DBK5771

ALL DODGE TRUCKS FROM 1948-1971

DISC BRAKE CONVERSION KIT

INSTALLATION INSTRUCTIONS

NOTE: ALWAYS REFER TO THE VEHICLE OWNER'S MANUAL FOR CORRECT TORQUE SPECIFICATIONS WHEN INSTALLING KIT.

FOR MORE INFORMATION ON YOUR KIT OR TECH QUESTIONS PLEASE CONTACT YOUR SUPPLIER

WARNING Proper operation of your brakes is essential for your safety and the safety of others. Any brake service should be performed ONLY by persons experienced in the installation and proper operation of brake systems. It is the responsibility of the person installing any brake component or kit to determine the suitability of the component or kit for the particular application. After installation, and before operating your vehicle, be sure to test the function of the brakes under controlled conditions. DO NOT DRIVE WITH UNTESTED BRAKES!

IMPORTANT Take time to read all the literature that came with this kit. Before beginning installation check the provided list of parts against what you received to ensure that all parts are present. While this kit was designed to make the process of changing brake parts as simple as possible, NOTE: WITH SOME KITS IT MAY BE NECESSARY TO MAKE MINOR CHANGES TO YOUR CAR! READ ALL WARRANTY DISCLAIMERS AND RETURN POLICIES INCLUDED IN THIS KIT PRIOR TO INSTALLATION!

NOTE Always utilize safely restraints when operating the vehicle. The installation of disc brakes will require the use of 15” wheels. Any attempt to install disc brake with a 14” wheel will be the customer’s responsibility.

NOTE This kit is an aftermarket solution. It is not intended to be a direct installation or OEM replacement. Due to changes in production in certain years, your car may require modifications beyond these instructions for this kit to install properly.

PARTS INCLUDED WITH THIS KIT:		
PART #	**DESCRIPTION**	**QUANTITY**
2627BB	Caliper Brackets	2
5311	Rotors	2
HSDBK-7/16	Brake hoses	2
A1	Inner Bearings	2
A2	Outer Bearings	2
5121	Seals	2
20618101	Dust Caps	2
4103/4104	Calipers	2
PERFORMANCE UPGRADE PARTS:		
5311LX/5311RX	High performance drilled and slotted rotors	2
HSDBKSS-7/16	Stainless steel braided hoses	2
OPTIONAL PARTS (NOT INCLUDED WITH KIT, AVAILABLE FOR SEPERATE PURCHASE):		
	Power Booster	
	Master Cylinder	
	Proportioning Valve Kit	
	Vacuum Hose & Fittings	

PREPARING YOUR VEHICLE TO INSTALL YOUR BRAKE SYSTEM UPGRADE

- Rack the vehicle.
- If you don't have a rack, then you must take extra safety precautions.
- Choose a firmly packed and level ground to jack up the vehicle.
- Chock the rear wheels.
- Jack the vehicle up and support it with jack stands and secure the pins.
- Set the parking brake and put the transmission in park if automatic, reverse if manual transmission.
- The front wheels should be allowed to free hang to relieve tension on the coil springs.

IMPORTANT NEVER rely on jacks to support a vehicle! Always test the steadiness of your stands that are supporting the vehicle before attempting to work on a raised vehicle!

PREPARING YOUR PARTS

- Locate the spindles and the inner wheel bearings. In order to install the inner bearings on new spindles, often you must remove .0004" from the inner bearing seating diameter. This can be accomplished with 240 grit emery paper and a rotary sanding motion on the spindle. Be sure to sand around the radius of the spindle which avoids flat spots. Continue this operation until the inner bearings can be slid onto the spindle without binding. Remember to use brake parts cleaner to keep all surfaces free of debris. Also use a lubricant such as bearing grease to ease them on. Do not grind or file on the spindle!

FIGURE 1

Universal Bearing Packer

- Pack all bearings with hi-temp wheel bearing grease. A bearing packing tool is ideal for the job. (See Figure 1)
- Adhere the brake pads into place using disc brake quiet and bend outer brake tabs over calipers accordingly. Let them cure!
- Mate up each threaded nut with its' designated bolt or threaded surface.
- Group your kit parts to speed up the installation.
- Check your quantity of components versus the items list.

