

5027-SA | SPRING APPLIED AIR RELEASED CALIPER DISC BRAKE

KEY BENEFITS

Bronze & stainless steel construction

Rapid brake pad change out

Well matched to Kobelt's standard range of 2" x 4" ventilated discs

Putting you in control.

Constructed entirely of bronze and stainless steel, Kobelt's spring applied disc brakes are built to last in the harshest, most corrosive conditions.

The brake features a shoe design which allows the brake pads to be easily and quickly changed while leaving the caliper in place.

Available with several options, these caliper disc brakes are well suited for parking or emergency braking duty on hoists, winches and more.

SPECIFICATIONS

PART NO.	NORMAL FORCE ¹	PRESSURES	
		RELEASE	HOLD-OFF
5027-SA	19,040 lbs [84.7 kn]	83 psi [5.7 bar]	70 psi [4.8 bar]
5027-SA75	18,550 lbs [82.5 kn]	79 psi [5.4 bar]	68 psi [4.7 bar]
5027-SA70	17,080 lbs [76.0 kn]	70 psi [4.8 bar]	62 psi [4.3 bar]
5027-SA60	15,680 lbs [69.8 KN]	65 psi [4.5 bar]	56 psi [3.9 bar]

Maximum Pressure:	150 psi	[10.3 bar]
Port Size:	3/8 NPT	
Actuator Volume:	120 in ³	[1970 cc]
Temperature Range:	-40°F...+131°F -40°C...+55°C	
Disc Thickness:	2 in	[51 mm]
Max Running Clearance:	.08 in	[2.0 mm]
Minimum Disc Diameter:	28 in	[711 mm]
Maximum Disc Diameter ² :	75 in	[1905 mm]
Total Pad Area:	106 in ²	[688 cm ²]
Weight:	274 lbs	[124 kg]

¹Torque:

$$T_B = 2F_N\mu \left(\frac{OD-5.40}{24} \right)$$

Where:

T_B = brake torque (ft-lbf)

F_N = normal force (lbf)

μ = coefficient of friction

= 0.38 (ferrous)

= 0.35 (nonferrous)

Friction values are theoretical and for reference only. They are based on properly bedded and burnished linings acting on a rotor at 20°C, manufactured to required specifications.

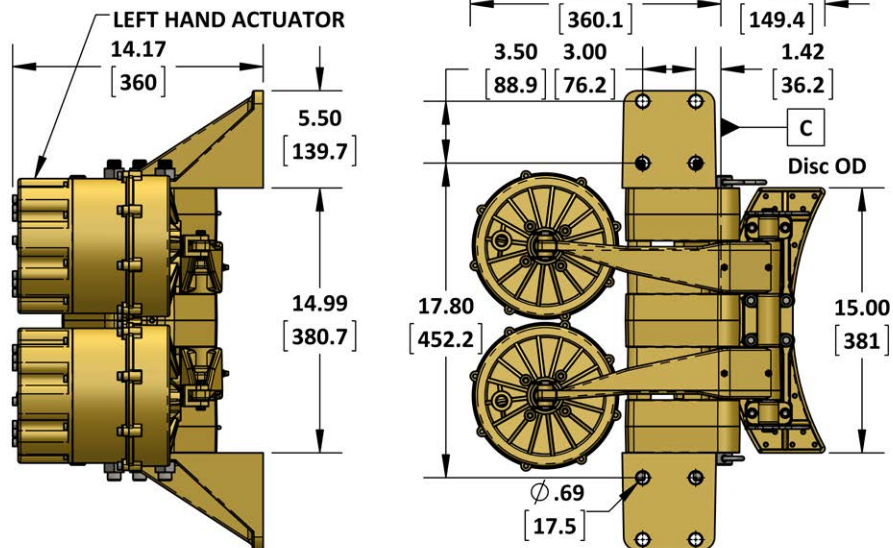
OD = brake disc diameter (in)

