

TRIUMPH SPITFIRE

DESCRIPTION

Independent type front suspension consisting of upper and lower control arms, coil spring and shock assemblies, and steering knuckles. Control arms pivot in mounts connected to chassis. Coil spring and shock assemblies are mounted between lower control arms and mounts integral with chassis. Steering knuckles are connected to upper control arms by means of trunnion joints. A stabilizer bar is attached to chassis and lower control arms.

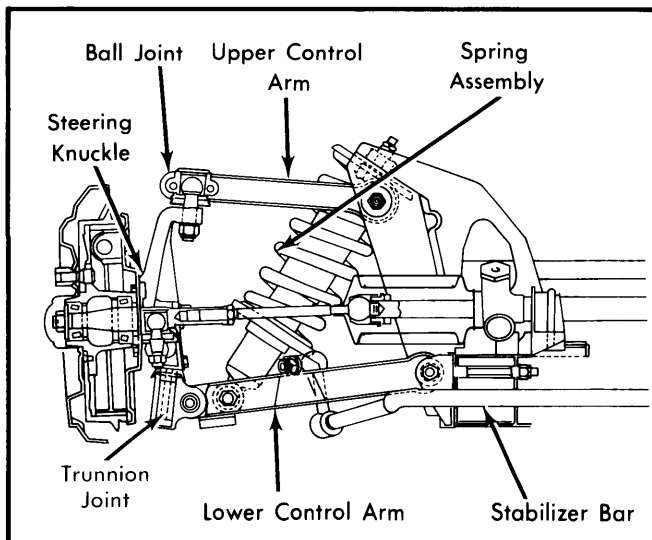


Fig. 1 Assembled View of Spitfire Front Suspension

ADJUSTMENTS

WHEEL ALIGNMENT SPECIFICATIONS & PROCEDURES

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

WHEEL BEARING ADJUSTMENT

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

BALL JOINT CHECKING

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

REMOVAL & INSTALLATION

COIL SPRING & SHOCK ABSORBER

Removal — Raise and support vehicle. Place safety stands behind front wheels and remove wheel and tire. Loosen bolts securing lower control arm to trunnion joint. Remove bolts securing bottom spring assembly mount to control arm. Remove 3 nuts securing upper spring assembly mount to chassis, and remove spring and shock absorber as an assembly.

Disassembly — Using a spring compressor, compress coil spring until it is not contacting upper spring seat. Remove upper shock absorber nut and mounting hardware. Release spring compressor and remove coil spring.

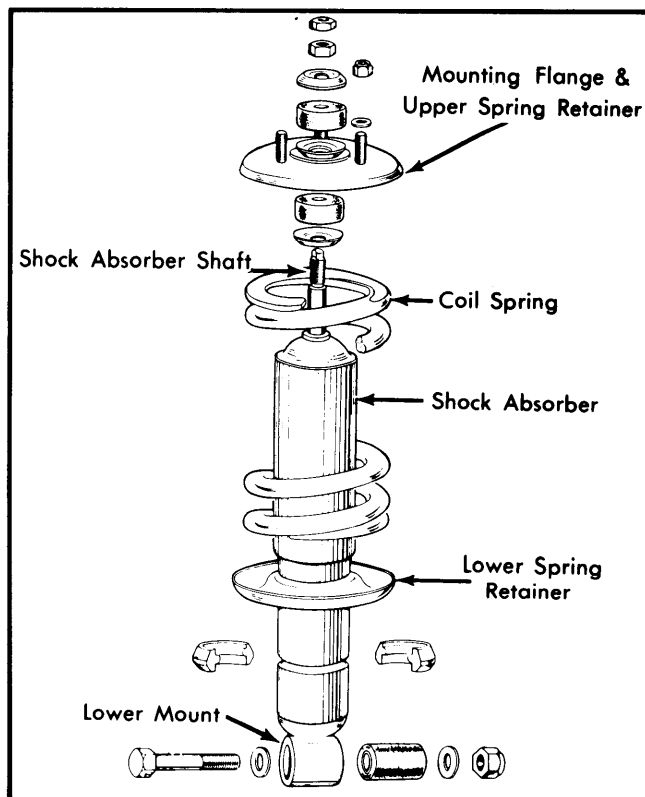


Fig. 2 Coil Spring and Shock Absorber Assembly

Reassembly — Push shock absorber shaft in and out a few times. Resistance should be constant and equal on either stroke. If little or no resistance is felt, or if shaft cannot be moved, replace shock absorber. To assemble coil spring and shock assembly, reverse disassembly procedure.

Installation — To install coil spring and shock absorber assembly, reverse removal procedure.

UPPER CONTROL ARM

Removal — Raise vehicle, position safety stands behind front wheels and remove wheel and tire. Remove coil spring and shock assembly as previously outlined. Remove bolts securing upper control arm to ball joint. Remove both upper control arm pivot bolts. Separate control arm from pivot mounts and ball joint.

Installation — To install upper control arm, reverse removal procedure and note the following: Do not tighten pivot bolts until weight of vehicle is on front wheels.

