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1979 Ford/ Mercury SHOP MANUAL



7. Be sure that all recesses, openings and internal passages are open and clean. Place all parts on a clean pan or paper.
8. Inspect the master cylinder bore for signs of etching, pitting, scoring or rust. If necessary to hone the master cylinder bore to repair damage, do not exceed allowable hone specifications.

Assembly

1. Dip all parts except the master cylinder body in clean brake fluid (ESA-M6C25-A) Ford Part No. C6AZ-19542-A or DOT-3 equivalent.
2. Carefully insert the complete secondary piston and return spring assembly in the master cylinder bore (Fig. 17).
3. Install the primary piston assembly in the master cylinder bore.
4. Depress the primary piston and install the snap ring in the cylinder bore groove.
5. Install the pushrod, boot and retainer on the pushrod, if so equipped. Install the pushrod assembly into the primary piston. **Make sure the retainer is properly seated and holding the pushrod securely.**
6. Position the inner end of the pushrod boot (if so equipped) in the master cylinder body retaining groove.
7. Install the secondary piston stop bolt, if used, with an O-ring if screw is on bottom outside of master cylinder casting.
8. Install the bleed screw (if so equipped). Install the gasket (diaphragm) in the master cylinder filler cover. Position the gasket as shown in Fig. 17. **Make sure the gasket is securely seated.**
9. Install the cover and gasket on the master cylinder and secure the cover into position with the retainer.

CLEANING AND INSPECTION

Disc Brakes

1. Remove the wheel and tire from the hub and rotor.
2. Inspect brake shoes and lining for wear. If the lining is worn to within 1/8 inch of the shoe, replace all (4) shoe and lining assemblies (complete axle set) on front or rear wheels as appropriate. The rubber caliper insulators and the plastic sleeves must be replaced when linings are replaced.
3. Visually check the caliper. If the caliper housing is leaking, it should be replaced. If a seal is leaking, the caliper must be disassembled and new seals installed. If a piston is seized in the bore, a new caliper housing is required.

Refer to Part 12-20 for disc brake rotor resurfacing procedure.

Disc Brake Service Precautions

1. Grease or any other foreign material must be kept off the lining surfaces of the rotor, and external surfaces of the hub during service operations. In handling the rotor and caliper assemblies, avoid deformation of the brake rotor and nicking or scratching of brake linings.
2. If a caliper piston is removed for any reason, the piston seal must be replaced.
3. During removal and installation of a wheel assembly, exercise care not to interfere with and damage the caliper splash shield or the bleeder screw fitting.
4. Front wheel bearing end play is critical and must be within specifications.
5. Be sure the vehicle is centered on the hoist before servicing any front end components, to avoid bending or damaging the rotor splash shield on full right or left wheel turns.
6. Riding of the brake pedal (common on left-foot applications) must be avoided during vehicle operation.
7. The wheel and tire must be removed separately from the brake rotor, unlike drum brakes where the wheel, tire and drum can be removed as a unit.
8. Do not attempt to clean or restore oil or grease-soaked brake linings. When contaminated linings are found, brake linings must be replaced in complete axle sets.
9. Always replace rubber caliper insulators and plastic sleeves when replacing linings. **Do not lubricate the slide pins.**

Drum Brakes

1. Remove the wheel from the drum, and remove the drum as outlined in Part 12-02.
2. Removal of dust and dirt from brake assemblies should be done by using the Rotunda brake vacuum (model 340009) or Rotunda brake parts washer (model 650016) or equivalent. Brake assembly dust and dirt should not be removed by either blowing off with an air gun or vacuuming with a standard industrial vacuum because a health hazard from breathing asbestos dust may develop.
3. Inspect the brake shoes for excessive lining wear or shoe damage. If the lining is worn within 1/32 inch of the rivet heads or if the shoes are damaged, they must be replaced. Replace any lining that has been contaminated with oil, grease or brake fluid. Replace lining in axle sets. Prior to replacement of lining, the drum

1. Wash the brake shoes thoroughly in a clean solvent. Dry thoroughly. Remove all burrs or rough spots from the shoes.
2. Check the inside diameter of the brake drum with a brake drum micrometer (Tool 10-0010).
3. Position the new lining on the shoe. Starting in the center, insert and secure the rivets, working alternately towards each end. **Replacement linings are ground and no further grinding is required.**
4. Check the clearance between the shoe and lining. The lining must seat tightly against the shoe with not more than 0.008 Inch clearance between any two rivets.

