

TROOPER

SUSPENSION

REAR SUSPENSION

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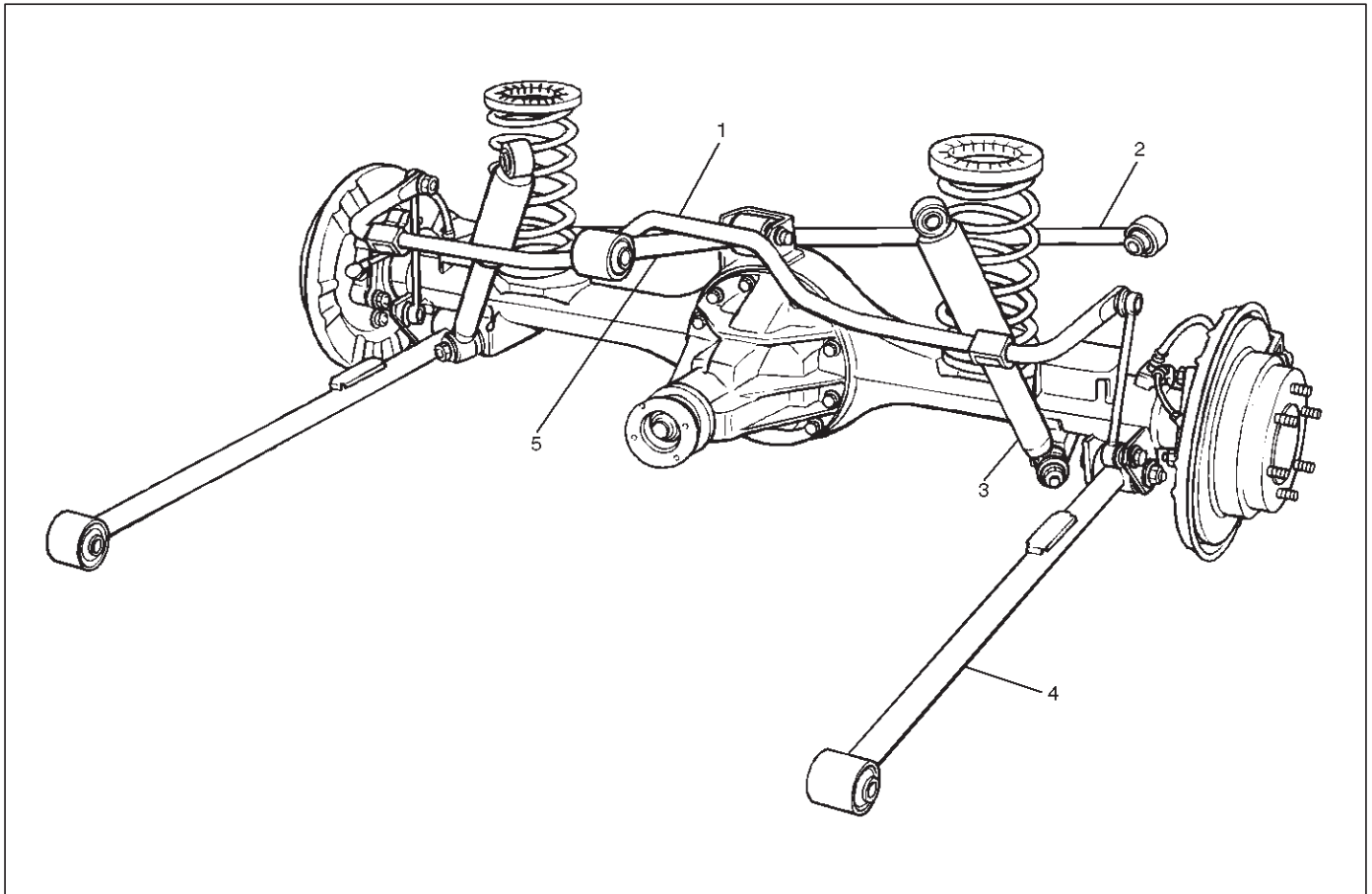
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Service Precaution

WARNING: THIS VEHICLE HAS A SUPPLEMENTAL RESTRAINT SYSTEM (SRS). REFER TO THE SRS COMPONENT AND WIRING LOCATION VIEW IN ORDER TO DETERMINE WHETHER YOU ARE PERFORMING SERVICE ON OR NEAR THE SRS COMPONENTS OR THE SRS WIRING. WHEN YOU ARE PERFORMING SERVICE ON OR NEAR THE SRS COMPONENTS OR THE SRS WIRING, REFER TO THE SRS SERVICE INFORMATION. FAILURE TO FOLLOW WARNINGS COULD RESULT IN POSSIBLE AIR BAG DEPLOYMENT, PERSONAL INJURY, OR OTHERWISE UNNEEDED SRS SYSTEM REPAIRS.

CAUTION: Always use the correct fastener in the proper location. When you replace a fastener, use ONLY the exact part number for that application. ISUZU will call out those fasteners that require a replacement after removal. ISUZU will also call out the fasteners that require thread lockers or thread sealant. UNLESS OTHERWISE SPECIFIED, do not use supplemental coatings (Paints, greases, or other corrosion inhibitors) on threaded fasteners or fastener joint interfaces. Generally, such coatings adversely affect the fastener torque and the joint clamping force, and may damage the fastener. When you install fasteners, use the correct tightening sequence and specifications. Following these instructions can help you avoid damage to parts and systems.

General Description



C03RS003

Legend

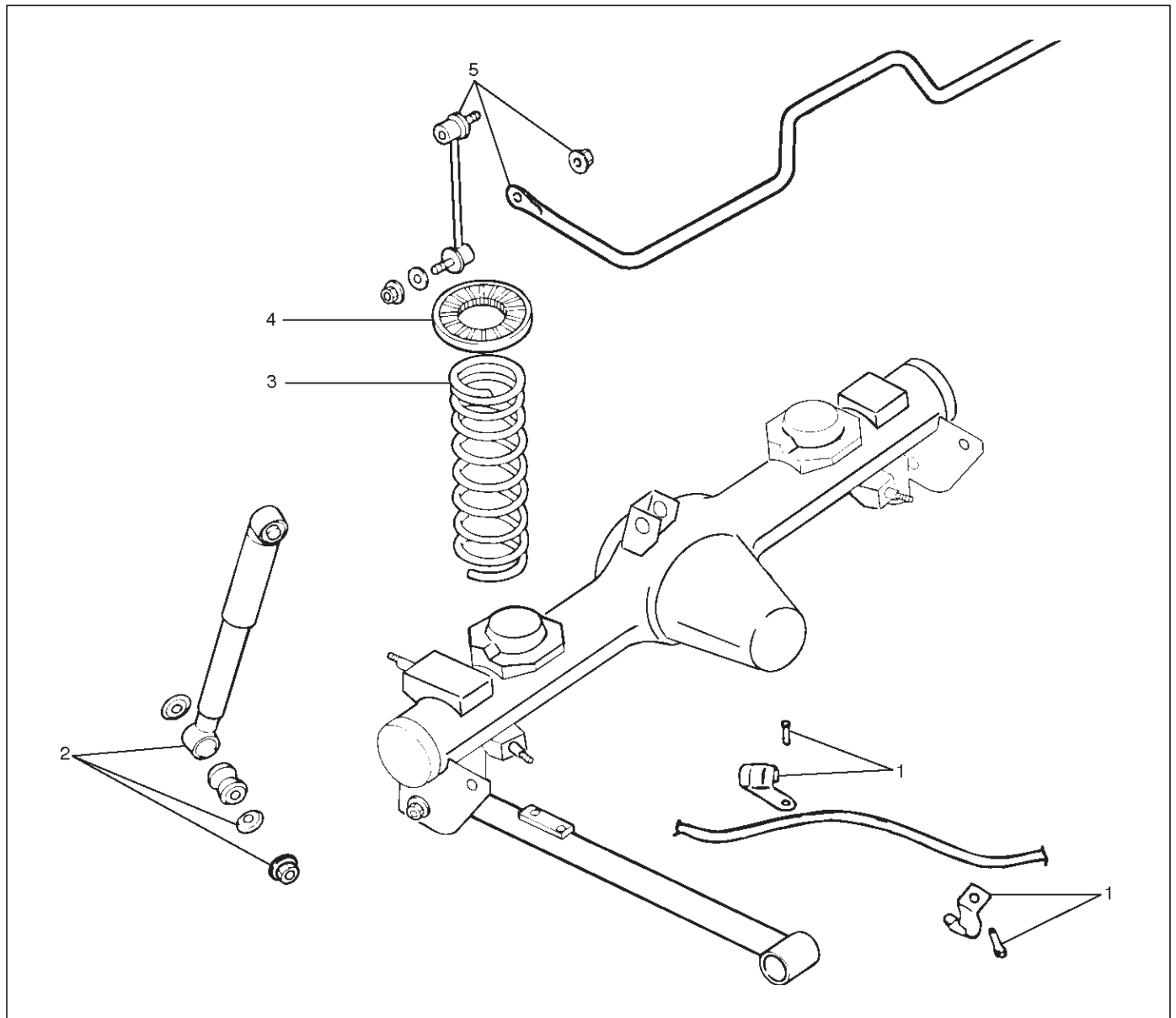
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|--------------------|--------------------|
| (1) Stabilizer Bar | (3) Shock Absorber |
| (2) Lateral Rod | (4) Trailing Link |
| | (5) Center Link |

