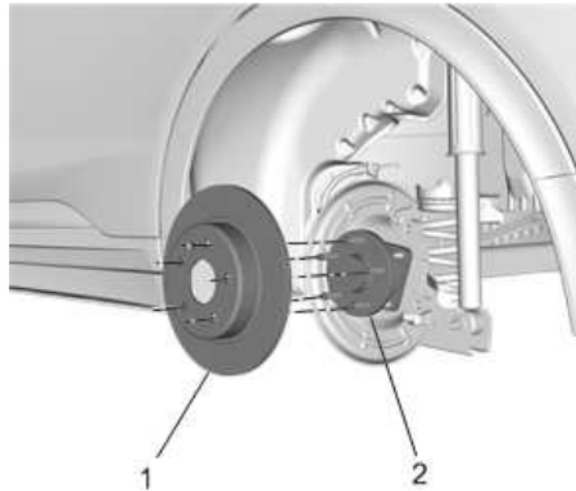


Fig. 63: Rear Brake Rotor And Rear Wheel Hub
Courtesy of GENERAL MOTORS COMPANY

5. Install Rear Brake Rotor (1) @ Rear Wheel Hub (2). Refer to [Rear Brake Rotor Replacement](#)
6. Install the rear tire and wheel assembly. Refer to [Tire and Wheel Removal and Installation](#)
7. Lower the vehicle.

DESCRIPTION AND OPERATION

REAR SUSPENSION DESCRIPTION AND OPERATION

This vehicle has a semi-independent twist-beam rear suspension system consisting of the following components:

- An axle with integral trailing arms
- A "V" shaped twisting cross beam
- Two coil springs
- Two shock absorbers

Axle Assembly

The axle assembly attaches to the underbody through a rubber bushing and bracket located at the front of each integral trailing arm. The brackets are integrated to the underbody side rails. The axle structure itself maintains the geometrical relationship of the wheels relative to the centerline of the body.

SPECIAL TOOLS AND EQUIPMENT

SPECIAL TOOLS

Illustration	Tool Number/Description
cardiagn.com	

Illustration	Tool Number/Description
	CH 43631 Ball Joint Remover

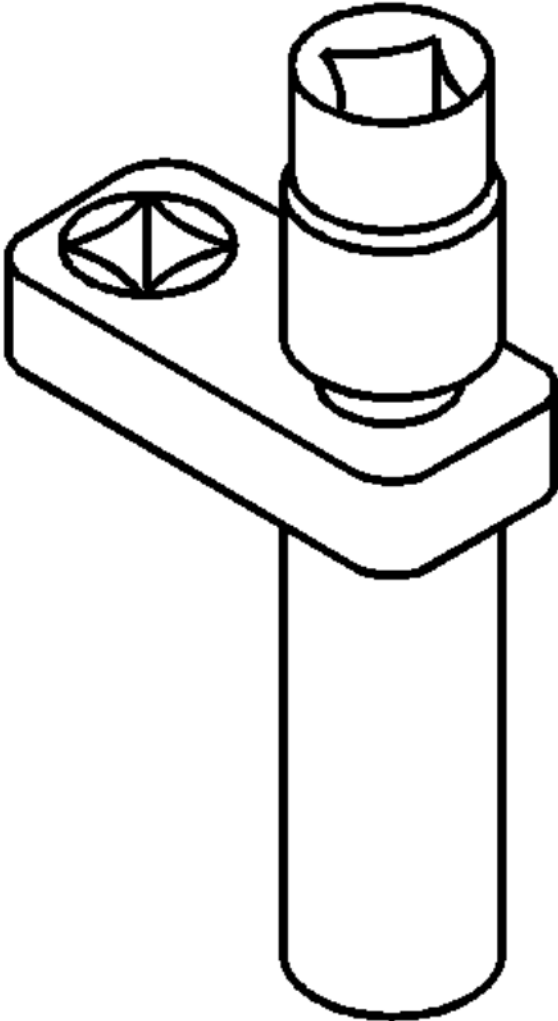
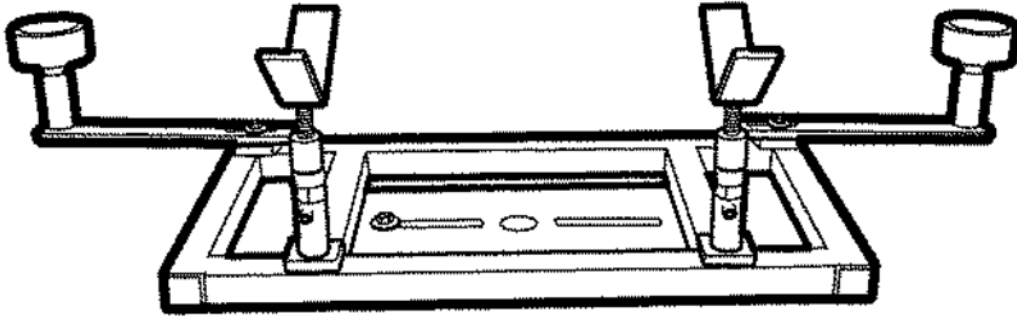
Illustration	Tool Number/Description
	CH 51095 Shock Absorber Strut Nut Wrench

Illustration	Tool Number/Description
	DT 50187 Rear Axle Supporter