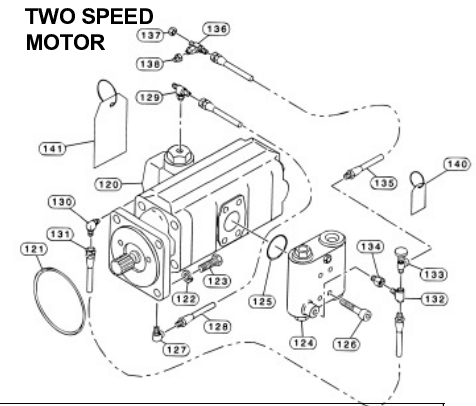
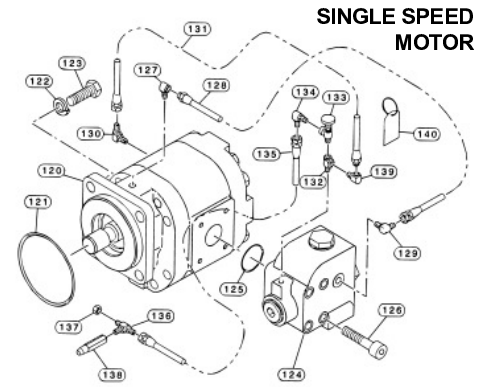
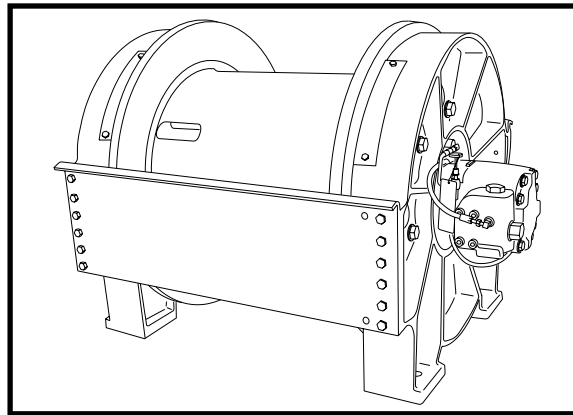