The rear suspension is a 4-link, coil spring type suspension with a stabilizer bar, consisting of two trailing links, center link, lateral rod, shock absorber, and stabilizer. In this suspension, the links are specially arranged to enable the rear axle to move freely, thereby expanding suspension stroke, reducing friction, and improving lateral rigidity and roll control. All these result in improved stability, riding comfort, and rough road maneuverability.

Each link connects the axle housing with the frame through a runner bushing. The axle housing is supported by the trailing links and center link longitudinally and by the lateral rod latitudinally.

Coil Spring

Coil Spring and Associated Parts



460RS001

Legend

- | | |
|---------------------------------|--------------------|
| (1) Parking Brake Cable Bracket | (3) Coil Spring |
| (2) Shock Absorber | (4) Insulator |
| | (5) Stabilizer Bar |

Removal

1. Raise the vehicle and support the frame with suitable safety stands.
2. Support the rear axle case with a jack.
3. Remove the parking brake cable bracket from the trailing link.
4. Disconnect the stabilizer bar at the stabilizer link.
5. Remove the shock absorber from the axle case.
6. Remove spring insulator.
7. Remove the lower insulator and coil spring while lowering the rear axle case.

CAUTION: Be sure not to let the brake hose, parking brake cable, and breather hose extend to their full length.

Inspection and Repair

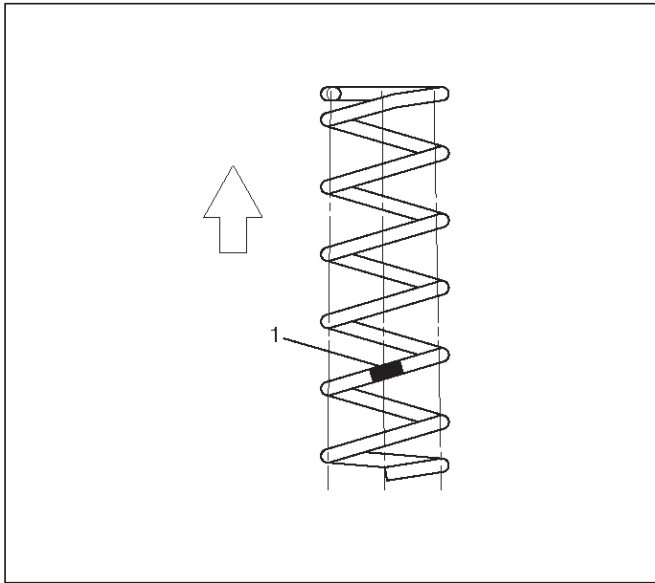
Make necessary correction or parts replacement if wear, damage, corrosion or any other abnormal conditions are found through inspection.

Check the following parts:

- Coil spring
- Insulator

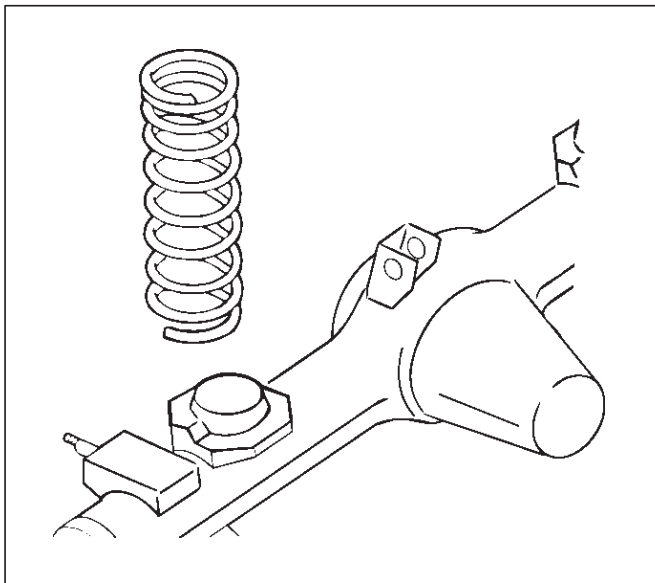
Installation

1. Install coil spring and make sure that the coil spring is installed in the proper position. Paint mark(1) should be downward.



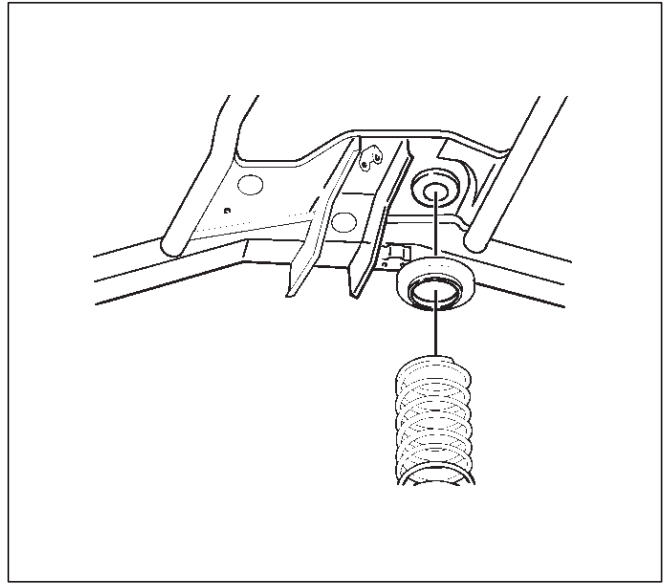
460RW001

2. Fit the end of the coil spring to the coil spring seat and mount the coil spring on the rear axle case.



460RS003

3. Install the insulator on the coil spring. Jack up the axle case gently with the top of the coil spring set to the spring seat on the frame side.



460RS004

4. Install shock absorber and tighten the nut lightly, then retighten it to the specified torque after the vehicle is at curb height.

NOTE: When mounting shock absorber, be sure not to use grease on bushings or any other nearby part.

