MGB

DESCRIPTION

Brake system is hydraulically operated using tandem master cylinder (with pressure differential) and power brake unit. Front brakes are self-adjusting disc type; rear brakes are leading/trailing drum type. A brake pressure warning switch is mounted to master cylinder and connected to dual warning light on instrument panel. Parking brake is cable actuated on rear wheels.

ADJUSTMENT

REAR DRUM BRAKE SHOES

Raise and support rear of vehicle and fully release parking brake. Turn shoe adjuster clockwise until wheel is locked. Back off adjuster until wheel is free to rotate without binding.

NOTE – *Adjustment on drum brakes also tightens up parking brake.*

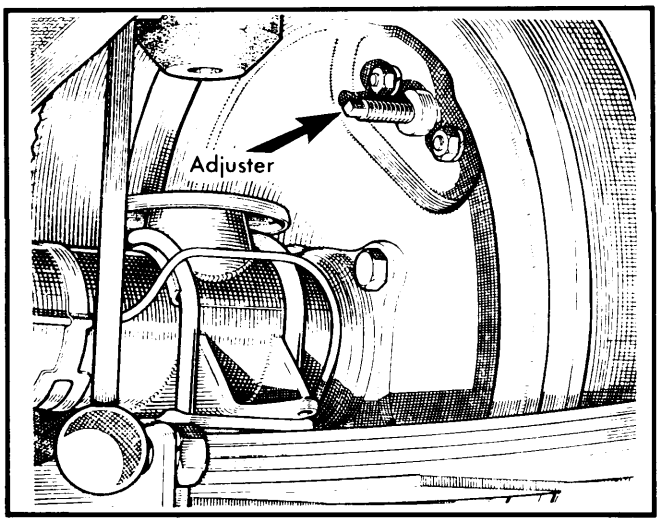

Fig. 1 Rear Drum Brake Shoe Adjuster Location

PEDAL FREE PLAY

Pedal free play (measured at center of pedal pad) should be .125" (3.18 mm). To adjust free play, disconnect stop light switch, loosen lock nut and turn switch clockwise to DECREASE free play, counterclockwise to INCREASE free play. Tighten lock nut and reconnect stop light switch.

STOP LIGHT SWITCH

Stop light switch is located under instrument panel above brake pedal. To adjust, disconnect electrical connection and loosen lock nut. Adjust switch until it just contacts pedal arm. Tighten lock nut and reconnect electrical connection.

PARKING BRAKE

Raise and support vehicle. With rear brake shoes properly adjusted, pull parking brake lever up to 3rd notch from fully released position. Rear wheels should just be able to be rotated with considerable drag. If not, hold cable nut and turn adjusting nut until cables are not slack and rear wheels are partially locked when parking brake lever is pulled 3 notches.

BRAKE WARNING LIGHT

A dual warning light is mounted on instrument panel. Light should glow when parking brake lever is pulled 1 notch and go off when lever is fully released (ignition on). To check circuit warning sensor, release parking brake (ignition on) and ensure light is off. Open bleed screw on one wheel and depress brake pedal; light should glow. Close bleed screw, replenish brake fluid and bleed hydraulic system.

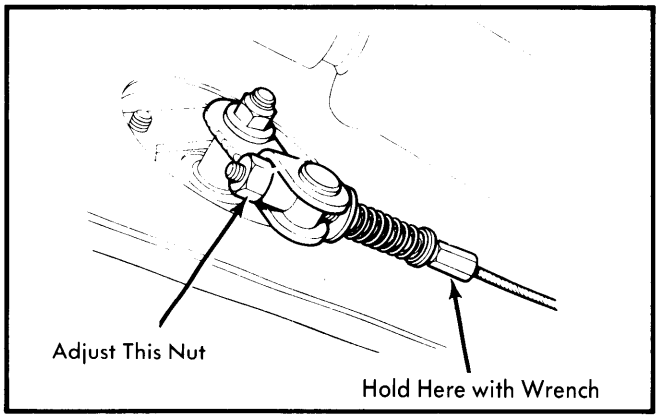

Fig. 2 Parking Brake Cable Adjustment Location

REMOVAL & INSTALLATION

FRONT DISC BRAKE PADS

Removal – Raise and support vehicle; remove tire and wheel. Depress pad retaining springs and remove cotter pins with retaining springs. Carefully lift out and remove pads.

