

DATSUN – EXCEPT 310

200SX
210
280ZX
510
810
Pickup

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.

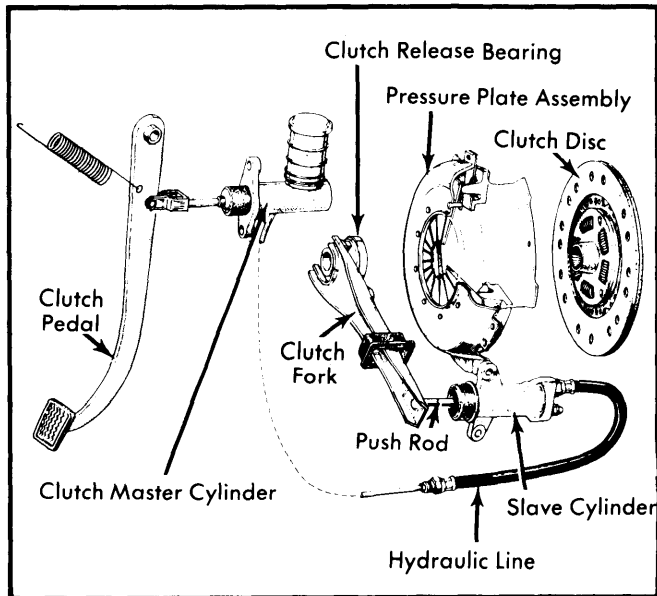


Fig. 1 View of Typical Datsun Clutch System – Note Some Models have Different Clutch Release Forks and Others Have Different Slave Cylinder Configurations

REMOVAL & INSTALLATION

CLUTCH ASSEMBLY

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

Removal – 1) Disconnect negative battery cable. Remove console box and place transmission shift lever in Neutral.

2) On 280ZX, remove accelerator linkage. On all models, remove control lever boots. Remove snap ring (nut, if required) and shift lever pin. Remove shift lever.

3) Raise and support vehicle on safety stands. Disconnect exhaust pipe from manifold. If required, remove bolts mounting exhaust pipe bracket to extension housing (rear engine

crossmember). Disconnect back-up light connection, transmission controlled spark connection (if equipped) and speedometer cable.

4) Remove slave cylinder. Remove exhaust pipe insulator and lay over exhaust pipe. Separate center support bearing from crossmember (if equipped). Index mark propeller shaft and companion flange, disconnect and remove propeller shaft.

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 attaching bolts. Use a criss-cross pattern to loosen bolts and loosen the bolts evenly 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.
- Adjust linkage and pedal.
- Refill transmission, if necessary.
- Bleed clutch hydraulic system if required.

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.

DATSUN – EXCEPT 310 (Cont.)

OVERHAUL

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.

NOTE – Master cylinders are available from two companies and parts are not interchangeable. Ensure repair kit matches cylinder.

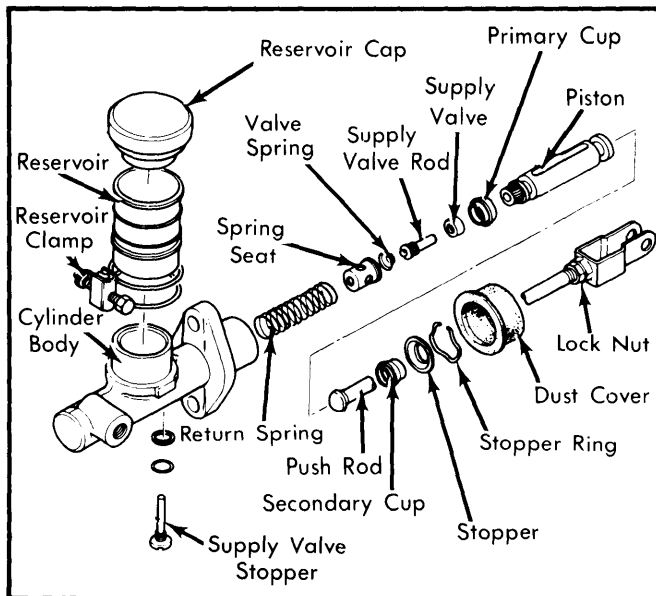


Fig. 2 Exploded View of Clutch Master Cylinder

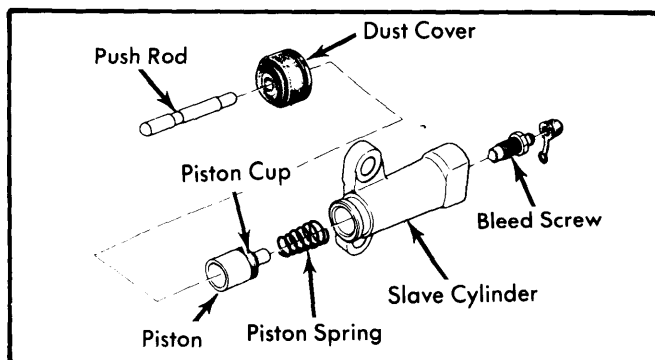


Fig. 3 Exploded View of Clutch Slave Cylinder Assembly (Except 210 4-Speed)

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.

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.

NOTE – Slave cylinders are available from two companies and parts are not interchangeable. Ensure repair kit matches cylinder.

