MAZDA GLC, 626 & RX7

GLC
626
RX7

DESCRIPTION

Independent hydraulic strut type suspension with coil springs. Strut assemblies mount between lower control arms and upper fender panels. Strut assemblies consist of: hydraulic shock absorbers (built into strut tube), coil springs around outside of strut tube housing, and a steering knuckle that is connected to both lower control arm and strut. Lower control arms pivot at crossmember and are connected by ball joints to steering knuckle. A stabilizer bar is attached to chassis and at each end to lower control arm. On 626 and RX7 models, tension rods are installed to maintain alignment and stability.

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

LOWER CONTROL ARM

Removal – 1) Raise vehicle. Support weight with safety stands. Remove tire and wheel.

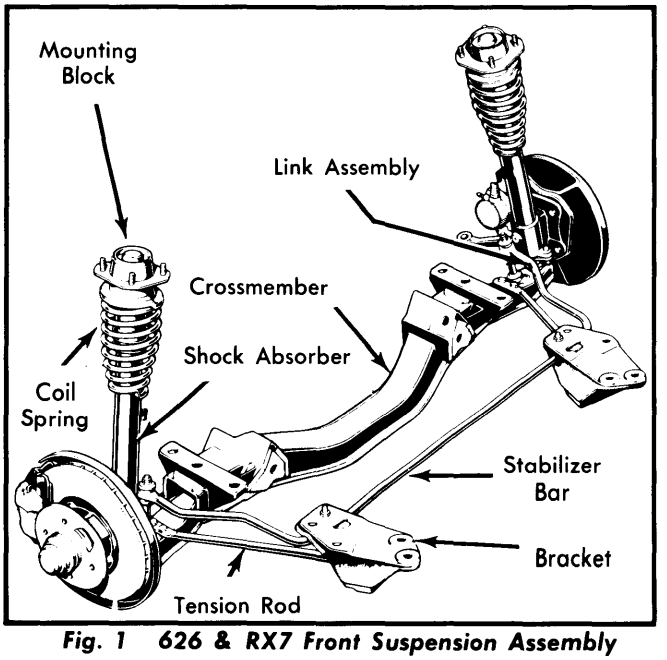

Fig. 1 626 & RX7 Front Suspension Assembly

2) Remove cotter pin from tie rod nut. Remove nut. Separate tie rod ball joint using a puller.

3) Remove bolts mounting steering knuckle to strut tube. On GLC models, remove nut from front of stabilizer bar. Begin to separate stabilizer bar from control arm. On all other models, disconnect and remove stabilizer bar and tension rod.

4) Remove lower control arm pivot bolt mounting arm to crossmember. Pull strut outward and force control arm out of vehicle.

Ball Joint Replacement – Ball joint is not replaceable. Ball joint and lower control arm must be replaced as a unit.

Installation – To install, reverse removal procedure.

STRUT ASSEMBLY

Removal – 1) Raise and suitably support vehicle. Remove tire and wheel.

2) Remove nuts (3 or 4) retaining strut to upper fender panel. Nuts are accessible from inside engine compartment.

3) Remove clip mounting brake hydraulic line to strut housing (if equipped). Remove bolts attaching caliper (bracket) and pull caliper assembly off disc. Hang caliper out of way using a short wire.

4) Remove hub grease cap, cotter pin, nut lock and bearing adjustment nut from spindle. Remove thrust washer and outer bearing. Pull off hub and brake assembly. Remove any remaining brake system components from steering knuckle.

5) Remove bolts mounting strut to steering knuckle. Drop lower control arm down. Slide strut assembly with coil spring out of vehicle.

Disassembly – 1) Clamp strut in vise. Use spring compressor and collapse coil. Remove lock nut and washer from top of piston rod.

2) Remove shock absorber support, spring seat, coil spring, dust boot and damper stopper.

NOTE – *Check hydraulic strut (shock absorber) by forcing piston rod in and out several times. If resistance is weak or there is a free travel spot somewhere in the stroke, strut must be replaced or repaired.*

3) Place strut in a soft jawed vise. Remove cap nut and seal. Pry "O" ring from guide rod. Pull piston rod and pressure tube assembly out of strut (reservoir tube).

4) Remove piston rod, guide, base valve and pressure tube assembly from reservoir tube. Take strut from vise and drain hydraulic fluid.

NOTE – *Piston rod, guide and base valve are serviced as an assembly only. Do not remove items listed in step 4) from pressure tube.*

Inspection – 1) Check reservoir tube for cracks or damage. Replace tube if necessary.

2) Check mounting rubbers, replace if deteriorated.

MAZDA GLC, 626 & RX7 (Cont.)

