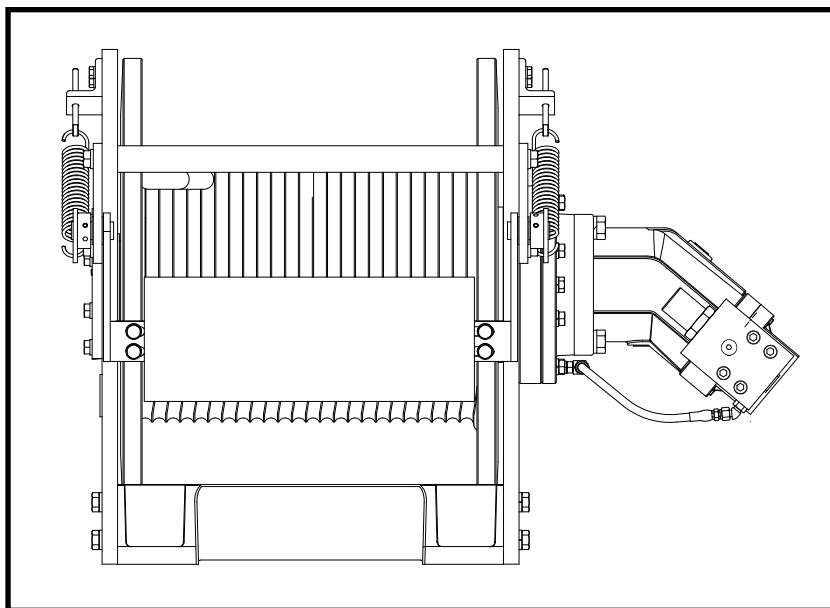


BRADEN®

PD21A

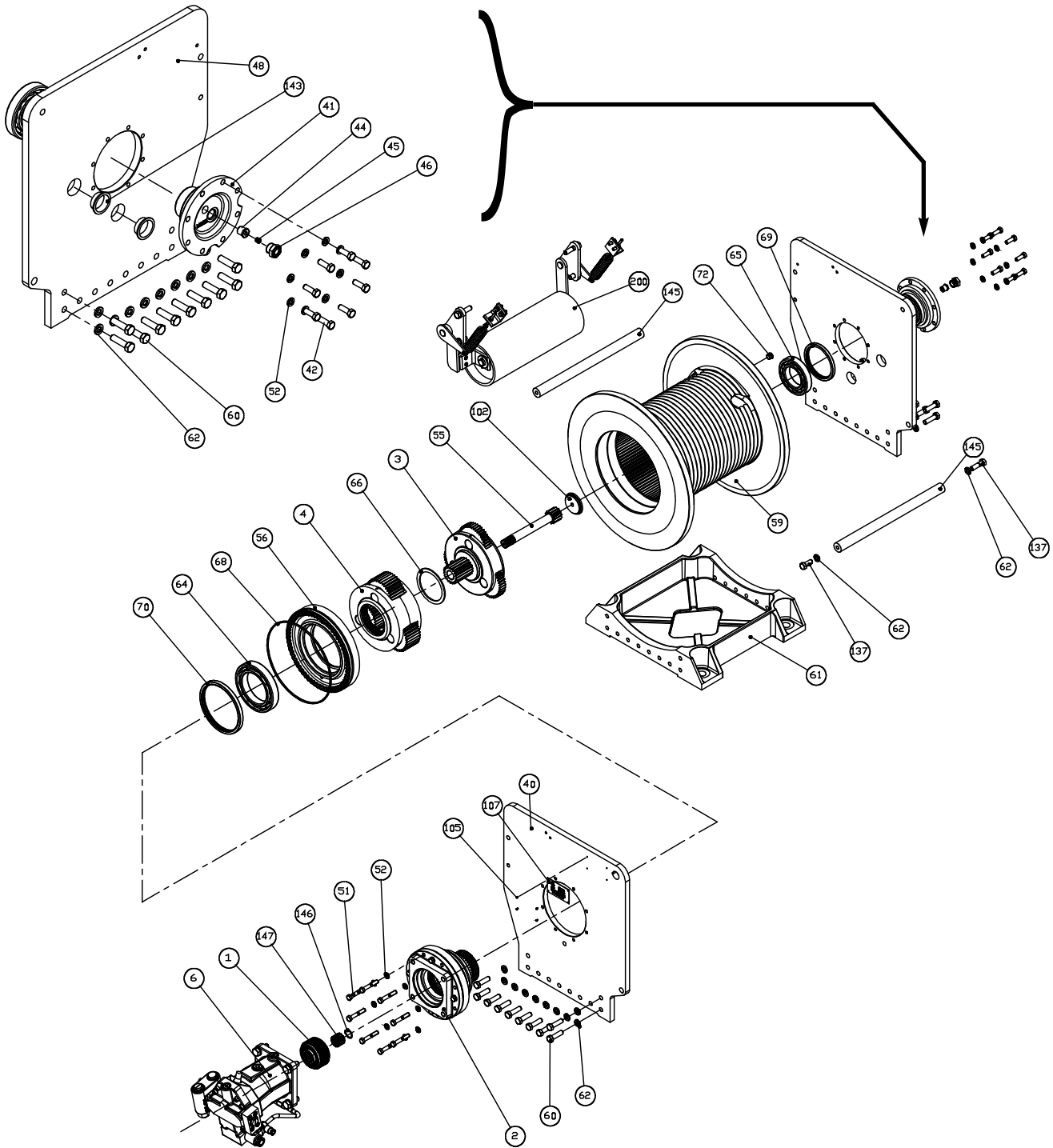
MATERIAL LIST



Authorized Distributor:
Pacific Marine & Industrial
www.pacificmarine.net
