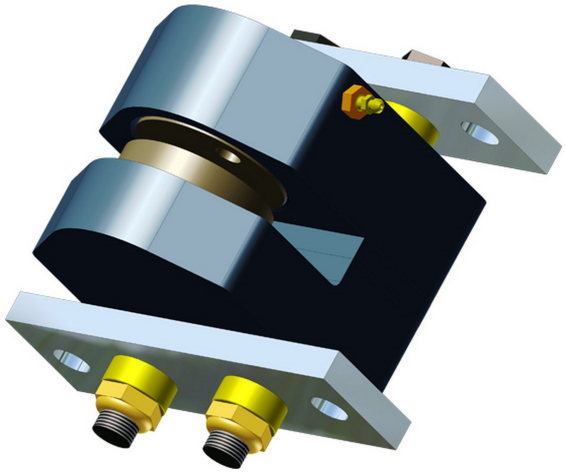
INSTALLATION/MAINTENANCE GUIDE

H491SF Series Hydraulic Single Acting Caliper Disc Brakes

with Float Mount Brackets



FEATURES:

- Hard-coat Anodized Aluminum Construction.
- Fits on Brake Discs greater than 12” Diameter.
- Replaceable friction pads (WCB p/n 4000-1014 for retractable)
- Dynamic torque (inch/lb): 353.5 lbf per 100 psi x brake radius.
- Parking/static torque (inch/lb): 211 lbf per 100 psi x brake radius.

ATTRIBUTES:

Description	Double Acting calipers
Disc Thick. (inches)	5/32”, 1/4”, 3/8”, 1/2”, 5/8”, 3/4”, 1”
Fluid Type(s)	Hydraulic Oil, DOT 3 ABF
Max Pressure	Hyd. = 1500 PSI
Seals	Buna-N Standard, EPR for DOT 3
Wearable Friction Material	1.90 cubic inches
Bore Diameter	2.5 inches
Total Friction Pad Area	9.14 square inches
Fluid Displacement	0.52 cubic inches

491 Series Installation Instructions

1- For single-acting models (H491SF) mount brake using the supplied floating brackets. Position the brackets so the spacers allow the brake to freely ‘float.’

2- During installation mount the brake with the disc centered between the friction pads. There should be approximately .060” gap on each side of disc. Verify that the friction pad faces are mounted parallel to the disc surface. Use shims if required. Tighten nuts and bolts to 30 ft-lbs if needed.

3- The disc should be made out of mild steel, stress relieved and ground to a 50-80 RMS finish and be flat within .020” for dynamic applications. The disc surfaces should be clean and free of oils for maximum braking performance.

4- Standard Hydraulic Brakes, use only mineral based hydraulic oils compatible with Buna-N seals. For Brakes with EPR seals, use only DOT 3 brake fluid.

5- Back pressure in the fluid system should be prevented when the brake is not engaged. Back pressure in the system will result in constant contact of the friction pads to the disc and will lead to excessive heat and wear of the friction pads.

6- Hydraulic brakes are provided with bleeder screws to bleed air from the system. With the brake pressurized to 5 psi or less loosen the upper most bleeder screw enough to allow hydraulic oil to bleed out then re-tighten bleeder screw.

Friction Pad Replacement

1. Be sure that hydraulic lines are not pressurized during friction pad replacement. It is not necessary to remove hydraulic lines when replacing brake pads.

2. Gain access to the caliper friction pads by unfastening brackets from the application. If necessary, loosen Bolts (#10) and remove nuts (#1). Note: This will separate the caliper housings, exposing pads. Be aware not to lose the cross-over O-rings (#6).

3. Remove worn brake pads by loosening pad screws (#8) on both housings. Once pads have been removed inspect pad mounting surface and clean to free any debris prior to seating new pads.

4. Use Blue Loctite 242 on piston/pad mounting hole. Place new friction pads (#15) onto pistons or dead side housing (#4) and tighten with pad screws (#16).

5. Re-assemble the caliper with bolts and fasteners as orientated prior to pad replacement.

Pad Wear Inspection:

Friction pads can be visually inspected for wear by inspecting the (2) friction pads mounted on the dead side housing.

In new condition the pad thickness will measure .323" which results in a 0.060" gap between the pad face and surface of the disc.

Friction pads have a maximum allowable wear of .218" which will result in a gap of .278" between the pad face and surface of the disc.

These dimensions may be inspected to monitor pad wear and determine pad replacement as necessary.

