

## DATSUN – EXCEPT 310

### DESCRIPTION

Clutch is dry, single disc type. All models use a diaphragm spring type pressure plate and pre-lubricated clutch release bearing. Clutch is operated by a firewall mounted master cylinder and a clutch housing mounted slave cylinder. All models except 210 with 5-speed transmissions have non-adjustable slave cylinder assembly.

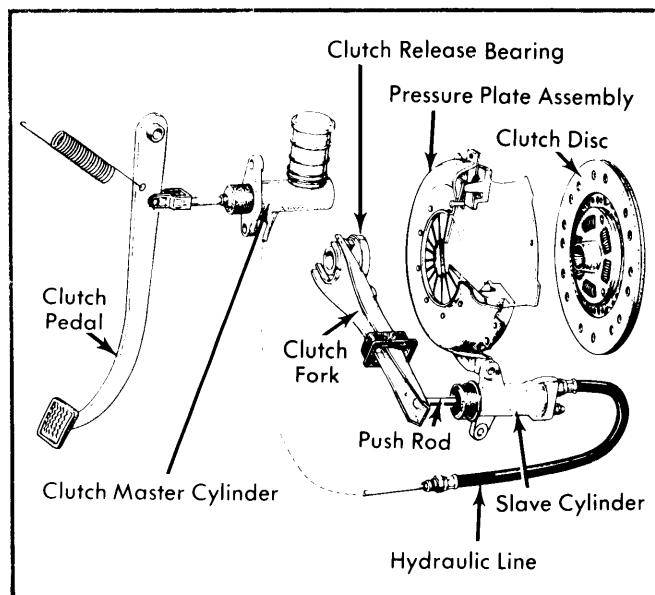


Fig. 1 Typical Datsun Hydraulically Operated Clutch System

### REMOVAL & INSTALLATION

#### CLUTCH ASSEMBLY

**NOTE** – Removal procedure is general. Not all steps apply to each model.

**Removal** – 1) Disconnect negative battery cable and accelerator linkage. Remove console box and place transmission shift lever in neutral. Remove control lever boots, snap ring (nut, if required), and shift lever pin. Remove shift control lever.

2) Raise and support vehicle on safety stands and disconnect exhaust pipe from manifold. If required, remove bolts mounting exhaust pipe bracket to extension housing or rear engine crossmember. Remove exhaust pipe insulator (if equipped) and lay over exhaust pipe.

3) Disconnect back-up light, neutral, overdrive and transmission controlled spark connectors (if equipped). Disconnect speedometer cable on all except 4-WD models. On 4-WD models, remove primary and front propeller shafts, and front differential carrier crossmember.

**NOTE** – Index mark propeller shafts and companion flanges prior to removal.

4) Remove slave cylinder. On all except 4-WD, separate center support bearing (if equipped) from crossmember and remove

propeller shaft. On all models, plug rear extension of transmission after removing propeller shaft to prevent loss of transmission fluid.

5) Support engine on suitable jack. Support transmission with transmission jack, then loosen rear engine mount attaching bolt and remove rear engine mounting bracket. Remove starter. Remove engine-to-transmission bolts. With engine supported and transmission mounted on transmission jack, slide transmission rearward and remove from vehicle.

6) Install clutch aligning tool and loosen pressure plate mounting bolts one turn at a time. Use a criss-cross pattern to loosen bolts until spring pressure is relieved. Remove clutch disc and pressure plate assembly.

**Installation** – To install, reverse removal procedure and note the following:

- Lubricate clutch disc splines with small amount of multipurpose grease.
- Slip clutch assembly over guide dowels.
- Use clutch aligning tool to center disc and pressure plate.
- Tighten bolts one turn at a time in a criss-cross pattern.
- Adjust linkage and pedal.
- Check and refill transmission lubricant.
- Bleed clutch hydraulic system and replenish fluid.

#### CLUTCH MASTER CYLINDER

**Removal & Installation** – Disconnect master cylinder push rod at clevis. Disconnect hydraulic line to slave cylinder. Remove cylinder attaching bolts and remove cylinder. Remove master cylinder dust cover if equipped. On 280ZX models only, remove windshield washer tank and clear fuel injection resistor before removing master cylinder. To install, reverse removal procedure and bleed hydraulic system.

#### CLUTCH SLAVE CYLINDER

**Removal & Installation** – Remove clutch fork return spring (if equipped). Disconnect hydraulic line from cylinder, remove bolts attaching cylinder to clutch housing, and remove slave cylinder. To install, reverse removal procedure and bleed hydraulic system.

