

## JAGUAR

XJ6  
XJ12  
"E" Type Series 3 V12

### 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, XJ6 & XJ12** — 1) Disconnect battery. Remove steering wheel, see *Jaguar under STEERING WHEEL & COLUMN SWITCHES* in this section. Remove speedometer as follows: Remove instrument panel casing. Behind speedometer, unscrew knurled nut from right-angle gear box and disconnect speedometer drive cable. Disconnect trip recorder reset control cable by unscrewing knurled nut. Apply pressure to instrument bezel, rotate speedometer counterclockwise until it releases, and withdraw from panel. Withdraw headlamp warning light and illuminator lights. Disconnect ground lead.

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 two set screws attaching lower end of upper column to its mounting strut. Working through speedometer and tachometer openings, remove two nuts securing top mounting of upper column, and support upper end of column with hand (or by other suitable means). Collect bolts, rubber washers, and any packing washers which may be at upper end of column.

5) Still supporting column, detach two set screws already loosened at lower mounting; collect packing washers. Remove upper steering column assembly from vehicle (with universal joint and switch assembly attached). **CAUTION** — Do not use excessive force to separate upper column from lower column when removing.

**Installation, XJ6 & XJ-12** — If universal joint and/or adjusting clamp have been removed, refit these, then reverse removal procedure and note the following: Check that  $\frac{3}{8}$ " (9.5 mm) clearance exists axially in lower universal joint; if necessary, move upper universal joint further along lower

column to increase clearance. Ensure self-cancelling operation of turn signals functions properly and that steering wheel spokes are horizontal when straight-ahead position is set; if not, adjust as necessary.

**Removal, "E" Type Series 3 V12** — 1) Detach battery ground cable. Remove parcel tray and column casing. Disconnect turn signal switch wiring from harness and detach horn wire from connector located at lower end of upper column tube. Disconnect lead to key alarm buzzer, if equipped. Remove ignition key and set wheels in straight ahead position.

2) Remove upper pinch bolt, nut, and washer retaining upper column to universal joint. Unbolt column from lower support bracket. Detach column from upper support. Pull inner column up to clear splines from universal joint, then remove upper column assembly.

**Installation, "E" Type Series 3 V12** — Replace column in reverse of removal procedures, having first set wheels in straight-ahead position.

#### LOWER STEERING COLUMN

**Removal, XJ6 & XJ12** — Raise vehicle on hoist and remove pinch bolt securing lower universal joint to pinion shaft. Lower vehicle. Detach lower parcel shelf. Remove both pinch bolts from upper-to-lower column "U" joint. Unscrew lower mounting screws of upper column. Pull lower steering column from upper universal joint. Raise vehicle. Remove lower "U" joint from pinion shaft and withdraw lower steering column.

**Installation, XJ6 & XJ12** — To install, reverse removal procedure, and ensure gap of  $\frac{3}{8}$ " (9.5 mm) exists in universal joint. **NOTE** — Front wheels should be kept in straight-ahead position during this operation.

**Removal, XKE Series 3 V12** — Remove pinch bolts securing upper and lower column universal joints. Remove ignition key and lock steering in straight-ahead position. Withdraw upper column mounting pieces and pull column to limit of travel in upper mounting. Push lower column to limit of downward movement and free from universal joint splines. Withdraw column toward interior of vehicle.

**Installation, XKE Series 3 V12** — Reverse removal procedures, after ensuring front wheels are centralized.

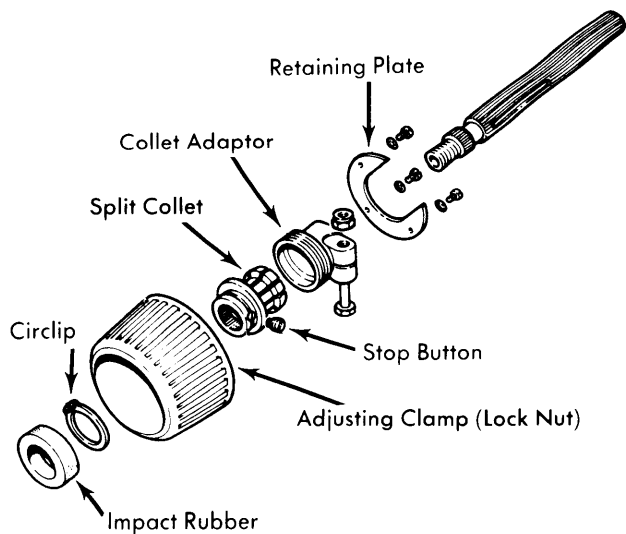
#### STEERING COLUMN ADJUSTING CLAMP

**Removal, XJ6 & XJ12** — 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.

**Installation, XJ6 & XJ12** — Clean parts thoroughly and remove any burrs with a file. Lightly lubricate all enclosed metal components. Install by reversing removal procedure.

# Steering Columns

## JAGUAR (Cont.)



4JA01

### STEERING COLUMN ADJUSTING CLAMP

### STEERING COLUMN LOWER SEAL

**Removal, XJ6 & XJ12** — Remove upper steering column, as previously described. Slacken hose clip attaching upper sealing sleeve to lower column; remove clip and sleeve. Remove three screws securing seal retainer to dash. Slide seal, retainer, and sealing sleeve up and off lower column.

**Installation, XJ6 & XJ12** — Fit assembly of sealing sleeve, seal, and retainer over end of lower column carefully. Insert and tighten three 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. Move second sealing sleeve approximately  $\frac{1}{4}$ " (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.