Torque: 78 N-m (58 lb ft)

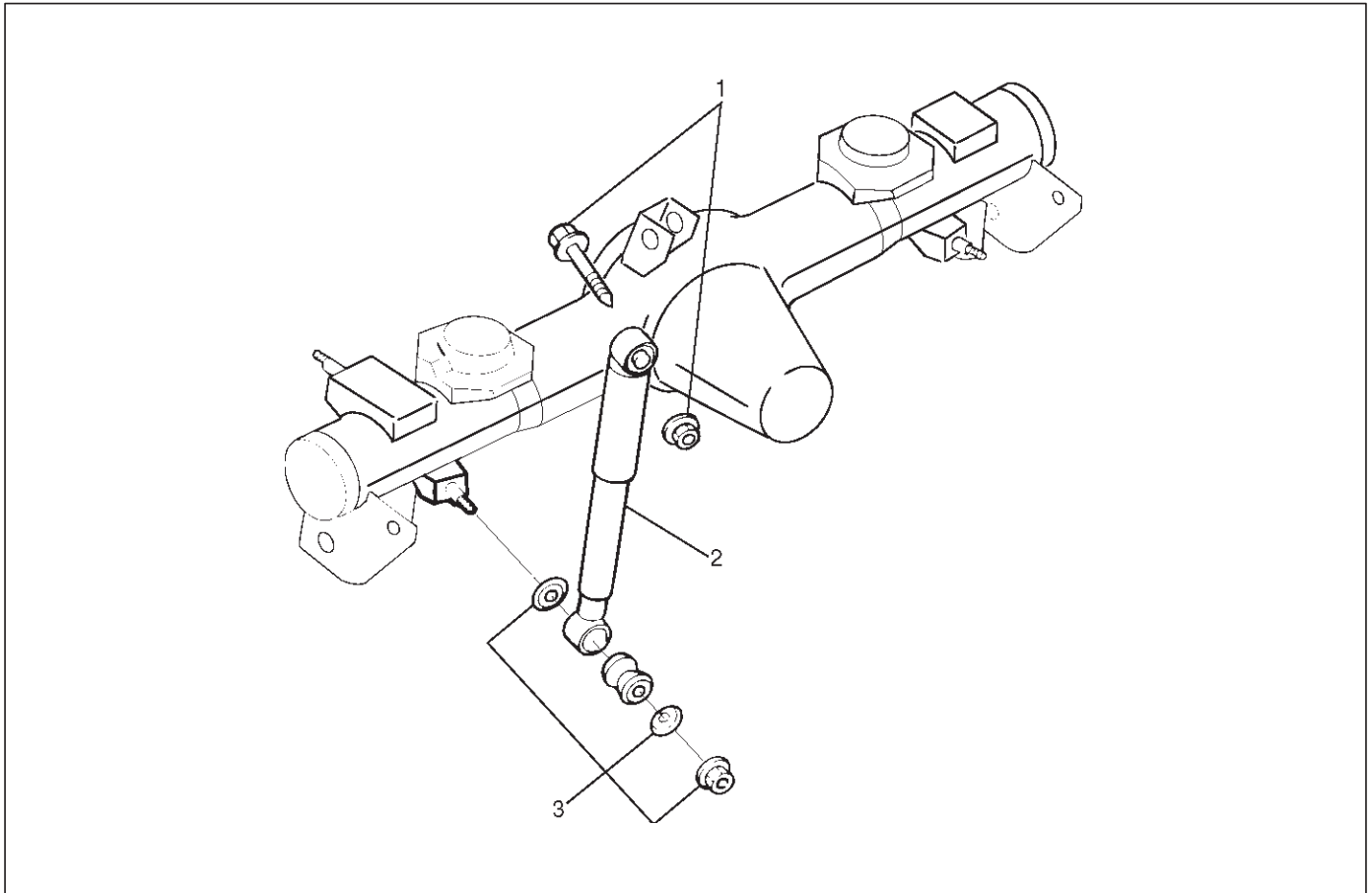
5. Install stabilizer bar.

Torque: 50 N-m (37 lb ft)

6. Install parking brake cable bracket.

Shock Absorber

Shock Absorber and Associated Parts



461RW002

Legend

(1) Bolt and Nut

(2) Shock Absorber

(3) Nut and Washer

Removal

1. Remove shock absorber fixing nut and washer.
2. Remove shock absorber fixing bolt and nut.
3. Remove shock absorber.

Inspection and Repair

Make necessary correction or parts replacement if wear, damage, corrosion or any other abnormal conditions are found through inspection.

Check the following parts:

- Shock absorber
- Rubber bushing (Axle side)

NOTE: When mounting rubber bushings, be sure not to use grease on bushings or any other nearby part.

Installation

1. Install shock absorber. When mounting shock absorber, be sure not to use grease on bushings or any other nearby part.

2. Install bolt and nut, then tighten the bolt and nut lightly. Retighten to the bolt and nut specified torque after the vehicle is at curb height.

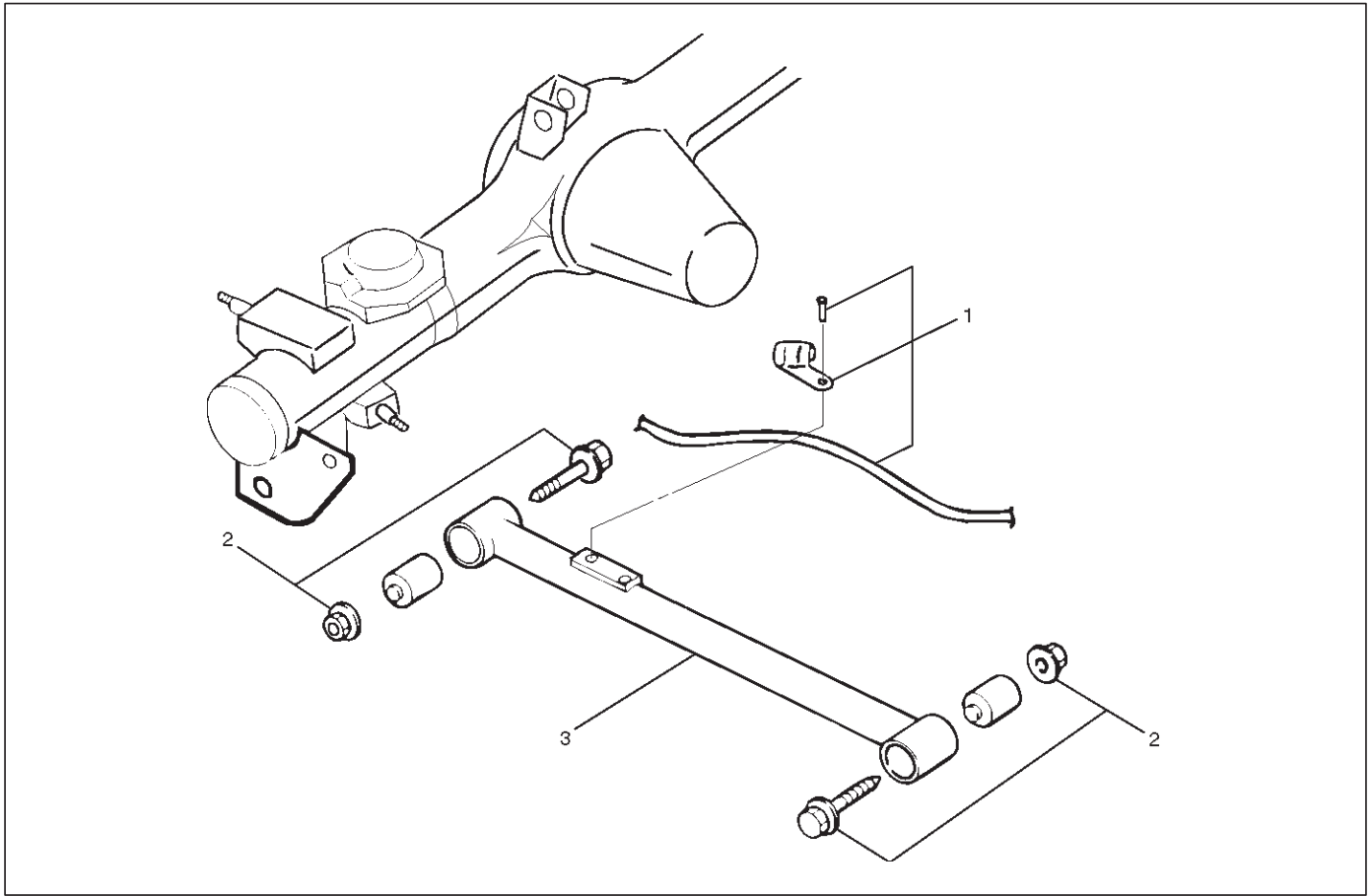
Torque: 95 N·m (70 lb ft)

3. Install nut and washer, then tighten the nut lightly. Retighten to the nut specified torque after the vehicle is at curb height.

