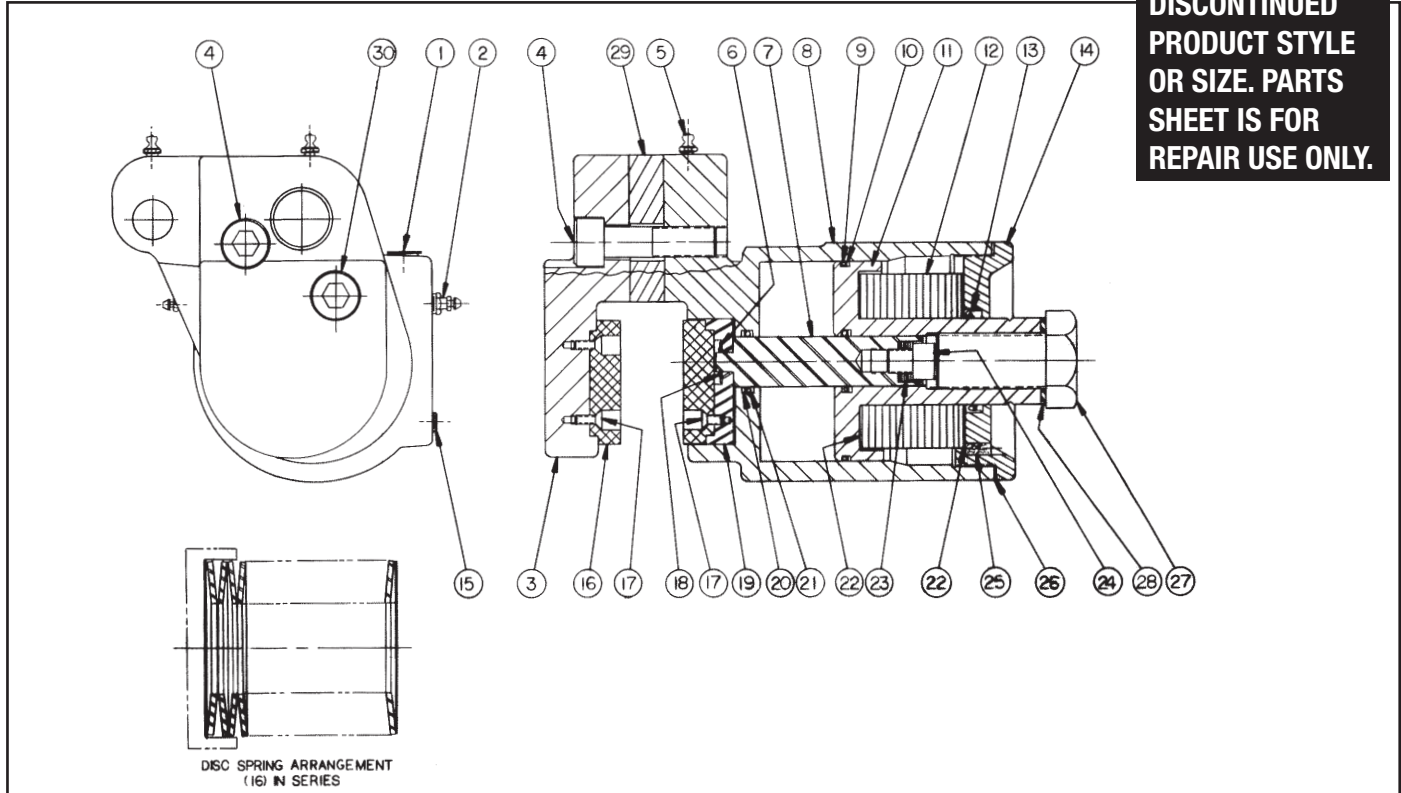


SPRING APPLIED BRAKE

FS 660 DUCTILE IRON

 Models: FS 660E 0775-0006
 FS 660EV 0775-0007
 FS 660XV 0775-0008

**DISCONTINUED
 PRODUCT STYLE
 OR SIZE. PARTS
 SHEET IS FOR
 REPAIR USE ONLY.**



List of Parts

ITEM	PART NO.	DESCRIPTION	0775-0006	0775-0007	0775-0008
1.	1004-1063	Vinyl Plug	1	1	1
2.	0740-1002	Bleeder Valve	2	2	2
3.	0775-1046	Dead Side Housing	1	1	1
4.	0775-1049	Socket Head Cap Screw			1
	0775-1050	Socket Head Cap Screw	1	1	
5.	0100-1601	Zerk Fitting	2	2	2
6.	0720-1011	Washer	1	1	1
7.	0775-1032	Piston Rod	1	1	1
8.	0775-1045	Live Side Housing	1	1	1
9.	0775-1027	O-Ring, Buna-N	1		
	0775-1041	O-Ring, VITON®		1	1
10.	0775-1028	Back-Up Ring, Buna-N	1		
	0775-1040	Back-Up Ring, Teflon®		1	1
11.	0775-1024	Piston	1	1	1
12.	0775-1011	Belleville Spring Washers	16	16	16
13.	0775-1031	Shaft Seal	1	1	1
14.	0775-1025	End Cap	1	1	1
15.	1014-1065	Pipe Plug	1	1	1