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H491SF CALIPER MAINTENANCE

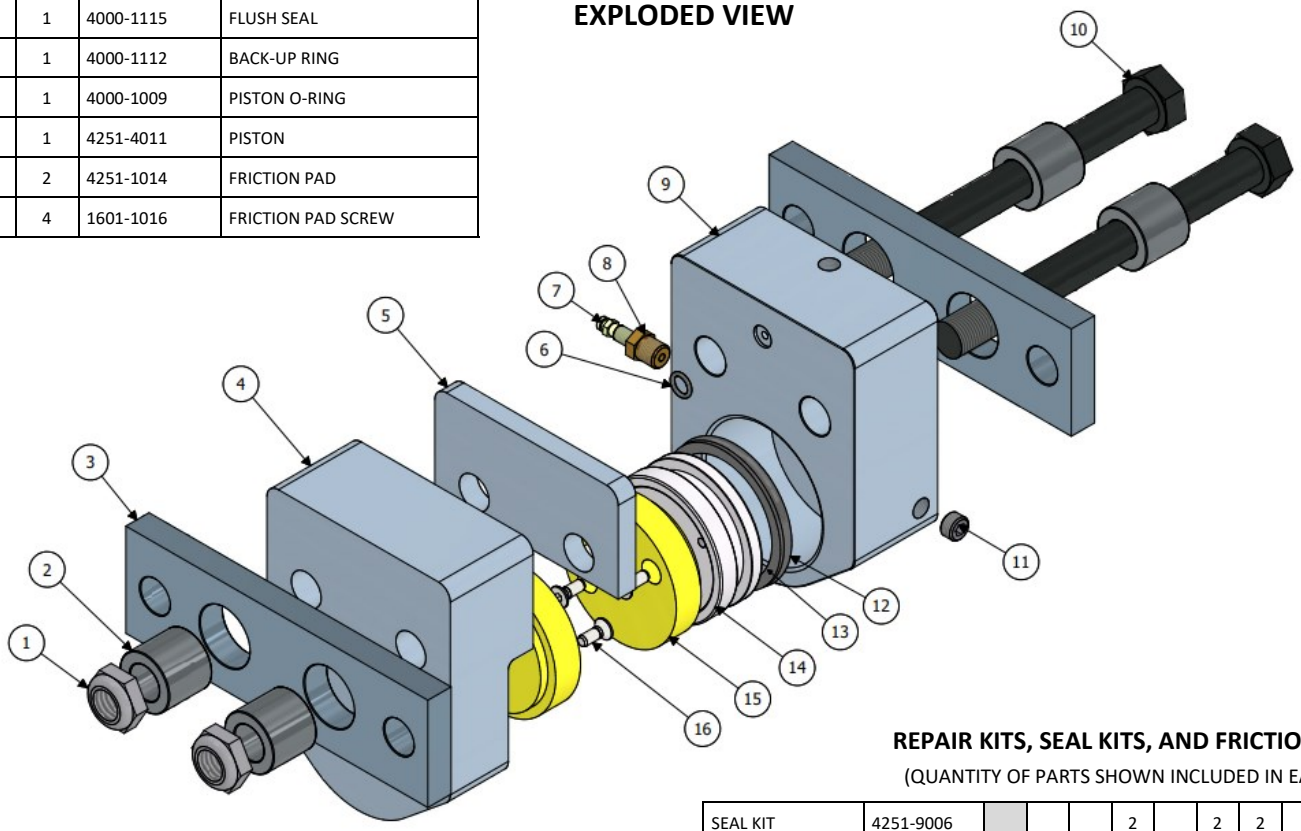
PARTS LIST

ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	4000-1528	NUT, JAM NYLOC
2	4	4251-4063	SPACER, FLOATING
3	2	4251-4064	BRACKET, FLOATING
4	1	4251-4056	HOUSING, DEAD SIDE
5	1	SEE TABLE 'A'	SPACER
6	1	4000-1003	CROSS-OVER O-RING
7	1	4000-1049	BLEEDER SCREW
8	1	4000-4-1048	BLEED SCREW ADAPTER
9	1	4255-4051	HOUSING, LIVE SIDE
10	2	SEE TABLE 'A'	HOUSING BOLT
11	1	4000-1115	FLUSH SEAL
12	1	4000-1112	BACK-UP RING
13	1	4000-1009	PISTON O-RING
14	1	4251-4011	PISTON
15	2	4251-1014	FRICTION PAD
16	4	1601-1016	FRICTION PAD SCREW

TABLE A

DESIGNATOR	ROTOR/DISC WIDTH	SPACER PART #	BOLT PART #	BOLT LENGTH	BRAKE MODEL	BRAKE PART #
A	5/32"	4251-4062	4251-1025	6 1/2"	H491SAF	4251-0103
B	1/4"	4251-4057	4251-1025	6 1/2"	H491SBF	4251-0017
L	3/8"	4251-4078	4251-1025	6 1/2"	H491SLF	4251-0104
E	1/2"	4251-4058	4251-1025	6 1/2"	H491SEF	4251-0019
T	3/4"	4251-4059	4251-1027	7"	H491STF	4251-0021
O	1"	4251-4060	4251-1027	7"	H491SOF	4251-0023

EXPLODED VIEW



REPAIR KITS, SEAL KITS, AND FRICTION PADS

(QUANTITY OF PARTS SHOWN INCLUDED IN EACH KIT)

SEAL KIT	4251-9006				2		2	2			2
REPAIR KIT	4251-9005		2	4	2	2	2	2	2	2	2
FRICTION PAD KIT	4251-9010		2	4							
DESCRIPTION			FRICTION PAD	FRICTION PAD SCREW	CROSS-OVER O-RING	PISTON	PISTON O-RING	BACK-UP RING	RETRACT SCREW	COMPRESSION SPRING	RETRACT SCREW O-RING
ITEM#			6	8	2	3	4	5	15	17	16

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