Installation – Before inserting disc pads, clean piston head and caliper cavity. Seat piston in cylinder bore with suitable clamp. Machined portion of piston face must be seated at inner end of caliper. Insert pads, retaining springs and cotter pins. Filing of high spots from pads is acceptable to provide some movement of pads in caliper. Pump brake pedal several times to set pad-to-rotor clearance.

FRONT DISC CALIPER

Removal – Raise and support vehicle; remove tire and wheel. Disconnect and plug hydraulic line at caliper. Remove caliper mounting bolts and remove caliper assembly.

Installation – To install, reverse removal procedure and bleed hydraulic system.

FRONT DISC ROTOR

Removal – Raise and support vehicle; remove tire and wheel. Remove caliper assembly as previously described and hang from frame with wire; DO NOT disconnect hydraulic line. Remove hub grease cap, cotter pin and spindle nut. Using puller, remove hub and rotor assembly from spindle without dropping outer wheel bearing. Remove hub-to-rotor bolts and remove rotor.

Installation – To install, reverse removal procedure and tighten hub-to-rotor bolts evenly. Adjust wheel bearings. See *Wheel Bearing Adjustment in WHEEL ALIGNMENT Section.*

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REAR BRAKE SHOES

Removal – 1) Raise and support rear of vehicle. Remove wheel. Release parking brake. Loosen brake shoe adjuster. Remove screws and pull off brake drum.

2) Make note of how springs at wheel cylinder end attach. Separate parking brake lever spring. Remove each brake shoe mounting pin, retainer, and spring. Pry (by spreading return springs) brake shoes out of adjuster and wheel cylinder. Lift off shoes. If necessary, wheel cylinder and parking brake mechanism can now be removed.

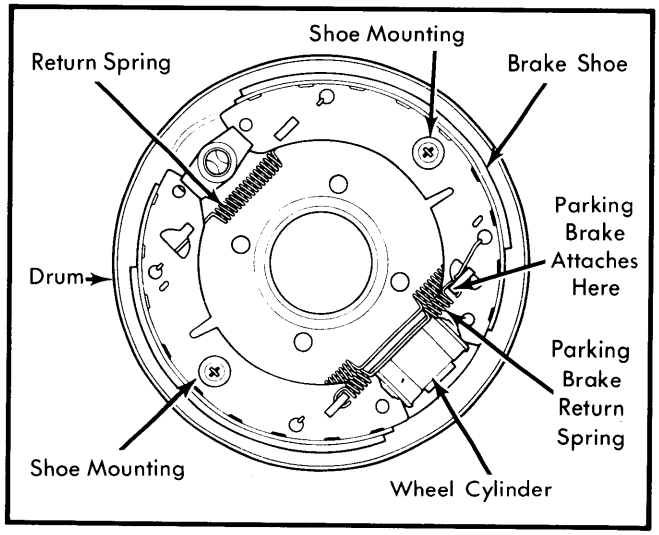

Fig. 3 Installed View of Rear Brake Drum Assembly

Installation – To install, reverse removal procedure and note: Apply suitable brake grease to shoe contact points. Adjust brake shoes.

MASTER CYLINDER

Removal – Remove pedal box cover and drain master cylinder reservoir. Disconnect hydraulic lines from master cylinder. Disconnect electrical connections. Remove master cylinder mounting nuts and remove master cylinder.

Installation – To install, reverse removal procedure. Start hydraulic lines before tightening master cylinder. Bleed hydraulic system and adjust brakes, if necessary.

