

DATSUN PICKUP

Pickup

DESCRIPTION

Brake system is hydraulically operated using a tandem master cylinder and vacuum power unit. Front brakes are single cylinder, dual piston, fixed caliper, sliding yoke disc type. Rear brakes are duo-servo drum type. A load sensing combination valve is mounted at a 10° incline on the frame to change braking power of rear wheels in response to changes in load and brake fluid pressures. Parking brake is cable actuated and operates on rear brakes.

ADJUSTMENT

BRAKE PEDAL HEIGHT & FREE PLAY

Brake pedal height (measured from center of pedal pad to floor) should be 6.06" (154 mm). To adjust height, loosen brake lamp switch and position brake lamp stopper bolt until face is flush with bracket on pedal arm; tighten lock nut. Adjust master cylinder push rod length until free play (measured at pedal pad) is .04-.20" (1-5 mm).

FRONT DISC BRAKE PADS

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

REAR BRAKE SHOES

Raise and support rear of vehicle on safety stands. Release hand brake and remove dust boot from backing plate. Lightly tap adjuster housing and move it forward. Rotate adjuster down with a screwdriver until drum locks. Back off adjuster 12 notches for correct shoe-to-drum clearance. Rotate brake drum by hand and make sure no excessive drag is present. Readjust clearance if necessary. Reinstall rubber boot and lower vehicle.

NOTE — Brake shoes are spread when right and left adjusters are rotated downward.

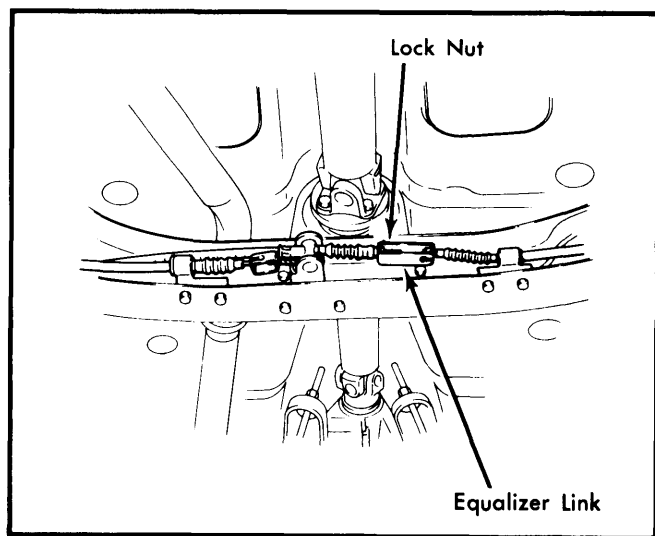


Fig. 1 Adjusting Parking Brake Equalizer Link

PARKING BRAKE

Adjust rear service brakes. Raise vehicle until rear wheels clear floor. Apply parking brake with pulling force of 44-66 lbs. (20-30 kg) force to obtain 3.15-3.94" (80-100 mm) lever stroke. Adjust equalizer link with adjusting nut until rear wheels are locked. Release parking brake and ensure rear wheels turn freely. After adjustment, parking brake should operate smoothly without noise or drag.

HYDRAULIC SYSTEM BLEEDING

1) Attach a bleed tube to bleeder screw and immerse opposite end of tube in a container partially filled with brake fluid. Pump brake pedal two or three times, keep pedal fully depressed and open bleeder screw. Exhaust air, close bleeder screw and allow pedal to return slowly.

2) Bleeding sequence is master cylinder front, master cylinder rear, combination valve front, front wheels, left rear wheel, right rear wheel, combination valve rear and combination valve center. Repeat operation until air bubbles are no longer seen in discharged fluid. Check master cylinder often; replace fluid as required. Repeat procedure on remaining brake lines.

REMOVAL & INSTALLATION

FRONT DISC BRAKE PADS

Removal — Raise and support front of vehicle on safety stands; remove tire and wheel. Remove retaining clip and then remove pad pins holding anti-squeal springs with fingers. Remove pads.

NOTE — Pads must always be replaced in sets.