#### CLUTCH RELEASE BEARING & LEVER

**Removal** – With transmission removed from vehicle, remove dust boot from clutch housing. Disconnect release lever retaining spring or return spring, as required, and retaining clips holding release bearing to lever. Remove bearing and lever through front of clutch housing. Remove bearing from collar using a puller.

**Installation** – To install, reverse removal procedure and note the following: Apply multi-purpose grease to inside surface of bearing collar, release bearing contact points, release bearing, ball pin in clutch housing, and ball contact points on release lever.

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### OVERHAUL

**NOTE** — Master cylinders and slave cylinders may be supplied by more than one manufacturer. Parts are not interchangeable. Ensure that overhaul kit matches cylinder.

#### CLUTCH MASTER CYLINDER

1) With master cylinder removed, remove filler cap and drain fluid. Remove dust cover and snap ring. Remove push rod and stopper. Remove supply valve stopper, then take out piston, spring seat and return spring.

2) Clean all parts in clean brake fluid and inspect for wear or damage. If cylinder-to-piston clearance exceeds .006" (.15 mm) replace defective part. Replace piston cup and dust cover during overhaul. To assemble, coat all parts with brake fluid and reverse disassembly procedure. Bleed hydraulic system and adjust pedal height.

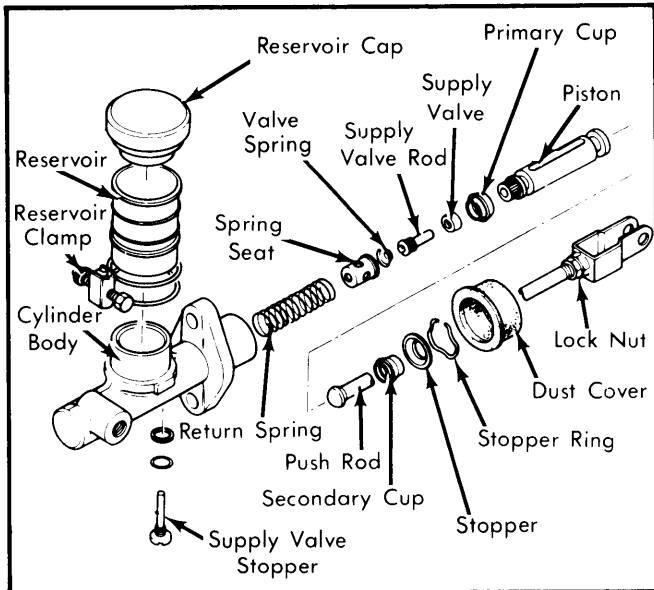


Fig. 2 Exploded View of Clutch Master Cylinder

#### CLUTCH SLAVE CYLINDER

1) With slave cylinder removed, remove push rod and dust cover. Remove piston and piston cup as an assembly. Remove bleeder screw.

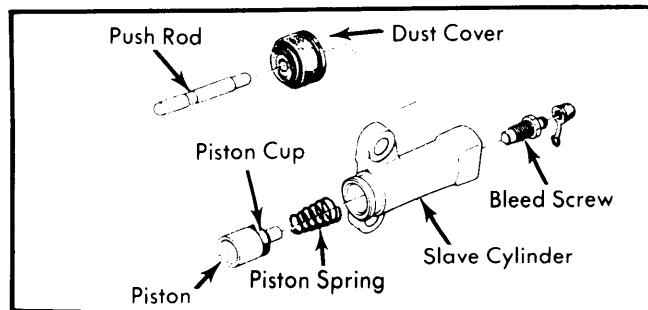


Fig. 3 Exploded View of Clutch Slave Cylinder Assembly (Except 210)

2) Clean all parts in clean brake fluid and inspect for wear or damage. If cylinder-to-piston clearance exceeds .006" (.15 mm), replace defective part. Replace piston cup and dust cover during overhaul. To assemble, coat all parts with brake fluid and reverse disassembly procedure. Ensure piston cup is installed properly and bleed hydraulic system.

