

Front Suspension

SAAB

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DESCRIPTION

Independent front suspension with coil springs. Wheel is supported by steering knuckle mounted between upper and lower control arms by means of ball joints. Both upper and lower control arms pivot on shafts connected to body. Coil springs fit in pockets built into body at top and in supports attached to upper control arms at bottom. Hydraulic shock absorbers mount between lower control arm and body. If stabilizer bar is used, it is attached to frame and connected at ends to lower control arms.

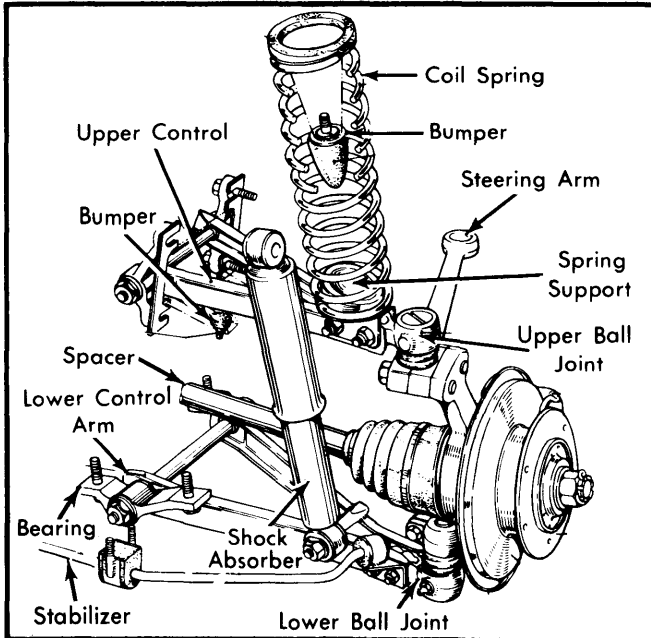


Fig. 1 Saab Front Suspension Assembly with Relationship of Components

ADJUSTMENT

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

SHOCK ABSORBERS

Removal — Raise vehicle and place safety stands under frame. Remove wheel and tire. Remove nuts securing shock absorber and remove shock.

Installation — To install, reverse removal procedure.

UPPER CONTROL ARM

Removal — Raise and support front of vehicle. Remove tire and wheel. Remove shock absorber. Compress coil spring using a suitable compressor (8995839). Remove two bolts attaching upper ball joint to upper control arm. Remove bolts

attaching upper control arm bearing brackets, remove compressed coil spring, upper control arm and bearings. **NOTE** — Save spacers under bearings, and note number of spacers under each reassembly reference.

Installation — Replace worn or damaged components. If bearings have been removed from control arm, position onto control arm so when both nuts are tightened and locked, angle between arm and bearing will be $52^\circ \pm 2^\circ$. Install upper control arm but do not install bearing locating bolts. Make sure spacer and support ring of upper spring seat are in position, then locate compressed coil spring with rubber buffer, and mount ball joint and lower spring seat onto control arm. Install bearing attaching bolts while ensuring that spacers are in position. Slowly release compressor tool to release coil spring. Install shock absorber, wheel and tire. Recheck wheel alignment.

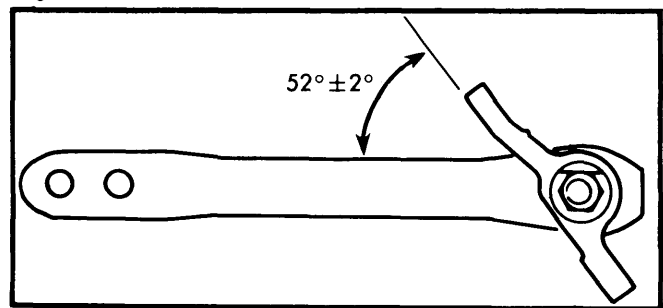


Fig. 2 Assembled Angle of Upper Control Arm-to-Bearing

LOWER CONTROL ARM

Removal — Raise vehicle, then remove wheel and tire. Disconnect shock absorber lower mounting. Remove two bolts attaching lower ball joint to lower control arm. Remove lower control arm-to-engine compartment attaching bolts, then remove lower control arm and brackets.

Installation — Replace worn or damaged components. If bearings have been removed from control arm, position onto control arm so when both nuts are tightened and locked, angle between arm and bearing will be $18^\circ \pm 2^\circ$. Install control arm and brackets, attach ball joint to control arm and tighten all attaching bolts. Install wheel and tire. Recheck wheel alignment.

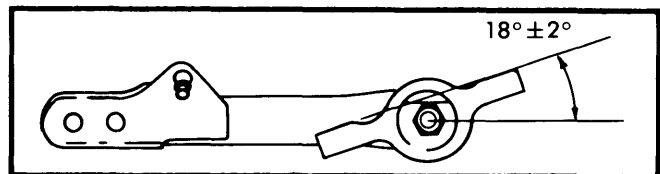


Fig. 3 Lower Control Arm-to-Bearing Angle

BALL JOINTS

Removal — Raise vehicle. Remove tire and wheel. Remove caliper and hang out of way. Remove ball joint nut. Using suitable tool (8995409) separate ball joint from steering knuckle.

Installation — Fit new ball joint to steering knuckle. Tighten nut. Insert ball joint mounting back into control arm and tighten using new lock nuts. Reinstall brake caliper.