

# Rear Suspension

## AUDI 4000 & 5000

### DESCRIPTION

Suspension on Audi 4000 and 5000 models consists of coil springs, shock absorbers, transverse rod and trailing arms. Some design differences occur between models.

The rear suspension arrangement of 5000 models is illustrated in Fig. 1. On these models, the coil spring is mounted directly on the rear axle, and the shock absorber is mounted separately. Transverse rod mounts behind axle beam. Top end of shock absorber is a stud type mount, incorporating a rubber damper assembly.

On 4000 models, the coil spring and shock absorber are combined into a MacPherson strut type assembly. A transverse rod is also used, and mounts diagonally in front of the axle beam. See Fig. 2.

### ADJUSTMENTS

#### WHEEL ALIGNMENT SPECIFICATIONS & PROCEDURES

See *Wheel Alignment Specifications and Procedures* in WHEEL ALIGNMENT section.

#### WHEEL BEARING 4000 & 5000 Models

Remove grease cap, cotter pin, and castle nut. Rotate wheel, tighten spindle nut, and loosen for adjustment. Adjust by lightly tightening spindle nut, until the plain washer beneath spindle nut can just be moved from side to side with a screwdriver (using light pressure). Install cotter pin and dust cap.

### REMOVAL & INSTALLATION

#### SHOCK ABSORBERS

**NOTE:** Remove and install shock absorbers one at a time. Do not allow rear axle to hang from body mounts only.

##### Removal (4000)

Loosen trunk sheet metal trim, and remove shock absorber top protective cap. Remove upper mounting nut. Raise vehicle, remove lower mounting bolts, and remove shock absorber.

##### Removal (5000)

Remove top shock absorber mounting. Remove lower mounting and shock.

##### Installation (All Models)

To install, reverse removal procedure. On 4000 models, be sure top protection cap is properly installed.

#### REAR AXLE ASSEMBLY

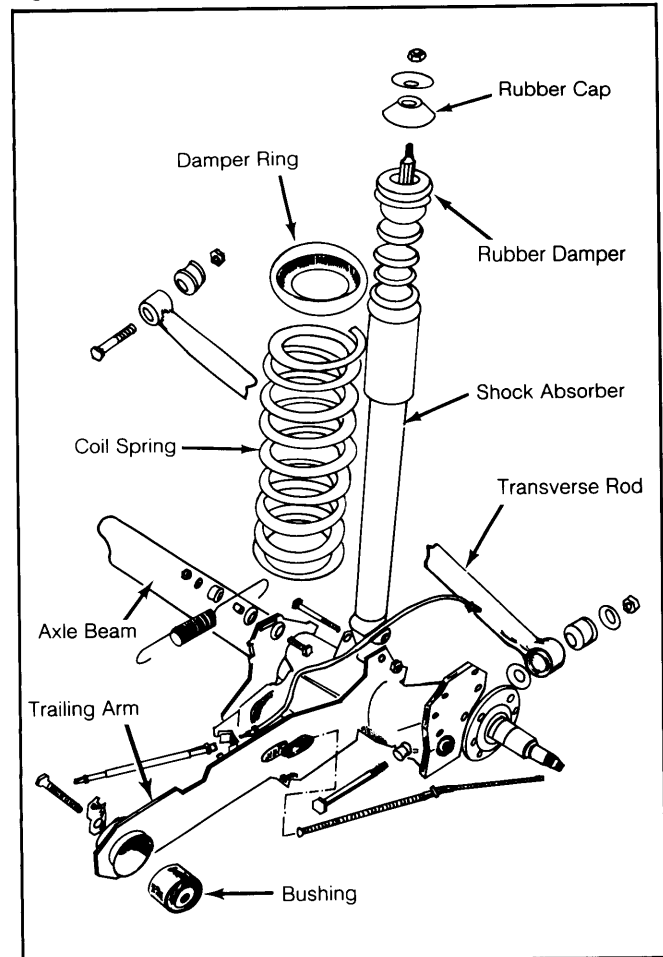
##### Removal (4000)

1) Raise and support vehicle with safety stands. Remove wheel assemblies. Detach muffler hangers, lower muffler with tailpipe, and secure.

2) Remove nut on parking brake linkage equalizer bar. Pry cable sleeves out of brackets and remove parking brake cables from their brackets.

3) Detach brake hoses and plug lines. Remove nuts from trailing arm mounting bolts, leaving bolts in place. Disconnect spring from brake pressure regulator.

Fig. 1: Exploded View of 5000 Rear Suspension



4) Remove transverse rod mounting bolt, suspension strut mounting bolts, and trailing arm mounting bolts. Remove rear axle assembly while guiding parking brake cable over tailpipe and muffler.

##### Bushing Replacement (4000)

Place trailing arm in press and force bushing from arm. Reverse process to install new bushing. Make sure bushing slots are positioned horizontally in trailing arm.

##### Installation (4000)

1) Raise and support vehicle. Place rear axle in position. Install both trailing arm bolts, and hand tighten. Install wheel assemblies, lower vehicle, and tighten trailing arm bolts with wheels on floor.