COMPONENTS TO INSPECT, REPLACE OR UPGRADE PRIOR TO AND / OR DURING INSTALLATION OF DISC CONVERSION KITS

Tie rod ends and nuts	Adjustment sleeves	Control arm shafts, mounting bolts, & nuts
Control Arms	Idler arm and nut	Pitman Arm and nut
Upper Ball Joints and nuts	Lower Ball Joints and nuts	Shocks and hardware
Residual valves	Metering valves	Proportioning valves
Brake lines	Stainless steel brake lines	Stainless steel hardware

SUGGESTIONS:

- Take the time to identify any suspect parts that are not included in this kit.
- Consider making upgrades such as converting to polyurethane bushings, performance shocks, tubular a-arms, etc.
- Plan any Installation (s) of replacement parts during the various stages of the drum to disc conversion process.

INSTALLATION OF THE DISC BRAKE KIT WILL REQUIRE THE USE OF THE FOLLOWING TOOLS & CHEMICALS:

Common Tools Needed:			
Wheel bearing seal driver	Drum brake tool	Flare wrench set	Wheel chocks
Ratched Drive Set	Allen wrench or socket	Jack stands	Brake spring pliers
Box end wrench set	Ball joint fork	Tire iron	Brake bleeder wrench
Pliers	Screwdriver	Snips	Grease gun
Universal Bearing Packer	Line bending tool	Disc brake quiet	Wheel bearing grease
Ball pein hammer	Disc brake pad spreader tool	Brake Fluid	Brake cleaner
Caliper slide grease	Hand cleaner	Tie Rod Fork	

SPECIALTY TOOLS NEEDED

Drill Bits	Taps
1/8”	5/8”-18
25/64”	7/ 16”-20 Bottom Tap
37/64”	

5/8-18 Tap

7/16-20 Tap

INSTRUCTIONS

You must have good original spindles in order to use this disc brake conversion kit. Take extra precautions to prevent damaging the factory spindles when removing them.

1. If you are performing the installation with a jack be sure that the parking brake is set and that the rear wheels are chocked. Support the front of the vehicle with jack stands. Never work on sloping ground. If you’re using a lift, raise the vehicle to a comfortable working height. Remove the front wheels. At this point, be sure to place the proper support under the lower control arm. Failure to do so will allow the coil spring to blow out when the spindle is removed which could result in serious Injury and damage to the vehicle.

2. Break the lug nuts free on the front wheels but reset each to keep the wheels snug to the drums Loosen the front wheel nuts, but do not remove them. In other words, break them free before raising the tires off of the ground. (Remember on pre-1966 Mopars the driver’s side wheel studs are reverse threads)
3. Support truck on jack stands.
4. Spray penetrating oil onto the following: the metal brake line into the wheel cylinder, the shock absorber

mounting nuts, the outer tie rod end connection to the spindle, the drum backing plate bolts holding the plate to the spindle, and both of the upper and lower ball joint castle nuts.

5. Remove brake fluid from the master cylinder before proceeding.
6. Follow the metal brake line from the wheel cylinder up to the rubber flex hose.
7. Disconnect the rubber flex hose from the hard line on the frame.

There are two ways of removing the old drum components: you may either remove the complete drum unit or in separate parts. These instructions detail the steps for removing the parts separately.

8. Use a brake spoon tool to relax the adjusters to back the brake shoes away from the drum.
9. Remove the dust cap, the cotter pin, the spindle nut cage, and the spindle nut.
10. Place these in a zip lock bag for re-use later.
11. Remove the drum hub assembly.
12. Now remove the bolts that hold the drum backing plate to the spindle itself.
13. You may need to remove adjuster springs or parts to access them.
14. You should now be looking at the spindle.

Proceed to removing it from the truck.