info@pacificmarine.net

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

PD21A PARTS



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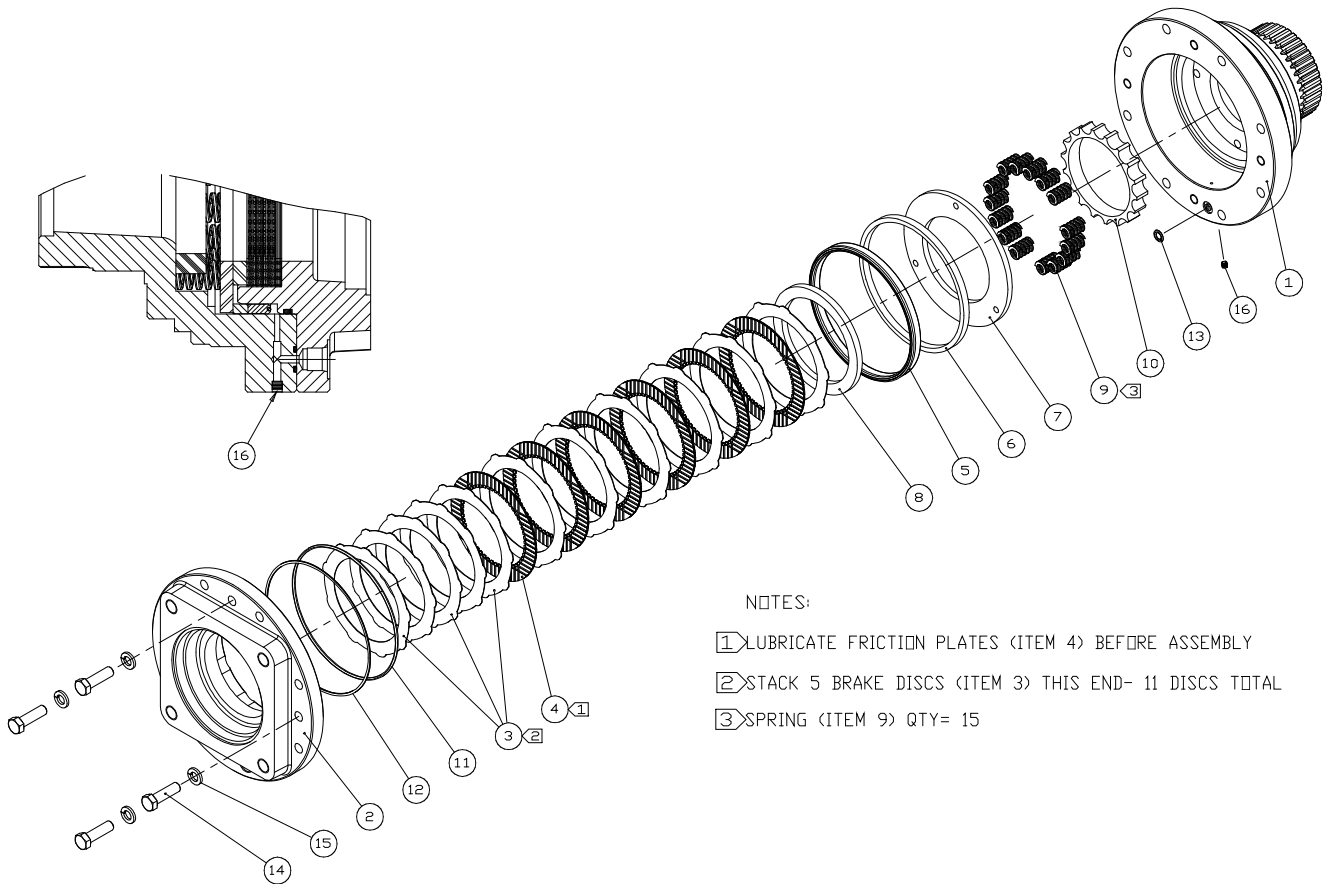
PD21A WINCH PARTS

