2007 SUSPENSION

Suspension - Nitro

DIAGNOSIS AND TESTING

SUSPENSION AND STEERING SYSTEM

CONDITION	POSSIBLE CAUSES	CORRECTION
FRONT END NOISE	1. Loose or worn wheel bearings. 2. Loose or worn steering or suspension components.	1. Replace wheel bearings. 2. Tighten or replace components as necessary.
EXCESSIVE PLAY IN STEERING	1. Loose or worn wheel bearings. 2. Loose or worn steering or suspension components. 3. Loose or worn steering gear.	1. Replace wheel bearings. 2. Tighten or replace components as necessary. 3. Adjust or replace steering gear.
FRONT WHEELS SHIMMY	1. Loose or worn wheel bearings. 2. Loose or worn steering or suspension components. 3. Tires worn or out of balance. 4. Alignment.	1. Replace wheel bearings. 2. Tighten or replace components as necessary. 3. Replace or balance tires. 4. Align vehicle to specifications.
VEHICLE INSTABILITY	1. Loose or worn wheel bearings. 2. Loose or worn steering or suspension components. 3. Tire pressure. 4. Alignment.	1. Replace wheel bearings. 2. Tighten or replace components as necessary. 3. Adjust tire pressure. 4. Align vehicle to specifications.
EXCESSIVE STEERING EFFORT	1. Loose or worn steering gear. 2. Power steering fluid low. 3. Column coupler binding. 4. Tire pressure. 5. Alignment.	1. Adjust or replace steering gear. 2. Add fluid and repair leak. 3. Replace coupler. 4. Adjust tire pressure. 5. Align vehicle to specifications.
VEHICLE PULLS TO ONE SIDE DURING BRAKING	1. Uneven tire pressure. 2. Worn brake components. 3. Air in brake line.	1. Adjust tire pressure. 2. Repair brakes as necessary. 3. Repair as necessary.
VEHICLE LEADS OR DRIFTS FROM STRAIGHT AHEAD DIRECTION ON UNCROWNED ROAD	1. Radial tire lead. 2. Brakes dragging. 3. Weak or broken spring. 4. Uneven tire pressure. 5. Wheel Alignment. 6. Loose or worn steering or suspension components. 7. Cross caster out of spec.	1. Cross front tires. 2. Repair brake as necessary. 3. Replace spring. 4. Adjust tire pressure. 5. Align vehicle. 6. Repair as necessary. 7. Align vehicle.
KNOCKING, RATTLING	1. Worn shock bushings.	1. Replace shock.

OR SQUEAKING	2. Loose, worn or bent steering/suspension components. 3. Shock valve.	2. Inspect, tighten or replace components as necessary. 3. Replace shock.
IMPROPER TRACKING	Loose, worn or bent steering/suspension components. -	Inspect, tighten or replace components as necessary. -

WHEEL ALIGNMENT

DESCRIPTION

WHEEL ALIGNMENT

NOTE: Suspension components with rubber/urethane bushings should be tightened with the vehicle at normal ride height. It is important to have the springs supporting the weight of the vehicle when the fasteners are torqued. If springs are not at their normal ride position, vehicle ride comfort could be affected and premature bushing wear may occur.

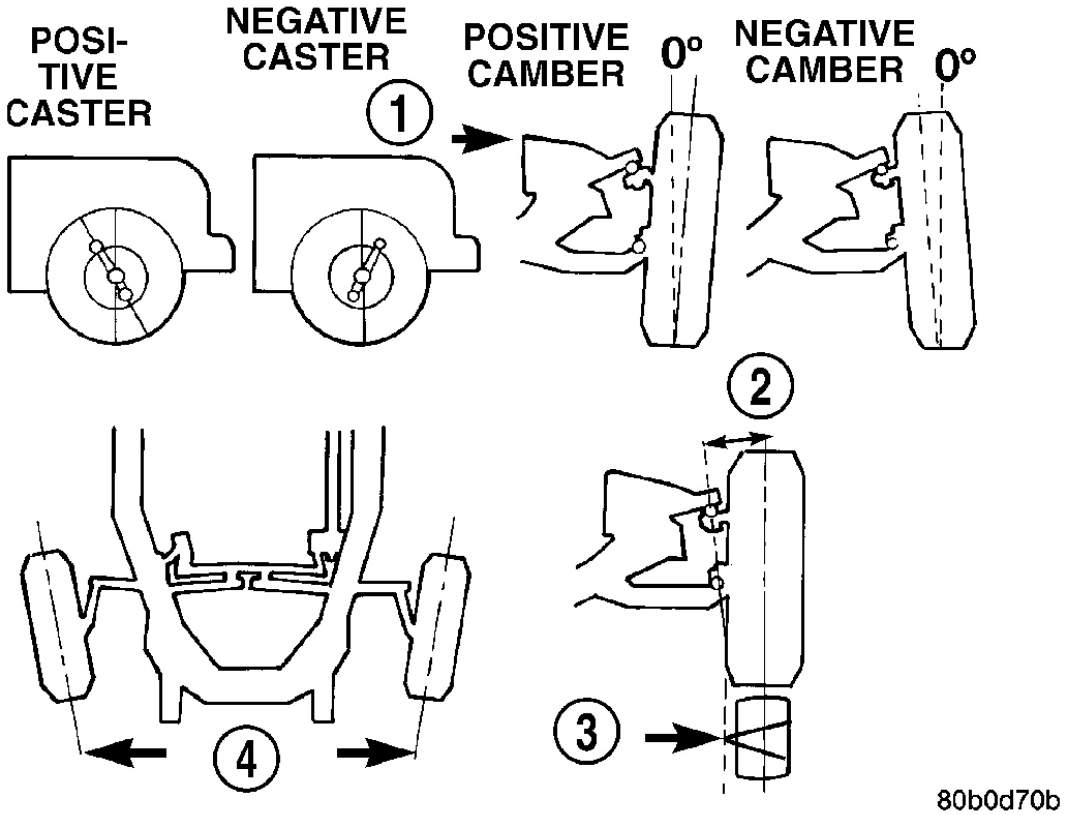
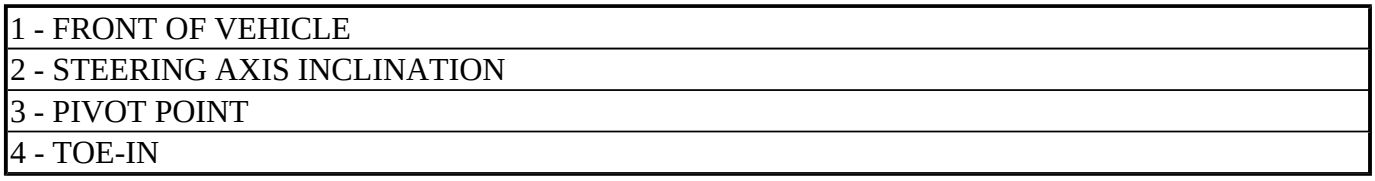


Fig. 1: Wheel Alignment Measurements - Caster, Camber, Toe & Thrust Angle
Courtesy of CHRYSLER LLC



1 - FRONT OF VEHICLE
2 - STEERING AXIS INCLINATION
3 - PIVOT POINT
4 - TOE-IN

Wheel alignment involves the correct positioning of the wheels in relation to the vehicle. The positioning is accomplished through suspension and steering linkage adjustments. An alignment is considered essential for efficient steering, good directional stability and to minimize tire wear. The most important measurements of an alignment are caster, camber and toe.

CAUTION: Never attempt to modify suspension or steering components by heating or bending.

NOTE: Periodic lubrication of the front suspension/steering system components may be required. Rubber bushings must never be lubricated. Refer to LUBRICATION & MAINTENANCE for the recommended maintenance schedule.

OPERATION

WHEEL ALIGNMENT

CASTER is the forward or rearward tilt of the steering knuckle from vertical. Tilting the top of the knuckle forward provides negative caster. Tilting the top of the knuckle rearward provides positive caster. Positive caster promotes directional stability. This angle enables the front wheels to return to a straight ahead position after turns. See **Fig. 1**

CAMBER is the inward or outward tilt of the wheel relative to the center of the vehicle. Tilting the top of the wheel inward provides negative camber. Tilting the top of the wheel outward provides positive camber. Incorrect camber will cause wear on the inside or outside edge of the tire. See **Fig. 1**

TOE is the difference between the leading inside edges and trailing inside edges of the front tires. Wheel toe position out of specification cause's unstable steering, uneven tire wear and steering wheel off- center. The wheel toe position is the **final** front wheel alignment adjustment. See **Fig. 1**

THRUST ANGLE is the angle of the rear axle relative to the centerline of the vehicle. Incorrect thrust angle can cause off-center steering and excessive tire wear. This angle is not adjustable, damaged component(s) must be replaced to correct the thrust angle. See **Fig. 1**

STANDARD PROCEDURE

HEIGHT MEASUREMENT

CURB HEIGHT

NOTE: The suspension is non-adjustable.

The vehicle suspension height should be measured before performing wheel alignment procedure. Also when front suspension components have been replaced. This measure must be performed with the vehicle supporting it's own weight and taken on both sides of the vehicle.

Front and rear curb heights are not adjustable. The spring selections at assembly determine curb height for acceptable appearance of the vehicle. Curb height dimensions assume full fluids (including fuel) and zero passengers. Refer to the table below for front curb height dimensions.

Vehicle curb height audits should be performed utilizing the following procedure:

1. Drive the vehicle straight and forward on a non-tacky surface for a minimum of 20 feet to neutralize track width.
2. Bounce the front of the vehicle five times.
3. Measure and record the dimensions

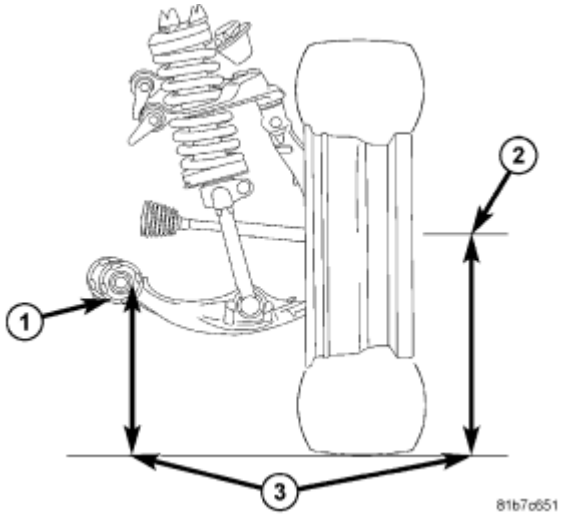


Fig. 2: Front Curb Height
Courtesy of CHRYSLER LLC

4. Front - On each side of the vehicle, measure the distance from the center of the front lower control arm bushing bolt (1) to the ground (3) **Record the measurement** . Next measure the distance from the spindle center (2) to the ground (3) **Record the measurement.**
5. Take the two measurements and subtract them to get the curb height specification.

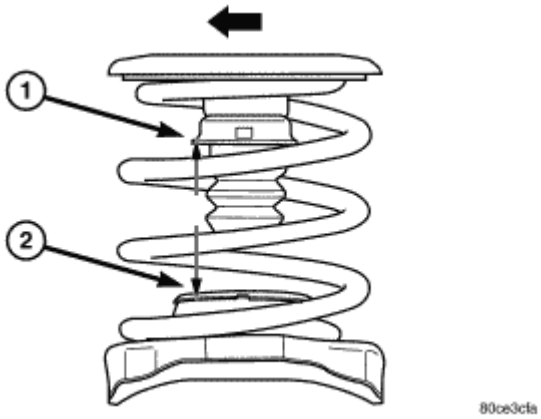


Fig. 3: Identifying Jounce Cup & Strike Surface
Courtesy of CHRYSLER LLC

REAR CURB HEIGHT

Rear curb height is defined by the relative vertical distance between the top of the lower spring seat strike surface and the bottom of the jounce cup (true metal to metal jounce travel). This is to be measured vertically inside the coil from the point intersecting the inboard edge and the for/aft center of the jounce cup (1) down to the strike surface (2).

CURB HEIGHT SPECIFICATIONS

MODEL	FRONT	FRONT CROSS HEIGHT	REAR	REAR CROSS (LEFT - RIGHT)
ALL	62 mm ± 10 mm 2.44 in. ± 0.39 in	0 mm ± 7mm 0 in. ± 0.27 in	107 mm ± 10 mm 4.21 in. ± 0.39 in.	0 mm ± 7mm 0 in. ± 0.27 in.

COMPLETE WHEEL ALIGNMENT

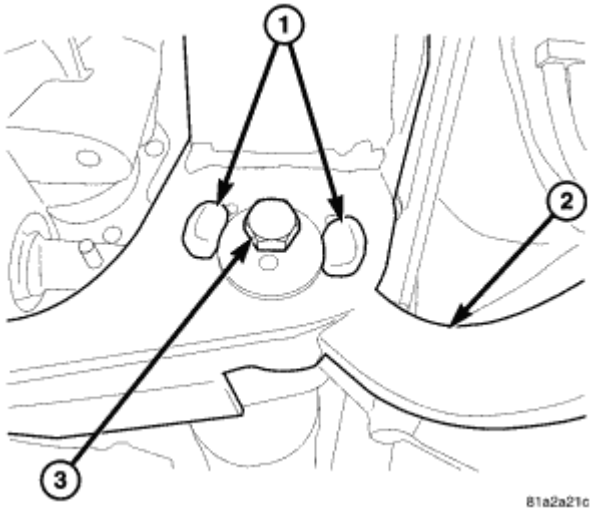


Fig. 4: Identifying Lower Control Arm, Control Arm Pivot Bolts & Rail Brackets
Courtesy of CHRYSLER LLC

Camber and caster angle adjustments involve changing the position of the lower suspension arm cam bolts (3).

CASTER

Moving the rear position of the cam bolt in or out, will change the caster angle significantly and camber angle only slightly. To maintain the camber angle while adjusting caster, move the rear cam bolt in or out. Then move the front cam bolt slightly in the opposite direction.

To increase positive caster angle, move the rear position cam bolt outward (from the engine). Move the front cam bolt inward (toward the engine) slightly until the specified camber angle is obtained.

CAMBER

Move the rear position cam bolt outward (from the engine). Move the forward position cam bolt inward (toward the engine).

After adjustment is made tighten the cam bolt nuts to proper torque specification.

TOE ADJUSTMENT

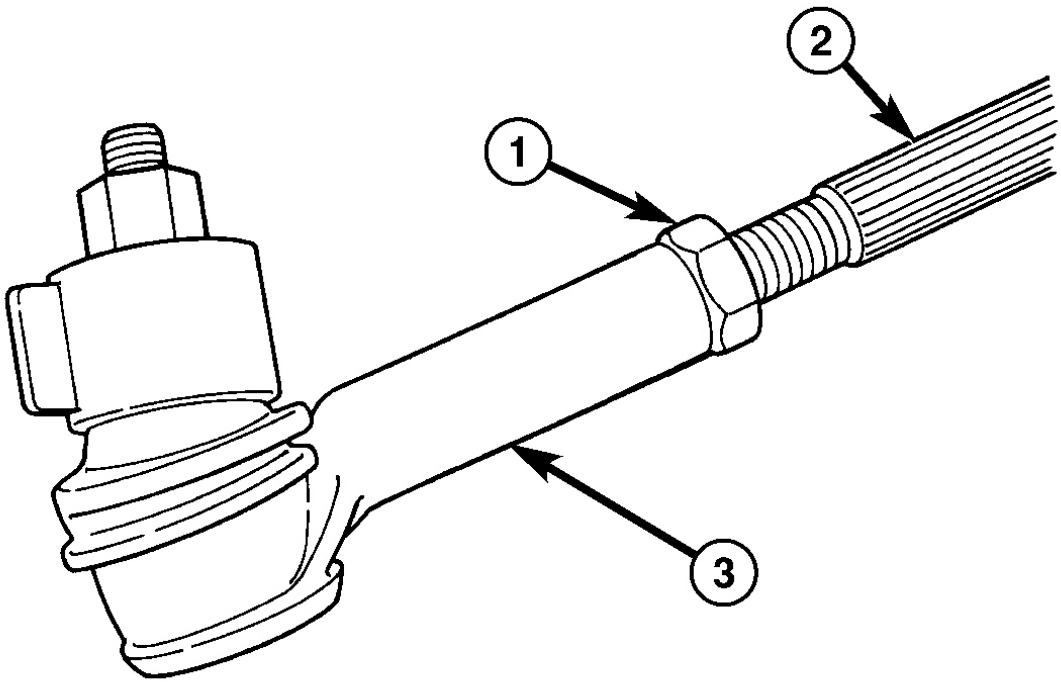


Fig. 5: Tie Rod End
Courtesy of CHRYSLER LLC

The wheel toe position adjustment is the final adjustment.

1. Start the engine and turn wheels both ways before straightening the wheels. Secure the steering wheel with the front wheels in the straight-ahead position.
2. Turn off engine.
3. Loosen the tie rod jam nuts (1).

NOTE: Each front wheel should be adjusted for one-half of the total toe position specification. This will ensure the steering wheel will be centered when the wheels are positioned straight-ahead.

4. Adjust the wheel toe position by turning the tie rod as necessary.
5. Tighten the tie rod jam nut (1) to 75 N.m (55 ft. lbs.).
6. Verify the specifications.

CAMBER AND CASTER ADJUSTMENT

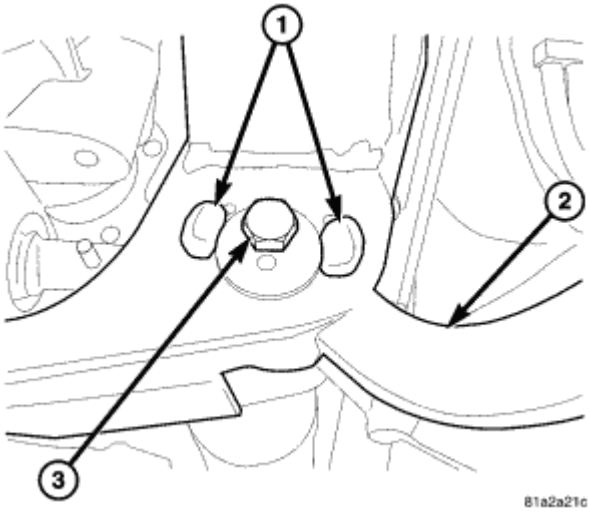


Fig. 6: Identifying Lower Control Arm, Control Arm Pivot Bolts & Rail Brackets
Courtesy of CHRYSLER LLC

Camber and caster angle adjustments involve changing the position of the lower control arm cam bolts (3).

TOE ADJUSTMENT

The wheel toe position adjustment is the final adjustment.

1. Start the engine and turn wheels both ways before straightening the wheels. Secure the steering wheel with the front wheels in the straight-ahead position.
2. Turn off the engine.

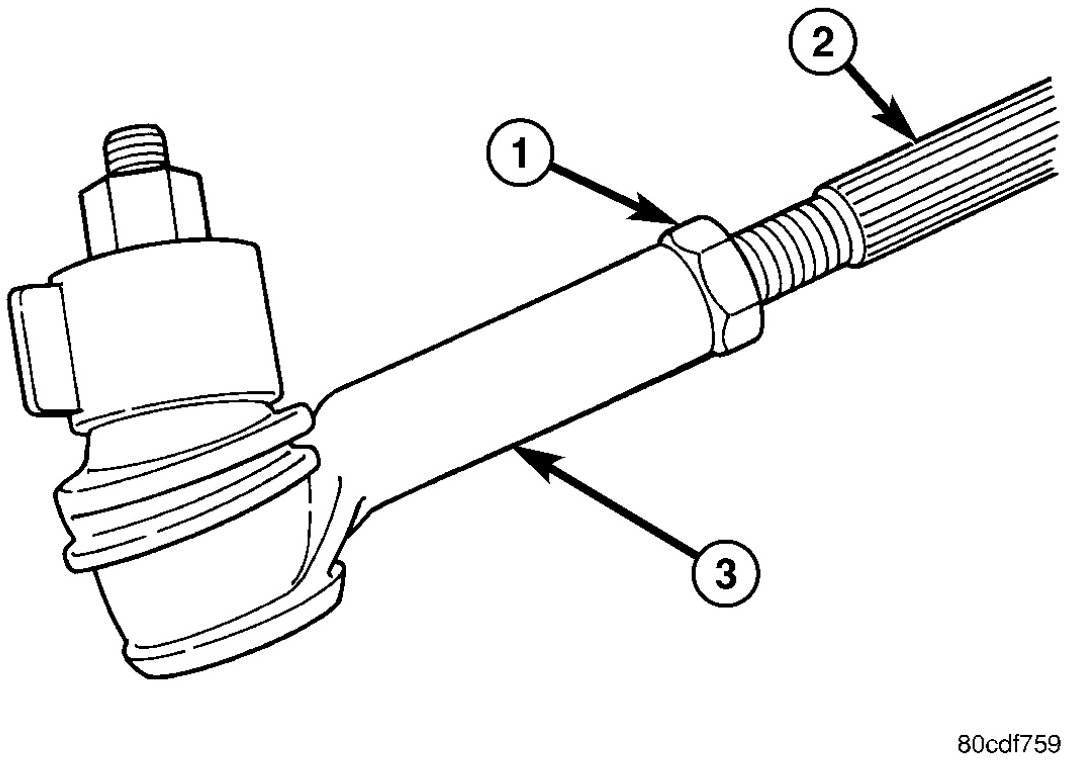


Fig. 7: Tie Rod End
Courtesy of CHRYSLER LLC

3. Loosen the tie rod jam nuts (1).

NOTE: Each front wheel should be adjusted for one-half of the total toe position specification. This will ensure the steering wheel will be centered when the wheels are positioned straight-ahead.

4. Adjust the wheel toe position by turning the tie rod as necessary. See **Fig. 7**.
5. Tighten the tie rod jam nut (1) to 75 N.m (55 ft. lbs.).
6. Verify the specifications.

SPECIFICATIONS

ALIGNMENT

NOTE: Specifications are in degrees.

FRONT

DESCRIPTION	SPECIFICATION		
PREFERRED	CASTER 3.3° ± 0.5°	CAMBER -0.375° ± 0.375°	TOTAL TOE-IN 0.2° ± 0.125°
RANGE	2.8° to 3.8°	-0.750° to 0°	+0.075° to +0.325°
MAX RT/LT DIFFERENCE	0.5°	0.7°	0.13°

REAR

DESCRIPTION	SPECIFICATION		
PREFERRED	CAMBER -0.25° ± 0.375°	THRUST ANGLE 0° to ± 0.25°	TOTAL TOE-IN 0.25° to ± 0.41°
RANGE	-0.625° to +0.125°	-0.25° to +0.25°	-0.16° to +0.66°

FRONT

DESCRIPTION

FRONT SUSPENSION

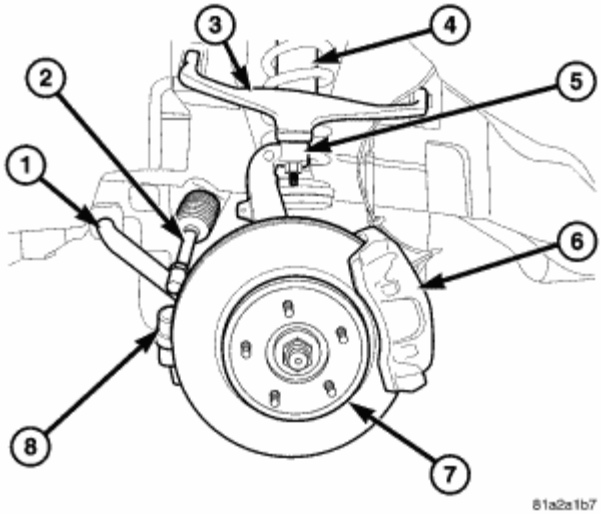


Fig. 8: Front Suspension
Courtesy of CHRYSLER LLC

NOTE: Suspension components with rubber/urethane bushings should be tightened with the full weight of the vehicle at normal ride height. It is important to have the springs supporting the full weight of the vehicle when the fasteners are torqued. If springs are not at their normal ride position, vehicle ride comfort could be affected and premature bushing wear may occur.

The front suspension is designed to allow each wheel to adapt to different road surfaces independently. The wheels are mounted to hub bearings on the steering knuckle spindles (5). The hub bearings are sealed and

lubricated for life. The steering knuckles turn (pivot) on ball joints integral to the outboard portion of the upper control arms (3) and pressed into the lower control arm. The ball joints and outer tie rods are lubricated for life.

WARNING

REAR SUSPENSION

WARNING: Suspension components with rubber bushings must be tightened with the vehicle at normal ride height. It is important to have the springs supporting the weight of the vehicle when the fasteners are torqued. If springs are not at their normal ride position, vehicle ride comfort will be affected and cause premature bushing wear.

NOTE: Never use anything other than the specified tool to disassemble the ball joints & tie rods from the steering knuckle. Ball joint seal or knuckle damage can result.

