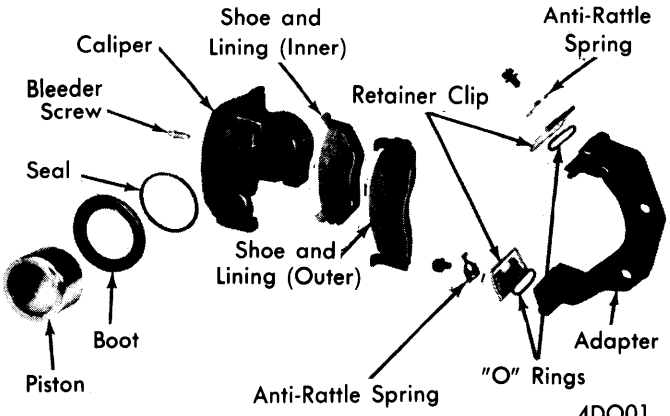
CHRYSLER CORP. SINGLE PISTON DISC

Chrysler Corp. (All Models)

DESCRIPTION

The disc brake assembly consists of a caliper, disc pads, splash shield, adapter, and rotor. The rotor has integrally cast cooling fins between machined braking surfaces. As the brake pedal is depressed, hydraulic pressure is applied against the piston located in the caliper assembly. This force is transmitted to the inboard disc pad and against the braking surfaces. As the forces increase against the inboard side, the caliper slides inward providing full clamping force on the rotor. Calipers are mounted in two ways. Sliding caliper is mounted on two machined pads and held in position by two retaining clips and anti-rattle springs. Floating caliper is mounted with two steel guide pins mounted through four rubber bushings.



SLIDING CALIPER ASSEMBLY

ADJUSTMENT

SERVICE BRAKES

Disc brakes are self-adjusting. Caliper piston seals are designed to retract pistons just enough to allow brake lining to lightly brush disc without any drag.

SERVICING

BLEEDING SYSTEM

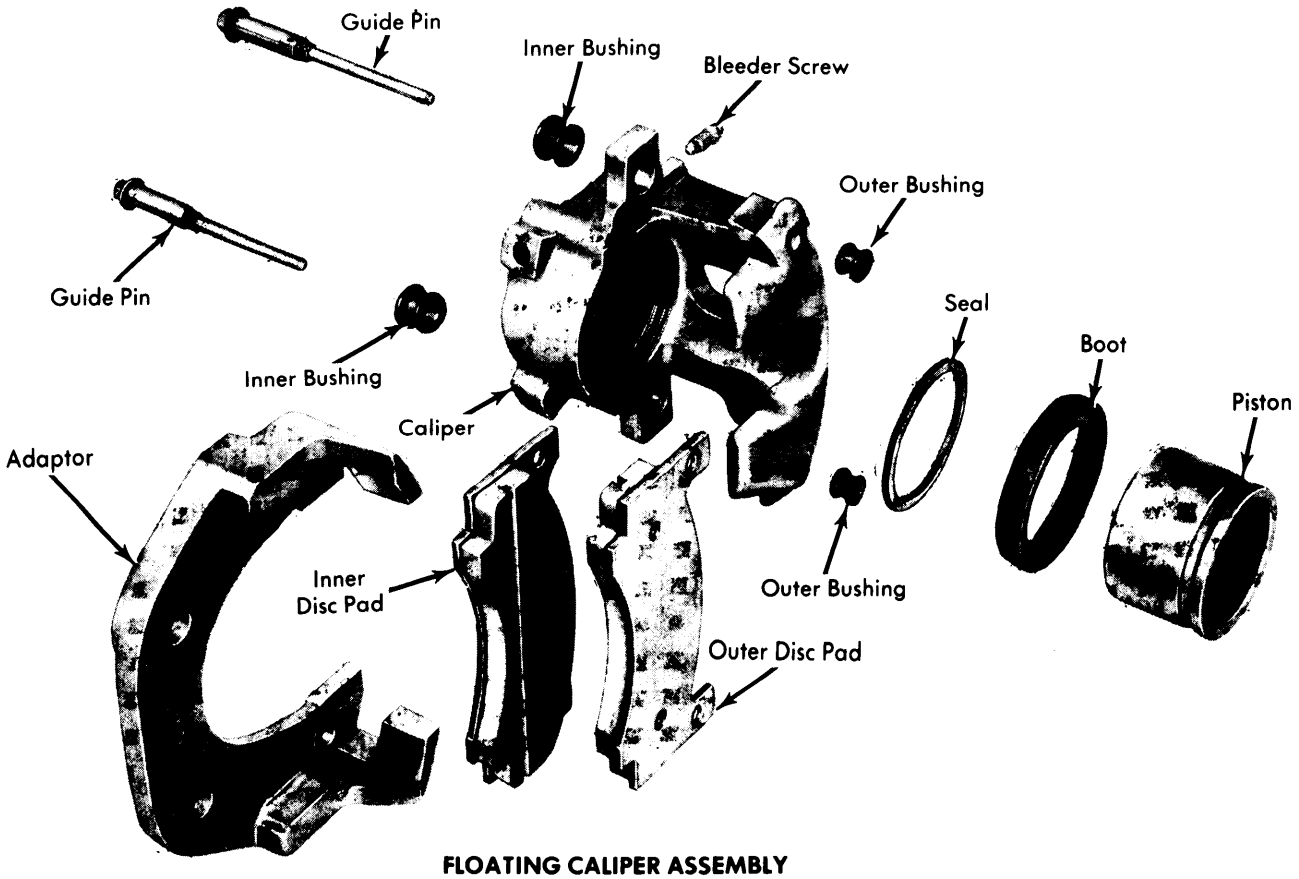
See Hydraulic Brake Bleeding in this section.