²Requires a minimum 5.12 in [130 mm] wide face

Brake Model Code Key

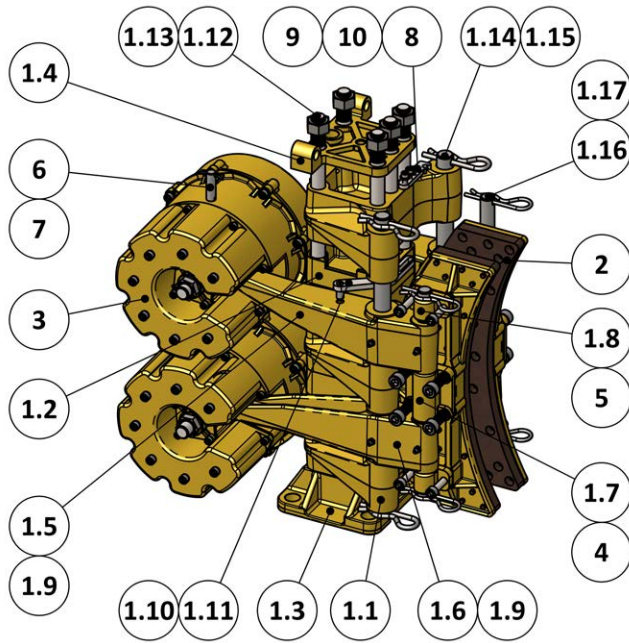
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- Added options
 - R = manual release
 - LS = limit switch
- Friction material
 - (blank) = standard
 - N = non-sparking
 - C = low COF (.12-.15)
 - E = mid COF (.25-.28)
- Disc thickness
 - (blank) = 2.000 in
 - 175 = 1.750 in
 - 150 = 1.500 in
 - 125 = 1.250 in
 - 100 = 1.000 in
- Actuator handing
 - LH = springs on left hand side
 - RH = springs on right hand side
- Mounting code
 - (blank) = foot mounted
 - W = side mounted
- Actuator code
 - SA = 78 psi release
 - SA75 = 75 psi release
 - SA70 = 66 psi release
 - SA60 = 61 psi release



