

5022-A FLUID APPLIED BRAKE CALIPER

This caliper is derived from our model 5021 where in fact two brakes are combined into one. This, of course, doubles the clamping force over the model 5021 and also an increase in shoe area.

The stacking of basically two 5021 calipers makes the 5022 a very compact caliper, and lends itself ideally for installations in limited spaces. Most parts for the 5022 are directly interchangeable with our model 5021.

The actuators are equipped with two ports each. However, being common internally, only one port is needed for connection to the source of control in most cases of application. The maximum supply pressure to the brake caliper is 100 psi (6.9 bar). The shoe bearings are detachable from the brake shoe, and shims can be installed between these two items to reduce the clearance between the brake linings. The push rod clevises on the air actuator also have an adjustment which can be used to compensate for brake lining wear. This will also avoid excessive use of compressed air during brake application.

Kobelt has developed a whole series of brake discs to fit our calipers. This disc series offers heavy duty options and lends itself extremely well for continuous energy input, as well as severe stopping applications.

SPECIFICATIONS

Clamping force	18320 lbf	(81.5 kN)
Max. disc thickness	2 in.	(51 mm)
Req. disc face	4 in.	(102 mm)
Total lining area	86 sq. in.	(555 sq. cm)
Lining thickness	0.5 in.	(12.7 mm)
Max. allowable lining wear	0.30 in.	(7.6 mm)
Average wear rate	0.005 cu. in./HP-hr	(0.082 cu. cm/HP-hr)
Coefficient of friction	0.45 – 0.5	at 20° - 260°C
Max. pressure	100 psi	(6.9 bar)
Actuator volume	60 cu. in.	(983 cu. cm)
Weight	92 lb.	(42 kg)
Materials	Die cast silicon bronze with stainless steel hardware and rolled alloy steel tie rods	

Important: Use only hydraulic fluid or air. Standard seals are not compatible with brake fluid.

STANDARD VENTILATED KOBELT DISC: 2 in. (51mm)

Disc Dia.	18	20	25	30	35	40	45	50
inches	18	20	25	30	35	40	45	50
mm	457	508	635	762	889	1016	1143	1270
Acting Rad.								
ft	0.58	0.67	0.88	1.08	1.29	1.50	1.71	1.92
meter	0.18	0.20	0.27	0.33	0.39	0.46	0.52	0.58
Torque ‡								
ft-lb	4198	4870	6549	8229	9908	11587	13267	14946
kg-m	580	673	905	1138	1370	1602	1834	2066
Maximum RPM	3070	2750	2200	1800	1550	1350	1200	1070

‡ Brake torques are theoretical values only

Ordering Information

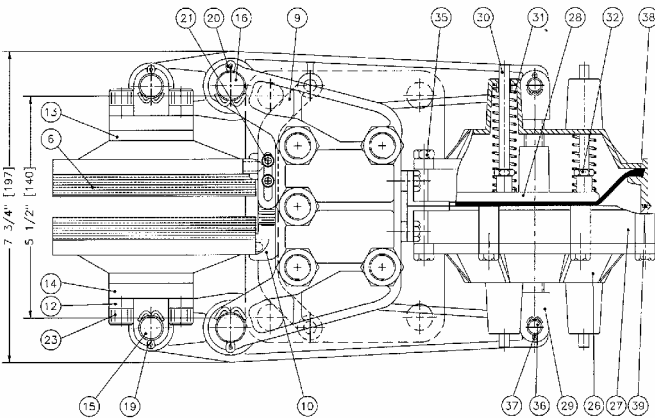
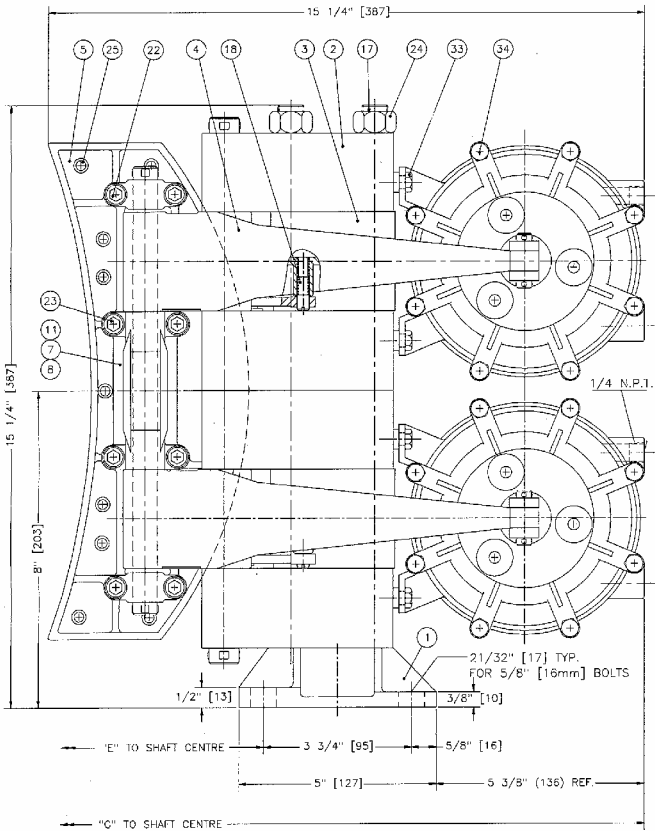
5022-A Fluid Applied Brake Caliper

