

## 1968-73 DATSUN 510 &amp; 610

510 (1968-73)  
610 (1973)

## DESCRIPTION

Brake system is hydraulically operated, using a tandem master cylinder and a Master-Vac power brake unit (610 models only). Front brakes are Akebono-Lockheed SC disc type, and rear brakes are leading-trailing shoe/drum type. A proportioning valve is used in brake system to prevent premature locking of rear brakes. Parking brake is cable and lever actuated, operating sliding wheel cylinders of rear brake assemblies.

## ADJUSTMENT

## BRAKE PEDAL HEIGHT &amp; FREE PLAY

**510** — With stop light switch loosened, adjust master cylinder push rod until pedal height, measured from pedal pad to floor, is 5.985" for manual transmission models, or 7.952" for automatic transmission models. Adjust brake light switch until screw portion of switch is against front side of stopper bracket, and tighten lock nut. Screw in brake stopper bolt until movable part of switch is completely depressed, then tighten lock nut. Free play should then be .2-.6".

**610** — Adjust brake lamp switch bolt until end face is flush with front face of bracket, then tighten lock nut. Adjust pedal stopper until pedal height, measured from pedal pad to floor, is 7.284". Adjust master cylinder push rod length until free play, measured at pedal pad, is .039-.197".

## FRONT DISC BRAKE PADS

Front disc brakes are self-adjusting, therefore, no adjustment in service is required.

## REAR BRAKE SHOES

With parking brake fully released, depress brake pedal several times so that shoes are settled to normal positions. Turn adjusting cam on backing plate until shoes lock against drum. Loosen adjusting cam until drum is just free to rotate.

## PARKING BRAKE

**All Models** — With rear brake shoes adjusted, adjust all slack from rear parking brake cable at adjuster. **NOTE** — Make sure cables do not pull on wheel cylinders. Adjust front parking brake cable so that rear wheels are locked when lever is pulled 3.346-3.740" on 510 models, or 3.543-3.937" on 610 models. With cables adjusted, release parking brake and make sure rear wheels rotate freely.

## HYDRAULIC SYSTEM BLEEDING

Attach a bleed tube to bleeder screw and immerse opposite end of tube in a container partially filled with brake fluid. Open bleeder screw  $\frac{3}{4}$  turn, depress pedal, close bleeder screw, and allow pedal to return slowly. Continue operation until air bubbles are no longer seen in discharged fluid. Repeat procedure on remaining brake lines until all air is bled from system. Bleeding sequence is: Master cylinder first, rear brakes second, and front brakes last.

## REMOVAL &amp; INSTALLATION

## FRONT DISC BRAKE PADS

**Removal** — Remove tire and wheel. Remove damper clip from caliper plate. Withdraw outer pad. Force plate inward and extract inner pad.

**Installation** — Wipe piston surface and caliper cavity clean. Push piston into caliper bore and install new pads. **NOTE** —

Pads must be replaced in sets of four. Insert damper clip. Install tire and wheel.

## FRONT DISC BRAKE CALIPER

**Removal** — Raise and support vehicle and remove tire and wheel assembly. Disconnect hydraulic line from caliper and plug openings. Remove bolts securing caliper to steering knuckle and remove caliper.

**Installation** — Reverse removal procedure, tighten mounting bolts securely, and bleed hydraulic system.

## FRONT DISC BRAKE ROTOR

**Removal** — With caliper assembly removed, remove hub dust cap, adjusting cap, adjustment nut and washer. Slide hub and rotor assembly from spindle taking care not to lose outer wheel bearing. Remove bolts attaching rotor to hub, then separate.

**Installation** — Reverse removal procedure, tighten rotor attaching bolts securely, and adjust wheel bearings. See *Wheel Bearing Adjustment* in WHEEL ALIGNMENT Section.