LOWER CONTROL ARM

Removal — Raise vehicle, position safety stands behind front wheels and remove wheel and tire. Disconnect stabilizer bar link from lower control arm. Disconnect bottom spring mount from control arm. Remove bolt securing control arm to trunnion joint. Remove inner pivot bolts and remove control arm.

Installation — To install lower control arm, reverse removal procedure and note the following: Do not tighten inner pivot bolts until weight of vehicle is on front wheels.

TRIUMPH SPITFIRE (Cont.)

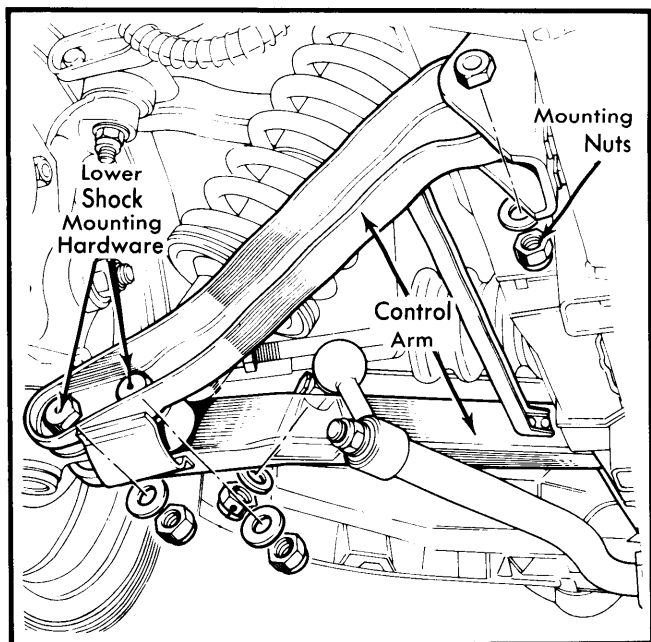


Fig. 3 Nuts and Bolts to Remove Before Taking Out Lower Control Arm

control arm. Disconnect shock absorber mount from lower control arm. Pull trunnion and steering knuckle from lower control arm and unscrew trunnion from steering knuckle.

Disassembly — Pry loose 2 end washers. Slide out both dust seals. Lightly press out single spacer piece. Force out each of the nylon bearings and remove inner washers. Check all pieces for excessive wear and replace as necessary.

Reassembly — Reverse disassembly procedure after lightly greasing nylon bearings with suitable grease.

Installation — To install trunnion joint, screw trunnion on steering knuckle as far as possible and back off to first working position. This will allow full turning radius. Reverse removal procedure to complete installation.

STEERING KNUCKLE

Removal — Raise vehicle, position safety stands behind front wheels and remove wheel and tire. Remove brake caliper, disc hub and dust shield from steering knuckle. Remove steering arm from knuckle. Remove ball joint stud nut and separate ball joint from steering knuckle. Disconnect shock absorber from lower control arm. Remove bolt securing trunnion joint to control arm and remove steering knuckle. Remove trunnion from steering knuckle. If necessary, remove nut securing spindle to steering knuckle and press spindle from knuckle.

Installation — To install steering knuckle, reverse removal procedure.

STABILIZER BAR

Removal — Remove nuts securing stabilizer bar to lower control arm. Remove nuts and plain washers holding bushing brackets to chassis. Remove bushing and withdraw stabilizer bar from vehicle.

Installation — To install stabilizer bar, reverse removal procedure.

UPPER BALL JOINT

Removal — Raise vehicle and place on safety stands; remove tire and wheel. Remove ball joint stud nut and separate ball joint from steering knuckle. Remove bolts securing ball joint to control arm and remove ball joint.

Installation — To install ball joint, reverse removal procedure.

LOWER TRUNNION JOINT

Removal — Raise vehicle, position safety stands behind front wheels and remove wheel and tire. Remove wheel hub and dust shield. Remove bolt securing trunnion joint to lower con-

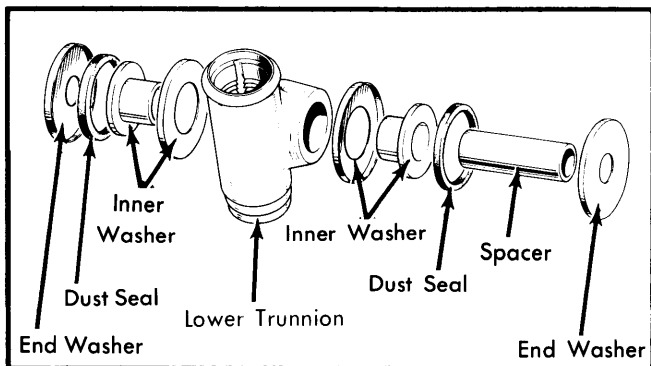


Fig. 4 Exploded View of Lower Trunnion Assembly

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (mkg)
Stabilizer Bar Stud.....	14 (1.9)
Ball Joint-to-Upper Control Arm	20 (2.8)
Ball Joint Stud Nut.....	38 (5.2)
Tie Rod End Ball Joint	32 (4.4)
Trunnion-to-Lower Control Arm.....	45 (6.2)
Lower Control Arm-to-Frame	25 (3.5)