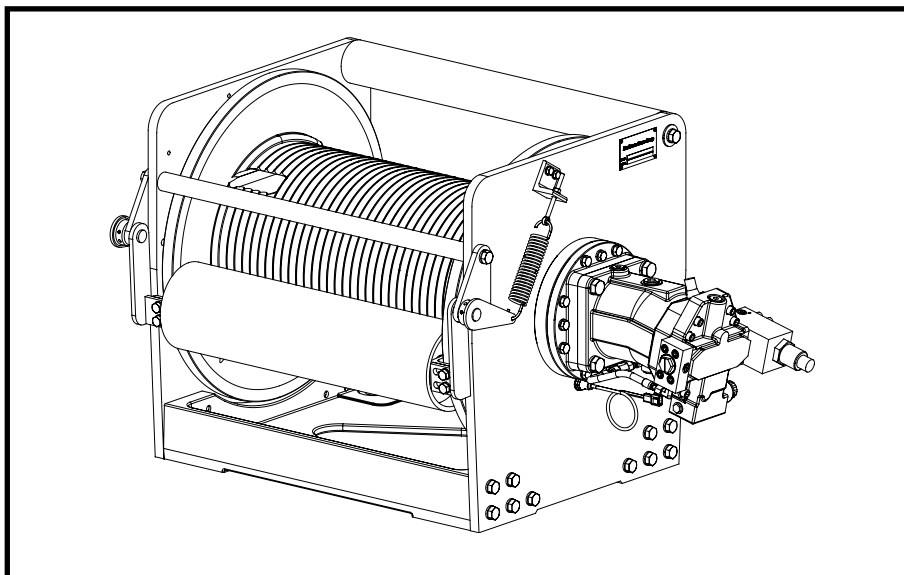


BRADEN®

CH210A

MATERIAL LIST

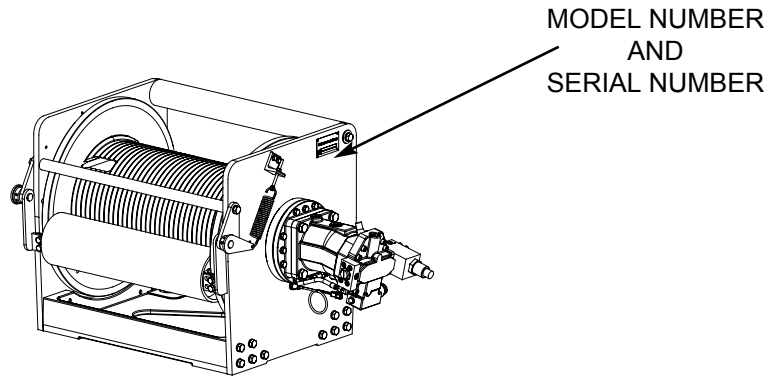
(05819)



PACCAR WINCH DIVISION
P.O. BOX 547 BROKEN ARROW, OK U.S.A. 74013
PHONE (918) 251-8511 FAX (918) 259-1575
www.paccarwinch.com

MODEL NUMBER AND SERIAL NUMBER

When information on a hoist is needed, always refer to the model number and serial number. Both are located on the top of the motor side end plate as indicated.