15. Place floor jack under the lower control arm and raise it up to hold slight tension on the arm.
16. Compress the coil spring using the spring compressor tool.
17. Loosen shock absorber mounting nuts.
18. Lower the floor jack and control arm to allow room to
19. Remove shock and spring.
20. Remove cotter pin from the outer tie rod end.
21. Use tie rod end fork tool to separate the tie rod end from the spindle.
22. Remove cotter pin from the upper and lower control arms.
23. Loosen the ball joint castle nuts.
24. Use ball joint separator tool to separate the ball joints from the spindle.
25. Remove the spindle and place on workbench.
26. Remove the steering arm and its' bolts. Set aside for later.
27. Note which side the spindle and the steering arms belong to by either marking them, by making a drawing or taking a picture.
28. Inspect the spindle for damage. Are the spindle threads good? Are the bearing landings free of scoring, pitting or heat damage preventing them from re-use? Use emory paper to deburr the spindle shaft.
29. Repeat this process for the other side.

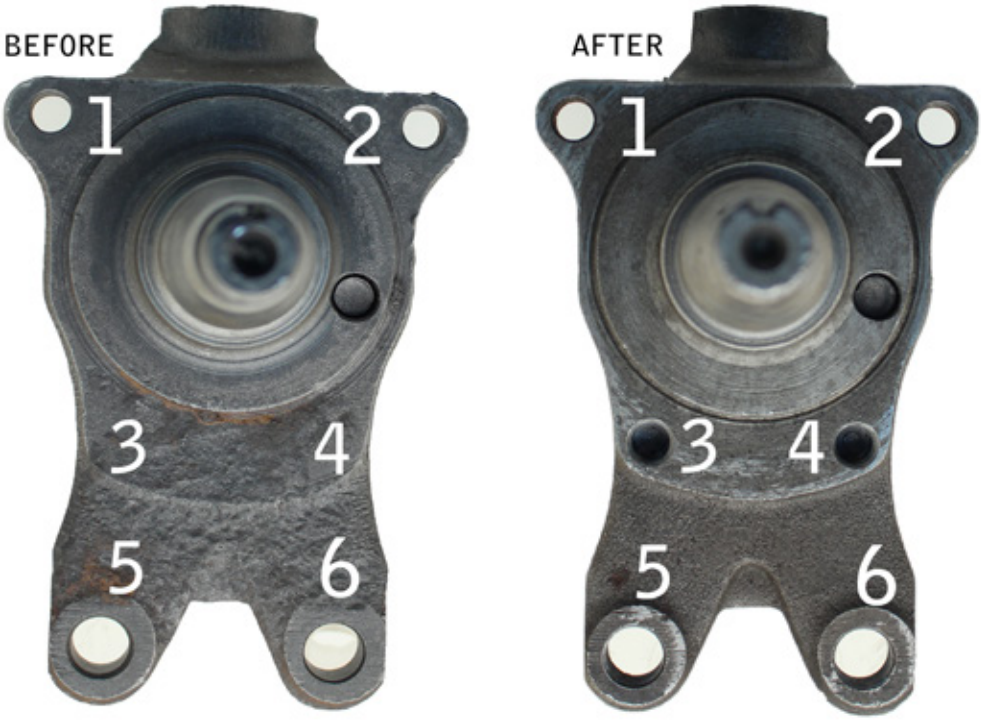
Now you should have both spindles side by side on the workbench, uless you decided to modify them on the truck, you should have determined if both are in satisfactory condition to proceed with the installation of the kit. Be sure you know which spindle is the drivers and passengers side.
The new kit has two identical plates that need to be mounted to the original spindles.
Each plate has a dual drilled mounting pattern. The purpose for the dual pattern is explained later in the installation process. For now, the plates will be used as templates to mark the location of two new holes on your original spindles.