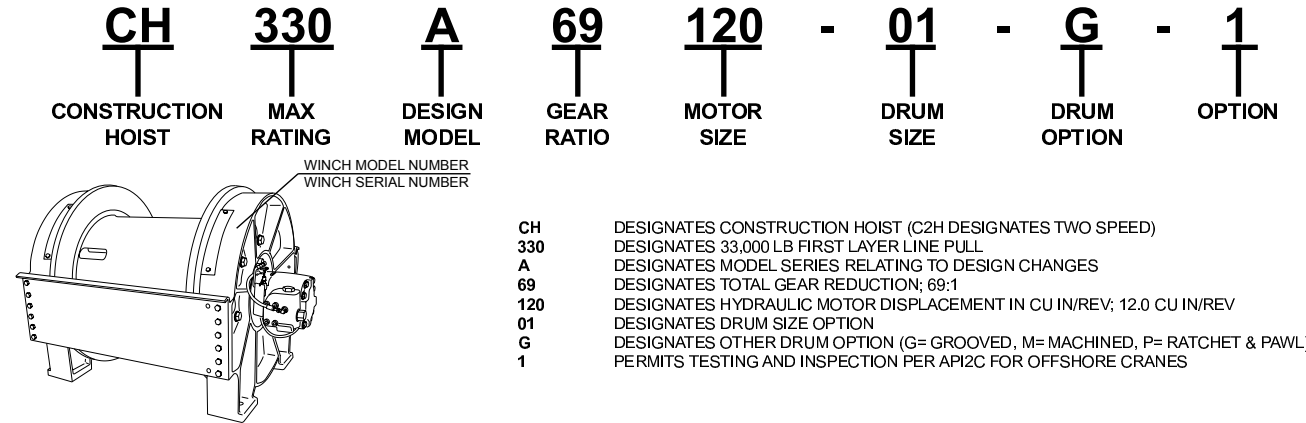
MATERIAL LIST

CH330 CH400



HYDRAULIC MOTORS											
ITEM	DESCRIPTION	QTY.	090 PART #	120 PART #	127 PART #	ITEM	DESCRIPTION	QTY.	090 PART #	120 PART #	127 PART #
120	Hydraulic Motor	1	100044	100042	25651	131	Hose Assembly	1	76499	13705	13707
121	O-ring	1	10330	10330	10330	132	Fitting	1	23769	23769	22304
122	Lockwasher (1/2)	4	11026	11026	11026	133	Needle Valve	1	25258	25258	25258
123	Capscrew (1/2 - 13 x 1-1/2 G8)	4	104322	104322	104322	134	Fitting	1	21163	21163	24784
124	Brake Valve	1	81609	81609	81984	135	Hose Assembly	1	25935	25750	13707
125	O-ring	1	13542	13542	13838	136	Tee Fitting	1	21166	21166	25748
126	Capscrew (1/2 - 13 x 4-1/2 Soc. Hd G80)	4	23690	23690	-	137	Cap Nut	1	70182	70182	70182
127	Capscrew (7/16 - 14 x 3 Soc. Hd G5)	4	-	-	21134	138	Fitting	1	25038	25038	25864
128	Fitting	1	31341	24236	24236	139	Fitting	1	21163	21163	-
129	Hose Assembly	1	25939	13705	13707	140	Warning Tag	1	25257	25257	25257
130	Fitting	1	21163	21163	29078	141	Warning Tag	1	-	-	29080
			25302	25302	25302						

EXPLANATION OF MODEL NUMBER



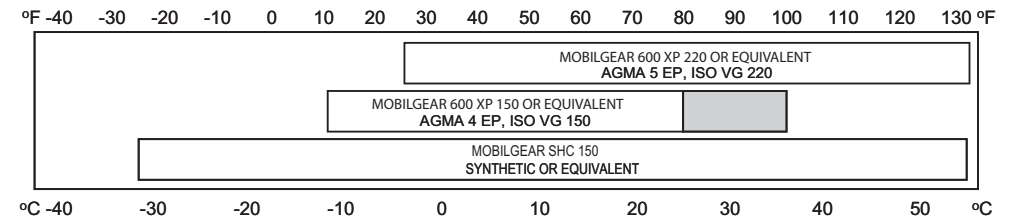
TO ORDER:

- 1) List model and serial numbers of the winch.
- 2) Refer to illustrations and select the component(s) needed and note item number.
- 3) Find item number on material list, show part number, description and quantity on your order.
- 4) Refer to parts price list and show price for each component or assembly.

RECOMMENDED PLANETARY GEAR OIL

We have published the following specification to help you determine which lubricant is best suited to your application. Your lubricant supplier should assure you that their available product meets the specifications. If there is still any doubt as to the suitability of a lubricant, contact the Braden Service Department.

