

Front Suspension

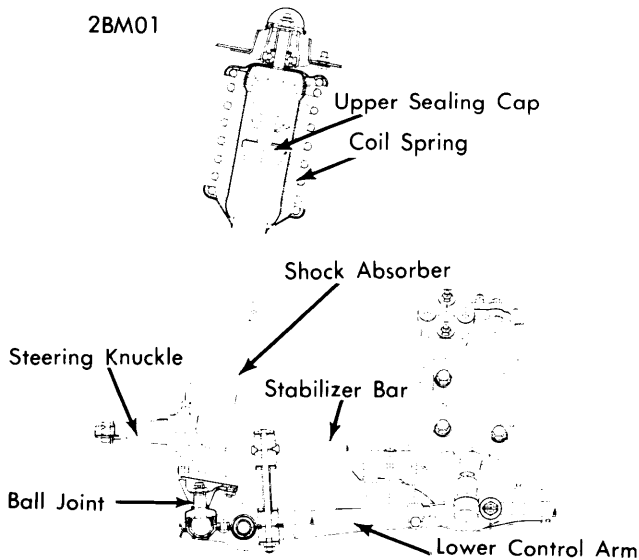
BMW

- BMW 4 Cyl.
2002
2002 tii
- BMW 6 Cyl.
3.0 Bavaria
3.0 S
3.0 CS

DESCRIPTION

Strut type suspension consisting of a vertically mounted strut assembly. Strut assembly is mounted to chassis frame at top by means of thrust bearing. Lower end of strut assembly is mounted to ball joint which is bolted to lower control arm. Strut assembly connects to ball joint by means of a steering knuckle which is bolted to strut assembly and ball joint. Strut assembly consists of a shock absorber built into strut outer tube. A coil spring is mounted on outside of strut assembly. On 4 Cyl. models a stabilizer bar is mounted to front of crossmember and is connected at ends of lower control arms. A strut rod connects lower control arm to crossmember.

2BM01



FRONT SUSPENSION ASSEMBLY (TYPICAL)

ADJUSTMENT

WHEEL ALIGNMENT SPECIFICATIONS & PROCEDURES

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

WHEEL BEARINGS

See *Wheel Bearings* in **WHEEL ALIGNMENT** Section.

BALL JOINT CHECKING

See *Ball Joint Checking* in **WHEEL ALIGNMENT** Section.

REMOVAL & INSTALLATION

FRONT SUSPENSION ASSEMBLY

Removal — Raise and support vehicle and remove wheel. Remove guard plate. Disconnect brake caliper leaving brake lines connected. Remove nut and bolt securing steering linkage to pitman shaft. Disconnect right and left engine mountings. Remove upper shock absorber mounting nuts. Support engine

with suitable lift. Support crossmember with jack and lifting beam. Remove bolts securing crossmember to frame, lower and remove complete suspension assembly.

Installation — To install, reverse removal procedure. **NOTE** — *When connecting steering linkage, steering wheel and front wheels must be in a straight ahead position and markings on housing and pitman shaft must be opposite each other.*

LOWER CONTROL ARM & STEERING KNUCKLE

Removal — Raise and support vehicle and remove wheel and guard plate. Disconnect stabilizer bar from lower control arm. Disconnect lower control arm from crossmember. Using suitable tool (BMW 6056) press off tie rod from steering knuckle. Disconnect side strut from lower control arm. Remove safety wire and nuts from steering knuckle and remove lower control arm and knuckle assembly.

Installation — To install, reverse removal procedure and tighten all nuts and bolts.

STRUT TUBE ASSEMBLY

Removal — Raise and support vehicle then remove wheel and guard plate. Remove lower control arm and steering knuckle. Remove nuts securing upper shock absorber mount and remove strut tube assembly.

Installation — To install, reverse removal procedure and tighten all nuts and bolts.

SHOCK ABSORBERS & COIL SPRINGS

Removal — With strut tube assembly removed, compress coil spring with suitable tool (BMW 6035). Remove upper sealing cap and unscrew lock nut. Remove support bearings and spring support and remove shock absorber. Coil springs may be removed at this time.

Installation — To install, reverse removal procedure. **NOTE** — *Coil spring ends must be located in stops of upper and lower spring cups.*

STABILIZER BAR (4 CYL. MODELS)

Removal — Remove nuts securing stabilizer bar and rubber bushings to lower control arm. Remove clamp securing stabilizer bar to crossmember and remove bar.

Installation — Inspect all components for excessive wear or damage and replace as needed. To install, reverse removal procedure and tighten all nuts and bolts.

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (mkg)
Lower Control Arm-to-Crossmember	115 (15.9)
Side Strut-to-Lower Control Arm	27 (3.7)
Brake Caliper	64 (8.9)
Shock Absorber Nut	55 (7.6)
Spring Strut Screw Ring	99 (13.7)