

# Front Suspension

## MERCEDES BENZ, EXCEPT 280S, 450SE AND 450SEL

230  
240D  
280  
280C  
450SL and SLC

### DESCRIPTION

Front suspension system is a coil spring type. Major components are upper and lower control arms, stabilizer bar, and shock absorbers. Stabilizer bar is attached to lower control arms and crossmember. Entire front suspension system can be removed as a assembly, if necessary.

### WHEEL ALIGNMENT SPECIFICATIONS AND ADJUSTMENTS

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

### WHEEL BEARING ADJUSTMENT

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

### BALL JOINT CHECKING

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

## REMOVAL & INSTALLATION

### SHOCK ABSORBER

**Removal** — Raise and support vehicle, making sure stands are placed under lower control arms. Remove wheels. Disconnect upper and lower shock absorber mounting, then remove shock absorber from vehicle. **NOTE** — On some models, it may be necessary to unscrew water cooling compensating tank before removing right side shock absorber.

**Installation** — To install shock absorber, reverse removal procedure and tighten all nuts evenly.

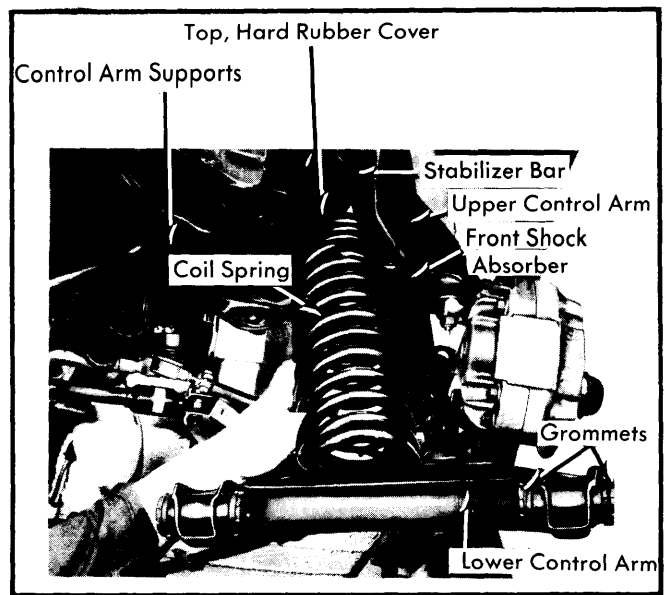


Fig. 1 Lowering Down Control Arm and Removing Coil

### COIL SPRING

**Removal** — Raise and support vehicle on safety stands, remove wheel. Remove shock absorber as previously outlined. Disconnect stabilizer bar linkage. Support lower control arm inner side with a jack. Mark control arm cam bolts for correct installation. Remove control arm cam bolts (do not reverse front with rear), lower jack and remove coil spring with rubber ring.

**Installation** — To install coil spring, reverse removal procedure and note the following: Cam bolts affect caster/camber and should be installed in original position.

