

Rear Suspension

BMW

320i, 528e, 633CSi, 733i

DESCRIPTION

Independent type rear suspension is used, with rear MacPherson type struts. Semi-trailing control arms pivot on crossmember, and are integral with axle shaft bearing housing. MacPherson type strut mounts to top of control arm and to body. A stabilizer bar is attached to each trailing arm and at 2 points on crossmember.

ADJUSTMENTS

WHEEL ALIGNMENT SPECIFICATIONS & PROCEDURES

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

WHEEL BEARING

Wheel bearings are not adjustable.

REMOVAL & INSTALLATION

WHEEL BEARING

Removal (528e)

1) Disconnect axle shaft at drive flange and suspend out of the way. Remove brake disc, (if equipped). Take off lock plate. Remove collared nut. Install puller (33 4 000) pull off drive flange with puller (00 7 501 & 00 7 502).

2) Screw on collared nut flush with end of shaft, and knock out with soft mallet. Remove circlip hold bearing. Remove wheel bearing with pull. Remove inner bearing shell from rear axle shaft with puller.

Installation

To install, reverse removal procedure.

Removal (All Others)

1) Disconnect axle shaft at drive flange, and suspend out of the way. Remove lock plate, and remove collared nut. Pull off drive flange. Remove disc brake (if equipped).

2) Install collared nut, and drive out rear axle shaft. Drive wheel bearings and shaft seals outward.

Installation

To install, reverse removal procedure.

STRUT ASSEMBLY

Removal (733i)

Remove rear seat and backrest. Raise and support vehicle under control arms. Detach lower mounting. Remove hat rack, and detach centering shell at wheel housing. Remove strut from vehicle.

Removal (All Others)

Raise vehicle and remove rear wheel. Place jack under control arm. Disconnect shock at lower mounting. Remove centering shell and mounting nuts from top of MacPherson strut. Remove assembly from vehicle.

Disassembly (All)

Using spring compressor, collapse spring and remove centering shell. Remove coil spring and boot. Pull retainer and auxiliary spring off inner shock absorber. Inspect and replace any defective parts.

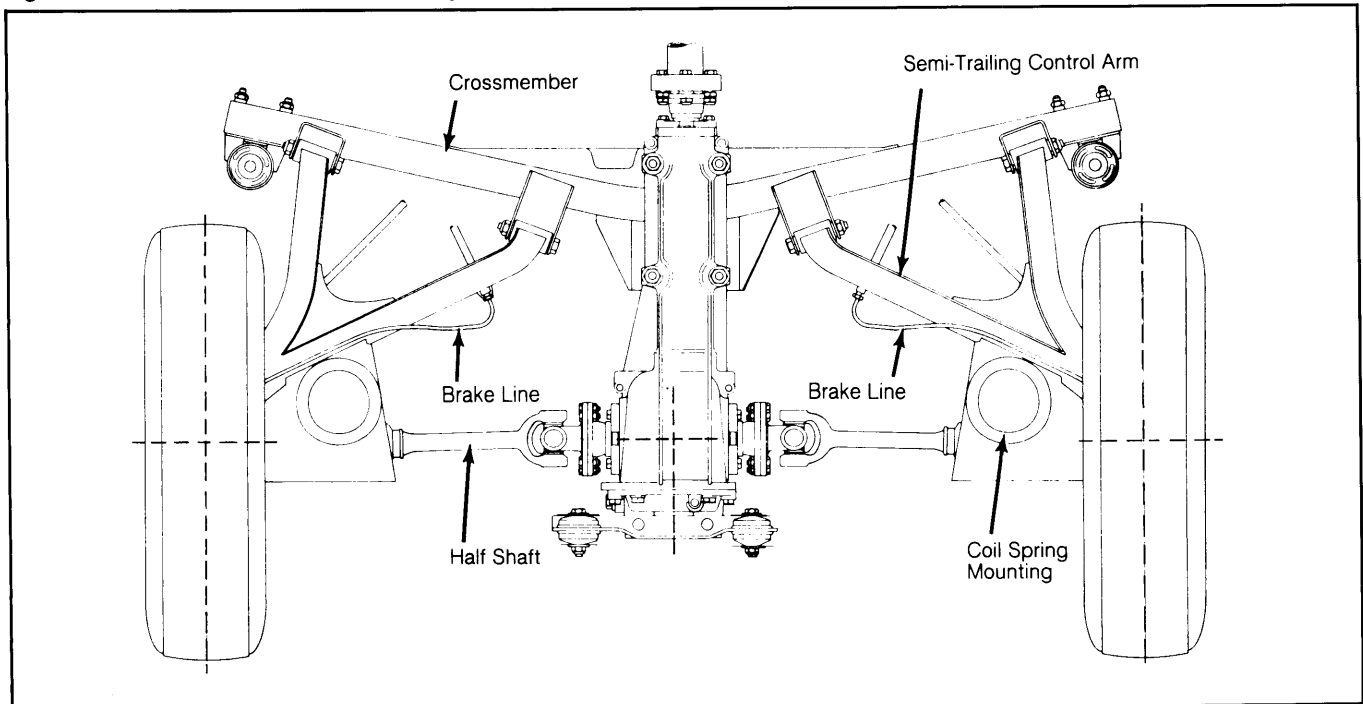
Reassembly (All)

Reverse disassembly procedure, making sure coil spring is properly aligned before releasing spring compressor. Vent opening on spring faces inside retainer.