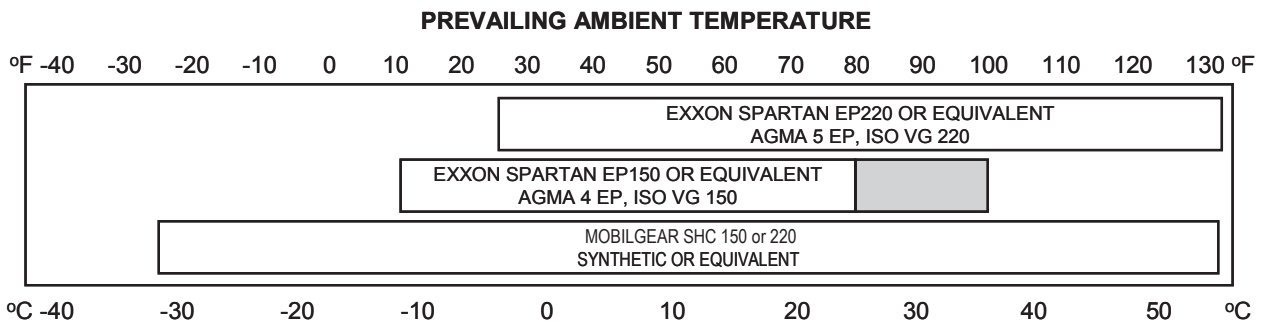
EXPLANATION OF MODEL NUMBER

CH	210	A - SPL	50	V	065/037	05	G	
CONSTRUCTION HOIST	MAX RATING	DESIGN MODEL	SPECIAL	GEAR RATIO	VARIABLE DISPLACEMENT	MOTOR SIZE	DRUM SIZE	GROOVED DRUM

CH	DESIGNATES CONSTRUCTION HOIST
210	DESIGNATES 21,000 LB FIRST LAYER LINE PULL
A	DESIGNATES THE MODEL SERIES RELATING TO DESIGN CHANGES
SPL	DESIGNATES SPECIAL
50	DESIGNATES TOTAL GEAR REDUCTION
V	DESIGNATES VARIABLE DISPLACEMENT
065/037	DESIGNATES HYDRAULIC MOTOR DISPLACEMENT IN CU IN/REV
05	DESIGNATES THE DRUM OPTION
G	DESIGNATES GROOVED DRUM

Oil Capacities - 05 Drum 44 pints (20.8 L)

