

# CARCO®

## PARTS MANUAL MODEL H110 FOR

# LIEBHERR RL52B

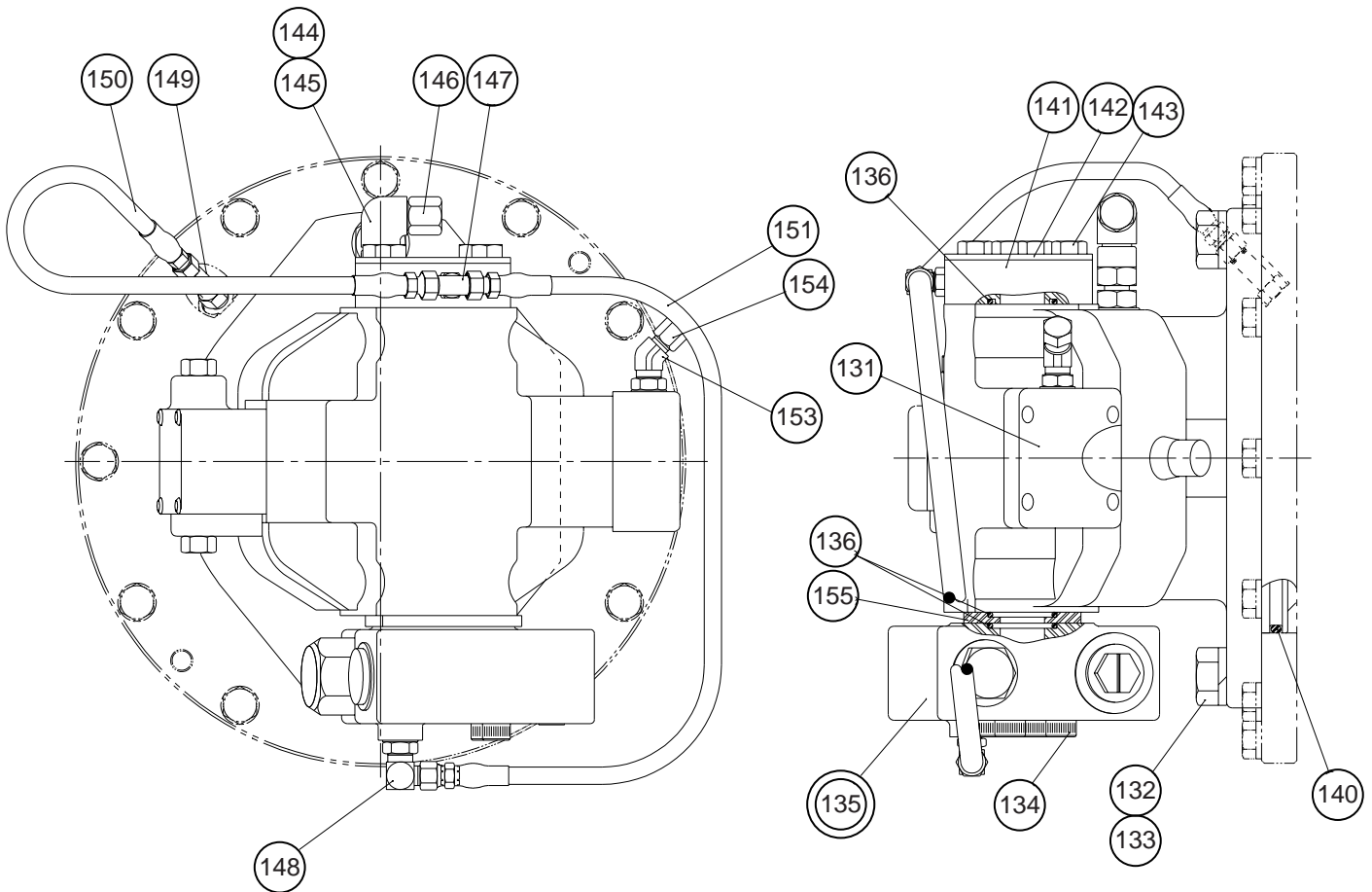
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### MODEL NUMBER DESCRIPTION

H110	245	V	065	0	3
Basic Winch Model	Overall gear ratio 156:1 245:1	Motor Type F - Fixed V - Variable Displacement	Motor Size Cu. In. Displacement per revolution ex. 065= 6.5 cu. In.	Control Option 0 - Auto Speed/ Lock in Low Speed 2 - 2-speed	Fairlead 3 - 3 roller 4 - 4 roller

