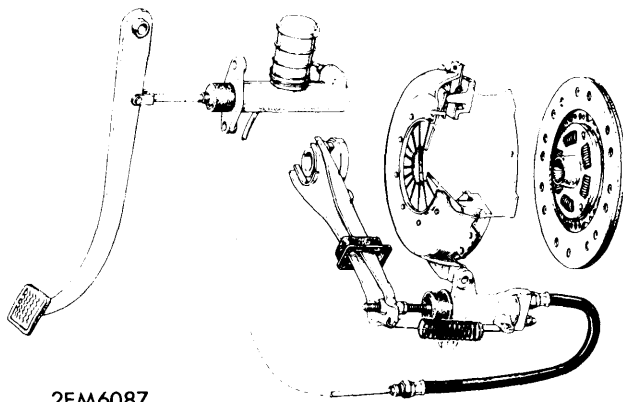


1963-73 DATSUN

310 Sports Car (1964-65)
 311 1600 Sports Car (1966-70)
 311 2000 Sports Car (1968-70)
 312 Series (1963-64)
 410 Series (1964-65)
 411 Series (1965-67)
 B110 Series (1971-73)
 510 Series (1968-73)
 610 Series (1973)
 240Z (1970-73)
 320 Pickup (1964-65)
 520 Pickup (1966-68)
 521 Pickup (1969-72)
 620 Pickup (1972-73)

DESCRIPTION

Clutch is a dry, single disc type. Earlier models were equipped with a coil spring type clutch. Later models utilize a diaphragm spring type clutch. All models use a hydraulic system to engage or disengage clutch. Clutch release bearing is pre-lubricated type.



2EM6087

CLUTCH SYSTEM COMPONENTS (TYPICAL)

REMOVAL & INSTALLATION

CLUTCH ASSEMBLY

- 1) Raise vehicle and support front and rear with safety stands. Disconnect exhaust pipe at manifold. Remove drive shaft and plug transmission to prevent loss of oil.
- 2) Disconnect speedometer and electrical connection at back-up light switch on transmission. Disconnect shift rods at shift levers on transmission.
- 3) Remove slave cylinder but do not disconnect line from master cylinder. Support engine by placing a jack under oil pan. Insert a block of wood between pan and jack.
- 4) Remove bolts attaching transmission to rear crossmember. Place a jack under transmission and remove crossmember. Raise jack under oil pan and lower jack under transmission.
- 5) Remove starter and bolts securing transmission to engine. Pull transmission to rear to remove. Remove clutch assembly by alternately loosening bolts in a criss-cross pattern.
- 6) To install clutch assembly, reverse removal procedure. Fill pilot bushing with grease before installing clutch assembly.

CLUTCH MASTER CYLINDER

1) Disconnect master cylinder push rod at clevis. Disconnect line to slave cylinder. Remove retaining bolts and remove master cylinder.

2) To install, reverse removal procedure. Bleed hydraulic system. See *Hydraulic System Bleeding*. Adjust pedal height. See *Pedal Height*.

CLUTCH SLAVE CYLINDER

1) Remove clutch fork return spring. Disconnect line from master cylinder. Disconnect push rod from clutch fork. Remove slave cylinder.

2) To install, reverse removal procedure. Bleed hydraulic system. See *Hydraulic System Bleeding*. Adjust clutch fork freeplay. See *Clutch Fork Freeplay*.

CLUTCH RELEASE BEARING

Transmission must be removed to remove release bearing. On models that clutch fork pivots on pin, pin must be removed and fork withdrawn to remove release bearing. On models that clutch fork pivots on ball stud, release bearing slides off of clutch fork.

