

Front Suspension

1970-73 DATSUN 240Z

240Z (1970-73)

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

FRONT AXLE & SUSPENSION ASSEMBLY

Removal – Complete front axle and suspension assembly can be removed as one unit. Raise vehicle and place safety stands under rear chassis members. Remove wheel and tire and splash

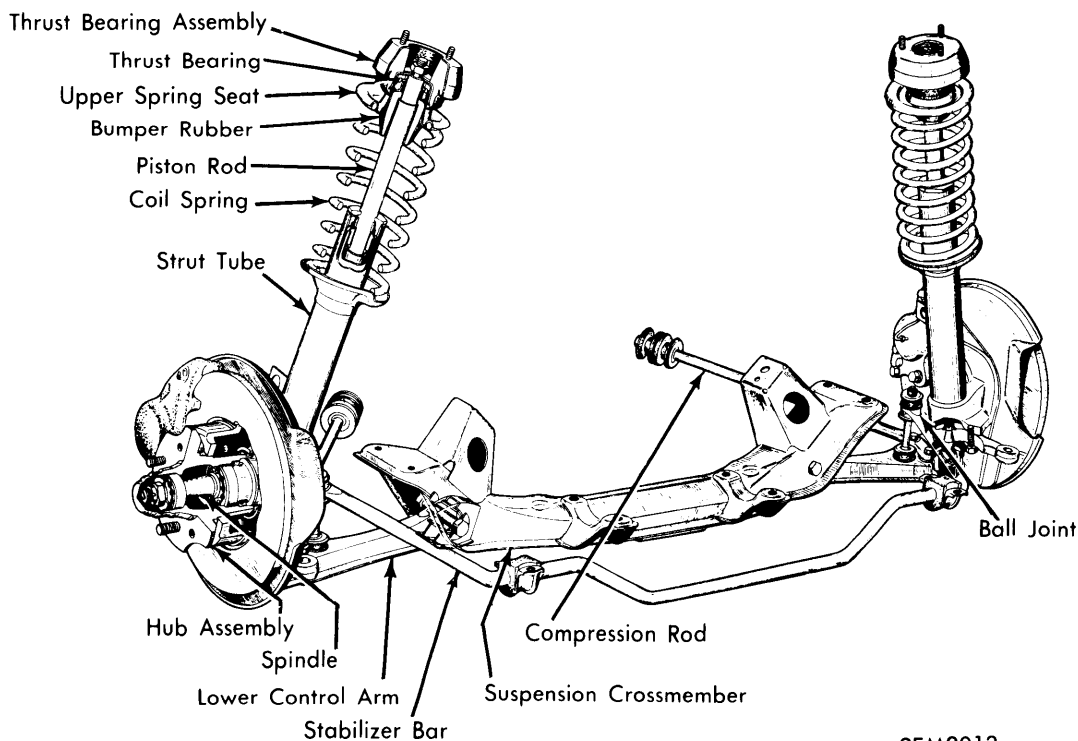
board. Remove brake line at bracket on strut assembly, withdraw locking spring and remove brake hose from bracket. Disconnect stabilizer bar from body. Disconnect steering shaft at rubber coupling unit. Remove bolts and nuts from compression rod and remove rod from vehicle. Support engine and remove bolts securing engine from suspension crossmember. Place a jack under patch in center of crossmember and disconnect crossmember from frame. Remove self-locking nuts from upper strut assembly mount. Lower jack and remove front suspension assembly.

Installation – Components of suspension assembly can now be removed for servicing, components can be removed from vehicle without removing front suspension also. Inspect all rubber parts such as bushings and grommets before installing suspension assembly. To install reverse removal procedure and note the following procedures. Do not tighten lower control arm pivot bolt or stabilizer bracket bolts until full weight of vehicle is on front wheels. Install stabilizer bar so that painted white stripe is just inside mounting bracket. Tighten all remaining bolts and nuts to specification.

STABILIZER BAR

Removal – Remove bolts retaining stabilizer bar brackets to front chassis members. Link connectors connecting bar to lower control arm can 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.



2EM8013

DATSUN 240Z FRONT SUSPENSION

1970-73 DATSUN 240Z (Cont.)

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.

correct position over strut. Using same tool as before, compress spring enough to install upper spring seat, thrust bearing components and tighten self-locking nut to specification. Gradually release coil spring compressing tool making sure spring is properly seated in spring seats.

Installation – To install reverse removal procedure. Tighten all bolts and nuts to specifications.

STRUT ASSEMBLY

Removal – Raise vehicle and remove tire and wheel. Remove stabilizer bar and compression rod as previously outlined. Remove steering knuckle retaining bolts and separate strut from steering knuckle. Remove self-locking nuts on upper strut mount and remove strut from vehicle.

Disassembly – Using a suitable holding tool (ST35650000), this tool also comprises the coil spring compressing tool, mount strut in a vise. Compress spring enough to let thrust bearing turn by hand, and remove self-locking nut. Remove thrust bearing components and spring seat. With compressing tool still installed on coil spring, remove from strut assembly. Push piston to bottom of tube and using a suitable wrench (ST35500000), remove gland nut and packing. Remove "O" ring from upper portion of piston rod guide. Pull piston rod and cylinder assembly up from strut tube assembly easily. *NOTE* – Do not remove piston rod and guide from cylinder as it is an assembly. Drain oil from cylinder and strut outer casing.

Reassembly – Inspect all components for wear or damage. Carefully clean and dry all parts before reassembly. Mount strut outer casing in a vise and insert piston rod and cylinder assembly into strut outer casing. Using a suitable shock oil (Nisseki Shock Absorber Oil A-1), fill strut outer casing with 290 cc (17.7 cu. in.) of oil. Install a new rubber "O" ring on top of piston rod guide. Using a suitable tool (ST35540000), install new gland packing. Tighten nut, using a suitable tool (ST35500000), to specification. *NOTE* – Before tightening gland nut, pull piston rod approximately 3.543" upward in cylinder, this will put it in the best position for bleeding. To correctly bleed shock, stand strut assembly on end with spindle side down and pull piston to end of stroke. Turn assembly so spindle side is up and depress piston to end of stroke. Repeat this operation several times. There should not be any variation of pressure during either pushing or pulling of piston rod. Place strut in holding fixture in vise and install coil spring in

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 separate 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)
Gland Packing Nut	45 (6.2)
Piston Rod Self Locking Nut	60 (8.3)
Strut Upper Mounting Nuts	22 (3)
Steering Knuckle-to-Strut	62 (8.6)
Ball Joint Stud Nut	48 (6.6)
Ball Joint-to-Lower Control Arm	40 (5.5)
Lower Control Arm Pivot Bolt	88 (12.2)
Compression Rod-to-Control Arm	40 (5.5)
Compression Rod-to-Chassis	36 (5)
Link Connector-to-Stabilizer Bar	15 (2.1)
Link Connector-to-Control Arm	14 (1.9)
Stabilizer Bar-to-Front Chassis Members	16 (2.2)
Crossmember-to-Chassis	33 (4.6)
Crossmember-to-Engine	15 (2.1)
Steering Shaft-to-Rubber Coupling	18 (2.5)