RECOMMENDED PLANETARY GEAR OIL

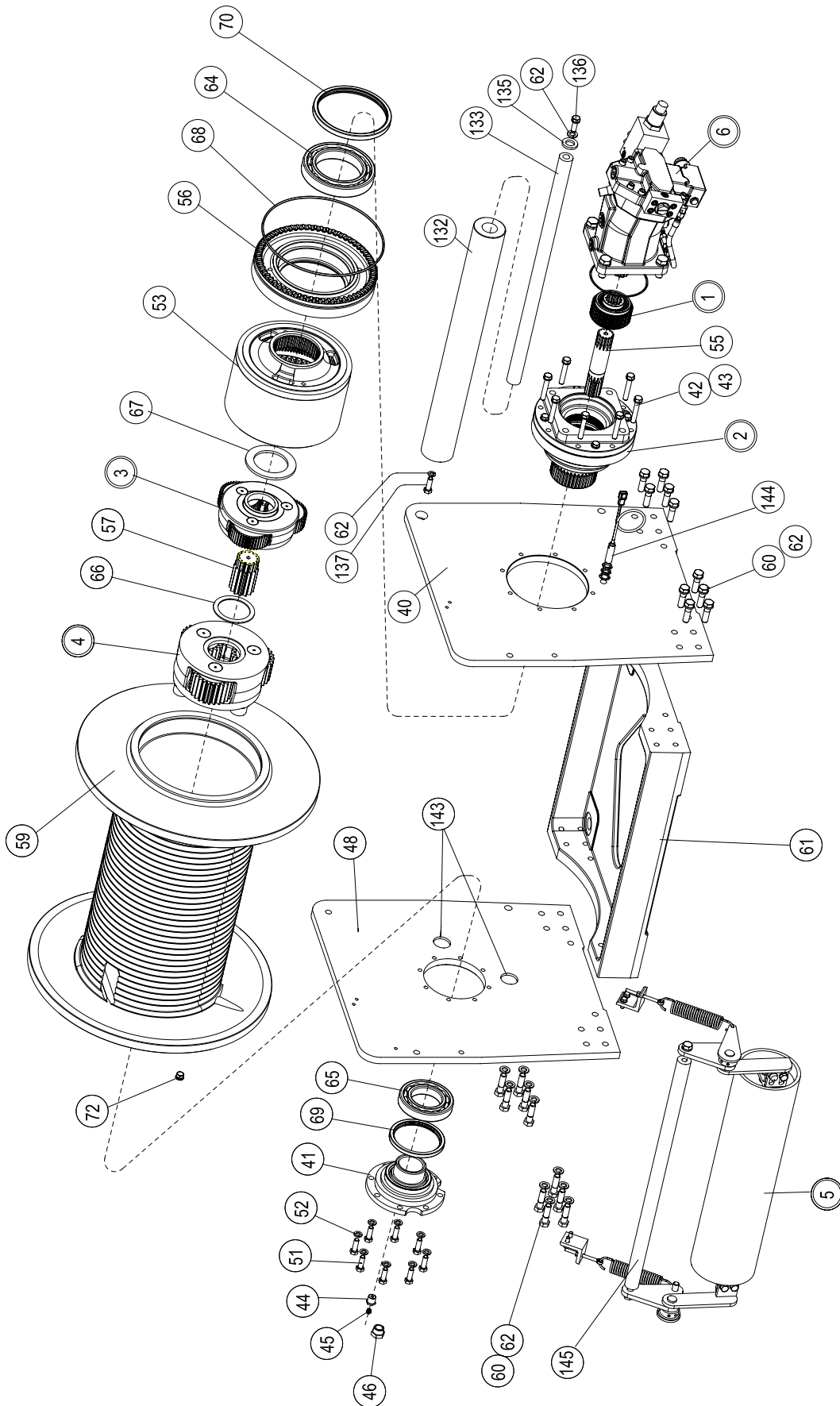


i NOTE: SHADED TEMPERATURE RANGE IN THE CHART ABOVE NOT RECOMMENDED FOR SEVERE APPLICATIONS SUCH AS: OFFSHORE CRANES, SUSTAINED FAST DUTY CYCLES OR FREQUENT LIFTING.

Texaco Meropa 150, previously used as factory fill, may no longer be widely available due to current market conditions. As of mid-year 2002, planetary hoists are factory filled with Exxon Spartan EP150, or equivalent. The chart below relates the Texaco products to 4 currently available oils. Consult your oil supplier for other equivalent oils if required.

Texaco	Exxon	Mobil	Shell	Chevron
Meropa 150	Spartan EP 150	Mobilgear 629	Omala 150	Gear Compounds EP 150
Meropa 220	Spartan EP 220	Mobilgear 630	Omala 220	Gear Compounds EP 220

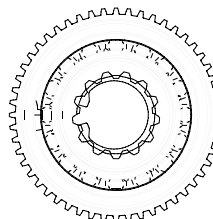
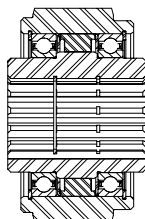
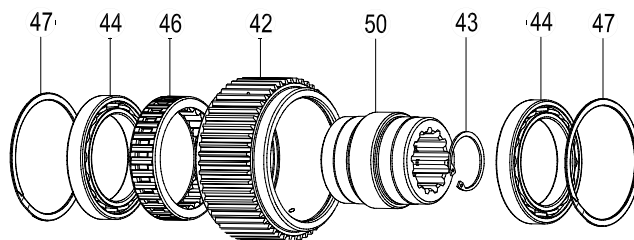
CH210 COMPONENTS



WINCH ASSEMBLY

ITEM NO	PART NO.	DESCRIPTION	QTY.
1	82907	OVERRUNNING CLUTCH ASSEMBLY (SEE PAGE 4)	1
2	83034	BRAKE CYLINDER ASSEMBLY (SEE PAGE 4)	1
3	82964	PRIMARY PLANET CARRIER ASSEMBLY (SEE PAGE 5)	1
4	82932	OUTPUT PLANET CARRIER ASSEMBLY (SEE PAGE 5)	1
5	63300	CABLE ROLLER PARTS GROUP (SEE PAGE 6)	1
6	83529	HYDRAULIC MOTOR SUB-ASSEMBLY (SEE PAGE 8)	1
40	103596	SIDEPLATE, MOTOR	1
41	24453	BEARING SUPPORT	1
42	104322	CAPSCREW (½ - 13 X 1½ G8 Z)	8
43	11026	LOCKWASHER (½)	8
44	18066	REDUCER BUSHING	1
45	18062	RELIEF VALVE 7.5-15 PSI	1
46	70193	SIGHT GAUGE	1
48	103597	SIDEPLATE, SUPPORT	1
51	102347	CAPSCREW (½ - 13 X 3 G8 Z)	8
52	11026	LOCKWASHER (½)	8
53	104111	RING GEAR	1
55	103241	PRIMARY SUN GEAR	1
56	103041	DRUM CLOSURE	1
57	103244	OUTPUT SUN GEAR	1
59	103599	CABLE DRUM - GROOVED	1
60	100051	CAPSCREW (5/8 - 11 X 2¼ G8 Z)	20
61	103598	BASE	1
62	102423	LOCKWASHER (5/8)	20
62	102423	LOCKWASHER (5/8)	2
64	24487	BALL BEARING	1
65	24486	BALL BEARING	1
66	103239	THRUST WASHER	1
67	29512	THRUST WASHER	1
68	100589	O-RING	1
69	23834	SEAL-OIL	1
70	70167	SEAL	1
71	24493	CABLE WEDGE (NOT SHOWN)	1
72	32411	PLUG,O-RING FLUSH	1
132	103612	GUIDE ROLLER	1
133	103613	SHAFT, GUIDE ROLLER	1
134	31963	DOWEL PIN (NOT SHOWN)	1
135	31236	WASHER,PLAIN	1
136	100109	CAPSCREW (5/8 - 11 X1½ G8 Z)	1
137	100051	CAPSCREW (5/8 - 11 X 2¼ G8 Z)	1
143	103748	SHIPPING PLUG	2
144	105113	SENSOR ASSEMBLY	1
145	103601	TIE BAR	1