## REAR BRAKE SHOES

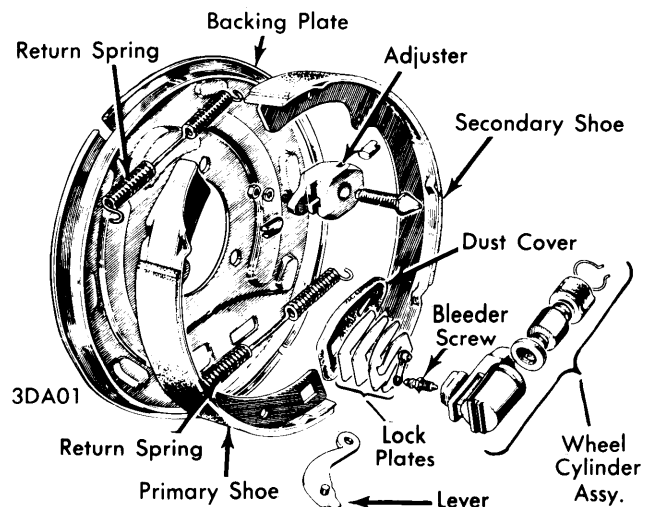
**Removal** — Raise and support vehicle, remove tire and wheel assembly, and remove brake drum. Disconnect anti-rattle springs (if equipped) and shoe return springs, then remove brake shoes from backing plate. If necessary, remove bolts securing adjuster to backing plate and remove adjuster assembly.

**Installation** — Reverse removal procedure and note the following: Apply grease to sliding areas of backing plate and adjuster, taking care not to contaminate linings. When installed, adjust brake shoes, parking brake, and bleed hydraulic system.

## DRUM BRAKE WHEEL CYLINDER

**Removal** — With drum and shoes removed, disconnect hydraulic line from cylinder. Remove dust cover and retaining clips, then remove wheel cylinder from backing plate.

**Installation** — On rear wheels, install parking brake lever into backing plate. Fit wheel cylinder into position and install adjusting shims and locking plates. With shoes and drums installed, adjust brake shoes and bleed hydraulic system.



**BRAKE SHOE ASSEMBLY  
(REAR BRAKE ILLUSTRATED)**

## 1968-73 DATSUN 510 & 610 (Cont.)

### MASTER CYLINDER

**Removal** — On models not equipped with Master-Vac, disconnect master cylinder push rod from brake pedal by removing clevis pin. Disconnect hydraulic lines from cylinder and plug openings to prevent loss of fluid. Remove nuts attaching cylinder to firewall (or power unit) and remove master cylinder.

**Installation** — Reverse removal procedure, adjust brake pedal height and free play, and bleed hydraulic system.

### POWER BRAKE UNIT

**Removal** — With master cylinder removed, disconnect vacuum line from power unit. From inside vehicle, disconnect pedal return spring, push rod from brake pedal, and power unit mounting nuts. Remove power unit from engine compartment.

**Installation** — Reverse removal procedure, adjust pedal height and free play, and bleed hydraulic system.

**Check Valve Replacement** — Check valve is located near identification plate on firewall. To remove, disconnect clip, remove hose clamps, separate hoses from valve, and remove valve. To install, reverse removal procedure.

**Reassembly** — *NOTE* — Manufacturer recommends replacing rubber seals whenever caliper has been disassembled. Lubricate all parts with rubber grease. Install seal into groove in cylinder. Install wiper seal and retainer. Insert piston into cylinder until face of piston head is almost flush with retainer. Install cylinder to caliper plate and secure with torsion springs. Install disc pads and anti-rattle spring.

### DRUM BRAKE WHEEL CYLINDER

**Disassembly** — Remove snap ring and dust boot, then withdraw piston and seal assembly from cylinder bore. Remove seal from piston.

