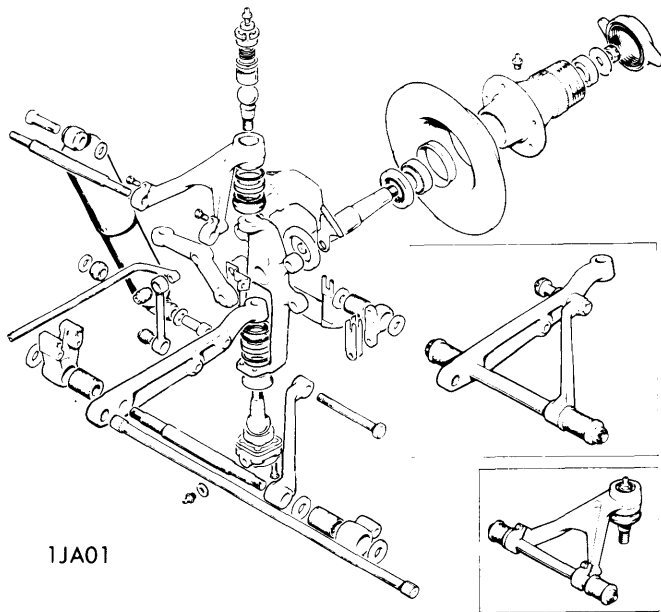


JAGUAR "E" TYPE SERIES 3

"E" Type Series 3

DESCRIPTION

Suspension consists of upper and lower control arms attached outboard to steering knuckle by ball joints, inboard to fulcrum shafts clamped to frame crossmember. Torsion bars are attached to lower control arms in front and secured to frame members in rear. Torsion bars are controlled by shock absorbers attached to lower control arms on bottom and frame on top. A stabilizer bar is placed between the two lower control arms and secured to frame crossmember.



FRONT SUSPENSION

ADJUSTMENTS

WHEEL ALIGNMENT SPECIFICATIONS & PROCEDURES

See *Wheel Alignment Specifications and Procedures* 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

FRONT SUSPENSION ASSEMBLY

NOTE — Front suspension cannot be serviced as an assembly. Front suspension components from each side must be removed separately. For individual component removal refer to appropriate text.

UPPER BALL JOINT

Removal — Raise and support vehicle under lower control arm fulcrum shaft support bracket; remove wheel. Remove locking nut from upper ball joint. Separate upper ball joint from steering knuckle by tapping on steering knuckle adjacent to ball joint pin.

Installation — Check ball joint grease cup, replace if worn or damaged. To install, reverse removal procedure.

UPPER CONTROL ARM & BUSHING

1) Raise and support vehicle under lower control arm fulcrum support bracket; remove wheel. Remove locking nut and upper control arm ball joint from steering knuckle. Remove nuts, bolts and washers from fulcrum shaft carrier brackets. Remove shims and stiffener plate, noting order of removal. Remove control arm from vehicle. Remove cotter pins and slotted nuts securing brackets to fulcrum shaft.

2) Withdraw brackets, bushings and shims. Note positioning of shims as these control camber angle. Remove screws securing control arm to fulcrum shaft. From rear of control arm, turn shaft in clockwise direction until threads are out of control arm. Press old bushing out of bracket and press in new bushing until bushing projects equal amount on each end of bracket. To install, reverse removal procedure.

NOTE — Tighten fulcrum shaft slotted nuts after control arm is installed in vehicle and vehicle weight is on wheels.

STEERING KNUCKLE

1) Raise and support vehicle under lower control arm fulcrum shaft support bracket; remove wheel. Disconnect and plug brake hose. Disconnect upper ball joint as previously outlined. Tie upper control arm to frame. Remove cotter pin and nut from tie rod ball joint, separate tie rod from ball joint. Disconnect lower ball joint and separate from lower control arm by tapping steering knuckle adjacent to ball joint pin. Remove steering knuckle, complete with caliper and rotor, from vehicle. To install, reverse removal procedure.

STABILIZER BAR

Removal — Remove nuts, bolts and washers from stabilizer bar support brackets. Remove locking nuts, washers and bolts securing stabilizer bar link arms to lower control arms. Remove stabilizer and separate link arms from stabilizer bar. Press out link arm bushings and replace, if necessary, with new bushings. Bushings must project equal amount on each side of link arm.

Installation — To install, reverse removal procedure, and note the following: Tighten support bracket-to-frame and link arm attaching bolts when weight of vehicle is on wheels.

LOWER CONTROL ARM & BALL JOINT

Removal — 1) Remove cable harness clips and insert wood blocks under crossmember. Raise and support vehicle on wood blocks, remove wheels. Remove and plug brake hose. Remove tie rod ball joint as previously outlined. Disconnect upper ball joint as previously outlined. Tie upper control arm to frame. Disconnect lower ball joint and separate from lower control arm. Remove steering knuckle complete with caliper and rotor.

JAGUAR "E" TYPE SERIES 3 (Cont.)

2) Jack lower control arm up until weight of vehicle is on jack. Do not lift vehicle off stands. Remove locking nut securing stabilizer bar to lower control arm. Remove shock absorber. Remove jack. Detach torsion bar rear adjuster lever from frame. Detach torsion bar front mounting and remove torsion bar. Remove nuts and bolts from fulcrum shaft brackets and remove control arm from vehicle.

Installation — 1) To install, reverse removal procedure and note that torsion bar adjustment is required. Upper control arm ball joint, steering tie rod ball joint, and shock absorbers must be disconnected to make torsion bar adjustment. To adjust: Loosen nuts on lower control arm mountings. Using suitable metal strap with holes drilled $17\frac{13}{16}$ " apart perform necessary adjustments.

2) Fasten strap ends to upper and lower shock absorber mounts. With strap in place, holes in torsion bar rear adjuster lever and holes in frame should be aligned. If alignment is required, note which way lever must be rotated to align holes, mark position of lever on torsion bar. Slide lever off bar and

rotate in direction required to align holes, slide lever back on bar and check hole alignment. Repeat if necessary.

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (mkg)
Steering Knuckle-to-Kingpin	97-107 (13.4-14.8)
Tie Rod Lever-to-Kingpin	50-55 (7.0-7.6)
Ball Joint-to-Kingpin	15-20 (2.1-2.7)
Fulcrum Shaft Nut	
Upper	60-70 (8.3-9.7)
Lower	80-95 (11.1-13.1)
Upper Control Arm-	
to-Fulcrum Shaft	15-18 (2.1-2.5)
Fulcrum Mounting Bracket	28-32 (3.8-4.4)
Stabilizer Bar-to-Frame.....	18 (2.5)
Stabilizer Bar Link.....	50-55 (7.0-7.6)
Torsion Bar Adjuster Link	50-55 (7.0-7.6)
Torsion Bar Mounting	
Bracket	50-55 (7.0-7.6)