

1969-72 KELSEY-HAYES (EXCEPT FORD) SINGLE PISTON DISC

American Motors (1971-72)
 Chrysler & Imperial (1969-72)
 Dodge (1969-72)
 Plymouth (1969-72)

NOTE - Late 1972 Fursys, Polaras, Monacos and Chryslers equipped with disc brakes use a new one piece hub and disc assembly. This new assembly cannot be used in place of the old assembly.

DESCRIPTION

Single piston, floating caliper ventilated disc type, actuated by hydraulic system. Disc (rotor) is fixed to front wheel hub. Adapter plate is bolted to spindle arm. Caliper assembly floats through four rubber bushings on two steel guide pins threaded into adapter. Single cylinder bore contains piston with molded rubber dust boot which seals cylinder bore and returns piston to released position. Rubber piston seal provides seal between cylinder and piston. Guide pins are used to radially locate and restrain both shoes. Balanced braking between front and rear brakes is accomplished by a pressure metering valve.

ADJUSTMENT

No adjustments are required on brakes or metering valve. Disc brakes are self-adjusting.

SERVICING

Bleeding System

See "Hydraulic Brake Bleeding" in this section.

Lining Replacement

Removal - Remove caliper guide pins and positioners that attach caliper to adapter. Remove caliper from disc. Slide outboard shoe and lining assembly out of caliper. Slide inboard shoe and lining assembly out of caliper. Remove outer bushings from caliper by pressing out of bore using a suitable tool. Remove inner (flanged) bushings and

positioners from guide pins. Discard all bushings and positioners.

Installation - **NOTE** - When installing new shoe and lining assemblies, it will be necessary to install new positioners, inner bushings, and outer bushings. Slowly push piston back into bore until bottomed. Watch for possible reservoir overflow. Install new inner guide pin bushings in caliper with flanged end on inboard side. Compress flanges of outboard bushing with fingers and work into position in hole from outboard side of caliper. Slide new shoe and lining assemblies into position in adapter and caliper. Make sure metal portion of shoe is fully in recess of caliper and adapter. Holding outboard lining in position, carefully slide caliper down into position in adapter and over disc. Align guide pin holes of adapter with inboard and outboard shoes. Install new positioners over guide pins with open ends toward outside and with stamped arrows pointing upwards. Install assembled guide pins and thread pin into adapter. Tighten to specifications. Be sure tabs of positioners are over machined surfaces of caliper. Pump pedal several times until a firm pedal is obtained.