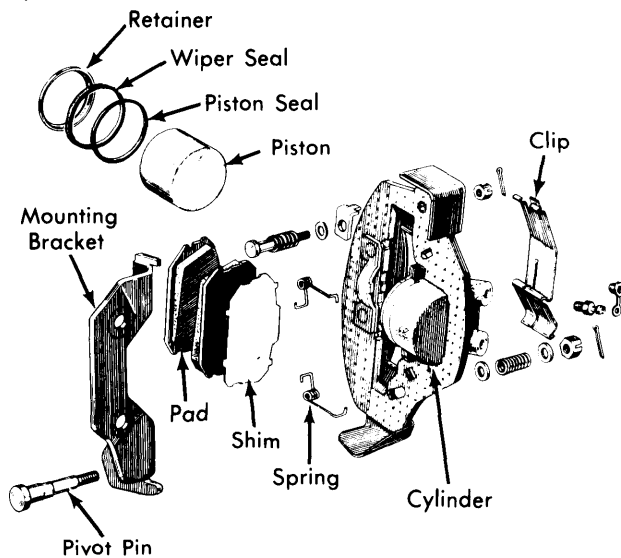
**Cleaning & Inspection** — Clean and dry all parts and inspect for wear or damage. Measure clearance between piston and cylinder bore; if greater than .006", replace piston or cylinder as required.

**Reassembly** — Reverse disassembly procedure and note the following: Apply a thin coat of rubber grease to all parts when assembling wheel cylinder.

## OVERHAUL

### FRONT DISC BRAKE CALIPER

**Disassembly** — Remove anti-rattle clip from caliper plate and remove disc pads. Remove tension springs and remove cylinder from caliper plate. Remove piston from cylinder by applying air or hydraulic pressure to fluid inlet hole. Remove wiper seal and retainer.



**FRONT DISC BRAKE ASSEMBLY**

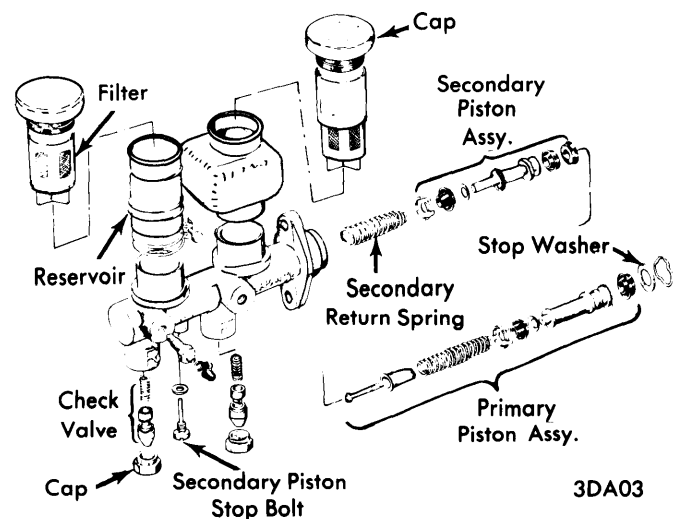
**Cleaning & Inspection** — Clean all parts in alcohol or brake fluid and inspect for wear or damage. Light deposits may be removed from cylinder bore using fine emery paper. **CAUTION** — DO NOT polish piston plated surfaces with emery paper; replace piston if severely rusted or corroded.

### MASTER CYLINDER

**Disassembly** — Remove reservoir cap and drain fluid. Remove dust cover, retaining ring and piston stop screw. Remove washer, primary piston assembly, secondary piston assembly and return spring. Remove valve plugs and remove check valves.

**Cleaning & Inspection** — Clean all parts in alcohol or brake fluid, and inspect for wear or damage; replace parts as required. Check clearance between cylinder bore and piston; if greater than .006", replace cylinder or piston as required. *NOTE* — Manufacturer recommends replacing cylinder cups and valves whenever master cylinder has been disassembled.