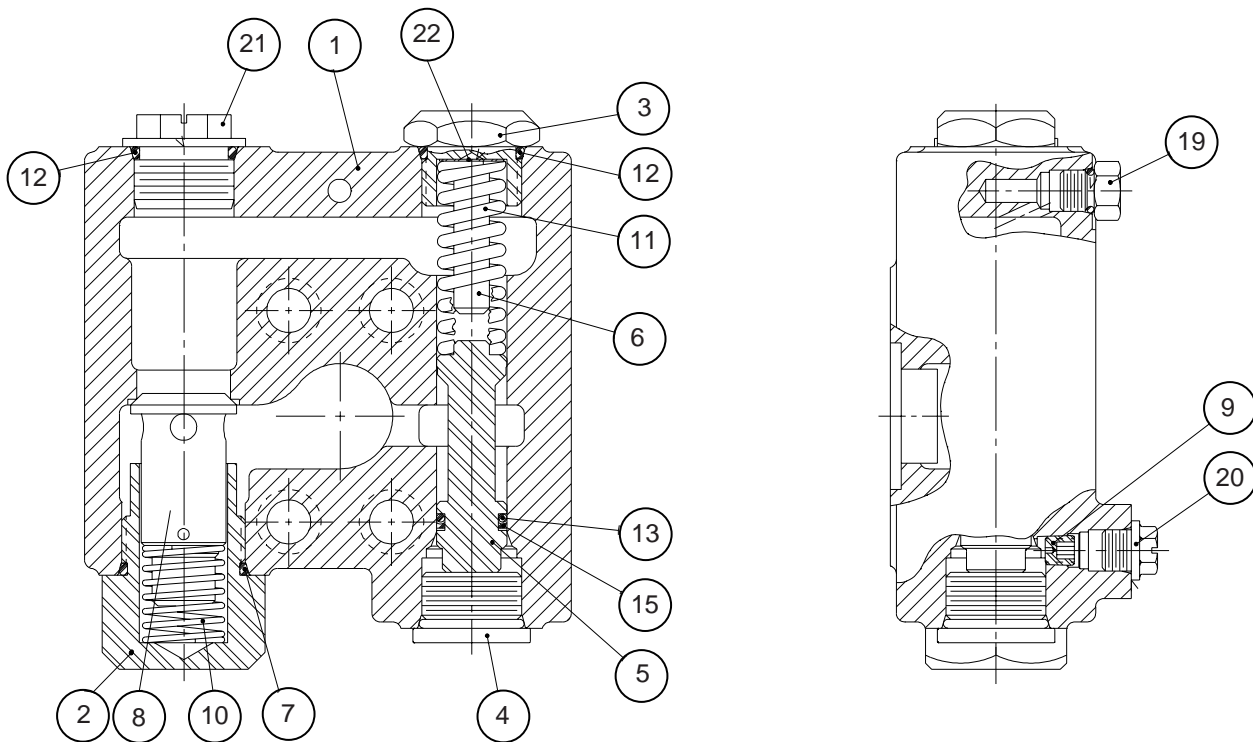
## HYDRAULIC MOTOR GROUP



ITEM	PART NO.	DESCRIPTION	QTY.
131	102956	HYDRAULIC MOTOR	1
132	PA8T9398	CAPSCREW, HEX HEAD (3/4-10 X 1 3/4 G8)	2
133	100856	LOCKWASHER, HARDENED, PLTD. (3/4)	2
134	21134	CAPSCREW, SOC. HEAD (7/16-14 X 3 G8)	4
135	82133	BRAKE VALVE ASSEMBLY - SEE PG. 3	1
136	25366	O-RING	3
140	22358	O-RING	1
141	29395	ADAPTER BLOCK - PAY-OUT PORT	1
142	29679	SHIPPING COVER	1
143	22695	CAPSCREW, HEX HEAD (7/16-14 X 1 3/4) for shipping cover only	4
144	101267	ADAPTER, M18 X 1.5 -8 ORFS - CASE DRAIN	1
145	101298	ELBOW, 90, -8 ORB TO -8 ORFS	1
146	101274	CAP, -8 ORFS	1
147	101268	TEE, -4 ORFS	1
148	27430	ELBOW, 90, -4 ORB TO -4 ORFS	1
149	101275	ADAPTER, LONG -4 ORB TO -4 ORFS - BRAKE PORT	1
150	101919	HOSE, -4 ORFS, 14 IN.(356 MM) PO PORT TO BRAKE PORT	1
151	101271	HOSE, -4 ORFS, 20 IN.(508 MM) PO PORT TO BV PORT	1
153	101433	ELBOW, 45, -4 ORB TO -4 ORFS, MOTOR X PORT	1
154	101273	CAP, -4 ORFS	1
155	40064	SPACER, MOTOR PORT	1