When ordering brake calipers for discs smaller than the standard thickness, shim kits are available for the adjustment (refer to the shim kit table below). Add the last four digits of the appropriate kit to the code when ordering.

Example: *5022-A1250* is a 5022-A brake caliper set for 1¼" thick disc.

Disc thickness	Shim Kit	
	Part number	Total shim size
1.50 in. (38.1 mm)	5022-1500	0.50 in (12.7 mm) 1 shim (1/4") per side
1.25 in. (31.8 mm)	5022-1250	0.75 in (19 mm) 1 shim (3/8") per side
1.00 in. (25.4 mm)	5022-1000	1.00 in. (25.4 mm) 2 shims (1/4") per side
0.75 in. (19 mm)	5022-0750	1.25 in. (31.8 mm) 2 shims (3/8"+1/4") per side
0.50 in. (12.7 mm)	5022-0500	1.50 in. (38.1 mm) 2 shims (3/8") per side

5022-A Dimensions and Parts List



All dimensions in inches (mm)

Disc Diameter	18	20	25	30	35	40	45	50
inches	18	20	25	30	35	40	45	50
mm	457	508	635	762	889	1016	1143	1270
Dimension "E"								
inches	9.13	10.13	12.63	15.13	17.63	20.13	22.63	25.13
mm	232	257	321	384	448	511	575	638
Dimension "G"								
inches	18.87	19.87	22.37	24.87	27.37	29.87	32.37	34.87
mm	479	505	568	632	695	759	822	886

Item	Qty	Part No.	Description
1	1	5021-0001	Foot
2	4	5021-0002	Saddle
3	2	5021-0003	Spacer
4	4	5021-0004	Lever
5	2	5022-0005	Shoe
6	2	5022-0007	Lining
7	*	5021-0008	1/4" Shim (centre hinge)
8	*	5021-0009	3/8" Shim (centre hinge)
9	2	5021-0011	Balancing Link No. 1
10	2	5021-0012	Balancing Link No. 2
11	2	5022-0013	Centre Hinge Block
12	4	5022-0014	Outside Hinge Block
13	*	5022-0015	1/4" Shim (outside hinge)
14	*	5022-0016	3/8" Shim (outside hinge)
15	2	5022-0021	Shoe Pin
16	2	5022-0022	Saddle Pin
17	5	5022-0023	Tie Rod
18	2	5021-0226	Link Pin
19	4	1026-0516	Cotter Pin
20	4	1026-0824	Cotter Pin
21	4	1002-0808	Socket Hd. Screw
22	8	1002-1112	Socket Hd. Cap Screw (standard)
22	*	1002-1116	Socket Hd. Cap Screw (-1500 shim kit)
22	*	1002-1120	Socket Hd. Cap Screw (-1250/1000 shim kit)
22	*	1002-1124	Socket Hd. Cap Screw (-0750/0500 shim kit)
23	8	1002-1216	Socket Hd. Cap Screw (standard)
23	*	1002-1220	Socket Hd. Cap Screw (-1500 shim kit)
23	*	1002-1224	Socket Hd. Cap Screw (-1250/1000 shim kit)
23	*	1002-1228	Socket Hd. Cap Screw (-0750/0500 shim kit)
24	5	1022-0116	Nut
25	38	1033-1007	Rivet

* Quantity may vary with options

6112 Fluid Applied Pot

Item	Qty	Part No.	Description
26	4	6112-0001	End Cap
27	4	6112-0002	Centre Housing
28	4	6112-0003	Diaphragm Washer
29	4	6112-0005	Pot Clevis
30	12	6112-0007	Guide Pin
31	12	1201-0146	Spring
32	12	1022-0210	Jam Nut
33	8	1001-1008	Hex. Hd Screw
34	16	1001-1044	Hex. Hd Screw
35	16	1041-10025	Nut, plated
36	4	6112-0010-L	Pin
37	8	1026-0312	Cotter Pin
38	4	1105-0012	Diaphragm
39	2	1101-0161	"O" Ring