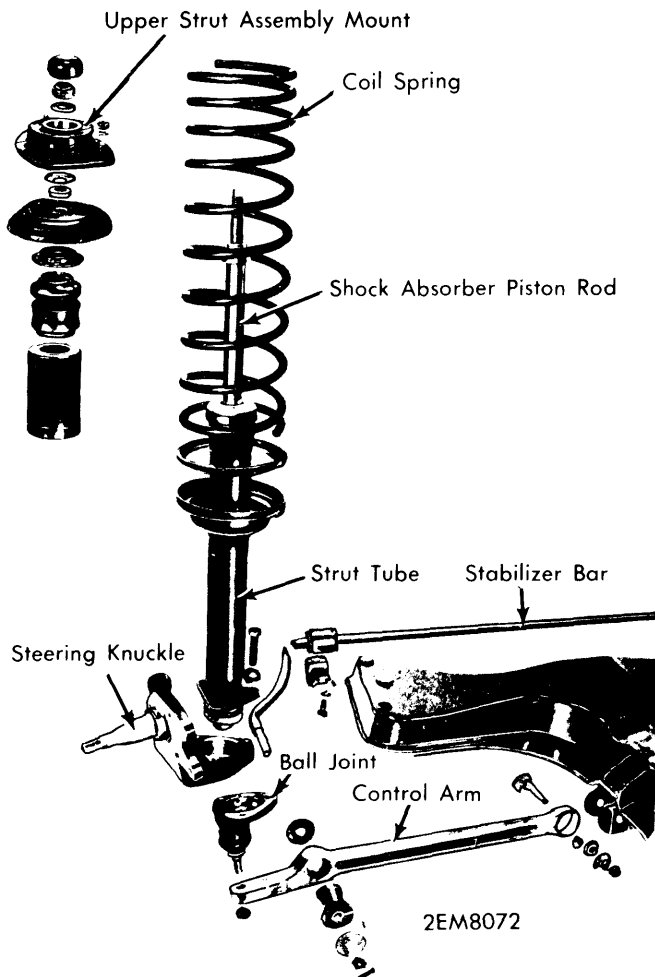


## 1971-73 VOLKSWAGEN TYPE 1 SUPER BEETLE

### Super Beetle (1971-73)

#### DESCRIPTION

Independent strut type suspension consisting of vertically mounted strut assemblies, lower control arms and a stabilizer bar. Strut assembly mounts at top to fender panel by means of a thrust bearing and at bottom to steering knuckle. Steering knuckle mounts to a ball joint which is connected to lower control arm. Control arm pivots in mount connected to chassis member. Strut assembly consists of a shock absorber integral with strut tube, a coil spring is mounted over strut tube, and a thrust bearing is mounted on top of assembly. A stabilizer bar mounts to chassis member and is connected at ends to lower control arms.



VOLKSWAGEN 113 SEDAN FRONT SUSPENSION

#### ADJUSTMENT

##### WHEEL ALIGNMENT SPECIFICATIONS & PROCEDURES

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

##### BALL JOINT CHECKING

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

##### WHEEL BEARING ADJUSTMENT

See *Wheel Bearing Adjustment* in **WHEEL ALIGNMENT** Section.

#### REMOVAL & INSTALLATION

##### STRUT ASSEMBLY

**Removal** — Raise vehicle and place safety stands under body. Remove wheel and tire. If left side strut assembly is being removed, pull speedometer cable out of steering knuckle. Disconnect brake flex hose from bracket on strut tube. Bend down lock plates on bolts securing strut assembly to steering knuckle and remove bolts. Pull down on control arm to separate strut assembly from steering knuckle. Remove three nuts securing strut assembly to fender panel, accessible from inside luggage compartment, and remove strut assembly from vehicle. Compress coil spring using a suitable spring compressor (VW340). Remove nut from shock absorber piston rod and remove thrust bearing mount. Release spring compressor and remove coil spring.

**Installation** — Inspect strut assembly components for wear or distortion. There should be no variation of pressure when pushing in or pulling out on shock absorber piston rod. Inspect for leaks. If shock absorber in strut assembly is found defective, strut assembly must be replaced. Install coil spring on strut assembly and compress until unthreaded portion of piston rod protrudes .3-.4" from top of upper spring seat. Install thrust bearing, use new self-locking nut and tighten to specification. Reverse removal procedure to install in vehicle. Tighten all bolts and nuts to specifications. Replace all self-locking nuts with new ones.

##### CONTROL ARM

**Removal** — Raise vehicle and place safety stands under body. Remove wheel and tire. Remove ball joint stud nut and separate ball joint from control arm with a puller. Remove cotter pin and nut from stabilizer bar end at control arm. Remove control arm pivot nut and bolt. Pull down on control arm to remove. Bushing in control arm can be removed by pressing out in a press.

**Installation** — Inspect control arm and rubber components for wear or distortion. Install bushing in control arm by pressing in. Reverse removal procedure for installation in vehicle. Tighten all bolts and nuts to specifications. Check wheel alignment.

##### STEERING KNUCKLE

**Removal** — Raise vehicle and place safety stands under body. Remove wheel and tire. Remove brake system components from steering knuckle. **NOTE** — See appropriate story in **BRAKE SYSTEMS** Section for removal. If left side steering knuckle is being removed, pull out speedometer cable. Bend up tabs on bolts securing strut assembly to steering knuckle and remove bolts. Pull down on control arm and separate strut assembly from steering knuckle. Remove steering knuckle from vehicle.

# Front Suspension

## 1971-73 VOLKSWAGEN TYPE 1 SUPER BEETLE (Cont.)

**Installation** — Inspect steering knuckle for wear or distortion. Reverse removal procedure for installation. Tighten all nuts and bolts to specifications.

### BALL JOINT

**Removal** — Raise vehicle and place safety stands under body. Remove wheel and tire. Remove nut from ball joint stud and separate ball joint from control arm with puller. Bend up lock tabs on bolts securing strut assembly to steering knuckle and remove bolts. Pull ball joint off steering knuckle.

**Installation** — Reverse removal procedure for installation. Tighten all nuts and bolts to specifications.

### STABILIZER BAR

**Removal** — Remove cotter pin and nut from stabilizer bar end at control arm. Remove bolts from brackets securing stabilizer

bar to chassis member. Pull stabilizer bar out of control arm and remove from vehicle.

**Installation** — Inspect rubber mounting components for wear or cracking. Reverse removal procedure for installation. Tighten all bolts and nuts to specifications.

TIGHTENING SPECIFICATIONS	
Application	Ft. Lbs. (mkg)
Ball Joint Stud Nut .....	29 (4)
Upper Strut Assembly Mounting Nuts .....	14 (1.9)
Piston Rod Nut .....	56 (7.7)
Strut Assembly-to-Steering Knuckle .....	28 (3.9)
Control Arm Pivot Bolt .....	29 (4)
Stabilizer Bar-to-Control Arm .....	22 (3)
Stabilizer Bar-to-Frame .....	14 (1.9)