# BRAKE VALVE ASSEMBLY

82133



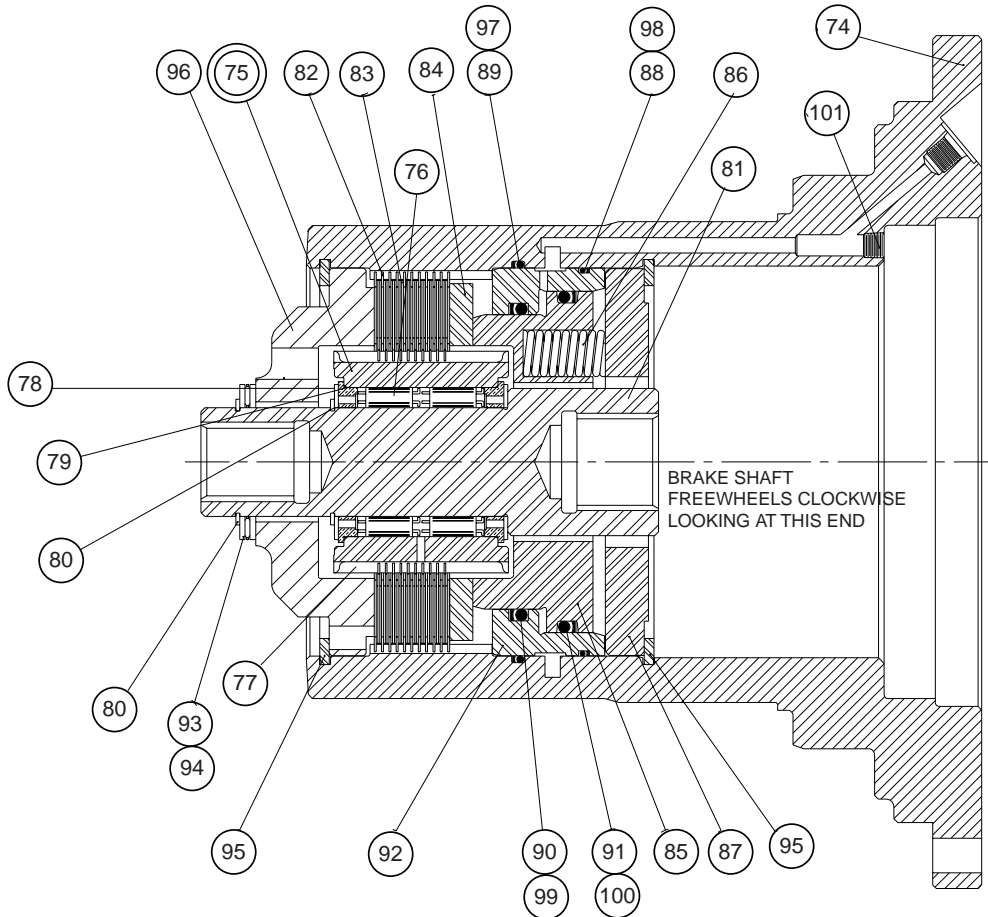
ITEM	PART NO.	DESCRIPTION	QTY.
1	NSS	BRAKE VALVE HOUSING	1
2	29609	RELIEF VALVE RETAINER	1
3	29994	SPRING RETAINER	1
4	22450	PLUG	1
5	NSS	MAIN SPOOL	1
6	29993	SPOOL STOP	1
7	24186	O-RING	1
8	82132	CHECK POPPET/RELIEF VALVE 6000 PSI	1
9	24200	PILOT ORIFICE	1
10	24190	CHECK VALVE SPRING	1
11	29992	MAIN SPOOL SPRING	1
12	23601	O-RING	2
13	24193	O-RING	1
15	24195	BACK-UP RING	1
19	25663	PLUG, -4 ORFS	1
20	25403	SHIPPING PLUG	1
21	75288	SHIPPING PLUG	1
22	25661	SHIM, MAIN SPOOL SPRING	AR

