INSTALLATION - SERVICE INSTRUCTIONS

765 South Pierce Avenue, Louisville, CO 80027 (303) 665-6901 / 800-525-1963 www.markwilliams.com

Bulletin NO. 0082
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Part Numbers: 73400 Carbon Fiber Disc Brake Kit, Strut mount.

Parts Included: SEE DRAWING

Installation Overview:

1) Install the #4 drive bushing into the #5 adapter using #9 and #10 aircraft nut and washer. Torque to 35 ft lbs.

2) Install #5 adapter with bushings on to the wheel using 3/8-16 bolts and washers (not shown) and Loctite #271 stud lock compound. Make sure the wheel is free of burrs before bolting the adapter to the wheel. Wheels that use through bolts will require longer bolts (not furnished).

3) Check to make sure the #8 -014 S70 o-rings are installed in the #6 D-drive buttons. The o-ring groove is off center, and should be closer to the #7 retaining ring.

4) Slide the #6 drive button into the slot on the #1 brake disc. The button should slide freely without binding.

5) The disc with the D-Drive buttons can be placed on to the adapter with the drive bushings. Install the #7 retaining rings on the #4 drive bushings.

6) Bolt the #13 caliper-mounting bracket to the strut using #11 bolts with the #10 washers. Install the #10 washer and the #9 aircraft nut and torque to 35 ft lbs.

7) Install the wheel and disc assembly on the spindle and torque and key the wheel according to the wheel manufactures instructions. Check clearance and line routing options to make sure there is no interference.

8) Insert the #2 linings into the caliper. Slide the caliper over the disc and secure with the #3 guide bolts and #10 washers. Torque to 20 ft lbs.

9) Rotate the wheel by hand and apply light brake pressure, the disc should self align. Make sure the #6 D-Driver button is not pressing against #7 retaining rings. The optimum clearance is 0.060" to 0.070". While the gap can vary, it should never be less than 0.010". (See pg 3).

10) Install the brake lines into the lower inlet port. Install the bleed screws in the upper port. Double check brake fluid levels. When bleeding, the bleed screw must be in the highest point, or approximately the 12:00 position.

11) It is highly recommended that you balance the brake system pressure at this point. Use of a pressure reducing valve is recommended. See Service Bulletin 0086 for bias settings.

Maintenance Requirements:

1) Check for signs of de-lamination in the pads. Check for cracks in the carbon rotor and excessive wear. 0.300" is the minimum thickness for the rotor.

2) The minimum disc thickness is 0.300". In addition there should be less than 0.003" deviation in the thickness. Measure 5 places at the same distance from the center of the disc. All 5 places should measure within 0.003" of each other. Replace the discs if they do not meet these requirements.