ITEM	PART NO.	DESCRIPTION	0775-0006	0775-0007	0775-0008
16.	0774-1006	Puck	2	2	2
17.	0768-1002	Flat Head Screw	4	4	4
18.	1001-1056	External Retaining Ring	1	1	1
19.	0775-1048	Puck Holder	1	1	1
20.	0775-1019	Back-Up Ring, Buna-N	2		
	0775-1020	Back-Up Ring, Teflon®		2	2
21.	1014-1063	O-Ring, Buna-N	2		
	1014-1016	O-Ring, VITON®		2	2
22.	0775-1029	Thrust Washer	2	2	2
23.	0775-1039	Flat Washer	14	14	14
24.	0775-1038	Socket Head Cap Screw	1	1	1
25.	1768-1010	Filter	1	1	1
26.	0775-1030	Gasket	1	1	1
27.	0775-1033	Actuating Screw	1	1	1
28.	0775-1051	Lock Washer	1	1	1
29.	0775-1047	Cast Iron Spacer, .62 inch thick			1
30.	0775-1052	Socket Head Cap Screw			1
	0775-1053	Socket Head Cap Screw	1	1	

INSTALLATION INSTRUCTIONS

1. Brake should be mounted with the two mounting holes in a horizontal position on a 12-inch diameter disc using 3/4" diameter bolts and a 1-1/8 inch o.d. by 3/4" i.d. by 4" long sleeve in the large hole.
2. To mount, first apply 400 PSI pressure with a hand-held hydraulic pump to the 3/8 NPT hydraulic port. (It may be easier to bleed the brake before mounting as it can be rotated to place the bleeder at the highest point).
3. With the brake pressurized to 400 PSI, align the disc and mounting bolts and tighten the bolts. Then, release the pressure from the hand pump.
4. Attach hydraulic line to the 3/8 NPT input port and pressurize to 350 PSI.
5. Slide the brake so that the live side puck is in contact with the disc. Measure the clearance between the disc and the dead side puck. (It should be from .030 to .040 inch). If more or less than these figures, refer to the Compensating Instructions in the section on Rebuilding.

NOTE: Maximum hydraulic pressure is 750 PSI (52 Bars).

DISASSEMBLY INSTRUCTIONS

WARNING: When used on a vehicle, block the vehicle wheels securely to keep it from moving when this brake is removed.

1. Disconnect the hydraulic pressure line from the brake. Attach a hydraulic hand pump to the 3/8 NPT port and pressurize to at least 350 PSI.
2. Loosen the mounting bolts and remove the brake from its mounting.
3. Place brake on a bench, dead side DOWN, and SLOWLY release the hydraulic pressure and remove the hydraulic line.
4. Remove the Socket Head Cap Screws (#4 and # 30).
5. Remove Screws (#17) from both pucks (#16). Examine the Pucks for excessive wear. Replace with new Pucks.
6. Remove External Retaining Ring (#18), Washer (#6) and the Puck Holder (#19).
7. Place the brake in upright position with the Actuating Screw (#27) pointing up.
8. Remove End Cap (#14), unscrewing counter-clockwise. Inspect the Shaft Seal (#13) for wear, replacing items as needed.
9. Remove the Piston (#11) by carefully pulling it up, avoiding scratches to the wall of the piston chamber.
10. Examine the O-Rings (#9 and #21) and Back-Up Rings (#10 and #20) and replace worn parts with new as needed.
11. Taking care not to disturb the arrangement of the Belleville Spring Washers (#12), examine the Belleville Washers for signs of metal fatigue or cracking.

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REASSEMBLY INSTRUCTIONS

1. Clean bores and grooves in brake housing.
2. Lubricate O-Rings (#9 and #21) and Back-Up Rings (#10 and #20) with a good petroleum based O-Ring grease such as Lubriplate® 105 and insert them in the O-Ring grooves on the Piston (#11) and the Live Side Housing (#8). Arrange the seals such that the O-Ring faces the pressure chamber and the Back-Up Ring is behind the O-Ring.
3. Make certain that the Belleville Spring Washer stacks are arranged in the same configuration as when they were disassembled, being careful to have the springs neatly stacked.
4. Put the stack of 16 Belleville Spring Washers (#12) and Thrust Washer (#22) on the Piston's Rod. Then, insert the Piston (#11) into the Live Side Housing (#8), taking care not to bump or scratch the Piston and Seals against the End Cap threads in the Housing.
5. Reinstall the End Cap (#14) and Gasket (#26) and tighten finger-tight.
6. Replace Lock Washer (#28) onto the Actuating Screw (#27) and install into the Piston (#11) and tighten.
7. Reattach Puck Holder (#19) to the Piston Rod (#7) with Washer (#6) and External Retaining Ring (#18).
8. Apply Loctite® #242 to Puck Screws (#17). Replace the pucks and tighten the screws.
9. Reattach Dead Side Housing (#3) and Cast Iron Spacer (#29) to the Live Side Housing. (There is no spacer on the FS660E model Assembly No. 0775-0006). Apply Loctite® #242 to Socket Head Cap Screws (#4 and #30), insert into Dead Side Housing (#3) and tighten.
10. Remount the brake, following the Installation Instructions.

COMPENSATION INSTRUCTIONS

Apply 350 PSI hydraulic pressure to the 3/8 NPT inlet port. Measure the clearance between the pucks and disc as provided in the Installation Instructions. If clearance is greater than 0.040 inch, the brake should be COMPENSATED for intended wear.

To compensate the brake for puck wear:

1. Remove the Actuating Screw (#27) an Lock Washer (#28) and Socket Head Cap Screw (#24).
2. Add additional washers equivalent to Washer (#23) (.55" I.D. x .75" O.D. by 0.02 to .030 thick) to the stack of washers under Actuating Screw (#27) to reduce the spacing between the dead side puck and disc to 0.030" to 0.040".
3. Reinsert Actuating Screw (#27) and Lock Washer (#28) and retighten.
4. Then, verify that the brake is compensated by re-measuring the puck clearance from the Dead Side Housing puck to the disc.



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