30. Place one spindle in a vice with the shaft facing up.
31. Place a bracket onto it by lining up the two lower holes.

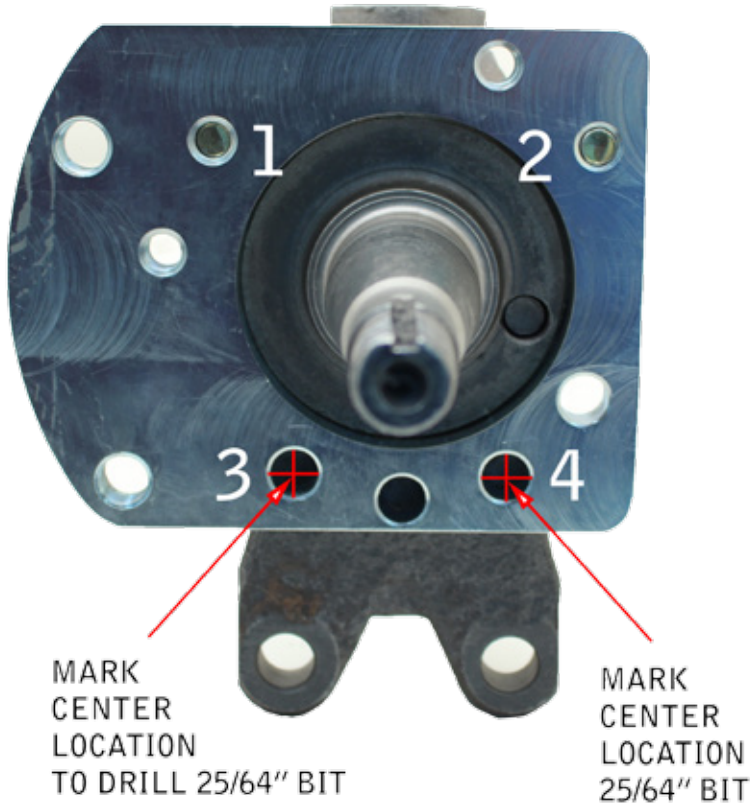
9 O'CLOCK

2 O'CLOCK

3 O'CLOCK



1 & 2 = NO MODIFICATIONS, USE TO MOUNT BOLTS TO ALIGN TEMPLATE
3 & 4 = NEW HOLE LOCATIONS, DRILL WITH 25/64" DRILL BIT TAP 7/16"-20
5 & 6 = DRILL WITH 37/64", TAP 5/8-18


1
2
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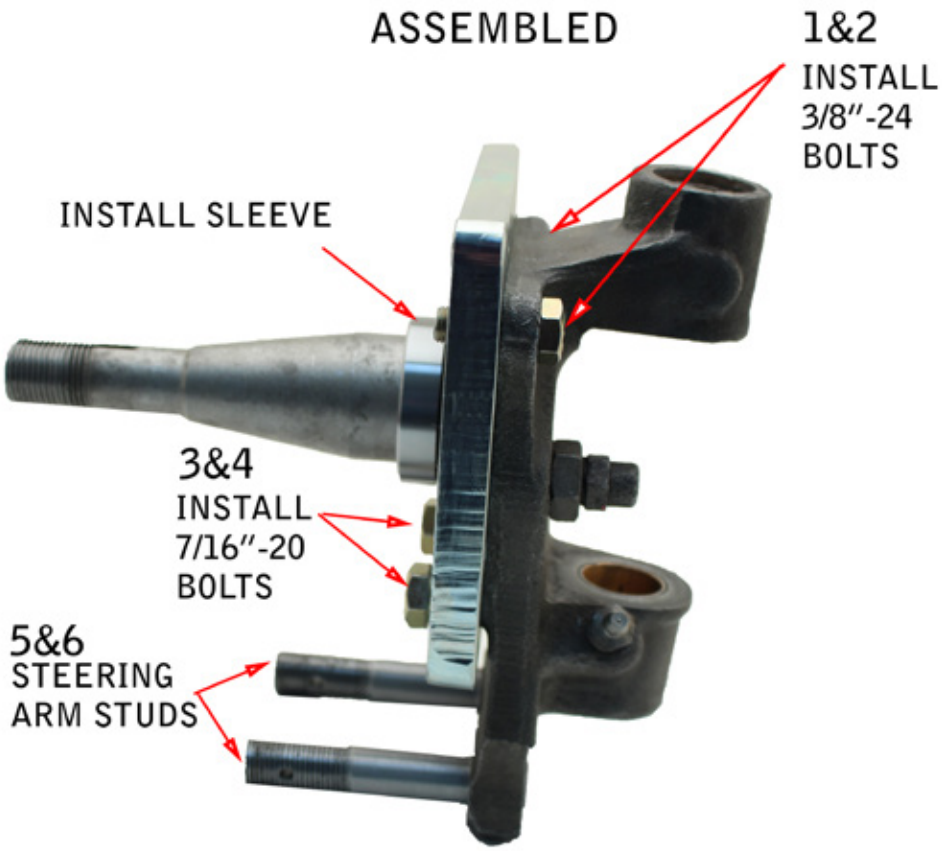
MARK
CENTER
LOCATION
TO DRILL 25/64" BIT
MARK
CENTER
LOCATION
25/64" BIT


