

Rear Suspension

BMW

320i
528i
633CSi
733i

DESCRIPTION

Independent type rear suspension with rear struts. Semi-trailing control arms pivot on crossmember and are integral with axle shaft bearing housing. Shock absorber (strut assembly) mounts to purchase on top of control arm and to body. A stabilizer bar is attached to each trailing arm and at two points on crossmember.

ADJUSTMENTS

WHEEL ALIGNMENT SPECIFICATIONS & PROCEDURES

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

REMOVAL & INSTALLATION

STRUT ASSEMBLIES (SHOCK ABSORBERS)

Removal (Exc. 733i) — 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 shock absorber. Remove assembly from vehicle.

Removal (733i) — Remove rear seat backrest. Raise and support vehicle under control arms. Detach lower mounting. Remove package shelf and detach centering shell at wheel housing. Remove shock absorber from vehicle.

Disassembly (All) — Using spring compressor, collapse spring and remove centering shell. Remove coil spring and boot. Pull retainer and auxiliary spring off 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.

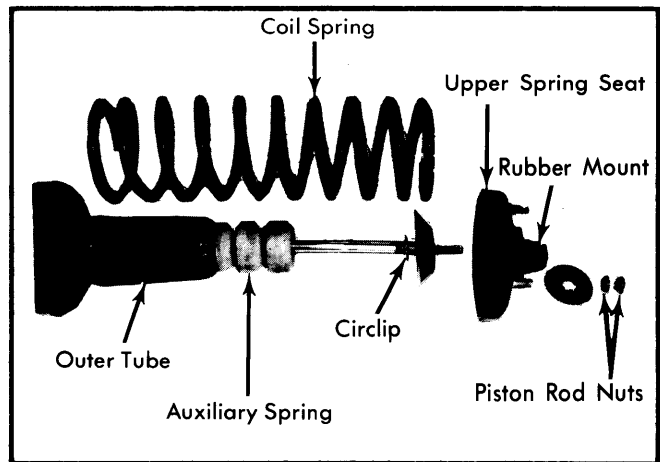


Fig. 2 Exploded View of BMW Rear Suspension Strut Assembly — 320i Shown

Installation (All) — To install, reverse removal procedure. Tighten bolts and nuts after vehicle is resting on ground.

SEMI-TRAILING CONTROL ARM

Removal (Exc. 733i) — 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 assembly (shock absorber) 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 ground.

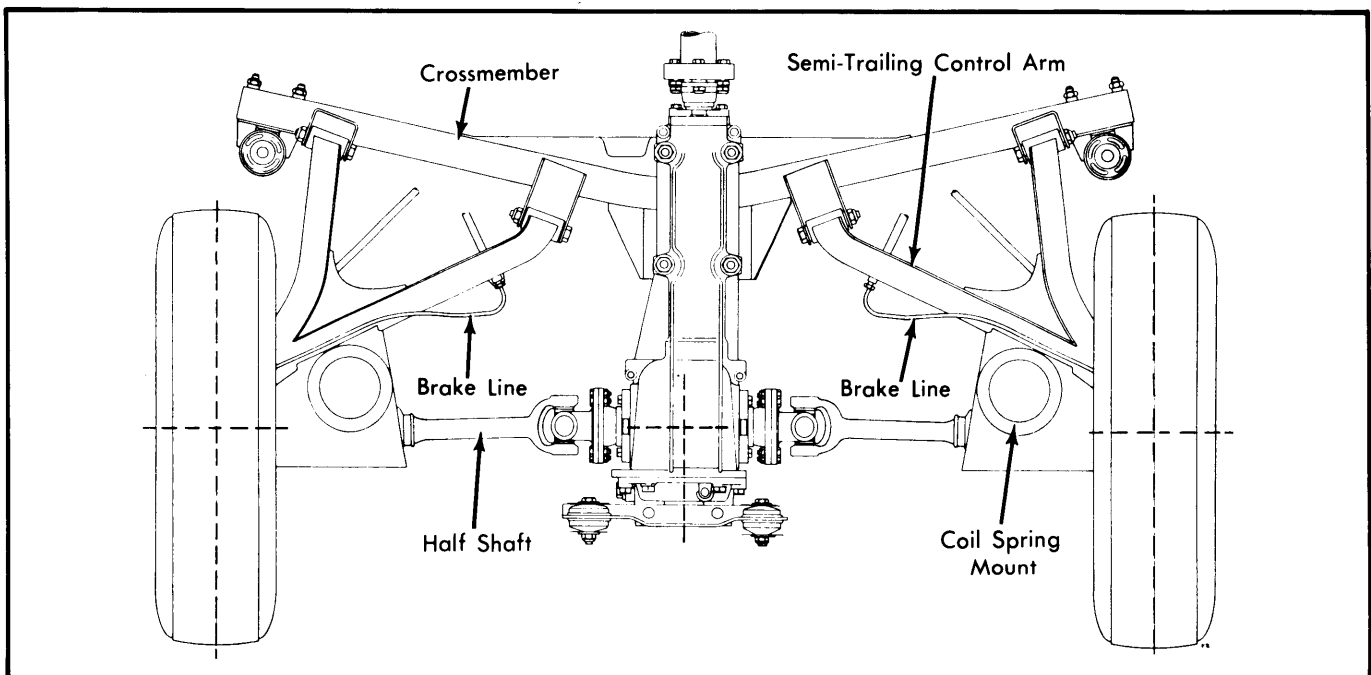


Fig. 1 Overhead View of BMW Rear Suspension

BMW (Cont.)

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 shock absorber and remove control arm.

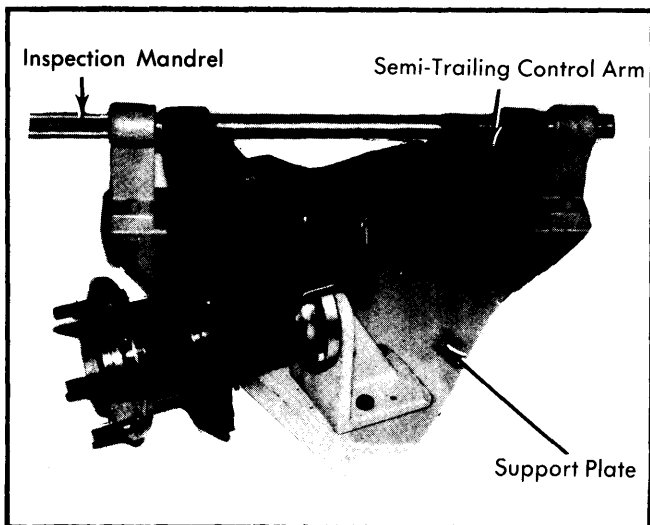


Fig. 3 Trailing Arm Fitted to Support Plate to Check Alignment

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 ground. Bleed and adjust brakes.

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (N.m)
Lower Shock Absorber Mount	
320i	36-39 (49-53)
528i, 633CSi & 733i	87-94 (118-127)
Upper Shock Absorber Mount	18-20 (24-27)
Trailing Arm-to-Crossmember	
320i	58-65 (79-88)
528i, 633CSi & 733i	49-54 (66-73)