SPECIFICATIONS

TORQUE CHART

DESCRIPTION	N.m	Ft. Lbs.	In. Lbs.
Front Shock Absorber Clevis Bracket Upper Nut	108	80	-
Front Shock Absorber Clevis Bracket Lower Nut	150	110	-
Front Shock Absorber Top (4) Mounting Nuts	108	80	-
Front Shock to Spring and Insulator Nut	41	30	-
Upper Suspension Arm Front Nut	122	90	-
Upper Suspension Arm Rear Nut	122	90	-
Lower Suspension Arm Front Nut	170	125	-
Lower Suspension Arm Rear Nut	170	125	-
Stabilizer Bar Clamp Nut	149	110	-
Stabilizer Bar Link Upper Nut	115	85	-
Stabilizer Bar Link Lower bolt	102	75	-
Hub/Bearing Bolt	130	96	-

Hub/Bearing Halfshaft Nut	136	100	-
Upper Ball Joint Nut Tighten to 41 N.m (30 ft lbs), make sure nut is seated to the knuckle. Rotate nut to an additional 90°	41 plus Rotate nut to an additional 90°	30 plus Rotate nut to an additional 90°	-
Lower Ball Joint Nut Tighten to 54 N.m (40 ft lbs), make sure nut is seated against knuckle. Rotate nut an additional 90°	54 plus Rotate nut an additional 90°	40 plus Rotate nut an additional 90°	-
Outer Tie Rod End Nut to Knuckle	41 plus Rotate nut an additional 90°	30 plus Rotate nut an additional 90°	-
Wheel Speed Sensor	13.5	10	-

SPECIAL TOOLS

FRONT SUSPENSION

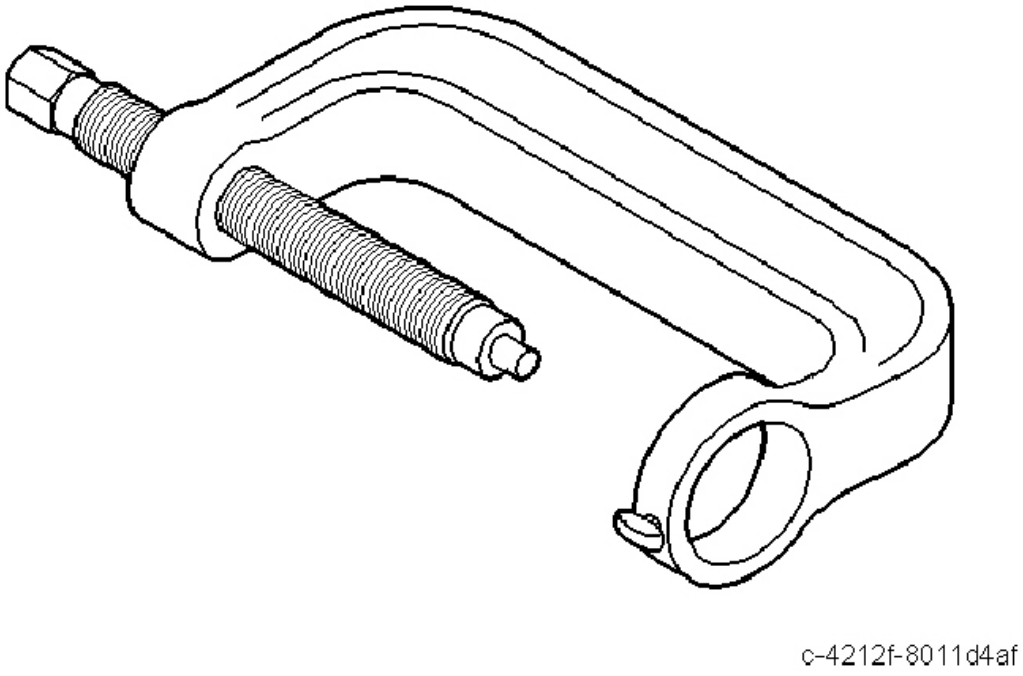


Fig. 9: Ball Joint Press - C-4212F
Courtesy of CHRYSLER LLC

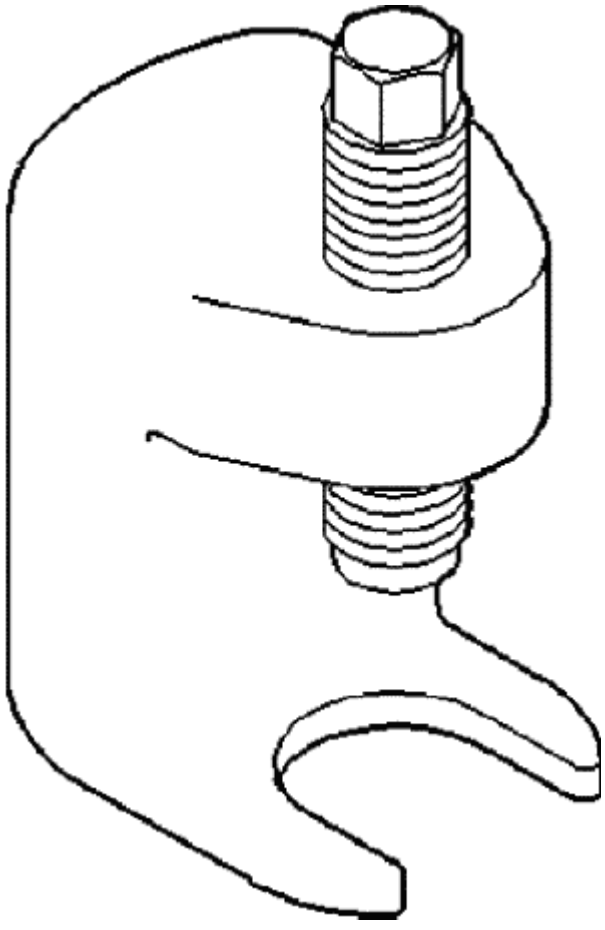


Fig. 10: Remover C-4150A
Courtesy of CHRYSLER LLC

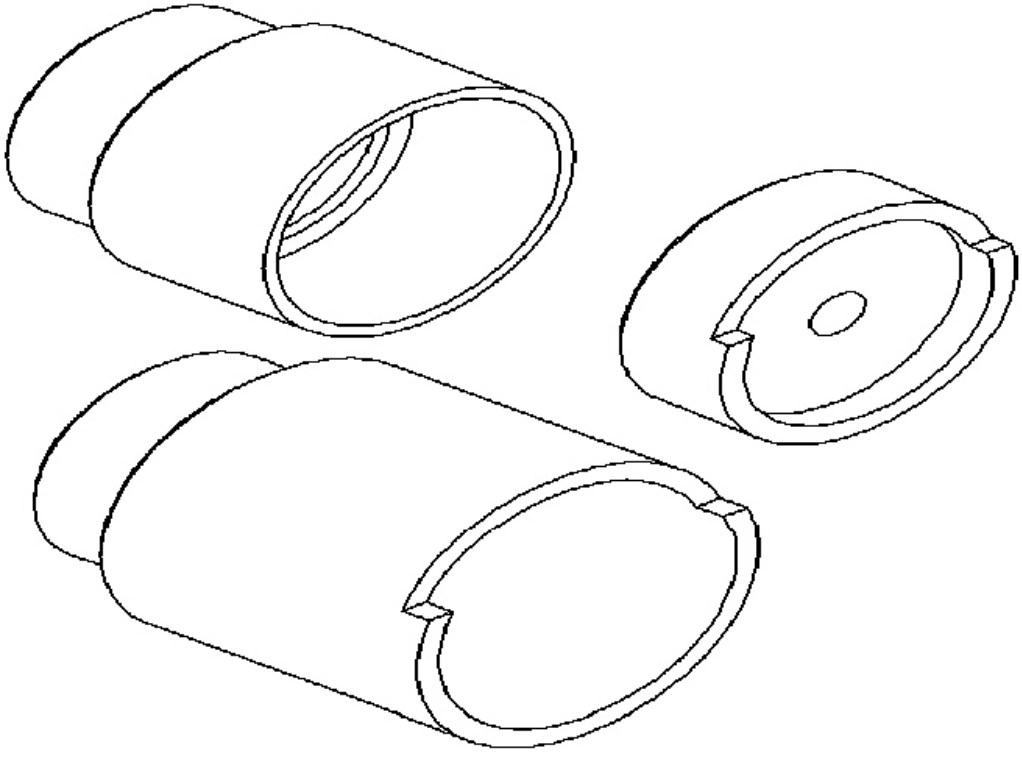


Fig. 11: Ball Joint - 9654
Courtesy of CHRYSLER LLC

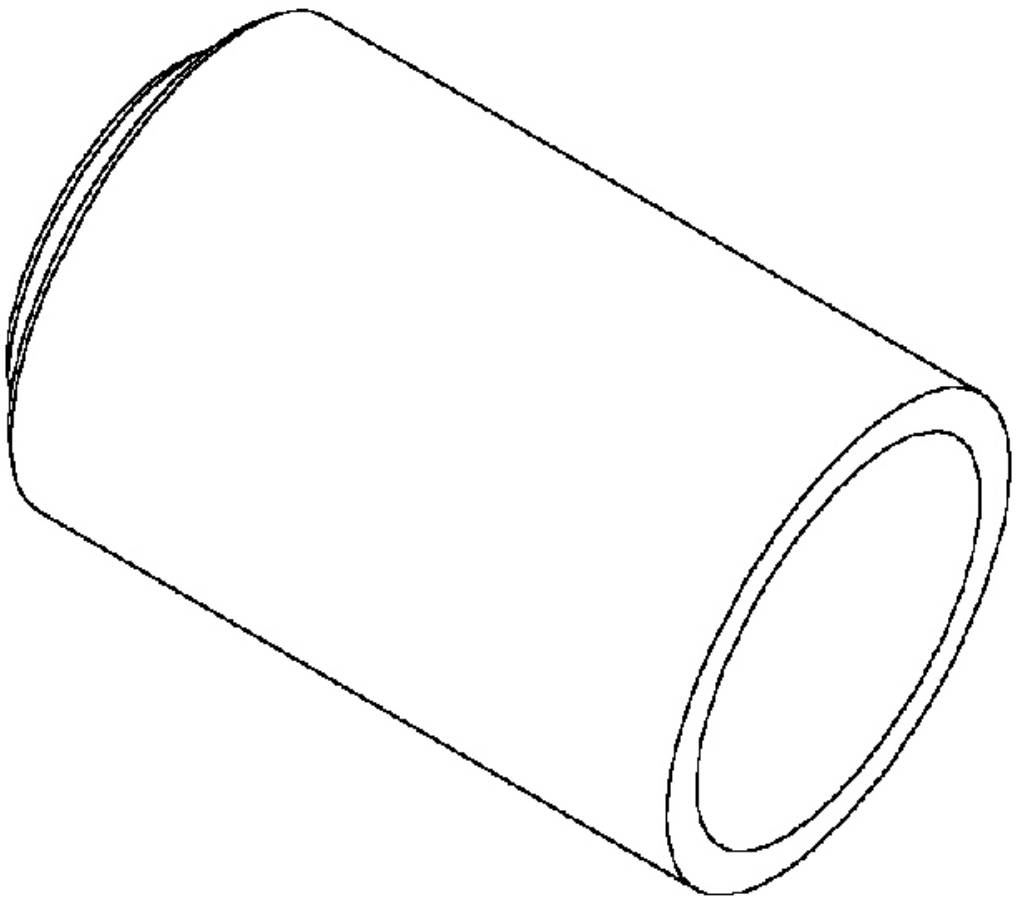


Fig. 12: Receiver Cup - 6761
Courtesy of CHRYSLER LLC

Fig. 13: Clevis Bushing - 9956
Courtesy of CHRYSLER LLC

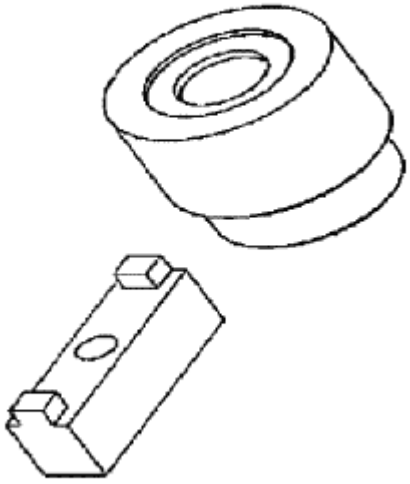


Fig. 14: Clevis Bushing - 9957

Courtesy of CHRYSLER LLC

Fig. 15: LCA Bushing - 9334
Courtesy of CHRYSLER LLC

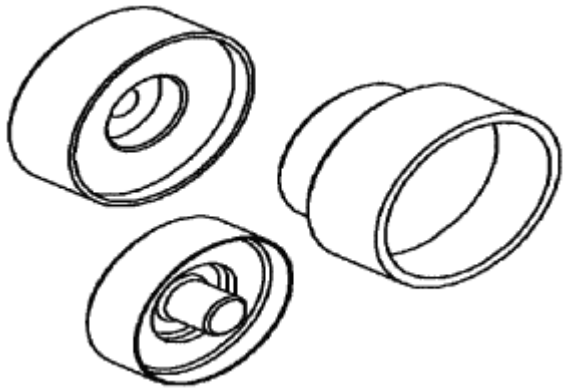


Fig. 16: LCA Bushing - 9603
Courtesy of CHRYSLER LLC

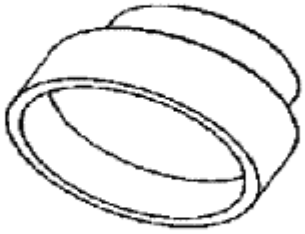


Fig. 17: LCA Bushing - 9969
Courtesy of CHRYSLER LLC

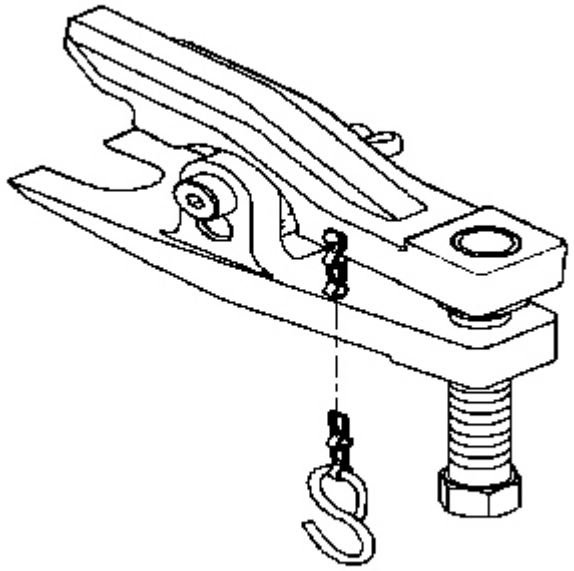


Fig. 18: Remover, Ball Stud 9360
Courtesy of CHRYSLER LLC

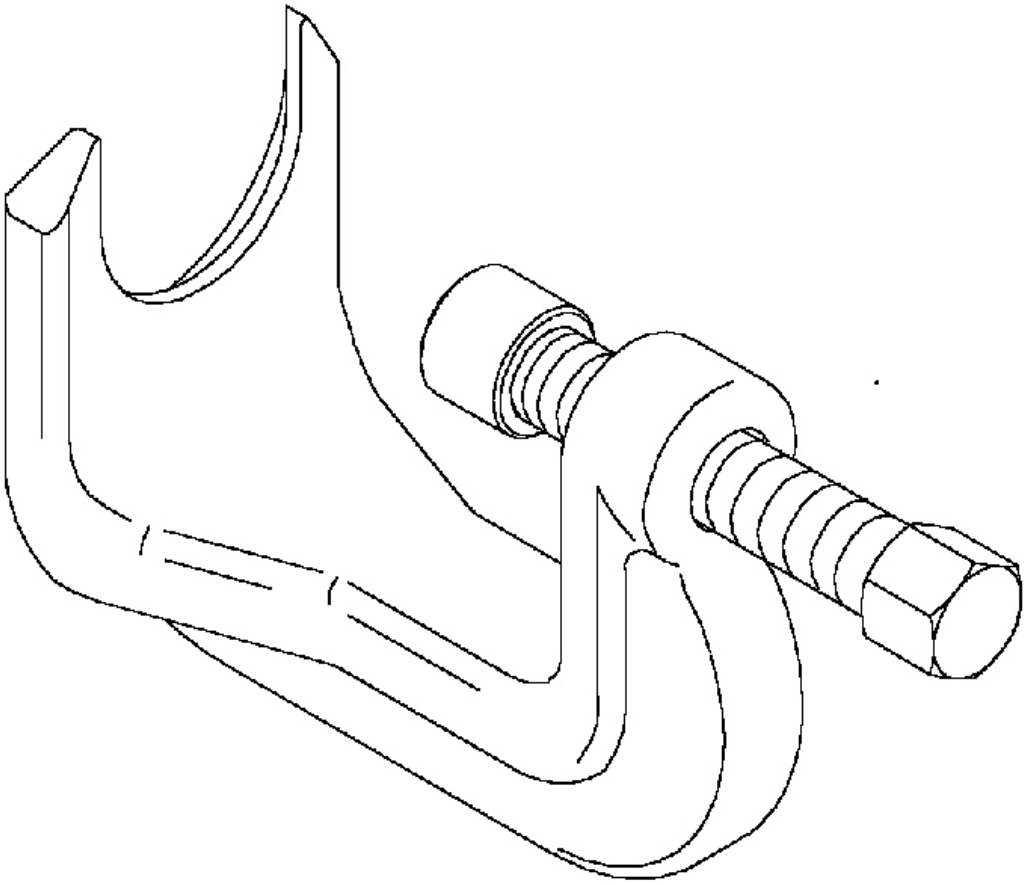


Fig. 19: Puller - 8677
Courtesy of CHRYSLER LLC

BUSHINGS

REMOVAL

BUSHINGS-CLEVIS BRACKET

1. Remove the tire and wheel assembly.
2. Remove the disc brake rotor. Refer to **REMOVAL** .
3. Remove the wheel speed sensor. Refer to **REMOVAL** .
4. Remove the lower stabilizer link at the lower control arm.
5. Remove the lower clevis bolt at the control arm.

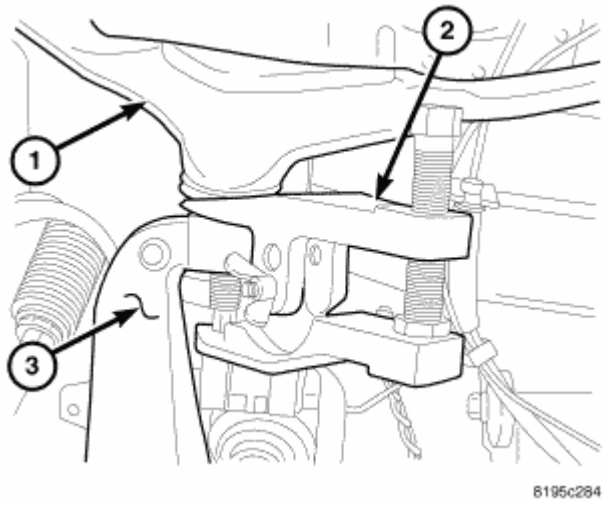


Fig. 20: Upper Ball Joint Separation
Courtesy of CHRYSLER LLC

6. Remove the upper ball joint nut.
7. Separate the upper ball joint from the knuckle using special tool 9360 separator (2).
8. Lower the control arm enough to install the press tool.

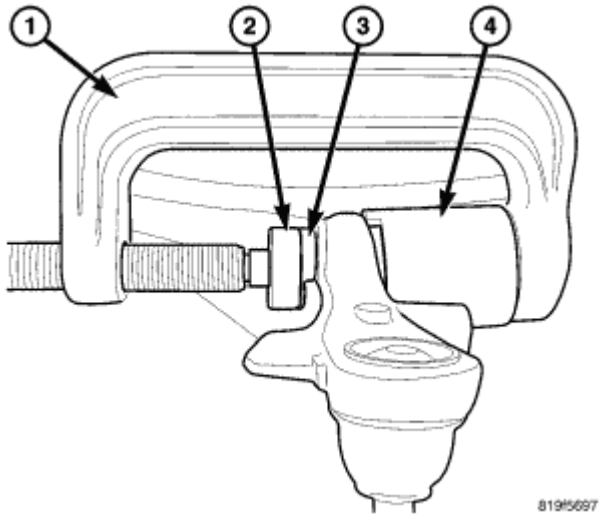


Fig. 21: Clevis Bushing Removal
Courtesy of CHRYSLER LLC

NOTE: Extreme pressure lubrication must be used on the threaded portions of the tool. This will increase the longevity of the tool and insure proper operation during the removal and installation process.

9. Press the bushing (3) out using special tools C-4212F (Press) (1), 9956 (receiver) (4) and 9653-1 (driver) (2).

BUSHINGS-LOWER CONTROL ARM

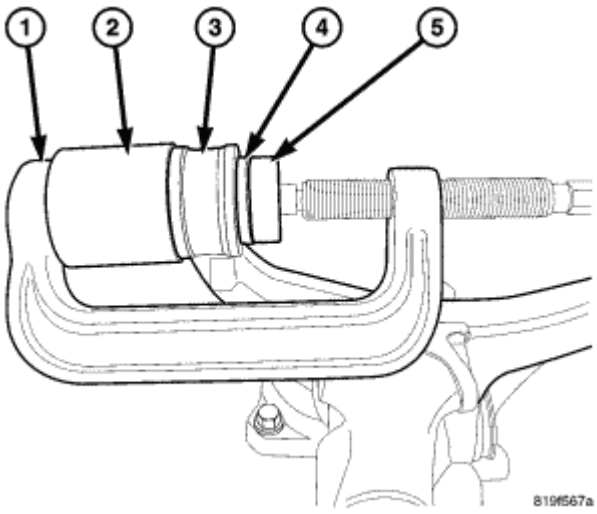


Fig. 22: LCA Bushing Removal
Courtesy of CHRYSLER LLC

1. Remove the lower control arm. See **REMOVAL**.
2. Secure the control arm in a vise.

NOTE: Extreme pressure lubrication must be used on the threaded portions of the tool. This will increase the longevity of the tool and insure proper operation during the removal and installation process.

3. Press the bushing (4) out using special tools C-4212F (Press) (1), 9334-5 (Receiver) (2) and 9603-3 (Driver) (5).

BUSHINGS-STABILIZER BAR

1. Raise vehicle on hoist.
2. Remove the stabilizer bushing clamps.
3. Remove the stabilizer bushings from the stabilizer bar.

INSTALLATION

BUSHINGS-LOWER CONTROL ARM

NOTE: Suspension components with rubber/urethane bushings should be tightened with the full weight of the vehicle at normal ride height. It is important to have the springs supporting the full weight of the vehicle when the fasteners are torqued. If springs are not at their normal ride position, vehicle ride comfort could be affected and premature bushing wear may occur.

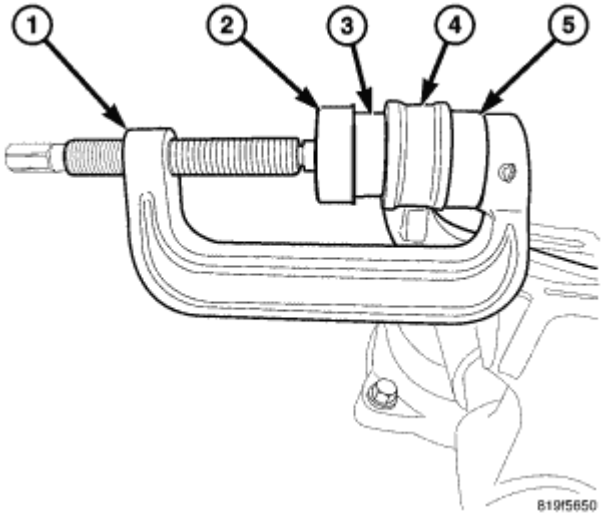


Fig. 23: LCA Bushing Install
Courtesy of CHRYSLER LLC

NOTE: Extreme pressure lubrication must be used on the threaded portions of the tool. This will increase the longevity of the tool and insure proper operation during the removal and installation process.

1. Install the new lower control arm bushings (3) into the lower control arm (4) using tools C-4212F (Press) (1), 9603-1 (driver) (2) and 9969-1 (receiver) (5) making sure the receiver cup is properly centered for the bushing to be pressed in to the proper depth.
2. Remove the control arm from the vise.
3. Install the lower control arm. See **INSTALLATION**.
4. Perform a wheel alignment. See **STANDARD PROCEDURE**.

BUSHINGS-STABILIZER BAR

NOTE: Suspension components with rubber/urethane bushings should be tightened with the full weight of the vehicle at normal ride height. It is important to have the springs supporting the full weight of the vehicle when the fasteners are torqued. If springs are not at their normal ride position, vehicle ride comfort could be affected and premature bushing wear may occur.

1. Install the stabilizer bushings to the stabilizer bar.
2. Install the stabilizer bushing clamps. Tighten the nuts to 149 N.m (110 ft.lbs.).
3. Lower the vehicle.

BUSHINGS-CLEVIS BRACKET

NOTE: Suspension components with rubber/urethane bushings should be tightened with the full weight of the vehicle at normal ride height. It is important to have

the springs supporting the full weight of the vehicle when the fasteners are torqued. If springs are not at their normal ride position, vehicle ride comfort could be affected and premature bushing wear may occur.

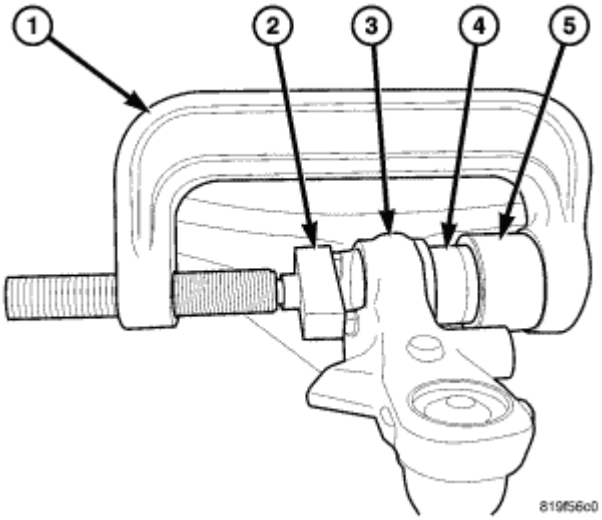


Fig. 24: Clevis Bushing Install
Courtesy of CHRYSLER LLC

NOTE: Extreme pressure lubrication must be used on the threaded portions of the tool. This will increase the longevity of the tool and insure proper operation during the removal and installation process.

1. Install the new clevis bracket bushing (4) into the lower control arm (3) using special tools C-4212F (Press) (1), 9957-2 (Depth Gauge) (2), 9957-1 (driver) (5).
2. Install the upper ball joint to the knuckle and tighten the nut to 41 N.m (30 ft.lbs.) plus an additional 90° turn.
3. Install the clevis bolt to the lower control arm and tighten the bolt to 150 N.m (110 ft.lbs.).
4. Install the stabilizer link lower bolt to the control arm and tighten the bolt to 102 N.m (75 ft.lbs.).
5. Install the wheel speed sensor. Refer to **INSTALLATION** .
6. Install the disc brake rotor. Refer to **INSTALLATION** .
7. Install the tire and wheel assembly. Refer to **STANDARD PROCEDURE** .
8. Lower the vehicle.

