
Suspension and Steering



REAR SUSPENSION

Semi-elliptic leaf springs are used on the rear suspension for all models. The springs are mounted outside the frame members, and are attached to the axle with two U-bolts. The front end of each spring is attached to a hanger, which is part of the frame side member, with a bolt and nut. The rear end of the spring is attached to a shackle assembly with a bolt and nut and the shackle assembly is attached to a hanger.

The shock absorbers are attached to a bracket which is part of the axle tube and extend up to an upper bracket at a slight rearward angle.

Springs

REMOVAL AND INSTALLATION

1. Raise the vehicle and install jackstands under the frame. The vehicle must be supported in such a way that the rear axle hangs free with the tire a few inches off the ground. Place a hydraulic floor jack under the center of the axle housing.

2. Disconnect the shock absorber from the axle.

3. Remove the U-bolt attaching nuts and remove the two U-bolts and the spring clip plate.

4. Lower the axle to relieve the spring tension and remove the nut from the spring front attaching bolt.

5. Remove the spring front attaching bolt from the spring and hanger with a drift.

6. Remove the nut from the shackle-to-hanger attaching bolt and drive the bolt from the shackle and hanger with a drift and remove the spring from the vehicle.

7. Remove the nut from the spring rear attaching bolt. Drive the bolt out of the spring and shackle with a drift.

To install the rear spring:

8. Position the shackle (closed section facing toward the front of the vehicle) to the spring rear eye and install the bolt and nut.

9. Position the spring front eye and bushing to the spring front hanger, and install the attaching bolt and nut.

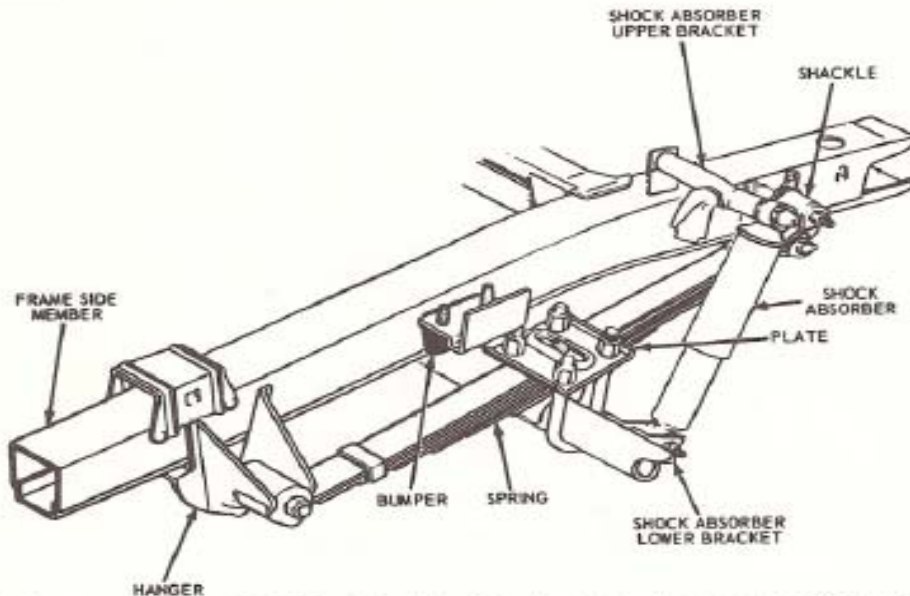
10. Position the spring rear eye and bushing to the shackle, and install the attaching bolt and nut.

11. Raise the axle to the spring and install the U-bolts and spring clip plate.

12. Torque the U-bolt nuts and spring front and rear attaching bolt nuts to 45–60 ft-lbs.

13. Remove the jackstands and lower the vehicle.

NOTE: Squeaky rear springs can be corrected by tightening the front and rear eye



Typical rear suspension. On 1978-80 models, the shock absorber is outboard of the spring

bolts to 150-204 ft-lbs., then raising and supporting the rear of the vehicle so that the rear springs hang, spreading the leaves. Apply a silicone based lubricant for a distance of three inches in from each leaf tip.

