

CHRYSLER CORP. IMPORTS – EXCEPT PICKUPS

Arrow
Challenger
Champ
Colt
Sapporo

DESCRIPTION

Strut type suspension consisting of a vertically mounted strut assembly, lower control arm and stabilizer bar. Strut assembly is mounted to top of fender panel by a rubber insulator. On rear-wheel drive models, the strut assembly mounts at bottom to steering arm and pivots in ball joint. On front-wheel drive (FWD) models, the lower end of strut is bolted to a separate steering knuckle. On all models, a stabilizer bar and strut bars are attached to front chassis members and ends of lower control arms.

ADJUSTMENTS

WHEEL ALIGNMENT SPECIFICATIONS & PROCEDURES

See *Wheel Alignment Specifications and Procedures* in *WHEEL ALIGNMENT* Section.

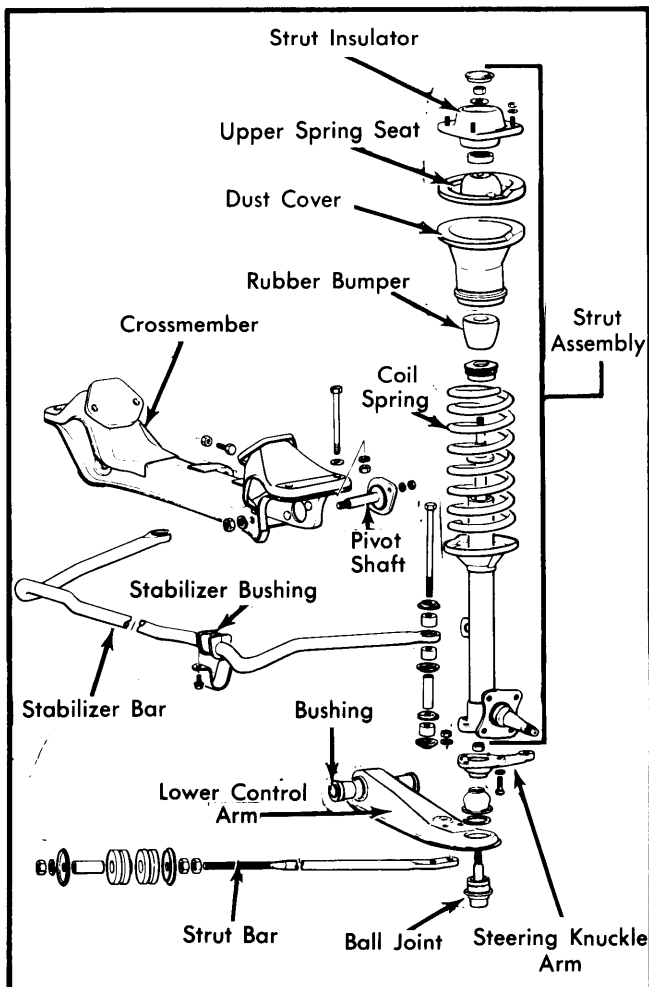


Fig. 1 Exploded View of Front Suspension (Rear-Wheel Drive Models)

WHEEL BEARING ADJUSTMENT

See *Wheel Bearing Adjustment* in *WHEEL ALIGNMENT* Section.

BALL JOINT CHECKING

See *Ball Joint Checking* in *WHEEL ALIGNMENT* Section.

REMOVAL & INSTALLATION

STRUT ASSEMBLY

Removal (FWD Models) – Raise and support front of vehicle. Remove wheel. Disconnect brake line from strut. Remove attaching nuts and bolts at ends of strut. Remove strut.

Removal (All Other Models) – 1) Raise and support front of vehicle, allowing suspension to hang free. Remove front wheel.

2) Remove caliper assembly and front hub assembly.

3) Disconnect stabilizer link and lower control arm. Remove strut assembly, knuckle arm and strut insulator retaining bolts. Remove strut assembly from vehicle.

Disassembly – 1) Clamp strut assembly in vise and use proper tool to compress coil spring. Remove dust cover. Remove nuts holding insulator to strut sub-assembly. Remove insulator and then coil spring.

