SUSPENSION

CONTENTS

ALIGNMENT

INDEX

DESCRIPTION AND OPERATION

WHEEL ALIGNMENT

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 position (Fig. 1).

- **CASTER** is the forward or rearward tilt of the steering knuckle from vertical. Tilting the top of the knuckle rearward provides positive caster. Tilting the top of the knuckle forward provides negative caster. Caster is a directional stability angle. This angle enables the front wheels to return to a straight ahead position after turns.
- **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. The angle is not adjustable, damaged component(s) must be replaced to correct the camber angle.
- **WHEEL TOE POSITION** is the difference between the leading inside edges and trailing inside edges of the front tires. Incorrect wheel toe position is the most common cause of unstable steering and uneven tire wear. The wheel toe position is the **final** front wheel alignment adjustment.
- **STEERING AXIS INCLINATION ANGLE** is measured in degrees and is the angle that the steering knuckles are tilted. The inclination angle has a fixed relationship with the camber angle. It will not change except when a spindle or ball stud is damaged or bent. The angle is not adjustable, damaged component(s) must be replaced to correct the steering axis inclination angle.
- **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.

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 Group 0, Lubrication And Maintenance for the recommended maintenance schedule.

DESCRIPTION AND OPERATION (Continued)

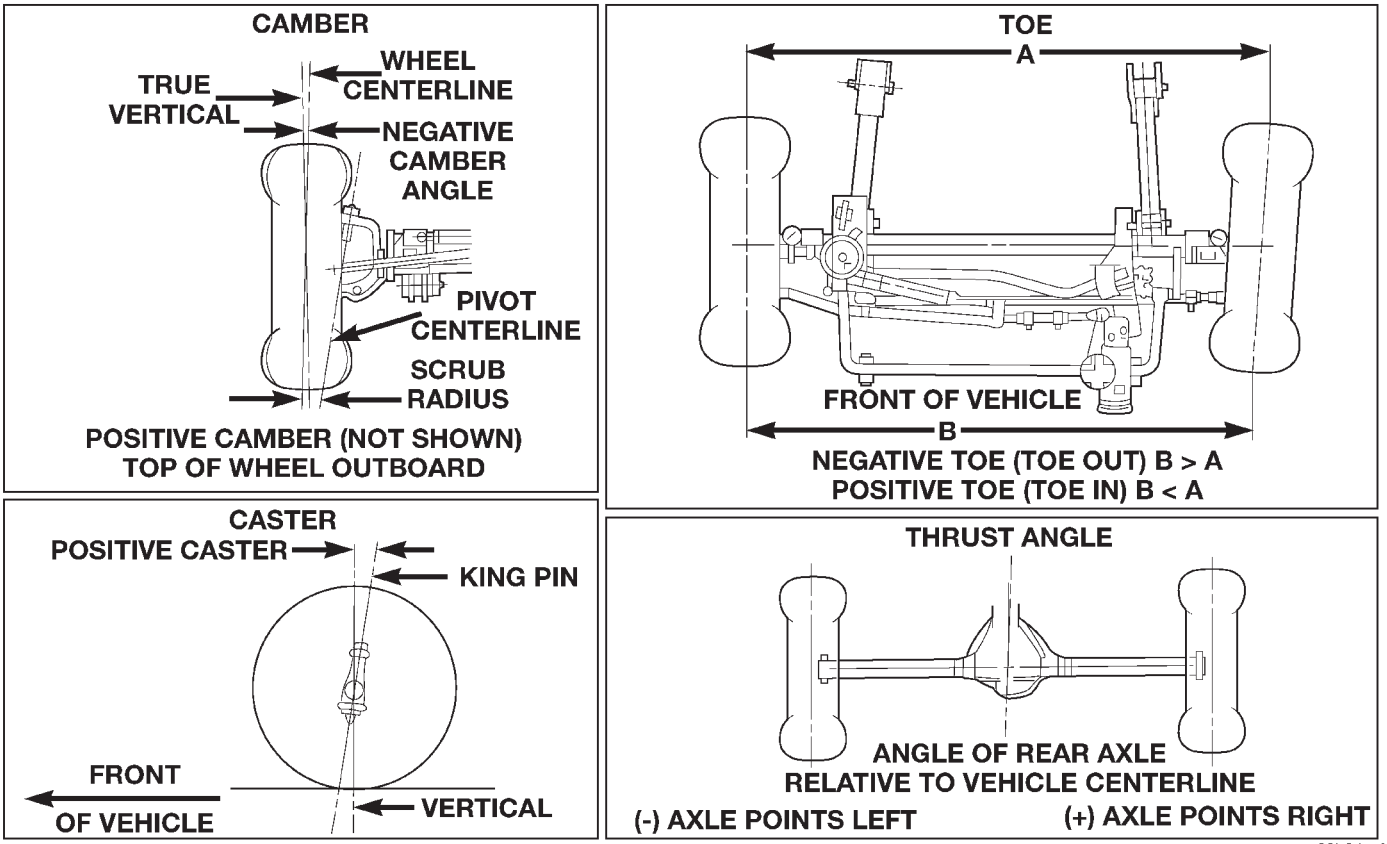


Fig. 1 Wheel Alignment Measurements

DIAGNOSIS AND TESTING

SUSPENSION AND STEERING SYSTEM

CONDITION	POSSIBLE CAUSES	CORRECTION
FRONT END NOISE	1. Loose or worn wheel bearings.	1. Adjust or replace wheel bearings.
	2. Loose or worn steering or suspension components.	2. Tighten or replace components as necessary.
EXCESSIVE PLAY IN STEERING	1. Loose or worn wheel bearings.	1. Adjust or replace wheel bearings.
	2. Loose or worn steering or suspension components.	2. Tighten or replace components as necessary.
	3. Loose or worn steering gear.	3. Adjust or replace steering gear.
FRONT WHEELS SHIMMY	1. Loose or worn wheel bearings.	1. Adjust or replace wheel bearings.
	2. Loose or worn steering or suspension components.	2. Tighten or replace components as necessary.
	3. Tires worn or out of balance.	3. Replace or balance tires.
	4. Alignment.	4. Align vehicle to specifications.
	5. Leaking steering dampener.	5. Replace steering dampener.
VEHICLE INSTABILITY	1. Loose or worn wheel bearings.	1. Adjust or replace wheel bearings.
	2. Loose or worn steering or suspension components.	2. Tighten or replace components as necessary.
	3. Tire pressure.	3. Adjust tire pressure.
	4. Alignment.	4. Align vehicle to specifications.
EXCESSIVE STEERING EFFORT	1. Loose or worn steering gear.	1. Adjust or replace steering gear.
	2. Power steering fluid low.	2. Add fluid and repair leak.
	3. Column coupler binding.	3. Replace coupler.
	4. Tire pressure.	4. Adjust tire pressure.
	5. Alignment.	5. Align vehicle to specifications.
VEHICLE PULLS TO ONE SIDE	1. Tire pressure.	1. Adjust tire pressure.
	2. Alignment.	2. Align vehicle to specifications.
	3. Loose or worn steering or suspension components.	3. Tighten or replace components as necessary.
	4. Radial tire lead.	4. Rotate or replace tire as necessary.
	5. Brake pull.	5. Repair brake as necessary.
	6. Weak or broken spring.	6. Replace spring.