Shock Absorbers

TESTING

1. Visually check the shock absorbers for the presence of fluid leakage. A thin film of fluid is acceptable. Anything more than that means that the shock absorber must be replaced.

2. Disconnect the lower end of the shock absorber. Compress and extend the shock fully, as fast as possible. If the action is not smooth in both directions, or there is no pressure resistance, replace the shock absorber. Shock absorbers should be replaced in pairs if they have accumulated more than 20,000 miles of wear. In the case of relatively new shock absorbers, where one has failed, that one, alone, may be replaced.

REMOVAL AND INSTALLATION

NOTE: Prior to installing a new shock absorber, hold it right side up and extend it fully. Turn it upside down and fully compress and extend it at least three times. This will bleed any trapped air.

1. Raise the vehicle and place jackstands under the frame.

2. Remove the shock absorber-to-upper bracket attaching nut and washers, and bushing from the shock absorber rod.

3. Remove the shock absorber-to-axle attaching bolt. Drive the bolts from the axle bracket and shock absorber with a brass drift and remove the shock absorber.

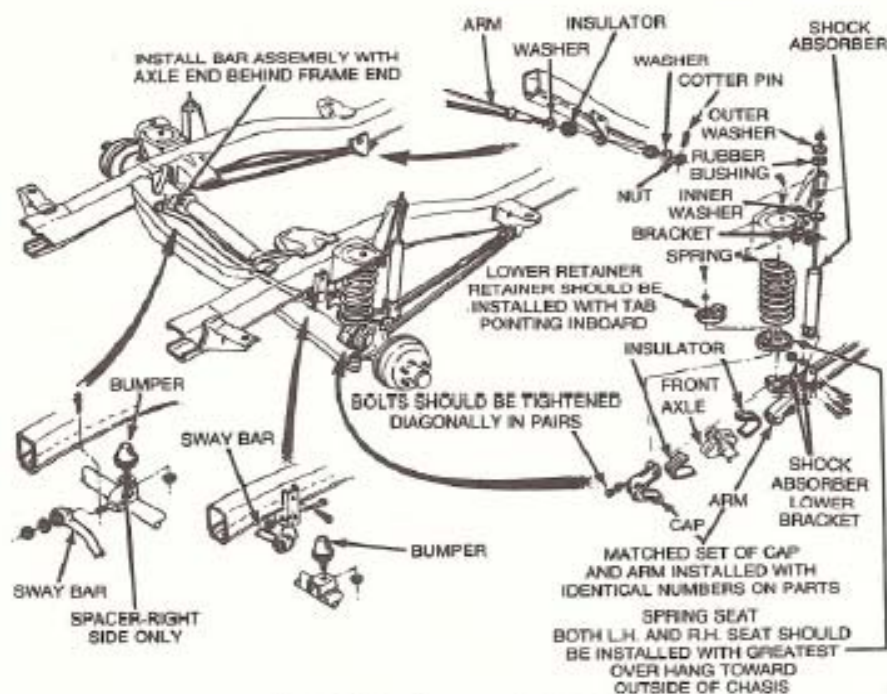
4. Position the washers and bushing on the shock absorber rod and position the shock absorber at the upper bracket.

5. Position the bushing and washers on the shock absorber rod and install the attaching nut loosely.

6. Position the shock absorber at the axle housing bracket and install the attaching bolt and nut. Tighten the lower nut to 40-60 ft-lbs, and the upper nut to 15-25 ft-lbs.

FRONT SUSPENSION

The front suspension consists of a driving axle which is attached to the vehicle frame with two coil springs, two radius arms, and a track bar. The 1980-81 front suspension consists of a two-piece driving axle assembly, two coil spring and two radius arms. The front axle consists of two independent yoke and tube assemblies. One end of each assembly is an-



1966-75 front suspension assembly

chored to the frame, the other end is supported by the spring and radius arm.