Item	Description	Part No.	Quantity
1	Sprag Clutch Assembly (Page 4)	83170	1
2	Brake Cylinder Assembly (Page 3)	83169	1
3	Primary Planet Carrier Assembly (Page 5)	83164	1
4	Output Planet Carrier Assembly (Page 6)	83168	1
6	Hydraulic Motor Assembly (Page 7)	83257	1
40	Motor Side Plate	105118	1
41	Bearing Support	24453	1
42	Capscrew, Hex Hd ½ - 13 x 1½ Gd 8 Z	104322	8
44	Reducer Bushing	18066	1
45	Vent Plug	18062	1
46	Sight Gauge	70193	1
48	Support Side Plate	105119	1
51	Capscrew, Hex Hd ½ - 13 x 3 Gd 8 Z	102347	8
52	Lockwasher (½)	11026	16
55	Primary Sun Gear	104148	1
56	Drum Closure	104360	1
59	Cable Drum	104304	1
60	Capscrew - Special	105030	20
61	Base	105120	1
62	Lockwasher (5/8)	102423	22
64	Bearing	24487	1
65	Bearing	24486	1
66	Thrust Washer	104365	1
68	O-Ring	100589	1
69	Oil Seal	23834	1
70	Seal	70167	1
71	Cable Wedge (for ½ - ¾ in. wire rope) (not shown)	24494	1
72	O-Ring Flush Plug	32411	1
102	Thrust Plate	104362	1
105	Drivescrew	11842	4
107	Nameplate	76381	1
137	Capscrew, Hex Hd 5/8 - 11 x 2 Gd 8 Z	72563	4
143	Shipping Plug	103748	2
145	Tie Bar	104341	2
146	Retaining Ring	24934	1
147	Adapter (C to D Spline)	103445	1



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PD21A BRAKE CYLINDER PARTS



NOTES:

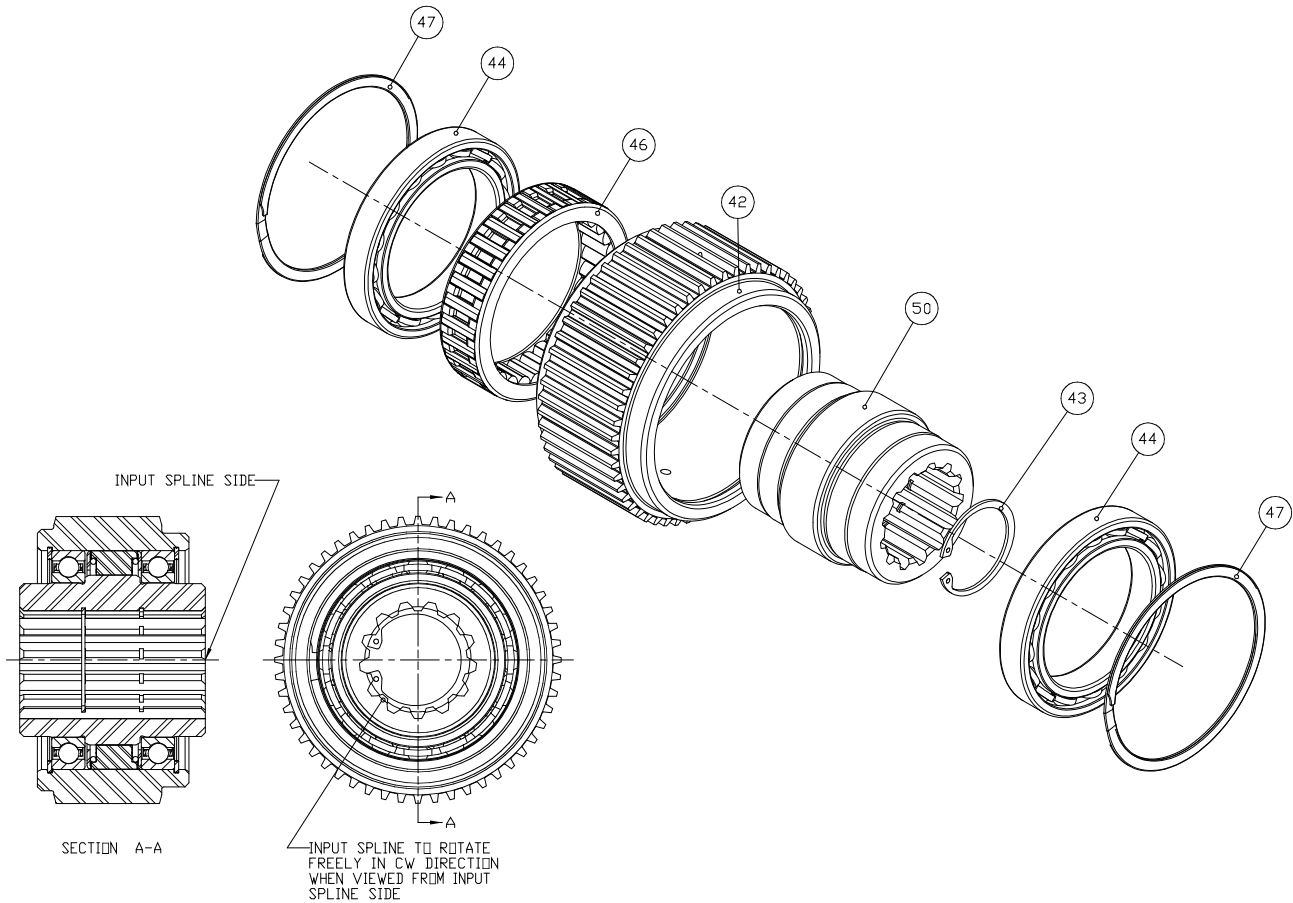
- ① LUBRICATE FRICTION PLATES (ITEM 4) BEFORE ASSEMBLY
- ② STACK 5 BRAKE DISCS (ITEM 3) THIS END- 11 DISCS TOTAL
- ③ SPRING (ITEM 9) QTY= 15

Item	Description	Part No.	Quantity
	Brake Cylinder Assembly (items 1 thru 16)	83169	1
1	Brake Cylinder Housing	104361	1
2	Motor Adapter	103045	1
3	Steel Separator Discs	102954	11
4	Friction Discs	103167	6
5	Piston Seal	103441	1
6	Piston Back-up Ring	25746	1
7	Pressure Plate	103168	1
8	Brake Plate Spacer	103169	1
9	Brake Spring	24108	15
10	Spring Spacer	103147	1
11	O'ring	22357	1
12	Back-up Ring	77278	1
13	O'ring	13017	1
14	Capscrew, Hex Hd 1/2 - 13 x 1 3/4 Gd 8 Z	104323	4
15	Lockwasher (1/2)	11026	4
16	Expansion Plug	103379	1