NSS - NOT SERVICED SEPARATELY

AR - AS REQUIRED

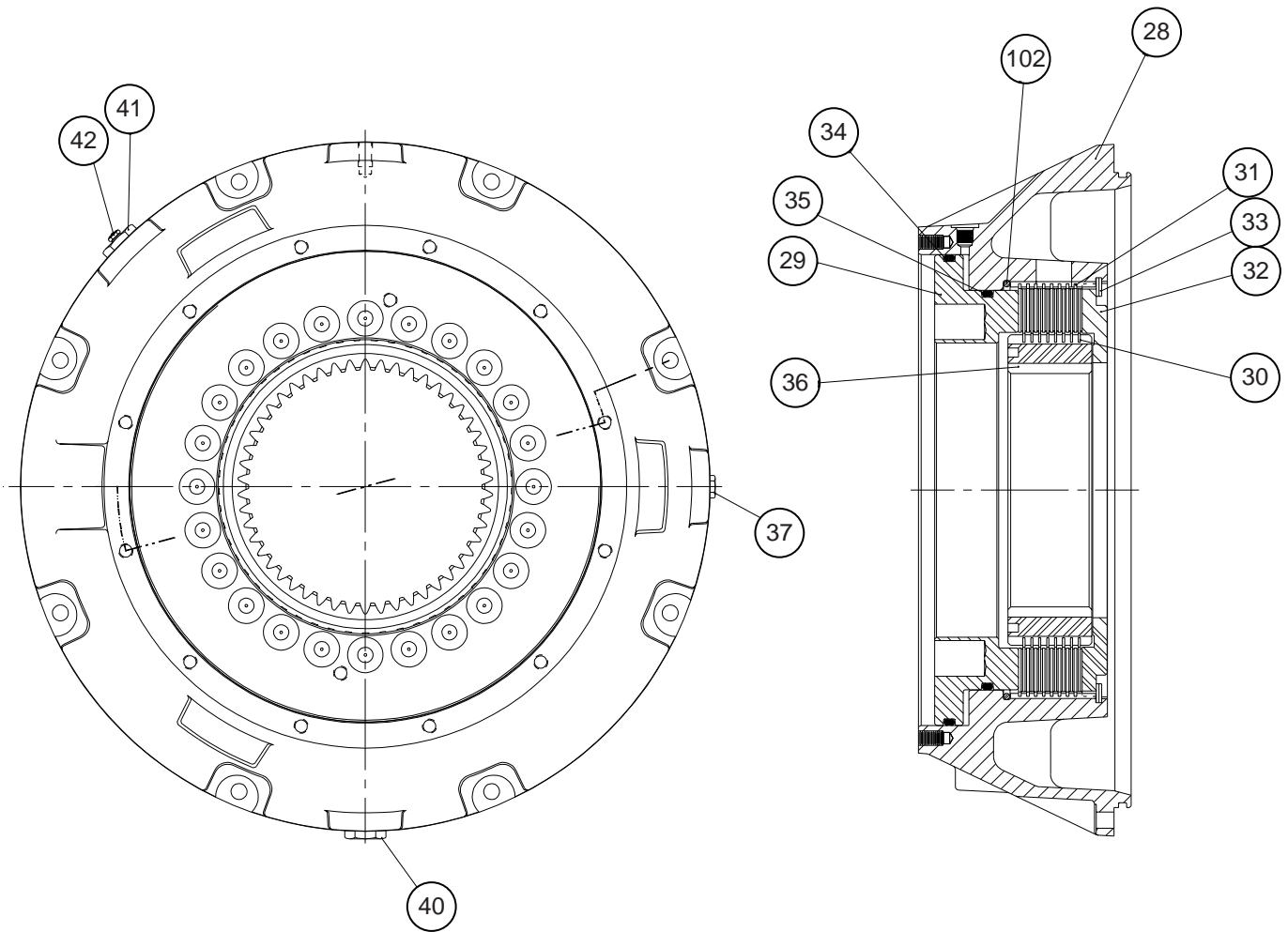
# BRAKE HOUSING ASSEMBLY

82477



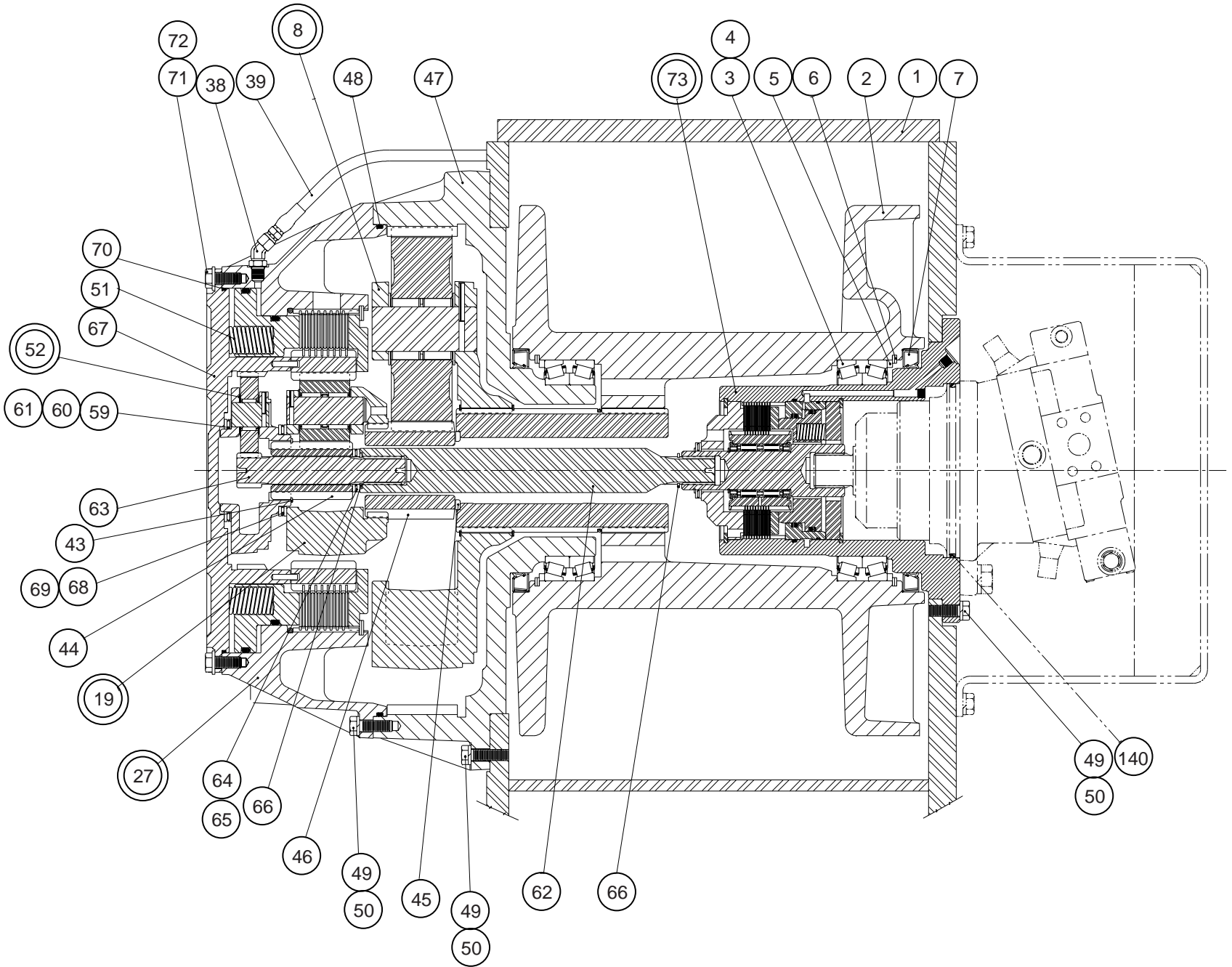
ITEM	PART NO.	DESCRIPTION	QTY.
74	101319	BRAKE HOUSING	1
75	82138	BRAKE CLUTCH ASSEMBLY - INCLUDES ITEMS 76 - 81	1
76	NSS	SPRAG CLUTCH	2
77	NSS	OUTER BRAKE RACE	1
78	27684	SPRAG BEARING - BRONZE ALLOY	2
79	24581	THRUST WASHER	2
80	12034	RETAINING RING	2
81	NSS	BRAKE SHAFT - METRIC	1
82	24490	DISC - STEEL DIVIDER	11
83	25530	DISC - FRICTION	10
84	24489	SPACER - BRAKE DISC	1
85	29274	BRAKE PISTON	1
86	29301	SPRING	13
87	29344	SPRING RETAINER	1
88	27987	O-RING	1
89	10450	O-RING	1
90	72924	O-RING	1
91	29302	O-RING	1
92	29275	BRAKE CYLINDER	1
93	25760	THRUST BEARING RACE	2
94	29286	THRUST BEARING	1
95	21038	RETAINING RING	2
96	29345	BRAKE RETAINER	1
97	28828	BACK-UP RING	1
98	29368	BACK-UP RING	1