SERVICE PROCEDURES

PRE-ALIGNMENT

Before starting wheel alignment, the following inspection and necessary corrections must be completed. Refer to Suspension and Steering System Diagnosis Chart for additional information.

(1) Inspect tires for size and tread wear.
(2) Set tire air pressure.
(3) Inspect front wheel bearings for wear.
(4) Inspect front wheels for excessive radial or lateral runout and balance.
(5) Inspect ball studs, linkage pivot points and steering gear for looseness, roughness or binding.
(6) Inspect suspension components for wear and noise.

WHEEL ALIGNMENT

Before each alignment reading the vehicle should be jounced (rear first, then front). Grasp each bumper at the center and jounce the vehicle up and down three times. Always release the bumper in the down position.

CAMBER

The wheel camber angle is preset. This angle is not adjustable and cannot be altered.

CASTER

Check the caster of the front axle for correct angle. Be sure the axle is not bent or twisted. Road test the vehicle and observe the steering wheel return-to-center position. Low caster will cause poor steering wheel returnability.

During the road test, turn the vehicle to both the left and right. If the steering wheel returns to the center position unassisted, the caster angle is correct. However, if steering wheel does not return toward the center position unassisted, a low caster angle is probable.

Caster can be adjusted by install a cam bolts and rotating the cams on the lower suspension arm (Fig. 2).

NOTE: Changing caster angle will also change the front propeller shaft angle. The propeller shaft angle has priority over caster. Refer to Group 3, Differential and Driveline for additional information.

TOE POSITION

NOTE: The wheel toe position adjustment is the final adjustment. This adjustment must be performed with the engine running, if the vehicle is equipped with power steering.

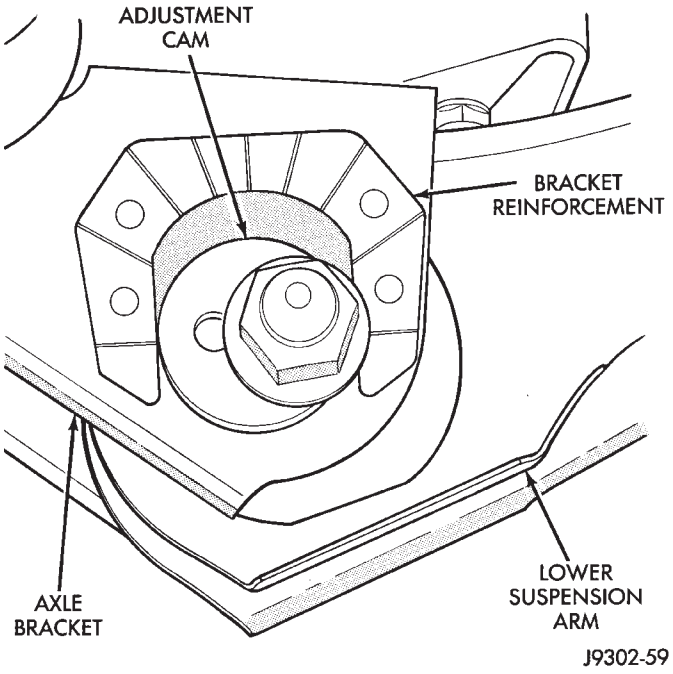


Fig. 2 Cam Adjuster

(1) Start the engine and turn wheels both ways before straightening the steering wheel. Center and secure the steering wheel.

(2) Loosen the adjustment sleeve clamp bolts (Fig. 3).

(3) Adjust the right wheel toe position with the drag link (Fig. 4). Turn the sleeve until the right wheel is at the correct positive TOE-IN position. Position the clamp bolts as shown (Fig. 3) and tighten to 49 N·m (36 ft. lbs.). **Make sure the toe setting does not change during clamp tightening.**

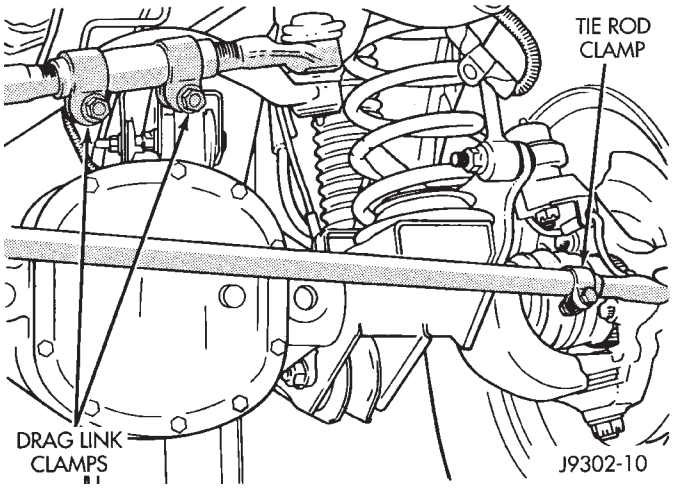


Fig. 3 Drag Link and Tie Rod Clamp

SERVICE PROCEDURES (Continued)

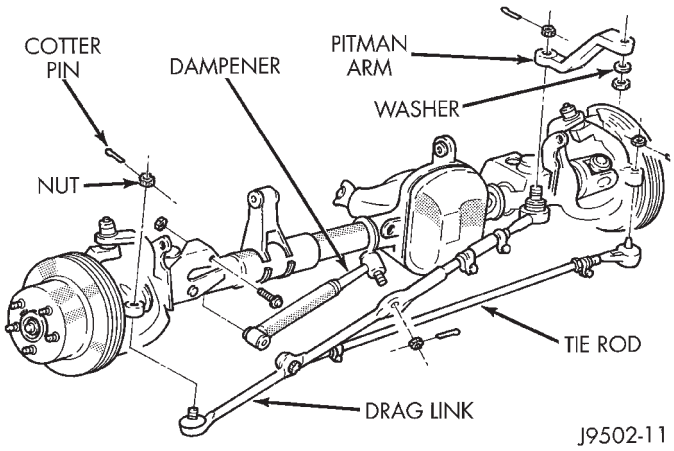


Fig. 4 Steering Linkage

(4) Adjust the left wheel toe position with the tie rod. Turn the sleeve until the left wheel is at the same TOE-IN position as the right wheel. Position the clamp bolts as shown (Fig. 3) and tighten to 27 N·m (20 ft. lbs.). **Make sure the toe setting does not change during clamp tightening.**

(5) Verify the right toe specifications and turn off the engine.

SPECIFICATIONS

ALIGNMENT SPECIFICATIONS

NOTE: Alignment specifications are in degrees.