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PD21A SPRAG CLUTCH PARTS



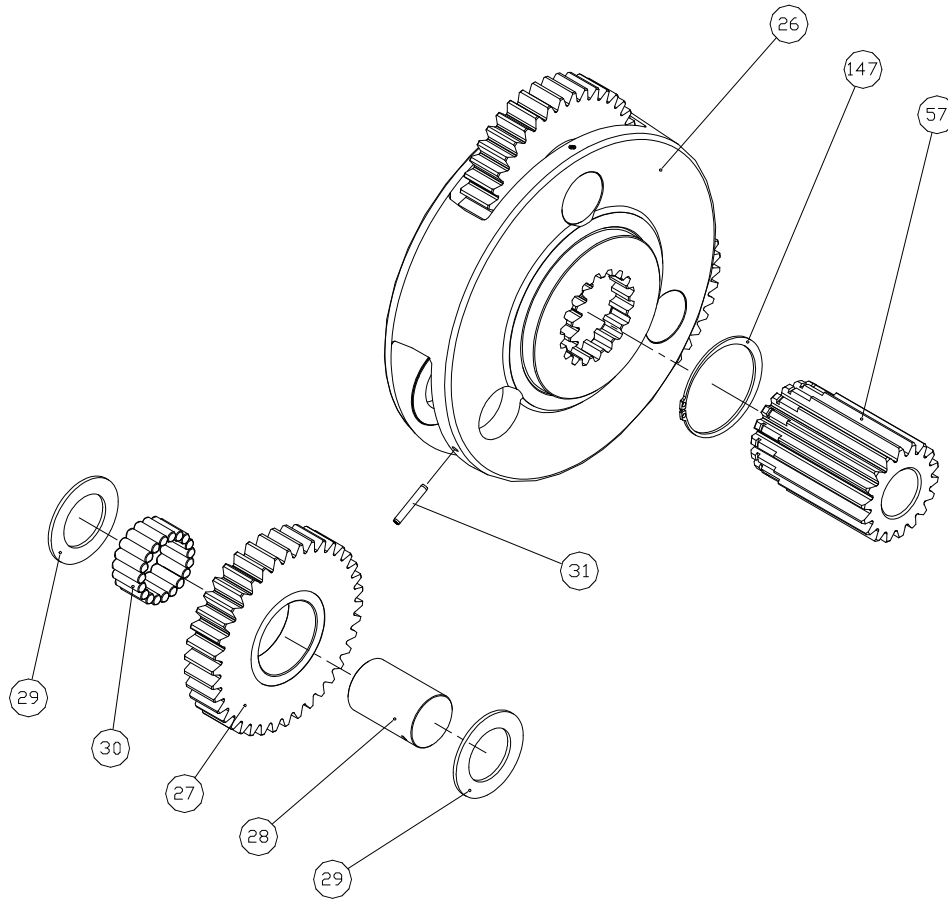
Item	Description	Part No.	Quantity
	Sprag Clutch Assembly (see items listed below)	83170	1
42	Outer Race	NSS	1
43	Retaining Ring	28734	1
44	Sprag Bearing	103104	2
46	Sprag Clutch	NSS	1
47	Retaining Ring	103110	2
50	Inner Race	NSS	1

NSS = Not Sold Separately. Order complete clutch assembly.



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PD21A PRIMARY PLANET CARRIER PARTS