REMOVAL & INSTALLATION

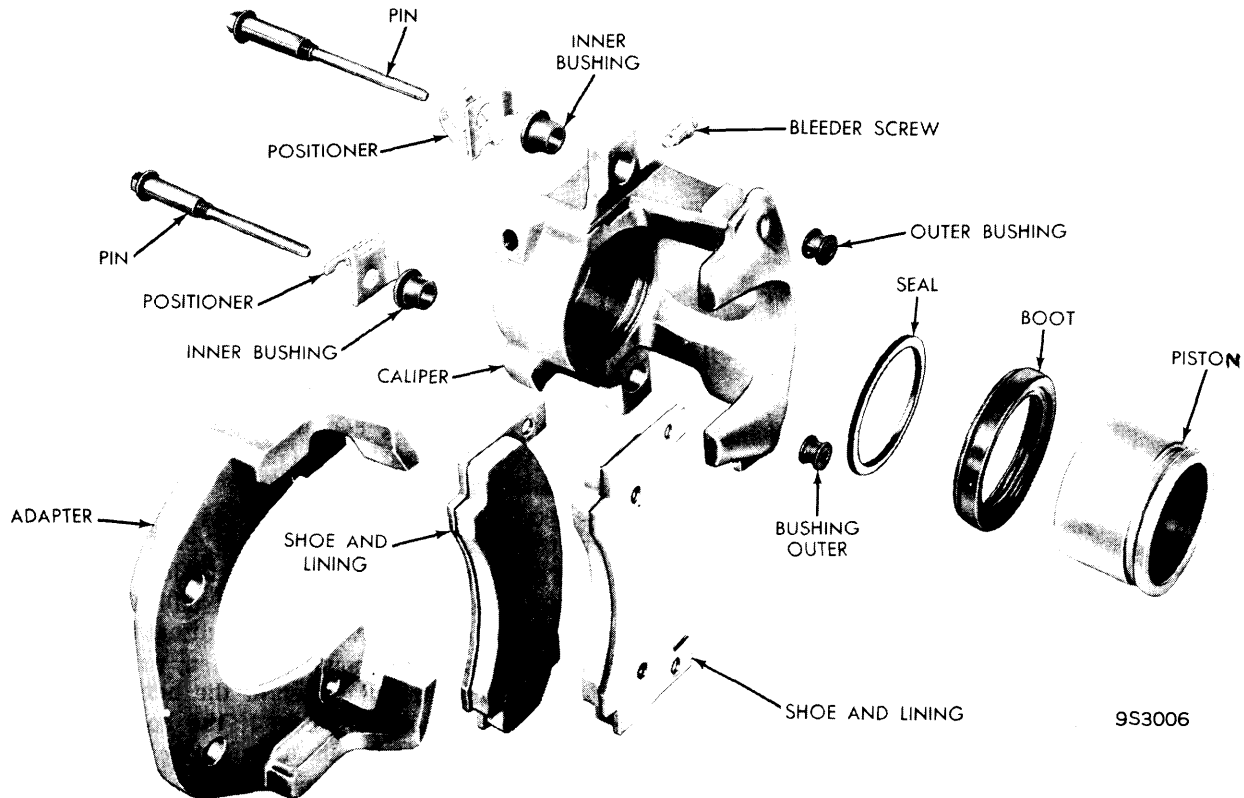
Brake Caliper

Removal - Remove wheel and tire from hub and rotor assembly. Disconnect brake line from caliper. Remove guide pins and positioners that attach caliper to adapter. Lift caliper assembly off hub and rotor.

Installation - Follow procedure outlined in "Lining Replacement - Installation".

Brake Rotor

Removal - Raise vehicle and remove wheel and tire assembly. Remove caliper assembly (Do not disconnect

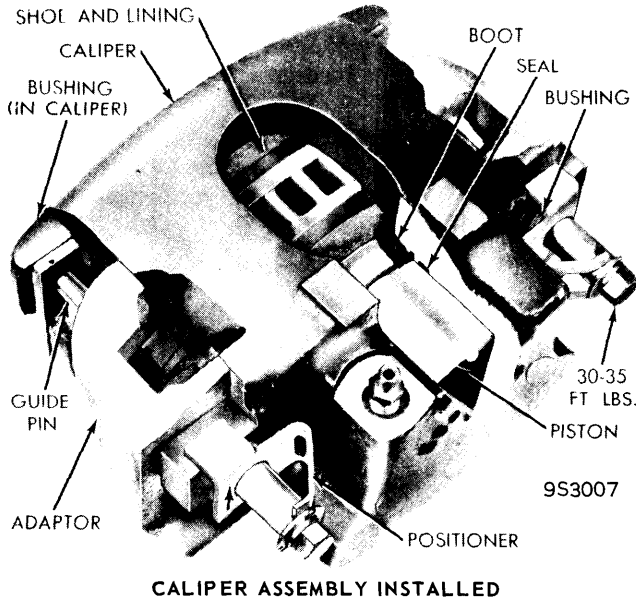


CALIPER ASSEMBLY (EXPLODED)

1969-72 KELSEY-HAYES (EXCEPT FORD) SINGLE PISTON DISC (Cont.)

brake line). Suspend caliper from wire hook or loop to avoid strain on flexible hose. Remove grease cap, cotter pin, nut lock, nut, thrust washer and outer wheel bearing. Pull disc and hub off wheel spindle.