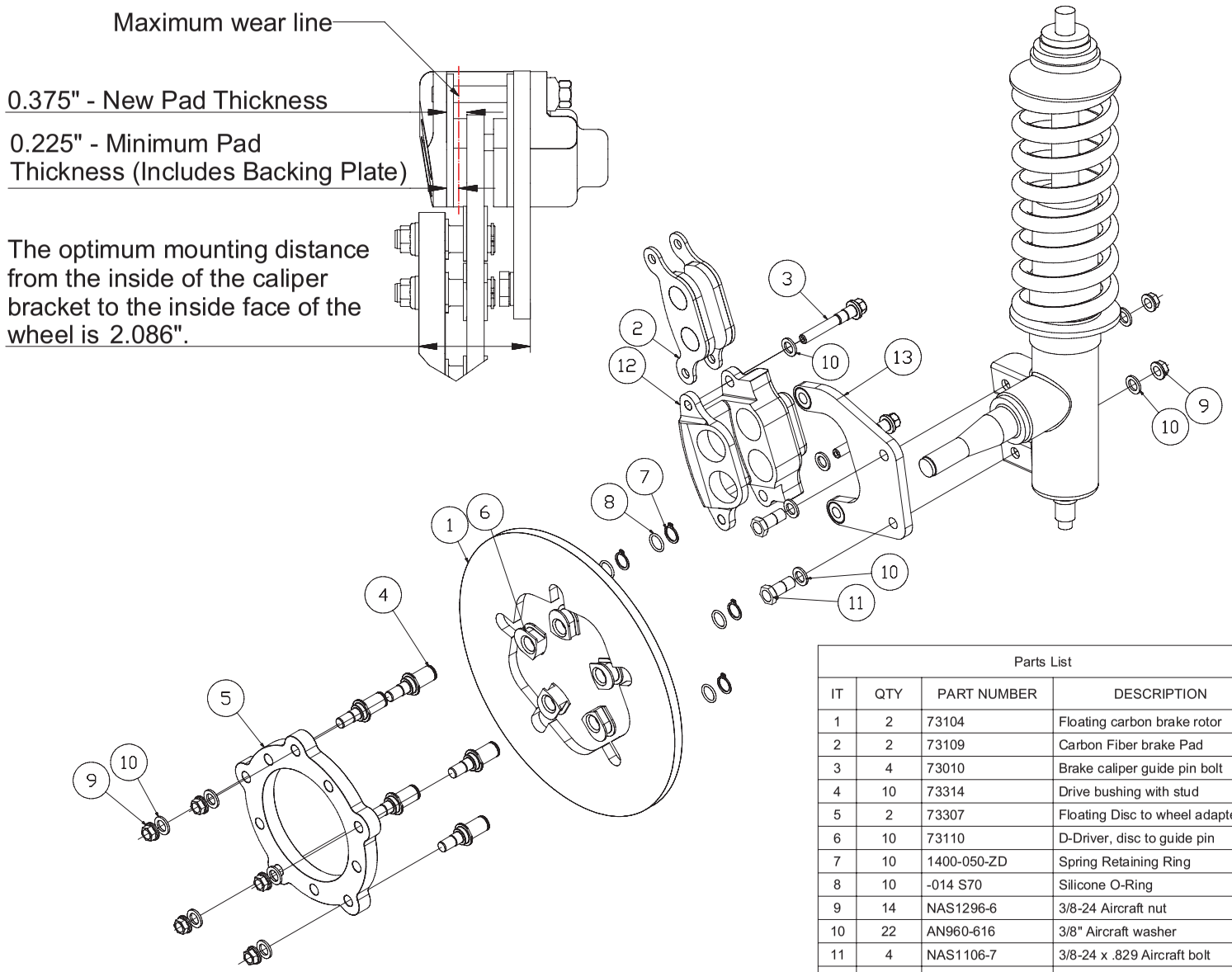
3) Replace the linings when either pad (including the backing) measures 0.225" or less (see inset on page 2).

4) Replace the linings if there is more than 0.225" clearance between the D-Driver and the retaining ring (see complete instructions on pg. 3).

5) Annual cleaning of the caliper is recommended by removing the pistons, and cleaning with methanol alcohol, then replacing the o-rings. This is particularly important with carbon fiber. The o-rings are -122 size, EPR 515 compound. These o-rings are available from M/W. Warning: Do not use hydraulic Buna-N o-rings, as they are not brake fluid compatible.

6) Check that all fasteners are tight, that the retaining rings are snug an un-damaged. Check any moving parts for wear and/or fretting. This includes but not limited to guide bolts, calipers, caliper pistons, drive bushings and bearings. Worn parts should be replaced.

MW Part Number 73400
Strut Mount Carbon Rotor Floating Brake Disc



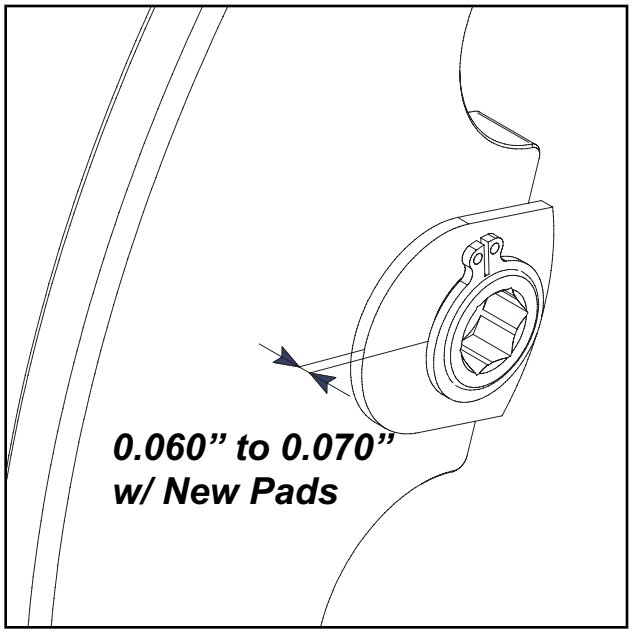
Parts List			
IT	QTY	PART NUMBER	DESCRIPTION
1	2	73104	Floating carbon brake rotor
2	2	73109	Carbon Fiber brake Pad
3	4	73010	Brake caliper guide pin bolt
4	10	73314	Drive bushing with stud
5	2	73307	Floating Disc to wheel adapter
6	10	73110	D-Driver, disc to guide pin
7	10	1400-050-ZD	Spring Retaining Ring
8	10	-014 S70	Silicone O-Ring
9	14	NAS1296-6	3/8-24 Aircraft nut
10	22	AN960-616	3/8" Aircraft washer
11	4	NAS1106-7	3/8-24 x .829 Aircraft bolt
12	2	73002	Caliper for floating disc brake
13	2	73302/73303	Caliper mounting bracket