NOTE: The 1966-79 radius arm and cap are matched sets and should never be mixed with other sets. They are identified by numbers 1 through 100. The numbers should be together when installing the radius arm and cap.

Springs

REMOVAL AND INSTALLATION

1966-77

1. Raise the vehicle until the tires are a few inches off the ground and place jackstands under the frame side rails. Position a hydraulic floor jack under the center of the front axle housing.

2. Remove the shock absorber-to-lower bracket attaching bolt and nut.

3. Remove the spring lower retainer attaching bolts from the inside of the spring coil.

4. Lower the axle enough to relieve tension from the spring.

5. Remove the spring upper retainer attaching bolts and nuts and remove the upper retainer.

6. Remove the spring, lower retainer and the lower seat from the vehicle.

To install the front spring:

7. Position the upper retainer over the spring coil and loosely install the attaching bolts and nuts.

8. Position the spring lower seat, and the lower retainer to the frame spring pocket and the radius arm.

9. Raise the axle up into position and install the two lower retainer attaching bolts and tighten them.

10. Tighten the upper retainer attaching bolts.

11. Position the shock absorber to the lower bracket and install the attaching bolt and nut.

12. Remove the jack stands and lower the vehicle.

1978-79

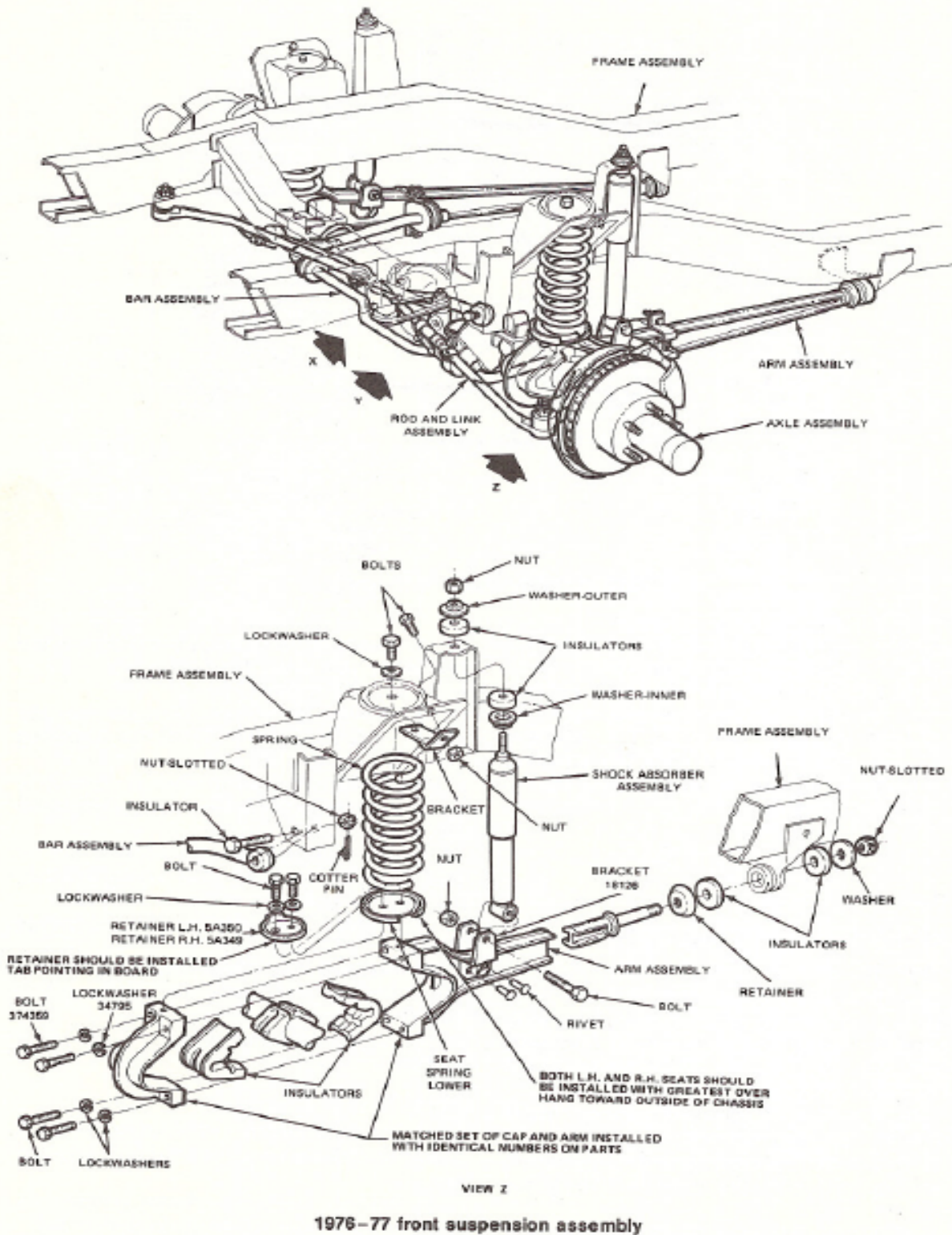
1. Raise the vehicle and remove the shock absorber-to-lower bracket attaching bolt and nut.