**DRUM CLUTCH ASSEMBLY**  
82496



ITEM	PART NO.	DESCRIPTION	QTY.
28	29340	CLUTCH HOUSING	1
29	29309	CLUTCH PISTON	1
30	72180	DISC - FRICTION	8
31	72204	DISC - STEEL DIVIDER	8
32	29292	PRESSURE PLATE	1
33	29303	RETAINING RING	1
34	24592	O-RING	1
35	29509	O-RING	1
36	29246	CLUTCH HUB	1
37	26686	PLUG - OIL LEVEL	1
40	40161	PLUG - OIL DRAIN - MAGNETIC	1
41	29678	PLUG - FILL	1
42	10074	PLUG - VENT RELIEF	1
102	100135	SPACER RING	1

**WINCH HOUSING GROUP**

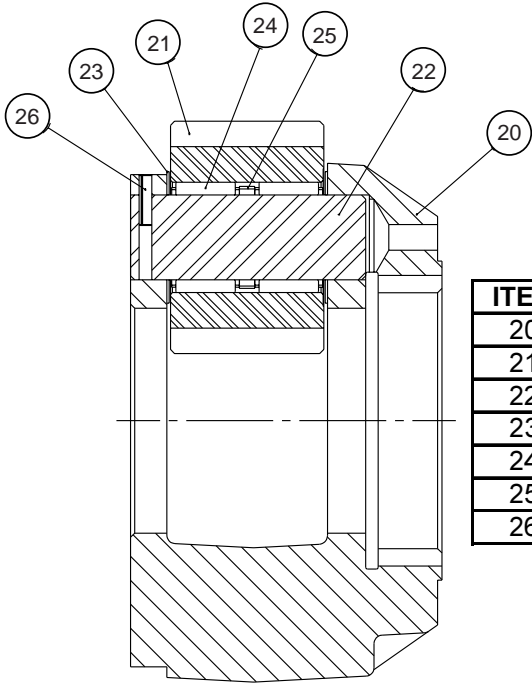


## WINCH HOUSING GROUP CONT.

ITEM	PART NO.	DESCRIPTION	QTY.
1	40207	WINCH HOUSING	1
2	29258	CABLE DRUM	1
3	29277	BEARING CONE	4
4	29278	BEARING CUP	4
5	29279	SPACER RING	2
6	29280	RETAINING RING	2
7	29281	OIL SEAL	2
8	82074	OUTPUT PLANET CARRIER ASSEMBLY - SEE PAGE 9	1
19	82071	SECONDARY PLANET CARRIER ASSEMBLY - SEE PG. 8	1
27	82469	DRUM CLUTCH ASSEMBLY - SEE PAGE 5	1
38	101286	ELBOW, 45, -6 ORB TO -6 ORFS - DRUM CLUTCH PORT	1
39	101625	HOSE, -6 ORFS, 34 IN. (864 MM) DRUM CLUTCH RELEASE	1
43	13031	RETAINING RING	1
44	29293	SECONDARY SUN GEAR	1
45	29294	THRUST WASHER	1
46	29269	OUTPUT SUN GEAR	1
47	29336	OUTPUT RING GEAR	1
48	29296	O-RING	1
49	PA5P2566	CAPSCREW, HEX HEAD (1/2-13 X 1 1/2 PLTD.)	46
50	100859	WASHER (1/2 PLTD.)	46
51	29305	SPRING	20
52	82130	PRIMARY PLANET CARRIER ASSEMBLY - SEE PG. 8	1
59	75024	THRUST BEARING RACE-.125 IN. (3.17mm) OUTER	1
60	18050	THRUST BEARING	1
61	26291	THRUST BEARING RACE-.062 IN. (1.58mm) INNER	1
62	29708	INTERMEDIATE SHAFT	1
63	29763	PRIMARY SUN GEAR SHAFT	1
64	73294	THRUST BEARING RACE - .125 IN. (3.17mm)	2
65	24305	THRUST BEARING	1
66	29287	RETAINING RING	2
67	29764	PRIMARY PLANET RING GEAR/ COVER - includes 8 dowel pins	1
68	24485	THRUST BEARING RACE	2
69	29599	THRUST BEARING	1
70	72113	O-RING	1
71	PA8T8917	CAPSCREW, HEX HEAD (1/2-13 X 1 1/4 PLTD.)	10
72	100859	WASHER, HARDENED (1/2 PLTD.)	10
73	82477	BRAKE HOUSING ASSEMBLY - SEE PAGE 4	1