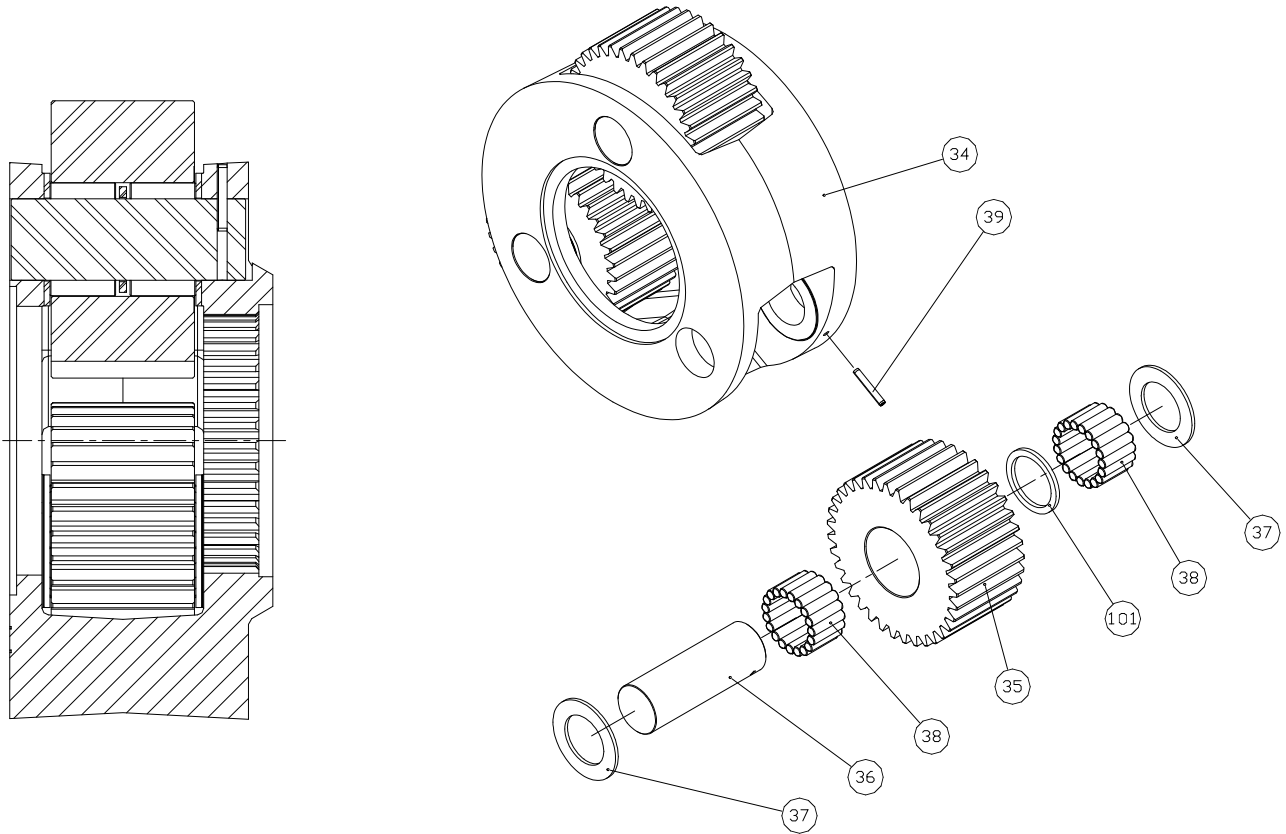


Item	Description	Part No.	Quantity
	Primary Planet Carrier Assembly (includes items below)	83164	1
26	Primary Planetary Carrier	104345	1
27	Primary Planet Gear	104151	3
28	Primary Planet Gear Shaft	104355	3
29	Thrust Washer	103681	6
30	Bearing Rollers	11104	57
31	Spirol Pin	24582	3
57	Output Sun Gear	104150	1
147	Retaining Ring	70575	1



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PD21A OUTPUT PLANET CARRIER PARTS