NOTE – *Steering knuckle is welded to strut sub-assembly and cannot be separated.*

2) If oil loss is found, disassemble sub-assembly after thoroughly cleaning it. Place sub-assembly vertically in vise. Use special wrench (CT-1112) to remove seal assembly. Compress piston rod to lowest position during this procedure.

3) Drain fluid. Using small screwdriver, remove square-cut "O" ring from rod and draw out rod assembly and guide. Remove guide from piston rod.

Reassembly – 1) Clean and replace all components as required. Apply hydraulic fluid to sliding surfaces. Insert piston rod in cylinder. Compress piston ring with fingers as it slides into cylinder.

2) Assemble cylinder and piston assembly with strut outer casing. Fill unit with approximately 14 oz. of new hydraulic fluid.

3) With guide flange at top, insert piston rod until guide flange contacts shock absorber cylinder end. Install "O" ring between guide and strut outer cylinder (always use new "O" ring).

4) Cover piston rod end with seal guide (CT-1111B), slide in seal after applying oil to seal lip and tighten seal assembly until seal nut edge contacts strut outer cylinder.

NOTE – *Be sure to replace seal assembly when shock absorber has been disassembled.*

Front Suspension

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5) Attach compressor to coil spring and place spring onto strut assembly. Pull shock absorber fully out and position bumper rubber and spacer.

6) Align "D" shaped hole in spring seat upper assembly with indentation on piston rod. Install insulator assembly. Install self-locking nut and tighten temporarily.

NOTE – If replacing coil springs, be sure to use same color-code class as original.

7) After seating upper and lower end of coil spring on grooves of spring seats, remove spring compressor. Using special tool (CT-1112) tighten spring seat and self-locking nut to specified torque.

Installation (All Models) – To install, reverse removal procedure, noting the following:

- Secure top of strut assembly to mounting bracket first. Apply sealant to lower end of assembly and connect it to knuckle arm, using dowel pins as locating guides.
- Pack strut upper bearing with grease and install dust cap. Install stabilizer, hub assembly and wheel.

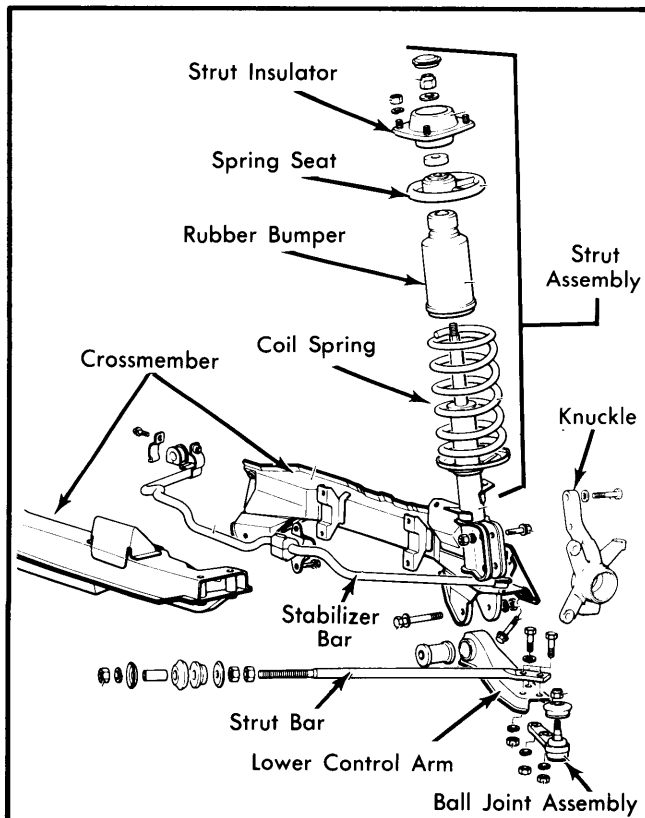


Fig. 2 Exploded View of Front Suspension (Front-Wheel Drive Models)

LOWER CONTROL ARM

Removal (FWD Models) – Raise and support front of vehicle. Disconnect ball joint and strut bar bolts from lower control arm. Remove lower control arm pivot bolt from crossmember. Remove arm assembly.

