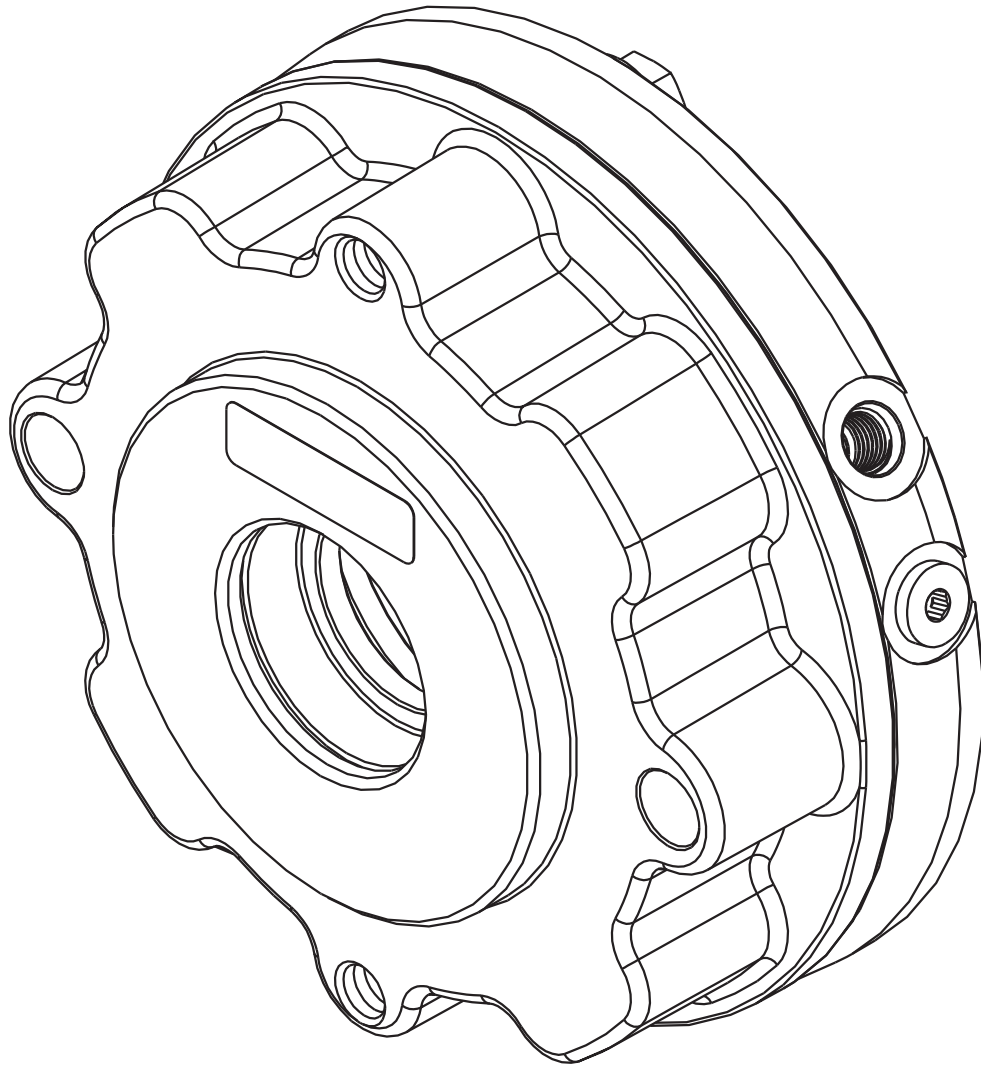


MULTIPLE DISC BRAKE

(dry design - SAE B size)

Service Instructions



DISASSEMBLY

(Refer to Figures 1 and 2)

1. Remove pressure plate (3) from cover (15) by removing cap screws (1) and washers (2).

⚠ CAUTION

Pressure plate is under spring tension of approximately 454 kgf (1000 lb). The two cap screws must be loosened evenly to relieve this force. If a hydraulic press is available, 1361 kgf (3000 lb) maximum, the pressure plate can be held in position while removing the cap screws. Be sure to support the outer area of cover (15) as shown in Figure 2.

2. Remove case seal (4) from cover (15).
3. Remove piston (7) from pressure plate (3).
4. Remove o-ring (5), back-up ring (6), o-ring (8) and back-up ring (9) from piston (7).
5. Remove stack assembly, consisting of stator disc (10), rotor disc (11) and return plate (12) from cover (15).
6. Remove dowel pins (14) and springs (13).

ASSEMBLY

(Refer to Figures 1 and 2)

LUBRICATE ALL RUBBER COMPONENTS FROM REPAIR KIT WITH CLEAN TYPE FLUID USED IN THE SYSTEM.