DISC PAD INSPECTION

Inspect condition of disc pads any time wheels are removed. Disc pads should be replaced if there is less than .03" lining left anywhere on pad.

BRAKE PAD REPLACEMENT

Removal (Sliding Caliper) – Raise vehicle and position on safety stands. Remove wheel and tire. Remove retaining clips and anti-rattle springs. Slowly slide caliper out and away from rotor. Remove outer pad by prying away from caliper. Support caliper with a piece of wire to prevent damage to brake line. Remove inner pad.



FLOATING CALIPER ASSEMBLY

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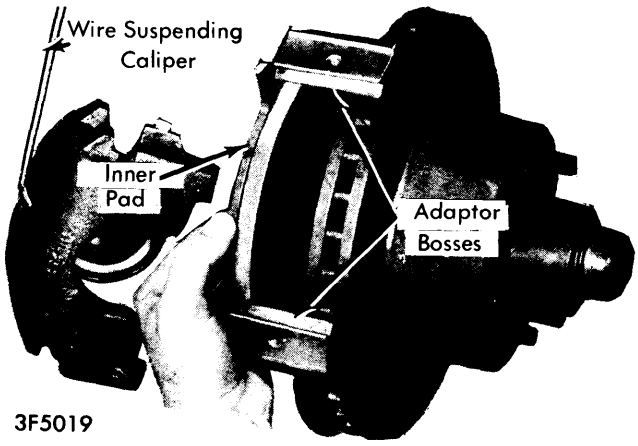
Installation – Slowly push piston back into bore until it is bottomed. Slide new outer pad into caliper recess. *NOTE – There should be no free play between pad flange and caliper flange.* If there is free play, remove pad and bend flange on pad to create a slight interference fit. Position inner pad in adapter. Position caliper over rotor and into place. Install retainer clips and anti-rattle springs. Tighten retaining screws to specification. Check and fill master cylinder. Pump brake pedal until a firm pedal is obtained. Bleed system if necessary.

Removal (Floating Caliper) – Raise vehicle and position on safety stands. Remove wheel and tire. Remove guide pins, positioners and anti-rattle spring. Carefully pull caliper off away from rotor. Support caliper with a piece of wire to prevent damage to brake line. Slide outer pad out of caliper and inner pad out of adapter. Remove inner and outer bushings from caliper.