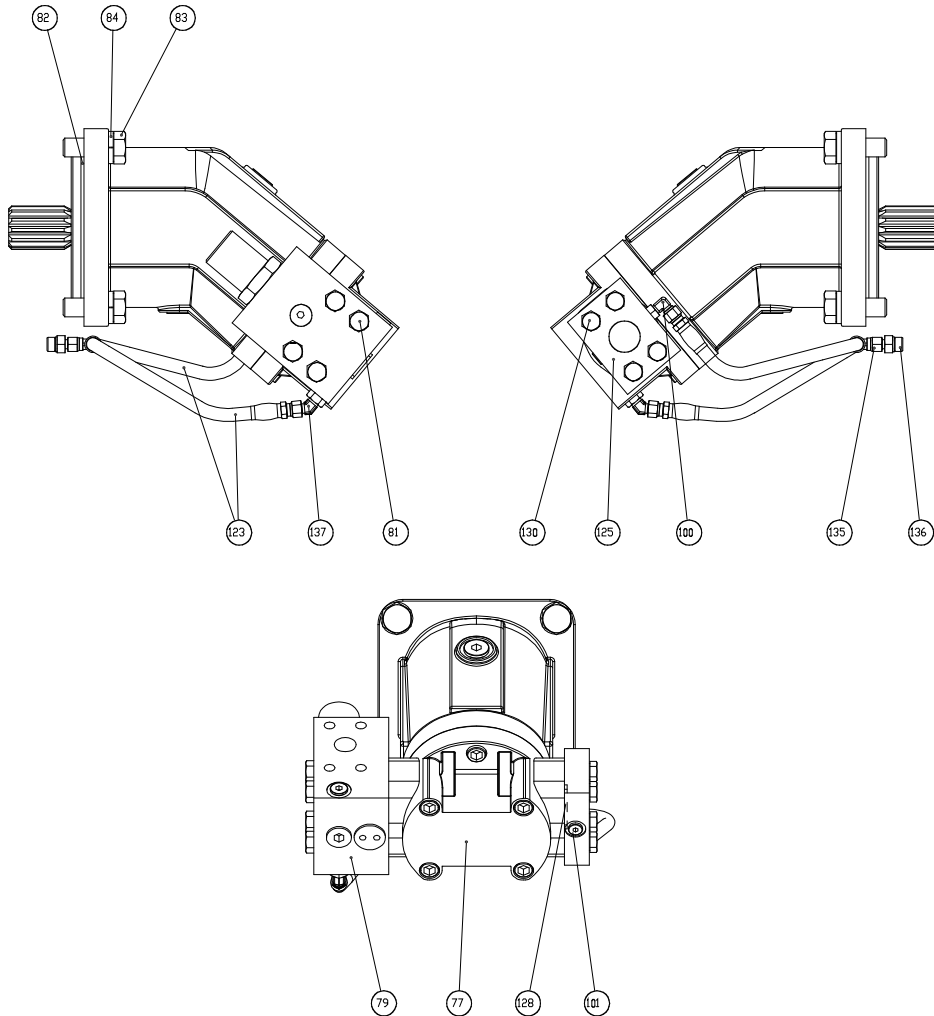


Item	Description	Part No.	Quantity
	Output Planet Carrier Assembly (includes items below)	83168	1
34	Output Planetary Carrier	104352	1
35	Output Planet Gear	104152	3
36	Output Planet Gear Shaft	104356	3
37	Thrust Washer	103681	6
38	Bearing Rollers	21097	114
39	Spirol Pin	24582	3
101	Bearing Spacer	103682	3



