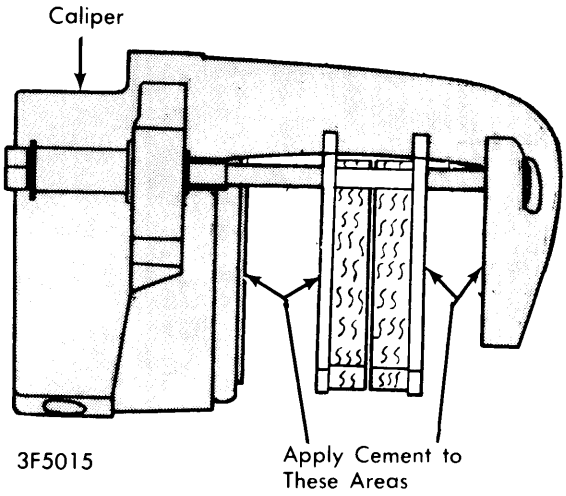
1973 FLOATING CALIPER SINGLE PISTON DISC

American Motors (1973)
Chrysler Corp., Exc. Dart & Valiant (1973)
Cougar (1973)
Mustang (1973)

▶ CHANGES, CAUTIONS, CORRECTIONS

▶ *1970-73 CHRYSLER CORP. BRAKE SQUEAL NOTE:* Brake squeal, occuring on light brake applications at speeds below 40 MPH, may be caused by vibrating disc pad assemblies. Correct any abnormal conditions (worn lining, scored rotor, worn pins or bushings) prior to repair of vibration. Vibration may be result of improper bonding of pad assemblies to caliper. Re-cement assemblies, using suitable cement (Chrysler No. 3683897).



CALIPER REPAIR (CHRYSLER)

DESCRIPTION

American Motors & Chrysler Corp. – Caliper assembly floats through four rubber bushings, on two steel guide pins. Guide pins are threaded into adaptor and are also used to radially locate and retain both disc pad assemblies. Brake unit consists of hub and rotor, floating caliper, disc pad assemblies, splash shield, and adaptor.

Ford Motor Co. – Floating caliper moves on two locating pins, which are inserted through stabilizer and pin insulators. Outer disc pad assembly is longer than inner assembly; therefore, parts are not interchangeable. Brake unit consists of hub and rotor, floating caliper, anchor plate, disc pad assemblies, stabilizer, and splash shield.

ADJUSTMENT

Shoe wear is automatically compensated for by floating caliper feature; therefore, no adjustment, in service, is necessary.

SERVICING

BLEEDING SYSTEM

See HYDRAULIC BRAKE BLEEDING in this Section.

SHOE & LINING INSPECTION

Inspect condition of disc pad assemblies any time wheels are removed. If any disc pad wears to within the following limits, replace complete disc pad set.

Application	Wear Limit
American Motors	Approx. Thickness of Shoe
Chrysler Corp.	15/64"
Ford Motor Co.	1/32"

SHOE & LINING REPLACEMENT

Removal (American Motors & Chrysler Corp.) – Remove approximately 2/3 of fluid from master cylinder. *NOTE – Do not completely empty master cylinder or disconnect hydraulic lines, as air will enter system.* Raise and support vehicle. Remove front wheels. Remove caliper guide pin, positioners (attaching caliper to adaptor), and anti-rattle springs. Lift caliper from rotor and support caliper to take strain from brake hose. Remove disc pad assemblies. Remove inner and outer bushings. Discard all bushings and positioners.

Removal (Ford Motor Co.) – Remove approximately 2/3 fluid from master cylinder. *NOTE – Do not completely empty master cylinder or disconnect hydraulic lines, as air will enter system.* Raise and support vehicle. Remove front wheels. Disconnect (and plug) brake hose from caliper. Remove caliper locating pins and lower stabilizer attaching bolts. Discard stabilizer. Lift caliper from anchor plate. From anchor plate, remove inner disc pad hold down clips and locating pin insulators; then, remove inboard disc pad. Place small screwdriver under outer disc pad retaining clip and lift away from pin groove. Slide clip from retaining pin. Remove other retaining clip and outer disc pad.

Installation (American Motors & Chrysler Corp.) – Push piston to bottom of bore. Install new inner guide pin bushings (flanged end inboard). Compress flange of outboard bushings and work into position from outside. Slide new pad assemblies into position. Holding pads in position, install caliper assembly over rotor. Ensure metal plate of pad is fully recessed in caliper. *NOTE – On Chrysler Corp. models, thinner shoe is on outboard side.* Install new positioners over guide pins (open end toward outside). Insert assembled pins from inboard side, press in, and thread into adaptor. Torque to specification. Refill master cylinder and pump brakes until firm pedal is obtained. If necessary, bleed system.