ASSEMBLED
1&2
INSTALL
3/8"-24
BOLTS
INSTALL SLEEVE
3&4
INSTALL
7/16"-20
BOLTS
5&6
STEERING
ARM STUDS

32. Use small bolts and nuts to secure the bracket to the spindle.
33. Next look through the plate and observe the locations on the face of your spindle where the two new holes will have to be drilled and tapped.
34. Select the largest diameter punch that fits the through holes. Do not use a smaller punch for this step. It is critical to have centered holes here.
35. Strike the punch showing the locations of the two new holes.
36. Remove the bracket and bolts.
37. The depth of the two new holes on each spindle is 0.600".
38. Use a drill bit stop or mark all drill bits so you do not exceed the 0.600" depth.
39. Start a pilot hole using a 1/8" drill bit. Use a series of gradually increasing diameter drills bit to 25/64".
40. Remove all shavings.
41. Use a 7/16"- 20 bottom tap to thread the holes. Start the tap using a T handle. Use tap-ease to aid the process.
42. Expect interference with the spindle shaft. It will be difficult to get the tap started straight due to the proximity of the spindle shaft. Slow and steady here, you must have a straight tap here.
43. We suggest tapping a thread or two and removing the tap, blowing out the debris, then continuing to tap additional threads.

    Once you have a few established threads, you may switch to a box end wrench or socket to run the tap in efficiently.

44. Repeat this process on both spindles so that all four holes are tapped to accept 7/16"-20 studs.
45. Place a spindle back into the vice.
46. Locate the two through holes on the end of the spindle.
47. These will be drilled and tapped to accept larger studs.
48. Using a 37/64" drill bit Enlarge the two lower holes on the end of each spindle.
49. Use a 5/8"-18 tap to thread the enlarged through holes.
50. Do this to both spindles so that all four holes are tapped 5/8"-18.
51. Use the yellow zinc bolts to mount the caliper bracket onto the newly modified spindle. Hand tighten the brackets for now.
52. Mount these so that the unused section of the bracket will face towards the front of the vehicle when mounted. The calipers will be mounted leading the rotors, not trailing.
53. Next you will be connecting your steering arms to each spindle.
54. You will be using the two lower 5/8"-18 holes on each spindle to insert mounting studs from the hardware pack on which to mount the steering arms.
55. Depending on the steering arms particular your truck, select either 3 long and 1 short stud or 2 long and 2 short studs to insert into the spindles. Once you are sure of their orientation, you may use red Loctite.
56. Attach the steering arms to the spindle and fasten down the original castle nuts and insert new cotter pins.

    At this point you should have a unit that looks like this.
    Install the spindles back onto the truck

57. Install spindle onto the lower ball joint, position the coil spring and attach the upper ball joints.
58. Tighten the castle nuts and insert the cotter pins.
59. Install the shock absorbers and tighten the mounting hardware.
60. Remove the coil spring compressor.
61. Grease the fittings on the ball joints and the tie rods.
62. Next locate the caliper brackets included in this kit.
63. Mount the caliper brackets onto each spindle with the bolts provided.

64. Make sure you have the spindles on the correct side, the steering arms oriented correctly, and the caliper brackets facing rearward so the calipers will ride trailing the rotors.
65. Now determine if the current position of the caliper brackets is acceptable.
66. If the caliper interferes with steering linkage it is acceptable to mount them in the 9 o'clock, 2 o'clock or 3 o'clock positions.
67. To do this simply remove the 4 bolts holding the plate that you hand tightened earlier and change the position of the bracket.
68. Once satisfied, use red Loctite on the bolts and tighten down the caliper bracket.

