

2010 Cadillac SRX

2010 SUSPENSION Rear Suspension - SRX

2010 SUSPENSION**Rear Suspension SRX****SPECIFICATIONS****FASTENER TIGHTENING SPECIFICATIONS**

Application	Specification	
	Metric	English
Adjust Link Inner Nut	60 N.m 40 degrees	44 lb ft 40 degrees
Adjust Link Outer Nut	40 N.m 110 degrees	30 lb ft 110 degrees
Adjust Link Lock Nut	135 N.m	100 lb ft
Rear Suspension Link Upper to Lower Control Arm-Upper Bolt	150 N.m 90 degrees	111 lb ft 90 degrees
Rear Suspension Link Upper to Lower Control Arm-Lower Bolt	40 N.m 90 degrees	30 lb ft 90 degrees
Rear Suspension Lower Control Arm Ball Joint Nut	40 N.m 125 degrees	30 lb ft 125 degrees
Rear Suspension Lower Control Arm Bolts	100 N.m 90 degrees	74 lb ft 90 degrees
Rear Suspension Upper Control Arm Inner Bolt	70 N.m 60 degrees	52 lb ft 60 degrees
Rear Wheel Bearing and Hub Bolt	110 N.m	1 lb ft
Stabilizer Shaft Link Nut	15 N.m	11 lb ft
Stabilizer Shaft Insulator Bolt	50 N.m	37 lb ft
Shock Absorber Nut	17 N.m	13 lb ft
Shock Absorber Bolt	100 N.m	74 lb ft

REAR AIR INSTRUCTIONS**REAR WHEEL BEARING AND HUB REPLACEMENT**

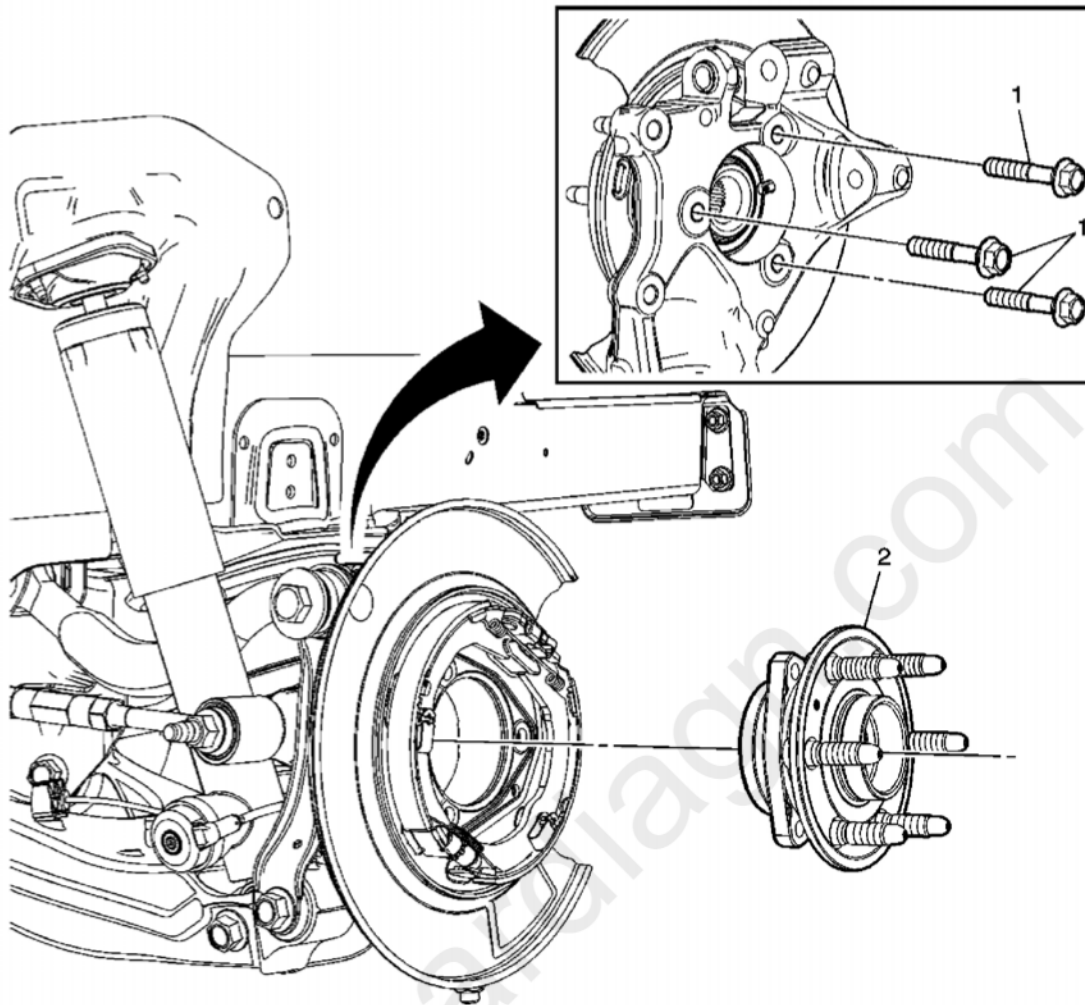


Fig. 1: View Of Rear Wheel Bearing Hub
 Courtesy of GENERAL MOTORS CORP.

Callout	Component Name
Preliminary Procedure	
1. Raise and support the vehicle. Refer to <u>Lifting and Jacking the Vehicle</u> . 2. Remove the tire and wheel assembly. Refer to <u>Tire and Wheel Removal and Installation</u> . 3. Separate the wheel drive shaft from the knuckle, if needed. Refer to <u>Rear Wheel rive Shaft Replacement</u> . 4. Remove the rear brake rotor. Refer to <u>Rear Brake Rotor Replacement</u> . 5. Remove the Rear Wheel Speed Sensor. Refer to <u>Rear Wheel Speed Sensor Replacement</u> .	
1	Wheel Bearing and ub Bolt (Qty: 3) CAUTION:

2010 Cadillac SRX

2010 SUSPENSION Rear Suspension - SRX

Refer to Fastener Caution .

Tighten: 110 N.m (1 lb ft)