OVERRUNNING CLUTCH ASSEMBLY

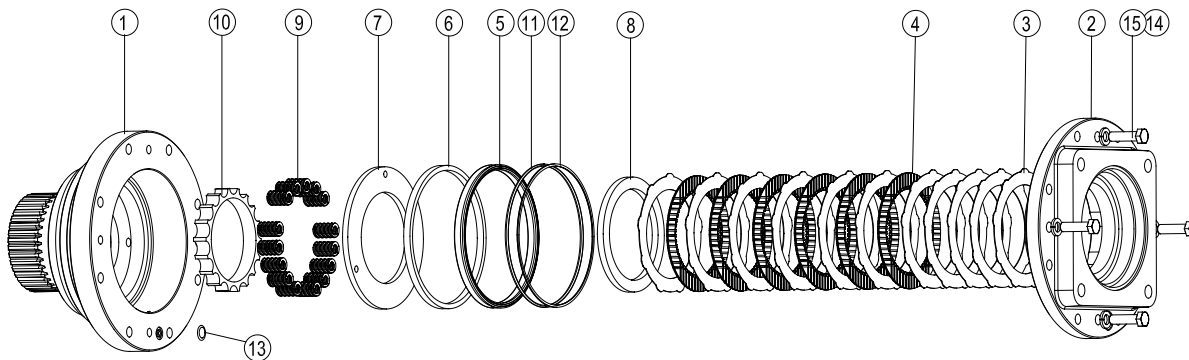


Input spline to rotate freely in CounterClockWise direction when viewed from the input spline side

ITEM NO.	PART NO.	DESCRIPTION	QTY.
--	82907	OVERRUNNING CLUTCH ASSEMBLY	1
42	103105	OUTER RACE	NSS
43	28734	RING, INTERNAL RETAINING	1
44	103104	BALL BEARING	2
46	103103	OVERRUNNING CLUTCH	NSS
47	103110	RETAINING RING	2
50	103106	INNER RACE	NSS