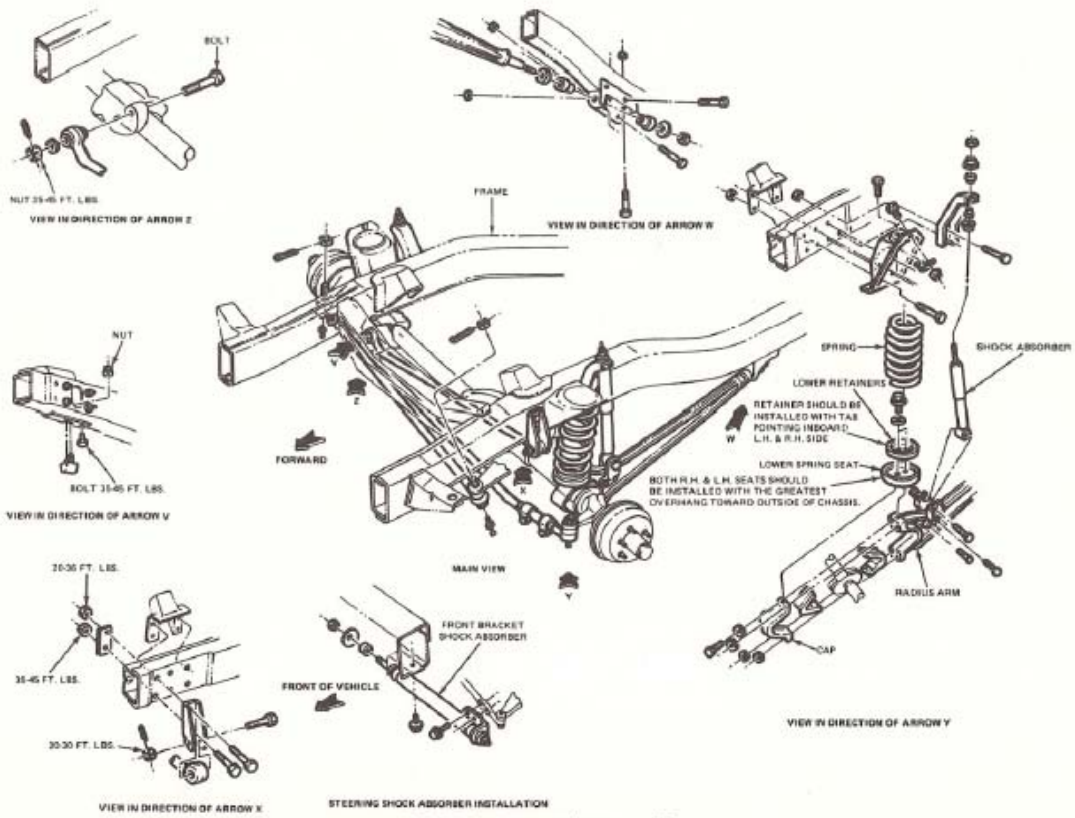
2. Remove two spring lower retainer attaching bolts from inside of the spring coil.