PREVAILING AMBIENT TEMPERATURE

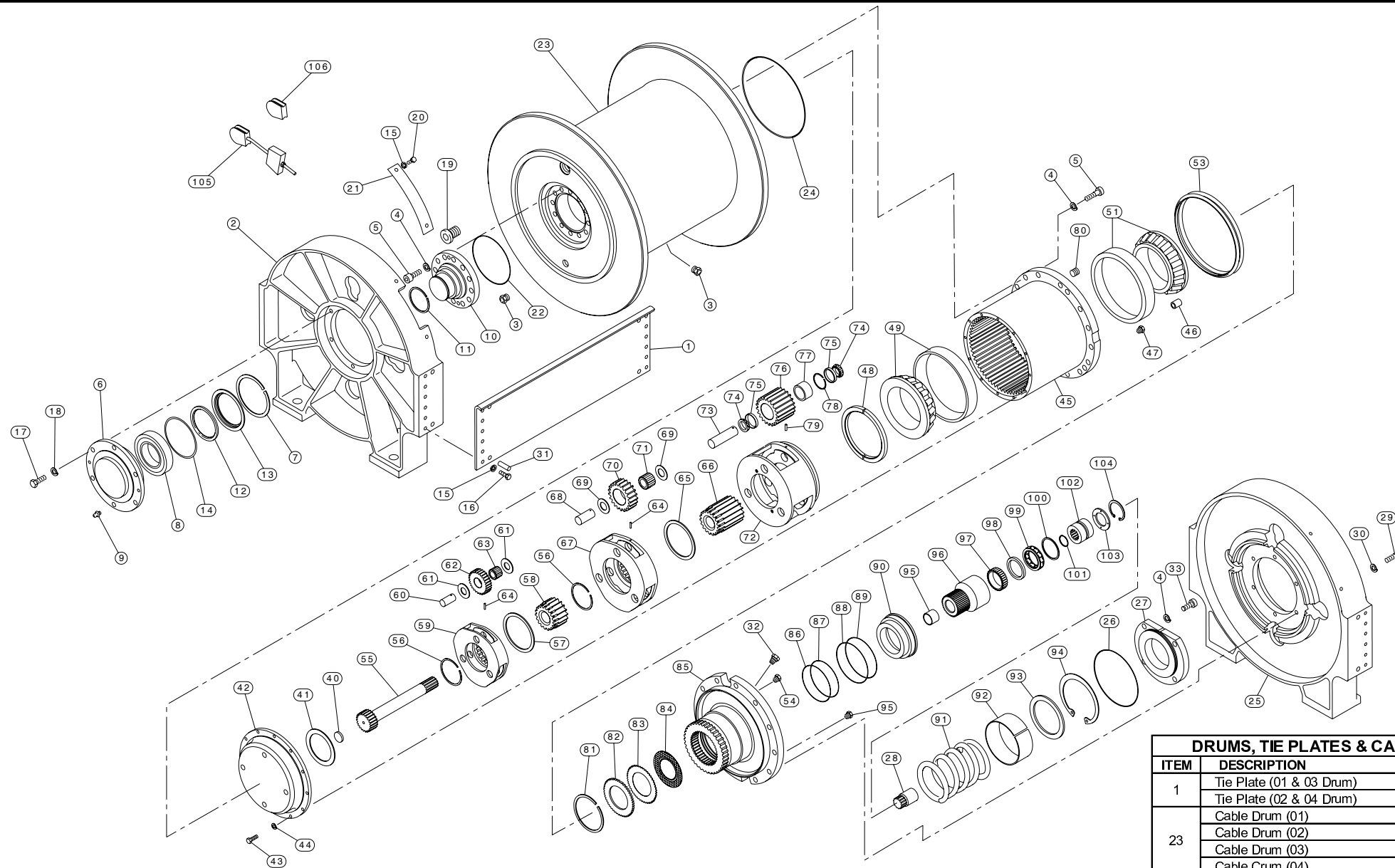


i NOTE: SHADED TEMPERATURE RANGE IN THE CHART ABOVE NOT RECOMMENDED FOR SEVERE APPLICATIONS SUCH AS: OFFSHORE CRANES, SUSTAINED FAST DUTY CYCLES OR FREQUENT LIFTING.

Planetary hoists are factory filled with Mobilgear 600 XP 150, or equivalent. Consult your oil supplier for other equivalent oils if required.

Mobil	Shell	Chevron	Texaco
Mobilgear 600 XP 150	Omala 150	Gear Compounds EP 150	Meropa 150
Mobilgear 600 XP 220	Omala 220	Gear Compounds EP 220	Meropa 220

BRADEN CH330/400 - Components



VARIABLE ITEMS						
ITEM	DESCRIPTION	QTY	CH330		CH400	
			69:1 RATIO PART #	86:1 RATIO PART #	69:1 RATIO PART #	99:1 RATIO PART #
45	Ring Gear/Main Housing	1	104438	104438	104439	104439
55	Primary Sun Gear	1	27943 (22T)	27943 (22T)	29130 (22T)	29130 (22T)
56	External Retaining Ring	2	28736	28736	28736	23226
58	Second Stage Sun Gear	1	27944 (24T)	27958 (18T)	27944 (24T)	27947 (15T)
59	Primary Planet Carrier	1	27916	27916	27916	27914
66	Output Sun Gear	1	27942 (18T)	27942 (18T)	29095 (18T)	29095 (18T)
67	Second Stage Planet Carrier	1	27933	27932	27933	27931
70	Second Stage Planet Gear	3	27919 (18T)	27920 (21T)	27919 (18T)	27921 (22T)
72	Output Planet Carrier	1	27904	27904	29125	29125
73	Output Planet Pin	3	27909	27909	29126	29126
74	Bearing Cone	6	27905	27905	-	-
	Thrust Washer	6	-	-	29128	29128
75	Bearing Cup	6	27906	27906	-	-
	Loose Rollers (two rows per gear)	78	-	-	29001	29001
76	Output Planet Gear *	3	27907 (21T)	27907 (21T)	29094 (21T)	29094 (21T)
77	Bearing Spacer	3	27912	27912	29129	29129
78	Internal Retaining Ring	3	28738	28738	-	-

* P/N 27907 (3-1/2 in. long); P/N 29094 (4 in. long)

WINCH DRIVE/GEARBOX - COMMON PARTS			
ITEM	DESCRIPTION	QTY.	PART #
40	Thrust Washer	1	28726
41	Thrust Washer	1	28727
42	Primary Ring Gear/End Cover	1	27812
43	Capscrew (3/8 - 16 X 1 1/4 G8)	12	104132
44	Lockwasher (3/8)	12	27152
46	Drain Tube	1	28999
47	Drain Plug (1/2 NPT)	1	19045
48	Split Ring	1	27839
49	Bearing Cup & Cone Set †	1	108022
51	Bearing Cup & Cone Set †	1	108021
53	Metal Face Seal	1	27910
57	Thrust Washer	1	28728
60	Primary Planet Pin	3	28731
61	Thrust Washer	6	28742
62	Primary Planet Gear	3	27917 (28T)
63	Loose Rollers	51	28859
64	Spirol Pin	6	24582
65	Thrust Washer	1	28730
68	Second Stage Planet Pin	3	27923
69	Thrust Washer	6	28729
71	Loose Rollers	42	27911
79	Rollpin	3	18055

† Bearing Cup & Cone supplied as set.