2 Wheel Bearing and Hub Assembly

REAR SUSPENSION LINK REPLACEMENT UPPER TO LOWER CONTROL ARM

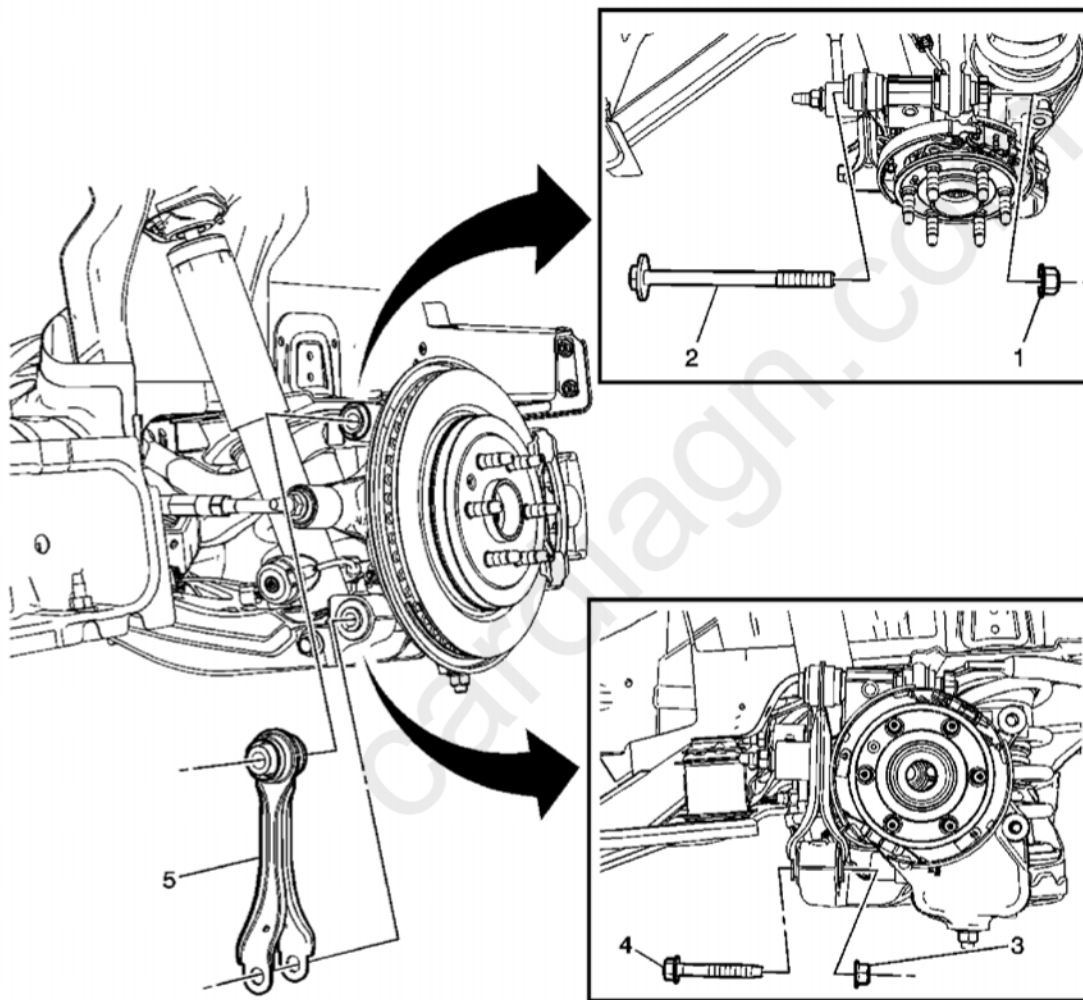


Fig. : Identifying Rear Suspension Link Upper to Lower Control Arm
Courtesy of GENERAL MOTORS CORP.

Callout	Component Name
Preliminary Procedure	
1. Raise and support the vehicle. Refer to <u>Lifting and Jacking the Vehicle</u> .	
2. Remove the tire and wheel assembly. Refer to <u>Tire and Wheel Removal and Installation</u> .	
1	Rear Suspension Upper Control Arm Nut

2010 Cadillac SRX

2010 SUSPENSION Rear Suspension - SRX

2	Rear Suspension Upper Control Arm Bolt
	CAUTION: Refer to <u>Fastener Caution</u> .
	Tighten: 150 N.m (110 lb ft) plus an additional 90 degrees
3	Rear Suspension Lower Control Arm Nut
4	Rear Suspension Lower Control Arm Bolt
	Tighten: 40 N.m plus an additional 90 degrees (66 lb ft) plus an additional 90 degrees
5	Rear Suspension Link

KNUCKLE REPLACEMENT

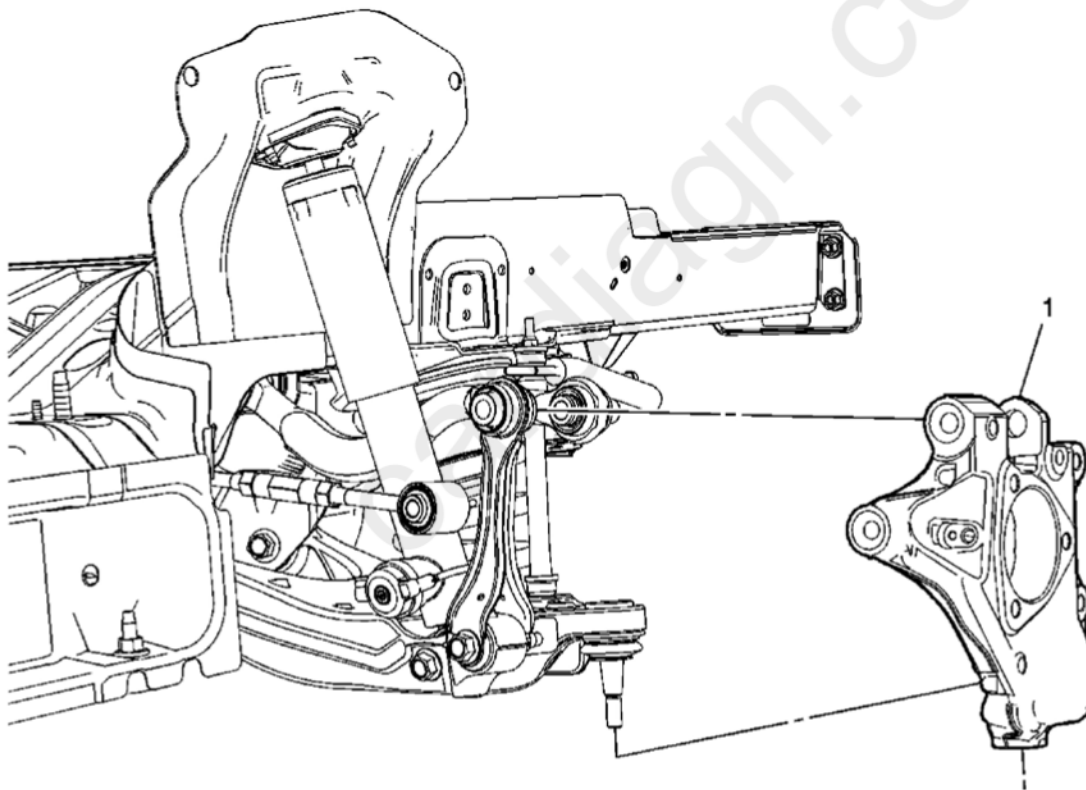


Fig. 3: Locating Knuckle

Courtesy of GENERAL MOTORS CORP.

Callout	Component Name
Preliminary Procedure	
1. Raise and support the vehicle. Refer to <u>Lifting and Jacking the Vehicle</u> .	

2010 Cadillac SRX

2010 SUSPENSION Rear Suspension - SRX

2. Remove the tire and wheel assembly. Refer to **Tire and Wheel Removal and Installation** .
3. Remove the rear disc brake backing plate. Refer to **Rear Brake Backing Plate Replacement** .

Rear Suspension knuckle

Procedure

1

1. Remove the park brake cable from the knuckle.
 - or the left park brake cable, refer to **Parking Brake Rear Cable Replacement Left Side FW** **Parking Brake Rear Cable Replacement Left Side AW** .
 - or the right park brake cable, refer to **Parking Brake Rear Cable Replacement Right Side FW** **Parking Brake Rear Cable Replacement Right Side AW** .
2. Separate the lower control arm from the knuckle. Refer to **Rear Axle Lower Control Arm Replacement**
3. Remove the upper control arm bolt. Refer to **Rear Axle Upper Control Arm Replacement**
4. Remove the adjust link from the knuckle. Refer to **Adjust Link Replacement**.

