

1969-72 DATSUN 521 PICKUP

Datsun 521 Pickup (1969-72)

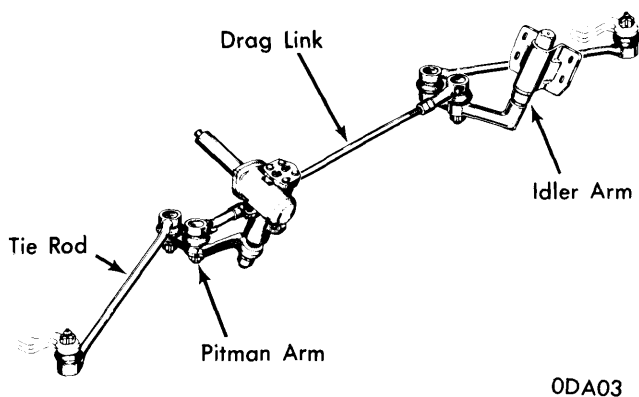
DESCRIPTION

STEERING GEAR

Steering gear used in these vehicles is the recirculating ball type. Ball bearings run through track in nut and in worm grooves, pulling nut along worm shaft and changing position of sector. This sector movement changes position of pitman arm, and this movement is relayed by the steering linkage to front wheels.

STEERING LINKAGE

Steering linkage has two tie rods, one on each end of center drag link. These tie rods are connected through ball joints to both steering arms, pitman arm and idler arm.



STEERING LINKAGE - 521 PICKUP

ADJUSTMENT

See steering gear Overhaul procedure in this article.

REMOVAL & INSTALLATION

STEERING GEAR

Removal - 1) Remove steering wheel and combination switch. See 1969-70 Datsun 521 Pickup in *STEERING WHEEL REMOVAL* Section. Unbolt steering clamp from instrument panel. Remove steering column grommet. If equipped with shift control on column, detach gear lever from column and disconnect shift lever from rod and selector lever from selector rod at steering column base.

2) Mark relative position of pitman arm to sector shaft and remove from shaft. Detach gear mounting bolts and remove assembly. Remove remaining transmission control components from steering column.

Installation - To install, reverse removal procedure.

STEERING LINKAGE

Removal - 1) Raise front of vehicle and support with stands. Remove cotter pins and nuts and detach side rod ball studs from knuckle arms (both sides). Remove nut securing pitman arm on sector shaft. Using suitable puller (ST27140000), detach pitman arm from shaft.

2) Remove idler arm assembly from frame. Remove tie rod, drag link, idler arm assembly, and pitman arm as an assembly. Remove nut from tie rod ball joint and separate tie rod from pitman arm and idler arm, then separate tie rods from drag link.

Installation - Reverse removal procedure and check toe-in.

OVERHAUL

STEERING GEAR

Disassembly - 1) Drain gear box. Loosen adjusting screw lock nut and turn screw counterclockwise. Remove sector shaft cover retaining bolts. Pull cover and sector shaft from gear housing. Separate shaft adjusting screw and shims from cover.

2) Remove column tube from gear housing. Pull worm assembly from housing and detach bearings, adjusting shims and "O" ring. **CAUTION** - Take care not to allow ball nut to run to end of worm, as damage to ball guides will result. Remove and discard sector shaft oil seal. Remove column tube bushing.

Inspection - Do not disassemble ball nut from worm if rotation is smooth: Hold column vertical and if ball nut rotates freely down of its own weight, condition is satisfactory. Do not allow ball nut to turn completely to end of travel. If defect is found, replace as assembly.

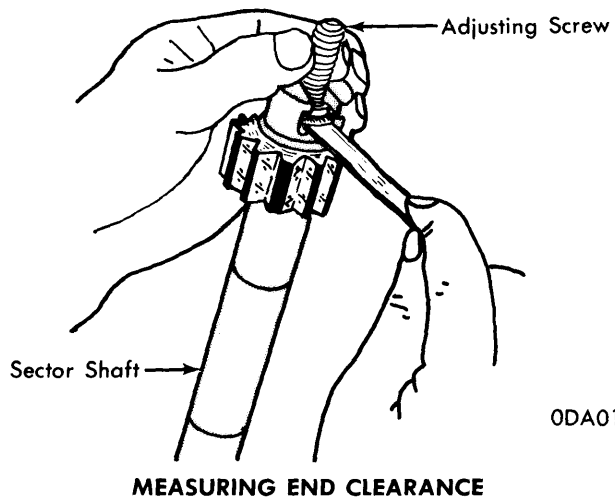
Reassembly & Adjustment - 1) Apply suitable gear lubricant to all disassembled components. Fit column tube bushing to tube after applying adhesive to bushing exterior. Insert new oil seal. Position worm assembly and bearings in housing and attach column tube with worm bearing shims and "O" ring.

2) Select shims to give initial turning torque (measure at column) of 3.5-5.2 INCH lbs., if new worm bearing is installed, or 2.1-3.8 INCH lbs., if bearing is reused.

3) Install sector shaft adjusting screw and proper shim to give end clearance of .0004-.0012" (.03-0.1 mm). Replace sector shaft in housing. Turn steering column until ball nut is at center of travel (sector shaft center tooth meshes with ball nut center tooth). Install sector shaft cover and turn adjusting screw to raise sector shaft to obtain .08-.12" (2-4 mm) lash between shaft and ball nut.

4) Replace pitman arm and move sector shaft several times to ensure smooth operation. Set pitman arm at center position and ensure arm backlash does not exceed .004" (.1 mm). Move pitman arm several times, tighten adjusting screw 1/8-1/6 turn, and tighten lock nut. Fill housing with 0.7 pint of suitable gear oil.

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ODA01

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs.
Column-to-Gear Housing	11.5-13
Sector Shaft Cover	11.5-13
Sector Shaft Lock Nut	23-27
Gear-to-Frame	23-27
Pitman Arm Lock Nut	101
Steering Wheel Nut	51-54
Tie Rod Ball Joint Stud Nuts	43-51