HUB/BEARING

REMOVAL

HUB/BEARING

1. Raise and support the vehicle.
2. Remove the tire and wheel assembly.

3. Remove the caliper adapter. Refer to **REMOVAL** .

CAUTION: Never allow the disc brake caliper to hang from the brake hose. Damage to the brake hose will result. Provide a suitable support to hang the caliper securely.

4. Remove the disc brake rotor. Refer to **REMOVAL** .
5. Remove the wheel speed sensor. Refer to **REMOVAL** .

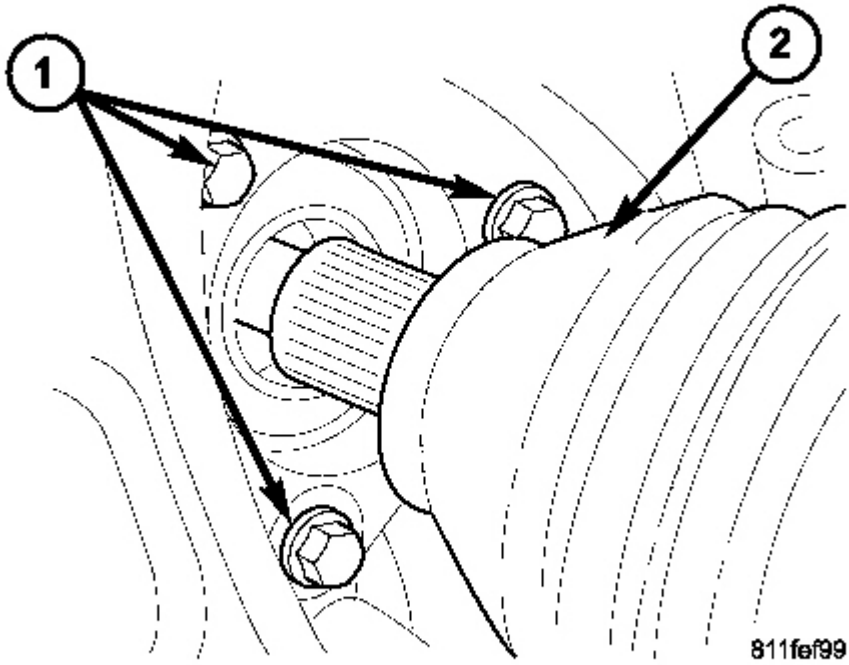


Fig. 25: View Of Hub/Bearing Mounting Bolts
Courtesy of CHRYSLER LLC

6. Remove the axle shaft nut (if equipped with four wheel drive)
7. Remove the three mounting bolts (1) for the hub/bearing assembly.
8. Remove the hub/bearing.

INSTALLATION

HUB/BEARING

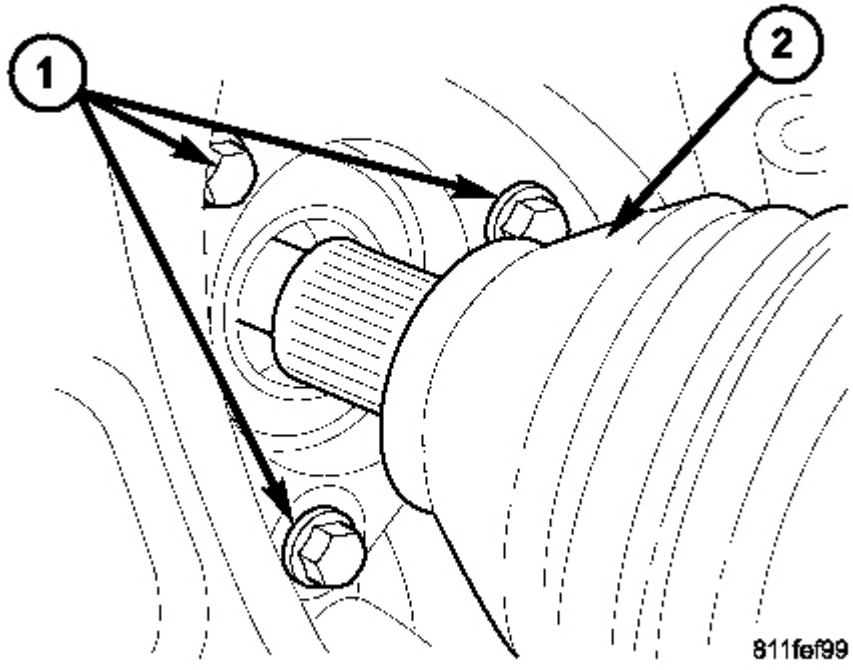


Fig. 26: View Of Hub/Bearing Mounting Bolts
Courtesy of CHRYSLER LLC

1. Install the hub/bearing assembly to the vehicle.
2. Install the three mounting bolts (1) for the hub/bearing. Tighten the bolt to 130 N.m (96 ft.lbs.).
3. Install the axle shaft nut. Tighten the nut to 135 N.m (100 ft.lbs.) (if equipped with four wheel drive)
4. Install the wheel speed sensor to the hub. Tighten the bolt to 13.5 N.m (10 ft.lbs.). Refer to **INSTALLATION** .
5. Install the disc brake rotor. Refer to **INSTALLATION** .
6. Install the disc brake caliper adapter. Tighten the nut to 135 N.m (100 ft.lbs.). Refer to **INSTALLATION** .
7. Install the tire and wheel assembly. Refer to **STANDARD PROCEDURE** .

KNUCKLE

REMOVAL

KNUCKLE

1. Raise and support the vehicle.
2. Remove the tire and wheel assembly.
3. Remove the caliper adapter. Refer to **REMOVAL** .

CAUTION: Never allow the disc brake caliper to hang from the brake hose. Damage to the brake hose will result. Provide a suitable support to hang the caliper securely.

4. Remove the disc brake rotor. Refer to **REMOVAL** .
5. Remove the wheel speed sensor. Refer to **REMOVAL** .
6. Remove the axle shaft nut (if equipped with four wheel drive)

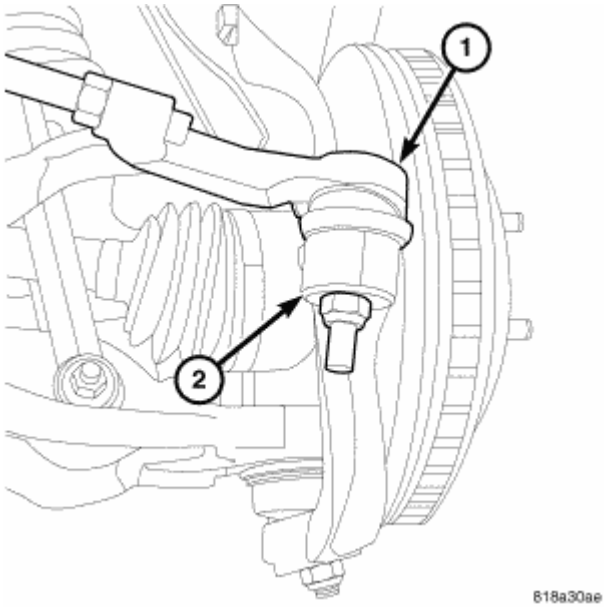


Fig. 27: Identifying Outer Tie Rod End & Nut
Courtesy of CHRYSLER LLC

7. Remove the outer tie rod nut (2).

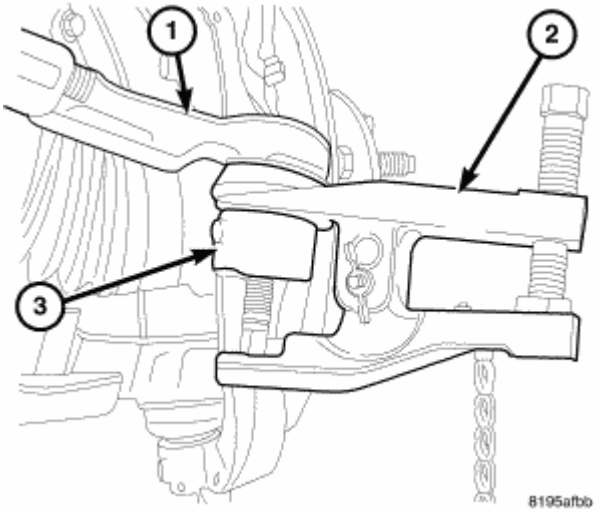


Fig. 28: Identifying Tie Rod, Steering Knuckle & Special Tool 9360
Courtesy of CHRYSLER LLC

8. Separate the outer tie rod end (1) from the steering knuckle (3) using tool 9360 (2). Refer to **REMOVAL** .

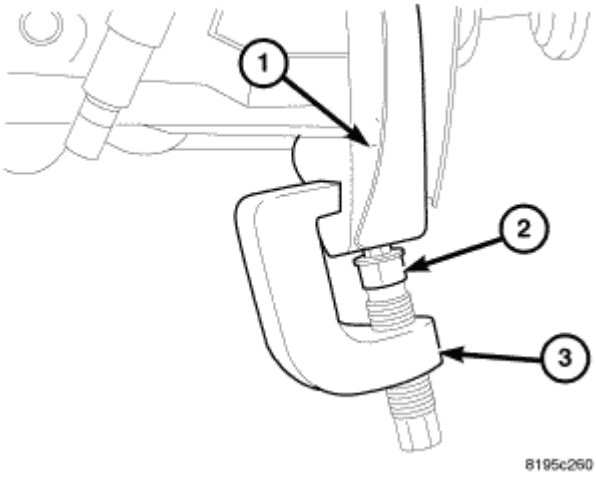


Fig. 29: LOWER BALL JOINT SEPARATION
Courtesy of CHRYSLER LLC

9. Remove the lower ball joint nut.
10. Separate the lower ball joint from the suspension arm using tool C-4150A (3).

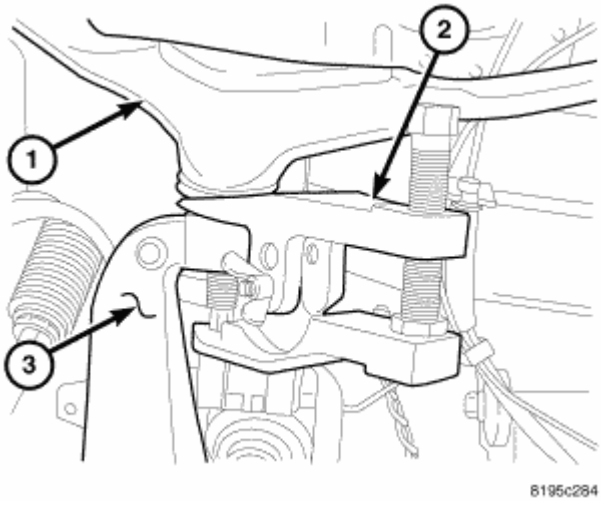


Fig. 30: Upper Ball Joint Separation
Courtesy of CHRYSLER LLC

11. Remove the upper ball joint nut.
12. Separate the upper ball joint from the knuckle using tool 9360 (2).

NOTE: Inspect the seal side surface of the upper ball joint, lower ball joint & outer tie rod knuckle bosses. If any significant grooves or gouges are present (or heavily scratched) Replace the steering knuckle.

13. Remove the knuckle (3) from the vehicle.
14. Remove the hub/bearing (if needed). See **REMOVAL**.

INSTALLATION

KNUCKLE

CAUTION: The ball joint stud taper must be CLEAN and DRY before installing into the knuckle. Clean the stud taper with mineral spirits to remove dirt and grease.

1. Install the hub/bearing (if removed from the knuckle). See **INSTALLATION**.
2. Install the knuckle to the vehicle.
3. Install the upper ball joint nut. Tighten the nut to 41 N.m (30 ft.lbs.) plus an additional 90° turn.
4. Install the lower ball joint nut. Tighten the nut to 54 N.m (40 ft.lbs.) plus an additional 90° turn.

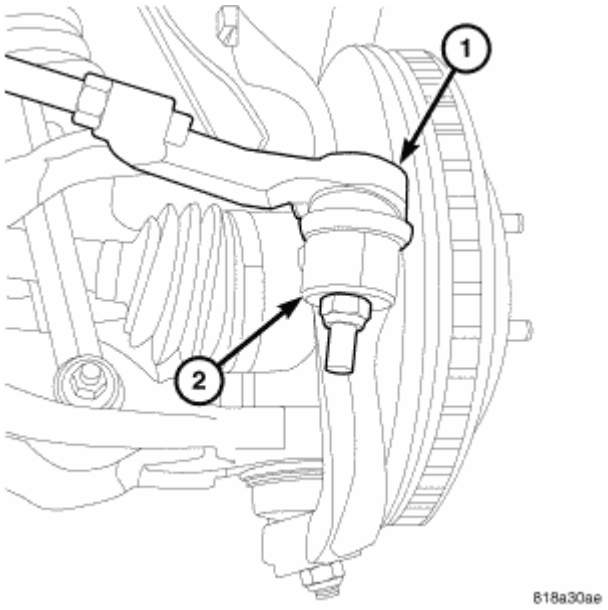


Fig. 31: Identifying Outer Tie Rod End & Nut
Courtesy of CHRYSLER LLC

5. Install the outer tie rod end (1) to the steering knuckle and install the nut (2). Tighten the nut (2) to 41 N.m (30 ft.lbs.) plus an additional 90° turn. Refer to **INSTALLATION** .
6. Install the axle shaft nut. Tighten the nut to 136 N.m (100 ft.lbs.) (if equipped with four wheel drive).
7. Install the wheel speed sensor. Refer to **INSTALLATION** .
8. Install the disc brake rotor. Refer to **INSTALLATION** .
9. Install the caliper adapter. Refer to **INSTALLATION** .
10. Install the tire and wheel assembly. Refer to **STANDARD PROCEDURE** .
11. Perform a wheel alignment. See **STANDARD PROCEDURE**.

LOWER BALL JOINT

DIAGNOSIS AND TESTING

LOWER BALL JOINT

1. Raise the front of the vehicle. Place safety floor stands under both lower control arms as far outboard as possible. Lower the vehicle to allow the stands to support some or all of the vehicle weight.
2. Mount a dial indicator solidly to the topside of the lower control arm and then zero the dial indicator.
3. Position the indicator plunger against the bottom surface of the steering knuckle.

NOTE: The dial indicator plunger must be perpendicular to the machined surface of the steering knuckle.

4. Position a pry bar under the tire assembly. Pry upwards on the tire assembly.
5. If the travel exceeds 0.5 mm (0.020 in.), replace the lower ball joint. See **REMOVAL**.

REMOVAL

LOWER BALL JOINT

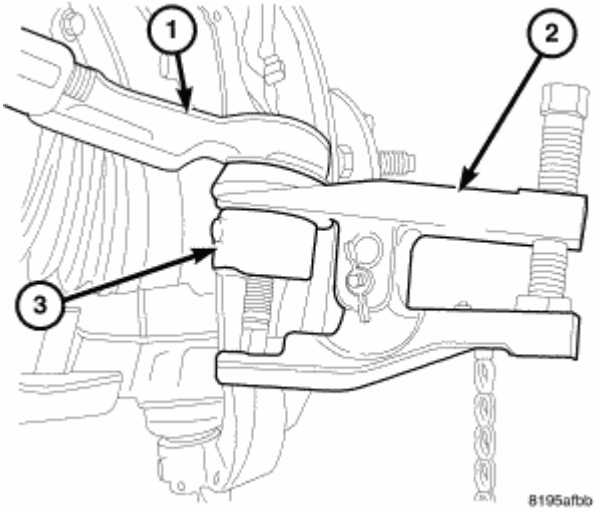


Fig. 32: Identifying Tie Rod, Steering Knuckle & Special Tool 9360
Courtesy of CHRYSLER LLC

1. Remove the tire and wheel assembly.
2. Remove the brake caliper and rotor. Refer to **REMOVAL** .
3. Separate the tie rod (1) from the steering knuckle (3) using special tool 9360 (2). Refer to **REMOVAL** .

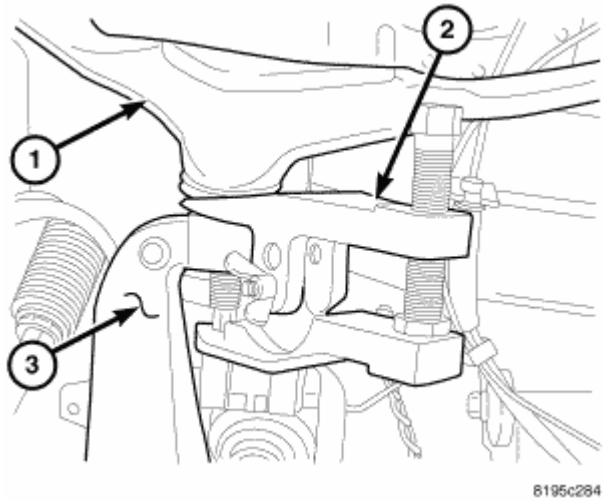


Fig. 33: Upper Ball Joint Separation
Courtesy of CHRYSLER LLC

4. Separate the upper ball joint from the knuckle (3) using special tool 9360 (2).

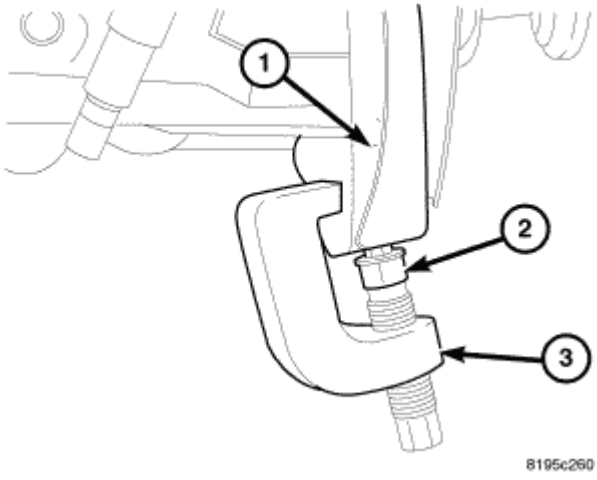


Fig. 34: LOWER BALL JOINT SEPARATION
Courtesy of CHRYSLER LLC

5. Separate the lower ball joint (2) from the steering knuckle (1) using special tool 8677 (3).
6. Remove the steering knuckle. See **REMOVAL**.

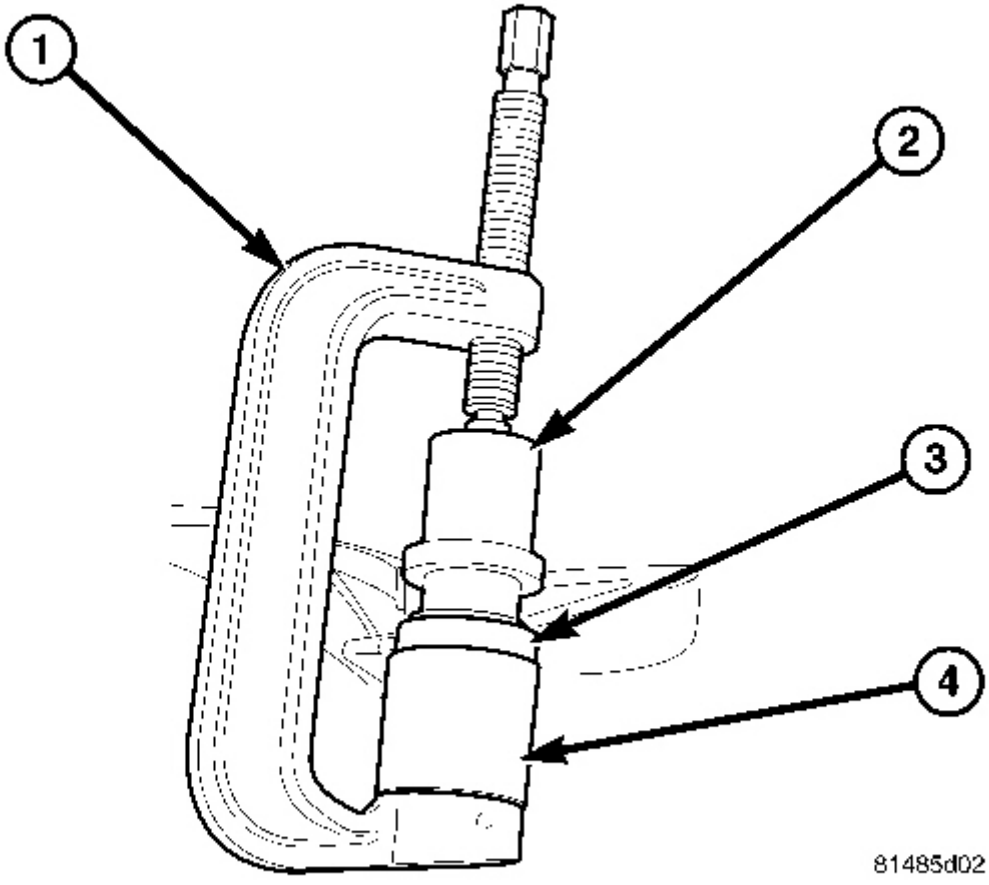


Fig. 35: Removing Lower Ball Joint
Courtesy of CHRYSLER LLC

NOTE: Extreme pressure lubrication must be used on the threaded portions of the tool. This will increase the longevity of the tool and insure proper operation during the removal and installation process.

7. Press the ball joint from the lower control arm (3) using special tools C-4212-F (PRESS) (1), C-4212-3 (Driver) (2) and 9654-3 (Receiver) (4).

INSTALLATION

LOWER BALL JOINT

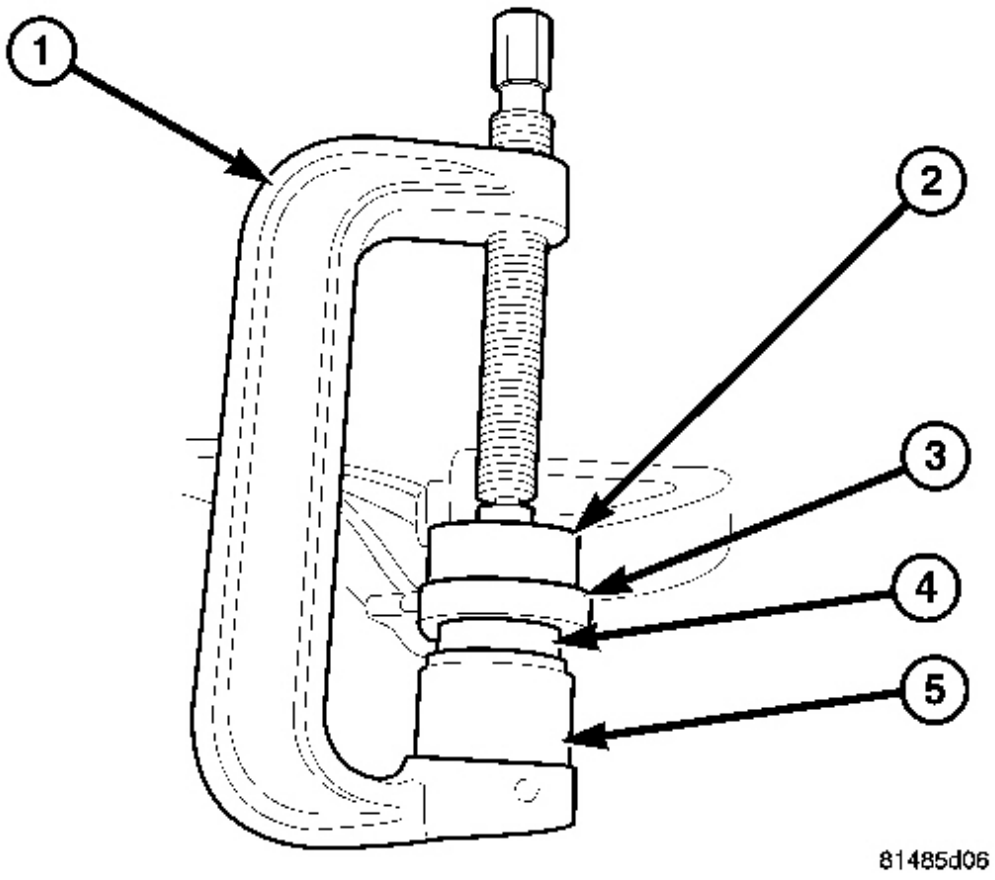


Fig. 36: Installing Lower Ball Joint
Courtesy of CHRYSLER LLC

1 - C-4212-F PRESS
2 - 9654-2 RECEIVER
3 - LOWER CONTROL ARM
4 - BALL JOINT
5 - 9654-1 DRIVER

NOTE: Extreme pressure lubrication must be used on the threaded portions of the tool. This will increase the longevity of the tool and insure proper operation during the removal and installation process.

1. Install the ball joint (4) into the control arm (3) and press in using special tools C-4212-F (press) (1),

9654-1 (Driver) (5) and 9654-2 (Receiver) (2).

2. Stake the ball joint flange in four evenly spaced places around the ball joint flange, using a chisel and hammer.
3. Install the steering knuckle. See **INSTALLATION**.
4. Install the tie rod end into the steering knuckle. Refer to **INSTALLATION** .
5. Install and tighten the halfshaft nut to 136 N.m (100 ft. lbs.). (If Equipped).
6. Install the brake caliper and rotor. Refer to **INSTALLATION** .
7. Install the tire and wheel assembly. Refer to **STANDARD PROCEDURE** .
8. Check the vehicle ride height. See **STANDARD PROCEDURE**.
9. Perform a wheel alignment. See **STANDARD PROCEDURE**.

