

AUDI

Fox
5000

DESCRIPTION

Suspension is independent type, having strut assembly, control arm and stabilizer bar. Strut assembly consists of shock absorber surrounded by a coil spring. It is attached to inner fender panel at top and is integral with steering knuckle at bottom. Lower control arm is connected by ball joint to steering knuckle and by bushing connection to frame (note configuration differences in Fig. 1). Stabilizer bar is connected by brackets to subframe and by bracket to control arm on Fox and by bushing and bolt on 5000.

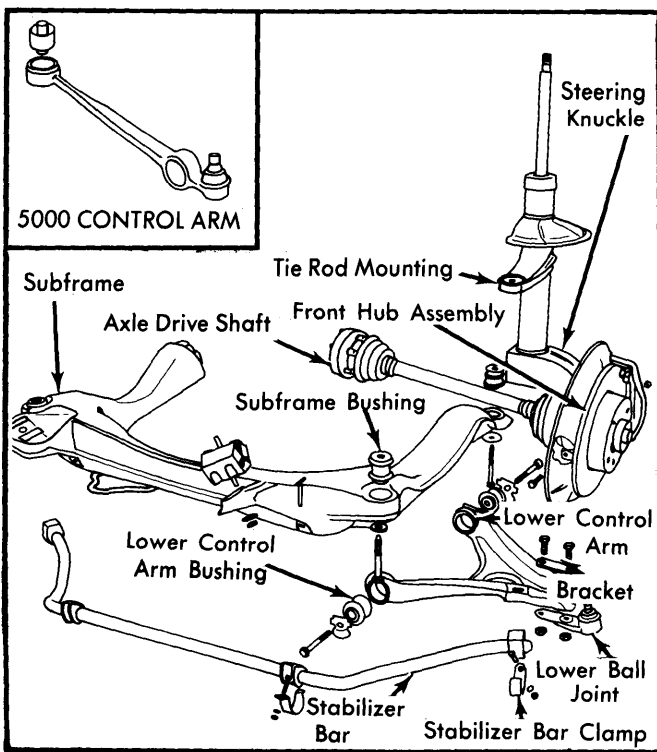


Fig. 1 Exploded View of Audi Front Suspension.
Note Inset of 5000 Control Arm. Other Components Similar on Both Models.

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

NOTE — During any removal and installation procedure, if axle nut is removed or installed, do so with vehicle resting on ground at full curb weight.

STRUT ASSEMBLY

Removal — 1) Remove axle nut. Raise and support vehicle and remove wheel. Without detaching brake hose or line, unbolt brake caliper and suspend out of way. Remove rotor. Remove stabilizer bar clamp bolt(s) from control arm on Fox, subframe on 5000.

2) On Fox, index mark ball joint bracket on control arm and remove. On 5000, remove ball joint retaining bolt holding joint to hub assembly and remove. Using suitable tool, separate tie rod ball joint from strut arm. Remove stabilizer-to-frame brackets.

3) Using suitable puller attached to hub studs, apply pressure to drive axle shaft to separate strut assembly from drive axle.

NOTE — If work is being done on right side, it may be necessary to remove exhaust pipe from manifold and bracket on transmission.

4) While holding strut assembly from below, remove upper retaining nuts at fender panel (not strut plate nuts). Remove strut assembly.

Disassembly — 1) With strut assembly on bench, attach suitable spring compressor to coil spring and compress enough to remove upper piston rod retaining nut. Remove strut top plate.

2) Slowly release tension from coil spring and remove spring.