REAR AXLE UPPER CONTROL ARM REPLACEMENT

2010 Cadillac SRX

2010 SUSPENSION Rear Suspension - SRX

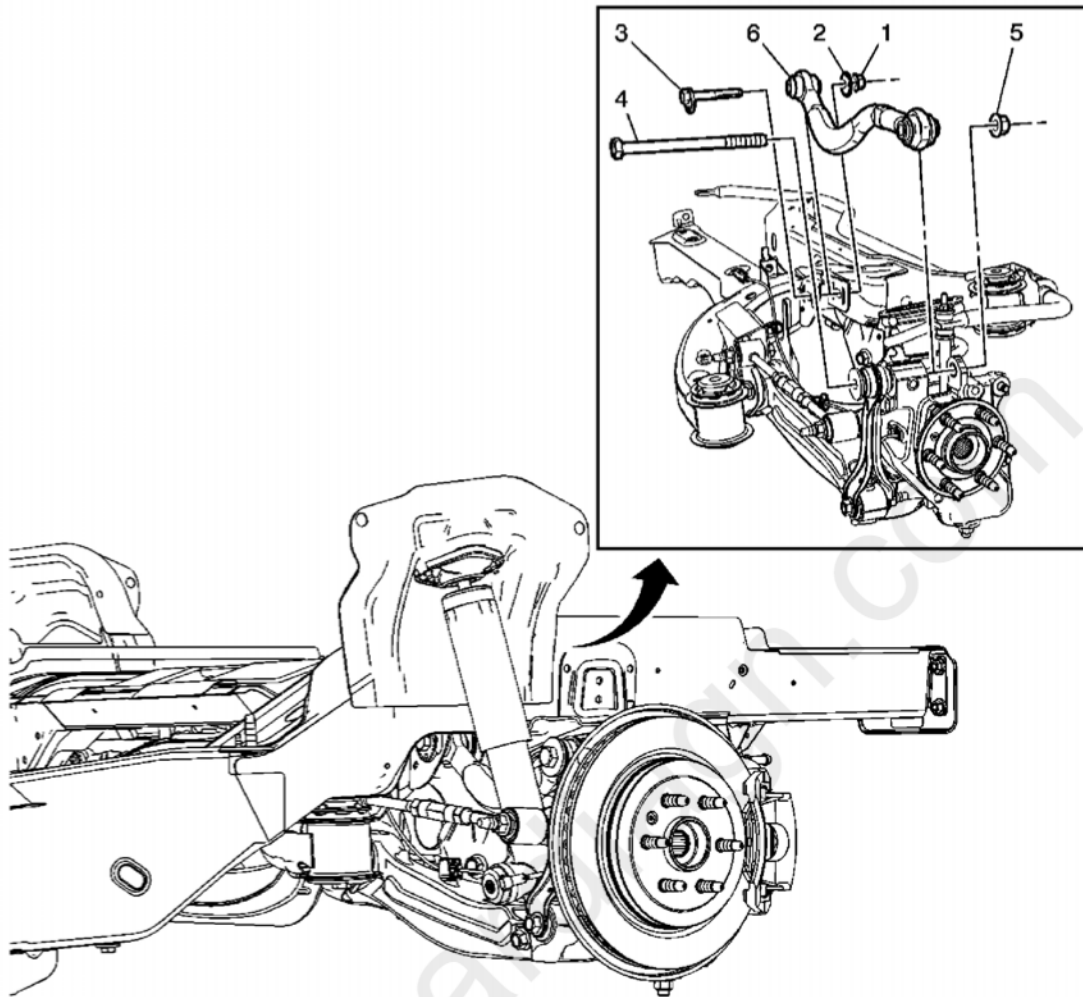


Fig. 4: View Of Rear Axle Upper Control Arm
Courtesy of GENERAL MOTORS CORP.

Callout	Component Name
Preliminary Procedure	
1. Raise and support the vehicle. Refer to <u>Lifting and Jacking the Vehicle</u> .	
2. Remove the tire and wheel assembly. Refer to <u>Tire and Wheel Removal and Installation</u>	
3. Support the rear lower control arm, if needed.	
1	Rear Suspension Upper Control Arm Nut
2	Rear Suspension Upper Control Arm Adjuster Cam
3	Rear Suspension Upper Control Arm Adjuster Bolt CAUTION: Refer to <u>Fastener Caution</u> .

2010 Cadillac SRX

2010 SUSPENSION Rear Suspension - SRX

	Tighten: 70 N.m (52 lb ft) plus an additional 60 degrees
4	Rear Suspension Upper Control Arm Bolt Tighten: 150 N.m (111 lb ft) plus an additional 90 degrees
5	Rear Suspension Upper Control Arm Nut
6	Rear Suspension Upper Control Arm Procedure: Check and adjust the rear camber. Refer to <u>Rear Camber Adjustment</u> .

REAR AXLE LOWER CONTROL ARM REPLACEMENT

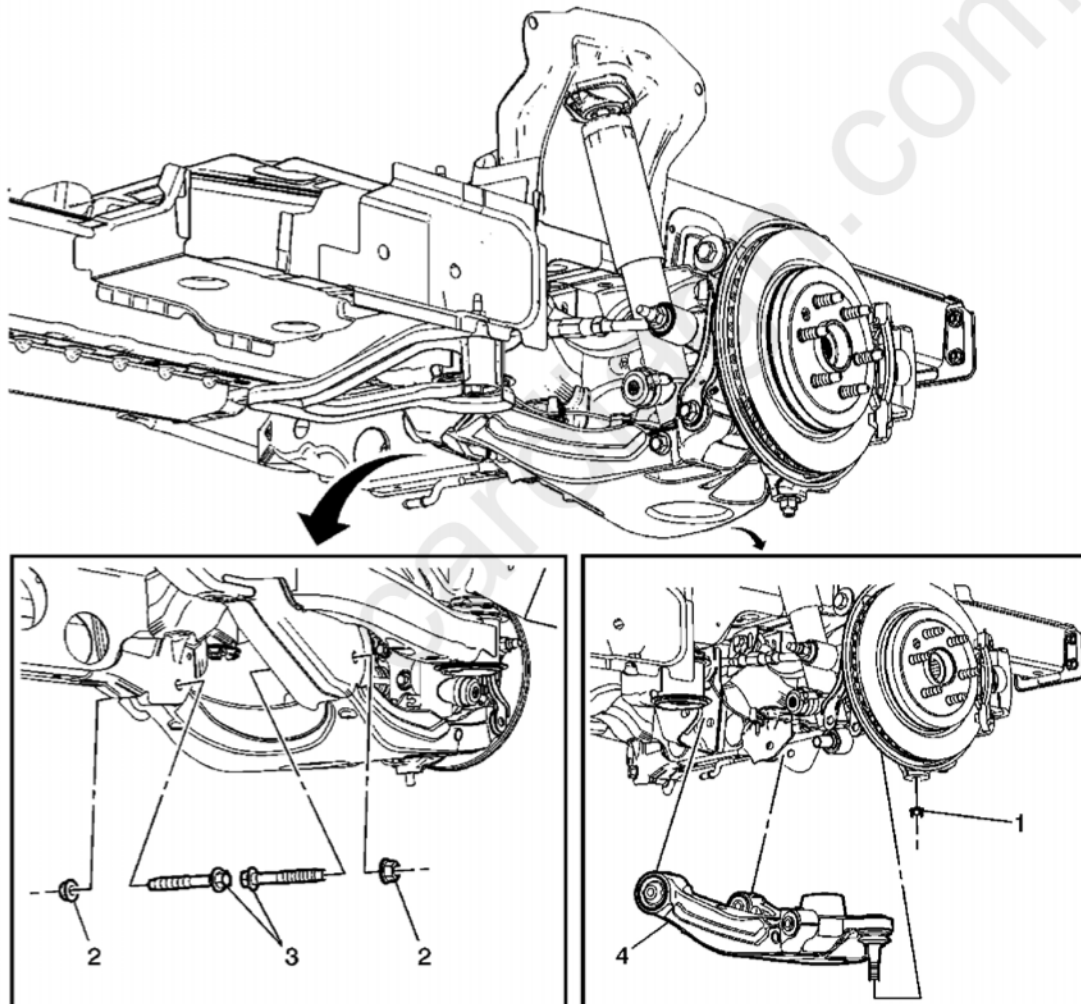


Fig. 5: View Of Rear Axle Lower Control Arm
Courtesy of GENERAL MOTORS CORP.