LOWER CONTROL ARM

REMOVAL

LOWER CONTROL ARM

1. Raise and support the vehicle.
2. Remove the wheel and tire assembly.

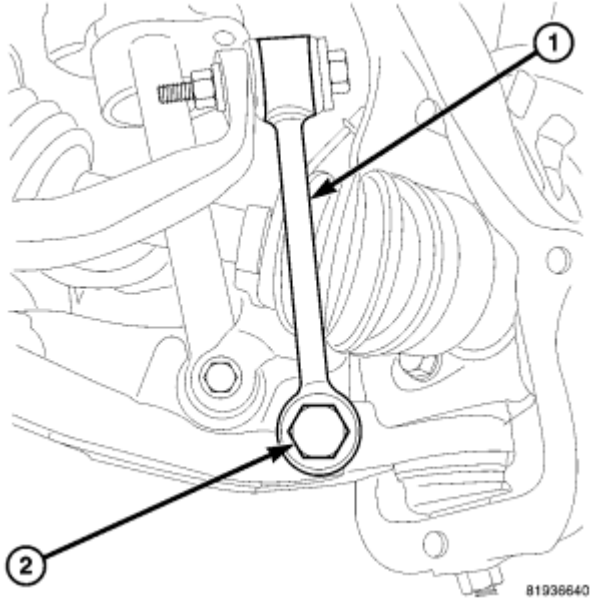


Fig. 37: Stabilizer Bar
Courtesy of CHRYSLER LLC

3. Remove the stabilizer bar link (2). See **REMOVAL**.

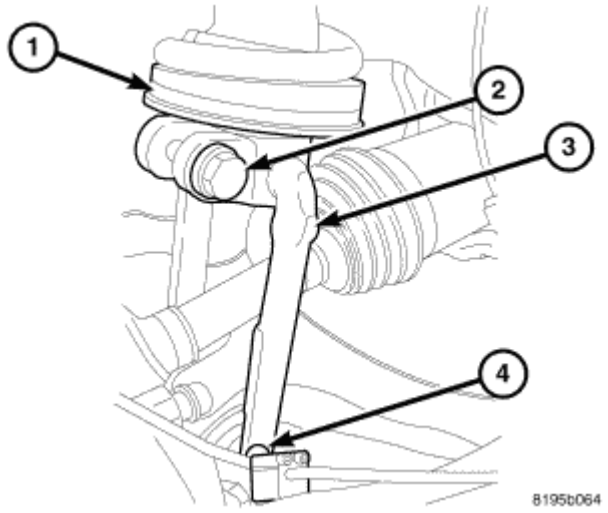


Fig. 38: Clevis Bracket
Courtesy of CHRYSLER LLC

4. Remove the shock absorber lower clevis bolt (4). See **REMOVAL**.

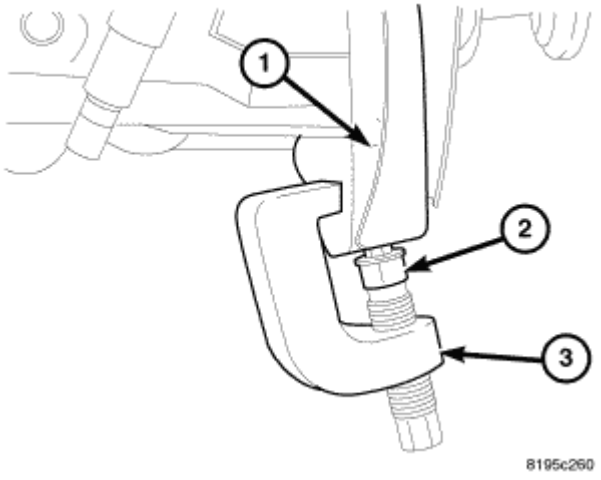


Fig. 39: Lower Ball Joint Separation
Courtesy of CHRYSLER LLC

5. Remove the lower ball joint nut (2). Separate ball joint from the steering knuckle (1) with Remover 8677 (3).

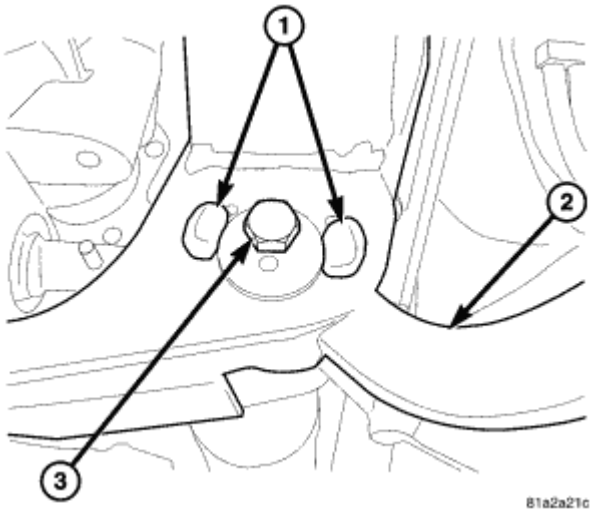


Fig. 40: Identifying Lower Control Arm, Control Arm Pivot Bolts & Rail Brackets
Courtesy of CHRYSLER LLC

NOTE: Marking the lower control arm pivot bolts front and rear will aid in the assembly procedure.

6. Remove the control arm pivot bolts (3) and suspension arm from frame rail brackets (1).
7. Remove the lower control arm (2) from the vehicle.

INSTALLATION

LOWER CONTROL ARM

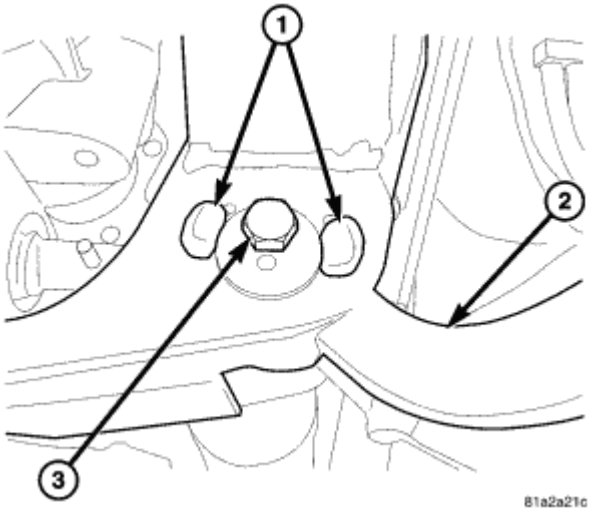


Fig. 41: Identifying Lower Control Arm, Control Arm Pivot Bolts & Rail Brackets
Courtesy of CHRYSLER LLC

1. Position the lower control arm (2) at the frame rail brackets. Install the cam/pivot bolts (3) and nuts. Tighten the nuts finger-tight.

CAUTION: The ball joint stud taper must be CLEAN and DRY before installing into the knuckle. Clean the stud taper with mineral spirits to remove dirt and grease.

2. Install the ball joint into the steering knuckle and tighten the nut to 54 N.m (40 ft.lbs.) plus an additional 90° turn.

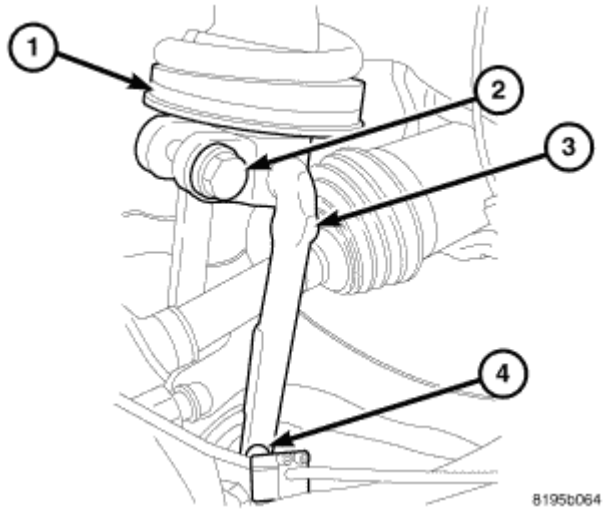


Fig. 42: Clevis Bracket
Courtesy of CHRYSLER LLC

3. Install shock absorber lower clevis bolt/nut (4). Tighten the nut to 150 N.m (110 ft.lbs.) **with full vehicle weight.**

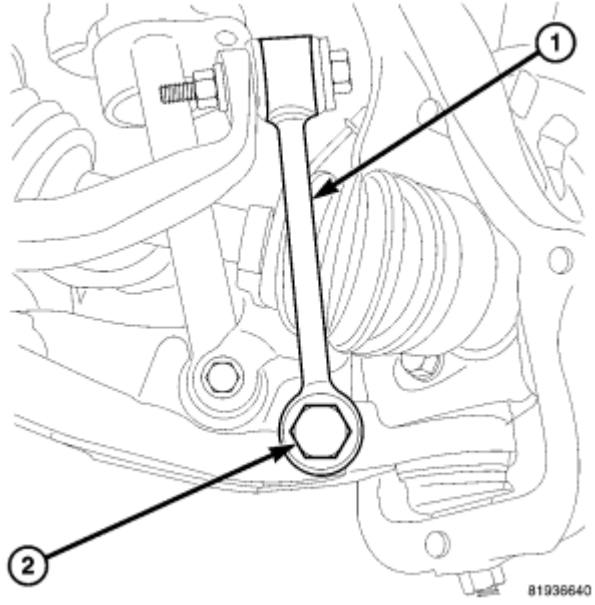


Fig. 43: Stabilizer Bar
Courtesy of CHRYSLER LLC

4. Install the stabilizer bar link lower bolt (2). Tighten the bolt to 102 N.m (75 ft.lbs.) **with full vehicle weight** . See **INSTALLATION**.

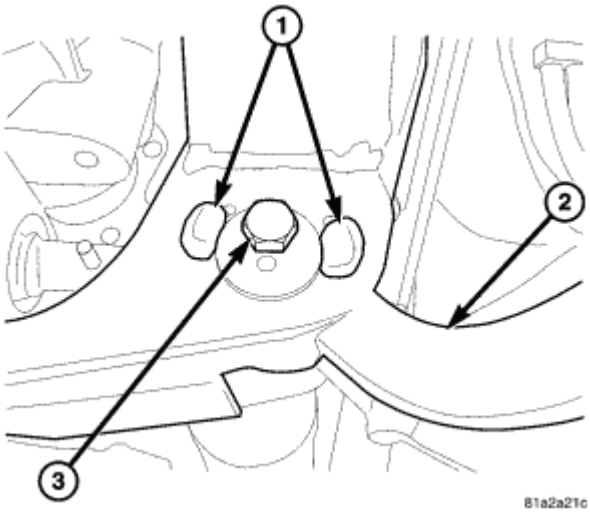


Fig. 44: Identifying Lower Control Arm, Control Arm Pivot Bolts & Rail Brackets
Courtesy of CHRYSLER LLC

5. Align the marks front and rear (1) at the cam/pivot bolts (3) and tighten the nuts. Tighten the nuts to 170 N.m (125 ft.lbs.) **with full vehicle weight.**
6. Install the wheel and tire assembly, refer to **STANDARD PROCEDURE** .
7. Remove the support and lower the vehicle.
8. Perform a wheel alignment. See **STANDARD PROCEDURE**.

SHOCK

REMOVAL

SHOCK - LEFT SIDE

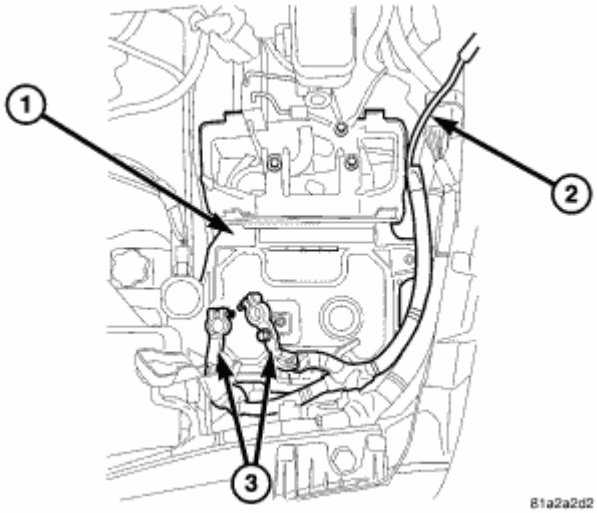


Fig. 45: Identifying Battery Tray, Power Center & Battery
Courtesy of CHRYSLER LLC

1. Disconnect the battery (3).
2. Remove the battery. Refer to **REMOVAL** .
3. Unclip the power center (2) and move it to the side out of the way to access the battery tray (1).
4. Remove the battery tray (1). Refer to **REMOVAL** .
5. Remove the four upper shock mounting nuts.
6. Raise and support the vehicle.
7. Remove the left tire and wheel assembly.
8. Remove the caliper and support. Refer to **REMOVAL** .

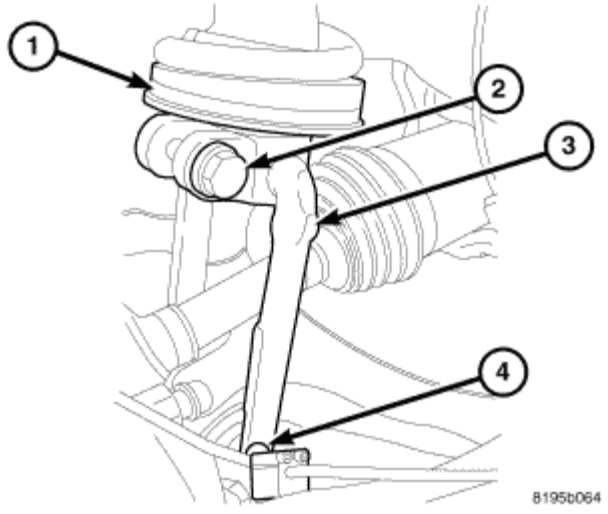


Fig. 46: Clevis Bracket
Courtesy of CHRYSLER LLC

9. Remove the lower bolt (4) at the lower control arm securing the clevis bracket (3).

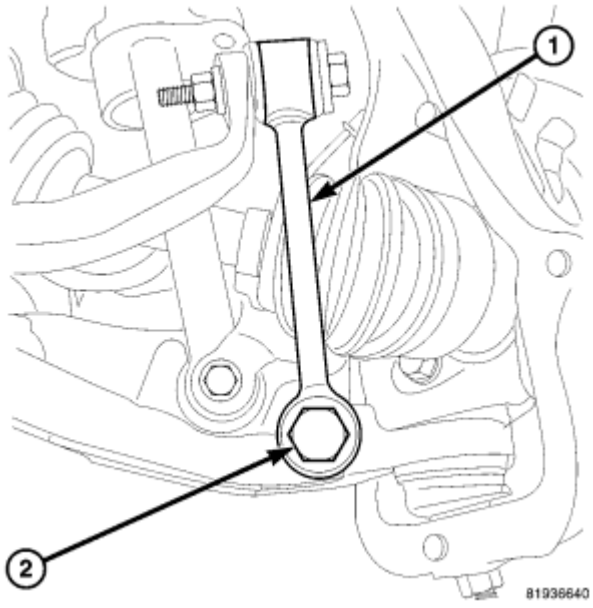


Fig. 47: Stabilizer Bar
Courtesy of CHRYSLER LLC

10. Remove the stabilizer link bolt (2) at the lower control arm. See **REMOVAL**.

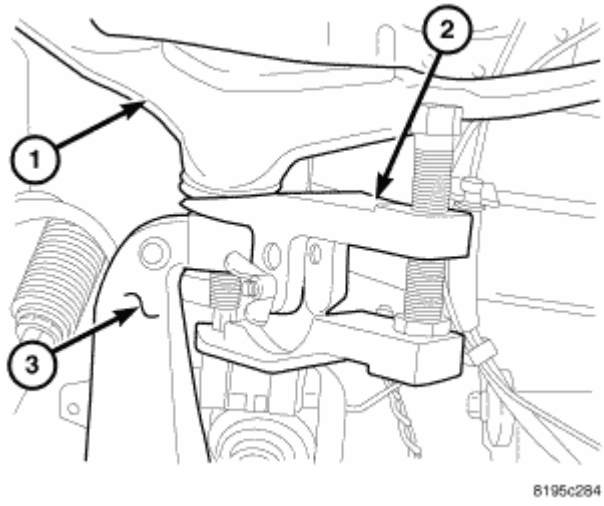


Fig. 48: Upper Ball Joint Separation
Courtesy of CHRYSLER LLC

11. Remove the upper ball joint nut.
12. Separate the upper ball joint from the knuckle (3) using remover 9360 (2).

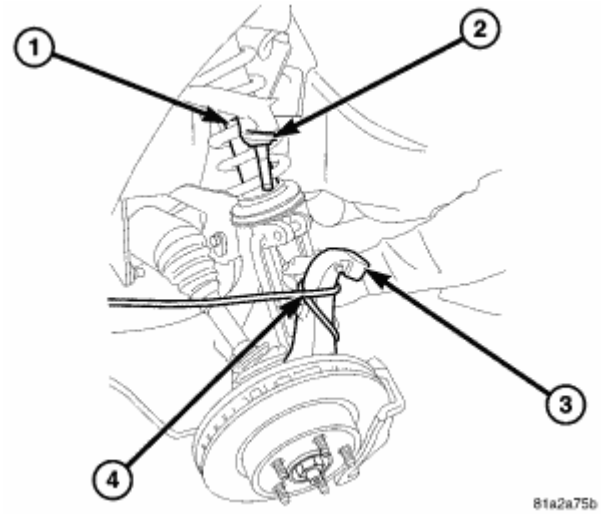


Fig. 49: Identifying Steering Knuckle, Remover 9360, Shock Assembly & Knuckle
Courtesy of CHRYSLER LLC

13. Push downward on the steering knuckle (3) and support the knuckle (4) this will allow access to remove the shock.
14. Remove the shock assembly (1) from the vehicle.
15. Remove the spring from the shock (if needed). See **REMOVAL**.

SHOCK - RIGHT SIDE

1. Remove the air box. Refer to **REMOVAL** for 3.7L - SERVICE INFORMATION or **REMOVAL** for 4.0L - SERVICE INFOMATION.
2. Remove the four upper shock mounting nuts.
3. Raise and support the vehicle.
4. Remove the right side tire assembly.
5. Remove the caliper and support. Refer to **REMOVAL** .

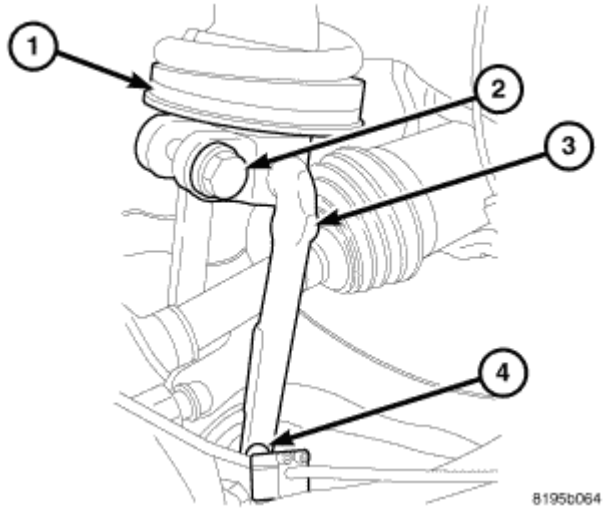


Fig. 50: Clevis Bracket
Courtesy of CHRYSLER LLC

6. Remove the lower bolt (4) at the lower control arm securing the clevis bracket (3).

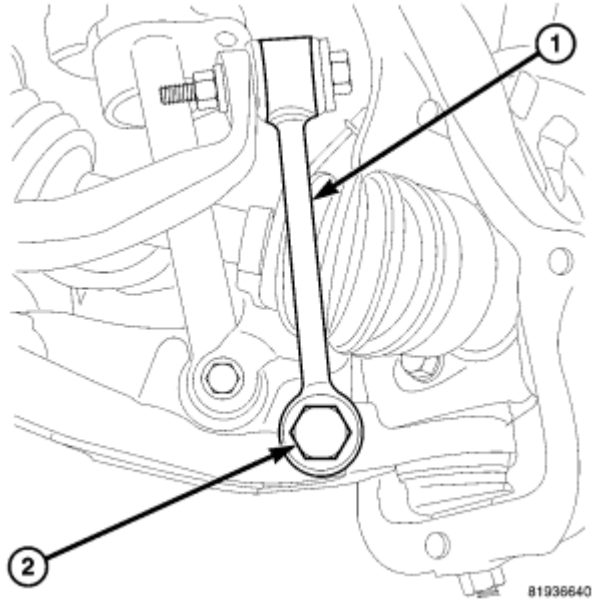


Fig. 51: Stabilizer Bar
Courtesy of CHRYSLER LLC

7. Remove the stabilizer link bolt (2) at the lower control arm. See **REMOVAL**.

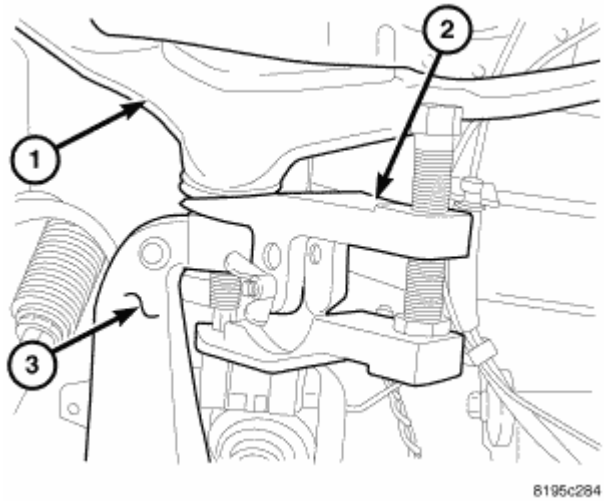


Fig. 52: Upper Ball Joint Separation
Courtesy of CHRYSLER LLC

8. Remove the upper ball joint nut.
9. Separate the upper ball joint from the knuckle (3) using remover 9360 (2).

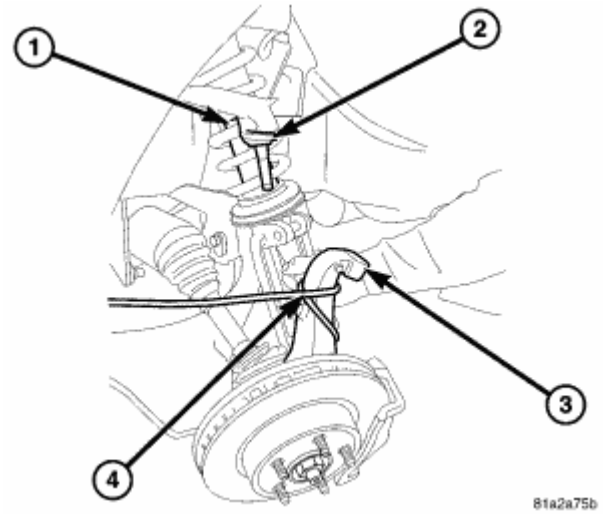


Fig. 53: Identifying Steering Knuckle, Remover 9360, Shock Assembly & Knuckle
Courtesy of CHRYSLER LLC

10. Pull downward on the knuckle and support the knuckle (4) to allow access.
11. Remove the shock assembly (1) from the vehicle.
12. Remove the spring from the shock (if needed). See **REMOVAL**.

INSTALLATION

SHOCK - LEFT SIDE

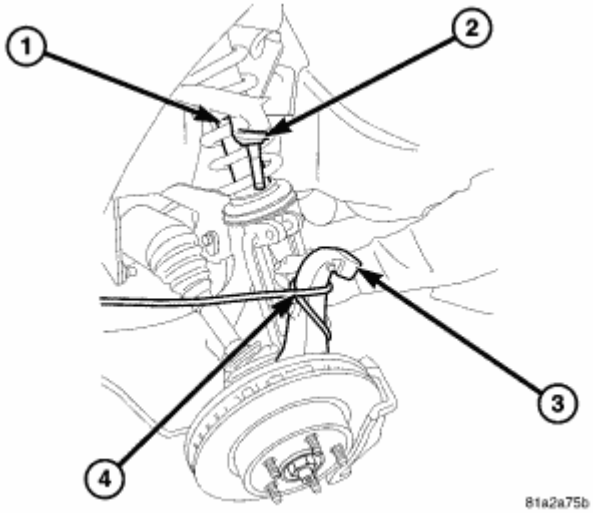


Fig. 54: Identifying Steering Knuckle, Remover 9360, Shock Assembly & Knuckle
Courtesy of CHRYSLER LLC

1. Install the spring to the shock (if removed). See **INSTALLATION**.
2. Install the shock assembly (1) to the vehicle.
3. Install the four upper shock mounting nuts. Tighten the nuts to 108 N.m (80 ft.lbs.).

4. Raise the knuckle (3) into place and reconnect the upper ball joint nut. Tighten the nut to 41 N.m (30 ft.lbs.) plus an additional 90° turn.

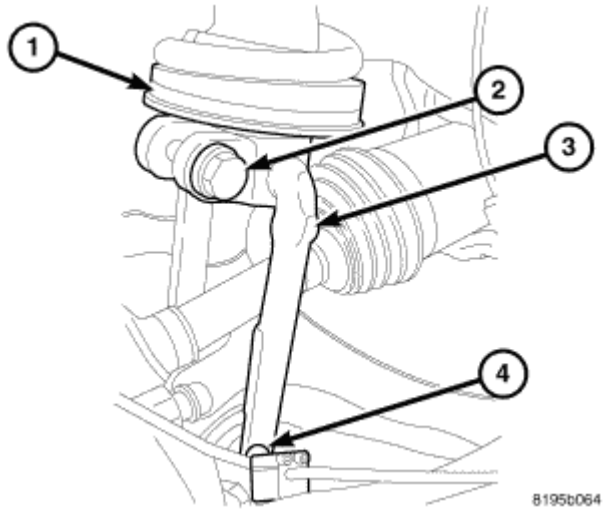


Fig. 55: Clevis Bracket
Courtesy of CHRYSLER LLC

5. Install the clevis bracket bolt (4) at the lower control arm. See **INSTALLATION**. Tighten the bolt to 150 N.m (110 ft.lbs.) **with full vehicle weight.**
6. Install the caliper. Refer to **INSTALLATION** .

