DATSUN 280Z

280Z

DESCRIPTION

Strut type suspension consisting of a vertically mounted strut assembly. Strut assembly is mounted to chassis frame at top by means of a thrust bearing. Lower end of strut assembly is mounted to a ball joint which is bolted to lower control arm. Strut assembly connects to ball joint by means of a steering knuckle which is bolted to strut assembly and ball joint. Strut assembly consists of a shock absorber built into strut outer tube; a coil spring is mounted on outside of strut assembly; a spindle is integral with bottom of strut. A compression rod is mounted between lower control arm and chassis. A stabilizer bar is mounted to front chassis member and is connected at ends to lower control arm.

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

STRUT ASSEMBLY

Removal – Raise vehicle and support with safety stands, then remove wheel and tire. Loosen brake hose, remove spring and plate, then remove hose from strut assembly bracket. Remove caliper mounting bolts and lift complete assembly from vehicle. Remove strut-to-steering knuckle arm bolts, then force arm from strut and support strut with a jack. Working from under hood, remove nuts holding top portion of strut to body. While guiding strut assembly with hand, slowly lower jack and remove entire strut assembly from vehicle.

Disassembly – Mount strut assembly in vise using a holding tool. Remove snap ring from dust cover. Using spring compressor, compress coil spring enough to turn mounting insulator by hand. Remove self-locking nut, then remove insulator, strut bearing, oil seal, upper spring seat, and rubber bumper. Remove coil spring and compressing tool from strut