ADJUSTMENT	PREFERRED	RANGE	MAX RT/LT DIFFERENCE
CASTER	7°	± 1.0°	0.65°
CAMBER (fixed angle)	− 0.25°	± 0.63°	1.0°
TOE-IN (each front wheel)	0.15°	± 0.07°	0.05°
THRUST ANGLE 0° ± 0.25°			

FRONT SUSPENSION

INDEX

DESCRIPTION AND OPERATION

FRONT SUSPENSION

The front suspension is a link/coil design comprised of:

- Shock absorbers
- Coil springs
- Upper and lower suspension arms
- Stabilizer bar
- Track bar

Link/Coil Suspension: The link/coil suspension allows each wheel to adapt to different road surfaces without greatly affecting the opposite wheel. Wheels are attached to a hub/bearings which bolts to the knuckles. The hub/bearing is not serviceable and is replaced as a unit. Steering knuckles pivot on replaceable ball joints attached to the axle tube yokes.

Shock Absorbers: The shock absorbers dampen jounce and rebound motion of the vehicle over various road conditions. The top of the shock absorbers are bolted to a frame bracket. The bottom of the shocks are bolted to a axle bracket.

Coil Springs: The coil springs control ride quality and maintain proper ride height. The coil springs mount up in the wheelhouse. A rubber doughnut isolator is located between the top of the spring and the frame. The bottom of the spring seats on a axle pad.

Upper And Lower Suspension: The suspension arms use bushings to isolate road noise. The suspension arms are bolted to the frame and axle through the rubber bushings. The lower suspension arms can be uses to adjust caster and pinion angle by install a cam bolt service package. The suspension arm travel is limited through the use of jounce bumpers in compression and shocks absorbers in rebound.

Stabilizer Bar: The stabilizer bar is used to control vehicle body roll during turns. The spring steel bar helps to control the vehicle body in relationship to the suspension. The bar extends across the top of the chassis frame rails. Stabilizer bar mounts are isolated by rubber bushings. Links are connected from the bar to the axle brackets.

Track Bar: The track bar is used to control front axle lateral movement. The bar is attached to a frame rail bracket with a ball stud and isolated with a bushing at the axle bracket.

CAUTION: Components attached with a nut and cotter pin must be torqued to specification. Then if the slot in the nut does not line up with the cotter pin hole, tighten nut until it is aligned. Never loosen the nut to align the cotter pin hole.

CAUTION: Suspension components with rubber/ urethane bushings (except stabilizer bar) 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.

DIAGNOSIS AND TESTING

SHOCK DIAGNOSIS

A knocking or rattling noise from a shock absorber may be caused by movement between mounting bushings and metal brackets or attaching components. These noises can usually be stopped by tight-

DIAGNOSIS AND TESTING (Continued)

ening the attaching nuts. If the noise persists, inspect for damaged and worn bushings, and attaching components. Repair as necessary if any of these conditions exist.

A squeaking noise from the shock absorber may be caused by the hydraulic valving and may be intermittent. This condition is not repairable and the shock absorber must be replaced.

The shock absorbers are not refillable or adjustable. If a malfunction occurs, the shock absorber must be replaced. To test a shock absorber, hold it in an upright position and force the piston in and out of the cylinder four or five times. The action throughout each stroke should be smooth and even.

The shock absorber bushings do not require any type of lubrication. Do not attempt to stop bushing noise by lubricating them. Grease and mineral oil-base lubricants will deteriorate the bushing.

SERVICE PROCEDURES

LUBRICATION

Periodic lubrication of the suspension system is required. Refer to Group 0, Lubrication And Maintenance for the recommended maintenance schedule.

The following component must be lubricated:

- Track bar

REMOVAL AND INSTALLATION

SHOCK ABSORBER

REMOVAL

(1) Remove the nut, retainer and grommet from the upper stud through engine compartment access hole (Fig. 1).

(2) Remove the lower nuts and bolts from the axle bracket and remove the shock absorber.

INSTALLATION

(1) Position the lower retainer and grommet on the upper stud. Insert the shock absorber through the shock bracket hole.

(2) Install the lower bolts and nuts. Tighten nuts to 28 N·m (250 in. lbs.).

(3) Install the upper grommet and retainer on the stud and install the nut and tighten to 23 N·m (17 ft. lbs.).

COIL SPRING

REMOVAL

(1) Raise and support the vehicle. Position a hydraulic jack under the axle to support it.

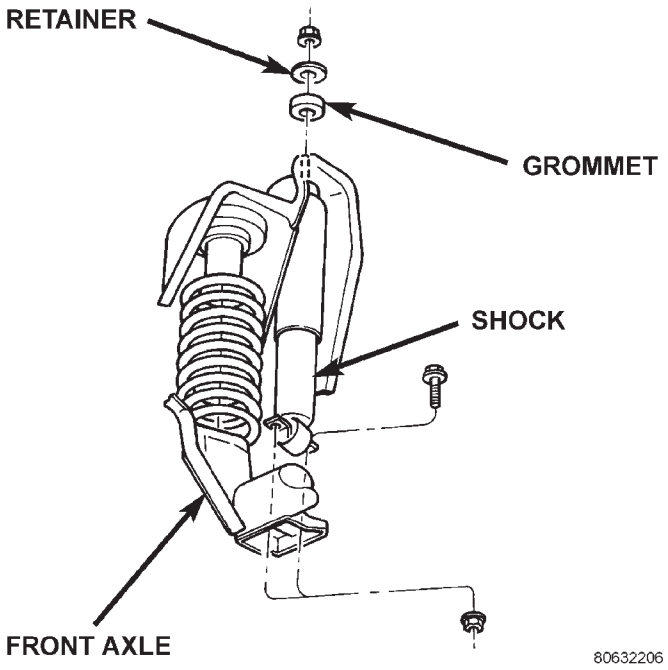


Fig. 1 Coil Spring & Shock Absorber

(2) Paint or scribe alignment marks on the cam adjusters and axle bracket for installation reference.

(3) Mark and disconnect the front propeller shaft from the axle.

(4) Remove the lower suspension arm nut, cam and cam bolt from the axle.

(5) Disconnect the stabilizer bar links and shock absorbers from the axle.

(6) Disconnect the track bar from the frame rail bracket.

(7) Disconnect the drag link from the pitman arm.

(8) Lower the axle until the spring is free from the upper mount and remove the spring.

NOTE: Left coil spring has a retainer and bolt which must be removed from the axle pad.

(9) Remove the jounce bumper if necessary from the upper spring mount.

INSTALLATION

(1) Position the coil spring on the axle pad.

NOTE: Install retainer and bolt on the left spring and tighten to 22 N·m (16 ft. lbs.).

(2) Install the jounce bumper.

(3) Raise the axle into position until the spring seats in the upper mount, then raise another 51 mm (2 in.).

(4) Connect the stabilizer bar links and shock absorbers to the axle bracket. Connect the track bar to the frame rail bracket.

(5) Install the lower suspension arm to the axle.

REMOVAL AND INSTALLATION (Continued)

(6) Install the front propeller shaft to the axle.
(7) Install drag link to pit man arm.
(8) Remove the supports and lower the vehicle.
(9) Tighten all suspension components to proper torque.

STEERING KNUCKLE

For service procedures on the steering knuckle and ball joints refer to Group 3 Differentials And Driveline.