POWER BRAKE UNIT

Removal – Disconnect throttle return spring from air cleaner, then remove air cleaner from vehicle. Remove pedal box cover. Disconnect hydraulic lines from mounting clips. Separate master cylinder from power brake unit and support cylinder out of way. Disconnect vacuum source and pedal return spring, then remove pin securing pedal to push rod. Remove nuts and spring washers mounting power brake unit to pedal box and lift out unit.

Installation – To install, reverse removal procedure and bleed hydraulic system.

OVERHAUL

FRONT CALIPER

Disassembly – 1) Remove brake caliper, leaving inlet hose connected. Clamp piston in mounting half of caliper and gently apply service brakes. This procedure will force rim half piston out enough to be removed by hand.

2) Using a blunt instrument, remove fluid seal, taking care not to damage bore or retaining groove. To remove dust seal, insert a screwdriver between retainer and seal, and gently pry retainer from mouth of caliper bore. Disassembly procedure is same for mounting half.

NOTE – *Caliper rim half must be reassembled before disassembling mounting half.*

Cleaning & Inspection – Clean piston, caliper bore and grooves with brake fluid or denatured alcohol. Check parts for wear or damage. If piston or caliper bore show any signs of scoring or roughness, replace caliper assembly.

Reassembly – 1) Coat new seal with brake fluid and ease seal into groove. Loosen bleed screw in rim half one turn. Coat piston with brake fluid and locate piston squarely in cylinder bore with cut-away portion facing inner edge of caliper.

2) Press piston down until .313" (7.9 mm) protrudes from bore. Fit dust seal into retainer. Position seal assembly on piston extended portion with seal innermost. Seat piston and seal assembly with clamp and retighten bleed screw. Reassemble caliper rim half in same manner.

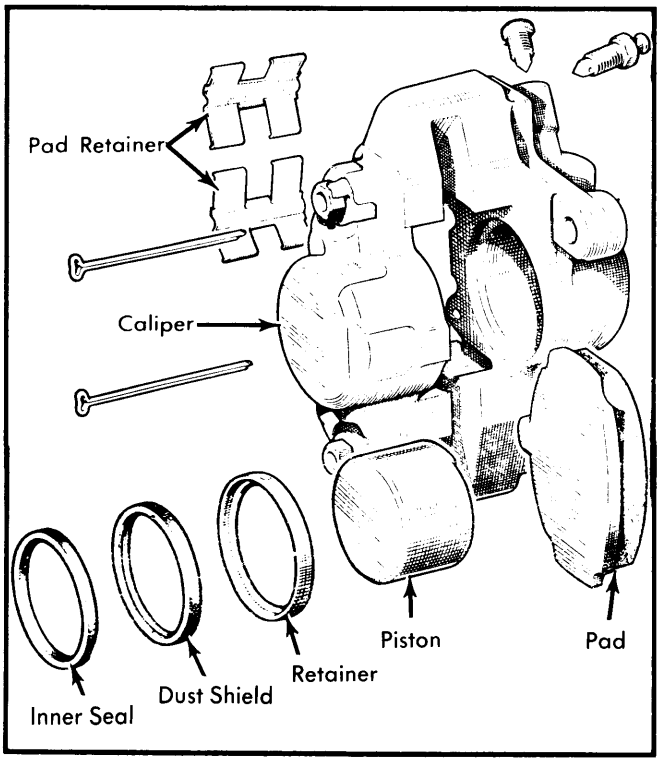

Fig. 4 Exploded View of Front Brake Caliper Assembly

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REAR WHEEL CYLINDER

Disassembly – Pry off dust seals from each end of wheel cylinder. Slide pistons out. Remove seals taking care not to damage the seal groove.

Cleaning & Inspection – Clean all components in alcohol and allow to dry. If cylinder bore shows any signs of scoring or roughness, replace wheel cylinder assembly.

Reassembly – Lightly coat all internal components with brake fluid. Slide in each seal with flat surface toward slotted end of piston. Push piston into bore. Pull seal over end of assembly.

