

Front Suspension

MERCEDES BENZ 280S, 450SE AND 450SEL

280S
450SE
450SEL

DESCRIPTION

Suspension is composed of a lower wishbone type control arm connected to steering knuckle by a ball joint. Upper end of steering knuckle attaches by a ball joint to control arm link. Shock absorber mounts off lower control arm and to upper control arm link. Stabilizer bar mounts at steering knuckle and upper control link junction. Lower control arm is attached to frame crossmember in front and to cross yoke at rear.

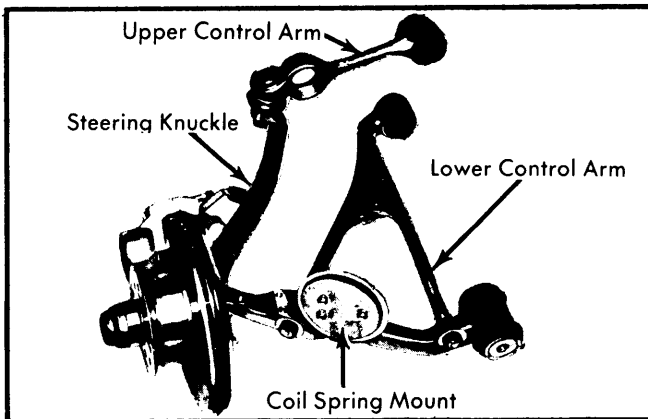


Fig. 1 Top View of Mercedes Benz Front Suspension

ADJUSTMENT

WHEEL ALIGNMENT SPECIFICATIONS & ADJUSTMENTS

See *Wheel Alignment Specifications and Adjustments* 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, place safety stands under lower control arm. Remove wheels. Disconnect upper and lower shock attaching bolts and nuts. Remove shock absorber.

Installation — To install shock absorber, reverse removal procedure and tighten nuts and bolts.

CAUTION — On Bilstein shocks, do not reverse upper and lower shock absorber plates as lower plate may slide over locking ring while driving.

COIL SPRING

Removal — Raise and support vehicle on safety stands, remove wheel. Loosen upper shock mount, it is not necessary to remove shock absorber. Install suitable spring compressor (116 589 01 31 00) through spring dome on engine side of fender panel. Remove spring together with rubber mount.

Installation — To install coil springs, reverse removal procedure and tighten upper shock absorber attaching nut.