1. Use an alkaline wash to clean parts before assembly.
2. Insert dowel pins (14) and new springs (13) in cover (15). **NOTE: Be sure to use the spring pattern as indicated. If installing a seal kit, reinstall springs removed during disassembly.**
3. Position new return plate (12) on springs (13). **NOTE: Discs (10 & 11) and return plate (12) must remain dry during installation. No oil residue must be allowed to contaminate disc surfaces. If installing a seal kit, reinstall the return plate removed during disassembly.**
4. Install new rotor disc (11) and new stator disc (10). **NOTE: If installing a seal kit, reinstall rotor disc and the stator disc removed during disassembly.**
5. Install new o-ring (5), new back-up ring (6), new o-ring (8) and new back-up ring (9) on piston (7). Note order of o-rings and back-up rings. Insert piston (7) into pressure plate (3). **NOTE: Be careful not to shear o-rings or back-up rings and not to scratch or mar the piston.**
6. Install new case seal (4) in cover (15).
7. Position pressure plate (3) on cover (15) aligning dowel pins (14) with holes in pressure plate.
8. Install cap screws (1) and washers (2) and tighten evenly to draw pressure plate (3) to cover (15). Torque cap screws 74.6 N·m (55 lb·ft). **NOTE: A hydraulic press will simplify installation of pressure plate on cover. Clamp pressure plate in position while tightening the cap screws.**

⚠ CAUTION

If hydrostatic bench testing is performed on the brake assembly, release pressure must not exceed 34.5 bar (250 PSI) unless two additional bolts are used for supplemental clamping.