Torque: 78 N·m (58 lb ft)

Trailing Link

Trailing Link and Associated Parts



460RW017

Legend

(1) Parking Brake Cable

(2) Bolt and Nut

(3) Trailing Link

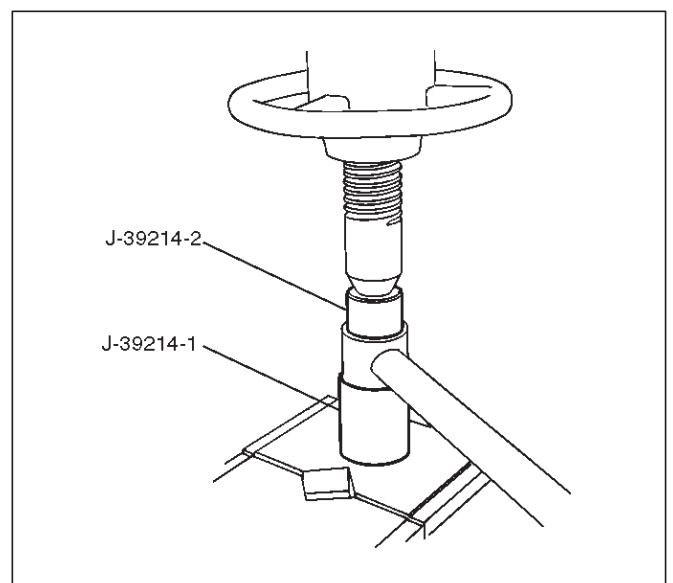
Removal

1. Remove the parking brake cable from the trailing link.
2. Remove the trailing link fixing bolt and nut.
3. Remove trailing link.

Inspection and Repair

Make necessary correction or parts replacement if wear, damage, corrosion or any other abnormal conditions are found through inspection.

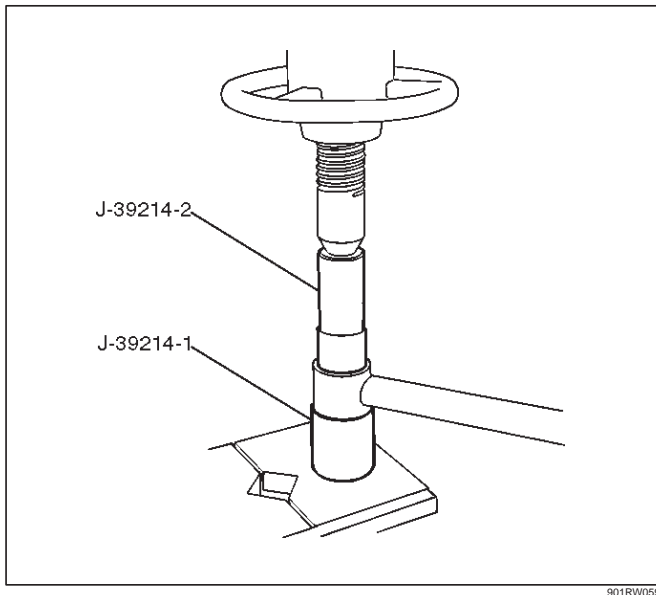
1. Trailing link
2. Rubber bushing
 - Remove the rubber bushing by using remover J-39214.



901RW058

- Install the rubber bushing by using installer J-39214.

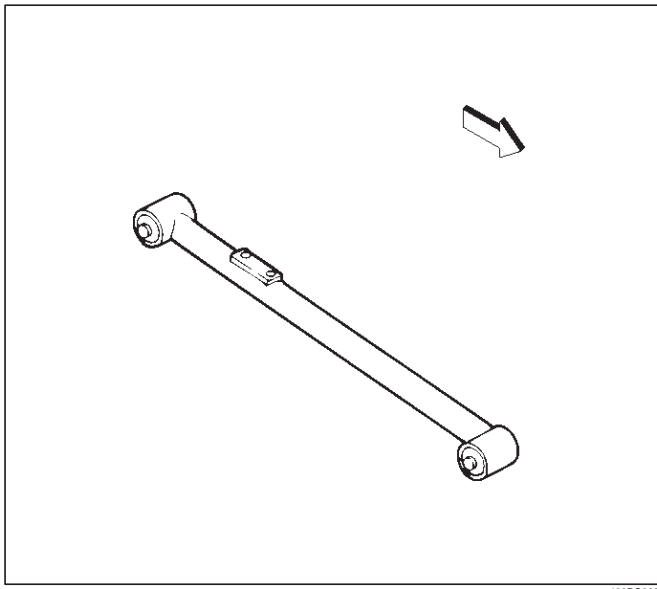
NOTE: When mounting rubber bushings, be sure not to use grease on bushings or any other nearby part.



Installation

1. Install trailing link. Make sure that the trailing link is in its correct position.

NOTE: When mounting trailing link, be sure not to use grease on bushings or any other nearby part.



2. Install bolt and nut. Tighten the bolts and nuts lightly, then retighten them to the specified torque after the vehicle is at curb height.