LOWER SUSPENSION ARM

REMOVAL

(1) Raise and support the vehicle.
(2) If equipped with ABS brakes remove sensor wire from the inboard side of the arm.
(3) If the vehicle is equipped with a cam bolt service package paint or scribe alignment marks on the cam adjusters and suspension arm for installation reference (Fig. 2).

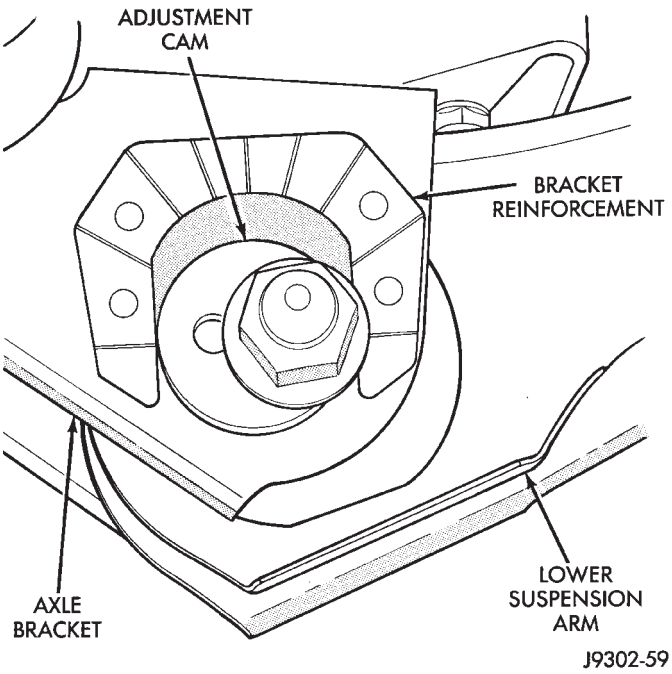


Fig. 2 Cam Bolt Service Package

(4) Remove the lower suspension arm nut and bolt from the axle (Fig. 3).
(5) Remove the nut and bolt/cam bolt from the frame rail bracket and remove the lower suspension arm (Fig. 3).

INSTALLATION

(1) Position the lower suspension arm in the axle bracket and frame rail bracket.

NOTE: Small holes in the side of the arm face inboard.

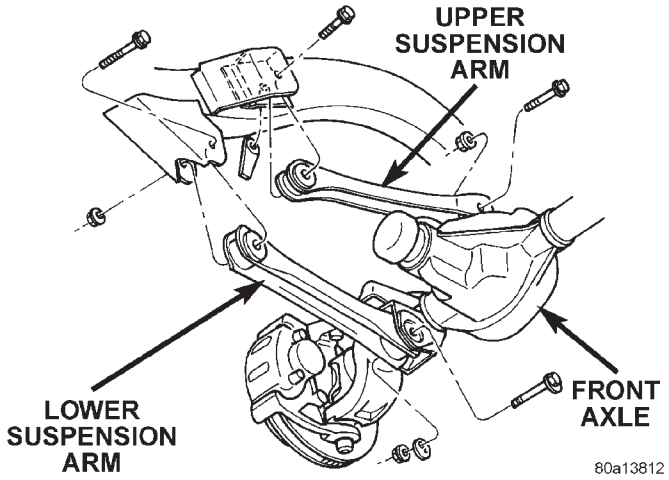


Fig. 3 Upper & Lower Suspension Arms

(2) Install the rear bolt and nut finger tighten.
(3) Install bolt/cam bolt and new nut finger tighten in the axle and align the reference marks.
(4) If equipped with ABS brakes install sensor wire to the inboard side of the arm with new clips.
(5) Lower the vehicle.
(6) Tighten axle bracket nut to 115 N·m (85 ft. lbs.).
(7) Tighten frame bracket nut to 176 N·m (130 ft. lbs.).
(8) Align vehicle to specifications.

UPPER SUSPENSION ARM

REMOVAL

(1) Raise and support the vehicle.
(2) Remove the upper suspension arm nut and bolt at the axle bracket (Fig. 3).
(3) Remove the nut and bolt at the frame rail and remove the upper suspension arm.

INSTALLATION

(1) Position the upper suspension arm at the axle and frame rail.
(2) Install the bolts and finger tighten the nuts.
(3) Remove the supports and lower the vehicle.
(4) Tighten the nut at the axle and frame brackets to 75 N·m (55 ft. lbs.).

FRONT AXLE BUSHING

REMOVAL

(1) Remove the upper suspension arm from axle.
(2) Position Spacer 7932-3 over the axle bushing on a 4x2 vehicle and right side on a 4x4 vehicle.
(3) Place Receiver 7932-1 over flanged end of the bushing. (Fig. 4).
(4) Place small end of Remover/Install 7932-2 against other side of the bushing.

REMOVAL AND INSTALLATION (Continued)

(5) Install bolt 7604 through remover, bushing and receiver.

(6) Install Long Nut 7603 and tighten nut too pull bushing out of the axle bracket.

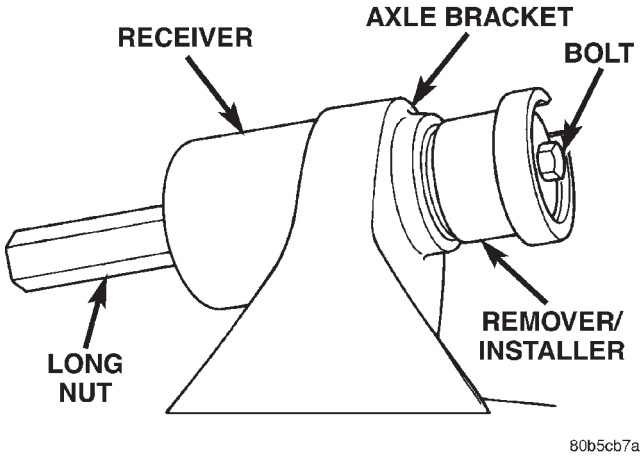


Fig. 4 Bushing Removal

(7) Remove nut, bolt, receiver, remover and bushing.

NOTE: On 4x2 vehicle and right side of 4x4 vehicle, leave Spacer 7932-3 in position for bushing installation.

INSTALLATION

(1) Place Receiver 7932-1on the other side of the axle bracket.

(2) Position new bushing up to the axle bracket., and large end of Remover/Install 7932-2 against the bushing (Fig. 5).

(3) Install bolt 7604 through receiver, bushing and installer.

(4) Install Long Nut 7603 and tighten nut to draw the bushing into the axle bracket.

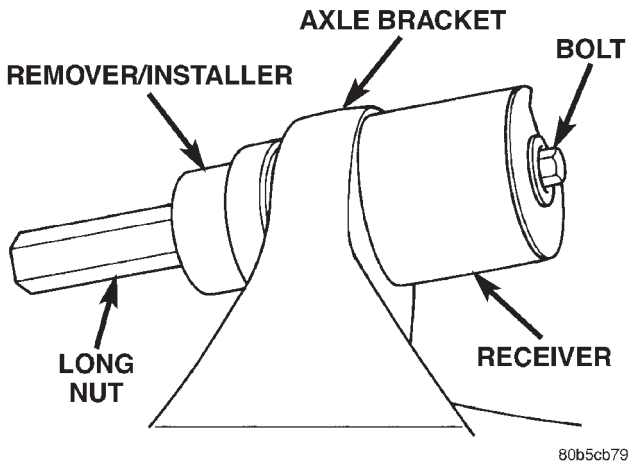


Fig. 5 Bushing Installation

(5) Remove tools and install the upper suspension arm.