3. Remove two spring upper retainer attaching bolts and nuts and remove the upper retainer.

4. Position safety stands under the frame

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side rails and lower the axle enough to relieve tension from the spring. Remove the spring, lower retainer, and lower the spring from the vehicle.

5. Position the spring, spring lower seat, and lower retainer to the frame spring pocket and the radius arm. Position the spring seat and the lower retainer.

6. Position the upper retainer over the spring coil and loosely install the two attaching bolts and nuts.

7. Install the two lower retainer attaching bolts and tighten to 80–120 ft-lbs.

8. Tighten the upper retainer attaching bolts to 20–30 ft-lb.

9. Position the shock absorber to the lower bracket and install the attaching bolt and nut. Tighten the bolt and nut to 40–60 ft-lb. Remove safety stands and lower the vehicle.

1980–81

1. Raise the vehicle and remove the shock absorber-to-lower bracket attaching bolt and nut.

2. Remove spring lower retainer attaching nuts from inside of the spring coil.

3. Remove spring upper retainer attaching screw and remove the upper retainer.

4. Position safety stands under the frame side rails and lower the axle enough to relieve tension from the spring.

NOTE: The axle must be supported on the jack throughout spring removal and installation, and must not be permitted to hang by the brake hose. If the length of the brake hose is not sufficient to provide adequate clearance for removal and installation of the spring, the disc brake caliper must be removed from the spindle according to the procedures in Chapter 9. After removal, the caliper must be placed on the frame or otherwise supported to prevent suspending the caliper from the caliper hose. These precautions are absolutely necessary to prevent serious damage to the tube portion of the caliper hose assembly.

Remove the spring, lower retainer, and lower the spring from the vehicle.

5. Place the spring in position and slowly raise the front axle. Ensure springs are positioned correctly in the upper spring seats.

6. Position the spring lower retainer over the stud and lower seat and torque the attaching nut to 30–70 ft-lbs.

7. Position the upper retainer over the spring coil and torque the attaching screws 13–18 ft-lbs.

8. Position the shock absorber to the lower bracket and install the attaching bolt and nut. Tighten the bolt and nut to 48–65 ft-lbs. Remove safety stands and lower the vehicle.

Shock Absorbers

TESTING

1. Visually check the shock absorbers for the presence of fluid leakage. A thin film of fluid is acceptable. Anything more than that means that the shock absorber must be replaced.

2. Disconnect the lower end of the shock absorber. Compress and extend the shock fully as fast as possible. If the action is not smooth in both directions, or there is no pressure resistance, replace the shock absorber. Shock absorbers should be replaced in pairs if they have accumulated more than 20,000 miles of wear. In the case of relatively new shock absorbers, where one has failed, that one, alone, may be replaced.

REMOVAL AND INSTALLATION

NOTE: Prior to installing a new shock absorber, hold it upright and extend it fully. Invert it and fully compress and extend it at least three times. This will bleed trapped air.

1. Raise the vehicle to provide additional access and remove the bolt and nut attaching the shock absorber to the lower bracket on the radius arm.

2. Remove the nut, washer and insulator from the shock absorber at the frame bracket and remove the shock absorber.

To install the front shock absorber:

3. Position the washer and insulator on the shock absorber rod and position the shock absorber to the frame bracket.

4. Position the insulator and washer on the shock absorber rod and install the attaching nut loosely.

5. Position the shock absorber to the lower bracket and install the attaching bolt and nut loosely.

6. Tighten the lower attaching bolts to 40–60 ft-lbs, and the upper attaching bolts to 15–25 ft-lbs.

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taching the radius arm to the frame bracket and remove the radius arm rear insulator.