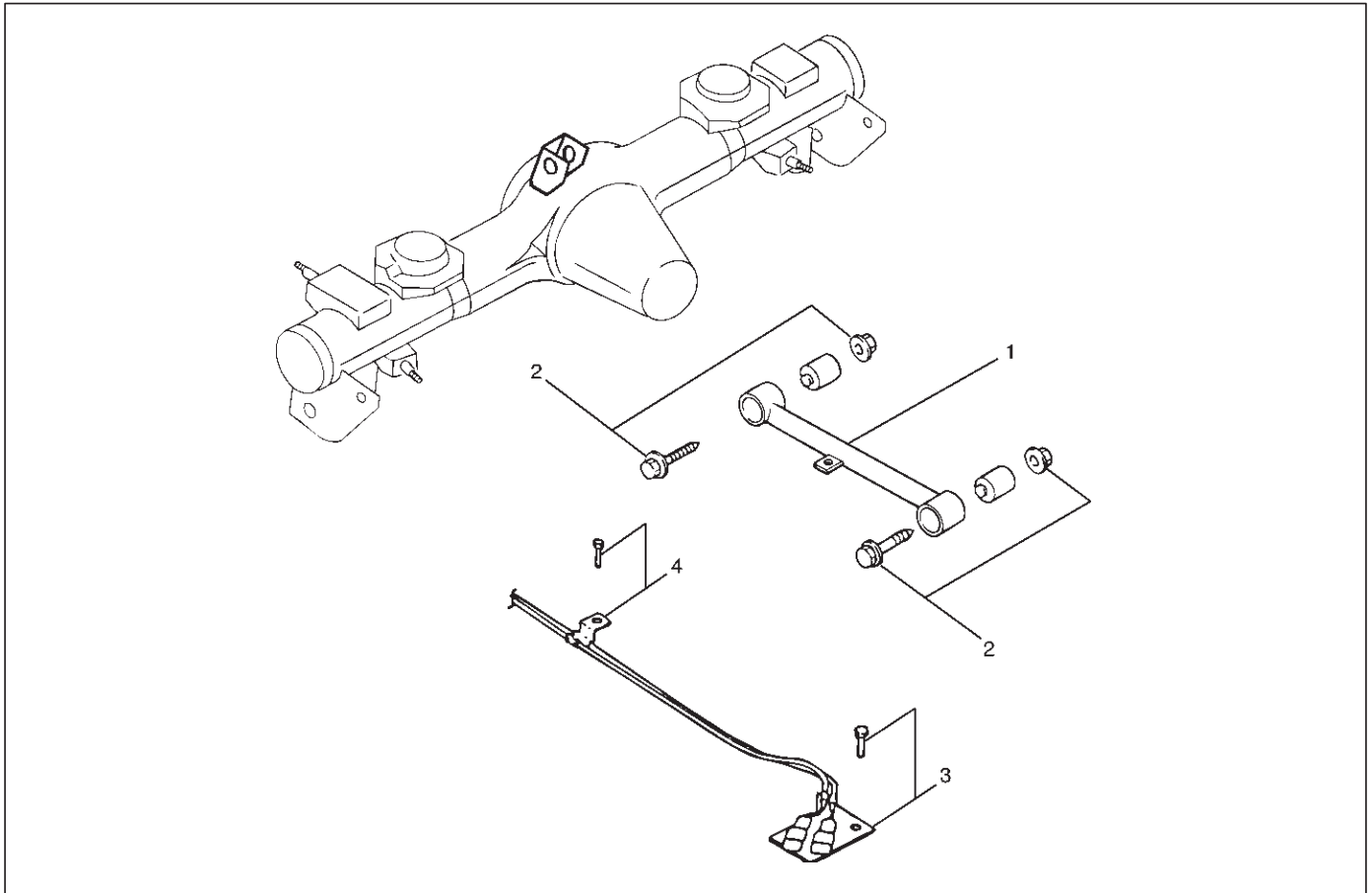
Torque: 137 N·m (101 lb ft)

3. Install parking brake cable.

CAUTION: The parking brake cable should not be overstrained or slackened.

Center Link

Center Link and Associated Parts



460RX001

Legend

- (1) Center Link
- (2) Bolt and Nut

- (3) Speed Sensor Cable Bracket
- (4) Speed Sensor Cable

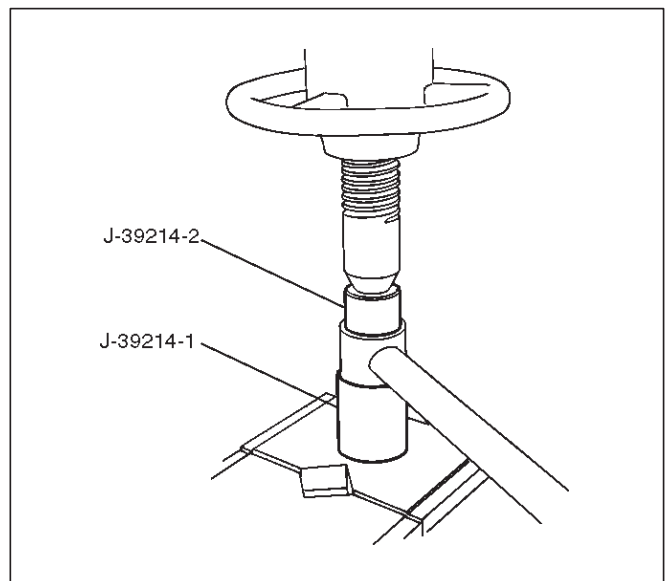
Removal

1. Remove the speed sensor cable from the center link.
2. Remove the speed sensor cable bracket from the frame.
3. Remove bolt and nut.
4. Remove center link.

Inspection and Repair

Make necessary correction or parts replacement if wear, damage, corrosion or any other abnormal conditions are found through inspection.

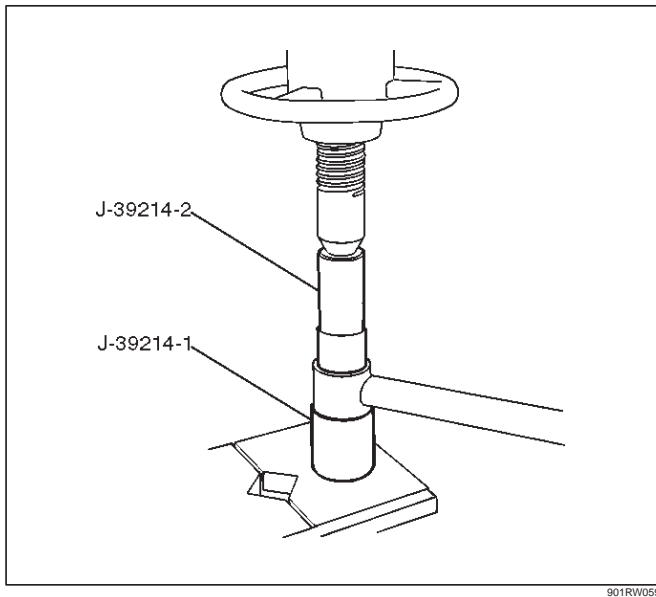
1. Center link
2. Rubber bushing
 - Remove the rubber bushing by using remover J-39214.



901RW058

- Install the rubber bushing by using to installer J-39214.

NOTE: When mounting rubber bushings, be sure not to use grease on bushings or any other nearby part.

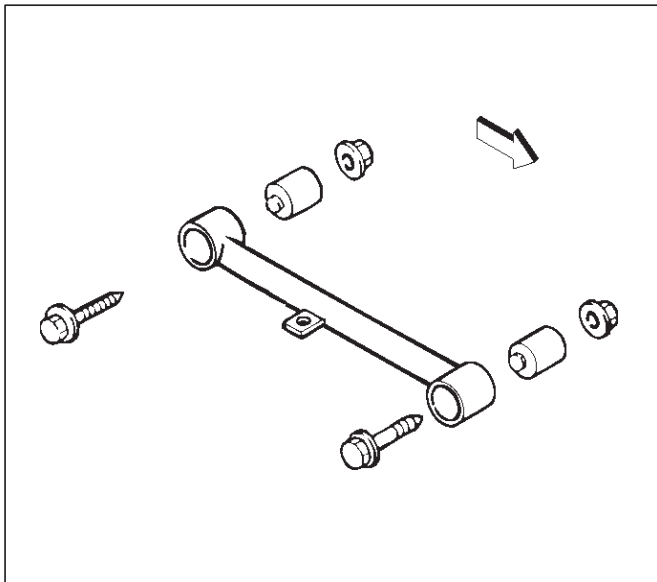


901RW059

Installation

1. Install center link. Make sure that the center link is in its correct position.

NOTE: When mounting center link, be sure not to use grease bushings or any other nearby part.