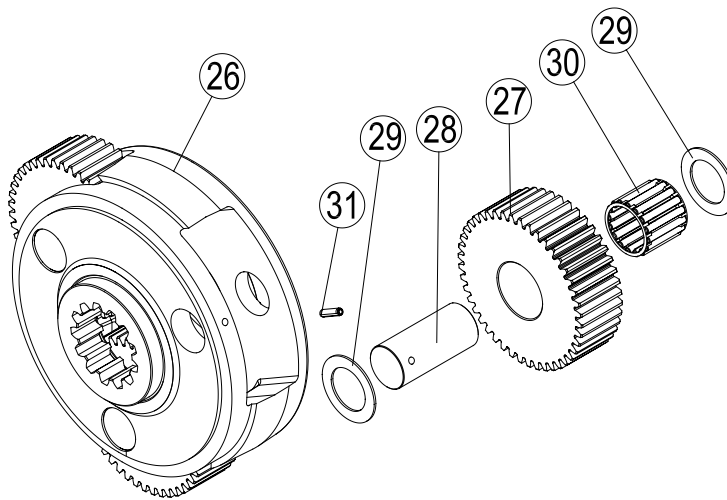
NSS - Not Serviced Separately

BRAKE CYLINDER ASSEMBLY



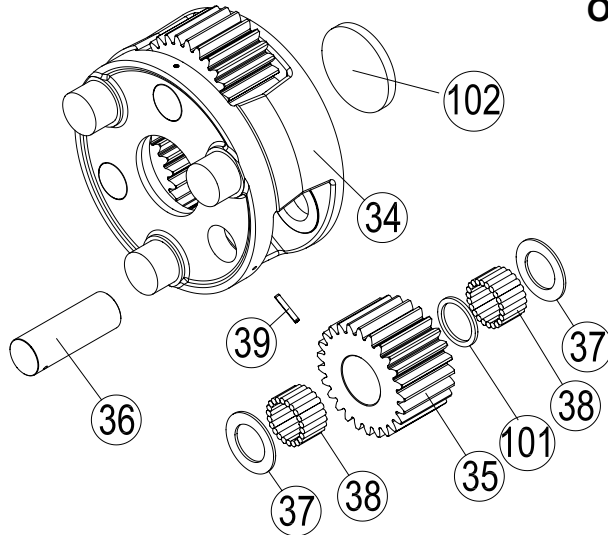
ITEM NO.	PART NO.	DESCRIPTION	QTY.
--	83034	BRAKE CYLINDER ASSEMBLY	1
1	102979	BRAKE CYLINDER	1
2	103045	MOTOR ADAPTER - D FLANGE	1
3	102954	BRAKE DISC	11
4	103167	FRICTION DISC	6
5	103441	SEAL, U-CUP	1
6	25746	PISTON BACK-UP RING	1
7	103168	PRESSURE PLATE	1
8	103169	BRAKE PLATE SPACER	1
9	24108	BRAKE SPRING	15
10	103147	SPRING SPACER	1
11	22357	O-RING	1
12	77278	BACK-UP WASHER	1
13	13017	O-RING	1
14	104323	CAPSCREW (1/2 - 13 X 1 1/4 G8 Z)	4
15	11026	LOCKWASHER (1/2)	4