Installing the rotors and calipers:

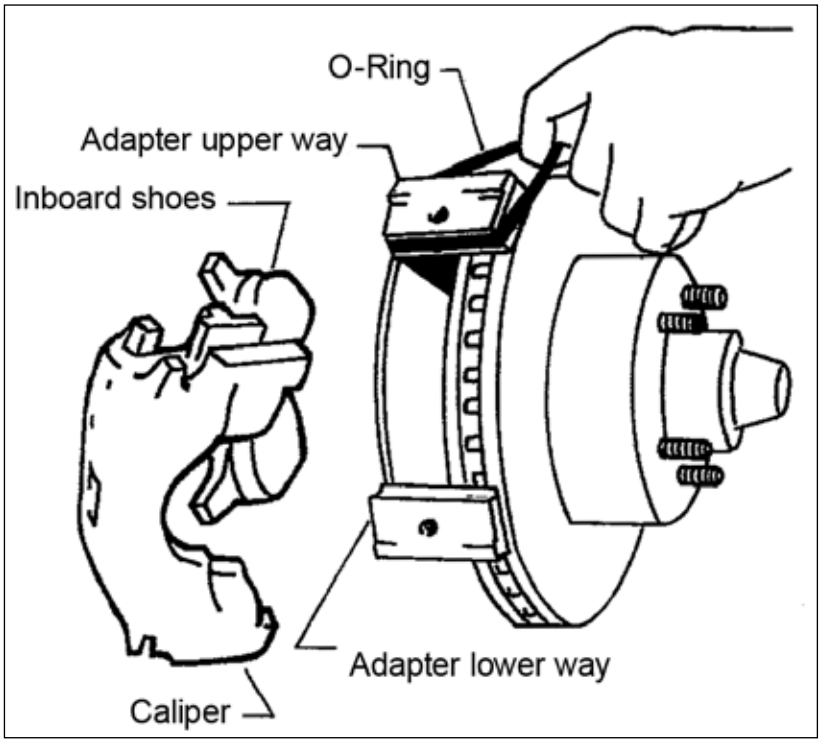
69. Install the metal sleeve onto the shaft of each spindle.
70. Test fit the wheel bearings on the spindle shafts.
71. Again use emery paper to dress the shafts if needed.
72. Grease the inner and outer bearings.
73. Install the inner bearing into the rotors and install the grease seals using a seal driver.
74. Place the rotor up on to the shaft.
75. Add more wheel grease into the center of the rotor over the shaft.
76. Insert the outer wheel bearing.
77. Grab the zip lock bag with the spindle nut fasteners.
78. Install the spindle nut washer, the nut cage and spindle nut onto the shaft.
79. Tighten these down and install the cotter pin.
80. Add more grease as needed and install the dust cap.
81. Test spin the rotor.
82. Use brake cleaner to clean the rotors.

