

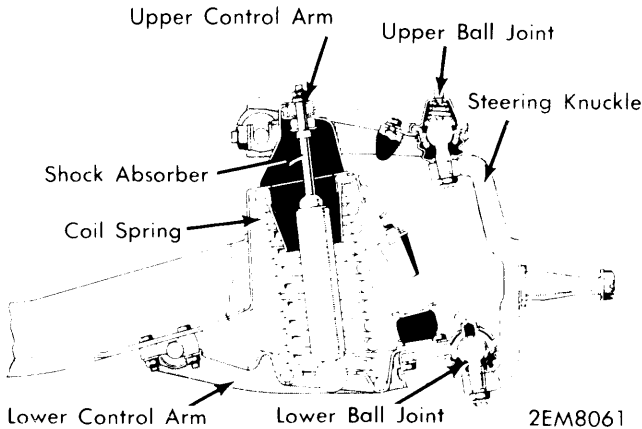
Front Suspension

TOYOTA HI-LUX

Hi-Lux

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. Upper control arms pivot on shafts connected to frame. Lower control arms pivot on shafts connected to crossmember. Coil springs fit in pockets built into frame at top and in pockets built into lower control arms at bottom. Hydraulic shock absorbers mount between lower control arm and frame and are inside coil spring. A stabilizer bar is mounted to frame and connected at ends to lower control arms.



TOYOTA HI-LUX FRONT SUSPENSION COMPONENTS

ADJUSTMENT

WHEEL ALIGNMENT SPECIFICATIONS & PROCEDURES

See *Wheel Alignment Specifications & 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 from upper shock absorber stem. Remove bolts securing shock absorber lower mount to lower control arm.

Installation - To install, reverse removal procedure. Tighten all nuts and bolts.

UPPER CONTROL ARM & BALL JOINT

Removal - Raise vehicle by placing jack under lower control arm. Place safety stands under frame and leave jack in place. Remove wheel and tire. Remove cotter pin and nut from upper ball joint stud. Using a suitable puller (09628-62010) separate ball joint from steering knuckle. Remove bolts securing upper control arm mount, noting size and number of shims between pivot shaft and mount. Remove control arm from vehi-

cle. Remove bolts securing ball joint to control arm, and remove ball joint. Unscrew pivot shaft bushings and remove bushings and shaft.

Installation - Inspect all components for wear or distortion. Install pivot shaft with offset mounting hole to front. Reverse removal procedure for installation making sure wheel alignment shims are installed in correct position. Tighten all bolts and nuts to specifications. Check wheel alignment.

LOWER CONTROL ARM, COIL SPRING & BALL JOINT

Removal - Raise vehicle by jacking up under lower control arm. Place safety stands under frame and leave jack in place. Remove wheel and tire. Disconnect stabilizer bar from control arm. Remove cotter pin and nut from tie-rod end stud and using a suitable puller (09611-20014) separate tie-rod from steering arm. Remove shock absorber as previously outlined. Remove cotter pin and nut from lower ball joint stud and using a suitable puller (09628-62010) separate ball joint from steering knuckle. Lower jack slowly and remove coil spring and insulator. Remove bolts securing control arm to crossmember and remove control arm from vehicle. Secure control arm in a vise and remove ball joint from control arm. Remove bushings from both ends of pivot shaft and remove shaft.

Installation - Install pivot shaft in control arm. Install bushings and tighten alternately and equally to specifications. Install ball joint in control arm. Install control arm and tighten pivot shaft bolts to specifications. Install coil spring insulator in pocket. Install a suitable coil spring compressor (09727-22011) on coil spring. Compress coil spring until control arm can be connected to steering knuckle with coil spring in vehicle. With ball joint stud installed in steering knuckle, tighten nut to specification. Connect stabilizer bar to control arm. Connect tie-rod end to steering arm and tighten nut to specification. Install wheel and tire, lower vehicle and grease control arm bushings. Check front wheel alignment.

STEERING KNUCKLE

Removal - Raise vehicle and place safety stands under frame. Remove wheel and tire. Remove brake system components from steering knuckle. **NOTE** - See *appropriate story* in **BRAKE SYSTEMS** section for removal. Jack up under control arm to release spring tension from lower arm. Remove cotter pin and nut from lower ball joint stud and using a suitable puller (09628-62010) separate ball joint from steering knuckle. Separate upper ball joint from steering knuckle in same manner. Lower jack and remove steering knuckle.

Installation - To install, reverse removal procedure. Tighten all nuts and bolts and check wheel alignment.

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (mkg)
Upper Shock Absorber Mount	18 (2.5)
Lower Shock Absorber Mount	14 (1.9)
Ball Joint Stud Nuts	
Upper	80 (11.0)
Lower	105 (14.5)
Control Arm Pivot Bushings	172 (23.8)
Upper Control Arm Pivot	
Shaft-to-Frame	124 (17.1)
Lower Control Arm Pivot	
Shaft-to-Crossmember	38 (5.3)