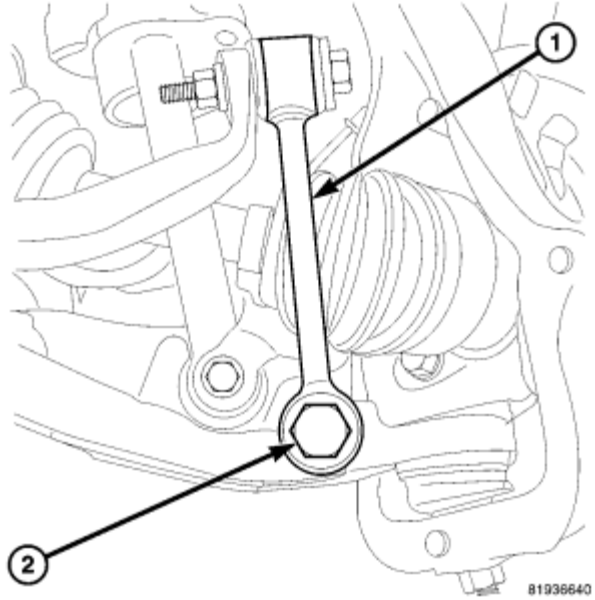


Fig. 56: Stabilizer Bar
Courtesy of CHRYSLER LLC

7. Install the lower stabilizer link (1) at the lower control arm. Tighten the bolt (2) to 102 N.m (75 ft.lbs.) **with full vehicle weight** . See **INSTALLATION**.

8. Install the left tire and wheel assembly. Refer to **STANDARD PROCEDURE** .
9. Lower the vehicle.

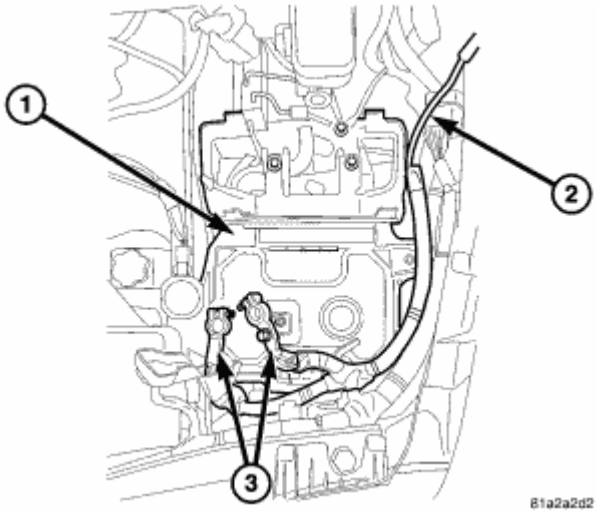


Fig. 57: Identifying Battery Tray, Power Center & Battery
Courtesy of CHRYSLER LLC

10. Install the battery tray (1). Refer to **INSTALLATION** .
11. Install the battery. Refer to **INSTALLATION** .
12. Reinstall the power center (2) back into place.
13. Reconnect the battery cables (3).

SHOCK - RIGHT SIDE

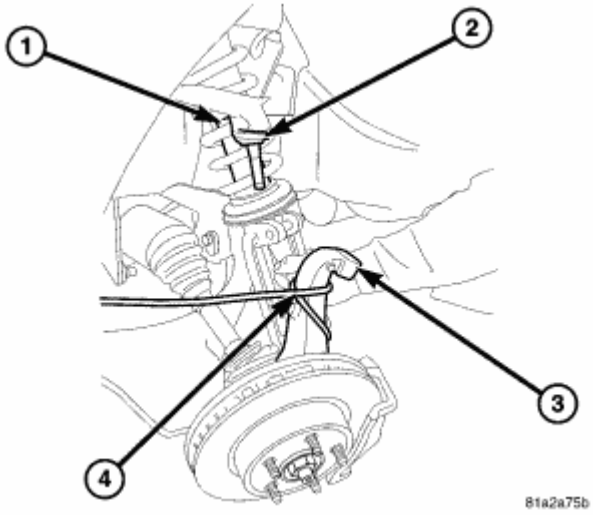


Fig. 58: Identifying Steering Knuckle, Remover 9360, Shock Assembly & Knuckle
Courtesy of CHRYSLER LLC

1. Install the spring to the shock (if removed). See **INSTALLATION**.

2. Install the shock assembly (1) to the vehicle.
3. Install the four upper shock mounting nuts. Tighten the nuts to 108 N.m (80 ft.lbs.).
4. Raise the knuckle (3) into place and reconnect the upper ball joint nut. Tighten the nut to 41 N.m (30 ft.lbs.) plus an additional 90° turn.

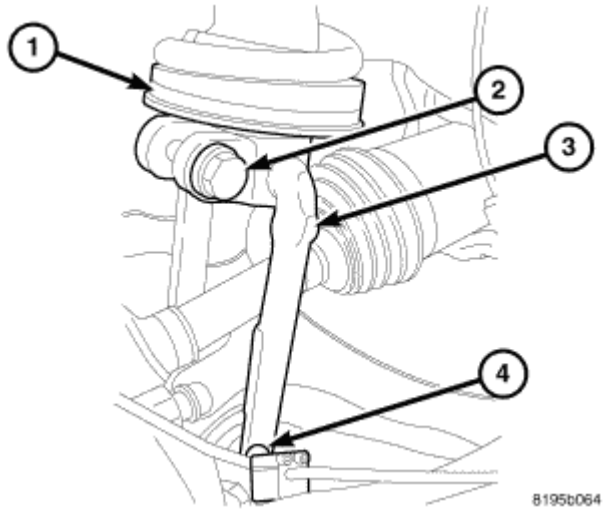


Fig. 59: Clevis Bracket
Courtesy of CHRYSLER LLC

5. Install the clevis bracket bolt (4) at the lower control arm. See **INSTALLATION**. Tighten the bolt to 150 N.m (110 ft.lbs.) **with full vehicle weight.**

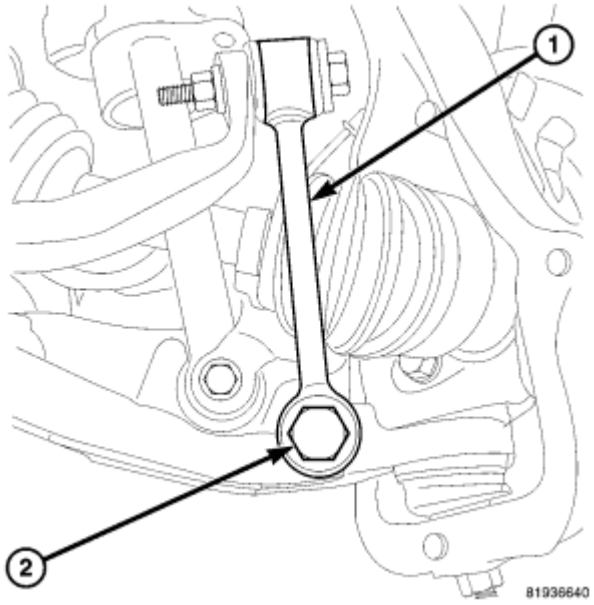


Fig. 60: Stabilizer Bar
Courtesy of CHRYSLER LLC

6. Install the caliper. Refer to **INSTALLATION** .

7. Install the lower stabilizer link bolt (2) at the lower control arm. Tighten the bolt to 102 N.m (75 ft.lbs.) **with full vehicle weight.** . See **INSTALLATION**.
8. Install the right tire and wheel assembly. Refer to **STANDARD PROCEDURE** .
9. Lower the vehicle.
10. Install the airbox. Refer to **INSTALLATION** for 3.7L - SERVICE INFORMATION or **INSTALLATION** for 4.0L - SERVICE INFORMATION.

SPRING

REMOVAL

SPRING

1. Raise and support the vehicle.
2. Remove the tire and wheel assembly.
3. Remove the shock. Refer to the proper side shock removal procedure being worked on. See **REMOVAL**.

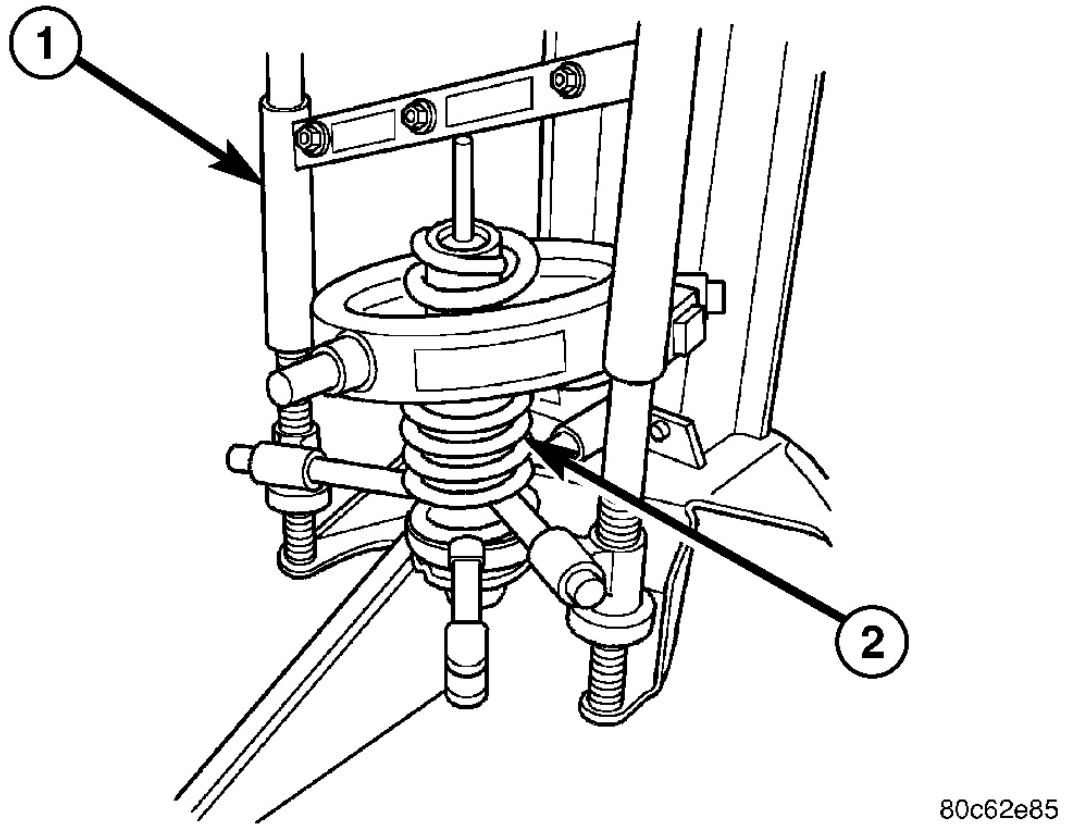


Fig. 61: Spring Compressor

Courtesy of CHRYSLER LLC

1 - SPRING COMPRESSOR 2 - SPRING

4. Secure the shock assembly into a Pentastar® Service Equipment W-7200 Spring compressor (1). See **Fig. 61**
5. Compress the spring (2).
6. Remove the shock mount nut.
7. Remove the shock from the spring compressor.
8. Transfer the necessary parts to the type of repair being done (Insulator, Spring, shock and mount).

INSTALLATION

SPRING

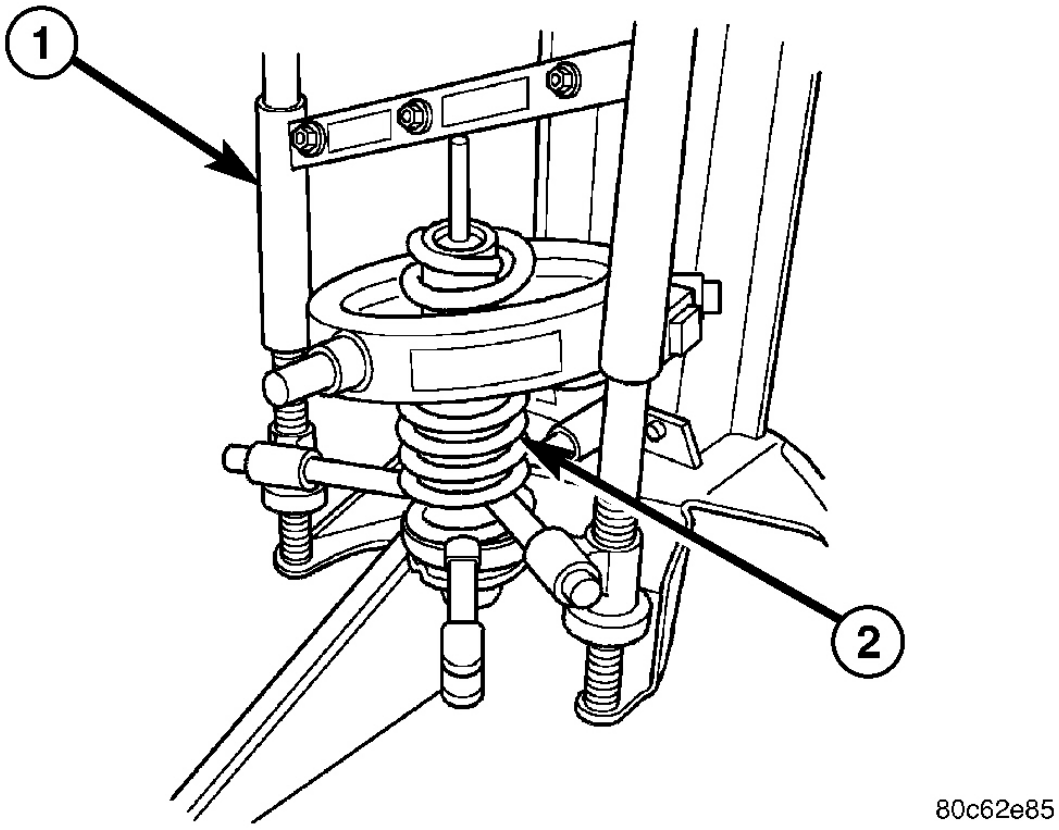


Fig. 62: Spring Compressor
Courtesy of CHRYSLER LLC

1 - SPRING COMPRESSOR 2 - SPRING

1. Install the shock to the spring (2) and spring compressor (1), After the transfer of the necessary parts to the type of repair being done (Insulator, Spring, shock and mount).
2. Install the shock mounting nut. Tighten the bolt to 41 N.m (30 ft.lbs.).
3. Loosen the compressed spring (2).
4. Remove the shock assembly from the spring compressor (1).
5. Install the shock to the vehicle. See **INSTALLATION**.
6. Install the tire and wheel assembly. Refer to **STANDARD PROCEDURE** .
7. Remove the support and lower the vehicle.

CLEVIS BRACKET

REMOVAL

CLEVIS BRACKET

1. Raise and support the vehicle.
2. Remove the tire and wheel assembly.
3. Remove the disc brake rotor. Refer to **REMOVAL** .
4. Remove the wheel speed sensor. Refer to **REMOVAL** .

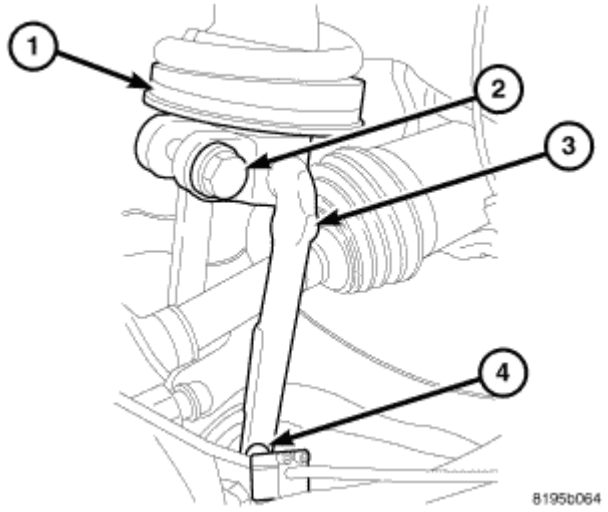


Fig. 63: Clevis Bracket
Courtesy of CHRYSLER LLC

5. Remove the lower clevis bolt (4) at the lower control arm.
6. Remove the upper clevis bolt (2) at the shock.
7. Remove the lower stabilizer link bolt at the lower control arm.

8. Remove the upper ball joint nut.
9. Separate the upper ball joint from the knuckle using remover 9360.
10. Swing the knuckle downward to allow clearance to remove the clevis bracket (3).
11. Remove the clevis bracket (3) from the vehicle.

INSTALLATION

CLEVIS BRACKET

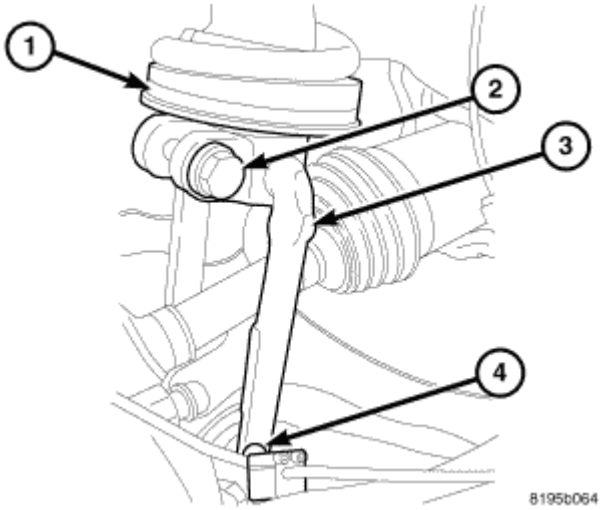


Fig. 64: Clevis Bracket
Courtesy of CHRYSLER LLC

1. Install the clevis bracket upper bolt (2) to the shock (1). Tighten the bolt (2) to 108 N.m (80 ft.lbs.).
2. Raise the knuckle to the upper ball joint.
3. Install the nut to the upper ball joint. Tighten the nut to 41 N.m (30 ft.lbs.) plus an additional 90° turn.
4. Install the clevis bracket lower bolt (4) to the lower control arm. Tighten the bolt (4) to 150 N.m (110 ft.lbs.) **with full vehicle weight.**
5. Install the lower stabilizer link bolt at the lower control arm. Tighten the bolt to 102 N.m (75 ft.lbs.) **with full vehicle weight.**
6. Install the wheel speed sensor. Refer to **INSTALLATION** .
7. Install the disc brake rotor. Refer to **INSTALLATION** .
8. Install the tire and wheel assembly. Refer to **STANDARD PROCEDURE** .
9. Lower the vehicle.

STABILIZER BAR

REMOVAL

STABILIZER BAR

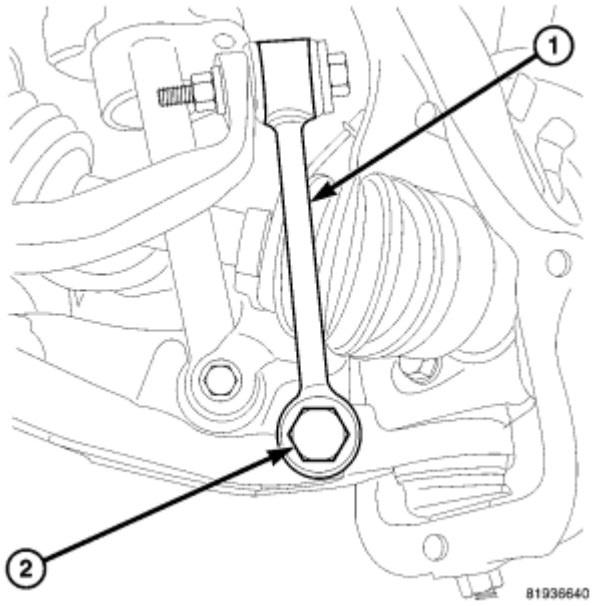


Fig. 65: Stabilizer Bar
Courtesy of CHRYSLER LLC

1. Raise and support the vehicle.
2. Remove the tire and wheel assembly.
3. Remove the stabilizer link (1) bolts at the stabilizer bar.

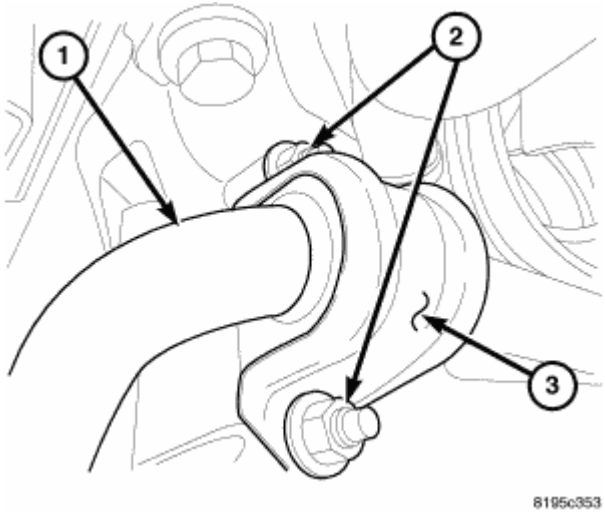


Fig. 66: Stabilizer Bar Bracket
Courtesy of CHRYSLER LLC

4. Remove the stabilizer bushing bracket nuts (2).
5. Remove the stabilizer bar bushing brackets (3) from the frame.
6. Remove the stabilizer bar (1) from the vehicle.

INSTALLATION

STABILIZER BAR

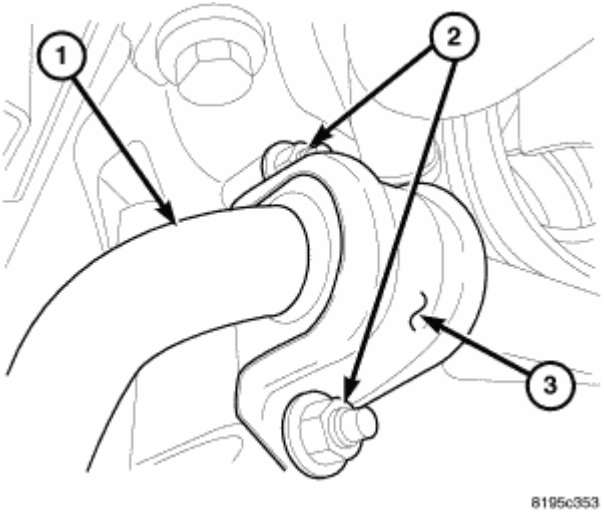


Fig. 67: Stabilizer Bar Bracket
Courtesy of CHRYSLER LLC

1. Install the stabilizer bar (1) to the vehicle.
2. Install the stabilizer bar bushing brackets (3). Tighten the nuts (2) to 149 N.m (110 ft.lbs.).

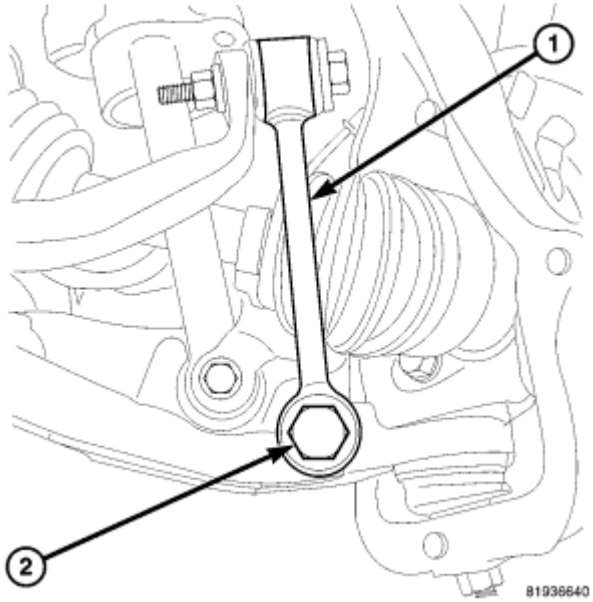


Fig. 68: Stabilizer Bar
Courtesy of CHRYSLER LLC

3. Install the stabilizer link (1) bolts and bushings at the stabilizer bar. Tighten the bolt to 115 N.m (85 ft.lbs.) **with full vehicle weight.**
4. Install the tire and wheel assembly. Refer to **STANDARD PROCEDURE** .
5. Lower the vehicle.

STABILIZER LINK

REMOVAL

STABILIZER LINK

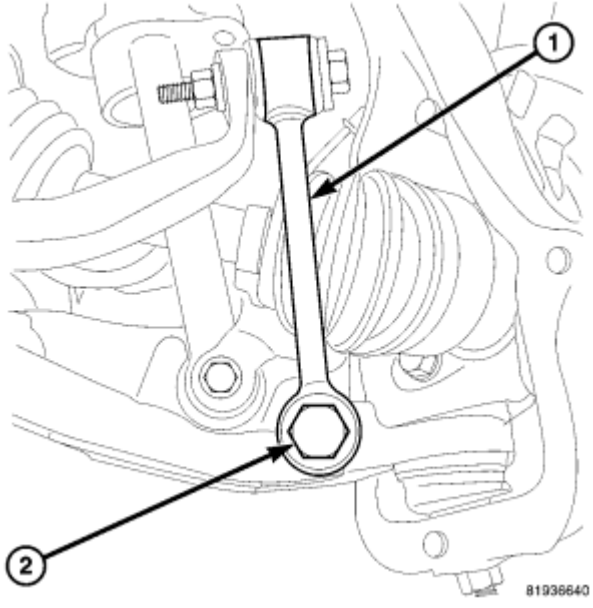


Fig. 69: Stabilizer Bar
Courtesy of CHRYSLER LLC

1. Raise and support the vehicle.
2. Remove the tire and wheel assembly.
3. Remove the stabilizer link bolt (2) at the lower control arm.
4. Remove the stabilizer link bolt at the stabilizer bar.
5. Remove the stabilizer link (1).

INSTALLATION

STABILIZER LINK

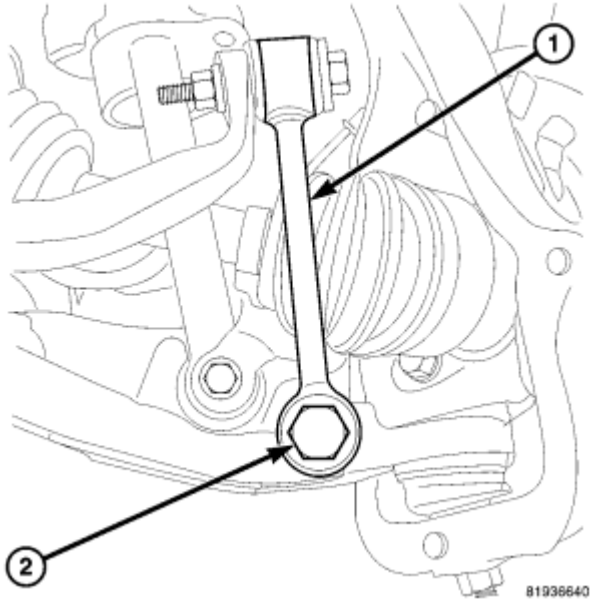


Fig. 70: Stabilizer Bar
Courtesy of CHRYSLER LLC

1. Install the stabilizer link (1).
2. Install the stabilizer link bolt at the stabilizer bar. Tighten the bolt to 115 N.m (85 ft.lbs.) **with full vehicle weight.**
3. Install the stabilizer link bolt (2) at the lower control arm. Tighten the bolt (2) to 102 N.m (75 ft.lbs.) **with full vehicle weight.**
4. Install the tire and wheel assembly. Refer to **STANDARD PROCEDURE** .