SINGLE PISTON SLIDING CALIPER

"O" RING INSTALLATION

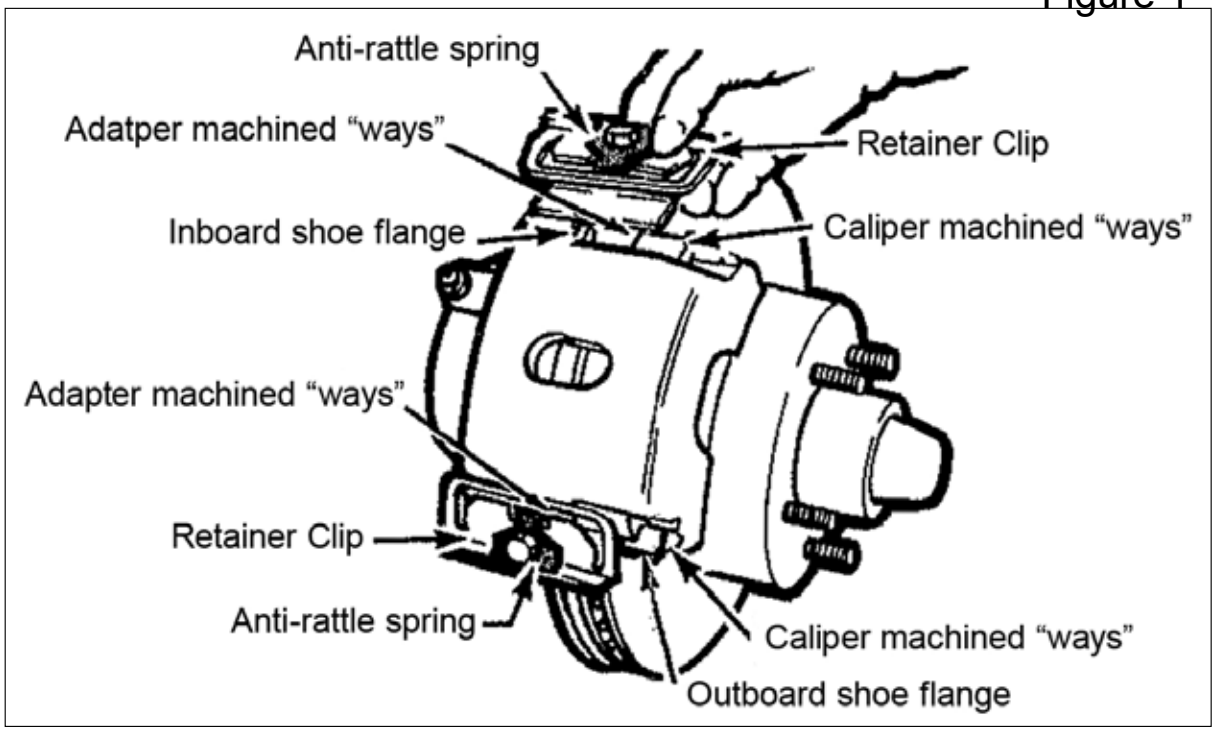
The "O" ring, packaged in hardware kits, prevents the rattle by limiting the end movement of the caliper. It is installed as follows:

1. Before inboard shoe or caliper is installed, place the "O" ring around the adapter upper way as shown in this illustration.
2. Install inboard pad in the adapter.
3. Lower the caliper into the adapter upper way so that the "O" ring is compressed into the chamber and end clearance area. Rotate the caliper down and move it into place on the adapter lower way.
4. Install the retaining plates with the inboard shoe anti-rattle springs on top of the plates, underneath the bolt heads. Torque retaining bolts to 200 inch pounds.



NOTE: The “O” ring may break after the vehicle has returned to service. This should be of no concern, as the portion of the “O” ring which is effective in eliminating rattle will remain in place between the caliper and adapter.

Figure 1



CALIPER REMOVAL

1. Remove wheel and tire assembly.
2. Remove caliper retaining clips and anti-rattle springs (Fig. 1, previous page)
3. Remove caliper from disc by slowly sliding caliper assembly out and away from rotor.
4. Remove inboard shoe from adapter.
5. Remove outboard shoe by prying between shoe and caliper fingers.
6. To remove piston, support caliper assembly on upper control arms on shop towels to absorb any hydraulic fluid loss. Carefully depress brake pedal to hydraulically push piston out of bore (brake pedal will fall away when piston has passed bore opening) Prop brake pedal to any position below the first inch of pedal travel to prevent loss of brake fluid.
7. Disconnect flexible brake hose from caliper.

CALIPER DISASSEMBLY

8. Mount caliper in a vise equipped with protector jaws. Caution: Excessive vice pressure will distort caliper.
9. Remove and discard boot and seal. Use pointed wood or plastic stick to remove seal as metal tool may scratch piston bore or burr edge of seal groove.

