Front Suspension

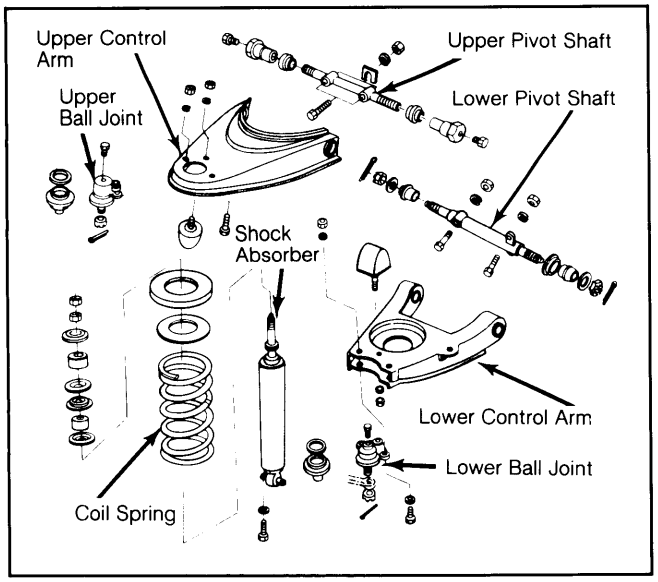
COURIER

DESCRIPTION

Independent type front suspension is used, consisting of upper and lower control arms. The wheel spindle is mounted between upper and lower arms by means of a ball joint. Upper control arm pivots on a shaft attached to frame.

Lower control arm pivots on a shaft mounted to the crossmember. A coil spring is mounted between lower control arm and frame. Shock absorbers are hydraulic, double-action type, mounted inside the coil spring.

Fig. 1: Exploded View of Front Suspension Assembly



ADJUSTMENT

WHEEL ALIGNMENT SPECIFICATIONS & PROCEDURES

See Wheel Alignment Specifications and Procedures in WHEEL ALIGNMENT Section.

WHEEL BEARING

While rotating wheel, hub, and drum assembly, tighten adjusting nut to 17-25 ft. lbs. (23-34 N.m). Back adjusting nut off 1/4 turn, and install retainer with new cotter pin. Check wheel rotation. If rough or noisy, inspect, clean, or replace wheel bearings.

BALL JOINT CHECKING

Check working surfaces of ball joints and studs for wear or damage. End play should not exceed .031" (.8 mm). If end play is excessive, replace ball joint.

REMOVAL & INSTALLATION

WHEEL BEARING

Removal

1) Raise vehicle and support on safety stands. Remove wheel assembly. Remove grease cap, cotter pin, nut lock, adjusting nut, and flat washer from spindle. Remove outer bearings.

2) Remove brake caliper and support out of the way. Pull hub and disc assembly from spindle. Remove and discard old grease seal. Remove inner bearings. Using solvent, clean old grease from inner race, outer race, and inside of hub.

3) Pull out races with tool, or drive them out with hammer and drift. Clean inside of hub and wheel spindle thoroughly, using clean solvent to remove all old grease.

Installation

1) Install new bearing races with installer tool (T56P-1217-A) or drift, making sure that races are seated properly. Pack inside of hub with grease until flush with inside diameter of bearing races.

2) Pack wheel bearings with new grease, and install inner bearing in hub. Coat new oil seal lightly with grease and install. Reverse removal procedures to complete installation. Adjust wheel bearings.

UPPER BALL JOINT & CONTROL ARM

Removal

1) Raise and support vehicle under lower control arm. Lower vehicle until arm is off rubber bumper stop. Remove wheel assembly. Remove cotter pin and nut attaching upper ball joint to spindle.

2) Tap with a soft mallet to break ball joint loose, and separate it from spindle. Remove retaining nuts and bolts, and remove ball joint from control arm. Open hood and remove upper arm retaining bolts. Remove control arm from vehicle.

Installation

1) Position ball joint in upper arm, and tighten bolts. Install control arm in vehicle and tighten bolts. Install spindle on ball joint, tighten nut, and install cotter pin.

2) Install wheel assembly, remove safety stands, and lower vehicle. Check wheel alignment.

LOWER CONTROL ARM, BALL JOINT & COIL SPRING

Removal

1) Raise vehicle and place safety stands under frame, behind both lower control arms. Remove wheel assembly. Remove lower shock absorber bolts, and collapse shock absorber up into spring. Remove retaining bolt attaching stabilizer bar to lower control arm.

2) Install a floor jack under spring area of lower arm, and raise arm to relieve spring pressure. Remove cotter pin and nut attaching lower control arm to spindle. Strike tapered fit with soft mallet, and separate ball joint from spindle.

3) Remove bolts and nuts retaining ball joint to lower control arm, and remove ball joint. Release jack, and lower arm enough to remove coil spring. Remove bolts and nuts retaining lower control arm to crossmember, and remove arm from vehicle.

Installation

1) Place lower control arm in position, and install retaining bolts and nuts. Do not tighten. Place coil spring in position in lower arm, and hold in place with a "C" clamp. Place upper end of spring in pocket in frame, and raise lower control arm with a jack.

2) Position ball joint in lower arm, and tighten bolts. Raise lower control arm with jack, just enough to install ball joint in spindle. Install nut.

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3) Tighten lower arm retaining bolts left loose. Pull shock absorber down, and tighten retaining bolts. Install stabilizer bar as previously outlined. Install wheel assembly, remove safety stands, and lower vehicle. Check wheel alignment.

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (N.m)
Upper Ball Joint Stud	30 (41)
Lower Ball Joint Stud	65 (88)
Ball Joint-to-Upper Arm	17 (23)
Ball Joint-to-Lower Arm	41 (56)
Shock Absorber	
Lower Mount	15 (20)
Upper Mount	[1]
Control Arm-to-Frame	
Lower	62 (84)
Upper	62 (84)
Lower Arm Shaft-to-Lower Arm	62 (84)

[1] — Distance from top of lock nut to top of shock absorber stud should be .26" (6.5 mm).