STABILIZER BAR

REMOVAL

(1) Remove upper link nuts (Fig. 6) and separate the links from the stabilizer bar with Remove MB-990635.

(2) Remove front bumper valence, refer to Group 23 Body for procedure.

(3) Remove stabilizer retainer bolts (Fig. 6) and remove retainers.

(4) Remove stabilizer bar.

(5) Remove lower link nuts and bolts and remove links (Fig. 6).

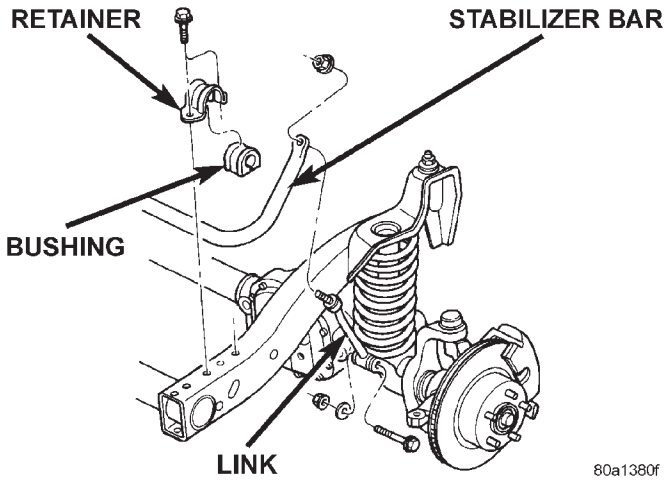


Fig. 6 Stabilizer Bar

INSTALLATION

(1) Center stabilizer bar on top of the frame rails and install retainers and bolts. Tighten bolts to 54 N·m (40 ft. lbs.).

(2) Position links on axle brackets and into the stabilizer bar. Install lower link bolts and nuts and tighten to 95 N·m (70 ft. lbs.).

(3) Install upper link nuts and tighten to 61 N·m (45 ft. lbs.).

(4) Install bumper valence.

TRACK BAR

REMOVAL

(1) Raise and support the vehicle.

(2) Remove the cotter pin and nut from the ball stud end at the frame rail bracket (Fig. 7).

(3) Use a universal puller tool to separate the track bar ball stud from the frame rail bracket.

(4) Remove the bolt and flag nut from the axle bracket (Fig. 7). Remove the track bar.

REMOVAL AND INSTALLATION (Continued)

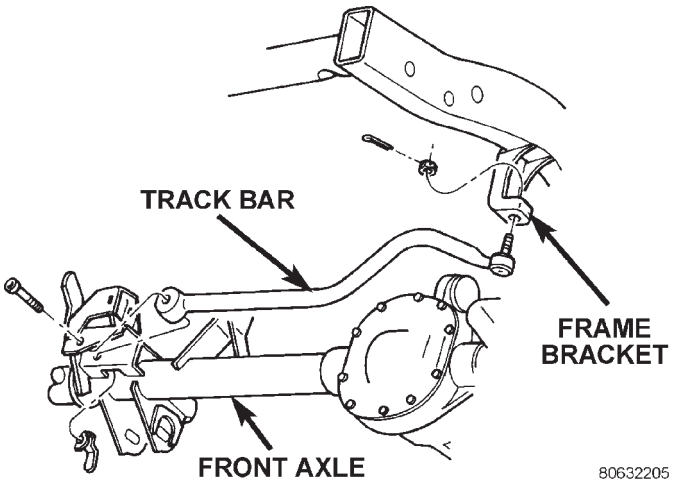


Fig. 7 Track Bar

INSTALLATION

(1) Install the track bar at axle tube bracket. Loosely install the retaining bolt and flag nut.

(2) It may be necessary to pry the axle assembly over to install the track bar at the frame rail. Install track bar at the frame rail bracket. Install the retaining nut on the stud.

(3) Tighten the ball stud nut to 88 N·m (65 ft. lbs.) and install a new cotter pin.

(4) Remove the supports and lower the vehicle.

(5) Tighten the bolt at the axle bracket to 75 N·m (55 ft. lbs.).

(6) Check alignment if a new track bar was installed.

HUB BEARING

REMOVAL

(1) Raise and support the vehicle.

(2) Remove the wheel and tire assembly.

(3) Remove the brake caliper, rotor and ABS wheel speed sensor, refer to Group 5 Brakes.

(4) Remove the cotter pin, nut retainer and axle hub nut (Fig. 8).

(5) Remove the hub bearing mounting bolts from the back of the steering knuckle. Remove hub bearing from the steering knuckle and off the axle shaft.

INSTALLATION

(1) Install the hub bearing and brake dust shield to the knuckle.

(2) Install the hub bearing to knuckle bolts and tighten to 102 N·m (75 ft. lbs.).

(3) Install the hub washer and nut. Tighten the hub nut to 237 N·m (175 ft. lbs.). Install the nut retainer and a new cotter pin.

(4) Install the brake rotor, caliper and ABS wheel speed sensor, refer to Group 5 Brakes.

(5) Install the wheel and tire assembly.

(6) Remove support and lower the vehicle.