CLEANING AND INSPECTION

10. Check piston bore for scoring and pitting. Bores with light scratches or corrosion can be corrected with crocus cloth. Deep scratches or scores may be removed by honing providing diameter of bore is not increased more than .002". Replace caliper if not within specification or is cracked.
11. Inspect piston. Replace if pitted, scored of plating is severely worn.
12. Clean caliper and piston with alcohol or brake fluid and blow dry. If caliper was honed, carefully clean seal and boot grooves and flush with clean brake fluid. Wipe dry with clean, lintless cloth. Repeat flushing, until clean cloth shows no sign of discoloration.
13. Remove any rust or corrosion from machined surfaces of caliper or adapter.
14. Clamp caliper in vice with protective jaws.
15. Coat new piston seal and piston bore with brake assembly fluid and install seal in groove in bore.
16. Coat new boot with brake assembly fluid and install in caliper. Slide finger around inside of boot to make sure It is fully seated.

Figure 2

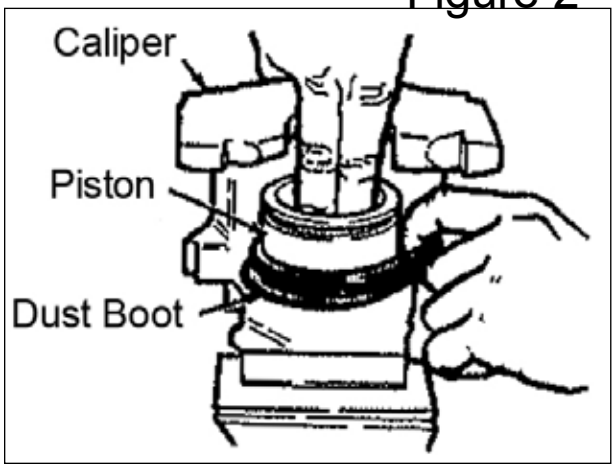
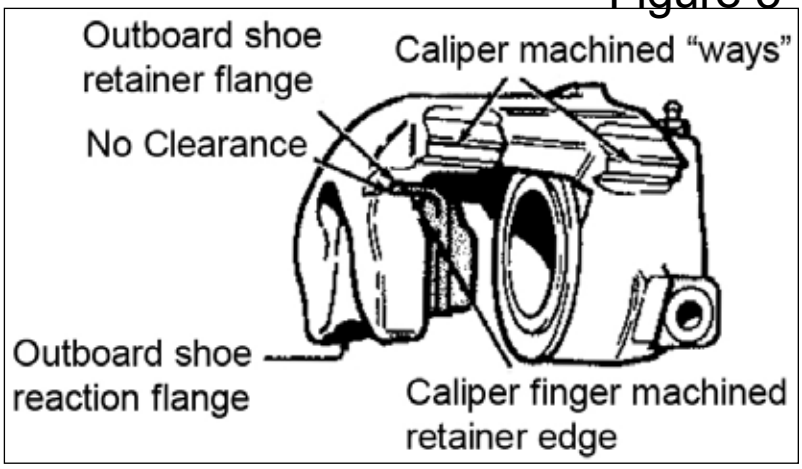


Figure 3



17. Plug high pressure inlet to caliper, then coat piston with brake assembly fluid. With fingers spreading boot, work piston into boot and press down on piston. The entrapped air below piston will force boot around piston and into its groove as piston is depressed. Remove plug and carefully push piston down until it is bottomed. (Fig. 2)
18. Install new outboard shoe. No free play should exist between brake shoe flanges and caliper fingers. (Fig. 3)

CALIPER ASSEMBLY

If free play is evident, remove shoe from caliper and bend flanges (Fig. 4) to create slight interference fit to eliminate all vertical free play which might cause shoe rattle. Install by snapping shoe into place with fingers or with "C" clamp using old pads over new lining and across caliper fingers (Fig. 5).

19. Install new inboard shoe in position on adapter with shim "flanges" in the caliper "ways".
20 Carefully slide caliper into position in adapter and over disc. Align caliper on machined ways of adapter. Be careful not to cut or pull dust boot from its groove as the piston and boot slide over the Inboard shoe.
21 Install anti-rattle springs and retaining clips and torque retaining screws to 180 inch-pounds.
NOTE: The inboard anti-rattle spring must always be installed on top of the retainer spring plate.
22 Reinstall brake hose and unblock brake pedal.
23 Fill master cylinder reservoir, if necessary, with clean disc brake fluid and bleed the hydraulic system. Check for fluid leaks under maximum pedal pressure

e brakes.