

Steering Gears & Linkage

1970-73 DATSUN 240Z

240Z (1970-73)

DESCRIPTION

Steering assembly is a direct-acting rack-and-pinion type, providing sharp, light, and accurate control under all conditions. It consists of a rack bar and toothed pinion, both working in the plain bearing of the housing. Backlash is held to 0 mm (0") by the retainer and the retainer spring.

REMOVAL & INSTALLATION

Removal — Raise and support front of vehicle, remove front wheels. Disconnect column joint from rubber coupling (two bolts). Unbolt lower joint from gear pinion and remove lower shaft assembly. Remove splash shield, then pull side rods from steering knuckle arms. Hoist engine slightly, unbolt gear housing from front member and remove rack and pinion assembly.

Installation — Reverse removal procedures.

OVERHAUL

Disassembly — 1) Clamp gear housing horizontally in padded vise. Unclamp both dust boots (inner and outer clamps), loosen retaining nut, detach side rod inner socket and remove rod from rack. Withdraw spring seat and side rod spring. Pull bellows from rack, loosen side rod lock nut and disconnect outer socket from side rod ball. Unscrew lock nut (on housing), remove adjusting screw and take out gear retainer.

2) Pry off and discard oil seal from pinion shaft. Remove snap ring and draw pinion from assembly. Remove bearing snap ring and pull bearing from pinion. Remove filler plug and withdraw rack from housing. Remove grease reservoir.

Assembly & Adjustment — 1) Press bearing onto pinion gear and fit retaining snap ring. With housing in vise, apply suitable grease to rack teeth and push into housing from end. Be sure rack protrudes same amount at each end. Apply grease to pinion teeth and insert into housing, ensuring proper mesh with rack. Place new snap ring on pinion. Tap on new oil seal.

2) Measure pinion thrust by pulling up on pinion shaft. Maximum allowable thrust is .012" (.3 mm). Coat retainer with suitable grease and insert with spring, then thread in adjusting screw. Fully tighten screw and back off 20-25°. Secure with lock nut. Measure pinion torque and rack preload. If not within limits, readjust.

3) Fit dust cover clamp on each end of housing. Screw retaining nut onto rack and lubricate ball joint portion of side rod. Assemble spring and ball seat and attach inner socket to rack. **NOTE** — Side rod assembly for left side has "L" mark on outer end. Tighten inner socket until ball seat reaches rack end, then back off 20-25° on models prior to 1973. Lock with retaining nut. On models prior to 1973, measure swing torque of side rods. Measure rack stroke (distance from end of housing to track rod).

4) Insert grease nipple in both ends of housing and lubricate each joint. **NOTE** — Apply lubricant until small amount of new grease appears at boot grease outlet hole. Do not apply excessive amount of lubricant. Remove grease nipple and install filler plug. Position and clamp bellows. Fill grease reservoir and attach to housing. Adjust side rod length (distance from lock nut to end of bellows) to specifications.

ADJUSTMENT SPECIFICATIONS

Application	Specification
Pinion Torque	7-17 INCH lbs. (8-20 cmkg)
Rack Preload	
1970-71	17.6-39.7 lbs. (8-18 kg)
1972-73	30.9-37.5 lbs. (14-17 kg)
Side Rod Torque (1970-72).....	6.6-13.2 lbs. (3-6 kg)
Rack Stroke	2.39" (60.7 mm)
Side Rod Length.....	1.49" (37.9 mm)

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (mkg)
1970-71	33 (4.6)
1972-73	43 (6.0)
Rubber Coupling Bolt	12 (1.7)
Lower Joint Bolt	33 (4.6)
Adjusting Screw Lock Nut	37 (5.1)
Side Rod Stopper Nut	
1970-71	60 (8.3)
1972-73	58 (8.0)
Side Rod Lock Nut	65 (9.0)
Side Rod Ball Stud Nut	48 (6.6)