Wheel Cylinders

Wheel cylinders should not be disassembled unless they are leaking. Carefully pull lower edges of wheel cylinder boots away from cylinders and note whether interior is wet with brake fluid. Excessive fluid at this point indicates leakage past piston cups and a need for wheel cylinder overhaul. **NOTE: A slight amount of fluid is nearly always present and acts as a lubricant for the piston.** It is not necessary to remove the brake cylinder from the backing plate to disassemble, inspect, or hone and overhaul the cylinder. Removal is necessary only if the cylinder is damaged or scored beyond repair.

Disassembly

1. Remove the links and the rubber boots from the ends of the brake cylinder. Remove the pistons,

cups, and return spring and expander assembly from the cylinder bore (Fig. 7).

2. Remove the bleeder screw from the cylinder.
3. Discard all rubber parts and wash all other parts in clean denatured alcohol.
4. Inspect piston for scratches, scoring or other visible damage. Replace if necessary. Always replace the rubber cups and dust boots.
5. Inspect the cylinder bore for score marks or rust. If either condition is present, the cylinder bore must be honed. **However, the cylinder should not be honed more than 0.003 inch beyond its original diameter.**
6. Wash the cylinder with clean denatured alcohol after honing and dry it with compressed air.
7. Check the bleeder hole to be sure that it is open.

Assembly

Use all parts in the wheel cylinder repair kit.

1. Apply a light coating of heavy duty brake fluid to all internal parts.
2. Thread the bleeder screw into the cylinder and tighten securely.
3. Insert the return spring and expander assembly, cups, and pistons into their respective positions in the cylinder bore (Fig. 7). Place a boot over each end of the cylinder.

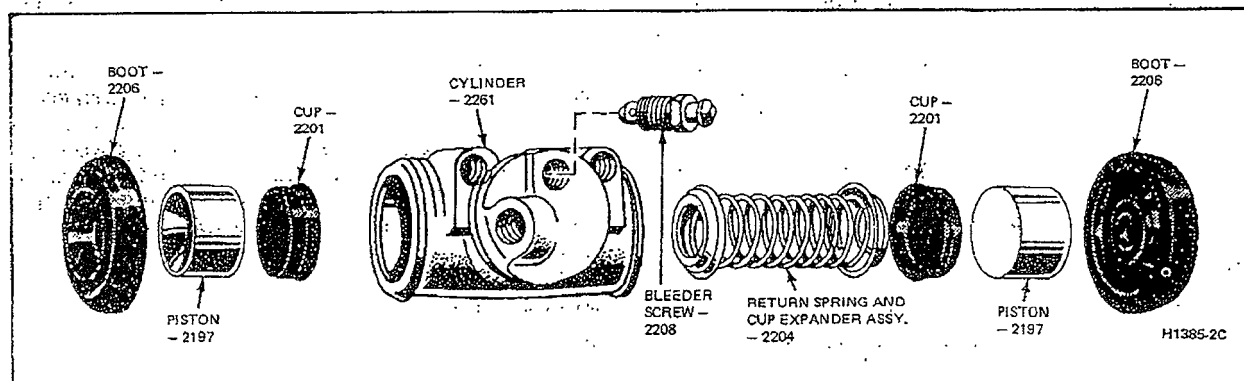


FIG. 7 Brake Wheel Cylinder—Typical