

## MERCEDES-BENZ

230  
240D  
280E  
280SE  
300D  
450SEL  
450SL/450SLC  
6.9

### DESCRIPTION

Steering column consists of a padded impact absorbing steering wheel with horn control, spindle shaft, jacket tube with column mounted combination light/wiper switch and may include cruise control or gear shift control lever. Lower shaft of 230, 240D, 280E and 300D is corrugated for additional impact protection. Shafts are connected by flexible couplings to steering gear.

### STEERING COLUMN

**Removal** – 1) On 230, 240D, 280E and 300D, remove screws holding upper and lower cover on instrument panel and remove covers. On all models, disconnect battery and remove steering wheel. Remove instrument cluster by pulling outward as far as possible and loosening tachometer, pressure and temperature connections. On column shift vehicles, disconnect indicator plug.

2) On column shift vehicles, disconnect linkage. On all vehicles, remove steering lock. Disconnect combination switch plug and cruise control plug (if equipped). Remove Allen head screw at flexible coupling and all screws and nuts holding casing and column to instrument panel. Remove steering column housing.

**Installation** – To install, reverse removal procedure. On 450 and 6.9 models, hold steering shaft in place with assembly pin through hole in jacket tube. Check that lower shaft on 230, 240D, 280E and 300D is not bent or distorted. Use caution when installing jacket tube to prevent damage to this shaft.

### STEERING COLUMN SHAFT

**Removal, 230, 240D, 280E & 300D (Lower)** – 1) From engine compartment, remove both Allen screws holding flexible coupling to worm shaft and lower steering shaft. Slide coupling down on worm shaft and off of steering shaft.

2) From inside car, remove upper and lower cover from instrument panel/steering column. Remove Allen screws at upper coupling and slide coupling and lower shaft off of upper shaft.

**Installation** – To install, lubricate inner lips of bellows seal at firewall and reverse removal procedures.

**NOTE** – Wheels must be in straight ahead position and notch on upper shaft must point directly upward during installation.

**Removal, 230, 240D, 280E & 300D (Upper)** – 1) With column out of car, remove combination switch. Remove jacket tube casing, then remove spacing ring from steering shaft.

2) Remove gripper ring, compression spring, supporting ring and ball bearing from steering shaft. Knock steering shaft upward out of jacket tube with plastic hammer.

**Installation** – Inspect and replace bearings and races if required. Reverse removal procedure and reinstall upper steering shaft.

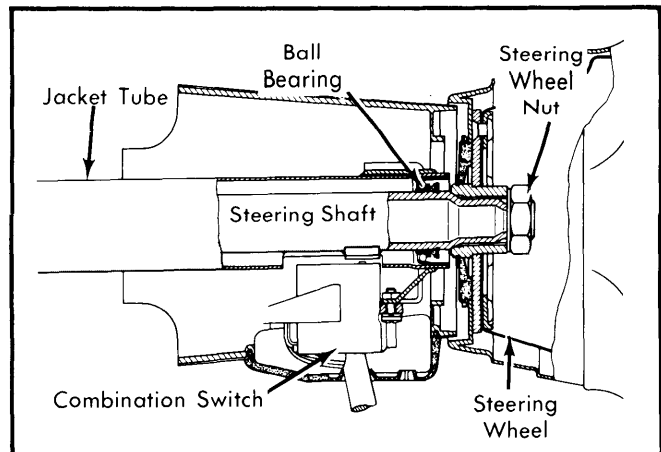


Fig. 1 Steering Wheel and Shaft (Typical)

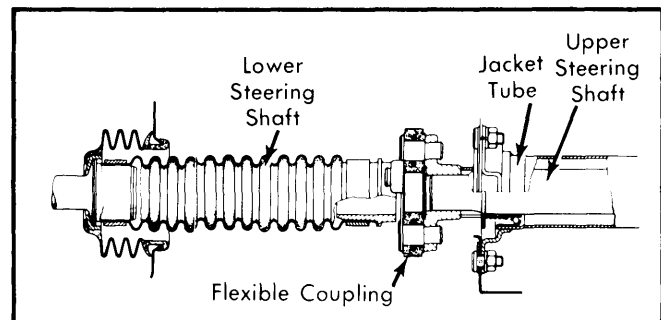


Fig. 2 Lower Steering Shaft (230, 240D, 280E, 300D)

**Removal, 280SE, 450 & 6.9** – 1) Remove steering wheel and combination switch rubber cover. Loosen switch mounting screws on bearing body and pull switch out slightly. Loosen screws holding cable of contact carbon on combination switch.

2) Remove Allen screw from upper end of steering coupling. Remove screws from jacket tube and pull steering shaft with bearing body out of jacket tube.

**Installation** – Replace bearings and races as required and reverse removal procedure. Check longitudinal adjustment of steering shaft by inserting assembly pin in check bore of steering column and steering shaft.

**NOTE** – Late 1977 models have a steering wheel with a larger hub bore and a larger steering shaft and tube. Early version shaft should never be installed in late version tube, however late version shaft may be installed in early version tube provided the new type steering wheel is installed.

### TIGHTENING SPECIFICATIONS

Application	Ft.Lbs. (mkg)
Steering Wheel .....	37 (5)
Jacket Tube-to-Cross Member .....	7 (1.0)
Jacket Tube-to-Lower Bracket .....	18 (2.5)
Flexible Coupling (Allen) .....	18 (2.5)