5. Remove the four bolts attaching the radius arm cap to the radius arm and remove the cap and insulator. The cap and radius arm are a matched set with identical numbers on each part and should not be mixed.

6. Move the axle forward and remove the radius arm and insulator from the axle. Then, pull the radius arm from the frame bracket.

The radius arm and cap must be identified by a T on each piece in addition to a number (1 through 100).

7. Position the washer and insulator on the rear of the radius arm and insert the radius arm and insulator into the frame bracket.

8. Position the rear insulator and washer on the radius arm and loosely install the attaching nut.

9. Position the insulator on the axle and position the radius arm to the insulator and axle.

10. Position the front insulator to the axle and install the radius arm cap with the numbers on the radius arm and cap together. Torque the attaching bolts diagonally in pairs to 90–10 ft-lb.

11. Position the spring lower seat and retainer to the spring and axle. Install the two attaching bolts. Torque the bolts to 45–55 ft-lb.

12. Torque the radius rod rear attaching nut to 80–120 ft-lb. Advance the nut as required and install the cotter pin.

13. Position the shock absorber to the lower bracket and install the attaching bolt and nut. Torque the nut to 40–60 ft-lb. Remove safety stands and lower the vehicle.

1978–79

1. Raise the vehicle and position safety stands under the frame side rails.

2. Remove the shock absorber-to-lower bracket attaching bolt and nut and pull the shock absorber free of the radius arm.

3. Remove two spring lower retainer attaching bolts from inside of the spring coil.

4. Remove the nut attaching the radius arm to the frame bracket and remove the radius arm rear insulator.

5. Remove four bolts attaching the radius arm cap to the radius arm and remove the cap and insulator. The cap and radius arm are a matched set with identical numbers on each part and should not be mixed.

6. Move the axle forward and remove the radius arm and insulator from the axle. Then, pull the radius arm from the frame bracket.

The radius arm and cap must be identified by a T on each piece in addition to a number (1 through 100).

7. Position the washer and insulator on the rear of the radius arm and insert the radius arm and insulator into the frame bracket.

8. Position the rear insulator and washer on the radius arm and loosely install the attaching nut.

9. Position the insulator on the axle and position the radius arm to the insulator and axle.

10. Position the front insulator to the axle and install the radius arm cap with the numbers on the radius arm and cap together. Tighten the attaching bolts diagonally in pairs to 90–110 ft-lb.

11. Position the spring lower seat and retainer to the spring and axle. Install the two attaching bolts. Tighten the bolts to 45–55 ft-lb.

12. Tighten the radius rod rear attaching nut to 80–120 ft-lb.

13. Position the shock absorber to the lower bracket and install the attaching bolt and nut. Tighten the nut to 40–60 ft-lb. Remove safety stands and lower the vehicle.

1980–81

1. Raise the vehicle and position safety stands under the frame side rails.

2. Remove the shock absorber-to-lower bracket attaching bolt and nut and pull the shock absorber free of the radius arm.

3. Remove spring lower retainer attaching bolt from inside of the spring coil.

4. Remove the nut attaching the radius arm to the frame bracket and remove the radius arm rear insulator. Lower the axle and allow axle to move forward.

NOTE: The axle must be supported on the jack throughout spring removal and installation, and must not be permitted to hang by the brake hose. If the length of the brake hose is not sufficient to provide adequate clearance for removal and installation of the spring, the disc brake caliper must be removed from the spindle according to the procedures specified in Chapter 9. After removal, the caliper must be placed on the frame or otherwise supported to prevent suspending the caliper from the caliper hose. These precautions are abso-

lutely necessary to prevent serious damage to the tube portion of the caliper hose assembly.