Installation – Install new inner and outer bushings in caliper. Push piston back into bore until it is bottomed. Slide new disc pads into caliper and adapter. Make sure metal portion of pad is fully in recess of caliper and adapter. Thinner pad is installed on outside of caliper. With outer pad held in position, position caliper over rotor and into position on adapter. Align guide pin holes in adapter, and inner and outer pads. Install guide pins in bushings, caliper, adapter and inner and outer pads. Thread pins into adapter. Tighten guide pins to specifications. Pump brake pedal until a firm pedal is obtained. Check and refill master cylinder if necessary. Bleed system if necessary.



REMOVING OR INSTALLING INNER PAD

ROTOR SERVICING

Lateral Runout – Tighten wheel bearings until all endplay is eliminated. Attach dial indicator to suspension such that dial pointer contacts rotor face approximately one inch from outer edge. Turn rotor through one complete revolution, checking indicator as rotor moves. If runout exceeds specifications, refinish or replace rotor assembly as necessary.

Parallelism – Measure thickness of rotor at four or more points around rotor. Make all measurements at same distance from edge of rotor. If rotor does not meet specification, refinish or replace rotor assembly as necessary.

REMOVAL & INSTALLATION

BRAKE CALIPER

Caliper removal and installation procedures are same as for disc pad assembly replacement, except it will be necessary to disconnect brake hose. *See Brake Pad Replacement.*

HUB & ROTOR

Removal – Raise and support vehicle, then remove wheel and tire assembly. Remove caliper assembly and suspend with wire or hook to avoid damage to brake hose. Remove grease cap, cotter pin, nut lock, thrust washer and outer wheel bearing, then remove hub from wheel spindle.

Installation – Slide rotor and hub assembly onto spindle. Install outer wheel bearing, thrust washer and nut. Tighten nut to 240-300 Inch lbs. while rotating hub. Back off nut to release all preload, then tighten nut finger tight. Position lock on nut, then install cotter pin and grease cap. Clean both sides of rotor with alcohol or suitable solvent, then install caliper assembly.

OVERHAUL

Disassembly – With caliper removed from rotor (brake hose still attached), carefully depress brake pedal to hydraulically force piston out of bore. Pedal will fall away when piston has passed bore opening. Support brake pedal to any position below first inch of pedal travel to prevent fluid loss. *NOTE – Chrysler Corp. recommends that compressed air not be used to remove piston from caliper.* Disconnect brake hose from caliper, mount caliper in padded vise. Do not clamp unit too tightly. Remove dust boot, and using a small wooden or plastic stick, pry seal from caliper bore groove. Discard seal. On floating calipers, press out inner and outer bushings.

Cleaning & Inspection – Clean all components, using denatured alcohol, and air dry. Blow out all passages and bores. Inspect piston and bore for scoring or pitting. Clean light scoring or corrosion with crocus cloth. On Chrysler Corp. vehicles, bores with deep scoring may be honed, providing diameter of bore is not increased more than .001". If specification is exceeded, replace caliper.

Assembly (All) – Dip new piston seal in clean disc brake fluid or other specified fluid and install in bore groove. Coat piston boot with lubricant (leave generous amount in boot). Install boot in caliper outer groove. Plug fluid inlet port and bleeder screw hole, coat piston with disc brake fluid, spread boot with fingers, and insert piston. Entrapped air below piston will force boot around piston. Remove plugs and push piston to bottom of bore. Install new inner and outer bushings in caliper. *NOTE – Before installing caliper, check condition of rotor, as described under ROTOR SERVICING.*

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DISC BRAKE ROTOR SPECIFICATIONS

Application	Disc Diameter	Lateral Runout	Parallelism	Original Thickness	Minimum Refinish Thickness	Discard Thickness
Gran Fury, Monaco, Chrysler	11.75"	.004"	.0005"	1.240-1.250"	.....	1.180"
All Others	10.98"①	.004"	.0005"	1.000-1.010"	.....	.940"

① – Diameter is 11.75" for Fury, Coronet and Charger SE after 1-1-76.

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs.
Banjo Fitting-to-Caliper	19-29
Brake Hose-to-Caliper	15-35
Adapter Bolts	95-125
Sliding Caliper Retaining Bolts	170-260 In. Lbs.
Floating Caliper Guide Pins	25-40
Splash Shield Bolts	160 In. Lbs.
Wheel Lug Nuts	85