FORD MOTOR CO. SLIDING CALIPER DISCS

F-100/250 – Through 6200 GVW (1973-74)

DESCRIPTION

Sliding caliper disc brake assembly uses a single piston caliper mounted to a one piece spindle stem, steering arm and supporting member. Ventilated rotor is integrally cast with wheel hub. As brake pedal is depressed, hydraulic pressure is passed through a proportioning valve to the brake caliper piston. This force is transmitted to inboard disc pad and against braking surface. As force increases against inboard side, caliper slides inward, providing vise-like clamping action on rotor.

ADJUSTMENT & SERVICING

DISC PAD ADJUSTMENT

Pad wear is automatically compensated for by piston sliding outward in cylinder bore; therefore, no disc pad adjustment in service is required.

PRESSURE DIFFERENTIAL VALVE ADJUSTMENT

With ignition switch in "ON" or "ACC" position, slowly depress and release brake pedal until pressure differential valve is centered and warning light goes off. Bring fluid level in master cylinder to within ¼" of top and turn ignition switch to "OFF" position.

BLEEDING SYSTEM

See Hydraulic Brake Bleeding in this Section.

REMOVAL & INSTALLATION

DISC BRAKE PADS

NOTE – Always replace both disc pad assemblies on an axle together. Never service one wheel only.

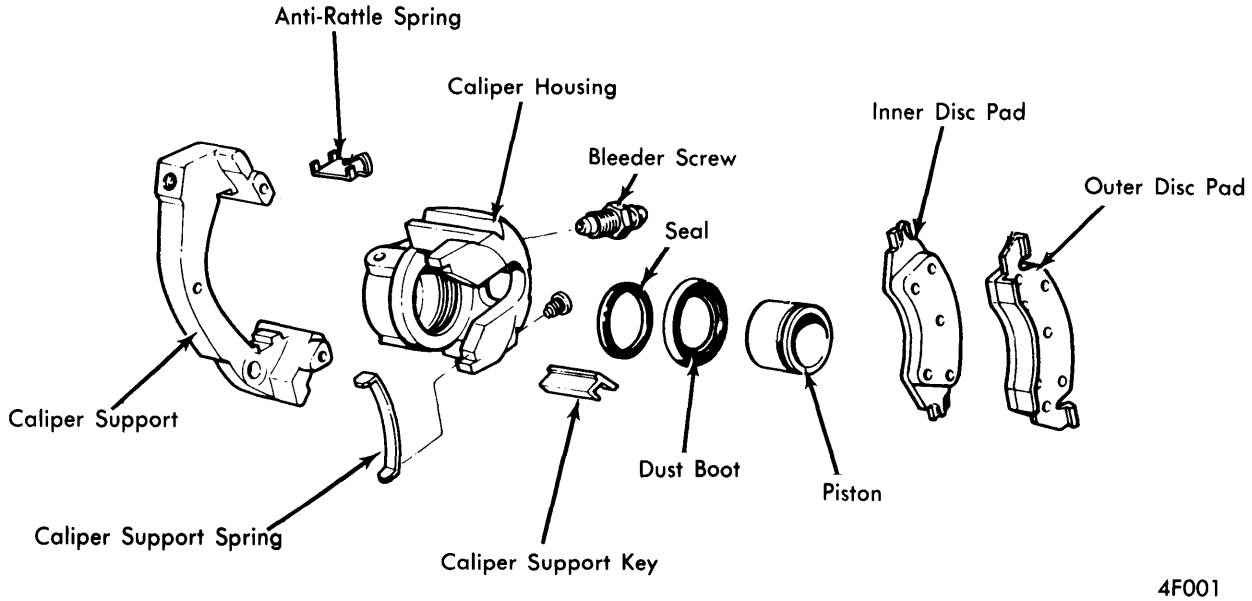
Removal – 1) To prevent master cylinder overflow when caliper piston is depressed, remove a small amount of brake fluid from master cylinder. Raise vehicle and remove front wheel. Place a large C-clamp on caliper, and tighten clamp to bottom piston in cylinder bore. Remove clamp.

2) Remove key retaining screw, then, using a brass rod and light hammer, drive out caliper support spring. Remove caliper from spindle by pushing it downward against spindle and rotating upper end upward and out of spindle. *CAUTION – Lay caliper on tie rod or support with wire. Do not let caliper hang with its weight on brake hose.*

3) Remove outer disc pad from caliper. It may be necessary to tap pad to loosen pad flange from caliper. Remove inner disc pad from spindle assembly, then remove pad anti-rattle clip from spindle.

Installation – 1) Install new anti-rattle clip in spindle. Place lower end of inner pad into spindle against anti-rattle clip and slide upper end of pad into position. Be sure clip is still in position.

2) With caliper piston fully bottomed in cylinder bore, position outer pad on caliper and press shoe tabs into place. If shoe cannot be pressed into place by hand, use a large C-clamp.



SLIDING CALIPER ASSEMBLY

FORD MOTOR CO. SLIDING CALIPER DISCS (Cont.)

3) Install caliper on spindle by pivoting caliper around upper mounting surface. While holding caliper against upper surface of spindle, install new caliper support spring and new caliper support key. Using a soft hammer, drive key and spring into position, then install key retaining screw. Refill master cylinder and lower vehicle.

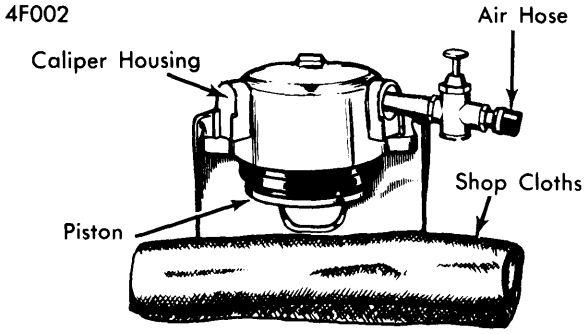
BRAKE CALIPER

Removal & Installation – Caliper removal and installation procedures are same as for disc pad replacement, except it will be necessary to disconnect brake hose.

OVERHAUL

BRAKE CALIPER

Disassembly – 1) With caliper assembly clean, to prevent contamination, remove plug from caliper inlet port and drain fluid from caliper housing. Place caliper assembly on bench with piston side up and place several shop cloths between piston and outer legs of caliper housing.



CALIPER PISTON REMOVAL

2) Slowly and carefully apply air pressure to caliper inlet port until piston comes out of caliper housing. *CAUTION – Use low air pressure to remove piston. High pressure may cause piston to pop out with considerable force.* If piston is seized, tap lightly on end of piston with soft-faced hammer to free piston.

3) Remove boot from piston and seal from cylinder bore. Clean caliper housing and piston with denatured alcohol. Check cylinder bore, seal groove and boot groove for damage or excessive wear. Replace piston if pitted.

Reassembly – To assemble caliper, soak all parts in suitable brake fluid and reverse disassembly procedure. Use large C-clamp to seat piston in cylinder bore.

DISC ROTOR SERVICING

Maximum of .010" material may be taken equally off each braking surface. Finished braking surfaces of rotor must be parallel within .001". Lateral runout must not exceed .003".

BRAKE SPECIFICATIONS

Application	Dimension
Disc Pad Wear Limit	.030" Above Rivet Heads
Caliper Piston Diameter	2.875"
Disc Rotor Diameter	11.72"
New Rotor Thickness	1.185"
Resurfaced Rotor Thickness (Minimum)	1.120"
Rotor Runout (Maximum)	.003"
Rotor Thickness Variation (Maximum)	.001"