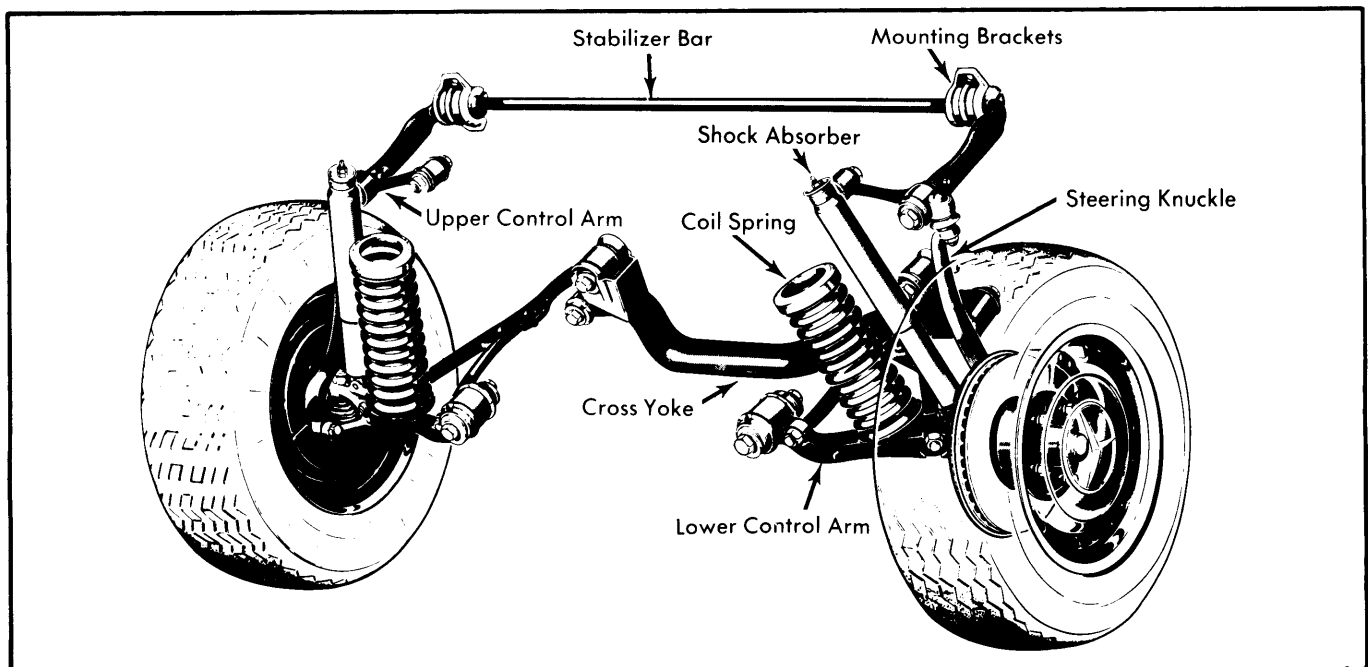


Fig. 2 Assembled View of Front Suspension Components

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

FRONT STABILIZER BAR

Removal — Raise and support vehicle on safety stands located at outer ends of lower control arms, remove wheels. Remove bolts attaching stabilizer bar to upper control arm. Remove master cylinder, power brake booster, air cleaner, water hoses, regulating linkage and disconnect electrical wires to injection valves. Mark position of stabilizer bar mounting brackets, then remove mounting brackets, cover plates and stabilizer bar.

NOTE — Make sure mounting brackets are installed in same spot as removed to prevent any changes of castor adjustments.

Installation — To install stabilizer bar, reverse removal procedure. Tighten nuts and bolts.

CROSS YOKE

Removal — Mark position of rear cam bolts on lower control arms. Remove shields from cross yoke. Remove bolts attaching cross yoke to lower control arm and frame. Remove cross yoke.

Installation — To install, reverse removal procedure and make sure cam bolts are aligned with scribe marks.

STEERING KNUCKLE

Removal — Raise and support vehicle on safety stands at outer end of lower control arms. Remove wheel. Remove steering arm from steering knuckle. Remove and support brake caliper away from steering knuckle, then remove wheel hub. Remove brake hose clamp from brake cover plate then separate upper control arm ball joint from steering knuckle. Separate lower control arm ball joint from steering knuckle and remove steering knuckle.

NOTE — Keep taper of ball joints free from grease.

Installation — To install, reverse removal procedure.

NOTE — Use new self locking nuts and new lock washers.

UPPER CONTROL ARM

Removal — Raise and support vehicle on safety stands at outer end of lower control arms, remove wheel. Separate upper control arm from steering knuckle. Support steering knuckle. Disconnect stabilizer bar from upper control arm and remove bolt attaching upper control arm to body from engine compartment side. Remove upper control arm.

Installation — Attach upper control arm to body and connect ball joint to steering knuckle. **NOTE** — Use new locking nut and keep taper of ball joint free of grease. Attach stabilizer bar to upper control arm.

LOWER CONTROL ARM

Removal — Remove shock absorber and coil spring. Separate brake line from brake hose and disconnect steering linkage from steering knuckle. Mark cam bolts on bearing of lower control arm for proper installation. Remove cross yoke shield and support suspension. Remove front and rear cam bolts from lower control arm and lower cross yoke. Separate lower control arm from steering knuckle and remove.

Installation — To install reverse removal procedure.

NOTE — Keep taper of ball joint free of grease.

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (mkg)
Upper Control Arm Ball Joint Nut	29 (4)
Lower Control Arm Ball Joint Nut	29 (4)
Steering Linkage Ball Joint Nut	14 (2)
Cross Yoke-to-Frame	101 (14)
Lower Control Arm	130 (18)
Shock Absorber Lower Mount	14 (2)
Steering Arm-to-Steering Knuckle	57 (8)
Upper Control Arm Clamping Bolt	21 (3)
Upper Control Arm-to-Body	60 (8)