



WARNING: SPRING-APPLIED CALIPER DISC BRAKES ARE UNDER SPRING TENSION.

USE CAUTION WHEN INSTALLING & PERFORMING ALL MAINTENANCE PROCEDURES.

INSTALLATION/MAINTENANCE GUIDE

FS200FUL Series Spring Applied Caliper Disc Brakes



FEATURES:

- Hard-coat Anodized Aluminum Construction.
- Dual Belleville Disc Spring Stacks
- Fits on Brake Discs with Disc Diameter over 8 inches
- Available Branham Brake Discs: 8", 10", 12", 16"
- Non-Asbestos .45 Coefficient of Friction Material
- Spring Stacks in Parallel
- 2065 lb Clamping Force
- 929 lb. Maximum Tangential Force
- 6626 in-lbs force using 16 inch Disc Diameter
- 750 PSI Release Pressure

ATTRIBUTES:

Description	Single Acting, Floating Mount, Use Fixed Disc
Disc Thickness (inches)	5/32", 1/4", 3/8", 1/2", 5/8", 3/4", 1"
Fluid Type(s)	Hydraulic Fluid
Max Pressure	1500 PSI
Seals	Buna-N (EPR Seals for DOT 3 available)
Wearable Friction Material	1.82 cubic inches
Piston Diameter	1.625 inches
Total Friction Pad Area	8.19 square inches
Displacement & Type	.22 cubic inches / Hydraulic

Do **NOT** attempt to mount/dismount, remove and/or fasten caliper assembly bolts without first retracting the caliper pistons. Pressure can be released once the caliper has been dismantled, assembly bolts have been removed and the caliper housings separated. Release pressure for FS200FUL caliper disc brakes is 750 PSI. DO NOT EXCEED 1500 PSI MAX. If the brake was shipped with a temporary spacer between the friction pads, it may be discarded.

FS200FUL Series Installation / Mounting Instructions

1. Prior to mounting your caliper, first connect your hydraulic system to the caliper. Bleeding is the process of removing any present air within your hydraulic system. In order to 'bleed,' locate the bleeder screws (#18). Choose one bleeder screw and loosen, but do not remove.
2. Next, elevate the loosened bleeder screw to the highest point in the system by rotating the caliper and proceed to pump hydraulic fluid into the caliper at no more than 5 PSI. Once hydraulic fluid begins to steadily flow from elevated bleeder screw, tighten bleeder screw.
3. You may then proceed to pressurize the brake to 750 PSI. At 750 PSI your caliper pistons will be fully retracted, opening the gap for your brake disc.
4. Mount your caliper by aligning the friction pad and brake disc surfaces so they are parallel. Clearance between disc and friction pad surface is .015" to .030" per side of brake disc.

(See Attached Drawing for Additional Dimensional Mounting Detail.)

MAINTENANCE INFORMATION

Maximizing Pad Life & Braking Torque

In order to obtain maximum pad life and braking torque, make sure the disc remains free of contaminants like: oils and other forms of debris. If your application exists within a harsh environment, protecting your caliper from the elements is highly advised when possible. When caliper pistons are retracted check to make sure brake pads are not in contact with disc surface. Any rubbing between the two surfaces can cause excessive friction leading to premature pad wear.

Friction Pad Replacement

1. To replace friction pads, pressurize the brake to 750 psi prior to dismantling.
2. Remove the dead side (#13) by removing the (4) bolts (#12).
3. Remove friction pads from the live side pad holders (#7) by removing the screw (#15). Note: these screws are different than the screws used on the dead side friction pads and must be reinstalled in the live side pad holders only.
4. Remove remaining (2) pads from the dead side using the same process.
5. Install new friction pads (#8). Use removeable thread locker on all screws when reinstalling.
6. Reassemble the dead side and spacer to the live side by installing the (4) bolts and tighten to 30 ft-lbs.
7. Remount brake. Refer to installation instructions.

FS200FUL CALIPER MAINTENANCE

PARTS LIST

ITEM	QTY	PART NUMBER	DESCRIPTION
1	3	4300-1338	SCREWS, BACKING PLATE
2	2	4004-4417	PISTON
3	2	4000-1275	SEAL, PISTON
4	2	4000-1274	RING, BACKUP
5	1	4004-4415	HOUSING, MAIN
6	24	4000-1195	SPRINGS, BELLEVILLE
7	2	4004-4339	HOLDER, PAD
8	4	4000-1556	PAD, FRICTION
9	1	4005-4018	BRACKET, FLOATING
10	1	SEE TABLE A	SPACER
11	8	4000-1042	WASHER
12	4	SEE TABLE A	BOLT, CALIPER
13	1	4004-4002	HOUSING, DEADSIDE
14	2	4000-1091	PIN, FLOATING BRACKET
15	2	4000-1118	SCREW, FRICTION PAD (DEADSIDE)
16	2	4000-1225	SCREW, FRICTION PAD (PAD HOLDER)
17	2	4000-1309	WASHER, PROTECTIVE
18	2	4000-1192	WASHER, THRUST
19	2	4000-1557	SEAL, PADHOLDER
20	2	4000-1049	SCREW, BLEEDER
21	1	4000-1407	PLUG, THREADED
22	1	4000-1204	PLATE, BACKING

TABLE A

DESIGNATOR	ROTOR/DISC WIDTH	SPACER PART #	BOLT PART #	BOLT LENGTH	BRAKE MODEL	BRAKE PART #
A	5/32"	4004-4462	4004-1521	2-3/4"	FS200AFUL	4005-0170
B	1/4"	4004-4463	4004-1521	2-3/4"	FS200BFUL	4005-0171
L	3/8"	4004-4464	4004-1522	3"	FS200LFUL	4005-0172
E	1/2"	4004-4465	4004-1522	3"	FS200EFUL	4005-0173
J	5/8"	4004-4478	4004-1522	3"	FS200JFUL	4005-0174
T	3/4"	4004-4479	4004-1522	3"	FS200TFUL	4005-0175
O	1"	4004-4480	4000-1117	3-1/2"	FS200OFUL	4005-0176

REPAIR KITS, SEAL KITS, AND FRICTION PADS

(QUANTITY OF PARTS SHOWN INCLUDED IN EACH KIT)

SEAL KIT	4004-9193						2	2	2	
REPAIR KIT	4004-9196		4	2	2		2	2	2	2
SPRING WASHER KIT	4004-9189					24				
FRICTION PAD KIT	4004-9160		4	2	2					
ITEM#	DESCRIPTION									
8	FRICTION PAD									
15	SCREW, FRICTION PAD									
16	SCREW, FRICTION PAD									
6	DISC SPRING									
3	SEAL, PISTON									
4	RING, BACKUP									
19	SEAL, PADHOLDER									
2	PISTON									

EXPLODED VIEW