NOTE – Do not remove the ball joint from steering knuckle unless ball joint is to be replaced.

Removal (All Other Models) – 1) Raise and support front of vehicle. Remove front wheel(s).

2) Disconnect stabilizer bar and strut bar from lower control arm. Remove strut assembly.

3) Using suitable puller, detach tie rod ball joint from steering knuckle arm.

4) Remove bolt retaining strut assembly and steering knuckle arm. Separate them using a soft-faced hammer.

5) Turn steering wheel to gain clearance for removing lower control arm from crossmember. Using puller, disconnect knuckle arm from lower control arm ball joint.

Ball Joint Replacement (FWD Models) – Ball joint is bolted to lower control arm and steering knuckle and is replaceable as a unit.

Ball Joint Replacement (All Other Models) – 1) Pry out ball joint dust seal.

2) Remove snap ring from groove in ball joint seat.

3) Press ball joint from control arm.

4) Select new ball joint. Position ball joint in control arm. Seat ball joint into position so ball joint and lower control arm reference marks are aligned.

NOTE – It should take approximately 11,000 lbs. (5000 kg) to fully seat ball joint.

5) Fit new snap ring into ball joint groove. It may be necessary to tap snap ring into place.

NOTE – Make sure not to open snap ring wider than necessary.

6) Apply packing sealer inside of dust cover metal ring. Seat metal ring into snap ring surface by tapping with hammer.

Installation (All Models) – To install, reverse removal procedure and note the following: On rear-wheel drive models, when connecting strut assembly to steering knuckle arm, apply suitable sealer to flanged mating surface. On all models, when installing lower control arms, tighten all nuts and bolts to specifications after vehicle has been lowered to ground.

STEERING KNUCKLE (FWD MODELS ONLY)

Removal – 1) Raise and support front of vehicle. Remove wheel. Remove cotter pin, axle nut and washer. Remove underside cover. Remove strut bar and disconnect ball joint from lower control arm. Drain transaxle.

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2) Insert a pry bar between the transaxle case and the shoulder of the constant velocity joint of axle shaft. Do not insert pry bar more than .28" (7 mm) to avoid damaging inner seal. Pry axle shaft from transaxle and support.

3) Using an axle shaft puller (CT-1003 or equivalent), force axle shaft out of hub and remove from vehicle. Remove brake assembly.

4) Using a tie rod puller, remove tie rod end from knuckle. Disconnect the knuckle from strut and remove hub and knuckle as an assembly.

Installation – To install, reverse removal procedure, noting the following: Replace the constant velocity joint retainer ring each time the axle shaft is removed from transaxle case.

STABILIZER & STRUT BAR

Removal – Raise vehicle and support on safety stands. Disconnect stabilizer and strut bars from mountings on lower control arm. Remove strut bracket from body mounting position. Remove stabilizer bracket on each side and take off stabilizer. Next, lift off strut bar after noting position of all washers and bushings.

Installation – To install, reverse removal procedure and note the following: Make sure distance between strut bar end and inner lock nut is 3.1" (78.7 mm) on rear-wheel drive models or 2.6" (67 mm) on front-wheel drive models. Install strut bar bushing with convex surface to front side.

TIGHTENING SPECIFICATIONS	
Application	Ft. Lbs. (mkg)
Rear-Wheel Drive Models	
Knuckle Arm-to-Ball Joint	29-43 (4.0-5.7)
Knuckle Arm-to-Tie Rod Ball Joint	29-36 (4.0-5.0)
Control Arm Flange Bolt	6-9 (0.8-1.2)
Control Arm Shaft Nut	43-51 (5.7-6.0)
Stabilizer-to-Control Arm	18-25 (2.5-3.5)
Strut Bar-to-Control Arm	36-43 (5.0-5.7)
Front-Wheel Drive Models	
Drive Axle Nut	87-130 (12.0-18.0)
Knuckle-to-Strut	54-65 (7.5-9.0)
Control Arm-to-Ball Joint	69-87 (9.5-12)
Control Arm-to-Strut Bar	69-87 (9.5-12)
Knuckle-to-Tie Rod	11-25 (1.5-3.5)
Stabilizer-to-Crossmember	18-25 (2.5-3.5)