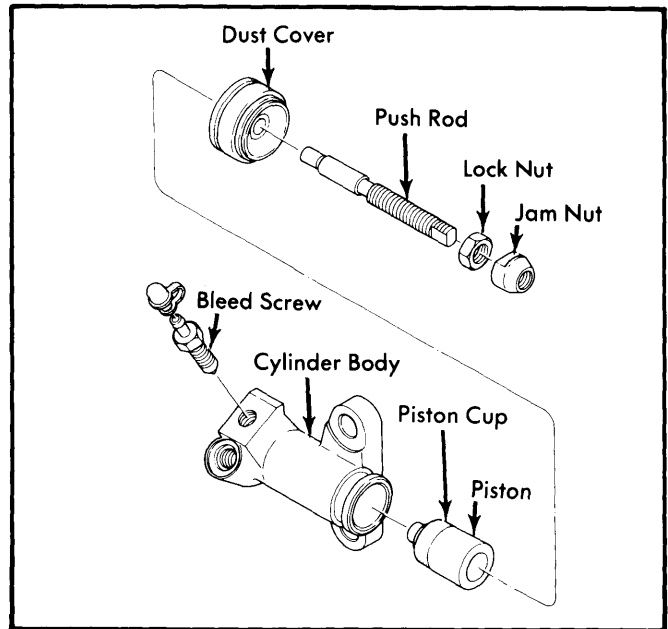


Fig. 4 Exploded View of Clutch Slave Cylinder (210 4-Speed Shown)

ADJUSTMENT

PEDAL HEIGHT & FREE PLAY

Adjust clutch pedal height to specification by turning pedal stopper adjusting nut in or out. Tighten lock nut. Adjust pedal free play to .039-.197" (1-5 mm) by turning clutch master cylinder push rod in or out.

Pedal Height Specifications

Application	Height In. (mm)
200SX	7.36-7.59 (187-193)
210	5.63-5.87 (143-149)
280ZX	7.87-8.11 (200-206)
510	6.34-6.57 (161-167)
810	6.90 (175.5)
Pickup	6.42 (163)

Clutches

DATSUN – EXCEPT 310 (Cont.)

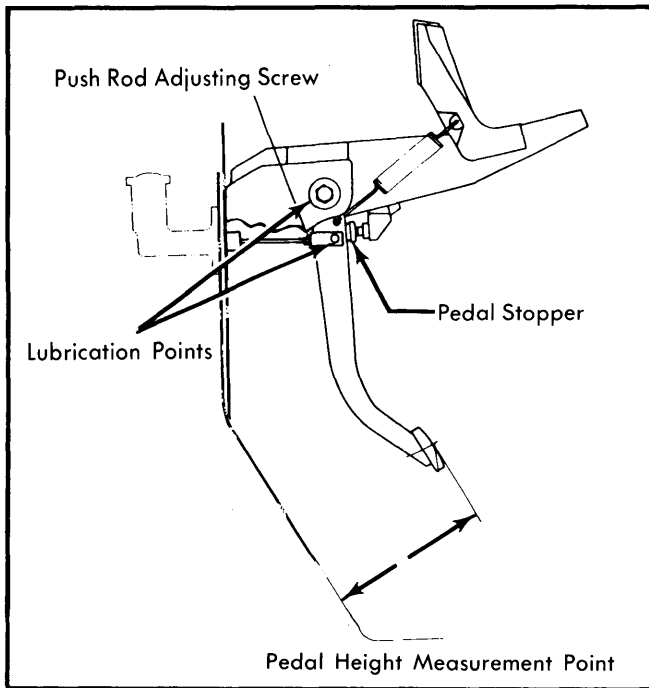


Fig. 5 Clutch Pedal Height and Free Play Adjustment Locations – All Models Similar

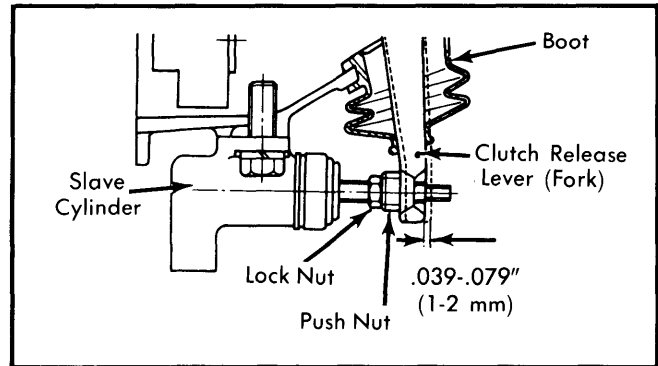


Fig. 6 Clutch Fork Free Play Adjustment Location for Datsun 210

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 3/4 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.

CLUTCH FORK FREE PLAY

- 1) Loosen lock nut and push nut. See Fig. 6.
- 2) Turn push rod until release bearing lightly touches clutch diaphragm spring.
- 3) Turn rod back (opposite direction) about 1 1/4 turns. This provides about .039-.079" (1-2 mm) clearance between push nut and lever.
- 4) Tighten lock nut.
- 5) Work clutch pedal several times. Recheck pedal free play.

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (mkg)
Clutch-to-Flywheel	11-16 (1.5-2.2)
Engine-to-Transmission	
200SX	27-36 (3.7-5.0)
210	12-16 (1.6-2.2)
All Others	32-43 (4.4-5.9)
Slave Cylinder-to-Clutch Housing	
Pickup	18-25 (2.5-3.5)
All Others	22-30 (3.1-4.1)
Master Cylinder-to-Firewall	6-9 (.8-1.2)