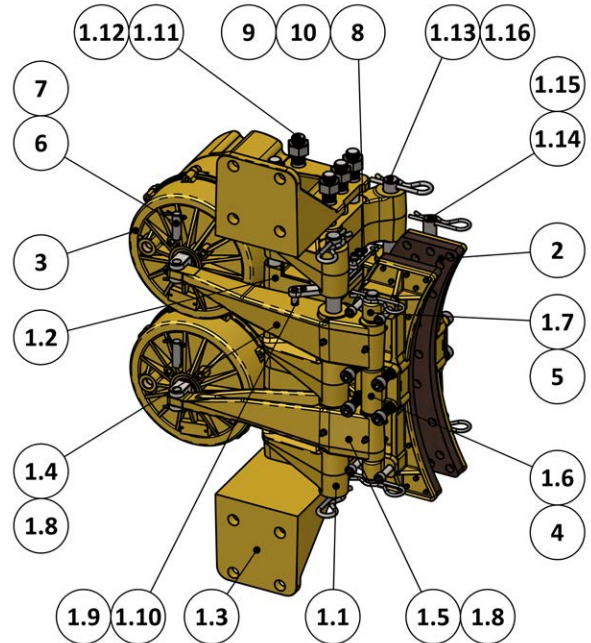
PARTS LISTING

5027-SA Caliper Brake



ITEM	QTY.	PART NUMBER	5027-SA DESCRIPTION
1	1	5027-SUB	SUB-ASSEMBLY, 5027 CALIPER
1.1	3	5027-0002	SADDLE, 5027 CALIPER
1.2	2	5024-0003	SPACER, 5024 CALIPER
1.3	1	5024-0001	FOOT, 5024 CALIPER
1.4	1	5027-0100	TOP SUPPORT, 5027 CALIPER
1.5	2	5027-0004-L	LEVER ARM, LEFT, 5026 CALIPER
1.6	2	5027-0004-R	LEVER, RIGHT, 5027
1.7	2	5026-0013	PIVOT BLOCK, CENTER, 5026 CALIPER
1.8	4	5026-0014	PIVOT BLOCK, OUTER, 5026 CALIPER
1.9	10	1501-0301	GREASE NIPPLE, 1/4-28
1.10	2	5024-0026	LINK PIN, 5024 - 5026 CALIPERS
1.11	2	5024-0011	BALANCING LINK NO. 1, 5024 CALIPER
1.12	5	5027-0023	TIE ROD, 5026 & 5027 CALIPER
1.13	5	1022-0117	NUT, HEX, 3/4-10 UNC, Gr 18-8
1.14	2	5027-0022	SADDLE PIN, 5027 CALIPER
1.15	4	1039-0470	PIN, HAIRPIN COTTER, 1/4 X 4-1/4, STEEL
1.16	2	5027-0021	SHOE PIN, 5027 CALIPER
1.17	4	1039-0352	HITCH PIN, 5/16 X4, STEEL
2	2	5027-LS	SHOE ASSEMBLY, 5/8" K5, 5027 CALIPER
3	2	6233	SPRING APPLIED / AIR RELEASED ACTUATOR
4	8	1002-1420	SCREW, SKT HD, 1/2-13 UNC X 1-1/4, SS
5	8	1002-1220	SCREW, SKT HD, 3/8-16 UNC X 1-1/4, SS
6	4	6230-0010	CLEVIS PIN, 1/2" DIA
7	8	1026-0516	COTTER PIN, 1/8" X 1", SS
8	2	5024-0012	BALANCE LINK NO. 2, 5024 CALIPER
9	4	1023-0216	FLAT WASHER, 1/4, TYPE B, NARROW
10	4	1002-1010	SCREW, SKT HD, 1/4 UNC X 5/8 LG, 18-8 SS