Callout	Component Name
Preliminary Procedure	

2010 Cadillac SRX

2010 SUSPENSION Rear Suspension - SRX

1. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** .
2. Remove the rear spring. Refer to **Rear Spring, Insulator, and Jounce Bumper Replacement**.

1	Rear Suspension Lower Control Arm Ball Joint Nut
	CAUTION: Refer to Fastener Caution .
	Procedure: Using the CH 43631 : remover, remove the lower control arm from the knuckle.
	Tighten: 40 N.m plus an additional 125 degrees (30 lb ft) plus an additional 125 degrees
	Special Tools: CH 43631 : Ball Joint Remover
2	Rear Suspension Lower Control Arm Nut (Qty: 2)
3	Rear Suspension Lower Control Arm Bolt (Qty: 2)
	Tighten: 100 N.m plus an additional 90 degrees (74 lb ft) plus an additional 90 degrees
4	Rear Suspension Lower Control Arm

STABILIZER SHAFT REPLACEMENT

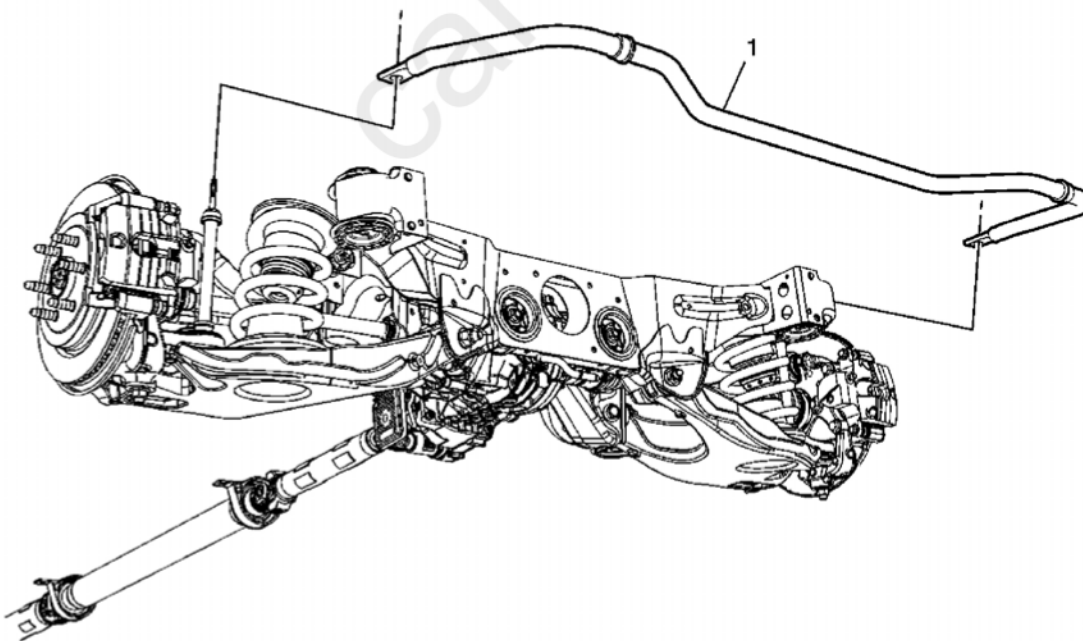


Fig. 6: Identifying Stabilizer Shaft

Courtesy of GENERAL MOTORS CORP.

Callout	Component Name
Preliminary Procedure	
1. Raise and support the vehicle. Refer to <u>Lifting and Jacking the Vehicle</u> . 2. Remove the tire and wheel assembly. Refer to <u>Tire and Wheel Removal and Installation</u> . 3. Remove the stabilizer links from the stabilizer shaft. Refer to <u>Stabilizer Shaft Link Replacement</u> . 4. Remove the stabilizer insulators. Refer to <u>Stabilizer Shaft Insulator Replacement</u>	
1	Stabilizer Shaft

STABILIZER SHAFT INSULATOR REPLACEMENT

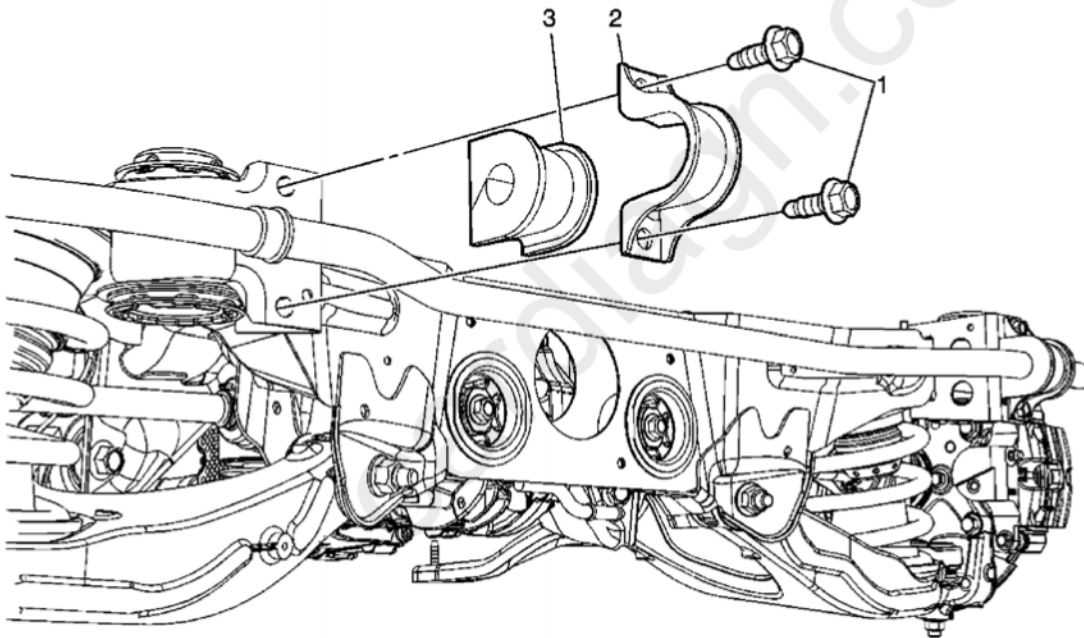


Fig. 7: Identifying Stabilizer Shaft Insulator
 Courtesy of GENERAL MOTORS CORP.

Callout	Component Name
Preliminary Procedure	
1. Raise and suitably support the vehicle. Refer to <u>Lifting and Jacking the Vehicle</u> . 2. Remove the rear tire and wheel assembly. Refer to <u>Tire and Wheel Removal and Installation</u> .	
	Stabilizer Shaft Insulator Bolt (Qty: 2)
	CAUTION:

2010 Cadillac SRX

2010 SUSPENSION Rear Suspension - SRX

1	Refer to <u>Fastener Caution</u> .
	Tip: DO NOT re-use the old bolts, replace with NEW only.
	Tighten: 22 N.m (16 lb ft) plus an additional 30 degrees
2	Stabilizer Shaft Bracket
3	Stabilizer Shaft Insulator Tip: Ensure that the insulator is installed with the split facing down.