Installation (All)

To install, reverse removal procedure. Tighten nuts and bolts after vehicle is resting on floor.

Fig. 1: Overhead View of BMW Rear Suspension



BMW (Cont.)

Fig. 2: Exploded View of 320i BMW Rear MacPherson Strut Assembly.

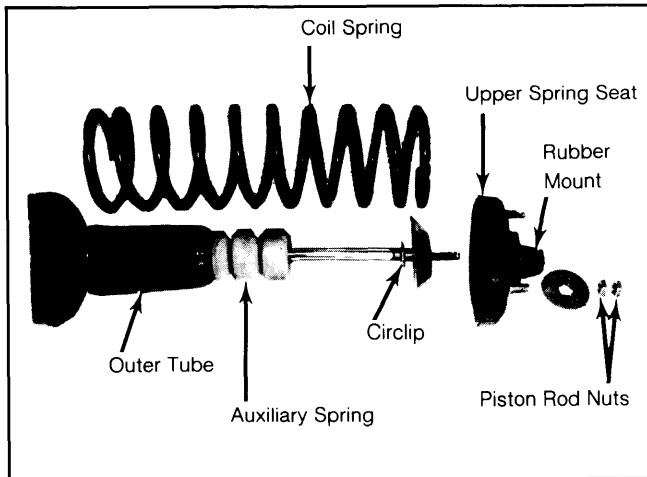
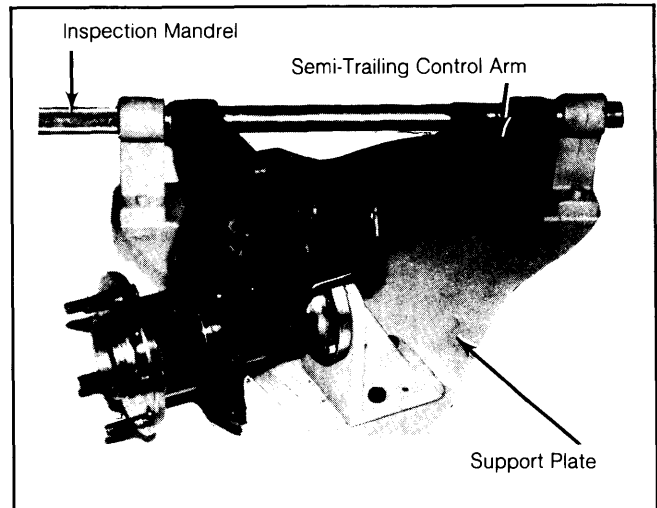


Fig. 3: Trailing Arm Fitted to Support Plate to Check Alignment



SEMI-TRAILING CONTROL ARM

Removal (733i)

1) Raise and support vehicle. Remove rear wheel. Pull up parking brake lever, and detach output shaft at drive flange. Remove parking brake lever.

2) Using a syringe, draw off fluid from reservoir and detach and plug brake lines. Detach control arm from rear axle carrier. Detach MacPherson strut and remove control arm.

Removal (All Others)

1) Raise vehicle, and remove rear wheels. Remove parking brake lever. Disconnect and plug brake line at union bracket. Detach brake pad wear sensor from right control arm (if equipped).

2) Remove stabilizer bar from control arm. Remove strut from vehicle. Disconnect axle drive shaft from bearing carrier. Place jack under control arm. Remove trailing arm pivot bolts at crossmember, and lower arm to floor.

Inspection (All)

1) Visually inspect bushings, and replace as necessary. Before pressing out worn bushings, cut off collar. When pressing in new bushings, lubricate them with oil. Note that collared edge faces out.

2) Check trailing arm alignment. Place arm in support plate. See Fig. 3. Slide inspection mandrel through control arm to crossmember mounting bushings bores (bushings removed). If control arm is out of alignment, it can be straightened if there is no other damage to arm.

Installation (All)

To install, reverse removal procedure, and tighten nuts fully after vehicle is resting on floor. Bleed and adjust brakes.

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (N.m)
Lower Strut Mount	
320i	36-39 (49-53)
528e, 633CSi, 733i	87-94 (118-128)
Upper Strut Mount	18-20 (24-27)
Trailing Arm-to-Crossmember	
320i	58-65 (79-88)
528e, 633CSi, 733i	49-54 (67-73)