OVERHAUL

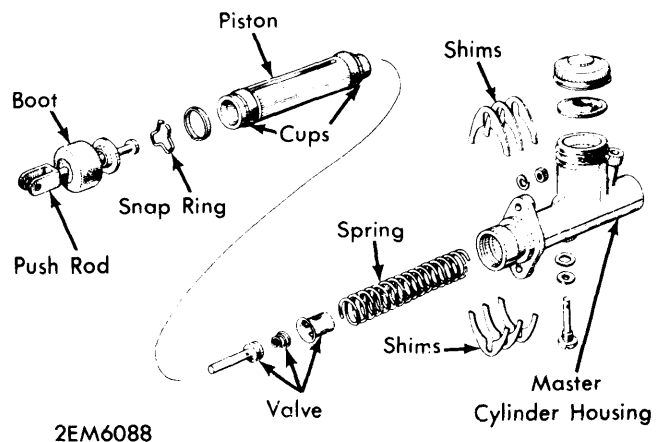
CLUTCH MASTER CYLINDER

1) With master cylinder removed as previously outlined, remove filler cap and drain fluid. Pull back dust cover and remove snap ring.

2) Remove stopper, push rod, piston assembly, primary cup and return spring. Thoroughly clean all components in brake fluid.

3) Inspect all components for wear or damage. If clearance between cylinder and piston exceeds .006" (.15 mm), replace master cylinder.

4) Coat all components in brake fluid before assembly. To assemble master cylinder, reverse disassembly procedure. Install master cylinder as previously outlined.



2EM6088

MASTER CYLINDER COMPONENTS (TYPICAL)

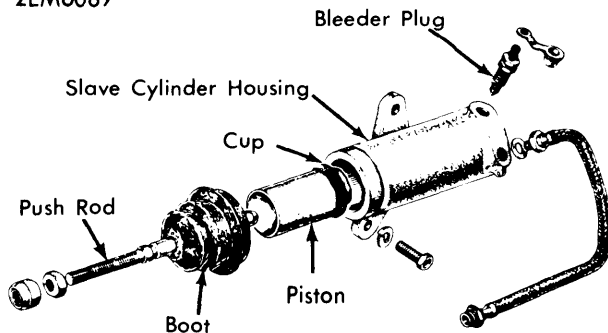
1963-73 DATSUN (Cont.)

CLUTCH SLAVE CYLINDER

1) With slave cylinder removed as previously outlined, pull back dust cover and remove snap ring. Withdraw push rod, piston and piston cup.

2) Thoroughly clean all components in brake fluid. Coat all components in brake fluid and reverse disassembly procedure to assemble slave cylinder. Install slave cylinder as previously outlined.

2EM6089



SLAVE CYLINDER COMPONENTS (TYPICAL)

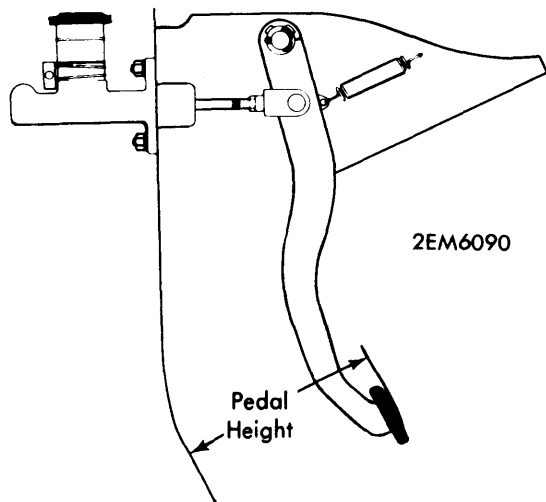
ADJUSTMENT

NOTE — The following models require no adjustment to clutch pedal, clutch fork or any hydraulic system components: 320 Pickup, 410 Series, 310 Sports Car and 311 Sports Car.

PEDAL HEIGHT

NOTE — Shims are available in thicknesses of .0197" (.50 mm), .0315" (.80 mm), and .0630" (1.6 mm).

312 Series & 411 Series — Adjust pedal height to specifications by inserting shims between master cylinder and firewall.



PEDAL HEIGHT MEASURING POINT

Pedal Height Specifications

Application	Pedal Height
312 Series.....	4.59" (116 mm)
411 Series.....	5.86" (149 mm)

B110 Series, 520 Pickup & 521 Pickup — Adjust pedal to **A** height specification by inserting shim(s) between master cylinder and firewall. Adjust pedal to **B** specification by adjusting pedal stop bolt. Adjust pedal free travel if applicable.