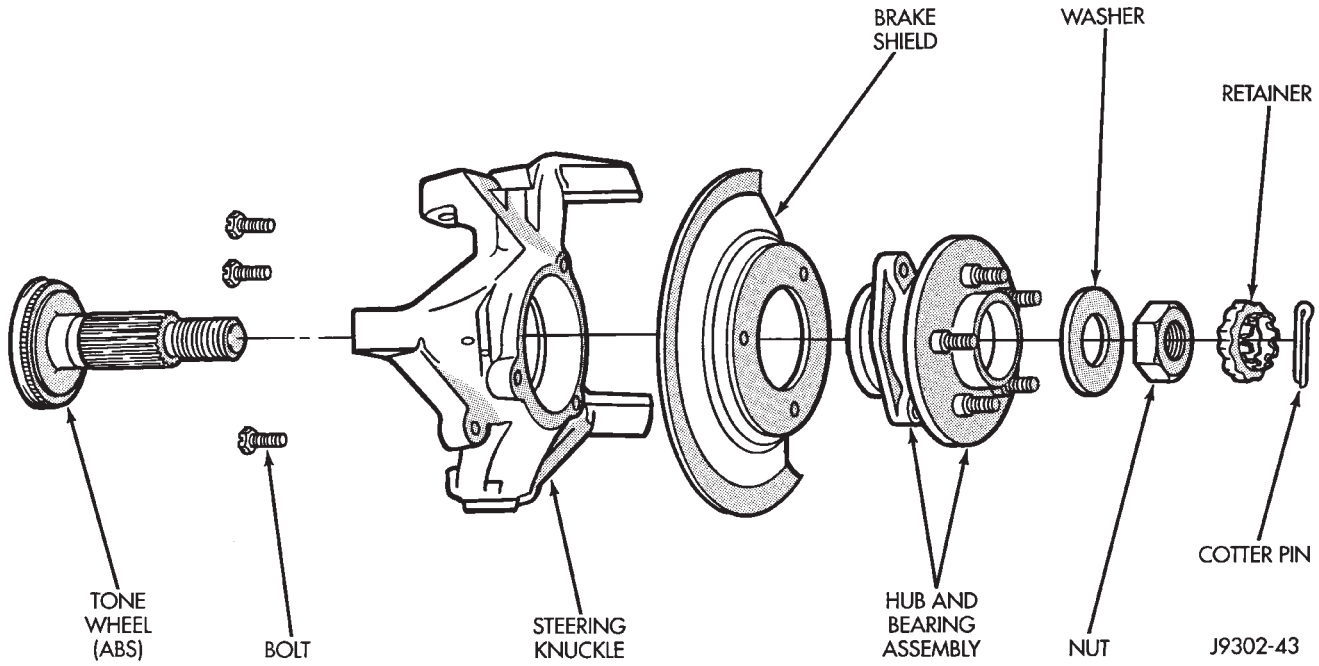


Fig. 8 Hub Bearing & Knuckle

REMOVAL AND INSTALLATION (Continued)

WHEEL MOUNTING STUDS

REMOVAL

(1) Raise and support vehicle.
(2) Remove wheel and tire assembly.
(3) Remove brake caliper and rotor, refer to Group 5 Brakes for procedure.
(4) Remove stud from hub with Remover C-4150A (Fig. 9).

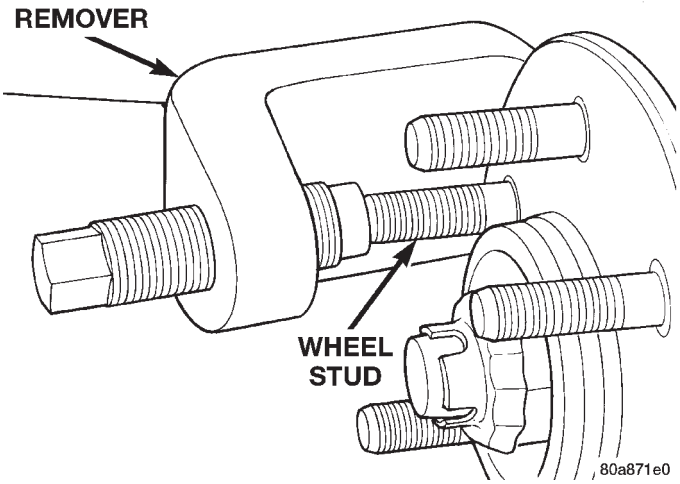


Fig. 9 Wheel Stud Removal

INSTALLATION

(1) Install new stud into hub flange.
(2) Install three washers onto stud, then install lug nut with the flat side of the nut against the washers.
(3) Tighten lug nut until the stud is pulled into the hub flange. Verify that the stud is properly seated into the flange.
(4) Remove lug nut and washers.
(5) Install the brake rotor and caliper, refer to Group 5 Brakes for procedure.
(6) Install wheel and tire assembly, use new lug nut on stud or studs that were replaced.
(7) Remove support and lower vehicle.

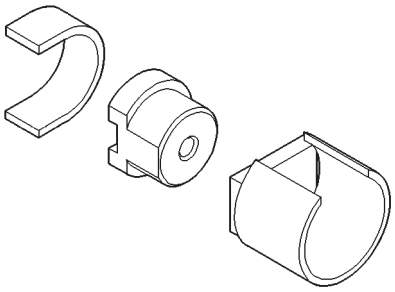
SPECIFICATIONS

TORQUE CHART

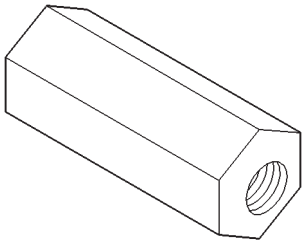
DESCRIPTION	TORQUE
Shock Absorber	
Upper Nut	23 N·m (17 ft. lbs.)
Lower Nut	28 N·m (250 in. lbs.)
Suspension Arm Lower	
Axle Bracket Nut	115 N·m (85 ft. lbs.)
Frame Bracket Nut	176 N·m (130 ft. lbs.)
Suspension Arm Upper	
Axle Bracket Nut	75 N·m (55 ft. lbs.)
Frame Bracket Bolt	75 N·m (55 ft. lbs.)
Stabilizer Bar	
Retainer Bolts	54 N·m (40 ft. lbs.)
Link Upper Nut	61 N·m (45 ft. lbs.)
Link Lower Bolt	95 N·m (70 ft. lbs.)
Track Bar	
Ball Stud Nut	88 N·m (65 ft. lbs.)
Axle Bracket Bolt	75 N·m (55 ft. lbs.)
Hub/Bearing	
Bolts	102 N·m (75 ft. lbs.)
Axle Nut	237 N·m (175 ft. lbs.)

SPECIAL TOOLS

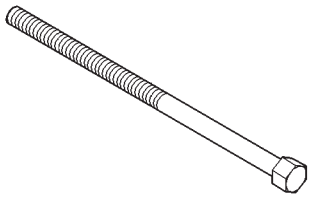
FRONT SUSPENSION



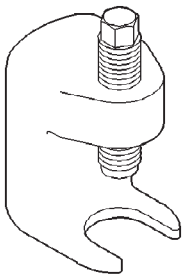
Remover/Installer Suspension Bushing 7932



Nut, Long 7603



Bolt, Special 7604



Remover C-4150A

REAR SUSPENSION

INDEX

DESCRIPTION AND OPERATION

REAR SUSPENSION

The rear suspension is link/coil design comprised of:

- Dual-action shock absorbers
- Coil springs
- Upper and lower suspension arms
- Stabilizer bar
- Track bar

Shock Absorbers: The shock absorbers dampen jounce and rebound of the vehicle over various road conditions. The top of the shock absorbers are bolted to the frame. The bottom of the shocks are bolted to axle brackets.

Coil Springs: The coil springs control ride quality and maintain proper ride height. The springs mount between the bottom of the frame rail and the rear axle. A rubber isolator is located between the top of the spring and the frame. A plastic isolator is located between the bottom of the spring and the axle.

Upper And Lower Suspension: The suspension arms use bushings to isolate road noise. The suspension arms are bolted to the frame and axle through the rubber bushings. The suspension arm travel is limited through the of use jounce bumpers in compression and shock absorbers in rebound.

Stabilizer Bar: The stabilizer bar is used to control vehicle body roll during turns. The spring steel bar helps to equalize the vehicle body in relationship to the suspension. The bar extends across the underside of the chassis and mounts to the rear axle. Links are connected from the bar to frame brackets. The bar is isolated by rubber bushings.

Track Bar: The track bar is used to control rear axle lateral movement. The track bar is attached to a frame rail bracket and an axle bracket. It is isolated with bushings at both ends.

CAUTION: Suspension components with rubber/urethane bushings (except stabilizer bar) 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. This will maintain vehicle ride comfort and prevent premature bushing wear.