PRIMARY PLANET CARRIER ASSEMBLY



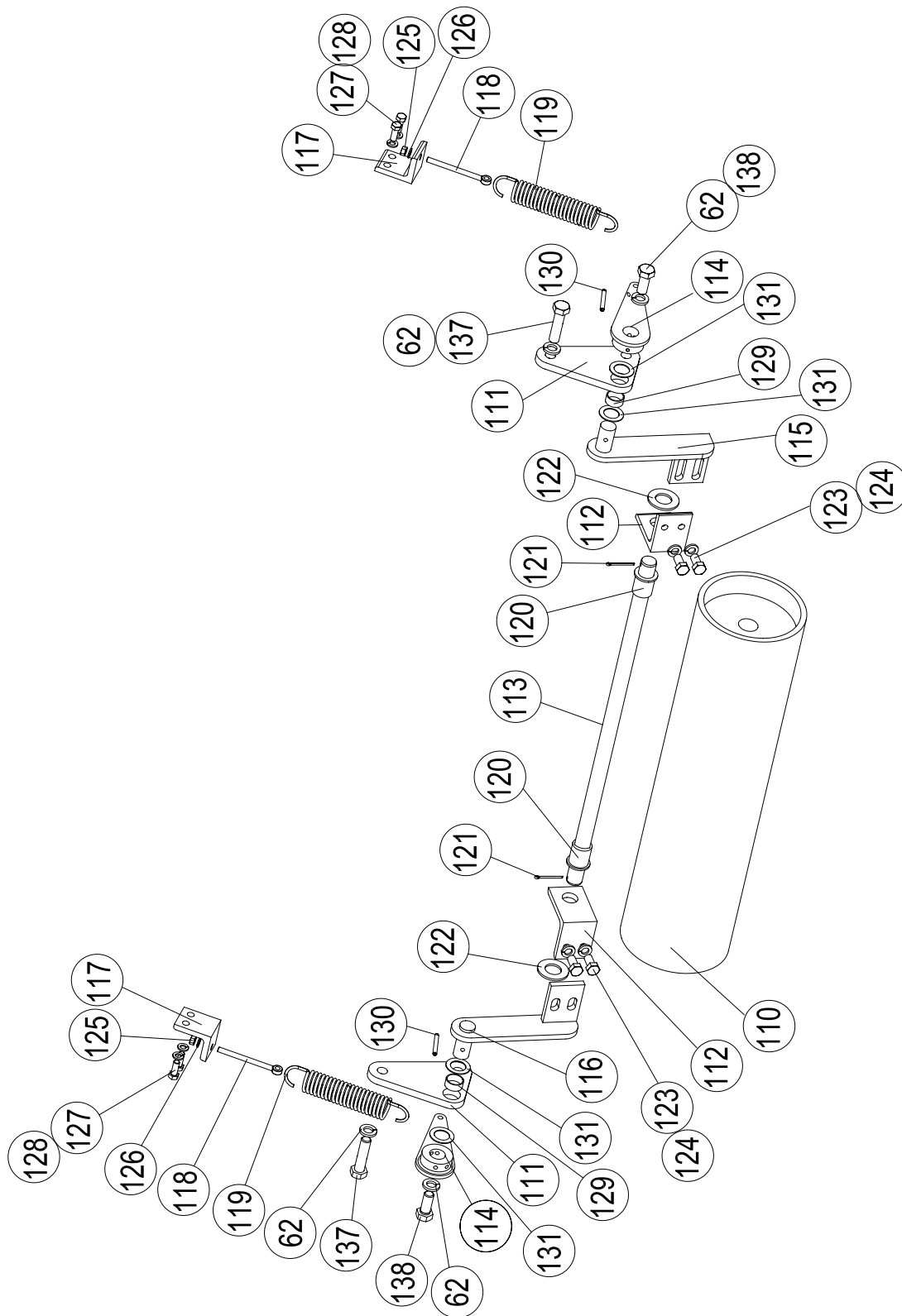
ITEM NO.	PART NO.	DESCRIPTION	QTY.
--	82964	PRIMARY PLANET CARRIER ASSEMBLY	1
26	103056	PRIMARY PLANET CARRIER	1
27	103237	PRIMARY PLANET GEAR	3
28	103447	PRIMARY PLANET SHAFT	3
29	24306	THRUST WASHER	6
30	26120	ROLLER BEARING	3
31	24113	SPIROL PIN	3

OUTPUT PLANET CARRIER ASSEMBLY



ITEM NO.	PART NO.	DESCRIPTION	QTY.
--	82932	OUTPUT PLANET CARRIER ASSEMBLY	1
34	103060	OUTPUT PLANET CARRIER	1
35	103236	OUTPUT PLANET GEAR	3
36	103138	OUTPUT PLANET SHAFT	3
37	103681	THRUST WASHER	6
38	103683	ROLLER	132
39	24582	SPIROL PIN	3
101	103682	SPACER, BEARING	3
102	103279	OUTPUT THRUST PLATE	1