2) Install transverse rod, brake hoses, and spring for pressure regulator. Bleed brakes, attach parking brake cable, and adjust.

##### Removal (5000)

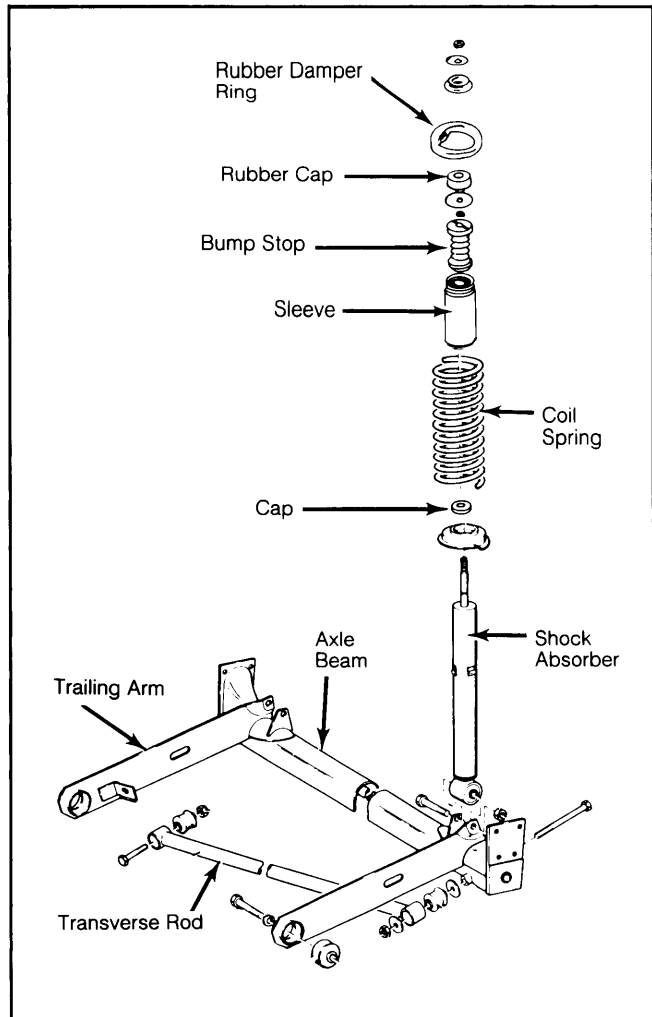
1) Raise and support vehicle with safety stands. Remove bolt from transverse rod at axle mounting. Detach right brake hose at coupling with steel tubing. Plug openings.

2) Detach brake pressure regulator spring (hooked to lower mounting bolt of shock absorber). Detach left brake hose at connection with tubing, and plug openings.

# Rear Suspension

## AUDI 4000 & 5000 (Cont.)

**Fig. 2: Exploded View of 4000 Rear Suspension**



lower body to hold springs (3 persons may be required to perform this step).

**3)** Tighten shock absorber top mounting nuts. Raise vehicle, and check position of coil springs. If necessary, turn springs in mounting to correct their positions.

**4)** With vehicle resting on floor, tighten trailing arm bolts. Install transverse rod, brake hoses, spring for brake pressure regulator, and fuel tank retaining strap.

**5)** Bleed brake system. Attach and adjust parking brake cable.

### TRANSVERSE ROD

#### Removal (All Models)

Raise and support vehicle. Remove nuts from transverse rod bolts, and tap bolts out of holes. Inspect bushings and sleeves for wear, replace if necessary.

#### Installation (All Models)

To install, reverse removal procedure.

### TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (N.m)
<b>Shock Absorbers</b>	
Upper .....	14 (19)
Lower	
4000 .....	43 (58)
5000 .....	40 (54)
<b>Trailing Arm</b>	
4000 .....	72 (98)
5000 .....	69 (94)
<b>Transverse Rod</b>	
4000 .....	58 (79)
5000 .....	65 (88)

**3)** Remove right fuel tank retaining strap. Remove parking brake cable from guide on fuel tank. Loosen left side parking brake cable bolt. Loosen parking brake adjusting nut, and disconnect parking brake cable.

**4)** Remove rear mounting for exhaust system. Lower vehicle to floor. Remove both shock absorber top nuts. Using frame jack, raise vehicle slowly until coil spring can be removed from axle mountings. Remove wheel assemblies.

**5)** With rear axle supported on a floor jack, remove trailing arm mounting bolts. While slowly lowering axle assembly from vehicle, guide parking brake cable over exhaust pipe.

#### Bushing Replacement (5000)

Place trailing arm in press, and force bushing from arm. Reverse process to install new bushing. Align cutouts with center axis.

#### Installation (5000)

**1)** Raise vehicle, and position rear axle in vehicle. Install and lightly tighten trailing arm mounting bolts. Install wheel assemblies and lower vehicle to floor.

**2)** Position rubber damper rings on coil springs, jack up vehicle body, position springs, and slowly