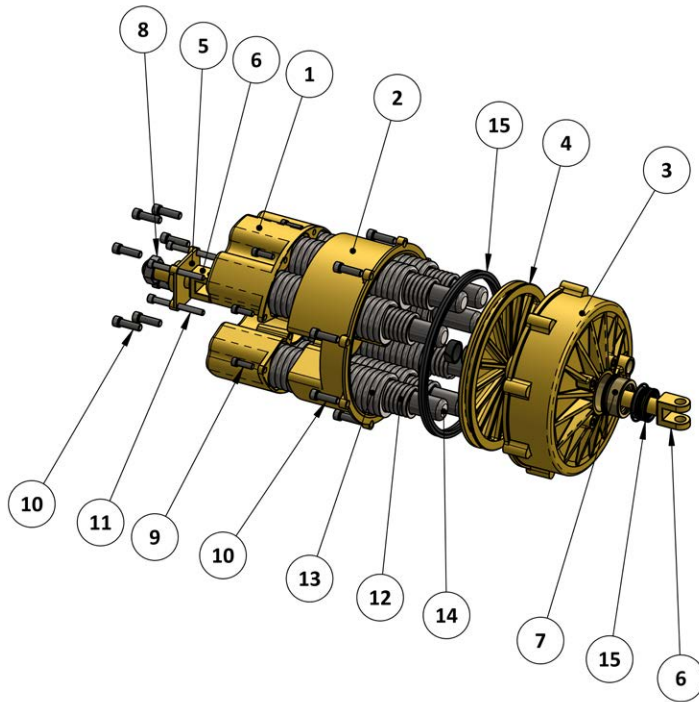
5027-SAW Caliper Brake



ITEM	QTY.	PART NUMBER	5027-SAW DESCRIPTION
1	1	5027-SUB-SW	SUB-ASSEMBLY, 5027 CALIPER, SIDE MOUNT
1.1	3	5027-0002	SADDLE, 5027 CALIPER
1.2	2	5024-0003	SPACER, 5024 CALIPER
1.3	2	5027-0200	SIDE MOUNT FOOT, 5027 CALIPER
1.4	2	5027-0004-L	LEVER ARM, LEFT, 5026 CALIPER
1.5	2	5027-0004-R	LEVER, RIGHT, 5027
1.6	2	5026-0013	PIVOT BLOCK, CENTER, 5026 CALIPER
1.7	4	5026-0014	PIVOT BLOCK, OUTER, 5026 CALIPER
1.8	8	1501-0301	GREASE NIPPLE, 1/4-28
1.9	2	5024-0026	LINK PIN, 5024 - 5026 CALIPERS
1.10	2	5024-0011	BALANCING LINK NO. 1, 5024 CALIPER
1.11	5	5027-0023	TIE ROD, 5026 & 5027 CALIPER
1.12	10	1022-0117	NUT, HEX, 3/4-10 UNC, Gr 18-8
1.13	2	5027-0022	SADDLE PIN, 5027 CALIPER
1.14	2	5027-0021	SHOE PIN, 5027 CALIPER
1.15	4	1039-0352	HITCH PIN, 5/16 X4, STEEL
1.16	3	1039-0470	PIN, HAIRPIN COTTER, 1/4 X 4-1/4, STEEL
2	2	5027-LS	SHOE ASSEMBLY, 5/8" K5, 5027 CALIPER
3	2	6233	SPRING APPLIED / AIR RELEASED ACTUATOR
4	8	1002-1420	SCREW, SKT HD, 1/2-13 UNC X 1-1/4, SS
5	8	1002-1220	SCREW, SKT HD, 3/8-16 UNC X 1-1/4, SS
6	4	6230-0010	CLEVIS PIN, 1/2" DIA
7	8	1026-0516	COTTER PIN, 1/8" X 1", SS
8	2	5024-0012	BALANCE LINK NO. 2, 5024 CALIPER
9	4	1023-0216	FLAT WASHER, 1/4, TYPE B, NARROW
10	4	1002-1010	SCREW, SKT HD, 1/4 UNC X 5/8 LG, 18-8 SS

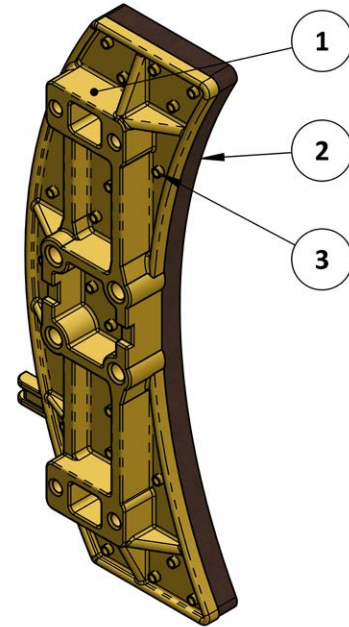
PARTS LISTING

6233 Actuator



ITEM	QTY.	PART NUMBER	6233 DESCRIPTION
1	1	6233-0001	SPRING HOUSING, COVER
2	1	6233-0101	SPRING HOUSING, CENTRE
3	1	6233-0002	ACTUATOR HEAD, 6233 ACTUATOR
4	1	6233-0003	PISTON, AIR, 6233 ACTUATOR
5	1	6233-0004	BRACKET, 6233 ACTUATOR
6	2	6233-0005	CLEVIS, 6233 ACTUATOR
7	1	6230-PHB	SEAL CARRIER, 6230 ACTUATOR
8	1	1022-0217	NUT, JAM, 3/4-10 UNC, SS
9	8	1002-1012	SCREW, SCKT HD, 1/4-20 UNC X 3/4, SS
10	15	1002-1116	SCREW, SCKT HD, 5/16-18 UNC X 1, SS
11	4	1002-1036	CAP SCREW – SKT HD; ¼ UNC X 2-1/4 LG , 18-8
12	7	1201-0229	SPRING, COMPRESSION, 1.45 OD X .177 WIRE X 12.31 LG
13	7	1201-0230	SPRING, COMPRESSION, 2.00 OD X .250 WIRE X 13.0 LG
14	7	6230-0011	SPRING GUIDE, 1"
15	1	6233-RK	SEAL KIT, 6233 ACTUATOR

5027-LS



ITEM	QTY.	PART NUMBER	5027-LS DESCRIPTION
1	1	5027-0005	SHOE, 5027 CALIPER
2	1	5027-0007	LINING, 5/8" K5, 5027 BRAKE CALIPER
3	29	1033-1007	RIVET, 1/4 X 7/16 (10-7), BRASS

Note: Parts lists are applicable to standard models only.