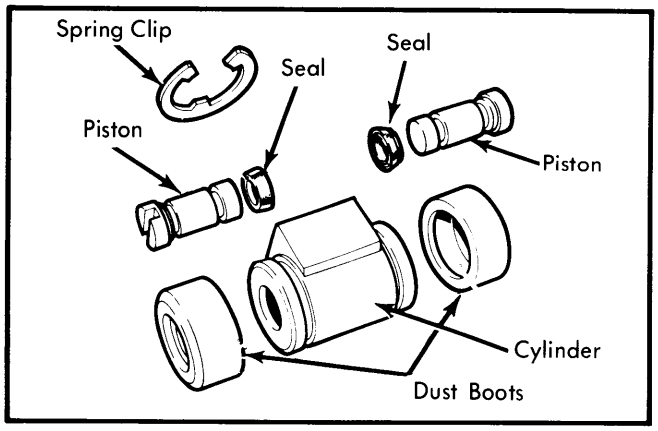

Fig. 5 Exploded View of Rear Wheel Cylinder

MASTER CYLINDER

Disassembly – 1) Remove brake pressure failure switch. Place cylinder in vise and remove reservoir. Take out seal and adapter assembly from primary feed port, then remove secondary port seal. Extract spring clip from cylinder bore and take out primary piston, return spring and cup.

2) Insert a rod into bore and depress secondary piston, take out stop plug from secondary feed port and withdraw secondary piston assembly. Remove pressure differential piston assembly. Pull rubber seals from pistons.

Cleaning & Inspection – Clean all components in brake fluid. Check cylinder bore for scoring or ridges, replace components as required.

Reassembly – 1) Lubricate all components with brake fluid. Fit "O" ring seals to pressure warning piston. Place a shim on primary and secondary pistons. Install seal to both pistons, lip facing away from shim. Fit the thinner of remaining seals to secondary piston with lips toward primary seat. Fit the secondary seal to primary piston with lip toward first seal. Fit return spring and cup to secondary piston and insert assembly.

2) Depress secondary piston and insert stop plug when piston head has passed feed port. Fit return spring and cup to primary piston and insert assembly. Refit spring clip.

3) Reinstall pressure differential valve and fit end plug. Fit "O" ring and seal to primary feed port adapter and install into port recess. Install secondary feed port seal, round edge first. Reposition reservoir and brake pressure switch.