Installation - Slide brake disc and hub assembly on spindle. Install outer bearing, thrust washer and nut. Adjust wheel bearing to specifications. Clean both sides of braking disc with alcohol or suitable solvent. Install caliper assembly.



OVERHAUL

Metering And/Or Proportioning Valve

Valve not serviceable. Replace if defective.

Brake Caliper

Disassembly - Mount caliper assembly in vise equipped with protector jaws. **CAUTION** - Excessive vise pressure will cause bore distortion and binding of piston. Remove dust boot. Using suitable tool remove piston from caliper. Use care not to scratch, burr or damage piston on outside diameter. Using small, pointed, wooden or plastic stick, work piston seal out of its groove in piston bore. Discard old seal. Remove outer bushings from caliper by pressing out of bore. Discard old bushings. Remove inner bushing and discard. Remove bleeder screw.

Cleaning & Inspection - Clean all parts in alcohol or suitable solvent and blow dry. Blow out all drilled passages and bores. **NOTE** - Whenever a caliper has been disassembled, a new boot and seal must be installed at re-assembly. Inspect piston bore for scoring or pitting. Install a new piston if pitted, scored or the plating is severely worn. Light scratches or scoring should be cleaned up with crocus cloth. Bores that have deep scratches should be honed. **NOTE** - Bore diameter should not be increased more than .002". If bore does not clean up within .002" specification a new caliper housing should be installed. After honing bore carefully clean seal and boot grooves with a stiff non-metallic rotary brush. After honing use extreme care in cleaning caliper. Flush caliper with clean brake fluid and wipe dry with clean, lintless cloth.

Assembly - Clamp caliper in vise. Dip new piston seal in lubricant (supplied with kit) Ucon #LB1145Y24 (or equivalent)

and install in groove in bore. Coat new piston boot with lubricant leaving a generous amount of lubricant inside of boot. Install in caliper by working into outer groove, using fingers only. Plug high pressure inlet to caliper and bleeder screw hole, then coat piston with generous amount of lubricant (as specified above). With fingers spreading boot, work piston into boot and press down on piston. The trapped air below piston will force boot around piston and into its groove as piston is depressed. Remove plug and carefully push piston down bore until bottomed. Install inner guide pin bushing in caliper with flanged end on inboard side. Compress flanges of outboard bushing in with fingers and work into position in hole from outboard side of caliper. Press in on bushing, using fingers or small plastic stick until seated. **NOTE** - Be sure flanges extend over caliper casting evenly on both sides. Install bleeder screw.

Braking Disc

Inspection - Before installing caliper assembly on vehicle, inspect braking disc. Mount dial indicator C-3339 on steering arm with plunger contacting disc approximately one inch from edge of disc. With wheel bearings adjusted to zero end play, lateral runout (both sides of disc) should not exceed .0025". If runout exceeds specifications, replace disc and hub assembly or reface disc. **NOTE** - When refacing disc, remove equal amounts from each side. Thickness variation of disc should be measured at twelve equal points with a micrometer at a radius approximately one inch from edge of disc. If thickness measurements vary by more than .0005", disc should be refaced or a new disc and hub assembly installed. Light scoring and/or wear is acceptable. If heavy scoring or warping is evident, disc must be refaced or replaced. If cracks are evident, the disc and hub assembly must be replaced.

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs.
Caliper Guide Pins	30-35
Adapter Mounting Bolts	75-100
Disc Splash Shield Screws	220 INCH Lbs.
Caliper Bleeder Screw	100 INCH Lbs.
Wheel Stud Nuts	65
(American Motors)	75

BRAKE DISC SPECIFICATIONS

Parallelism0005"
Runout (Chrysler Corp.)0025"
(American Motors)005"
Minimum Thickness, 11.75" Disc	1.180"
11.00 or 10.98" Disc940"

DISC BRAKE LINING SPECIFICATIONS

Lining Thickness (1969-70)460"
(1971-72)400"
Minimum Thickness (1969-70) ①180"
(1971-72) ①230"
Width	1.80"
Length	6.02"
Braking Area	10.0"

① - Shoe and Lining.