**Reassembly** — Coat all parts with clean brake fluid and reverse disassembly procedure.

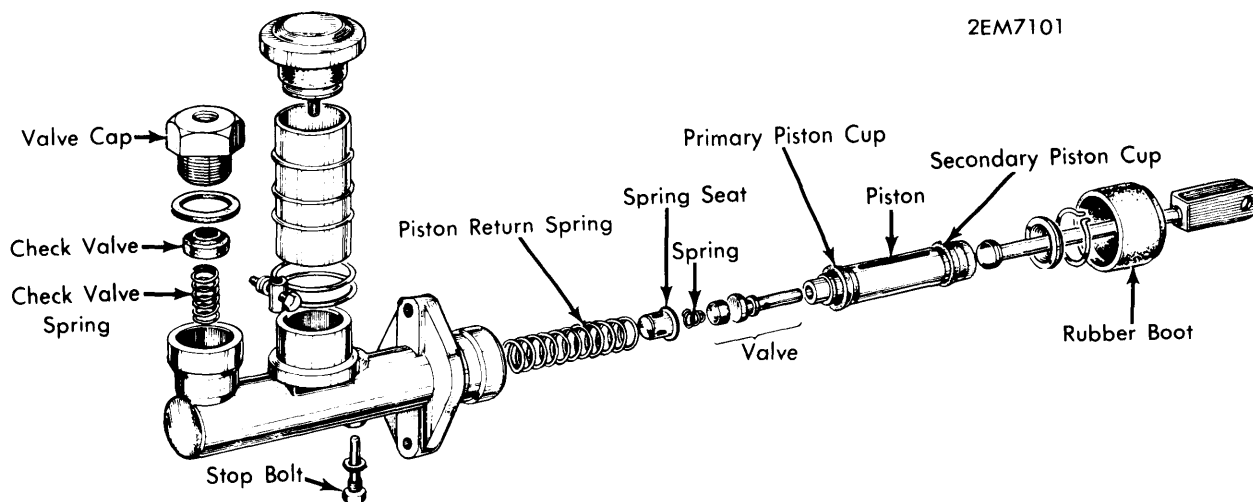


**MASTER CYLINDER ASSEMBLY (LATE MODEL)**

# Brakes

## 1968-73 DATSUN 510 & 610 (Cont.)

2EM7101



**MASTER CYLINDER ASSEMBLY (EARLY MODEL)**

TIGHTENING SPECIFICATIONS	
Application	Ft. Lbs. (mkg)
Hydraulic Lines .....	12 (1.7)
Rotor-to-Hub .....	33 (4.6)
Caliper-to-Steering Knuckle	
510.....	59 (8.2)
610.....	62 (8.6)
Wheel Cylinder Mounting Bolts.....	12 (1.7)
Bleeder Screw.....	5 (0.7)

BRAKE SYSTEM SPECIFICATIONS				
Application	Drum Diam. In. (mm)	Wheel Cylinder Diameter		Master Cylinder
		Front In. (mm)	Rear In. (mm)	Diameter In. (mm)
510 & 610	9.0 (228.6)	① 2.0 (50.8)	②	.750 (19.05)

① — Caliper cylinder diameter.

② — 510 is .813" (20.6) and 610 is .875" (22.2)

DISC BRAKE ROTOR SPECIFICATIONS						
Application	Disc Diameter In. (mm)	Lateral Runout In. (mm)	Parallelism In. (mm)	Original Thickness In. (mm)	Minimum Refinish Thickness In. (mm)	Discard Thickness In. (mm)
510 & 610	9.125 (231.78)	.0048 (.127)	① .0028 (.076)	.384 (10.15)	.331 (8.38)	② ....

① — Maximum allowable.

② — Less than minimum refinish thickness.

# Brakes

## 1968-73 DATSUN 510 & 610 (Cont.)

BRAKE DRUM SPECIFICATIONS				
Application	Drum Diameter In. (mm)	Original Diameter In. (mm)	Maximum Refinish Diameter In. (mm)	Discard Diameter In. (mm)
510 & 610	9.0 (228.6)	9.0 (228.6)	9.055 (230.0)	①

① — More than maximum refinish thickness.

BRAKE LINING SPECIFICATION							
Application	Drum Dia. In. (mm)	Width		Length		Thickness	
		Front In. (mm)	Rear In. (mm)	Primary In. (mm)	Secondary In. (mm)	Primary In. (mm)	Secondary In. (mm)
510 & 610	9.0 (228.6)	① ...	1.575 (40.0)	8.642 (219.5)	8.642 (219.5)	1.77 (4.5)	1.77 (4.5)

① — Front disc brake equipped.