5. Remove the bolt and stud attaching radius arm to axle.

6. Move the axle forward and remove the radius arm from the axle. Then, pull the radius arm from the frame bracket.

7. Position the washer and insulator on the rear of the radius arm and insert the radius arm into the frame bracket.

8. Position the rear insulator and washer on the radius arm and loosely install the attaching nut.

9. Position the radius arm to the axle.

10. Install new bolts and stud-type bolt attaching radius arm to axle. Tighten to 180-240 ft-lb.

11. Position the spring lower seat, spring insulator and retainer to the spring and axle. Install the two attaching bolts. Tighten the nuts to 30-70 ft-lbs.

12. Tighten the radius rod rear attaching nut to 80-120 ft-lbs.

13. Position the shock absorber to the lower bracket and install the attaching bolt and nut. Tighten the nut to 40-60 ft-lb. Remove safety stands and lower the vehicle.

Stabilizer Bar

REMOVAL AND INSTALLATION

1978-79

1. Remove locknut, washers, and insulator to remove link assemblies from stabilizer bar. Remove nuts, bolts, and washers connecting link assemblies to frame.

2. Remove nuts on U-bolts to remove stabilizer bar from retainers. Remove stabilizer bar. Remove U-bolts, brackets and retainers.

3. Place bracket assemblies on axle aligning holes in brackets with alignment pins on axles.

4. Install U-bolts through bracket assembly. Position stabilizer bar on brackets. Install retainer and tighten nuts to 35-55 lbs.

5. Install link assemblies on frame. Connect link assemblies to stabilizer bar. Tighten link to stabilizer bar nuts to 18-25 ft-lbs. Tighten link to frame nuts to 40-60 ft-lbs.

1980-81

1. Remove nuts, bolts and washers connecting the stabilizer bar to connecting links. Remove nuts and bolts of the stabilizer bar retainer.

Wheel Alignment Specifications

1966-79 Specifications

Year	Caster		Camber		Toe-in (in.)	Steering Axis Incline (deg)
	Range (deg)	Preferred (deg)	Range	Preferred (deg)		
1966-77	2 ³ / ₄ P to 4 ¹ / ₄ P	3 ¹ / ₂ P	1P to 2P	1 ¹ / ₂ P	1 ¹ / ₁₆ -1 ¹ / ₄	—
1978-79*	6 ¹ / ₂ P to 9 ¹ / ₂ P	8P	1P to 3P	1 ¹ / ₂ P	3 ³ / ₃₂	8 ¹ / ₂

1980-81 Specifications

Ride Height (in.)	Caster (deg)	Camber (deg)	Toe-in (in.)	King Pin Angle (deg)
2 ³ / ₄ -3 ¹ / ₄	2 ¹ / ₂ N to 1 ¹ / ₄ N	6P to 9P	1 ¹ / ₃₂ out-5 ¹ / ₃₂ in	13
3 ¹ / ₄ -3 ¹ / ₂	1 ³ / ₄ N to 1 ¹ / ₂ P	5P to 8P	1 ¹ / ₃₂ out-5 ¹ / ₃₂ in	13
3 ¹ / ₂ -4	3 ³ / ₄ N to 1 ¹ / ₂ P	4P to 7P	1 ¹ / ₃₂ out-5 ¹ / ₃₂ in	13
4-4 ¹ / ₄	0 to 2 ¹ / ₄ P	3P to 6P	1 ¹ / ₃₂ out-5 ¹ / ₃₂ in	13
4 ¹ / ₄ -4 ³ / ₄	1P to 3 ¹ / ₄ P	2P to 5P	1 ¹ / ₃₂ out-5 ¹ / ₃₂ in	13
4 ³ / ₄ -5	1 ³ / ₄ P to 4P	1P to 4P	1 ¹ / ₃₂ out-5 ¹ / ₃₂ in	13

* 1978-79 caster measured at 3¹/₂ inches ride height. Subtract 2° for each inch increase in ride height.