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PD21A MOTOR ASSEMBLY PARTS

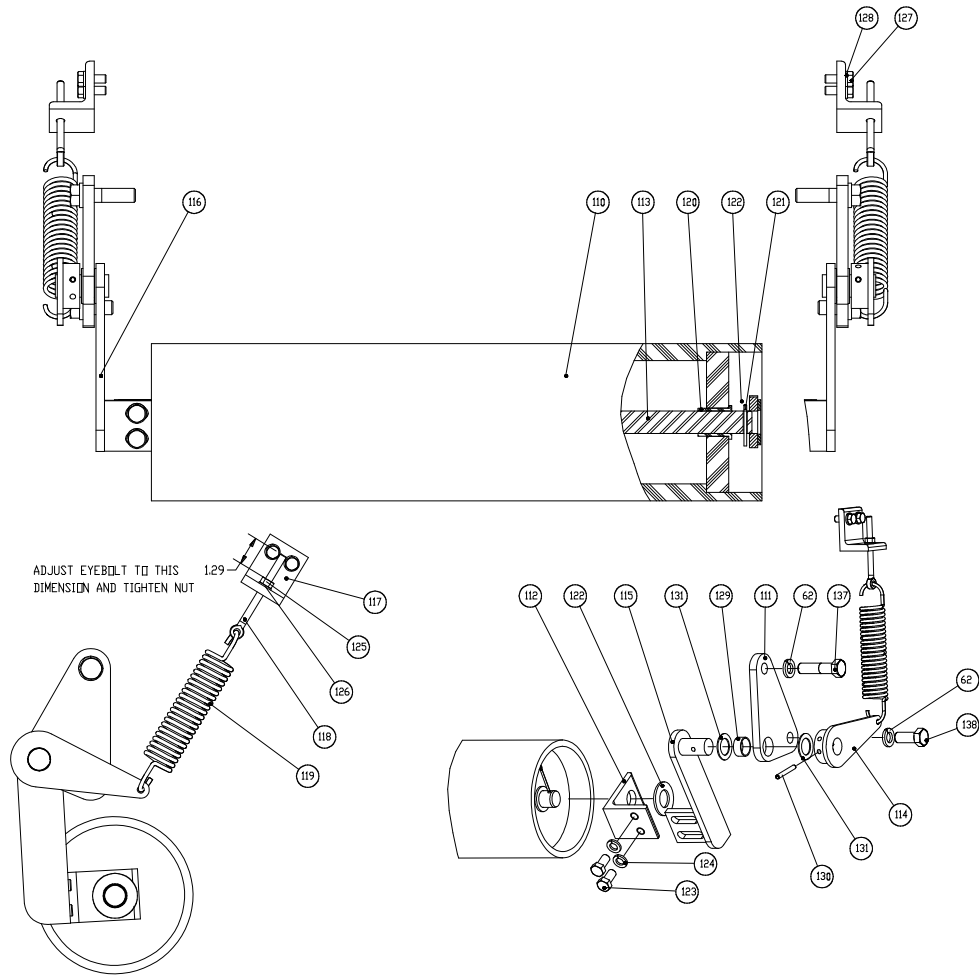


Item	Description	Part No.	Quantity
	Hydraulic Motor Assembly (includes items below)	83257	1
77	Hydraulic Motor	76515	1
79	Brake Valve	103856	1
81	Capscrew, Hex Hd 1/2 - 13 x 3 3/4 Gd 8 Z	29862	4
82	O-Ring	10052	1
83	Capscrew, Hex Hd 3/4 - 10 x 2 Gd 8 Z	104175	4
84	Lockwasher (3/4)	13435	4
100	Adapter	25864	1
101	Plug	69325	1
123	Hose Assembly	25935	2
125	Lowering Port Manifold	100846	1
128	O-Ring	13838	1
130	Capscrew, Hex Hd 1/2 - 13 x 1 1/2 Gd 8 Z	104322	4
135	Swivel Tee	25748	1
136	Adapter	31284	1
137	Elbow Fitting	25131	1



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PD21A ROLLER ASSEMBLY PARTS



Item	Description	Part No.	Quantity
62	Lockwasher, 5/8	102423	2
110	Roller	104343	1
111	Pivot Bracket	103614	2
112	Mounting Bracket	103624	2
113	Shaft, Roller	104363	1
114	Lever, Roller	101728	2
115	Pivot Arm, Right Hand	103625	1
116	Pivot Arm, Left Hand	103626	1
117	Roller Bracket	102055	2
118	Rod End, Roller	101726	2
119	Extension Spring	103627	2
120	Roller Bushing	101727	2
121	Cotter Pin, 1/8 x 1-1/2	101736	2
122	Washer, 1	40162	2
123	Capscrew, Hex Hd 1/2 - 13 x 1 Gd 8 Z	104320	4
124	Lockwasher (1/2)	11026	4
125	Nut, Self Locking, 5/16 - 18	23558	2
126	Washer, 5/16	13873	2
127	Capscrew, Hex Hd 3/8 - 16 x 1 Gd 8 Z	104309	4
128	Lockwasher, (3/8)	27152	4
129	Bushing	22533	2
130	Rollpin	12195	2
131	Thrust Washer	25361	4
137	Capscrew, Hex Hd 5/8 - 11 x 2 1/2 Gd 8 Z	102134	2
138	Capscrew, Hex Hd 5/8 - 11 x 1 1/2 Gd 8 Z	100109	2