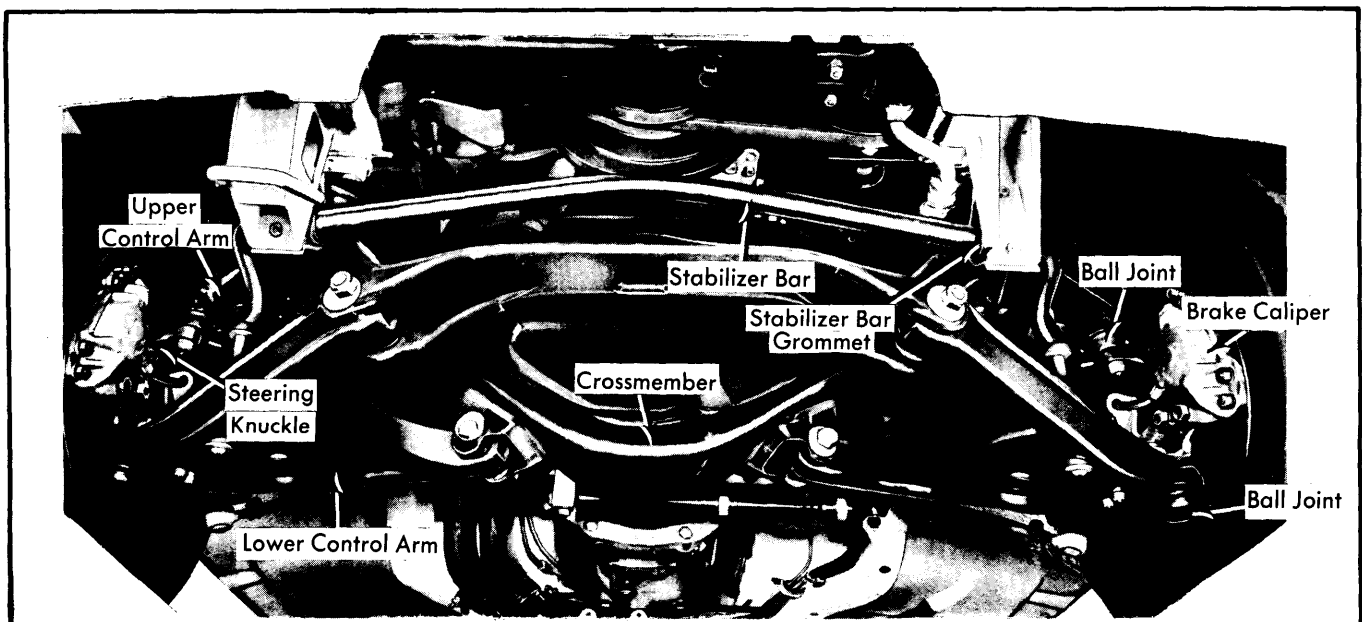


Fig. 2 Head on View of Mercedes Benz 280 Front Suspension

## MERCEDES BENZ, EXCEPT 280S, 450SE AND 450SEL (Cont.)

### FRONT STABILIZER BAR

**Removal** — Raise and support vehicle on safety stands. Disconnect stabilizer bar linkage on both sides. Unscrew stabilizer bar clamps and remove stabilizer bar from vehicle.

**Installation** — To install stabilizer bar, reverse removal procedure.

**Removal** — 1) Raise and support vehicle on safety stands, remove wheels. Remove shock absorbers and coil springs as previously outlined. Reconnect lower control arm to steering knuckle. Support engine. Disconnect and remove left and right front engine mounts. Disconnect and plug brake hoses.

2) Disconnect tie rods from steering arms. Remove stabilizer bar as previously outlined. Remove engine shock absorber from crossmember. Support crossmember on a jack, remove bolts from crossmember mounts and remove suspension assembly.

**Installation** — To install suspension assembly, reverse removal procedure.

### STEERING KNUCKLE

**Removal** — Raise and support vehicle on safety stands, remove wheels. Place stands under front lower control arms. Disconnect steering arm from steering knuckle. Disconnect and plug brake hoses, remove caliper. Remove upper and lower ball joint nuts, remove steering knuckle.

**Installation** — To install steering knuckle, reverse removal procedure.

### UPPER CONTROL ARM

**Removal** — Raise and support vehicle on safety stands, remove wheel. Remove steering arm from steering knuckle. Remove steering knuckle as previously outlined. Remove cam bolts on upper control arm, and remove control arm.

**Installation** — To install upper control arm, reverse removal procedure and note the following: Install front control arm cam bolts from rear in a forward direction, and rear cam bolts from the front in a rearward direction.

### LOWER CONTROL ARM

**Removal** — Remove lower shock absorber mount. Raise and support vehicle on safety stands, remove wheel. Disconnect and plug brake hose. Remove coil spring as previously outlined. Remove nut on upper ball joint. Disconnect lower ball joint from steering knuckle and remove control arm.

**Installation** — To install lower control arm, reverse removal procedure and note the following: Use new lock nuts on upper and lower ball joints.

### TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. ( mkg)
Lower Shock Absorber Mount .....	18 (2.5)
Stabilizer Bar Bolts .....	18 (2.5)
Steering Linkage Bolts .....	25 (3.5)
Steering Knuckle Arm Bolts .....	58 (8.0)
Upper Control Arm Cam Bolts .....	43 (6.0)
Lower Control Arm Cam Bolts .....	87 (12.0)
Upper Ball Joint .....	43 (6.0)
Lower Ball Joint .....	58 (8.0)
Engine Mounting Bolts .....	25 (3.5)
Suspension Mounting Bolts .....	33 (4.6)