DIAGNOSIS AND TESTING

SHOCK DIAGNOSIS

A knocking or rattling noise from a shock absorber may be caused by movement between mounting bushings and metal brackets or attaching components. These noises can usually be stopped by tightening the attaching nuts. If the noise persists, inspect for damaged and worn bushings, and attaching components. Repair as necessary if any of these conditions exist.

A squeaking noise from the shock absorber may be caused by the hydraulic valving and may be intermittent. This condition is not repairable and the shock absorber must be replaced.

The shock absorbers are not refillable or adjustable. If a malfunction occurs, the shock absorber must be replaced. To test a shock absorber, hold it in an upright position and force the piston in and out of the cylinder four or five times. The action throughout each stroke should be smooth and even.

The shock absorber bushings do not require any type of lubrication. Do not attempt to stop bushing noise by lubricating them. Grease and mineral oil-base lubricants will deteriorate the bushing.

REMOVAL AND INSTALLATION

SHOCK ABSORBER

REMOVAL

(1) Raise and support the vehicle and the axle.
(2) Remove the upper mounting bolts (Fig. 1).
(3) Remove the lower nut and bolt from the axle bracket. Remove the shock absorber.

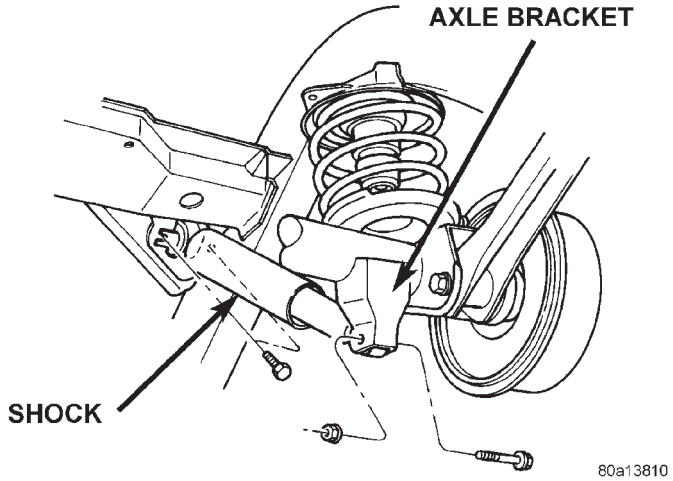


Fig. 1 Shock Absorber

INSTALLATION

(1) Install the shock absorber on the upper frame rail and install mounting bolts.
(2) Tighten the upper bolts to 31 N·m (23 ft. lbs.).
(3) Install lower bolt and nut finger tight.
(4) Remove the supports and lower the vehicle.
(5) Tighten the lower nut to 100 N·m (74 ft. lbs.).

COIL SPRING

REMOVAL

(1) Raise and support the vehicle. Position a hydraulic jack under the axle to support it.
(2) Disconnect the stabilizer bar links and shock absorbers from the axle brackets.
(3) Disconnect the track bar from the frame rail bracket.
(4) Lower the axle until the spring is free from the upper mount seat and remove the spring.

INSTALLATION

NOTE: Springs can be install with either end up.

(1) Position the coil spring on the axle pad isolator.
(2) Raise the axle into position until the spring seats on the upper isolator.
(3) Connect the stabilizer bar links and shock absorbers to the axle bracket. Connect the track bar to the frame rail bracket.
(4) Remove the supports and lower the vehicle.
(5) Tighten the stabilizer bar links, shock absorbers and track bar to specified torque.

LOWER SUSPENSION ARM

REMOVAL

(1) Raise and support the vehicle.
(2) Remove the lower suspension arm nut and bolt at the axle bracket (Fig. 2).
(3) Remove the nut and bolt at the frame rail mount (Fig. 3) and remove the lower suspension arm.

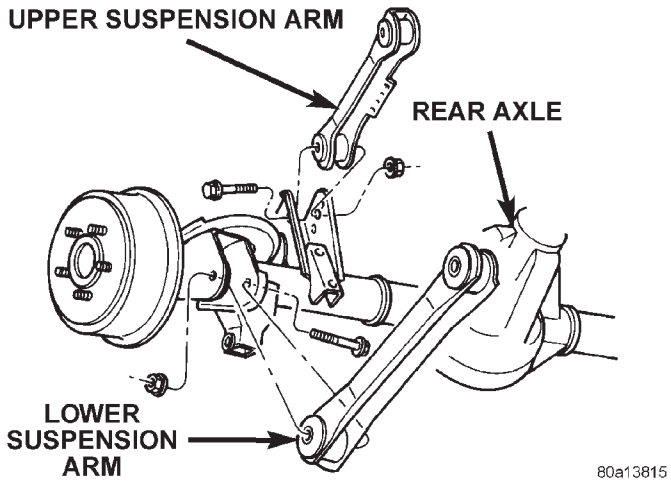


Fig. 2 Upper & Lower Suspension Arms

INSTALLATION

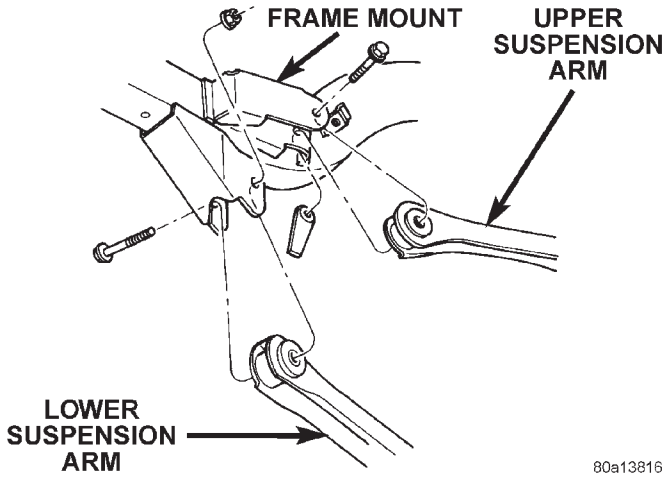


Fig. 3 Upper & Lower Suspension Arms

(1) Position the lower suspension arm in the axle bracket and frame rail mount.
(2) Install the mounting bolts and finger tighten the nuts.

REMOVAL AND INSTALLATION (Continued)

(3) Remove the supports and lower the vehicle.
(4) Tighten the lower suspension arm nuts to 177 N·m (130 ft. lbs.).

UPPER SUSPENSION ARM

REMOVAL

(1) Raise and support the vehicle.
(2) Remove the parking brake cable/bracket and ABS wiring bracket from the arm if equipped (Fig. 4).