460RS010

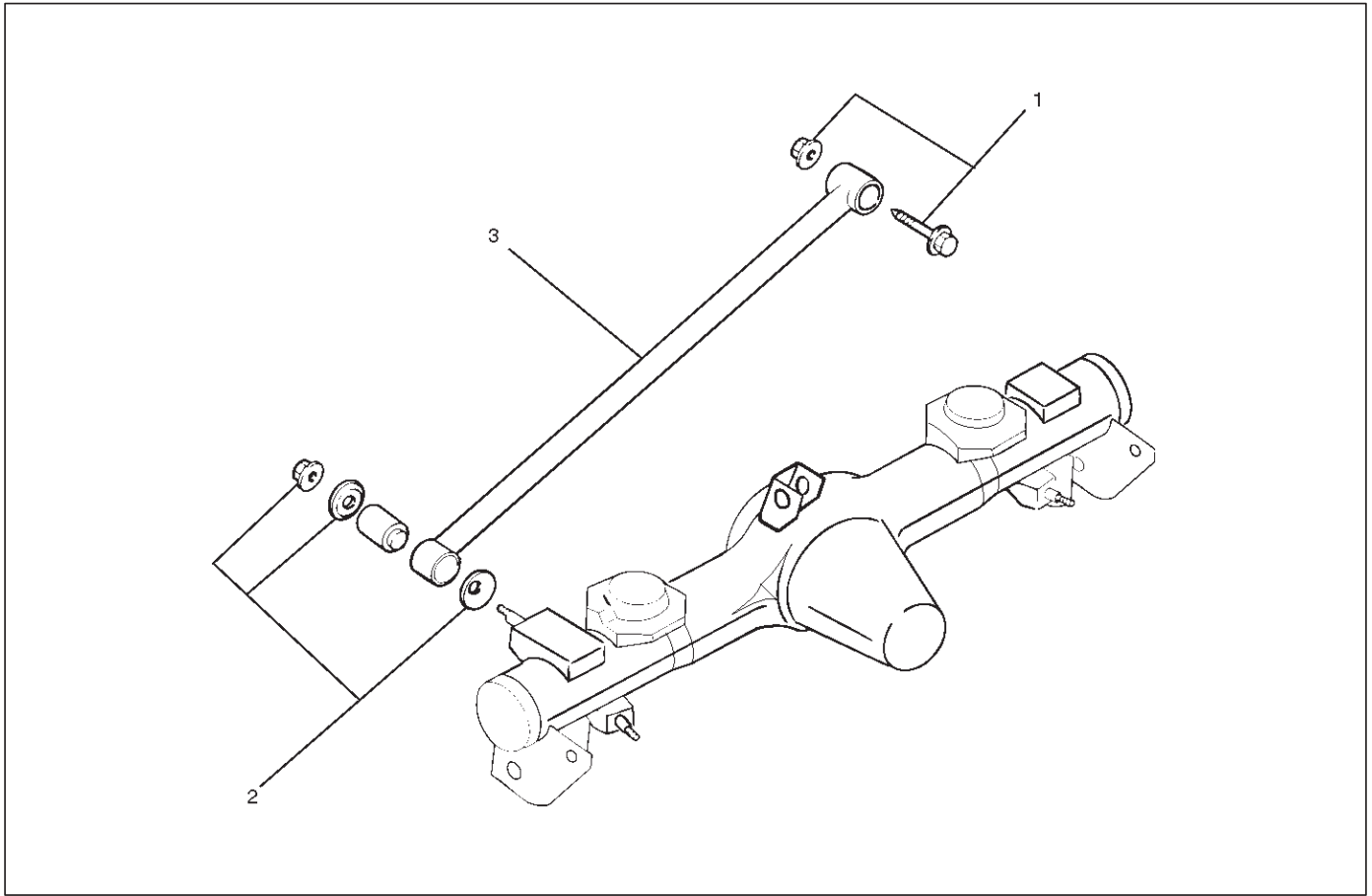
2. Install bolt and nut. Tighten the bolts and nuts lightly, then retighten them to the specified torque after the vehicle is at curb height.

Torque: 137 N-m (101 lb ft)

3. Install speed sensor cable bracket.
4. Install speed sensor cable.

Lateral Rod

Lateral Rod and Associated Parts



460RW019

Legend

(1) Bolt and Nut

(2) Nut and Washer

(3) Lateral Rod

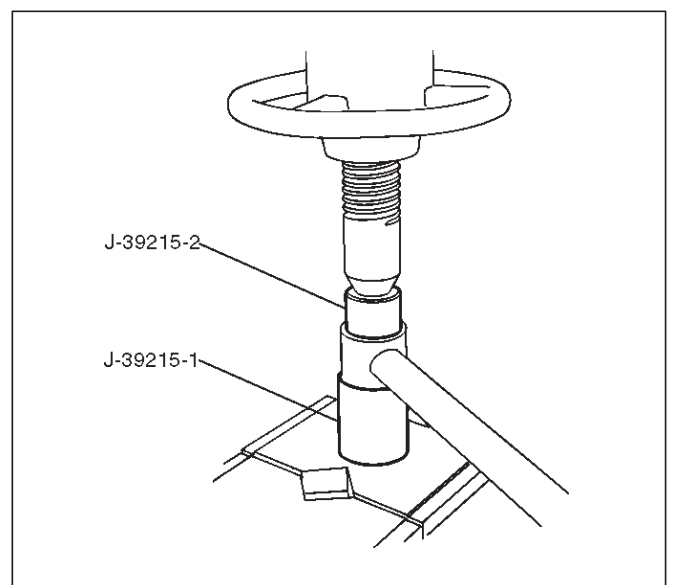
Removal

1. Remove nut and washer.
2. Remove bolt and nut.
3. Remove lateral rod.

Inspection and Repair

Make necessary correction or parts replacement if wear, damage, corrosion or any other abnormal condition are found through inspection.

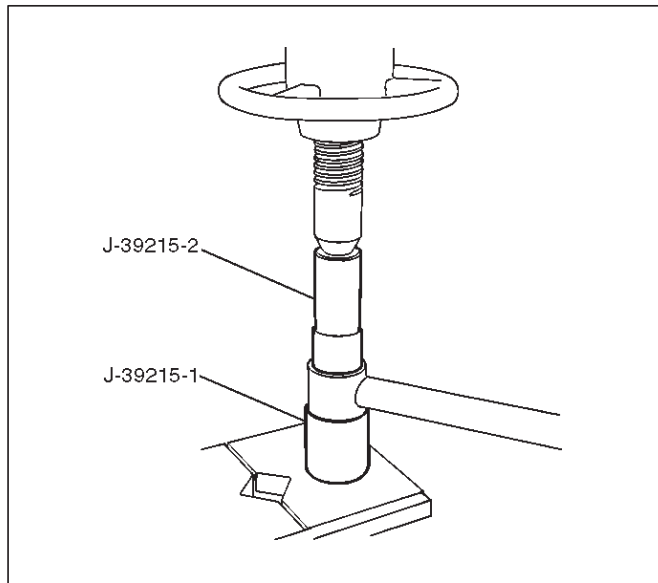
1. Lateral rod
2. Rubber bushing (Frame side)
 - Remove the rubber bushing (Frame side) by using remover J-39214.



901RW060

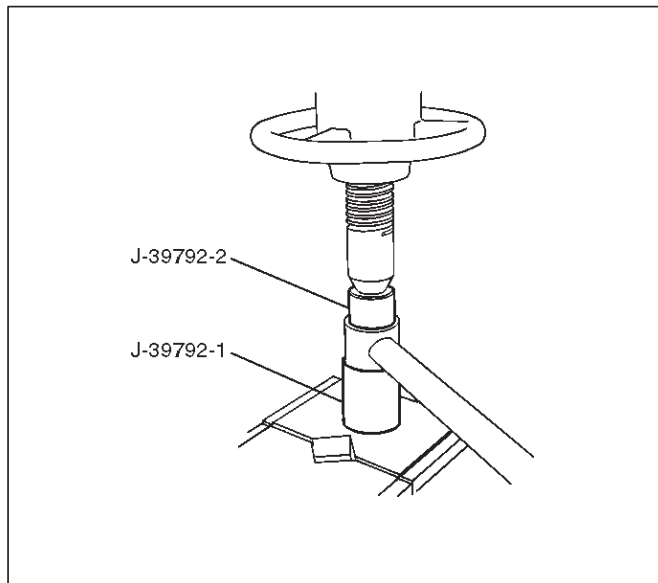
- Install the rubber bushing (Frame side) by using Installer J-39215.