DRUMS, TIE PLATES & CABLE ANCHORS			
ITEM	DESCRIPTION	QTY	PART #
1	Tie Plate (01 & 03 Drum)	2	23287
	Tie Plate (02 & 04 Drum)	2	26786
	Cable Drum (01)	1	82043
	Cable Drum (02)	1	82039
23	Cable Drum (03)	1	28914
	Cable Drum (04)	1	40153
106	Cable Wedge (03 & 04 Drum 5/8 thru 1-1/8 inch Wire Rope)	1	24493
	Cable Anchor Assembly (01 & 02 Drum 3/4 inch Wire Rope)	1	62262
	Cable Clamp	1	29086
	Cable Clamp Rod	1	19087
	Cable Anchor	1	29085
	Nut	1	23558
	Cable Anchor Assembly (01 & 02 Drum 7/8 inch Wire Rope)	1	62261
	Cable Clamp	1	29089
	Cable Clamp Rod	1	29084
	Cable Anchor	1	29085
105	Nut	1	23558
	Cable Anchor Assembly (01 & 02 Drum 1 inch Wire Rope)	1	62259
	Cable Clamp	1	29083
	Cable Clamp Rod	1	29084
	Cable Anchor	1	29085
	Nut	1	23558
	Cable Anchor Assembly (01 & 02 Drum 1-1/8 inch Wire Rope)	1	62263
	Cable Clamp	1	101251
	Cable Clamp Rod	1	101252
	Cable Anchor	1	28969
Nut	1	23558	

BASIC MATERIAL LIST			
ITEM	DESCRIPTION	QTY	PART #
3	Plug (-8 ORB)	2	32411
4	Lockwasher (3/4)	20	28939
5	Capscrew (3/4 - 10 X 2 1/2 Soc. Hd. G8)	16	28937
15	Lockwasher (1/2)	32	11026
16	Capscrew (1/2 - 13 X 1 1/2 G8)	24	104322
19	Sight Gauge	1	25958
20	Capscrew (1/2 - 13 X 3/4 G8)	8	22729
21	Guard Plate	4	26788
24	O-Ring	1	28935
25	Motor End Bracket	1	28834
26	O-Ring	1	22357
27	Motor Adapter	1	28869
28	Motor Coupling	1	28911
29	Capscrew (7/8 - 9 X 2 3/4 Soc. Hd. G8)	10	28938
30	Lockwasher (3/4)	10	13447
31	Dowel Pin	8	21112
33	Capscrew (3/4 - 10 X 2 Soc. Hd. G8)	4	25525

DRUM SUPPORT ASSEMBLY			
ITEM	DESCRIPTION	QTY	PART #
2	Support End Bracket	1	28835
4	Lockwasher (3/4)	12	28939
5	Capscrew (3/4 - 10 X 2 1/2 Soc. Hd. G8)	12	28937
6	Outer Hub	1	28799
7	Internal Retaining Ring	1	28814
8	Roller Bearing	1	28815
9	Grease Fitting	1	18047
10	Inner Hub	1	28798
11	External Retaining Ring	1	28813
12	Seal	1	28816
13	Seal Carrier	1	28808
14	O-Ring	1	28973
17	Capscrew (5/8 - 11 X 2 G8)	6	13954
18	Lockwasher (5/8)	6	11028
22	O-Ring	1	28934

BRAKE CYLINDER ASSEMBLY			
ITEM	DESCRIPTION	QTY	PART #
32	Vent Relief Valve 15-25 PSI	1	27461
54	Pipe Plug (1/8)	3	22374
81	Internal Retaining Ring	1	27924
82	Brake Retainer Plate	1	29386
83	Steel Disc	9	24490
84	Friction Disc	9	27649
85	Motor Support/Brake Cylinder	1	27813
86	Back-Up Ring	1	25643
87	O-Ring **	1	107857
88	O-Ring **	1	107858
89	Back-Up Ring	1	28741
90	Piston **	1	108664
91	Spring **	1	108538
92	Piston Stop **	1	108678
93	Spring Stop	1	27951
94	Internal Retaining Ring	1	27925

** - Product improvement, refer to Service Bulletin LIT2575.

SPRAG CLUTCH ASSEMBLY			
ITEM	DESCRIPTION	QTY	PART #
95	Bushing	1	28920
96	Outer Brake Race	1	NSS
97	Roller Bearing	1	28733
98	Spacer	1	28716
99	Sprag Clutch	1	NSS
100	Spacer	1	28715
101	Internal Retaining Ring	1	28734
102	Inner Brake Race	1	NSS
103	Spacer	1	27929
104	Internal Retaining Ring	1	28735

NSS - Not Serviced Separately. Order Complete Assembly, P/N 82005.