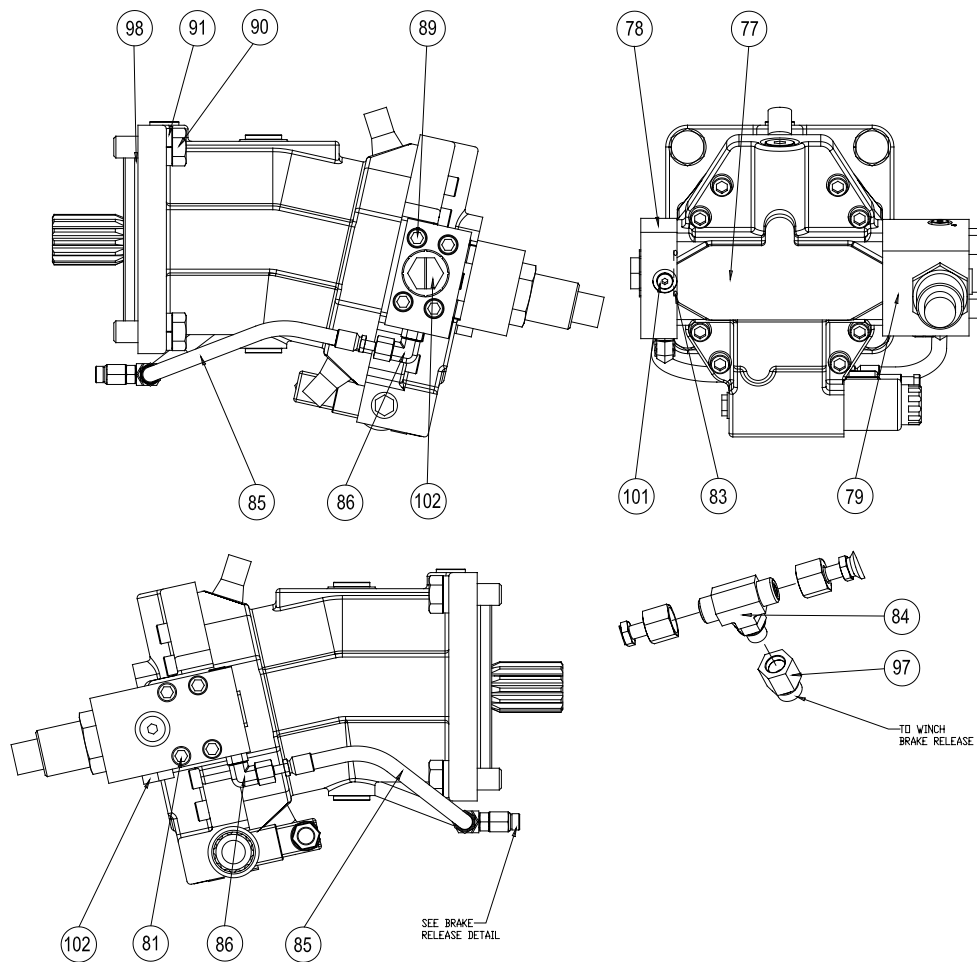
CABLE ROLLER GROUP



CABLE ROLLER GROUP

ITEM NO.	PART NO.	DESCRIPTION	QTY.
--	63300	CABLE ROLLER PARTS GROUP	1
62	102423	LOCKWASHER (5/8)	4
110	103620	ROLLER	1
111	103614	PIVOT BRACKET	2
112	103624	MOUNTING BRACKET	2
113	103623	ROLLER SHAFT	1
114	101728	LEVER, ROLLER	2
115	103625	PIVOT ARM, RH	1
116	103626	PIVOT ARM, LH	1
117	102055	BRACKET, ROLLER	2
118	101726	ROD END, ROLLER	2
119	103627	SPRING, EXTENSION	2
120	101727	BUSHING, ROLLER	2
121	101736	COTTER PIN	2
122	40162	WASHER	2
123	104320	CAPSCREW (1/2 - 13 X 1 G8 Z)	4
124	11026	LOCKWASHER (1/2)	4
125	23558	NUT-ELASTIC	2
126	13873	WASHER	2
127	104309	CAPSCREW (3/8 - 16 X 1 G8 Z)	4
128	27152	LOCKWASHER (3/8)	4
129	22533	BUSHING	2
130	12195	ROLLPIN	2
131	25361	BEARING RACE	4
137	102134	CAPSCREW (5/8 - 11 X 2 1/2 G8 Z)	2
138	100109	CAPSCREW (5/8 - 11 X 1 1/2 G8 Z)	2

MOTOR ASSEMBLY



ITEM NO.	PART NO.	DESCRIPTION	QTY.
--	83529	HYDRAULIC MOTOR SUB-ASSEMBLY	1
77	104214	MOTOR, HYD	1
78	28964	MANIFOLD	1
79	103879	BRAKE VALVE	1
81	101150	CAPSCREW, SOCKET HD (7/16 - 14 X 3¾ G8 Z)	4
83	25366	O-RING	2
84	101268	TEE	1
85	101919	HOSE -4 ORFS X 14	2
86	27430	ADAPTER, 90 ELBOW ORS/ORB	2
89	21135	CAPSCREW, SOCKET HD (7/16 - 14 X 1½ G8 Z)	4
90	104175	CAPSCREW, HEX HD (¾ - 10 X 2 G8 Z)	4
91	13435	LOCKWASHER (¾)	4
97	103469	REDUCER, ORB, -6/-4	1
98	10052	O-RING	1
101	69325	PLUG	1
102	75288	SHIPPING PLUG (not shown)	2