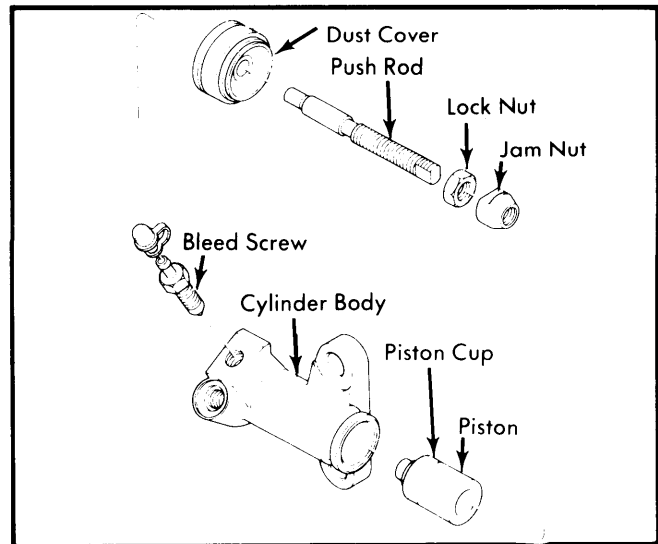


Fig. 4 Exploded View of 210 Clutch Slave Cylinder

### ADJUSTMENT

#### PEDAL HEIGHT & FREE PLAY

Adjust clutch pedal height to specification with adjusting rod on 280ZX or by turning pedal stopper adjusting nut on other models. Adjust pedal free play to .04-.20" (1-5 mm) by turning clutch master cylinder push rod in or out.

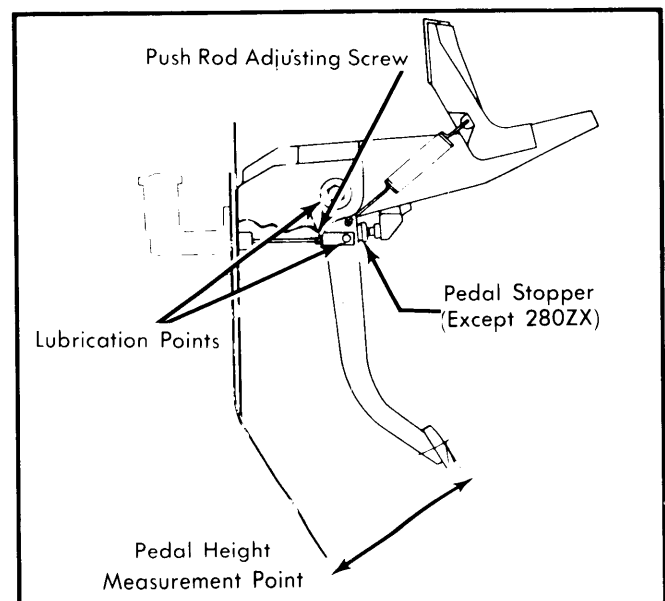


Fig. 5 Clutch Pedal Height Measurement and Free Play Adjustment Locations

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### Pedal Height Specifications

Application	In. (mm)
200SX .....	6.61-6.85 (168-174)
210 .....	5.63-5.87 (143-149)
280ZX .....	7.99 (203)
510 .....	6.34-6.57 (161-167)
810 .....	6.91 (176)
Pickup .....	6.73-6.97 (171-177)

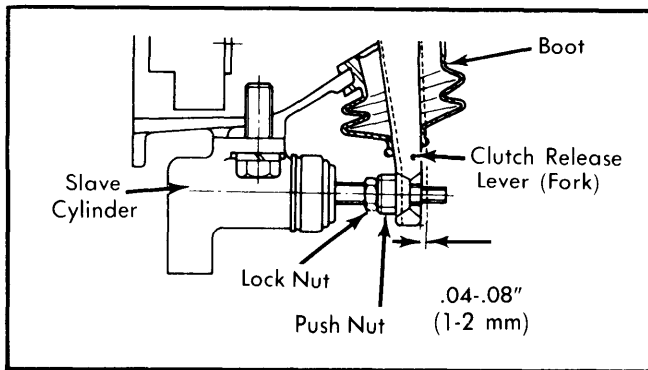


Fig. 6 Clutch Fork Free Play Adjustment Location for Datsun 210

### CLUTCH FORK FREE PLAY (310)

Loosen lock nut and push rod nut and turn push rod until release bearing lightly touches clutch diaphragm spring. Turn rod back (in opposite direction) about 1¼ turn and tighten lock nut. This provides about .04-.08" (1-2 mm) clearance between push nut and lever. Work clutch pedal several times and recheck pedal play.

### HYDRAULIC SYSTEM BLEEDING

- 1) Remove dust cap from slave cylinder bleed plug. Check fluid level in master cylinder, fill as necessary. Open bleed plug approximately ¼ turn.
- 2) Attach a tube to slave cylinder bleed plug, and place opposite end of tube in a container half-full of brake fluid. Push clutch pedal to bottom of travel.
- 3) With pedal down, tighten bleed plug. Continue operation until air bubbles are no longer seen in container. Close bleed plug on a downward stroke of pedal. Install dust cap and adjust fluid level in master cylinder.

### TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (mkg)
Clutch-to-Flywheel .....	12-15 (1.6-2.1)
Engine-to-Transmission	
210 .....	12-16 (1.6-2.2)
All Others .....	32-43 (4.4-5.9)