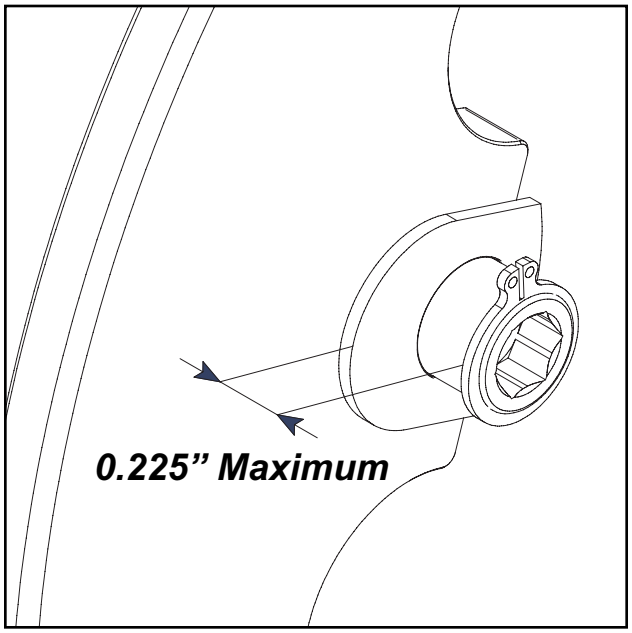
AS0088IN.IDW - Sheet1

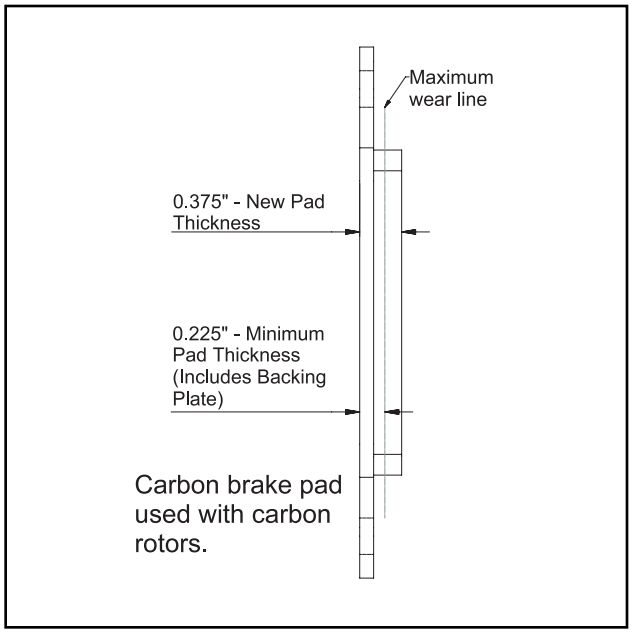
After Installation and Periodic Check: Clearances must be checked in order to insure that all critical alignment points are within specifications. There are two main dimensions that must be monitored - brake pad thickness and maximum clearance between the retaining ring and the D-Driver adapter. This must be checked immediately after installation as well as periodically.

Retaining ring to D-Driver - With new pads, the optimum distance between the D-Driver and the retaining ring is between 0.060”-0.070”. While the gap can vary slightly, it should never be less than 0.010”. As the pads wear, the distance should never be larger than 0.225”. **At this point the pads need to be replaced**, no matter how much lining is left.

Pad Thickness - The brake pad including the backing plate and lining should never wear thinner than 0.225” thick. **At this point the pad needs to be replaced,** no matter what the retaining ring to D-Driver gap is.







- In order to check the D-Driver to retaining ring gap, the disc needs to be aligned and pressed against the outermost pad.

-**You can accomplish this by spinning the wheel and applying light pressure to the brakes.**

-**Check the drive bushings and the D-Drivers for fretting and/or wear. Check to make sure the disc assembly slides freely**