Installation — 1) Clean cavity and caliper surroundings. Loosen bleeder screw and push outer piston into cylinder until dust seal groove aligns with retaining ring end surface of dust seal. Tighten bleeder screw and install inner pad. Push inner piston into cylinder by pulling yoke and install outer pad.

2) Apply pad grease to caliper body-to-pad clearance, pad pin-to-pad clearance and pad pin-to-caliper body clearance. Install anti-squeal springs and pad pins, then install retaining clip. Depress brake pedal several times to seat pads, install wheels, lower vehicle and bleed hydraulic system if necessary.

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, cotter pin, adjusting cap, lock nut and washer. Slide hub and rotor assembly from spindle without dropping outer bearing. Remove hub-to-rotor bolts and separate.

DATSUN PICKUP (Cont.)

NOTE — Do not damage dust cap "O" ring while removing hub dust cap.

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

REAR BRAKE SHOES

Removal — 1) Raise and support rear of vehicle on safety stands; remove tire and wheel. Loosen hand brake and remove brake drum. Remove retainers, anti-rattle springs, spring seats and anti-rattle pins.

2) Remove strut and return springs. Remove primary shoe. Before removing secondary shoe, remove clip and washer from rear of toggle lever and withdraw toggle pin. Remove secondary shoe. Disconnect toggle lever from hand brake cable. Remove adjuster boot and lock assembly; remove adjuster assembly from backing plate.

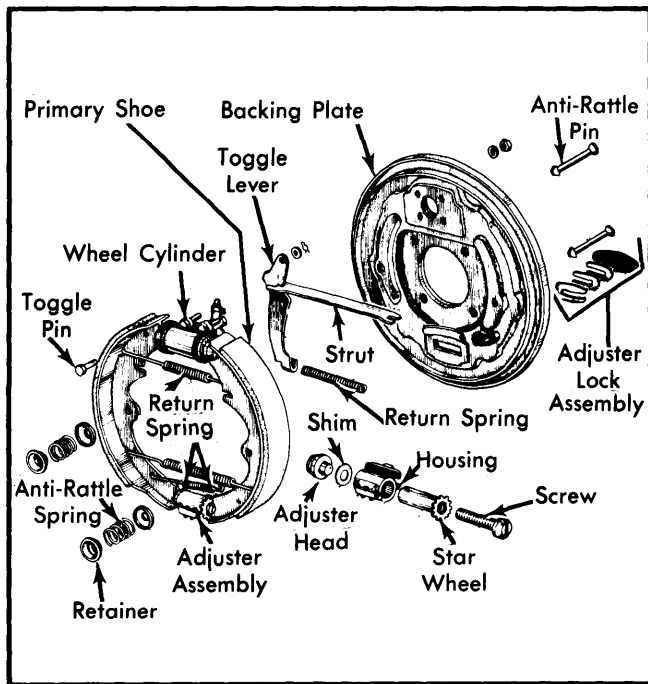


Fig. 2 Exploded View of Rear Brake Assembly

Installation — To install, reverse removal procedure and note the following: Apply brake grease to moving parts of adjuster assembly and all metal contact surfaces of brake shoes. Adjuster sliding resistance (measured with spring scale) should be 11-26 lbs. (5-12 kg); if not, install new adjuster shim. Clearance between toggle lever and secondary shoe should be 0-.012" (0-.30 mm) upon reassembly. Toggle pin washers are available in 5 sizes.

WHEEL CYLINDER

Removal & Installation — With brake drum and shoes removed, disconnect brake fluid line and plug openings. Remove cylinder mounting nuts and remove wheel cylinder. To install, reverse removal procedure and bleed brake system.

NOTE — Wheel cylinders are produced by two companies and parts are not interchangeable. Ensure repair kit matches wheel cylinder.

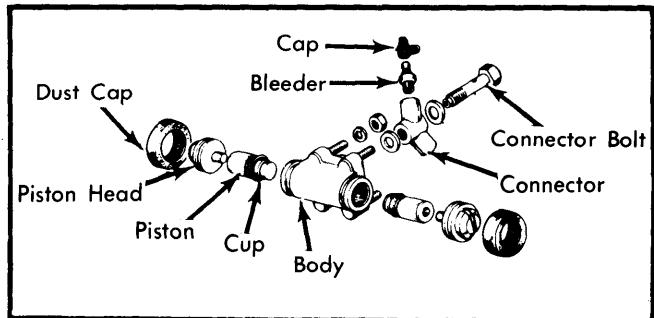


Fig. 3 Exploded View of Wheel Cylinder

MASTER CYLINDER

Removal & Installation — Disconnect and plug front and rear hydraulic lines from master cylinder and drain brake fluid from cylinder. Remove master cylinder attaching nuts and lift off master cylinder. To install, reverse removal procedure and bleed hydraulic system.