## SECONDARY PLANET CARRIER ASSEMBLY

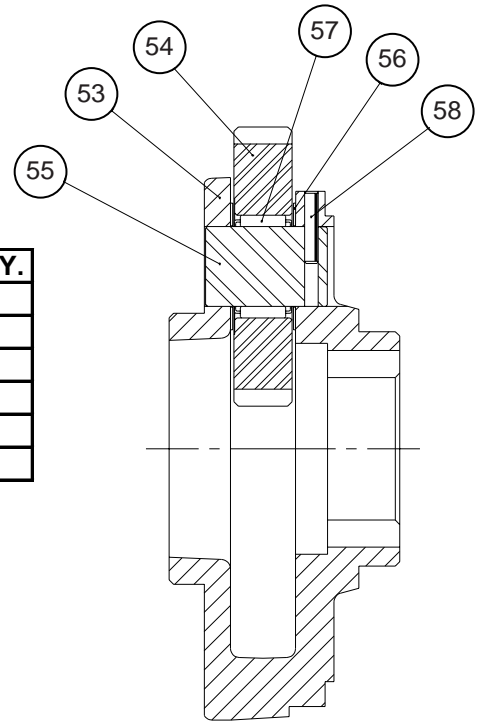
82071



ITEM	PART NO.	DESCRIPTION	QTY.
20	29339	SECONDARY PLANET CARRIER	1
21	25288	SECONDARY PLANET GEAR	3
22	29364	SECONDARY PLANET GEAR SHAFT	3
23	11932	THRUST WASHER	6
24	25292	ROLLER BEARING	6
25	25290	BEARING SPACER	3
26	24113	SPIROL PIN	3