Installation (Ford Motor Co.) – Install new inner disc pad in anchor plate. Install new caliper locating pin insulators (supplied in service kit). *NOTE – Use cloth to protect insulators during assembly.* Ensure both insulator flanges straddle anchor plate. Install inner disc pad hold down clips and torque retaining screws to specifications. Press piston to bottom of bore. Install outer disc pad on caliper and install retaining clips (hold retaining pins in position with Allen wrench, while installing clips). Place caliper assembly over rotor. Hold outer pad against rotor surface during installation in anchor plate (to prevent pinching piston boot). Position new stablizer. Apply water to locating pins and attach stabilizer to caliper. *NOTE – Ensure pins are free of oil, grease, and dirt.* Torque locating pins to specifications. Bleed system and refill master cylinder. Pump brakes to obtain firm pedal before moving vehicle.

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ROTOR SERVICING

Lateral Runout – Tighten wheels 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, replace rotor assembly. Readjust bearings.

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, replace with new assembly.

Rotor Specifications

Discard Thickness	
American Motors	.940"
Chrysler Corp.	
Challenger, Satellite, Coronet, Charger, Barracuda	1.180"
Polara, Monaco, Fury, Chrysler, Imperial	.940"
Ford Motor Co.	① .875"
Lateral Runout	
American Motors	.005"
Chrysler Corp. & Ford Motor Co.	.004"
Parallelism	
American Motors & Chrysler Corp.	.0005"
Ford Motor Co.	.0007"

① – Minimum SAFE thickness is shown on each rotor.

REMOVAL & INSTALLATION

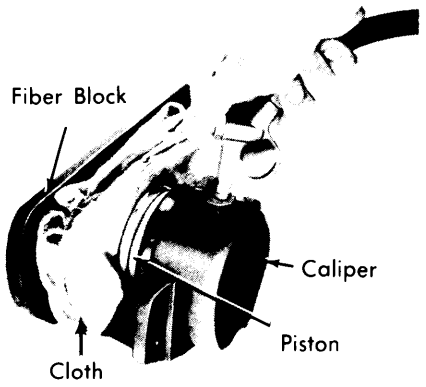
BRAKE CALIPER

Caliper assembly removal is same procedure as for lining replacement, except it will be necessary to disconnect brake hose at caliper. *NOTE – On Chrysler Corp. models, do not disconnect brake hose until piston is removed from caliper (for overhaul), see OVERHAUL procedures.*

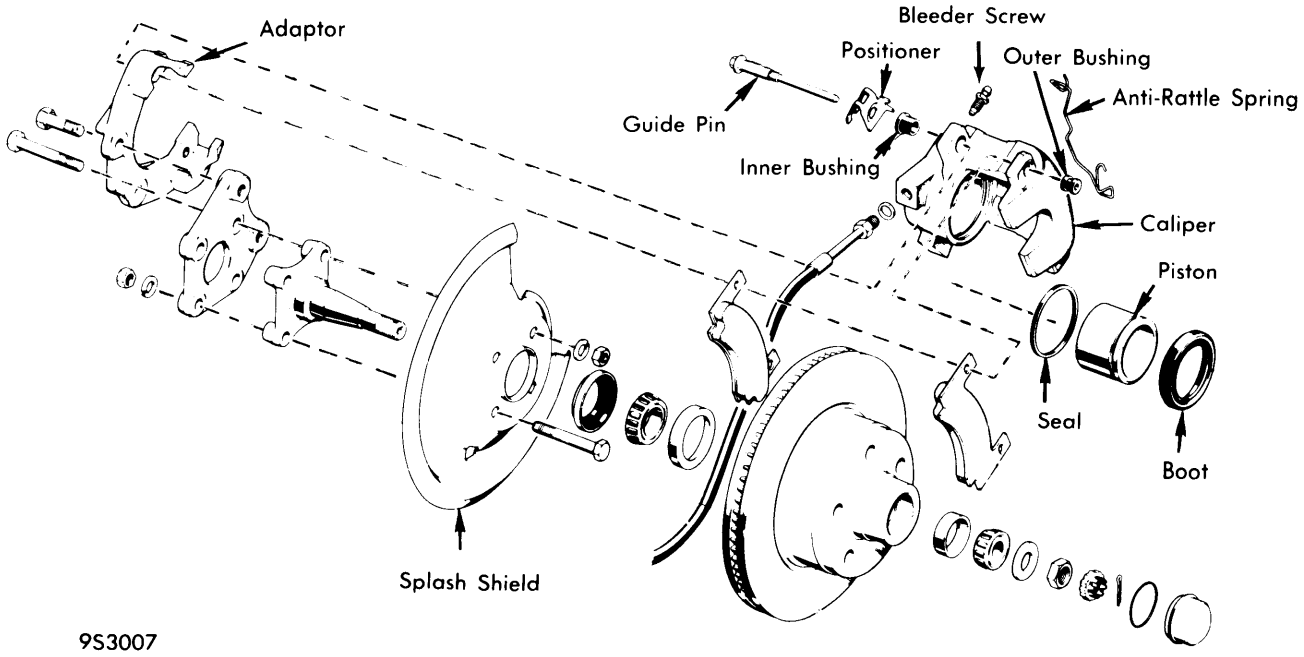
OVERHAUL

BRAKE CALIPER

Disassembly (American Motors & Ford Motor Co.) – Open bleed screw and drain brake fluid from caliper assembly. Mount caliper in padded vise. Do not clamp too tightly. Remove piston from bore, using air pressure through fluid inlet port. *CAUTION – Care must be exercised.* Place cloth over piston to prevent damage. Allow dust boot to remain in bore as piston is withdrawn. Remove caliper from vise and extract dust boot. Using a small wooden or plastic stick, work piston seal out of bore groove. Discard seal. Remove bleeder screw.