POWER BRAKE UNIT

NOTE — Before removal, test check valve. Using a suitable brake booster tester, apply 19.69" (500 mm) vacuum to brake unit side of check valve port. If pressure drops more than .98" (25 mm) in 15 seconds and leak is observed at check valve, replace check valve. Also, if check valve does not open when pressure is applied to brake unit side of check valve, replace check valve. If check valve is not defective, check brake system and vacuum lines for leaks; replace booster as an assembly.

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 and adjust push rod length to .38-.39" (9.75-10.0 mm) by turning tip of push rod. Check pedal height and free play and bleed hydraulic system.

Check Valve Replacement — Check valve is located on firewall in vacuum line between intake manifold and power brake unit. To remove, loosen hose clamps, separate hoses from valve and remove valve. To install, reverse removal procedure and make sure plug is properly installed.

DATSUN PICKUP (Cont.)

OVERHAUL

FRONT DISC BRAKE CALIPER

Disassembly — Drain brake fluid from cylinder and remove mounting bolts. Separate yoke and caliper body. Remove yoke holder from inner piston. Remove retaining rings and dust seals from both piston ends. Force both pistons from cylinder in same direction using compressed air. Carefully pry out piston seals.

Cleaning & Inspection — Clean all parts in brake fluid and check all components for wear or damage. If minor corrosion can not be removed from cylinder bore with fine emery cloth, cylinder must be replaced. All seals must be replaced during overhaul.

NOTE — Piston surfaces are plated and must be replaced if corroded or worn. DO NOT polish with emery cloth.

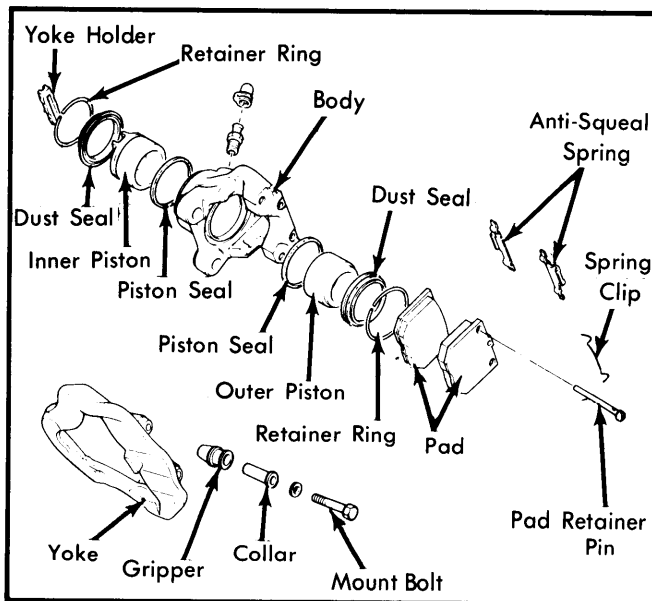


Fig. 4 Exploded View of Front Disc Brake Caliper

Reassembly — 1) Install piston seals without damaging seals. Coat cylinder bore and pistons with brake fluid. Push inner piston into cylinder bore until yoke groove aligns with cylinder yoke groove. DO NOT force piston groove inside piston seal. Push outer piston into bore by holding cylinder body.

2) Apply brake grease to sealing surface of dust seal and install dust seal; clamping securely with retaining ring. Install yoke holder to inner piston. Install gripper to yoke. Apply 1% soap solution to inner gripper wall and drive in collar. Install yoke to yoke holder by supporting outer piston end and pressing yoke into holder with 44-66 lbs. (20-30 kg) force.

NOTE — Insert yoke vertically to prevent damage to yoke holder. Yoke holder must be replaced if damaged.

