

## VOLKSWAGEN TYPE 1

### Type 1

### DESCRIPTION

Independent torsion bar type rear suspension. Torsion bars are mounted inside rear crossmember tube and anchor in center by means of a splined hub. Outer ends of torsion bars mount into splined hubs integral with spring plates. Control arm and spring plate mount together. Control arms pivot in mounts connected to crossmember tube and also serve as rear wheel bearing carriers. Hydraulic shock absorbers mount off control arms.

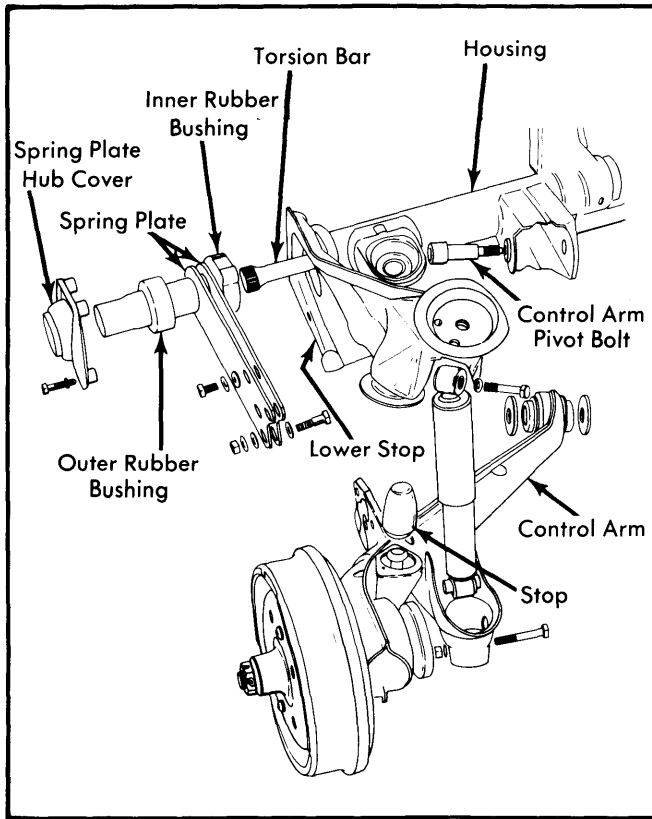


Fig. 1 Volkswagen Type 1 Rear Suspension Components

### ADJUSTMENT

#### WHEEL ALIGNMENT SPECIFICATIONS & PROCEDURES

See Wheel Alignment Specifications and Procedures in WHEEL ALIGNMENT Section.

### REMOVAL & INSTALLATION

#### SHOCK ABSORBERS

**Removal** — Raise vehicle and place on safety stands. Remove wheel. Remove both bottom and top mounting nuts and bolts, then slide shock absorber from vehicle.

**Installation** — Inspect for hydraulic leaks and replace shock absorber if excessive leaking is apparent. Check shock absorber for smooth, even operation. To install, reverse removal procedure.

#### CONTROL ARMS

**Removal** — 1) Remove cotter pin and loosen rear hub nut. Raise vehicle and place safety stands under body. Remove wheel. Remove shock absorber. Remove bolts mounting axle drive shaft to stub axle. Separate axle drive shaft from stub axle and wire out of way. Use protective cap to cover exposed end of axle drive shaft.

2) Remove drum and disconnect parking brake and hydraulic lines. Index mark spring plate in relation to a point on control arm. Remove control arm pivot bolt and remove control arm from vehicle.

**Installation** — To install, reverse removal procedure. Tighten pivot bolt and lock in place by staking edge to metal shoulder on bracket. Align spring plate marks with those on control arm. Bleed brake system.

#### TORSION BARS & SPRING PLATES

**Removal** — 1) Disconnect control arm from spring plate as outlined above. **NOTE** — To remove spring plate and/or torsion bar, control arm DOES NOT need to be removed. Remove bolts securing hub cover and remove cover.

2) Pry spring plate off lower stop cast into torsion bar housing. Remove spring plate and withdraw torsion bar. If torsion bar is broken, opposite side torsion bar must be removed to drive out broken piece.

**Installation** — 1) Inspect torsion bar and spring plate for wear or distortion. Inspect rubber mounts for cracking or wear. Torsion bars are marked left and right and should be installed accordingly. Coat torsion bar splines with grease and install in vehicle. Coat rubber supports with talcum powder. Make sure part of rubber support marked "Oben" is installed facing up.

2) Install spring plate in position. **NOTE** — See appropriate article in WHEEL ALIGNMENT Section for torsion bar setting procedure. Install hub cover and secure with two bolts. Raise spring plate using a spring compressor (VW655/3) and install remaining hub cover bolts. To install remaining components, reverse removal procedure. Recheck wheel alignment.

### TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (mkg)
Shock Absorber Upper and Lower Mounts .....	43 (6.0)
Control Arm Pivot Bolt .....	87 (12.0)
Spring Plate-to-Control Arm .....	80 (11.0)
Spring Plate Hub Cover Bolts .....	25 (3.5)
Axle Drive Shaft-to-Stub Axle .....	25 (3.5)
Rear Axle Hub Nut .....	217 (30.0)