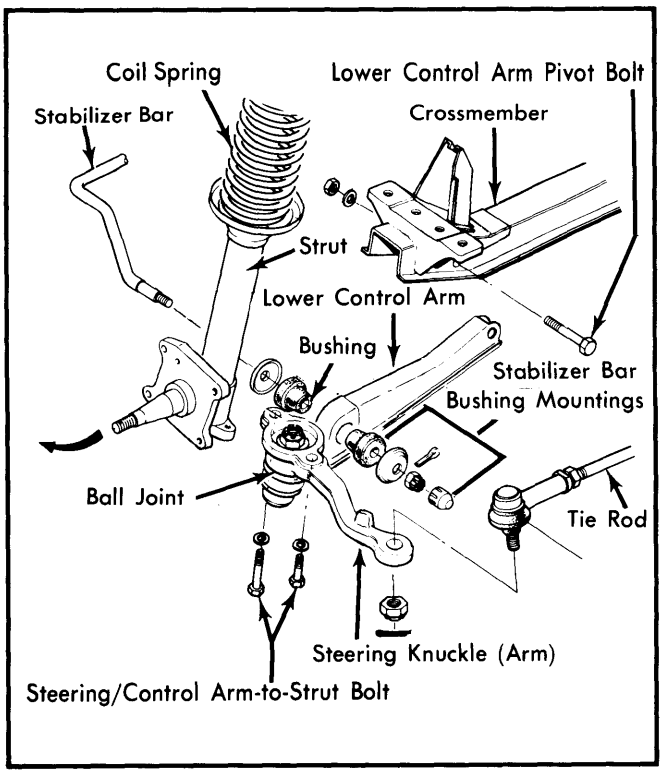

Fig. 2 Exploded View of GLC Front Suspension Assembly

3) Inspect coil spring for signs of fatigue, cracks or damage.

Reassembly – 1) Hold reservoir tube in a vise. Insert pressure tube, piston rod and base valve assembly into tube as a set. Pour approximately 4 ounces (270 cc) hydraulic fluid into reservoir.

2) Install piston rod guide into pressure tube. Fit new "O" ring between rod guide and reservoir tube.

3) Fit a pilot (49 0370 590) over threads of piston rod. Apply grease to lip of oil seal, insert cap nut through pilot onto piston rod.

4) Tighten cap nut and pull out piston rod. Seat piston and torque cap nut. Install coil spring and remaining components in reverse of removal procedure.

Installation – To install, reverse removal procedure.

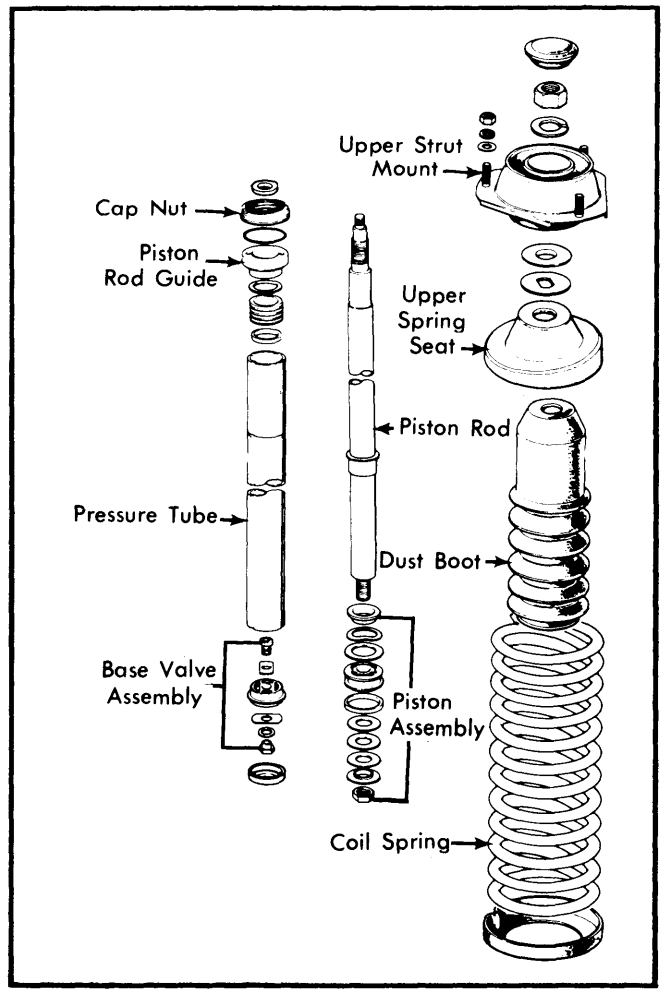

Fig. 3 Exploded View of Strut Assembly

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. mkg)
Control Arm-to-Frame	29-40 (4.0-5.5)
Steering Knuckle-to-Strut	46-69 (6.4-9.5)
Ball Joint-to-Knuckle	43-58 (6.0-8.0)
Tension Rod-to-Control Arm	40-50 (5.5-6.9)
Tension Rod Lock Nut	80-108 (11.0-15.0)
Strut Cap Nut	36-43 (5.0-6.0)