UPPER CONTROL ARM

REMOVAL

UPPER CONTROL ARM - LEFT

1. Raise and support the vehicle.
2. Remove the left side tire and wheel assembly.

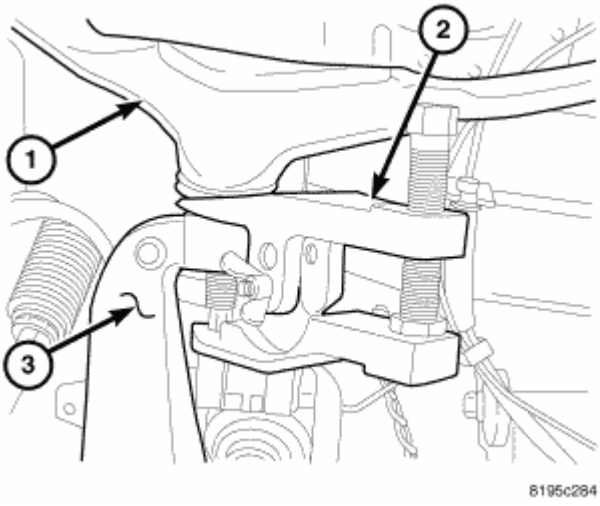


Fig. 71: Upper Ball Joint Separation
Courtesy of CHRYSLER LLC

3. Remove the upper ball joint nut.
4. Separate the upper ball joint from the steering knuckle (3) using remover 9360 (2).

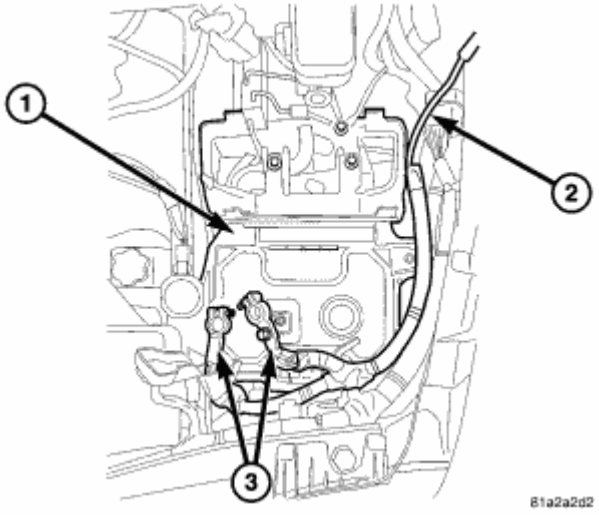


Fig. 72: Identifying Battery Tray, Power Center & Battery
Courtesy of CHRYSLER LLC

5. Lower the vehicle.
6. Remove the battery. Refer to **REMOVAL** .
7. Unclip the power center (2) and move it to the side out of the way.
8. Remove the battery tray (1). Refer to **REMOVAL** .

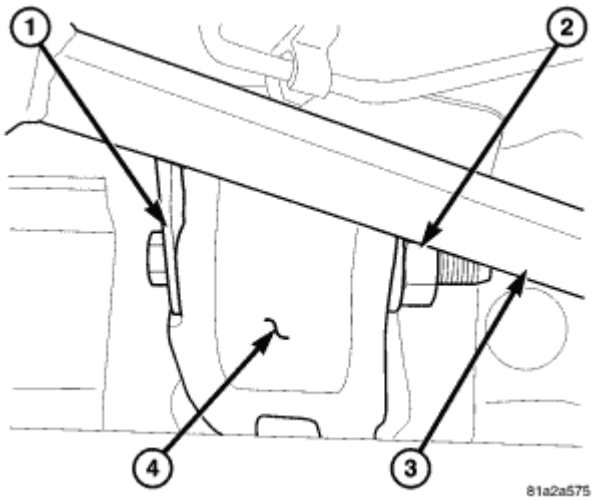


Fig. 73: Pivot Bolts
Courtesy of CHRYSLER LLC

9. Remove the upper control arm rear nut (2) by using a ratchet and extension under the steering shaft (3).
10. Remove the upper control arm front bolt.
11. Remove the upper control arm from the vehicle.

UPPER CONTROL ARM - RIGHT

1. Raise and support the vehicle.
2. Remove the right side tire and wheel assembly.
3. Remove the upper ball joint nut.

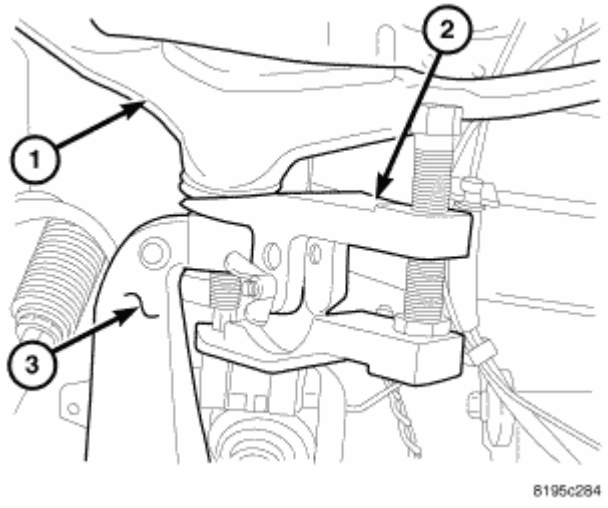


Fig. 74: Upper Ball Joint Separation
Courtesy of CHRYSLER LLC

4. Separate the upper ball joint from the steering knuckle (3) using remover 9360 (2).

5. Lower the vehicle.
6. Remove the air box assembly. Refer to **REMOVAL** for 3.7L - SERVICE INFORMATION or **REMOVAL** for 4.0L - SERVICE INFOMATION.
7. Remove the upper control arm rear bolt/nut.
8. Remove the upper control arm front bolt/nut.
9. Remove the upper control arm from the vehicle.

INSTALLATION

UPPER CONTROL ARM - LEFT

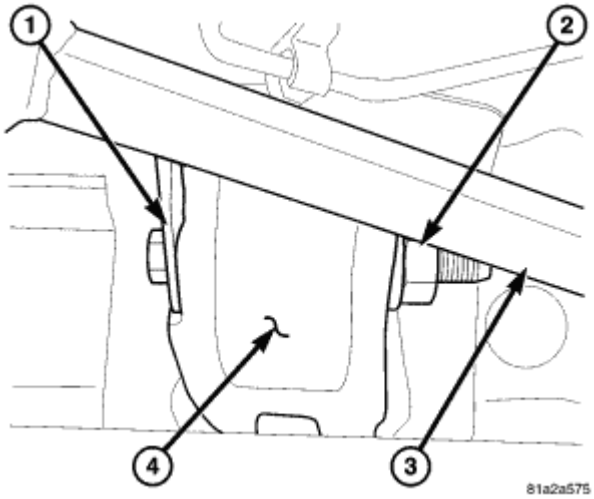


Fig. 75: Pivot Bolts
Courtesy of CHRYSLER LLC

1. Install the upper control arm to the vehicle.
2. Install the upper control arm front flag bolt (1). Tighten the nut (2) to 122 N.m (90 ft.lbs.) **with full vehicle weight.**
3. Install the upper control arm rear flag bolt. Tighten the nut to 122 N.m (90 ft.lbs.) **with full vehicle weight.**

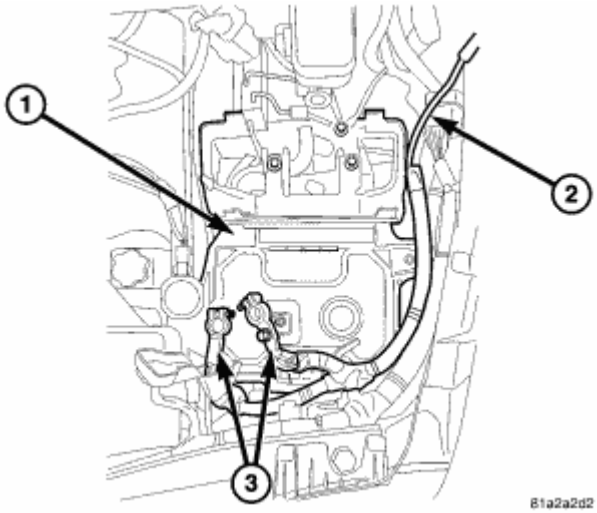


Fig. 76: Identifying Battery Tray, Power Center & Battery
Courtesy of CHRYSLER LLC

4. Install the battery tray (1). Refer to **INSTALLATION** .
5. Install the battery. Refer to **INSTALLATION** .
6. Reclip and mount the power center (2).
7. Install the upper ball joint nut. Tighten the nut to 41 N.m (30 ft.lbs.) plus an additional 90° turn.
8. Install the left side tire and wheel assembly. Refer to **STANDARD PROCEDURE** .
9. Lower the vehicle.
10. Set the toe. See **STANDARD PROCEDURE**.

UPPER CONTROL ARM - RIGHT

1. Install the upper control arm to the vehicle.
2. Install the upper control arm front flag bolt. Tighten the nut to 122 N.m (90 ft.lbs.) **with full vehicle weight.**
3. Install the upper control arm rear flag bolt. Tighten the nut to 122 N.m (90 ft.lbs.) **with full vehicle weight.**
4. Install the air box. Refer to **INSTALLATION** for 3.7L - SERVICE INFORMATION or **INSTALLATION** for 4.0L - SERVICE INFORMATION.
5. Install the upper ball joint nut. Tighten the nut to 41 N.m (30 ft.lbs.) plus an additional 90° turn.
6. Install the right side tire and wheel assembly. Refer to **STANDARD PROCEDURE** .
7. Lower the vehicle.
8. Set the toe. See **STANDARD PROCEDURE**.

REAR

DESCRIPTION

REAR SUSPENSION

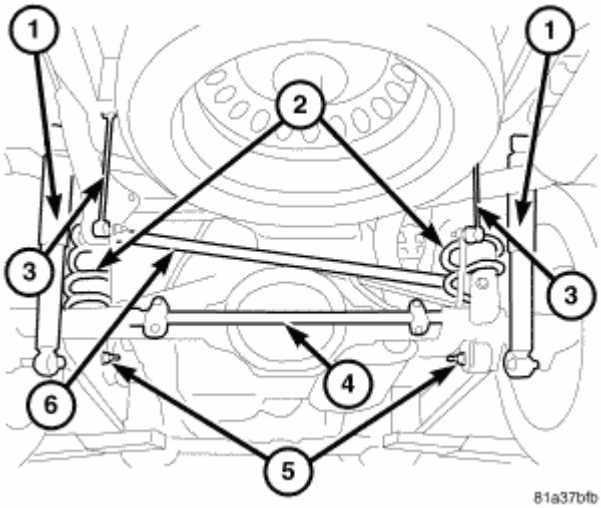


Fig. 77: Rear Suspension Components
Courtesy of CHRYSLER LLC

NOTE: Suspension components with rubber/urethane bushings should be tightened with the full weight of the vehicle at normal ride height. It is important to have the springs supporting the full weight of the vehicle when the fasteners are torqued. If springs are not at their normal ride position, vehicle ride comfort could be affected and premature bushing wear may occur.

The rear suspension is comprised of :

- Drive axle
- Shock absorbers (1)
- Coil springs (2)
- Lower suspension arms (5)
- Upper suspension arm
- Stabilizer bar (4)
- Stabilizer link (3)
- Track bar (6)

WARNING

REAR SUSPENSION

WARNING: Suspension components with rubber bushings must be tightened with the vehicle at normal ride height. It is important to have the springs supporting the weight of the vehicle when the fasteners are torqued. If springs are not at their normal ride position, vehicle ride comfort will be

affected and cause premature bushing wear.

DIAGNOSIS AND TESTING

REAR SUSPENSION

CONDITION	POSSIBLE CAUSES	CORRECTION
VEHICLE INSTABILITY	1. Loose or worn wheel bearings. 2. Loose, worn or bent suspension components. 3. Tire pressure.	1. Replace wheel bearings. 2. Inspect, tighten or replace components as necessary. 3. Adjust tire pressure.
VEHICLE PULLS TO ONE SIDE	1. Weak or broken spring. 2. Alignment. 3. Tires. 4. Brakes.	1. Replace spring. 2. Align vehicle to specifications. 3. Replace tires. 4. Repair as necessary.
KNOCKING, RATTLING OR SQUEAKING	1. Worn shock bushings. 2. Loose shock mounting. 3. Shock valve. 4. Loose upper ball joint. 5. Loose, worn or bent suspension components.	1. Replace shock. 2. Tighten to specifications. 3. Replace shock. 4. Replace ball joint. 5. Inspect, tighten or replace components as necessary.
IMPROPER TRACKING	1. Loose, worn or bent suspension components. 2. Bent axle.	1. Inspect, tighten or replace components as necessary. 2. Replace axle.

SPECIFICATIONS

TORQUE CHART

DESCRIPTION	N.m	Ft. Lbs.	In. Lbs.
Shock Absorber Upper Bolt	108	80	-
Shock Absorber Lower Nut	115	85	-
Upper Control Arm to Body Nut	95	70	-
Upper Control Arm to Axle Nut	95	70	-
Lower Control Arm to Body Nut	163	120	-
Lower Control Arm to Axle Nut	203	150	-
Track Bar to Body Bracket Nut	183	135	-

Track Bar to Axle Bolt	176	130	-
Stabilizer Bar to Stabilizer Bar Link Nut	115	85	-
Stabilizer Bar Link to Body Bolt	102	75	-
Stabilizer Bar Pivot Bushing Retainer to Axle Bolt	47	35	-

SPECIAL TOOLS

SPECIAL TOOLS

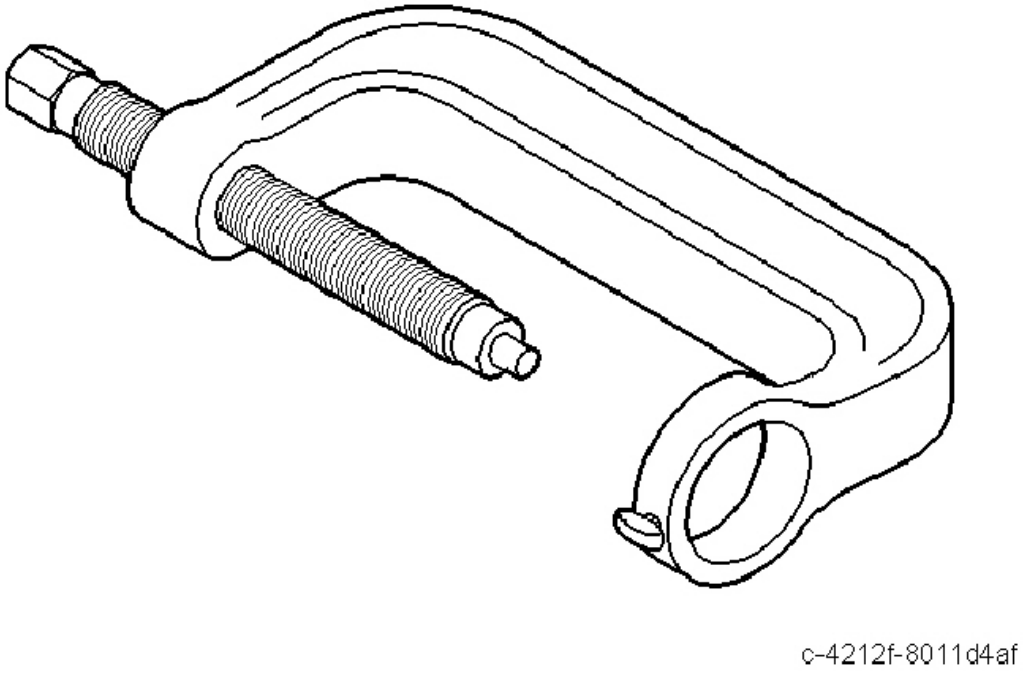


Fig. 78: Ball Joint Press - C-4212F
Courtesy of CHRYSLER LLC

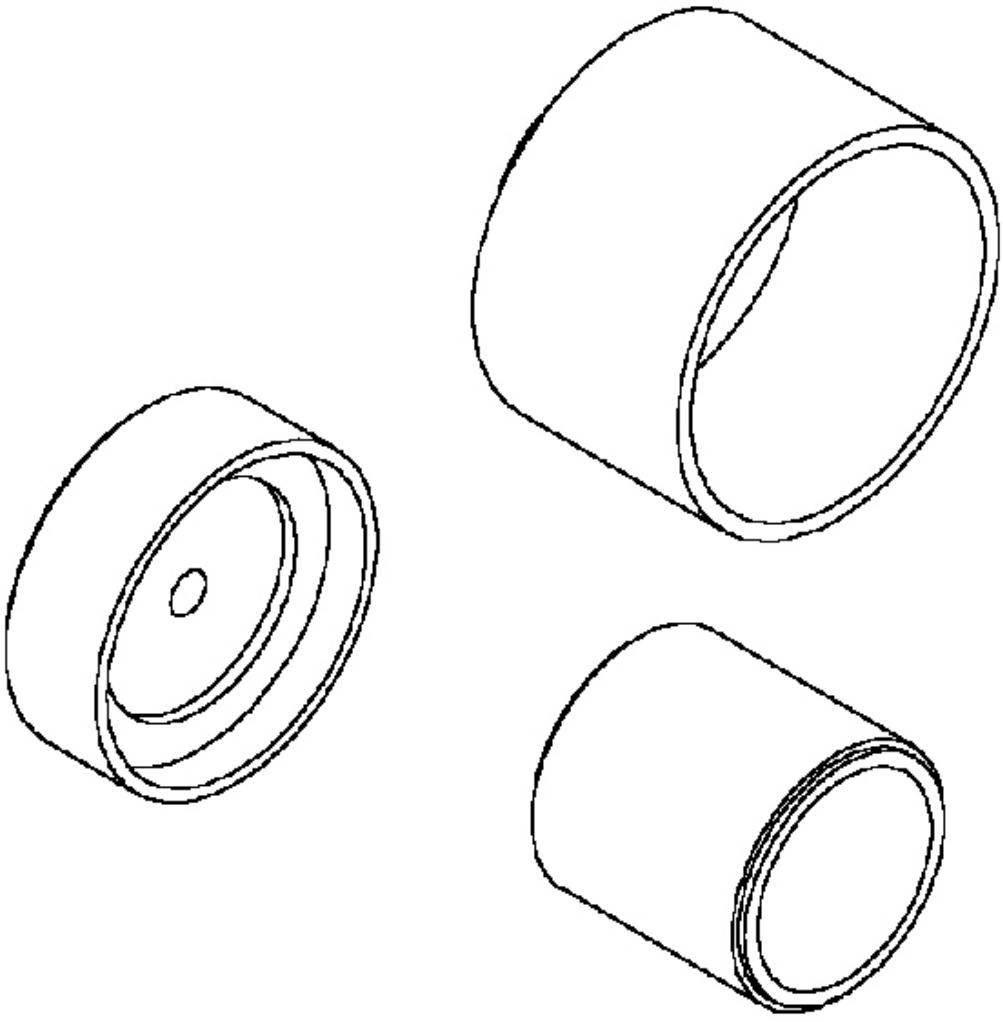


Fig. 79: Remover/Installer Rear Upper Ball Joint - 8861
Courtesy of CHRYSLER LLC

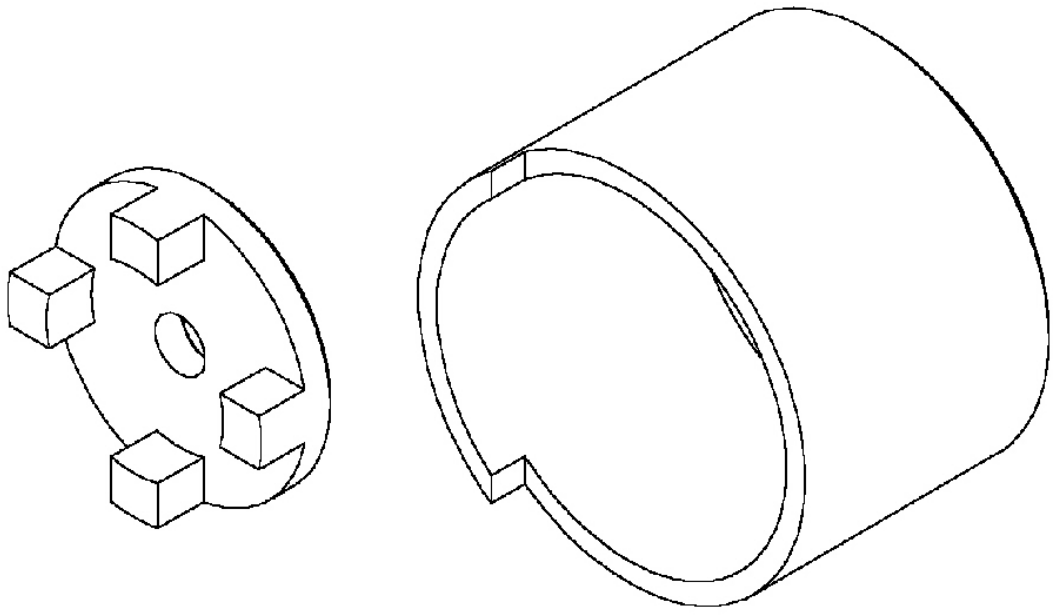


Fig. 80: Remover/Installer Rear Upper Control Arm Bushings 8860
Courtesy of CHRYSLER LLC

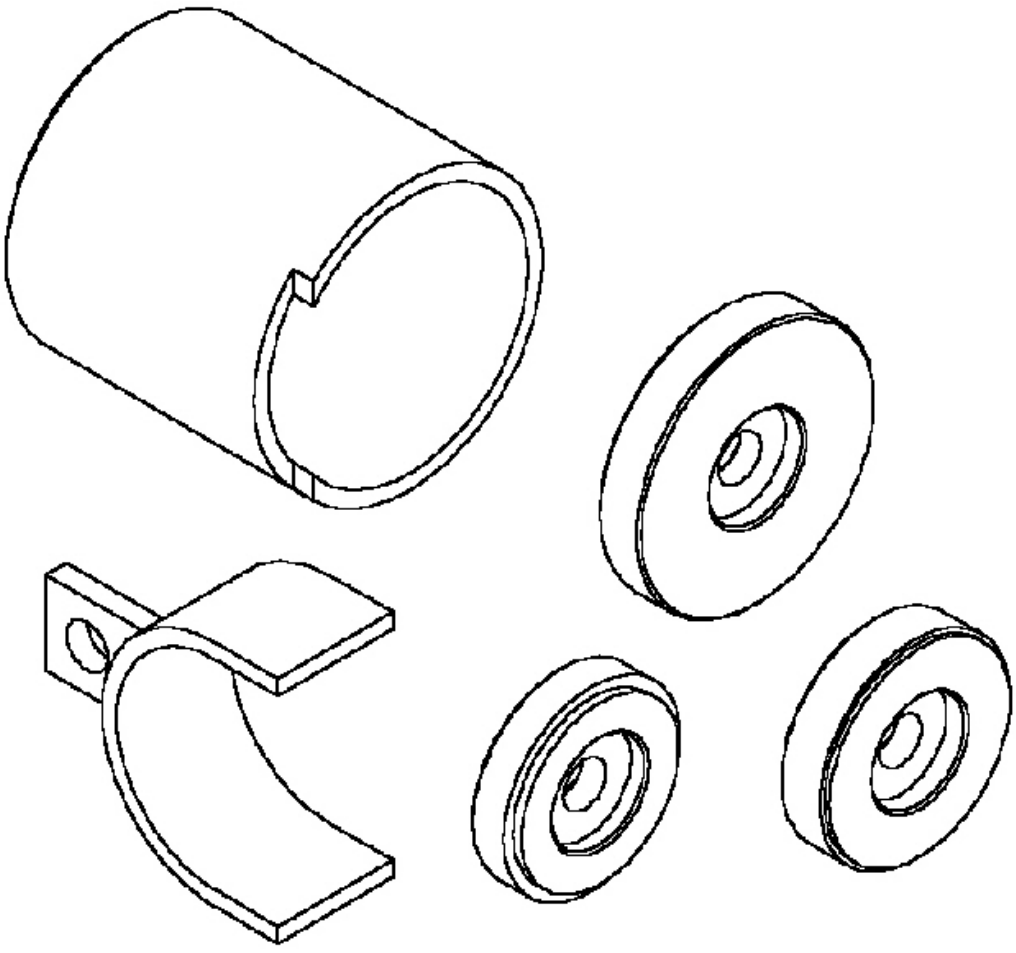


Fig. 81: Rear Lower Control Arm Bushing Remover/Installer - 8862
Courtesy of CHRYSLER LLC

BUSHINGS

REMOVAL

STABILIZER BAR BUSHINGS

1. Raise and support vehicle.
2. Remove the stabilizer bushing clamp.
3. Remove the bushing from the stabilizer bar.

INSTALLATION

STABILIZER BAR BUSHINGS

1. Install the bushing to the stabilizer bar.
2. Install the stabilizer bar bushing retainer clamp and bolts. Tighten the bolts to 47 N.m (35 ft.lbs.) **with full vehicle weight.**
3. Lower the vehicle.