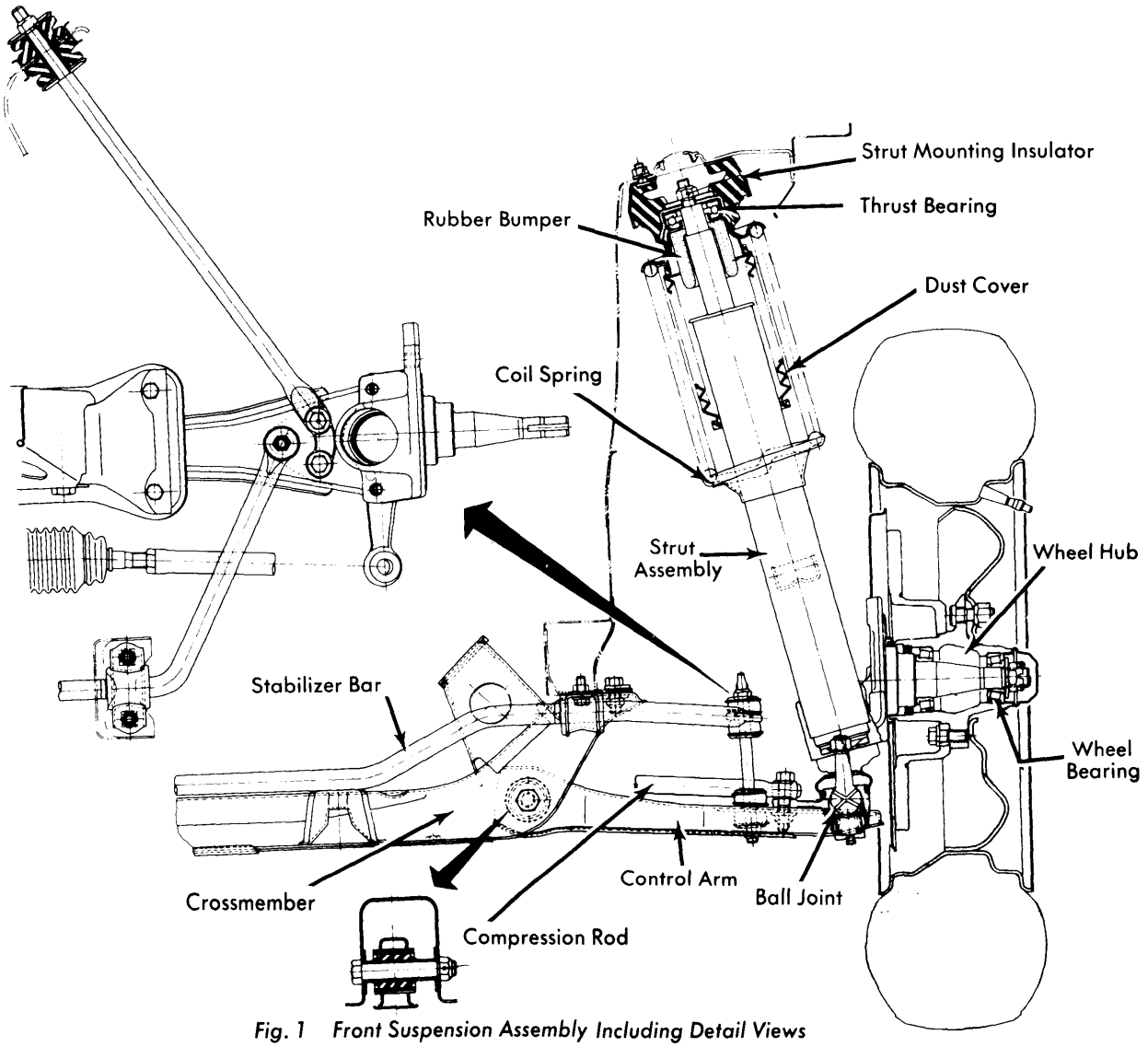

Fig. 1 Front Suspension Assembly Including Detail Views

DATSUN 280Z (Cont.)

tube. Depress piston rod to bottom of stroke and remove packing gland using a suitable wrench (KV40100800). Remove "O" ring from top of piston rod guide. Pull piston rod and cylinder assembly upward to remove from strut tube. *NOTE — Do not remove piston rod and guide from cylinder assembly as they must be serviced as an assembly.* Drain oil from cylinder and from strut tube.

Reassembly — Inspect all components for wear or damage. Clean all parts thoroughly before reassembly. Mount strut tube in vise using a holding tool. Install piston rod and cylinder into place in outer casing. Fill strut assembly with 11.5 ounces of shock absorber oil (Nissan Genuine Strut Oil or equivalent). Install "O" ring on top of piston rod guide. Use a guide (ST35530000) to install packing gland over piston rod. Tighten packing gland to specification. *NOTE — When tightening packing gland nut it is important that piston rod be extended approximately 4.72" (120 mm) from end of outer casing to aid in bleeding assembly.* To correctly bleed strut assembly, stand strut vertical with spindle end down and pull piston rod up to end of stroke. Turn strut assembly so spindle end is up and depress piston rod to end of stroke. Repeat operation several times until there is no variation of pressure between pulling or depressing of piston rod. Install rubber bumper. Place compressed coil spring over strut assembly, then install dust cover, upper spring seat, oil seal, thrust bearing, and mounting insulator. Install piston self-locking nut and tighten. Release coil spring compressor tool and fit rubber bumper to bottom of spring seat.

Installation — To install, reverse removal procedure and tighten all nuts and bolts.

STABILIZER BAR

Removal — Remove bolts retaining stabilizer bar brackets to front chassis members. Link connectors connecting bar to lower control arm can be be removed either at stabilizer bar or at lower control arm.

Installation — To install reverse removal procedure and note the following procedures. Do not tighten stabilizer bracket bolts until full weight of vehicle is on front wheels. Make sure white stripe painted on bar is just inside mounting bracket. Tighten first nut of connecting link to specification, and then tighten lock nut. Tighten remaining bolts to specifications.

COMPRESSION ROD

Removal — Remove bolts retaining compression rod to lower control arm. Remove nut retaining compression rod to chassis member.

Installation — To install reverse removal procedure. Tighten all bolts and nuts to specification.

LOWER CONTROL ARM & BALL JOINT

Removal — Raise vehicle and remove tire and wheel. Remove stabilizer bar and compression rod as previously outlined. Remove two bolts retaining steering knuckle to strut assembly. Remove lower control arm pivot bolt and remove control arm from vehicle. Remove cotter pin from ball joint stud, remove nut and seperate steering knuckle from ball joint. Remove ball joint retaining bolts and remove ball joint from control arm. If control arm bushing is being replaced, press out using a suitable tool (ST36710000).

Installation — Inspect all components for wear or damage. Using a suitable tool (ST36710000), press a new bushing in control arm. Install ball joint in control arm and tighten bolts to specification. Reverse removal procedure for installing control arm in vehicle. Tighten all bolts and nuts to specifications.

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs.(mkg)
Crossmember-to-Chassis	33-36(4.5-5.0)
Crossmember-to-Engine	12-15(1.6-2.1)
Compression Rod-to-Control Arm	44-51(6.1-7.1)
Compression Rod-to-Chassis	33-40(4.5-5.5)
Ball Joint Nut	40-54(5.5-7.5)
Ball Joint-to-Control Arm Bolts	14-18(1.9-2.5)
Control Arm Pivot Bolt	80-101(11-14)
Knuckle Arm-to-Strut	53-72(7.3-10.0)
Piston Rod Self-Locking Nut	54-69(7.5-9.5)
Strut Upper Mounting Nuts	18-25(2.5-3.5)
Gland Packing Nut	51-94(7-13)
Link Connector-to-Stabilizer Bar	9-20(1.2-2.7)
Link Connector-to-Control Arm	9-20(1.2-2.7)
Stabilizer Bar-to-Chassis	14-18(1.9-2.5)