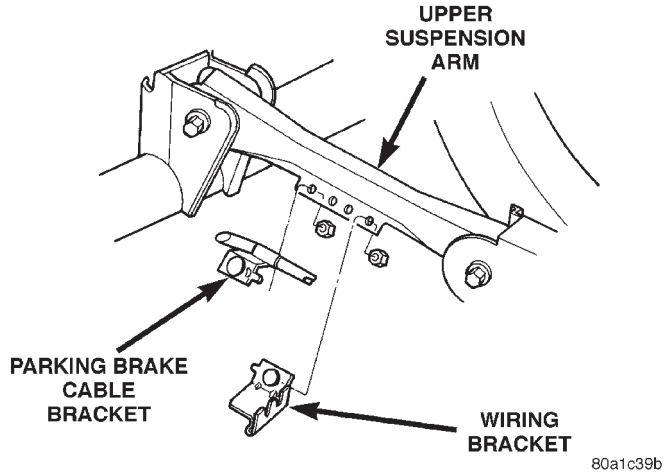


Fig. 4 Parking Brake Cable/Bracket And Wiring Bracket

(3) Remove the upper suspension arm nut and bolt from the axle bracket (Fig. 2).
(4) Remove the nut and bolt from the frame rail bracket (Fig. 3) and remove the upper suspension arm.

INSTALLATION

(1) Position the upper suspension arm in the axle bracket and frame rail bracket.
(2) Install the bolts and finger tighten the nuts.
(3) Install the parking brake cable/bracket and ABS wiring bracket on the arm if equipped.
(4) Remove the supports and lower the vehicle.
(5) Tighten the upper suspension arm frame rail bracket bolt to 75 N·m (55 ft. lbs.).
(6) Tighten the upper suspension arm axle bracket nut to 75 N·m (55 ft. lbs.).

STABILIZER BAR

REMOVAL

(1) Raise and support the vehicle.
(2) Remove the stabilizer bar link bolts from the frame mounts (Fig. 5).
(3) Remove the link bolts from the stabilizer bar.
(4) Remove the stabilizer bar retainer bolts and retainers from the axle mounts (Fig. 6) and remove the bar.

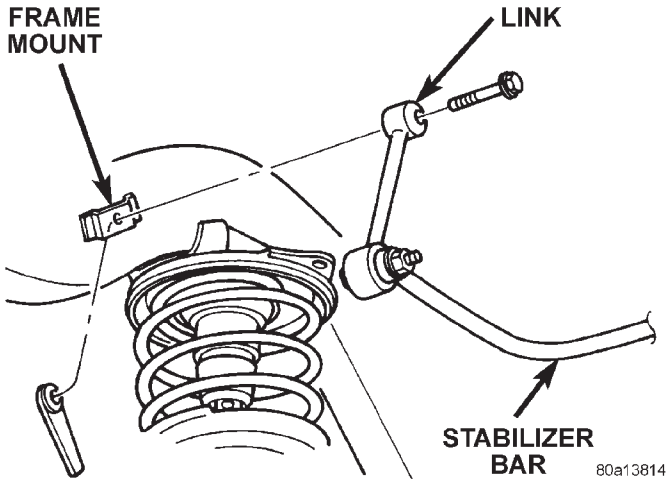


Fig. 5 Stabilizer Bar Link

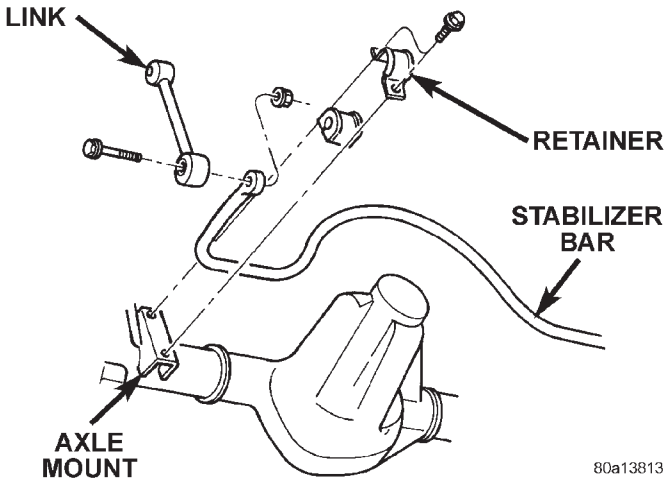


Fig. 6 Stabilizer Bar

INSTALLATION

(1) Install the stabilizer bar on the axle mounts and install the retainers and bolts.

NOTE: Ensure the bar is centered with equal spacing on both sides and is positioned above the differential housing (Fig. 6).

(2) Tighten the retainer bolts to 54 N·m (40 ft. lbs.).
(3) Install the links onto the stabilizer bar and frame mounts. Install the bolts and nuts finger tight.
(4) Remove support and lower vehicle.
(5) Tighten the link nuts/bolts to 54 N·m (40 ft. lbs.).

REMOVAL AND INSTALLATION (Continued)

TRACK BAR

REMOVAL

(1) Raise and support the vehicle.
(2) Remove the bolt and nut from the frame rail bracket (Fig. 7).
(3) Remove the bolt from the axle bracket (Fig. 7) and remove the track bar.

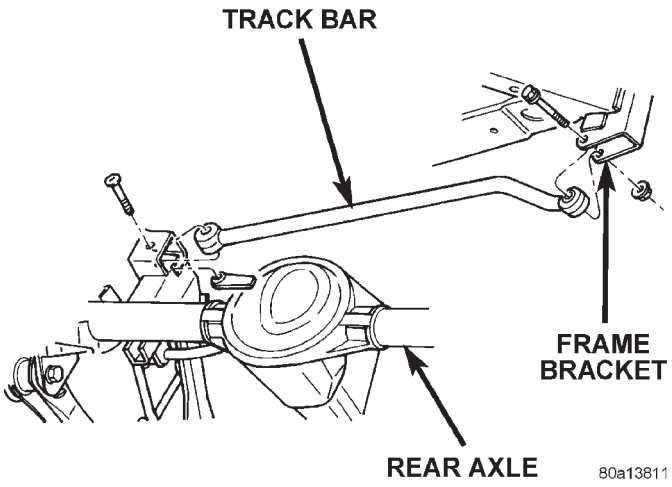


Fig. 7 Rear Track Bar

INSTALLATION

(1) Install the track bar in the axle bracket and install the bolt loosely.
(2) Install the track bar in the frame rail bracket and loosely install the bolt and nut.

NOTE: It may be necessary to pry the axle assembly over to install the track bar.

(3) Remove supports and lower the vehicle.
(4) Tighten the track bar nut/bolt at both ends to 100 N·m (74 ft. lbs.).

SPECIFICATIONS

TORQUE CHART

DESCRIPTION	TORQUE
Shock Absorber	
Upper Bolts	31 N·m (23 ft. lbs.)
Lower Nut	100 N·m (74 ft. lbs.)
Suspension Arm Lower	
Axle Bracket Nut	177 N·m (130 ft. lbs.)
Frame Bracket Nut	177 N·m (130 ft. lbs.)
Suspension Arm Upper	
Axle Bracket Nut	75 N·m (55 ft. lbs.)
Frame Bracket Bolt	75 N·m (55 ft. lbs.)
Stabilizer Bar	
Retainer Bolts	54 N·m (40 ft. lbs.)
Link Nut/Bolt	54 N·m (40 ft. lbs.)
Track Bar	
Frame Bracket Nut	100 N·m (74 ft. lbs.)
Axle Bracket Bolt	100 N·m (74 ft. lbs.)