## PRIMARY PLANET CARRIER ASSEMBLY

82130

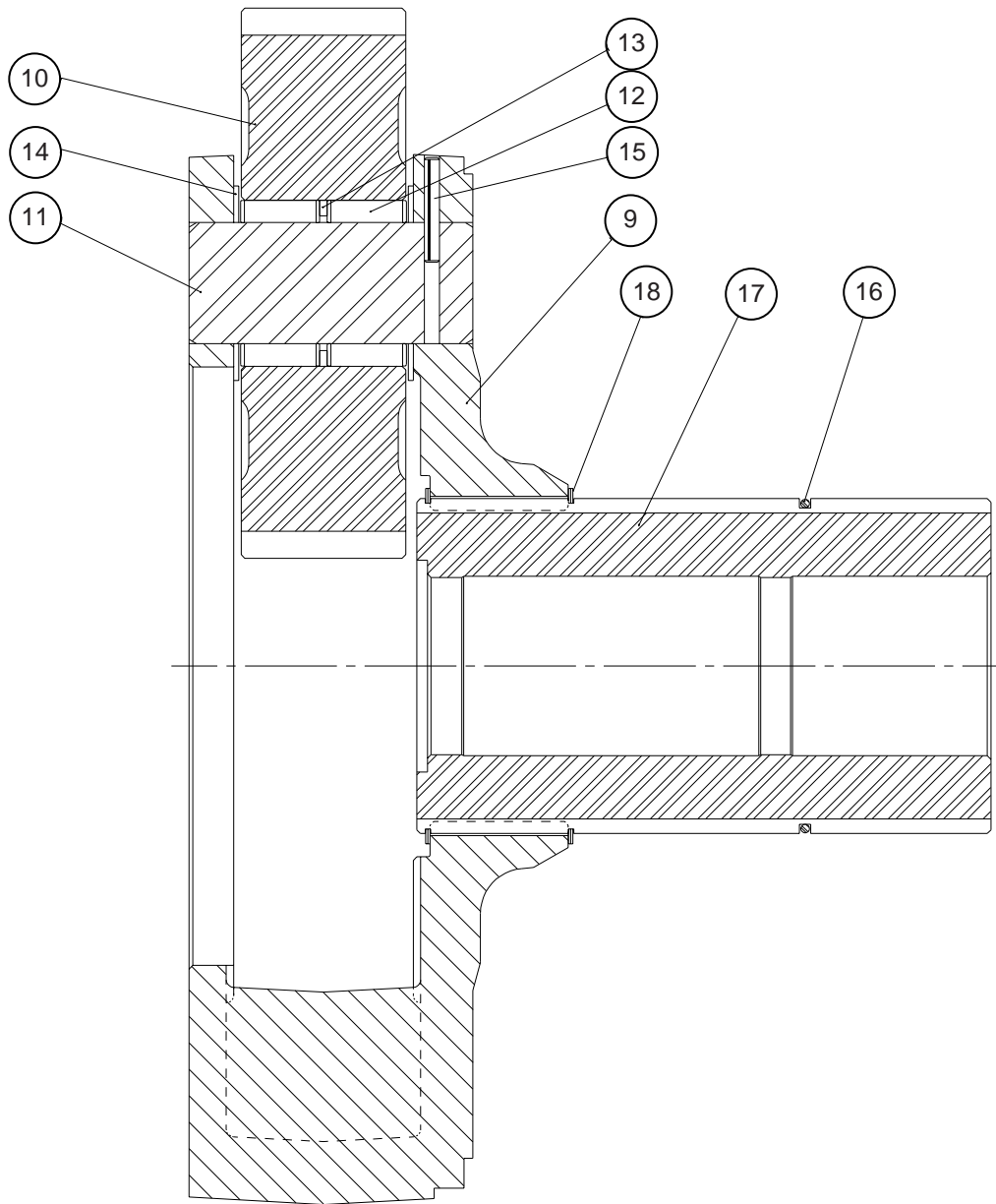


ITEM	PART NO.	DESCRIPTION	QTY.
53	29761	PRIMARY PLANET CARRIER	1
54	29762	PRIMARY PLANET GEAR	3
55	26294	PRIMARY PLANET GEAR SHAFT	3
56	24479	THRUST BEARING	6
57	24480	ROLLER BEARING	3
59	21058	SPIROL PIN	3



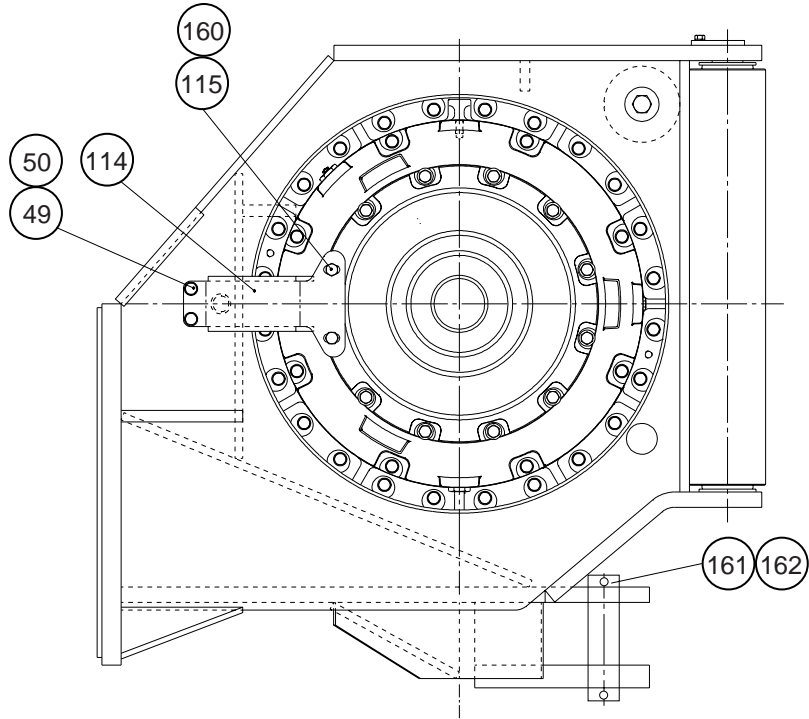
# OUTPUT PLANET CARRIER ASSEMBLY

82074

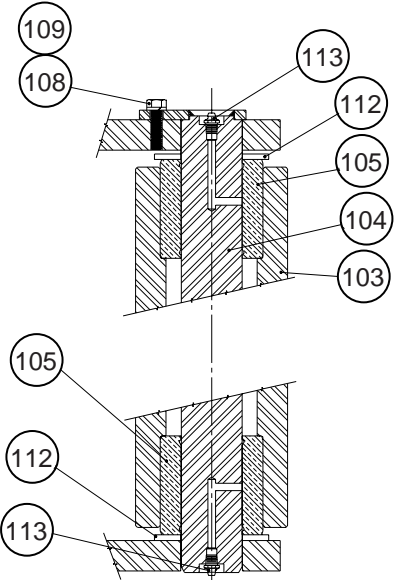


ITEM	PART NO.	DESCRIPTION	QTY.
9	29348	OUTPUT PLANET CARRIER	1
10	29266	OUTPUT PLANET GEAR	3
11	29262	OUTPUT PLANET SHAFT	3
12	27911	ROLLER	120
13	29299	BEARING SPACER	3
14	29300	THRUST WASHER	6
15	13028	ROLL PIN	3
16	29291	RETAINING RING	1
17	29322	DRUM DRIVE SHAFT	1
18	29349	RETAINING RING	2