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.

NOTE — Do not remove reservoir tanks; if removed, install new tanks.

Cleaning & Inspection — Clean all parts in brake fluid and check components for excessive wear or damage. If piston-to-cylinder clearance exceeds .006" (.15 mm), replace necessary part. Cups, gaskets and valves must be replaced during overhaul.

NOTE — Master cylinders are produced by two companies and parts are not interchangeable. Ensure repair kit matches master cylinder.

Reassembly — Reverse disassembly procedure and note the following: Apply rubber grease to all rubber parts and brake fluid to remaining parts. Bleed hydraulic system.

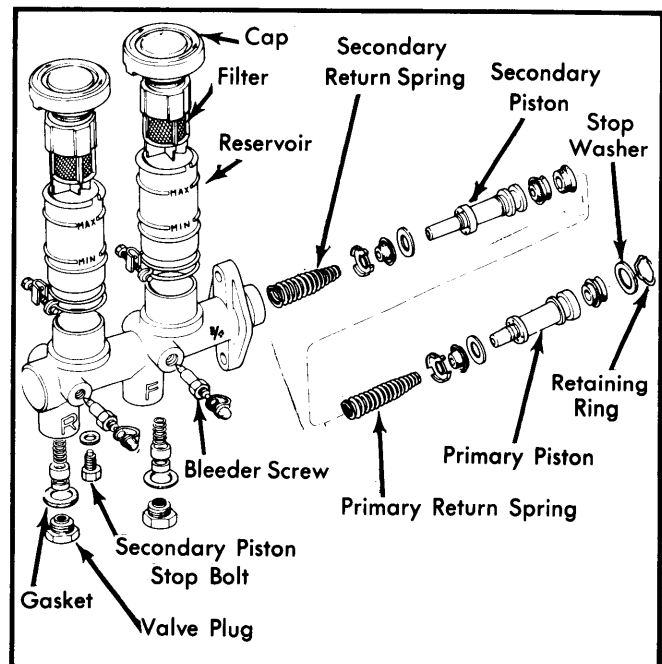


Fig. 5 Exploded View of Master Cylinder

POWER BRAKE UNIT

NOTE — Manufacturer does not recommend disassembly of this unit. If a problem is determined to be in power brake unit, complete assembly must be replaced. Do not disassemble power brake unit.

DATSUN PICKUP (Cont.)

TIGHTENING SPECIFICATIONS	
Application	Ft. Lbs. (mkg)
Master Cylinder	
Check Valve Plugs	
Nabco Make	18-25 (2.5-3.5)
Tokico Make	58-65 (8.0-9.0)
Piston Stop Bolt	
Nabco Make	1-2 (.14-.28)
Tokico Make	5-6 (.70-.90)
Retaining Nuts	6-8 (.80-1.1)
Bleeder Valves	5-6 (.70-.90)
Backing Plate Bolts	39-46 (5.4-6.4)
Hydraulic Lines	11-13 (1.5-1.8)
Caliper Mounting Bolts	53-72 (7.3-9.9)
Hydraulic Line-to-Caliper	11-13 (1.5-1.8)
Yoke-to-Cylinder Body Bolt	12-15 (1.6-2.1)
Hub-to-Rotor Bolts	28-38 (3.9-5.3)
Wheel Cylinder Mounting Nuts	11-13 (1.5-1.8)

BRAKE SYSTEM SPECIFICATIONS				
Application	Drum Diam. In. (mm)	Wheel Cylinder Diameter		Master Cylinder Diameter In. (mm)
		Front In. (mm)	Rear In. (mm)	
Pickup	10 (254)	2.125 [ⓐ] (53.98)	.625 (15.88)	.813 (20.64)

ⓐ — Disc Brakes.

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)
Pickup	10.67 (271)	.0059 (.15)	.0012 (.03)	.492 (12.5)	.413 (10.5)

BRAKE DRUM SPECIFICATIONS				
Application	Drum Diameter In. (mm)	Original Diameter In. (mm)	Maximum Refinish Diameter In. (mm)	Discard Diameter In. (mm)
Pickup	10 (254)	10.000 (254)	10.059 (255.5)	ⓐ

ⓐ — More than maximum refinish diameter.