NOTE: When mounting rubber bushings, do not use grease on bushings or any other nearby parts.

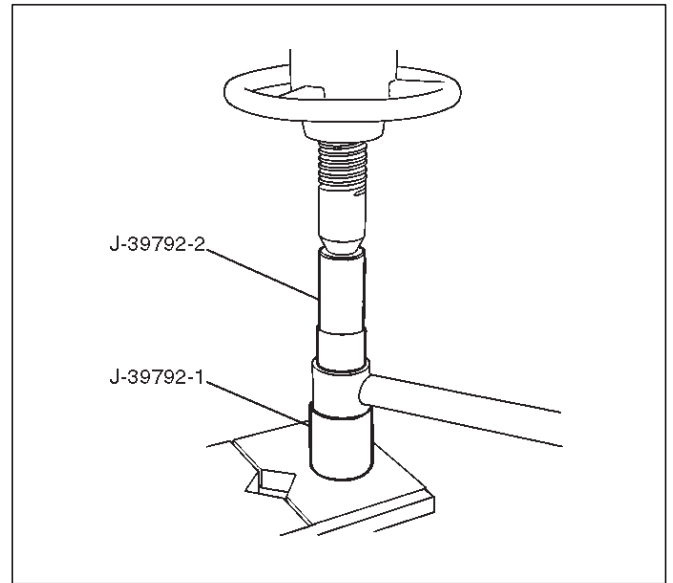


3. Rubber bushing (Axle side)

- Remove the rubber bushing (Axle side) by using remover J-39792.



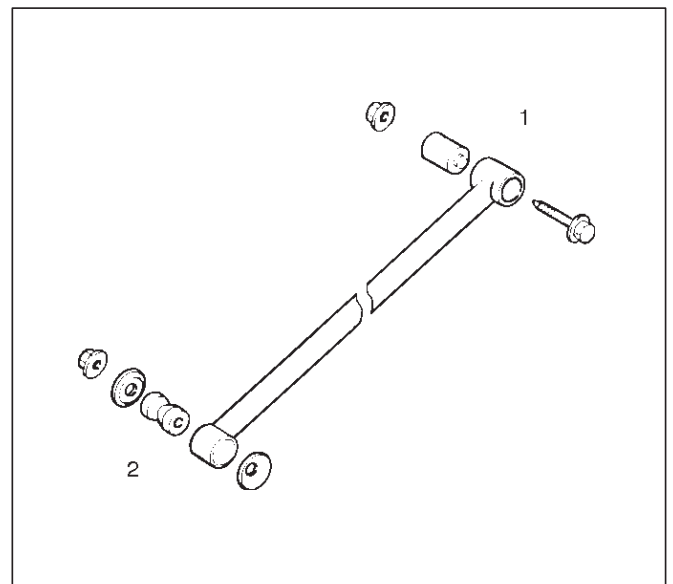
- Install the rubber bushing (Axle side) by using installer J-39792.



Installation

1. Install lateral rod and make sure that the lateral rod is in its correct position.

NOTE: When mounting lateral rod, be sure not to use grease on bushings or any other nearby part.



Legend

- (1) Frame Side
- (2) Axle Side

2. Install bolt and nut. Tighten the bolt and nut lightly, then retighten them to the specified torque after the vehicle is at curb height.

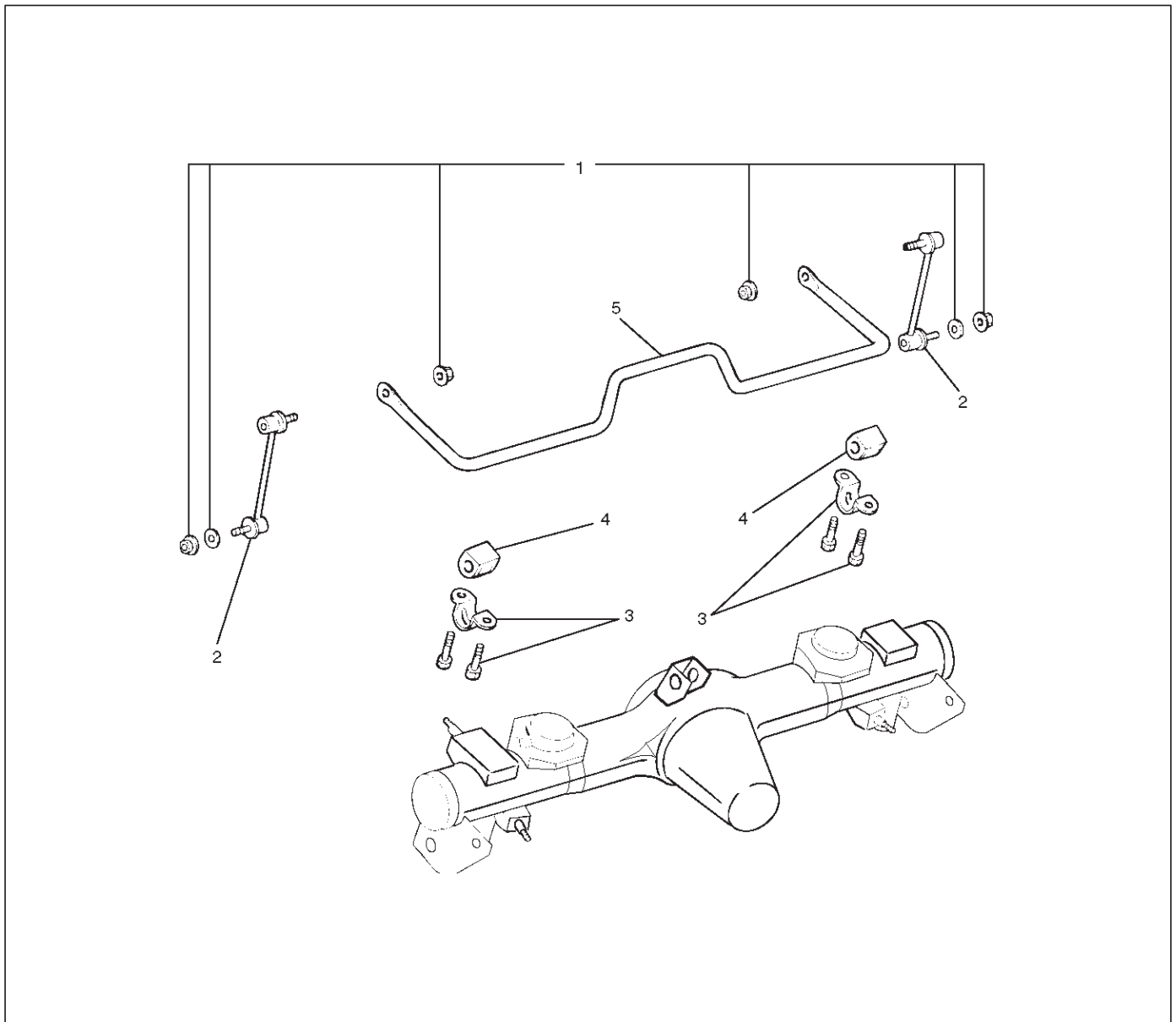
Torque: 137 N·m (101 lb ft)

3. Install nut and washer. Tighten the nut lightly, then retighten the nut to the specified torque after the vehicle is at curb height.

Torque: 78 N·m (58 lb ft)

Stabilizer Bar

Stabilizer Bar and Associated Parts



460RW020

Legend

- (1) Nut and Washer
- (2) Link

- (3) Bracket
- (4) Rubber Bushing
- (5) Stabilizer Bar

Removal

1. Raise the vehicle and support the frame with suitable safety stands.
2. Remove wheel and tire assembly. Refer to Wheel Replacement in this section.
3. Remove nut and washer.
4. Remove link.