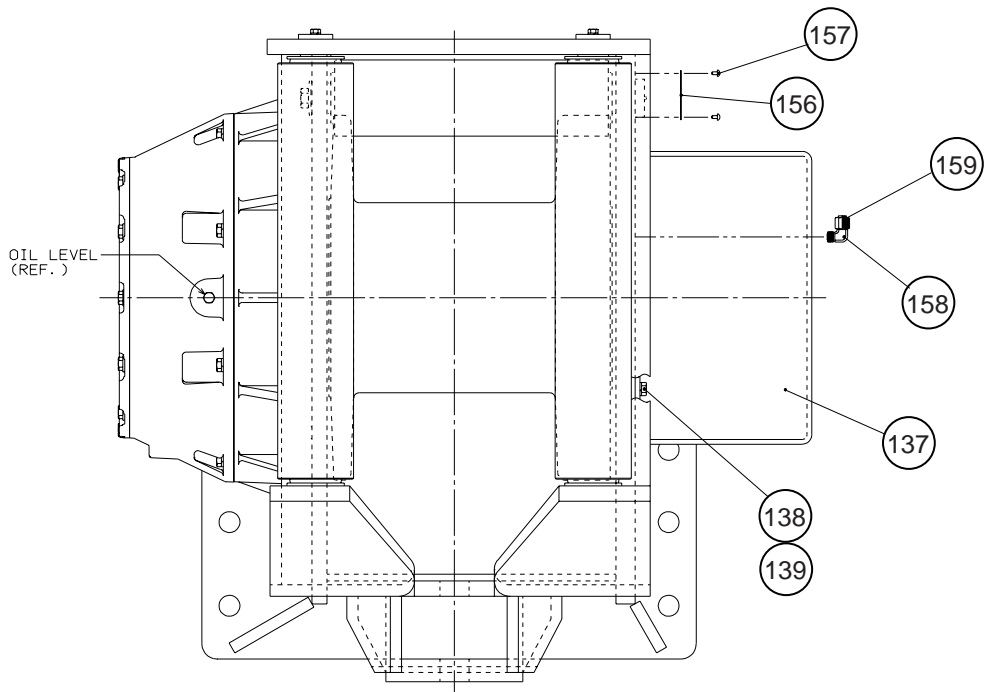
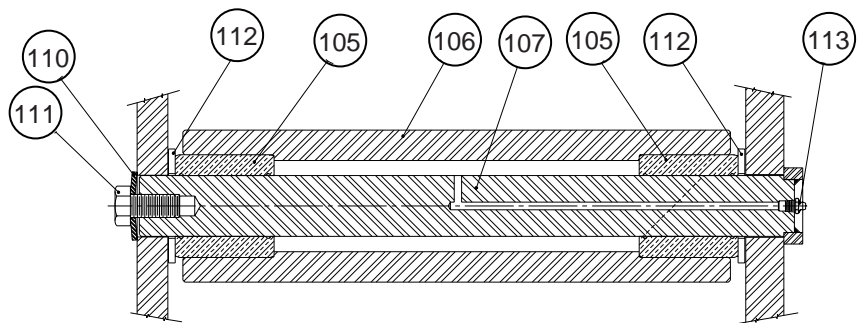
# COVERS & FAIRLEAD GROUP



VERTICAL ROLLER



HORIZONTAL ROLLER



## COVERS & FAIRLEAD GROUP CONT.

ITEM	PART NO.	DESCRIPTION	QTY.
49	PA5P2566	CAPSCREW, HEX HEAD (1/2-13 X 1 1/2 PLTD.)	2
50	100859	WASHER (1/2 PLTD.)	2
103	40208	ROLLER, VERTICAL (30.44 IN.)	2
104	40209	ROLLER SHAFT, VERTICAL	2
105	29314	ROLLER BUSHING	6
106	29315	ROLLER, HORIZONTAL	1
107	29316	ROLLER SHAFT, HORIZONTAL	1
108	PA4L6454	CAPSCREW, HEX HEAD (3/8-16 X 1 PLTD.)	2
109	101440	WASHER, HARDENED (3/8 PLTD.)	2
110	29680	SPRING WASHER	1
111	102008	CAPSCREW, HEX HEAD (3/4-10 X 1 1/12 PLTD.)	1
112	29742	WASHER, ROLLER	6
113	18047	GREASE FITTING	5
114	29792	HOSE GUARD	1
115	PA8T4835	CAPSCREW, HEX HEAD (1/2-13 X 2 PLTD.)	2
137	29682	MOTOR COVER	1
138	PA5P2566	CAPSCREW, HEX HEAD (1/2-13 X 1 1/2 PLTD.)	11
139	100859	WASHER (1/2 PLTD.)	11
156	100268	S/N DATA PLATE - CARCO	1
157	70053	DRIVE SCREW	4
158	101287	UNION, 90, -6 ORFS TO -6 ORFS	1
159	101581	CAP, -6 ORFS	1
160	PA5P1076	WASHER, HARDENED (1/2 PLTD.)	2
161	29961	DRAW BAR PIN	1
162	70148	COTTER PIN (3/8 X 3)	2
---	62474	FOURTH ROLLER KIT (INCLUDES ITEMS 105, 106, 107, 110, 111, 112, 113)	1



---	29427	FERRULE - 1 IN. (25 mm)
---	29428	FERRULE - 1 1/8 (27 mm)
---	29429	FERRULE - 1 1/4 (32 mm)

FERRULES FOR USE WITH STANDARD 6 STRAND, IWRC WIRE ROPE ONLY

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