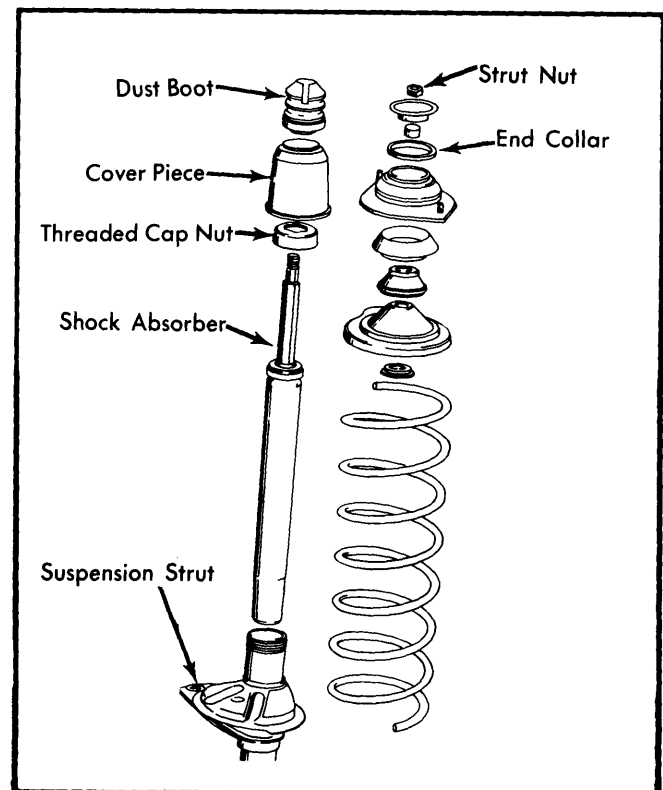


Fig. 2 Disassembled View of Strut Assembly
(Fox Shown; 5000 Similar)

Front Suspension

AUDI (Cont.)

3) Use suitable tool (40-201, Fox; 2069, 5000) to remove threaded cap from top of shock absorber. Remove shock absorber.

Reassembly & Installation — To reassemble and install, do so in reverse of disassembly and removal procedure, noting the following:

- On 5000 models, be sure damping ring locating tabs are mated with indentations on upper spring retainers.
- If nuts or bolts are covered with undercoat or grease, clean threads thoroughly before installation.
- Drive axle splines must be grease-free. Also, apply a narrow ring of suitable locking compound (D6) around outer end of drive shaft splines and allow 1 minute to dry before installing.
- Tighten drive axle nut with vehicle resting on ground.

SHOCK ABSORBER (ON-CAR)

Removal (5000 Only) — **1)** Leave vehicle sitting on ground at full curb weight. Remove top shock absorber nut.

2) Mark position of top retaining plate (camber adjustment) and remove 3 retaining nuts from plate and lift off plate.

3) Turn steering wheel so shock absorber rod can be aligned in center of upper spring retainer (insert piece of wood between spring and wheel housing to hold this position).

4) Remove washer, rubber bump stop, cover and threaded cap from shock absorber. Remove shock absorber.

NOTE — Threaded cap removal may require use of special wrench 2069.

Installation (5000 Only) — To install, reverse removal procedure, noting the following:

- When installing rubber cover over threaded nut, be sure marking on cover faces outward.
- After installation is complete, check camber and toe settings.

LOWER CONTROL ARM

Removal — **1)** Raise and support front of vehicle. Place additional support under strut assembly.

2) Detach stabilizer bar from control arm. It may be necessary to remove stabilizer bar clamp bolts from frame to gain movement.

3) Loosen control arm mounting bolts. Remove axle drive shaft if necessary.

4) On Fox, index mark ball joint nuts and bracket. Remove ball joint mounting nuts, bolts and bracket (Fox) and separate ball joint from strut. Remove control arm.

Bushing Replacement — Using suitable support (40-21, Fox; VW415a, 5000), driver (VW409, Fox; 2040, 5000) and press, remove old bushings from control arm. Using same tools, lubricate and press in new bushings.

Installation — To install lower control arm, reverse removal procedure, noting the following:

- On Fox, if ball joint is not replaced at this time, be sure index marks made during removal are aligned.
- Tighten all nuts and bolts to specifications.
- Check alignment.

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (mkg)
Stabilizer Bar Bracket	
Fox	
6 mm Bolt	7 (1)
8 mm Bolt	14 (2)
5000	76 (10.5)
Stabilizer Bar-to-Control Arm (5000)	80 (11)
Control Arm-to-Subframe	
Fox	50 (7)
5000	80 (11)
Ball Joint-to-Strut Nut	
Fox	25 (3.5)
5000	47 (6.5)
Ball Joint Bracket Nuts (Fox)	47 (6.5)
Axle Nut	
Fox	
M18x1.5	145 (20)
M20x1.5	175 (24)
5000	203 (28)
Strut Upper Retaining Nuts	18 (2.5)
Shock Absorber Threaded Cap	
Fox	108 (15)
5000	130 (18)
Shock Piston Rod Nut	43 (6)
Strut Upper Plate (5000)	18 (2.5)