STABILIZER SHAFT LINK REPLACEMENT

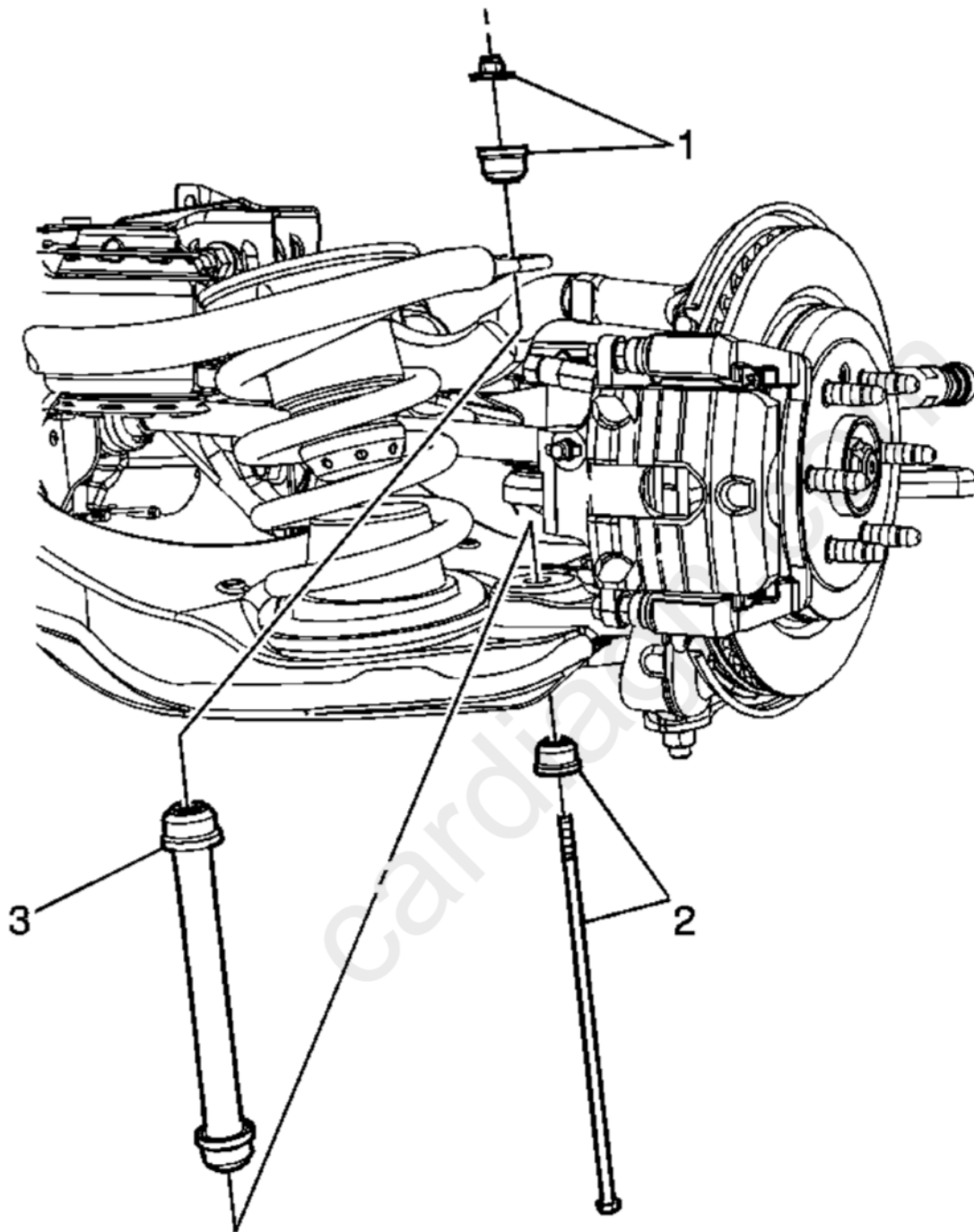


Fig. : Identifying Stabilizer Shaft Link
 Courtesy of GENERAL MOTORS CORP.

Callout	Component Name
Preliminary Procedure	
1. Raise and support the vehicle. Refer to <u>Lifting and Jacking the Vehicle</u> .	

2. Remove the tire and wheel assembly. Refer to **Tire and Wheel Removal and Installation**.

1	Stabilizer Shaft Nut CAUTION: Refer to Fastener Caution . Tip: The insulator is service as an assembly with the nut. Tighten: 15 N.m (11 lb ft)
2	Stabilizer Shaft Link Bolt Tip: The insulator and the bolt is service as an assembly.
3	Stabilizer Shaft Spacers Tip: The spacer and the insulators are serviced as an assembly.

STRUT AND SHOCK ABSORBER INSPECTION SHOCK ABSORBER

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.

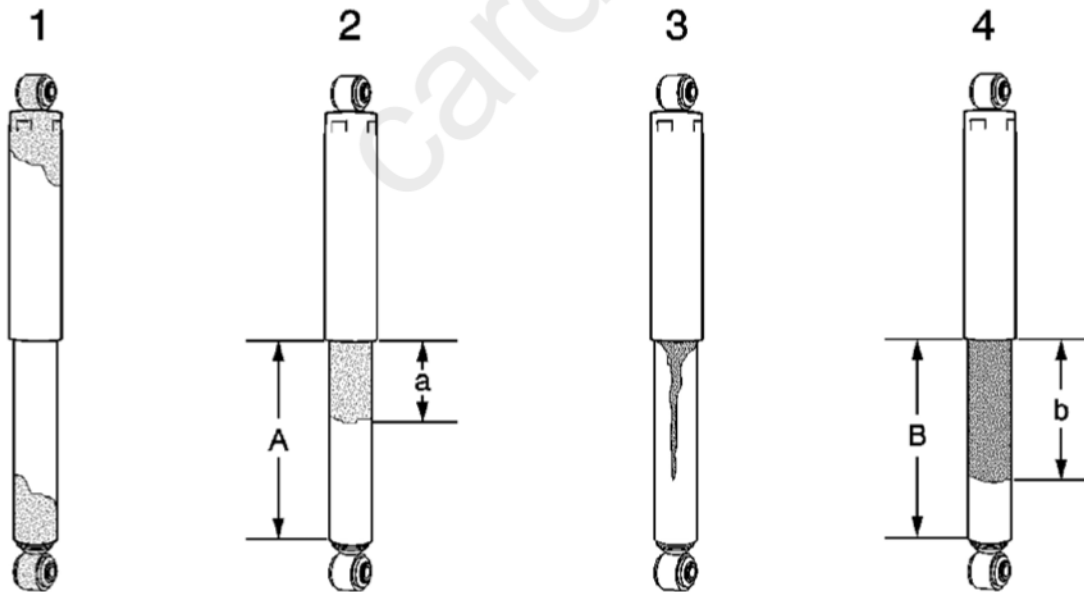


Fig. 9: Identifying Shock Absorber Conditions
 Courtesy of GENERAL MOTORS CORP.

2010 Cadillac SRX

2010 SUSPENSION Rear Suspension - SRX

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.