Pedal Height Specification

Application	A Height	B Height
B110 Series.....	5.65" (143 mm)	5.57" (141 mm)
520 Pickup.....	5.62" (142 mm)	5.40" (137 mm)
521 Pickup.....	6.02" (153 mm)	5.91" (150 mm)

510 Series & 240Z — Loosen pedal stop bolt and adjust pedal to **A** height specification by turning master cylinder push rod. Next, adjust pedal height to **B** by adjusting pedal stop bolt. Tighten lock nut and check for correct free travel specification (adjust if necessary).

610 Series & 620 Pickup — Adjust pedal to **B** specification by adjusting pedal stop bolt. Tighten stop bolt lock nut and turn master cylinder push rod in (or out) to obtain specified pedal free travel. Tighten push rod lock nut.

Pedal Height Specifications

Application	A Height	B Height
510 Series.....	8.22" (208 mm)	8.15" (207 mm)
610 Series.....	8.9" (226 mm)	8.8" (223 mm)
240Z.....	8.9" (226 mm)	8.8" (223 mm)
620 Pickup.....	8.9" (226 mm)	6.42" (163 mm)

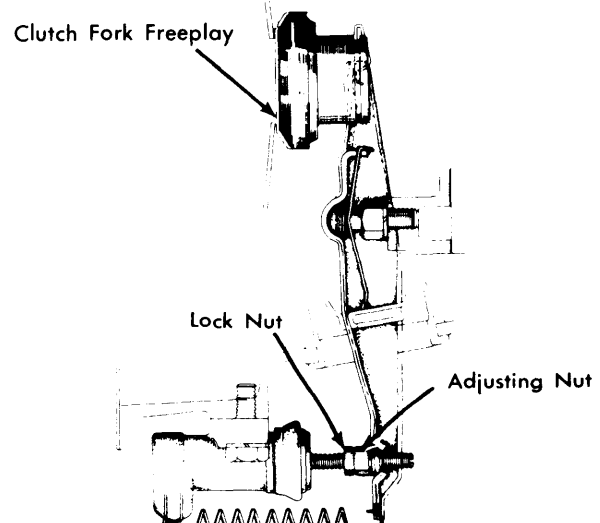
CLUTCH FORK FREE PLAY

NOTE — 610 Series, 240Z & 620 Pickup use an automatic wear adjuster type slave cylinder; therefore, no adjustment of free play on these vehicles is required.

1) To obtain correct amount of free play between clutch release bearing and clutch, proper amount of clutch fork free play must be obtained.

2) Loosen slave cylinder push rod lock nut. Screw push rod out until there is no clutch fork freeplay. Back off push rod specified amount of turns and tighten lock nut.

2EM6091



CLUTCH FORK FREEPLAY

Clutches

1963-73 DATSUN (Cont.)

Pedal Free Travel Specifications

Application	Free Travel
B110 Series.....	1.18" (30 mm)
510 Series.....	.98" (25 mm)
610 Series.....	① .039-.197" (.99-5.0 mm)
240Z.....	.95-.97" (24-25 mm)
620 Series.....	① .039-.118" (.99-3.0 mm)

① — Free travel at master cylinder clevis pin.

Clutch Fork Free Play Specifications

Application	Push Rod Turns
B110 Series.....	1 1/4
510 Series & 521 Pickup	1 3/4

HYDRAULIC SYSTEM BLEEDING

1) Remove dust cap from slave cylinder bleed plug. Check fluid level in master cylinder and fill as necessary. Open bleed plug approximately 3/4 turn.

2) Attach a rubber tube to bleed plug and insert opposite end of tube in a container half full of fluid. Push clutch pedal to bottom of stroke.

3) With pedal down, tighten bleed plug. Continue this operation until air bubbles are no longer seen in container. Close bleed plug on a downward stroke of pedal. Install dust cap and check fluid level in master cylinder.

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (mkg)
Clutch-to-Flywheel	
B110 Series & 240Z	11-16 (1.5-2.2)
510 & 610 Series, 521 Pickup	18-29 (2.4-4.0)
620 Pickup.....	17-20 (2.3-2.7)
All Others	35 (4.8)
Engine-to-Transmission	
510 Series.....	17-19 (2.3-2.6)
All Others	11-16 (1.5-2.2)