CAUTION: Be careful not to damage the ball joint boot.

5. Remove bracket.

6. Remove rubber bushing.

7. Remove stabilizer bar.

Inspection and Repair

Make necessary correction or parts replacement if wear, damage, corrosion or any other abnormal conditions are found through inspection.

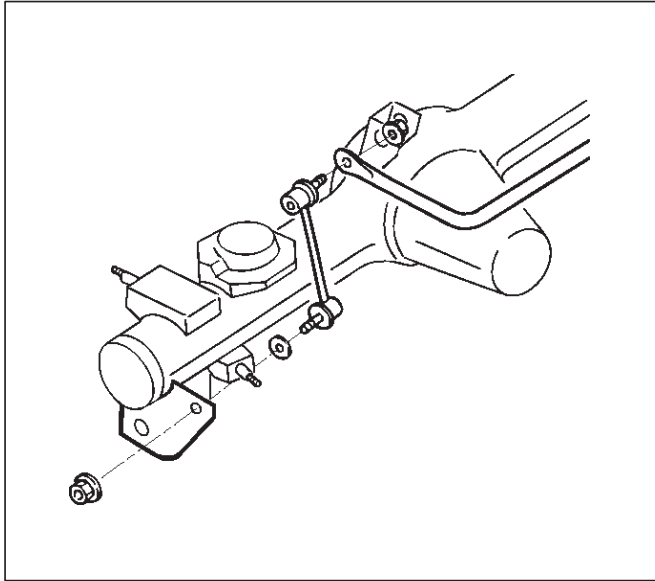
Check the following parts:

- Stabilizer bar
- Rubber bushing
- Link ball joint

Installation

1. Install stabilizer bar.
2. Install rubber bushing.
3. Install bracket and tighten to the specified torque.
Torque: 22 N·m (16 lb ft)
4. Install link.
5. Install nut and washer, then tighten the nut to the specified torque.

Torque: 50 N·m (37 lb ft)

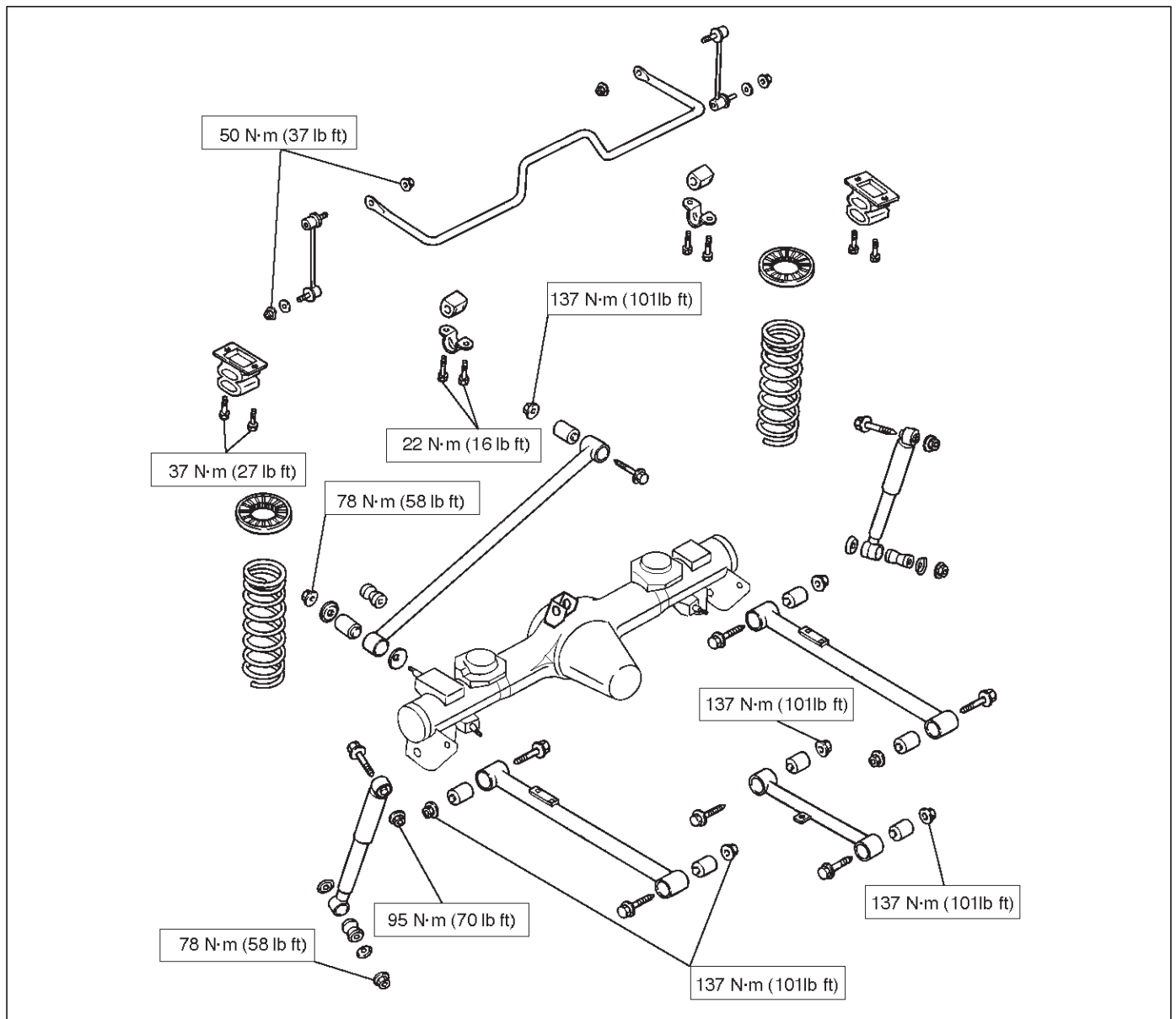


460RS018

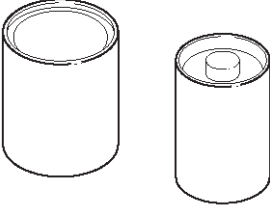
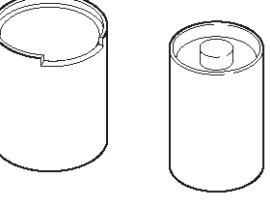
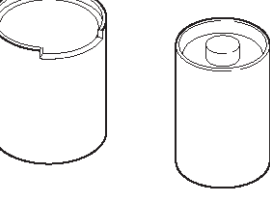
Main Data and Specifications**General Specifications**

Rear suspension	Type	4-Link, coil spring type with stabilizer bar.
Coil spring	Free length	402mm (15.83in)
	Spring diameter	12.7mm (0.5in)
	Coil diameter (inner)	105mm (4.13in)
	Effective No. of turns	5.32
	Total No. of turns	6.82
Shock absorber	Type	Hydraulic, double acting, telescopic
	Piston diameter	25.0mm (0.98in)
	Stroke	175mm (6.89in)
	Extended length	489mm (19.25in)
	Compressed length	314mm (12.36in)
Stabilizer bar	Diameter	19.0mm (0.75in)

Torque Specifications



Special Tools

ILLUSTRATION	TOOL NO. TOOL NAME
 <p style="text-align: center; font-size: small;">901RS291</p>	<p style="text-align: center;">J-39214 Remover and Installer; Trailing center link bushing</p>
 <p style="text-align: center; font-size: small;">901RS292</p>	<p style="text-align: center;">J-39792 Remover and Installer; Lateral rod bushing (axle side)</p>
 <p style="text-align: center; font-size: small;">901RS293</p>	<p style="text-align: center;">J-39215 Remover and Installer; Lateral rod bushing</p>