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. If equipped with electronic suspension control system, ensure that the system is working properly. Refer to Diagnostic Starting point Electronic Suspension Control.
5. 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.

SHOCK ABSORBER REPLACEMENT

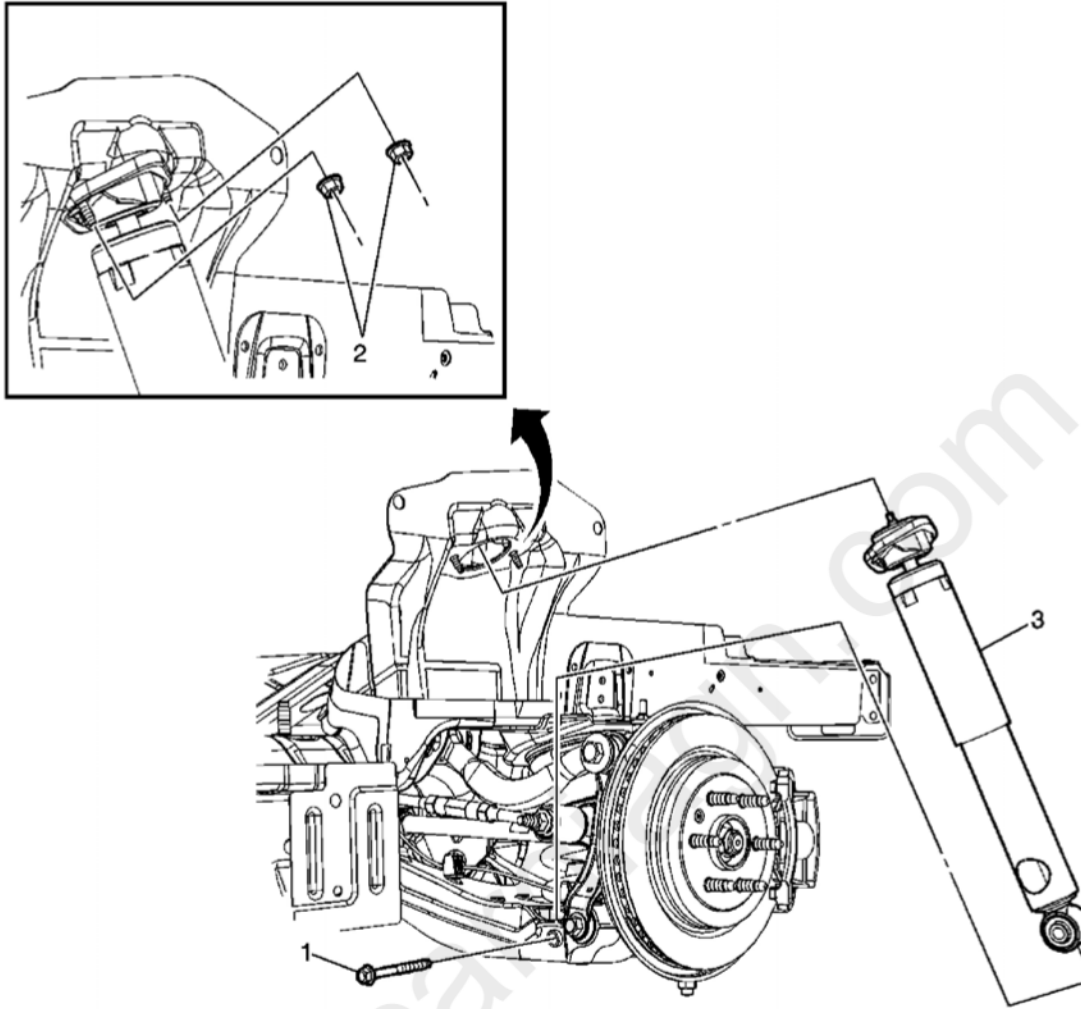


Fig. 1 : View Of Shock Absorber
 Courtesy of GENERAL MOTORS CORP.

Callout	Component Name
Preliminary Procedure	
1. Raise and support the vehicle. Refer to <u>Lifting and Jacking the Vehicle</u> . 2. Remove the tire and wheel assembly. Refer to <u>Tire and Wheel Removal and Installation</u> .	
1	Shock Absorber Bolt CAUTION: Refer to <u>Fastener Caution</u> . Procedure 1. Disconnect the electrical for the electronic suspension, if equipped.

2010 Cadillac SRX

2010 SUSPENSION Rear Suspension - SRX

	2. Support the lower control arm with the proper jackstand.
	Tighten: 100 N.m (74 lb ft)
2	Shock Absorber Nut (ty 2)
	Tighten: 17 N.m (13 lb ft)
3	Shock Absorber

REAR SPRING, INSULATOR, AND JOUNCE BUMPER REPLACEMENT

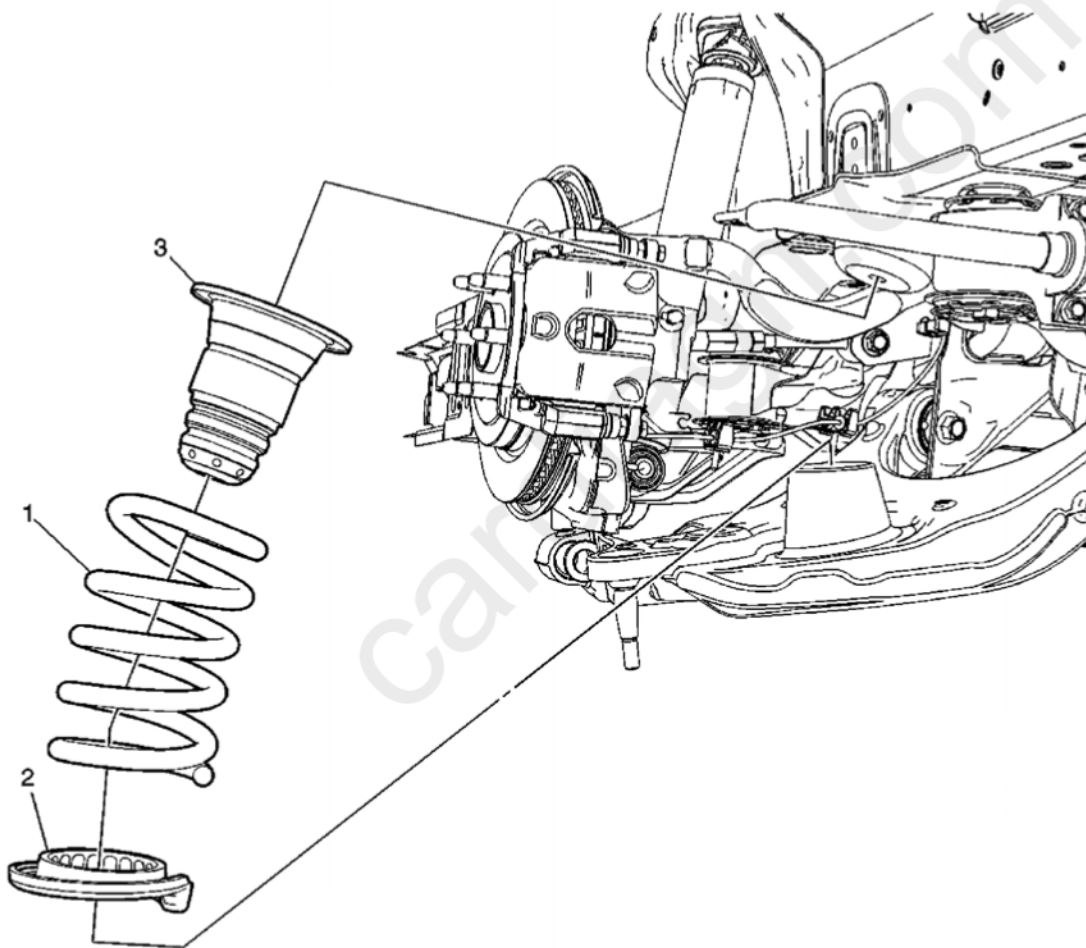


Fig. 11: View Of Rear Spring, Insulator & Jounce Bumper

Courtesy of GENERAL MOTORS CORP.