SHOCK

DESCRIPTION

SHOCK ABSORBERS

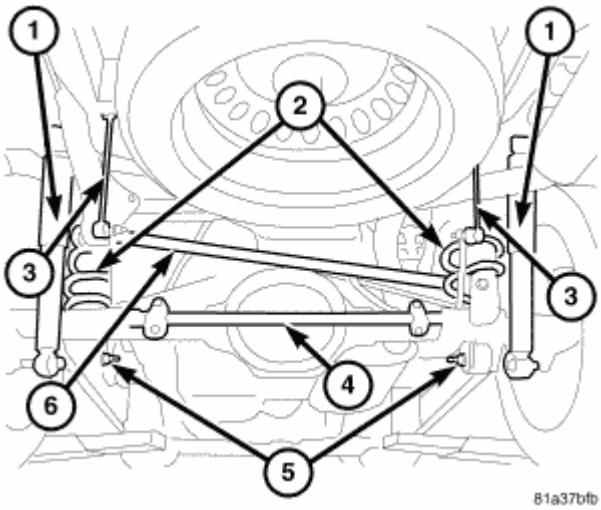


Fig. 82: Rear Suspension Components
Courtesy of CHRYSLER LLC

The top of the shock absorbers (1) are bolted to the body. The bottom of the shocks are bolted to the axle brackets. The standard shocks have conventional twin tube construction and are low pressure gas charged. Gas charging prevents cavitation during rough road operation.

OPERATION

SHOCK ABSORBERS

The shock absorbers dampen jounce and rebound motion of the vehicle over various road conditions and limit rebound suspension travel.

REMOVAL

SHOCK ABSORBER

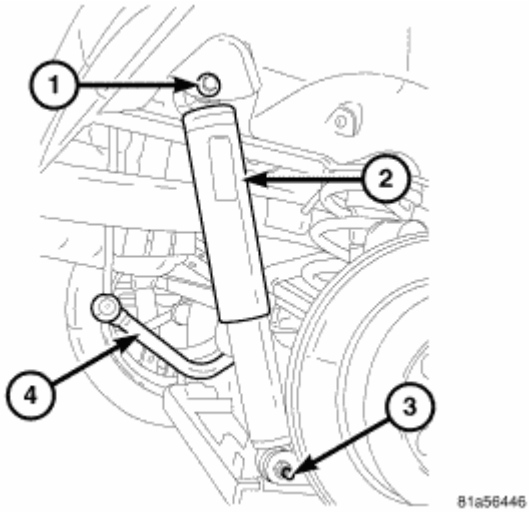


Fig. 83: Identifying Upper Bolt, Shock Absorber & Axle Bracket
Courtesy of CHRYSLER LLC

1. Raise and support the vehicle. Position a hydraulic jack under the axle to support the axle.
2. Remove the upper bolt (1) from the frame bracket.
3. Remove the lower bolt and nut from the axle bracket (3). Remove the shock absorber (2).

INSTALLATION

SHOCK ABSORBER

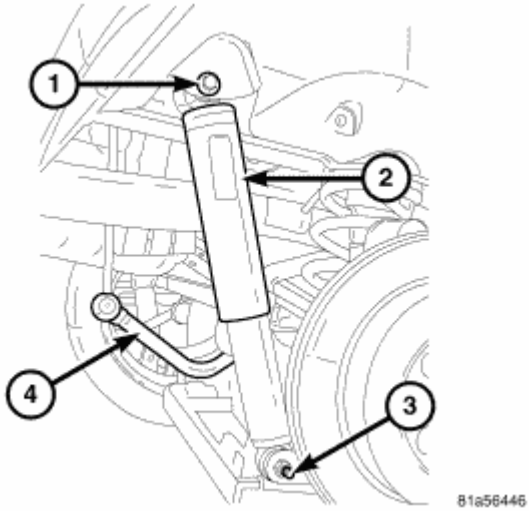


Fig. 84: Identifying Upper Bolt, Shock Absorber & Axle Bracket
Courtesy of CHRYSLER LLC

1. Install the shock absorber (2) in the frame bracket and install the bolt (1).
2. Install the shock absorber (2) in the axle bracket (3) and install the bolt.
3. Tighten the upper mounting bolt/nut to 108 N.m (80 ft. lbs.). Tighten the lower mounting bolt/nut to 115

N.m (85 ft. lbs.) **with full vehicle weight.**

4. Remove the supports and lower the vehicle.

SPRING

REMOVAL

COIL SPRING

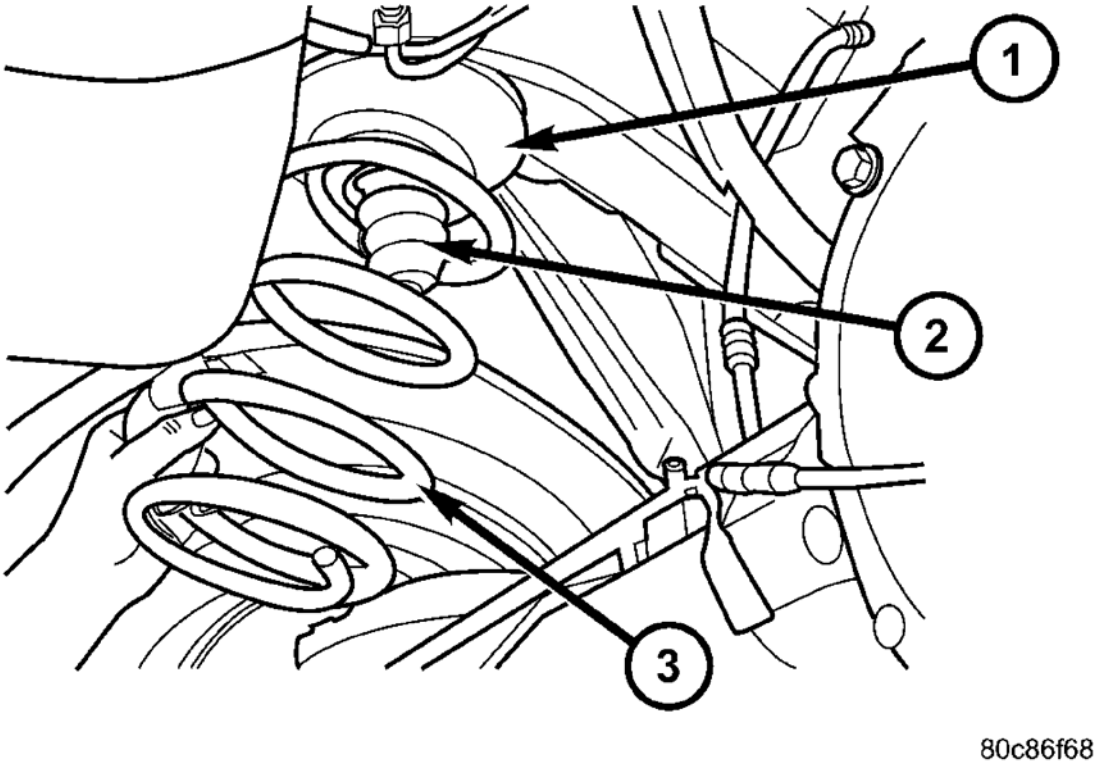


Fig. 85: Coil Spring
Courtesy of CHRYSLER LLC

1. Raise and support the vehicle. Position a hydraulic jack under the axle to support the axle.
2. Remove the shock absorber lower bolt from the axle bracket.
3. Lower the hydraulic jack and tilt the axle and remove the coil spring (3). See **Fig. 85**.
4. Remove and inspect the upper and lower spring isolators (1). See **Fig. 85**.

INSTALLATION

COIL SPRING

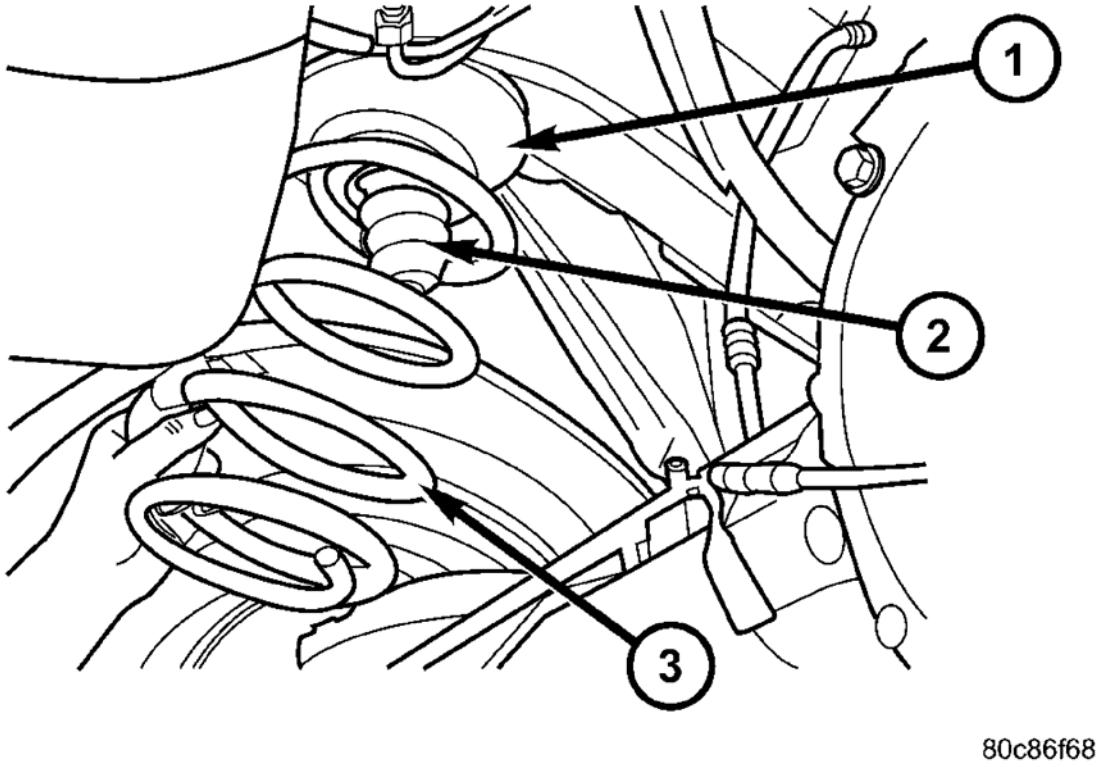


Fig. 86: Coil Spring
Courtesy of CHRYSLER LLC

1. Install the upper isolator (1). See **Fig. 85**.
2. Install the lower isolator. See **Fig. 85**.
3. Pull down on the axle and position the coil spring (3) in the lower isolator.

CAUTION: Ensure the spring is positioned on the lower isolator.

4. Raise the axle with the hydraulic jack.
5. Install the shock absorber to the axle bracket and tighten to 115 N.m (85 ft. lbs.).
6. Remove the supports and lower the vehicle.

JOUNCE BUMPER

REMOVAL

JOUNCE BUMPER

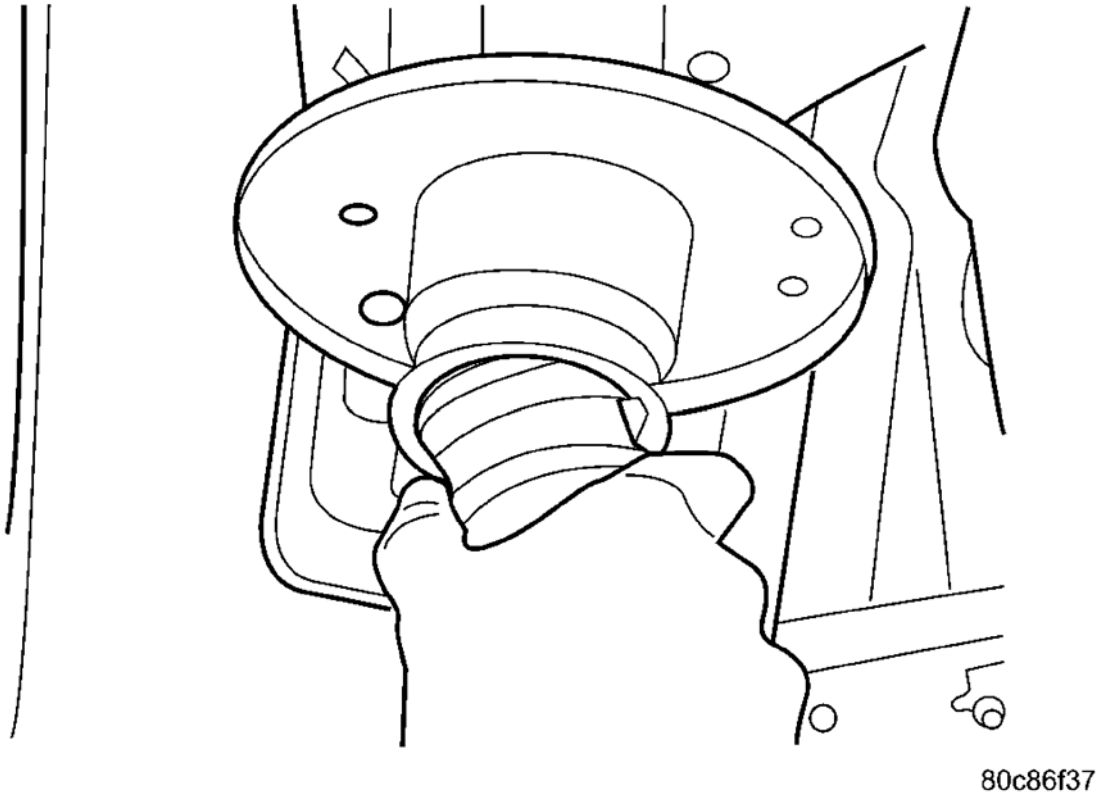


Fig. 87: Removing/Installing Jounce Bumper
Courtesy of CHRYSLER LLC

1. Remove the shock. See **REMOVAL**.
2. Remove the coil spring. See **REMOVAL**.
3. Pull the jounce bumper downwards to remove. See **Fig. 87**

INSTALLATION

JOUNCE BUMPER

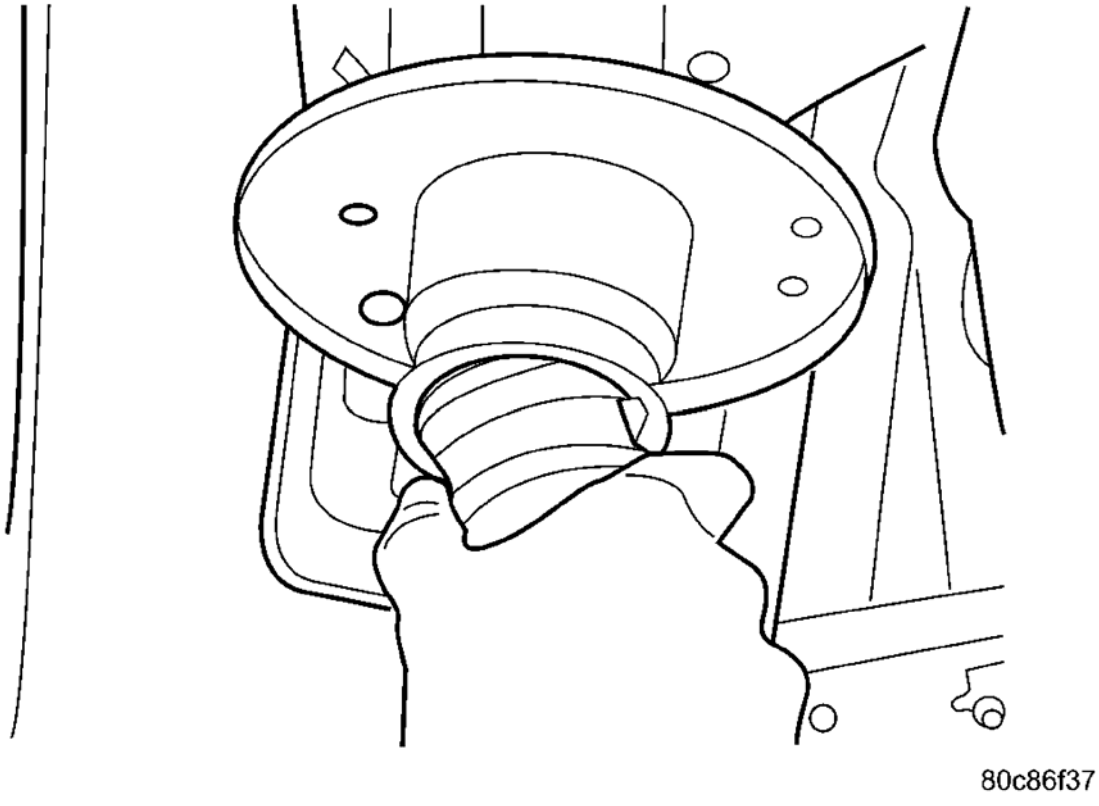


Fig. 88: Removing/Installing Jounce Bumper
Courtesy of CHRYSLER LLC

1. Install the jounce bumper into the mount by twisting the bumper into place. See **Fig. 87**.
2. Install the coil spring. See **INSTALLATION**.
3. Install the shock. See **INSTALLATION**.

STABILIZER BAR

REMOVAL

STABILIZER BAR

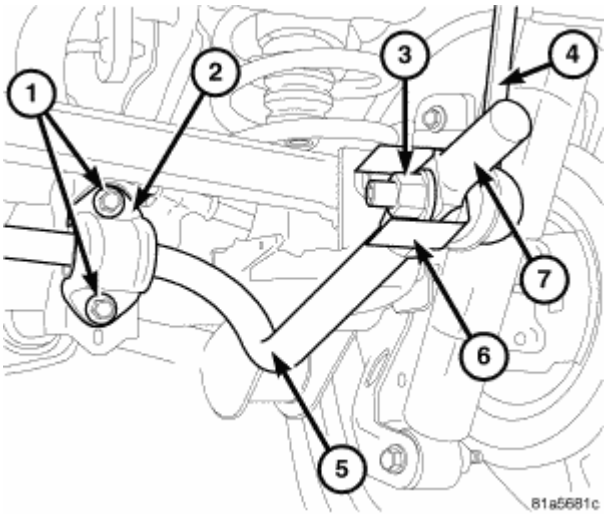


Fig. 89: Stab Bar & Link
Courtesy of CHRYSLER LLC

1. Raise and support the vehicle.
2. Remove the stabilizer nut (3) at the bar (5).
3. Remove the stabilizer links (4) from the stabilizer bar (5).
4. Remove the stabilizer bar bolts (1) from the axle.
5. Remove the stabilizer bar (5).

INSTALLATION

STABILIZER BAR

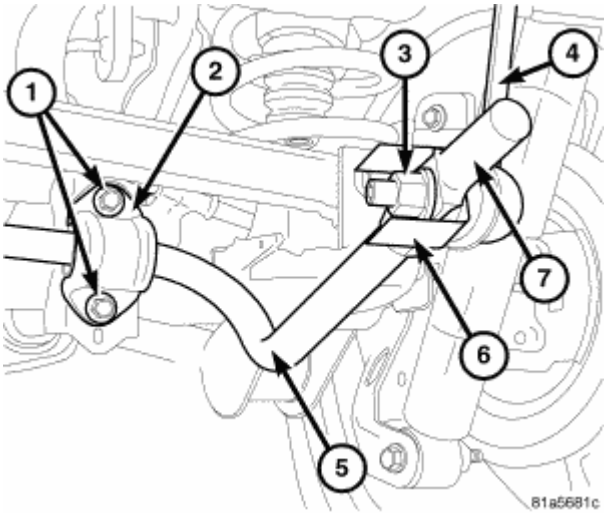


Fig. 90: Stab Bar & Link
Courtesy of CHRYSLER LLC

1. Position the stabilizer bar (5) on the axle. Ensure the bar is centered with equal spacing on both sides. Tighten the bolts (1) to 47 N.m (35 ft. lbs.).

2. Install the stabilizer links (3) to the bar (5). Tighten the nuts (3) to 88 N.m (65 ft. lbs.) **with full vehicle weight.**
3. Remove support and lower the vehicle.

STABILIZER LINK

REMOVAL

STABILIZER LINK

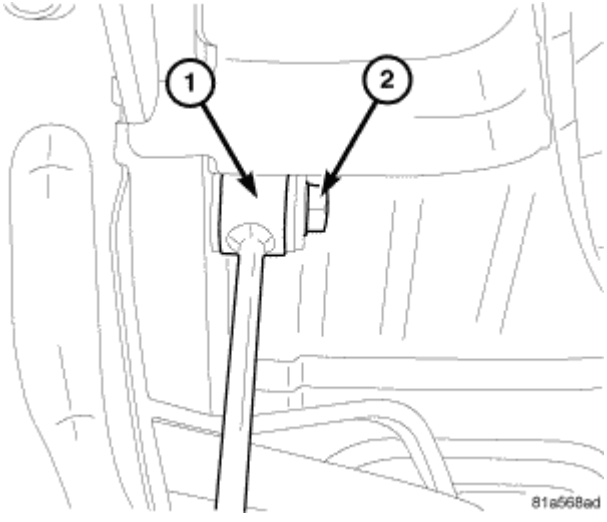


Fig. 91: Upper Stab Bolt
Courtesy of CHRYSLER LLC

1. Raise and support the vehicle.
2. Support the rear axle with a jack.
3. Remove the rear tire **right side only** .
4. Remove the upper link (2) bolt at the frame.

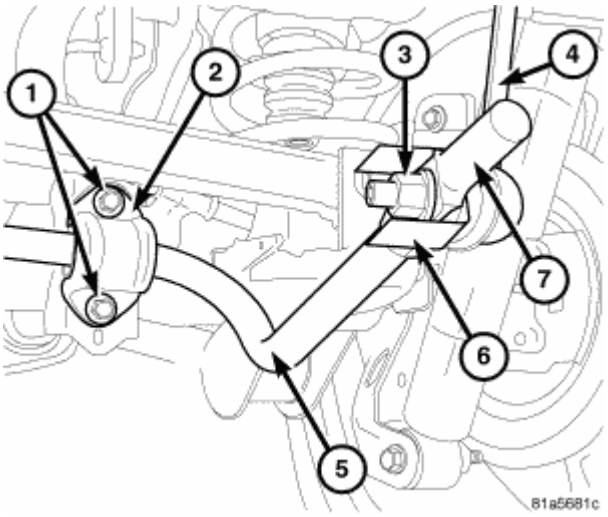


Fig. 92: Stab Bar & Link
Courtesy of CHRYSLER LLC

5. Remove the lower link nut (3) at the stabilizer bar (5).
6. Remove stabilizer link (4).

INSTALLATION

STABILIZER LINK

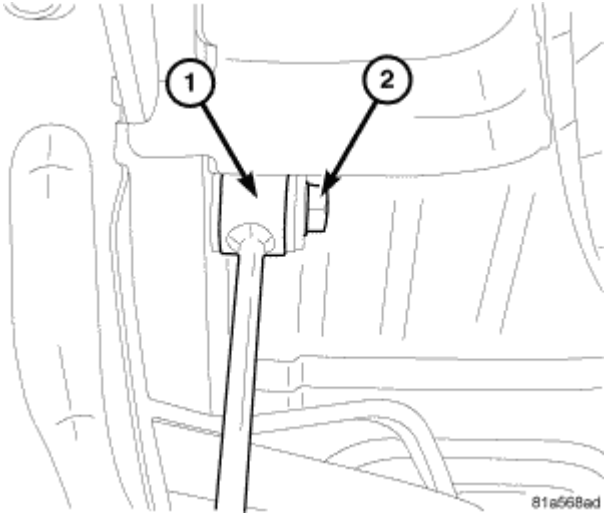


Fig. 93: Upper Stab Bolt
Courtesy of CHRYSLER LLC

1. Install the upper bolt (2) for the stabilizer link (1) to the frame and tighten to 102 N.m (75 ft. lbs.).

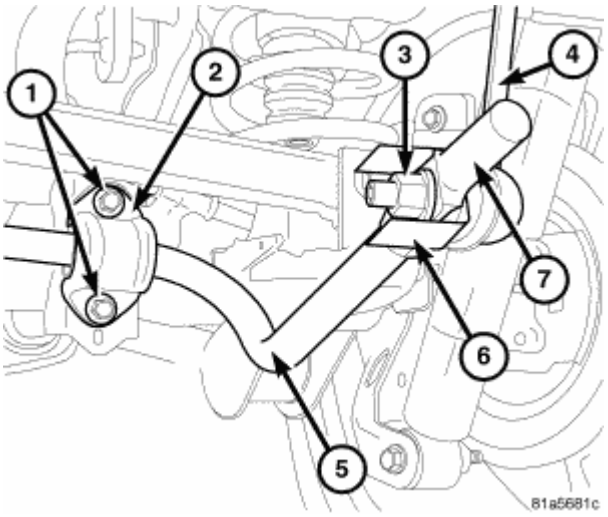


Fig. 94: Stab Bar & Link
Courtesy of CHRYSLER LLC

2. Install the stabilizer link (4) to the stabilizer bar (5).
3. Install the nut (3) and tighten to 115 N.m (85 ft. lbs.) **with full vehicle weight.**
4. Install the spare tire **right side only** .
5. Remove the jack and lower the vehicle.

MASS DAMPER

REMOVAL

MASS DAMPER

1. Raise and support the vehicle.
2. Support the rear axle with a jack.

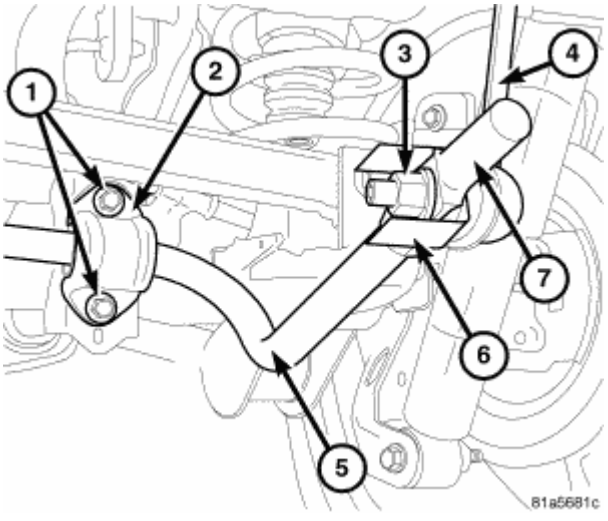


Fig. 95: Stab Bar & Link
Courtesy of CHRYSLER LLC

3. Remove the lower link nut (3) at the stabilizer bar (5).
4. Remove the mass damper (7).
5. Remove stabilizer bar (5) from the link (4).
6. Remove the retainer (6).