SPRING CHART

CASE Part Number	Red Springs (13)	Blue Springs (13)
446809A1	3	1

● Items included in CASE Repair Kit 87458206

■ Items included in CASE Seal Kit 87431339

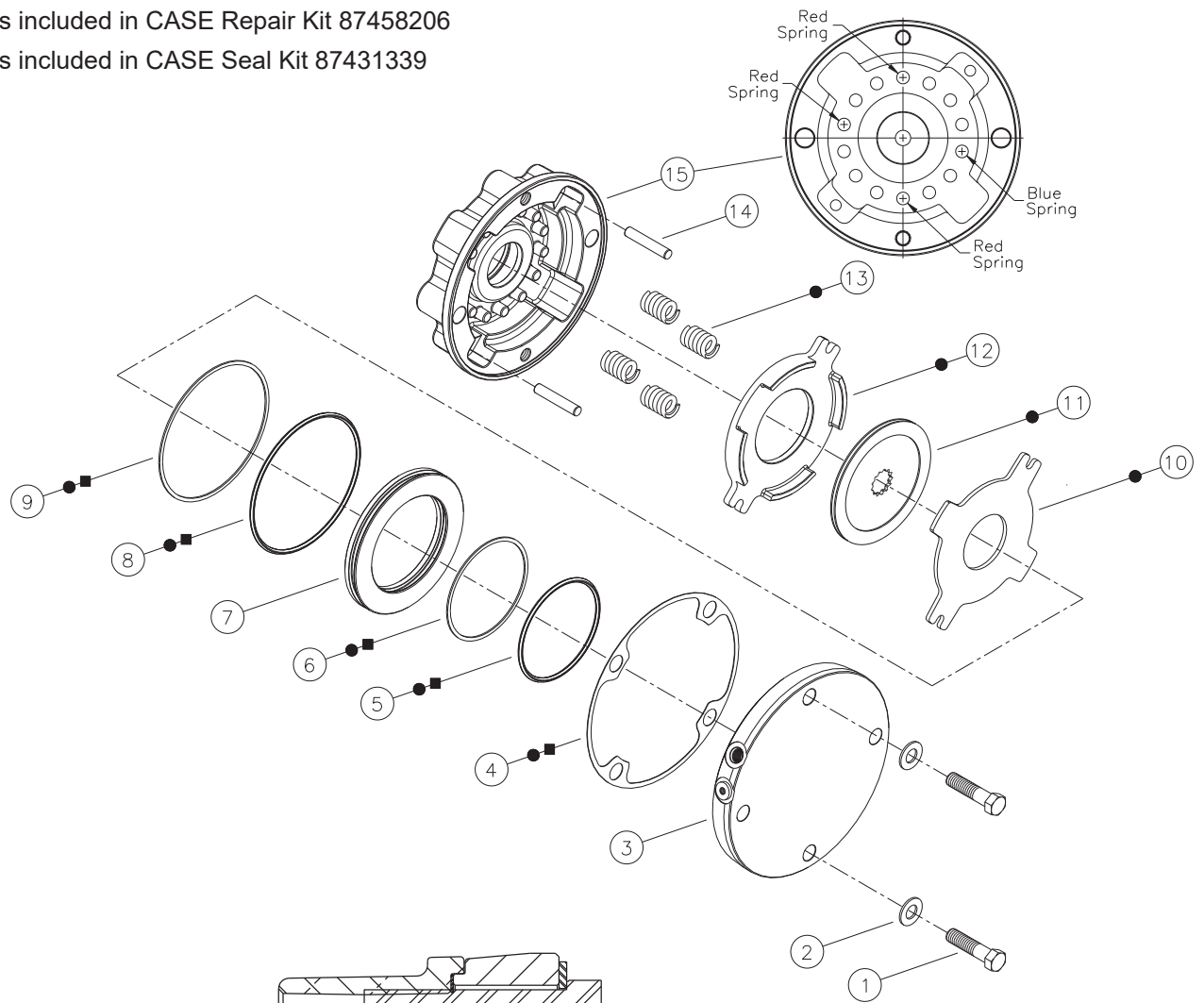


FIGURE 1

Support diametrical
area of cover (15)
here.

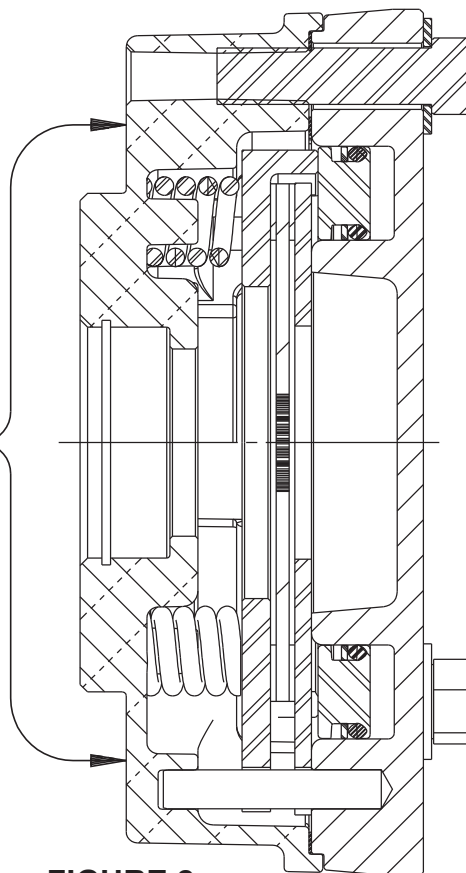


FIGURE 2

BLEEDING

1. Install brake in system and connect pressure lines.
2. Bleed pressure release section of brake by pressurizing side inlet port and allowing air to escape from top port. Pressure should not exceed 6.9 bar (100 PSI) during bleeding.
3. Apply sufficient pressure to release brake and check for proper operation in system.

SERVICE DIAGNOSIS

PROBLEM	CAUSE	EXPLANATION	ACTION
Brake slips	Excessive pressure in hydraulic system	If there is back pressure in the actuation line of the brake, holding torque will be reduced.	Check filters, hose size, restrictions in other hydraulic components.
	Oil in a brake designed for dry use	Wet linings generate 67% of the dry torque rating. If the brake has oil in it, check the type of oil. 1. Gearbox oil 2. Hydraulic oil	Replace oil seal in brake. Check motor seal. Check piston seals. Note: Internal components will need to be inspected, cleaned and replaced as required.
	Disc plates worn	The thickness of the disc stack sets the torque level. A thin stack reduces torque.	Check disc thickness.
	Springs broken or have taken a permanent set	Broken or set springs can cause reduced torque - a rare occurrence.	Check release pressure. (See spring replacement)
Brake drags or runs hot	Low actuation pressure	The brake should be pressurized to minimum of 1.38 bar (20 PSI) over the full release pressure under normal operating conditions. Lower pressures will cause the brake to drag thus generating heat.	Attach a pressure gauge in bleed port and check pressure with system on.
Brake will not release	Stuck or clogged valve	Brakes are designed to come on when system pressure drops below stated release pressure. If pressure cannot get to brake, the brake will not release.	Attach a pressure gauge in bleed port and check for adequate pressure. Replace inoperative line or component.
	Bad o-ring	If release piston will not hold pressure, brake will not release.	Replace o-rings. Refer to kits on page 3.
	Discs frozen	These brakes are designed for only limited dynamic braking. A severe emergency stop or prolonged reduced release pressure operation may result in this type of damage.	Replace disc stack. Refer to Repair Kit on page 3.