

# Steering Columns

## JAGUAR

### XJ6

#### DESCRIPTION

The upper and lower steering columns are the collapsible type, designed to comply with safety regulations. The collapse points are retained by nylon plugs which will shear on impact, allowing steering wheel and columns to move forward. The upper column is composed of two separate sliding shafts, with the column tube on later models being formed with an expanded metal section. The column shaft is supported on two prelubricated roller bearings. The lower column section is also comprised of two sliding portions, which are retained in a fixed length by nylon plugs.

#### REMOVAL & INSTALLATION

##### UPPER STEERING COLUMN

**Removal** — 1) Disconnect battery. Remove steering wheel. See *Jaguar STEERING WHEEL & COLUMN SWITCHES* in this Section. Remove speedometer as follows: Remove speedometer casing. Behind speedometer, unscrew knurled nut from right-angle bracket to gear box and disconnect speedometer drive cable. Disconnect trip record reset control cable by unscrewing knurled nut. Apply pressure to instrument panel bezel, rotate speedometer clockwise until it releases, and withdraw from panel. Withdraw headlight warning light and illuminator lights.

2) Remove tachometer as follows: Apply pressure to instrument bezel and rotate counterclockwise until tachometer releases. Disconnect electrical plug and socket. Remove ground lead. Withdraw illumination light holder.

3) Remove trim panel below the upper steering column. Disconnect electrical switch connections (three socket and plug connections). Detach horn contact at upper column. Unscrew self-locking nut and remove pinch bolt securing upper universal joint to lower steering column.

4) Loosen 2 set screws holding lower end of upper column. Reach through instrument openings and remove 2 nuts holding top of column. Collect washers, shims, nuts and support column. Remove 2 set screws previously loosened and carefully remove complete steering column assembly from vehicle.

**CAUTION** — Do not use excessive force when separating upper column from lower column.

**Inspection** — Examine column for straightness. Any wear, damage, or variation in length means the column should be replaced. Length from end to end (without "U" joint) should be between 21.56-21.70" (547.7-551.0 mm).

**Installation** — 1) If universal joint and/or adjusting clamp have been removed, refit, then reverse removal procedure and note the following: Check that .375" (9.5 mm) clearance exists axially in lower universal joint. If necessary, move upper universal joint further along lower column to increase clearance.

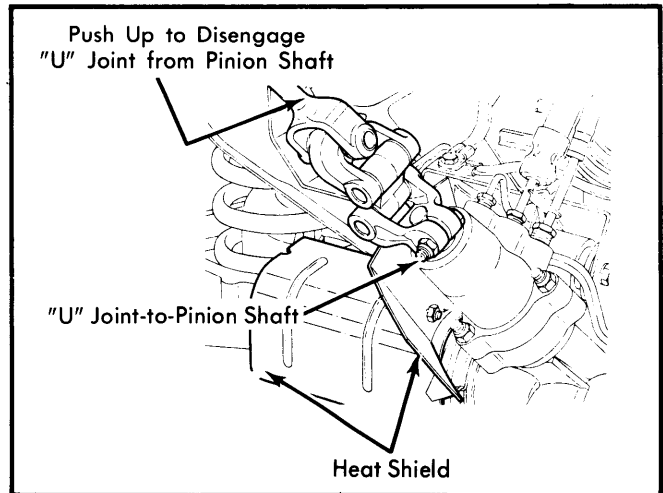
2) Ensure self-cancelling operation of turn signal functions properly. Make sure that steering wheel spokes are horizontal when straight ahead position is set; if not adjust as necessary.

##### LOWER STEERING COLUMN

**Removal** — 1) Raise vehicle on hoist and remove pinch bolt securing lower "U" joint to pinion shaft. Lower vehicle. Detach

lower parcel shelf. Remove both pinch bolts from upper-to-lower "U" joint.

2) Unscrew lower mounting screws of upper column. Pull lower steering column from upper "U" joint. Raise vehicle. Remove "U" joint from pinion shaft and withdraw lower steering column.



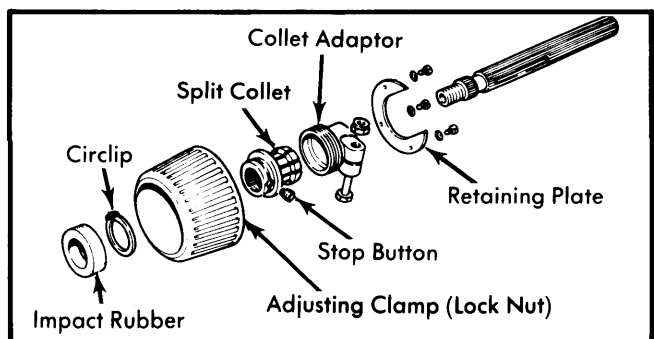
**Fig. 1** Disconnecting Lower Steering Column from Pinion Shaft

**Installation** — To install, reverse removal procedure and ensure gap of .375" (9.5 mm) exists in universal joint.

**NOTE** — Front wheels should be kept in straight ahead position during this operation.

##### STEERING COLUMN ADJUSTING CLAMP

**Removal** — Remove steering wheel. Pull impact rubber from steering wheel shaft. Unscrew three small cheese-head screws from beneath adjusting clamp (lock nut) and withdraw retaining plate. Unscrew collet adaptor completely and remove from shaft. Remove circlip from within upper side of adjuster. Withdraw adjuster (lock nut) collecting stop button. Slide split collet off shaft.



**Fig. 2** Exploded View of Steering Column Adjusting Clamp

**Installation** — Clean parts thoroughly and remove any burrs with a file. Lightly lubricate all enclosed metal components. Install by reversing removal procedure.

## JAGUAR (Cont.)

### STEERING COLUMN LOWER SEAL

**Removal** — Remove upper steering column, as previously outlined. Loosen hose clip attaching upper sealing sleeve to lower column; remove clip and sleeve. Remove 3 screws securing seal retainer to instrument panel. Slide seal, retainer and sealing sleeve up and off lower column.

**Installation** — **1)** Fit assembly of sealing sleeve, seal, and retainer over end of lower column carefully. Insert and tighten 3 retaining set screws. Carefully slide second sealing sleeve, flanged end first, over lower column as far as first sealing sleeve; position hose clip, but do not tighten.

**2)** Move second sealing sleeve approximately .250" (6 mm) toward dash, to preload it against first sealing sleeve. Secure this position with hose clip. Replace upper column assembly.

### OVERHAUL

#### UPPER & LOWER STEERING COLUMNS

**NOTE** — No repairs, adjustments, or overhaul procedures are given by the manufacturer. If damage is evident or suspected, replacement of assemblies is necessary.

#### TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (N·m)
Column-to-Brackets .....	14-18 (19-24)
Steering Wheel .....	25-30 (34-41)
Universal Joint Bolts .....	14-18 (19-24)