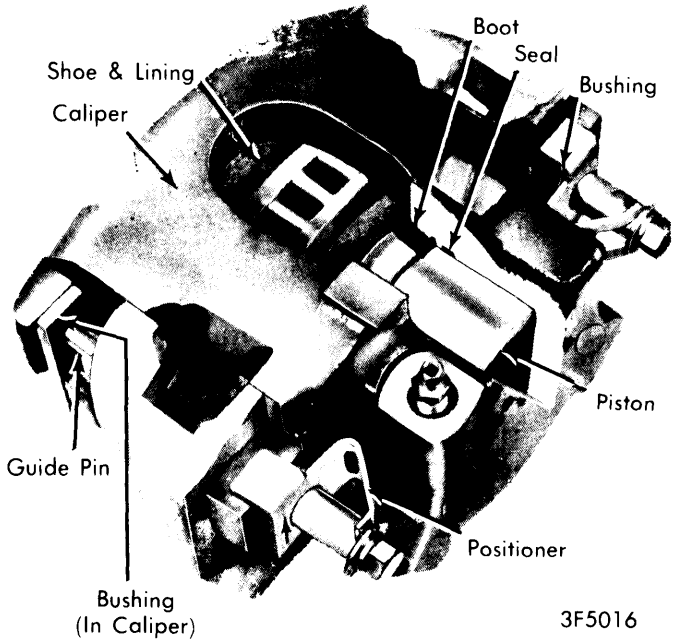
REMOVING PISTON (EXC. CHRYSLER CORP.)



CALIPER ASSEMBLY (EXPLODED)

1973 FLOATING CALIPER SINGLE PISTON DISC (Cont.)

Disassembly (Chrysler Corp.) – With caliper assembly removed from rotor (brake hose still attached), support caliper and remove dust boot. Carefully depress brake pedal, to hydraulically push piston out of bore. *NOTE – Chrysler Corp. recommends that compressed air not be used to remove piston from caliper.* Brake pedal will fall away when piston has passed bore opening. Prop pedal to any position below first inch of pedal travel (to prevent fluid loss). Disconnect and plug brake hose from tube at frame bracket. *NOTE – Hose must be plugged before piston can be removed from caliper on other wheel.* Mount caliper in padded vise. Do not clamp too tightly. Using small wooden or plastic stick, work piston seal out of bore groove. Discard seal. Remove bleeder screw.



CALIPER ASSEMBLY (INSTALLED)

Cleaning & Inspection (All) – Clean all components with denatured alcohol or brake fluid and wipe dry, using clean, lint free cloth. Blow out all passages and bores with compressed air. Inspect piston bore for scoring, pitting, or corrosion. A corroded or deeply scored caliper should be replaced. Polish any lightly scored or discolored area with crocus cloth. Check piston for any similar abnormalities. Check for proper side clearance of piston in bore. Clearance should be .002-.006". If excessive clearance exists, replace caliper assembly.

Assembly (All) – Coat new piston seal and new boot with clean disc brake fluid and install in bore groove. Coat piston generously with brake fluid, spread boot with fingers, work piston into boot, and press down until piston bottoms. Install new inner guide pin bushings in caliper, with flanged end on inboard side. Compress flanges of outboard bushing in fingers and work into position in hole from outboard side. *NOTE – Before installing caliper, check rotor, as described under ROTOR SERVICING.* Attach brake hose to caliper. Install caliper on rotor, *see procedure under SHOE & LINING REPLACEMENT.*

COMBINATION VALVE

Valve is non-serviceable and must be replaced, if defective.

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs.
American Motors	
Caliper Mounting Bolt	80
Brake Hose-to-Caliper	25
Wheel Attaching Nuts	75
Chrysler Corp.	
Brake Hose-to-Tube	80-105 INCH Lbs.
Adaptor Mounting Bolt	75-100
Guide Pins	25-35
Splash Shield	220 INCH Lbs.
Combination Valve-to-Frame	200 INCH Lbs.
Ford Motor Co.	
Caliper-to-Spindle	
Upper ①	100-140
Lower	55-75
Splash Shield-to-Spindle	9-14
Brake Hose-to-Caliper	17-25
Caliper Locating Pins	25-35
Stabilizer-to-Anchor Plate	8-11
Disc Pad Hold Down Clips	6-10
Bleeder Screw	6-15
Combination Valve-to-Frame	7-11
Wheel Attaching Nuts	70-115

① – Upper bolts must be tightened first. Use new bolts.