Callout	Component Name
Preliminary Procedure	
1. Raise and support the vehicle. Refer to <u>Lifting and Jacking the Vehicle</u> .	

2010 Cadillac SRX

2010 SUSPENSION Rear Suspension - SRX

2. Remove the tire and wheel assembly. Refer to **Tire and Wheel Removal and Installation** .
3. Remove the stabilizer shaft link. Refer to **Stabilizer Shaft Link Replacement**.
4. Separate the lower control arm from the knuckle. Refer to **Rear Axle Lower Control Arm Replacement**.
5. Remove the lower shock absorber bolt from the lower control arm. Refer to **Shock Absorber Replacement**.
6. Remove the lower bolt for the rear suspension link upper to lower control arm. Refer to **Rear Suspension Link Replacement - Upper to Lower Control Arm**.

1	Rear Spring
	Procedure 1. Remove the rear wheel speed sensor wiring harness from the lower control arm. 2. Remove the electrical suspension harness for the rear shock, if equipped. 3. Rotate the lower control arm as much as possible to remove the rear spring.
2	Rear Spring Lower Insulator
3	Rear Suspension Jounce Bumper

ADJUST LINK REPLACEMENT

2010 Cadillac SRX

2010 SUSPENSION Rear Suspension - SRX

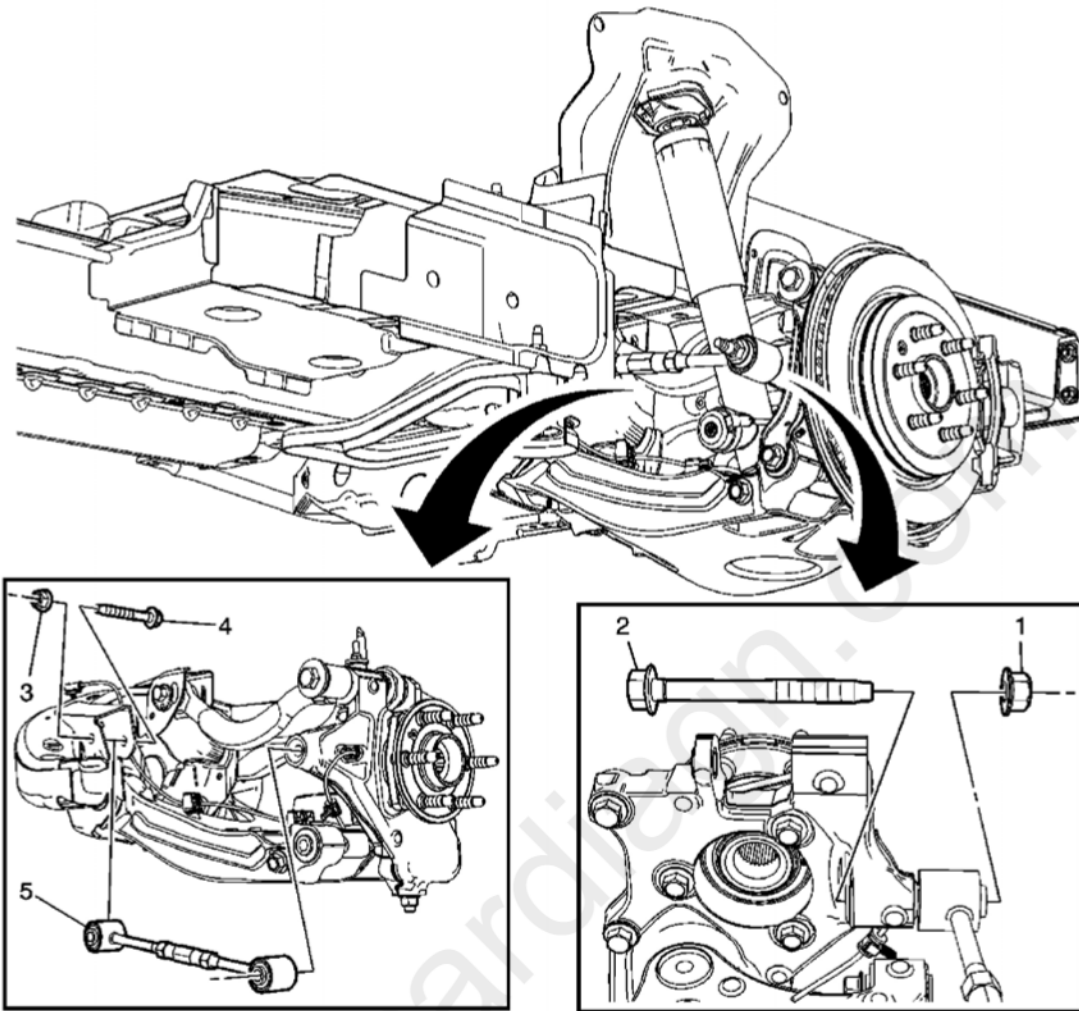


Fig. 12: Identifying Adjust Link
Courtesy of GENERAL MOTORS CORP.

Callout	Component Name
Preliminary Procedure	
1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle 2. Remove the tire and wheel assembly. Refer to Tire and Wheel Removal and Installation	
1	Rear Suspension Adjust Link Nut CAUTION R a Ca i Tighten: 40 N.m (30 lb ft) plus an additional 110 degrees
2	Rear Suspension Adjust Link Bolt Outer
	Rear Suspension Adjust Link Nut Inner

2010 Cadillac SRX

2010 SUSPENSION Rear Suspension - SRX

3	Tighten: 60 N.m (44 lb ft) plus an additional 40 degrees
4	Rear Suspension Adjust Link Bolt Inner
	Rear Suspension Adjust Link
5	Procedure 1. Remove the bolt from the upper control arm to the knuckle, if the vehicle is equipped with All Wheel Drive. Refer to <u>Rear Axle Upper Control Arm Replacement</u> 2. Separate the rear wheel drive shaft from the rear wheel bearing/hub. Refer to <u>Rear Wheel Drive Shaft Replacement</u> . 3. Adjust the toe. Refer to <u>Rear Toe Adjustment</u>

WHEEL STUD REPLACEMENT

Special Tools

CH-49455: Ball Joint Remover

For equivalent regional tools, refer to **Special Tools**.

Removal Procedure

1. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** .
2. Remove the tire and wheel assembly. Refer to **Tire and Wheel Removal and Installation** .
3. Remove the rear wheel bearing and hub. Refer to **Rear Wheel Bearing and Hub Replacement**.