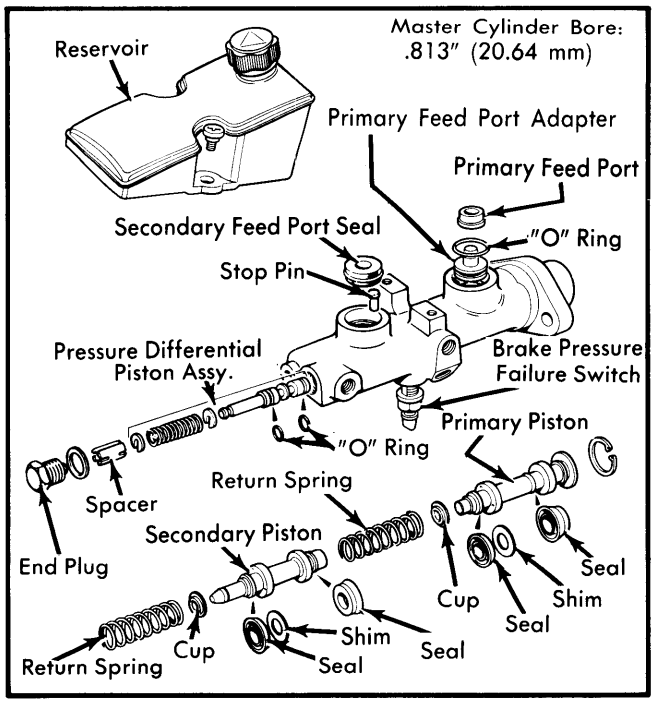

Fig. 6 Exploded View of Master Cylinder Assembly

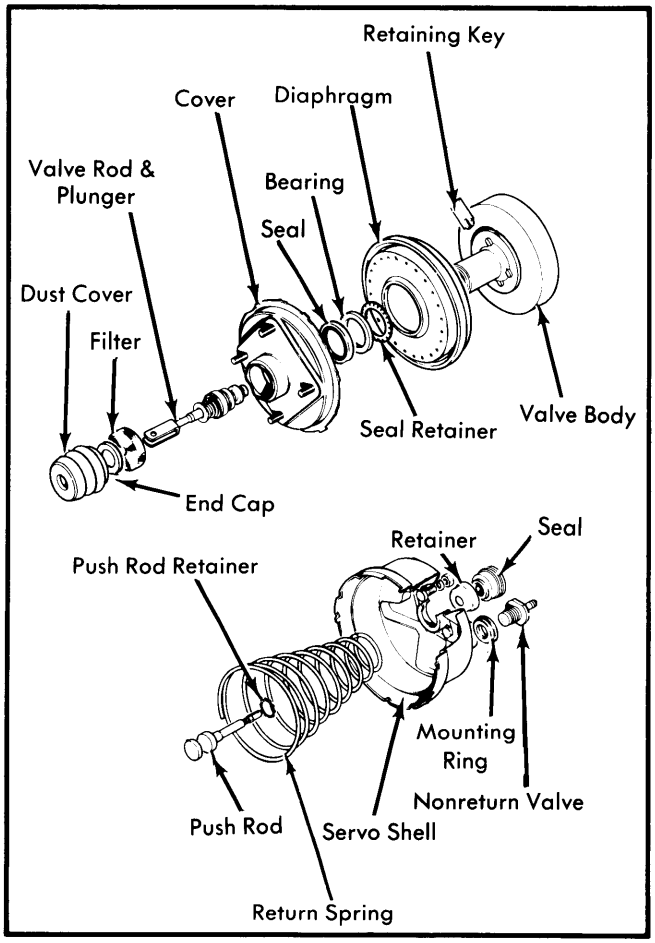

Fig. 7 Exploded View of Power Brake Unit

MGB (Cont.)

POWER BRAKE UNIT

Disassembly – Remove seal and retainer from power brake unit. Mount unit in a vise and mark cover and shell. Remove dust cover and pull out filter. Remove cover by pressing down and turning counterclockwise. Remove seal retainer, bearing and seal from cover. Remove diaphragm from valve body. Push in on valve rod and plunger to release retaining key. Remove remaining components.

Cleaning & Inspection – Clean all components in brake fluid. Check components for wear or damage, replace as necessary. Valve rod and plunger must be replaced as an assembly. Replace all retainers and rubber parts during overhaul.

Reassembly – Coat all rubber components with brake fluid. To reassemble, reverse disassembly procedure and note: Push rod must extend .40" (10.16 mm) from brake unit. Adjust by turning adjuster.

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (mkg)
Caliper Mounting Bolts	43 (6.0)
Hub-to-Rotor Bolts	43 (6.0)

DRUM BRAKE SPECIFICATIONS

Application	Wheel Cyl. Bore Diameter In. (mm)	Drum Diameter In. (mm)	Original Diameter In. (mm)	Maximum Refinish Diameter In. (mm)	Discard Diameter In. (mm)
MGB	.80 (20.3)	10 (254)	10 (254)	.....	.....

DISC BRAKE SPECIFICATIONS

Application	Caliper Bore Diameter In. (mm)	Lateral Runout In. (mm)	Parallelism In. (mm)	Original Thickness In. (mm)	Minimum Refinish Thickness In. (mm)	Discard Thickness In. (mm)
MGB	.....	.006 (.15)	.001 (.025)	.34-.35 (8.6-8.9)	.....	.30-.31 (7.6-7.9)