INSTALLATION

MASS DAMPER

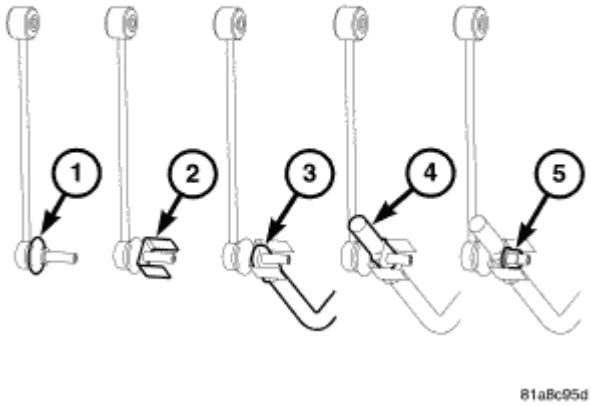


Fig. 96: Mass Damper
Courtesy of CHRYSLER LLC

1. Install the retainer (2) to the stabilizer link (1).
2. Install the stabilizer bar (3) over the retainer (2).
3. Install the mass damper (4) to the stabilizer link stud.
4. Install the nut (5) and tighten to 115 N.m (85 ft. lbs.) **with full vehicle weight.**
5. Remove the jack and lower the vehicle.

LOWER CONTROL ARM

DESCRIPTION

LOWER SUSPENSION ARMS AND BUSHINGS

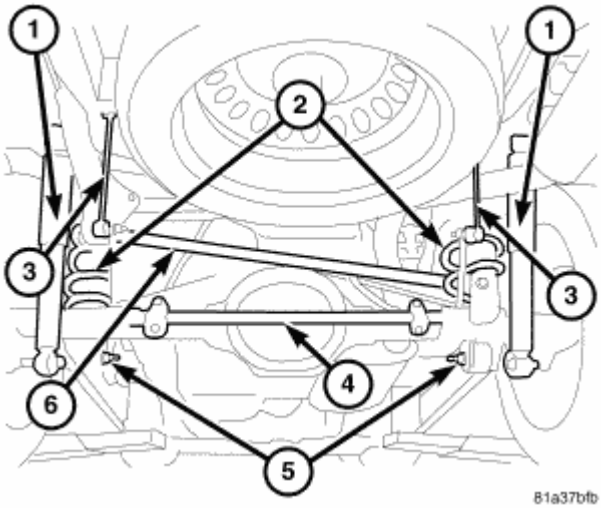


Fig. 97: Rear Suspension Components
Courtesy of CHRYSLER LLC

The lower suspension arms (5) are tubular steel and use a voided round bushing at the arm on the axle side. The body side uses a solid round bushing.

OPERATION

LOWER SUSPENSION ARMS AND BUSHINGS

The bushings provide isolation from the axle. The arms mount to the unibody frame rail bracket and the axle brackets. The arm and bushings provide location and react to loads.

REMOVAL

LOWER SUSPENSION ARM - RIGHT SIDE

1. Raise the vehicle and support the rear axle.
2. Remove the lower suspension arm nut and bolt from the axle bracket.

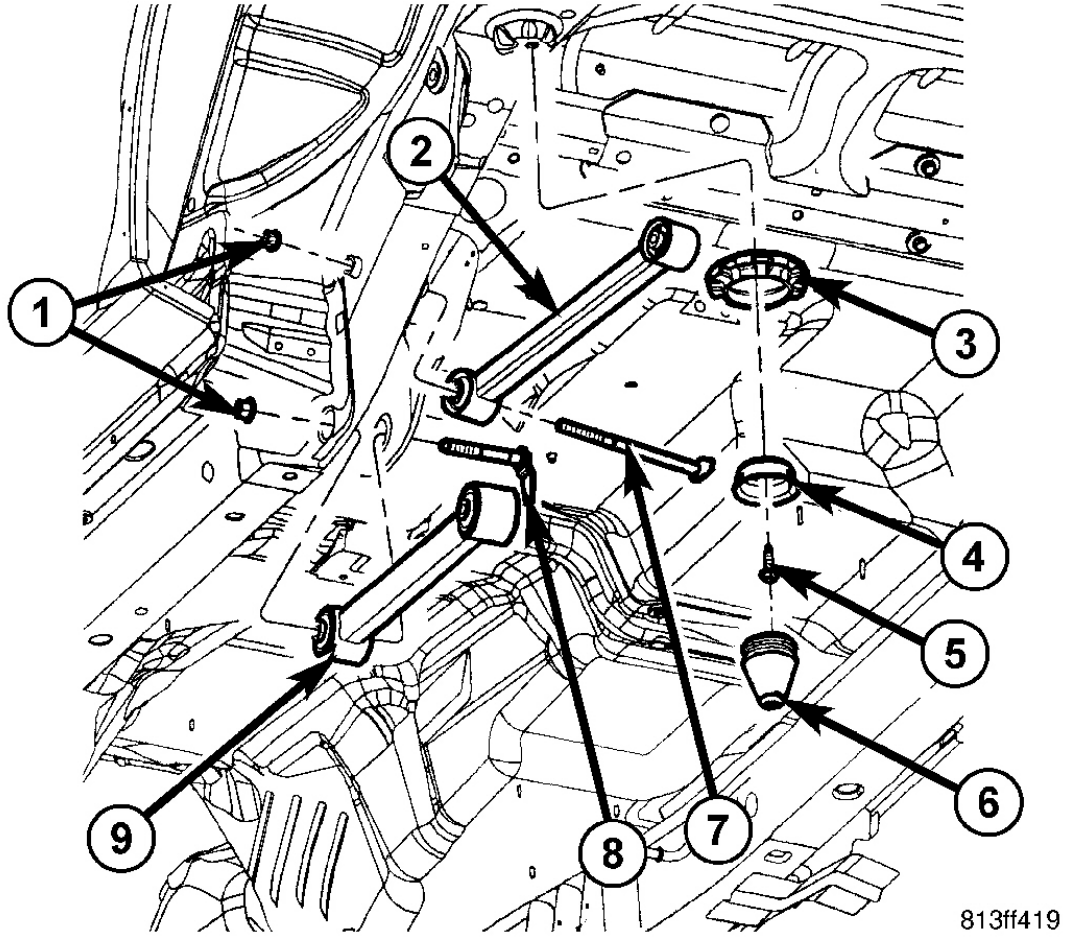


Fig. 98: Suspension Arms Components
Courtesy of CHRYSLER LLC

1 - NUT
2 - UPPER SUSPENSION ARM
3 - UPPER SPRING ISOLATOR
4 - JOUNCE BUMPER RETAINER
5 - BOLT
6 - JOUNCE BUMPER
7 - UPPER FLAG BOLT
8 - LOWER FLAG BOLT
9 - LOWER SUSPENSION ARM

3. Remove the exhaust from the mid and rear hanger rubber isolators to allow the exhaust system to lower enough to remove the bolt at the frame rail.

4. Remove the nut (1) and bolt (8) from the frame rail and remove the lower suspension arm (9).

LOWER SUSPENSION ARM - LEFT SIDE

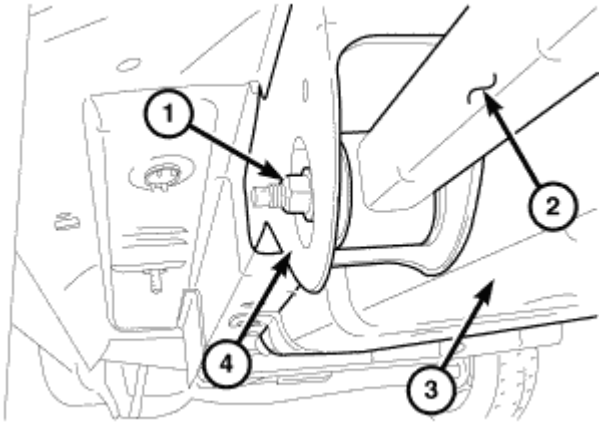


Fig. 99: Identifying Bolt/Nut, Lower Suspension Arm, Fuel Tank & Frame Rail
Courtesy of CHRYSLER LLC

1. Raise the vehicle and support the rear axle.
2. Remove the fuel tank (3). Refer to **REMOVAL** .
3. Remove the lower suspension arm nut and bolt from the axle bracket.
4. Remove the nut and bolt (1) from the frame rail (4) and remove the lower suspension arm (2).

INSTALLATION

LOWER SUSPENSION ARM - RIGHT SIDE

NOTE: All torques should be done with vehicle on the ground with full vehicle weight.

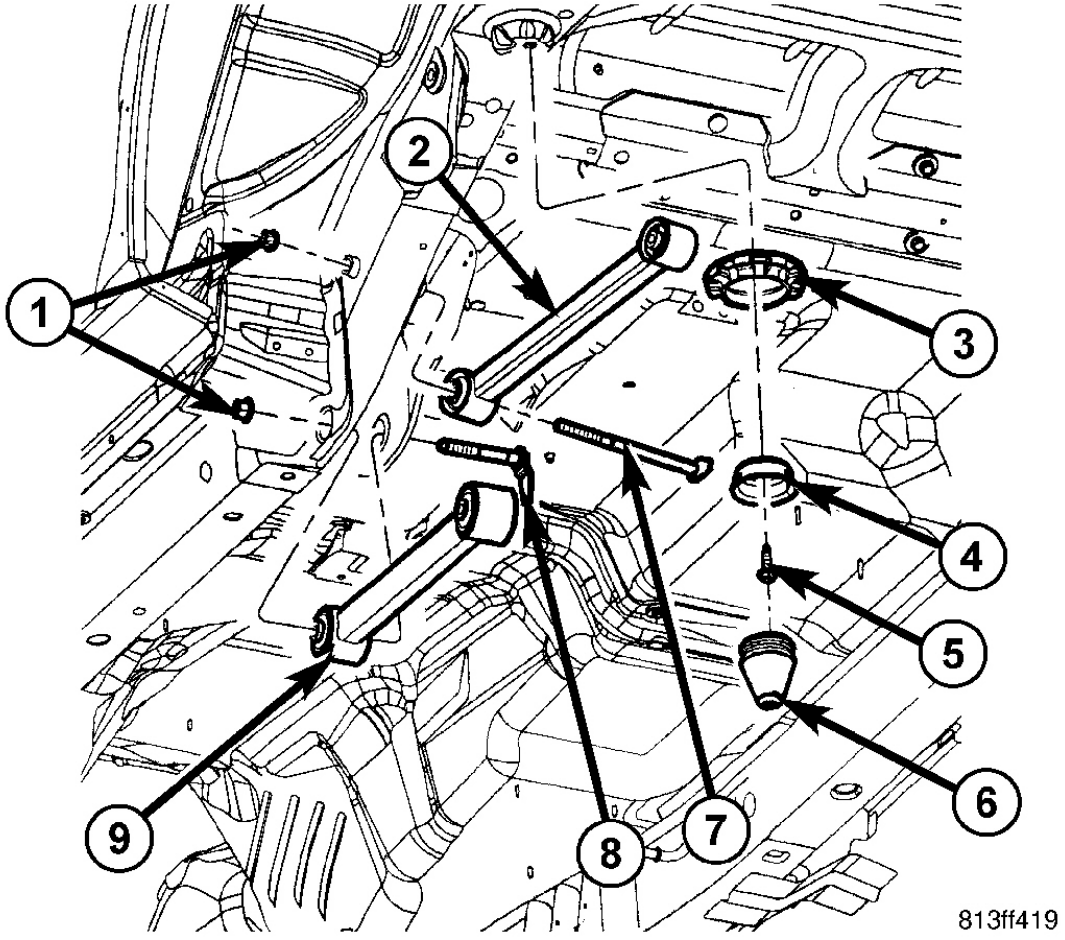


Fig. 100: Suspension Arms Components
Courtesy of CHRYSLER LLC

1 - NUT
2 - UPPER SUSPENSION ARM
3 - UPPER SPRING ISOLATOR
4 - JOUNCE BUMPER RETAINER
5 - BOLT
6 - JOUNCE BUMPER
7 - UPPER FLAG BOLT
8 - LOWER FLAG BOLT
9 - LOWER SUSPENSION ARM

1. Position the lower suspension arm (9) in the frame rail.
2. Install the frame rail bracket bolt (8) and nut (1). Tighten to 163 N.m (120 ft. lbs.) **with full vehicle**

weight.

3. Install the exhaust back in the mid and rear hanger rubber isolators.
4. Position the lower suspension arm in the axle bracket.
5. Install the axle bracket bolt and nut. Tighten to 203 N.m (150 ft. lbs.) **with full vehicle weight.**
6. Remove the supports and lower the vehicle.

LOWER SUSPENSION ARM - LEFT SIDE

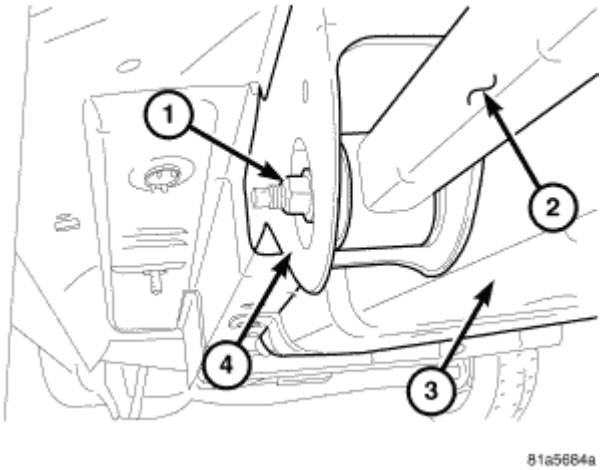


Fig. 101: Identifying Bolt/Nut, Lower Suspension Arm, Fuel Tank & Frame Rail
Courtesy of CHRYSLER LLC

NOTE: All torques should be done with vehicle on the ground with full vehicle weight.

1. Position the lower suspension arm (2) in the frame rail (4).
2. Install the frame rail bracket bolt and nut (1). Tighten to 163 N.m (120 ft. lbs.) **with full vehicle weight.**
3. Position the lower suspension arm in the axle bracket.
4. Install the axle bracket bolt and nut. Tighten to 203 N.m (150 ft. lbs.) **with full vehicle weight.**
5. Install the fuel tank. Refer to **INSTALLATION** .
6. Remove the supports and lower the vehicle.

UPPER CONTROL ARM

DESCRIPTION

UPPER SUSPENSION ARM, BUSHINGS, AND BALL JOINT

The suspension arm uses bushings to isolate road noise. The suspension arm is bolted through bushings to a bracket at the body and axle.

OPERATION

UPPER SUSPENSION ARM, BUSHINGS, AND BALL JOINT

The upper suspension arm provides fore/aft and lateral location of the rear axle. The suspension arm travel is limited through the use of jounce bumpers in compression and shock absorbers in rebound.

REMOVAL

UPPER SUSPENSION ARM - LEFT SIDE

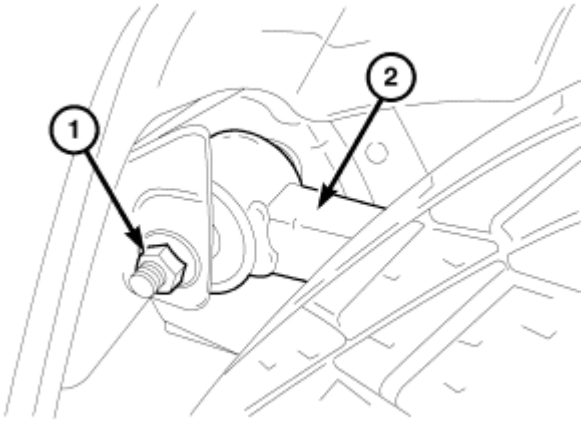


Fig. 102: Identifying Nut/Bolt & Upper Suspension Arm
Courtesy of CHRYSLER LLC

1. Raise and support the vehicle.
2. Support the rear axle.
3. Lower the fuel tank in order to gain access to the bolt. Refer to **REMOVAL** .
4. Remove the upper suspension arm nut and bolt from the axle bracket.
5. Remove the nut and bolt (1) from the frame rail and remove the upper suspension arm (2).

UPPER SUSPENSION ARM - RIGHT SIDE

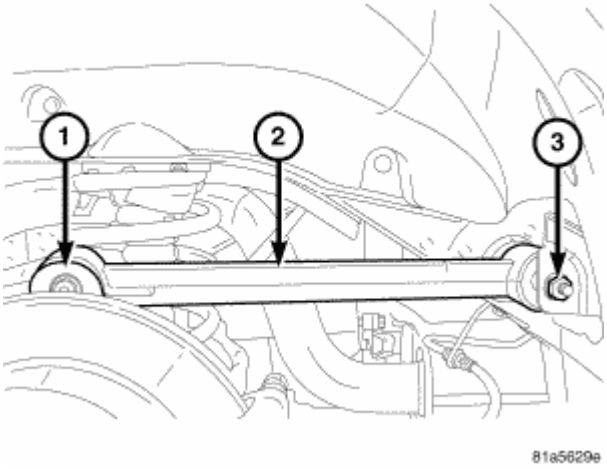


Fig. 103: Upper Suspension Arm
Courtesy of CHRYSLER LLC

1. Raise and support the vehicle.
2. Support the rear axle.
3. Remove the upper suspension arm nut and bolt (1) from the axle bracket.
4. Remove the nut (3) and flag bolt from the frame rail and remove the upper suspension arm (2).

INSTALLATION

UPPER SUSPENSION ARM - LEFT SIDE

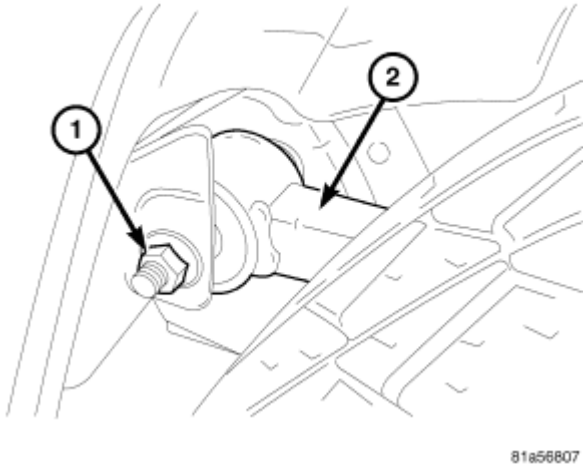


Fig. 104: Identifying Nut/Bolt & Upper Suspension Arm
Courtesy of CHRYSLER LLC

NOTE: All torques should be done with vehicle on the ground with full vehicle weight.

1. Position the upper suspension arm (2) in the frame rail bracket.
2. Install the mounting bolt and nut (1) Tighten to 95 N.m (70 ft. lbs.) **with full vehicle weight.**
3. Position the upper suspension arm in the axle bracket.
4. Install the mounting bolt and nut. Tighten to 115 N.m (85 ft. lbs.) **with full vehicle weight.**
5. Raise the fuel tank back into place and secure. Refer to **INSTALLATION** .
6. Remove the supports and lower the vehicle.

UPPER SUSPENSION ARM - RIGHT SIDE

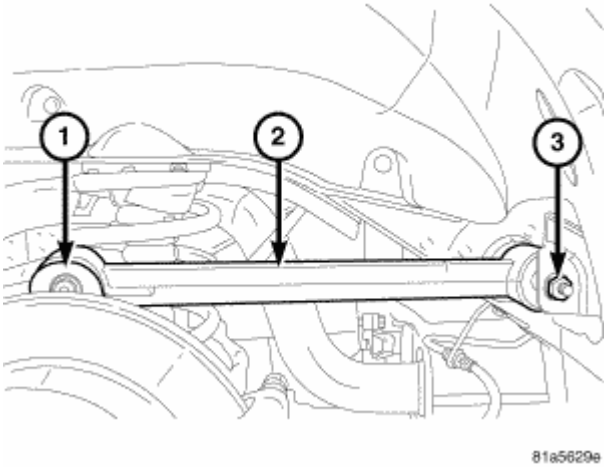


Fig. 105: Upper Suspension Arm
Courtesy of CHRYSLER LLC

NOTE: All torques should be done with vehicle on the ground with full vehicle weight.

1. Position the upper suspension arm (2) in the frame rail bracket.
2. Install the mounting flag bolt and nut (3). Tighten to 95 N.m (70 ft. lbs.). **with full vehicle weight.**
3. Position the upper suspension arm (2) in the axle bracket.
4. Install the mounting bolt and nut (1). Tighten to 115 N.m (85 ft. lbs.). **with full vehicle weight.**
5. Remove the supports and lower the vehicle.

TRACK BAR

REMOVAL

TRACK BAR

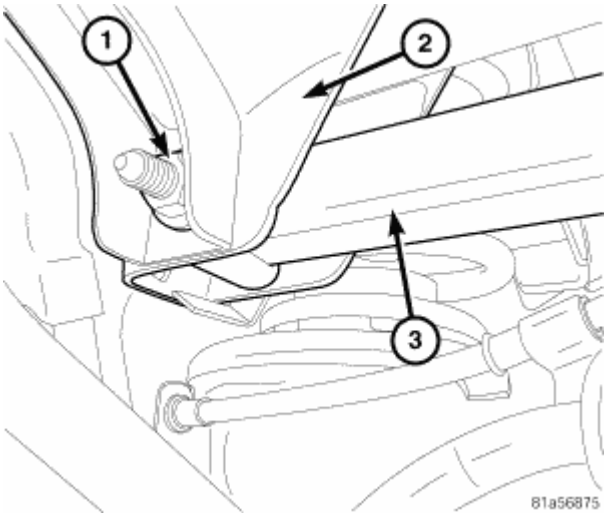


Fig. 106: Identifying Track Bar, Flag Bolt/Nut & Frame Bracket
Courtesy of CHRYSLER LLC

1. Raise and support the vehicle. Position a hydraulic jack under the axle to support the axle.
2. Remove the track bar flag bolt and nut (1) from the frame bracket (2).

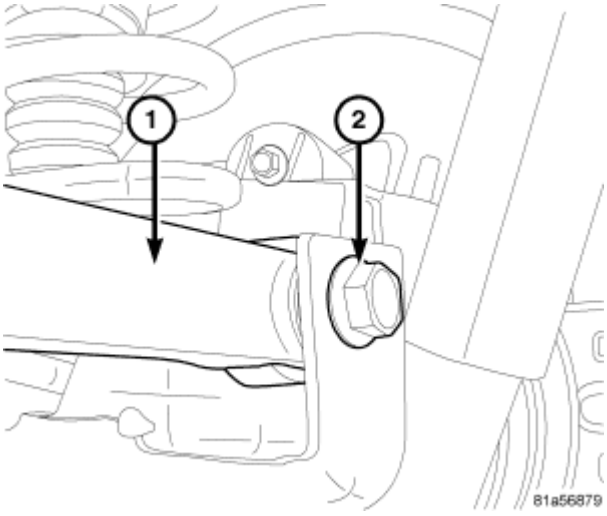


Fig. 107: Identifying Track Bar, Bolt/Nut & Axle Bracket
Courtesy of CHRYSLER LLC

3. Remove the track bar bolt and nut (2) from the axle bracket (3).
4. Remove the track bar (1).

INSTALLATION

TRACK BAR

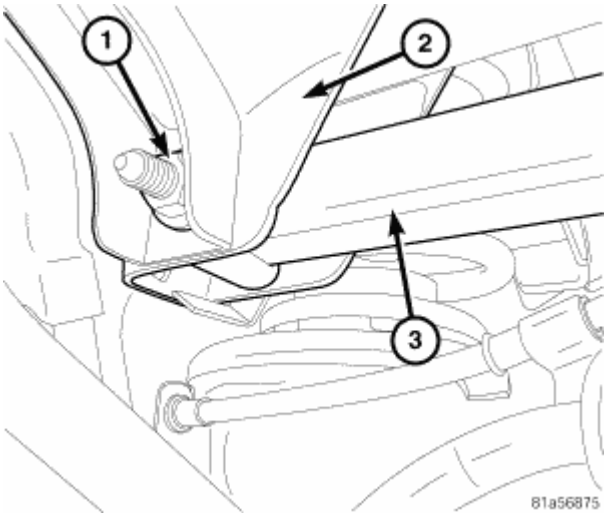


Fig. 108: Identifying Track Bar Flag Bolt/Nut & Frame Bracket
Courtesy of CHRYSLER LLC

1. Install the track bar (3) to the vehicle.
2. Install the track bar bolt and nut (1) in the frame bracket (2).

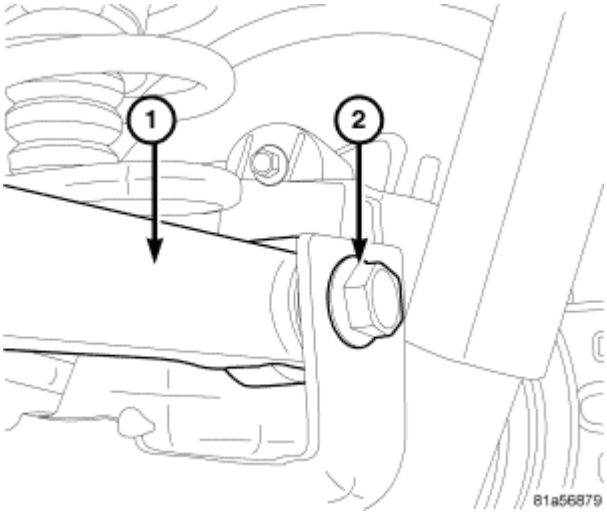


Fig. 109: Identifying Track Bar, Bolt/Nut & Axle Bracket
Courtesy of CHRYSLER LLC

3. Install the track bar (1) into the axle bracket (3).
4. Install the track bar bolt and nut (2) in the axle bracket.
5. Remove the supports and lower the vehicle.
6. Tighten the body side mounting bolt/nut to 183 N.m (135 ft. lbs.). Tighten the axle side mounting bolt/nut to 176 N.m (130 ft. lbs.) **with full vehicle weight.**