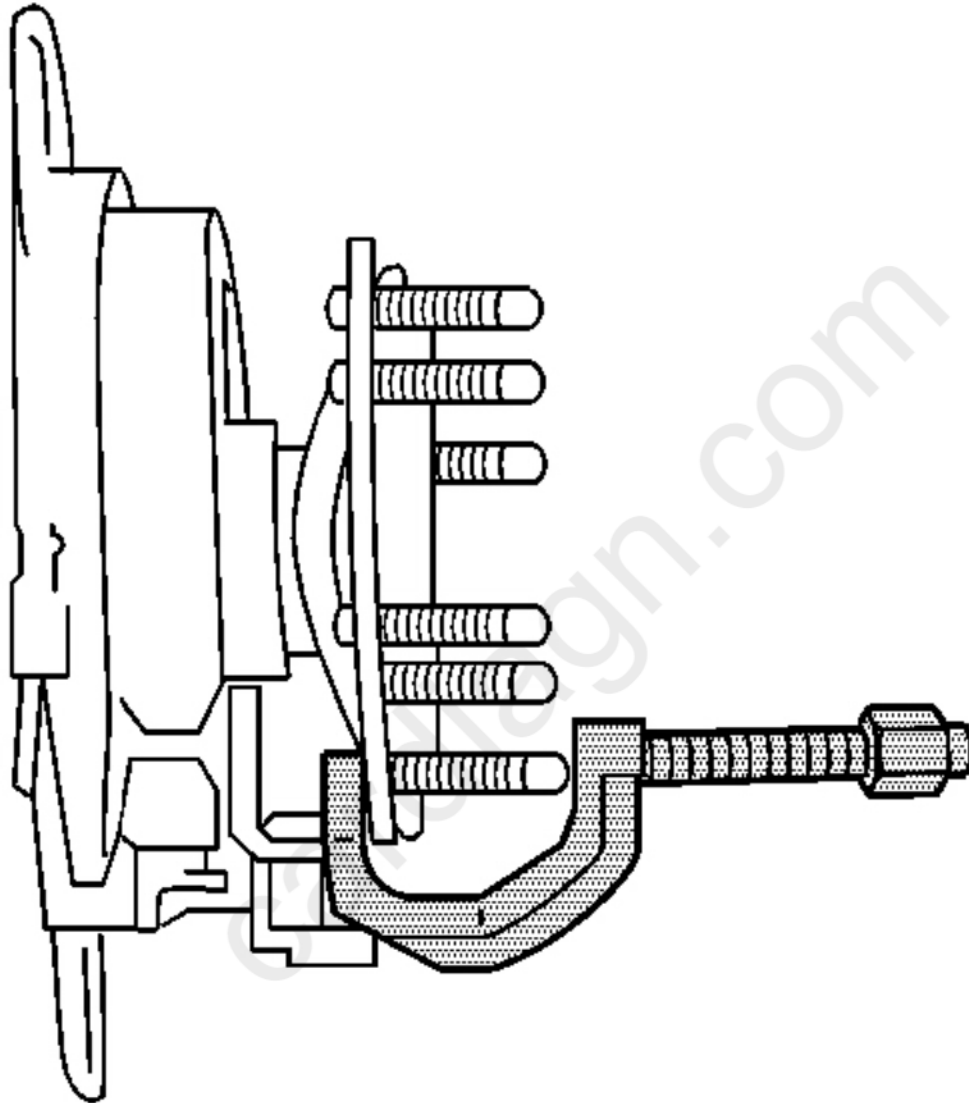


Fig. 13: View Of Wheel Stud & Hub Flange
Courtesy of GENERAL MOTORS CORP.

4. Use **CH-49455**: remover to remove and discard the wheel stud.

Installation Procedure

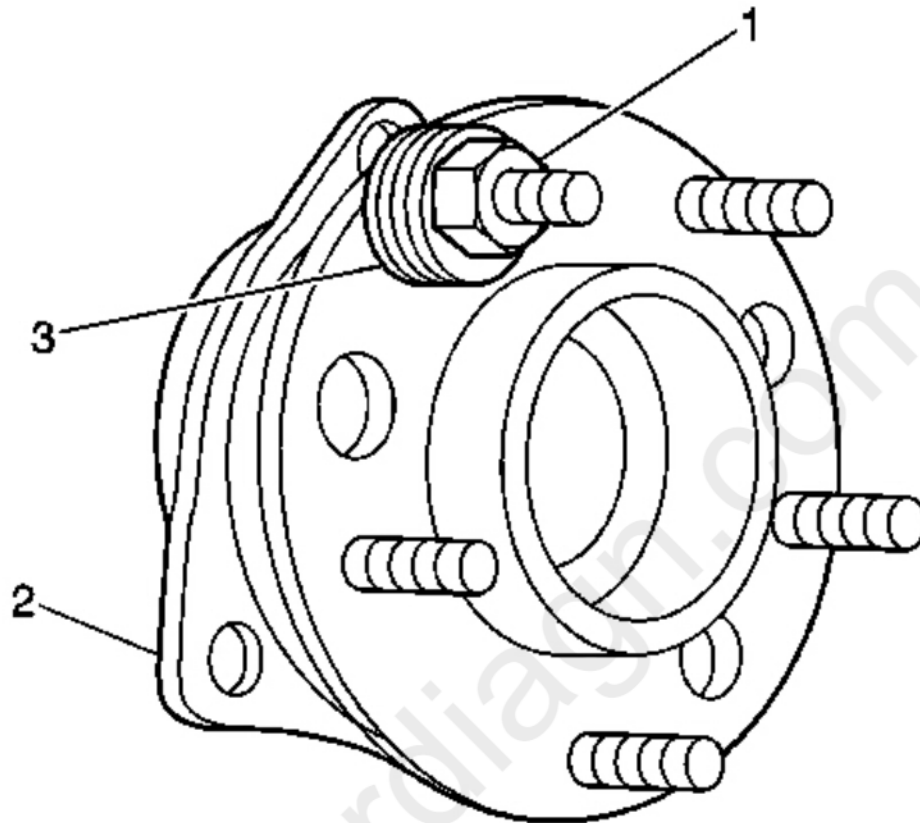


Fig. 14: View Of Wheel Stud, Nut & Washers
Courtesy of GENERAL MOTORS CORP.

1. Install the NEW wheel stud into the wheel bearing hub.
2. Add enough washers (3) in order to draw the stud into the hub.
3. Install the wheel nut (1) with the flat side against the washers.
4. Tighten the wheel nut (1) until the head of the wheel stud is fully seated against the back of the bearing hub flange.
5. Remove the wheel nut (1) and the washers (3).
6. Install the rear wheel bearing and hub. Refer to **Rear Wheel Bearing and Hub Replacement**.
7. Install the tire and wheel assembly. Refer to **Tire and Wheel Removal and Installation**.
8. Lower the vehicle.

DESCRIPTION AND OPERATION

REAR SUSPENSION DESCRIPTION AND OPERATION

The rear suspension system on this vehicle is of the independent link type. Rear suspension adjustment is achieved through adjustable toe links and lower control arms. The rear coil springs are retained between the body and the lower control arm. Rubber insulators isolate the coil spring at both top and bottom. The rear suspension consists of 2 shock absorbers attached to the knuckle and the reinforced body areas.

The rear suspension system performs the following functions:

- Maintains the relationship of the rear axle to the body
- Controls the torque reaction on acceleration and braking

The suspension system consists of the following components:

- Support assembly
- Coil springs and insulators
- Stabilizer shaft, insulators and stabilizer links
- Toe links
- Upper control arms
- Lower control arms
- Trailing arms
- Knuckles
- Wheel bearing/hub
- Shock absorbers

SPECIAL TOOLS AND EQUIPMENT

SPECIAL TOOLS

Illustration	Tool Number/Description
	CH-43631 CH-49455 J-43631 Ball Joint Remover

