

Product Parts Information

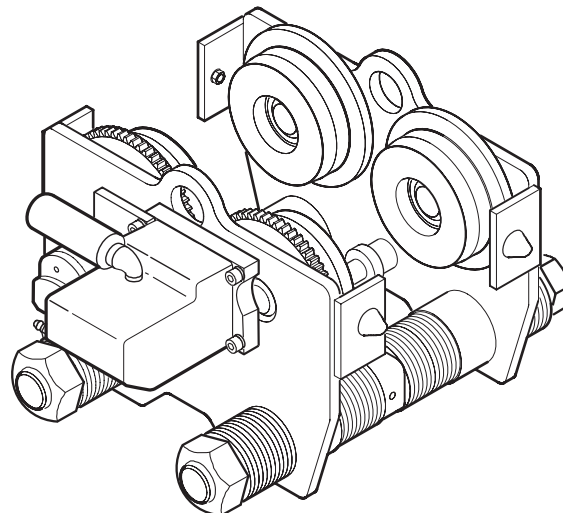


Plain, Hand Chain (Geared) and Air Powered Trolleys Models

TR2U015
TRU120

TR2U030
TRU125

TRU060
TRU250



(Dwg. MHP2671)



Save These Instructions



Form MHD56290

Edition 3

June 2006

71446603

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Only allow **Ingersoll Rand** trained Technicians to perform maintenance on this product. For additional information contact **Ingersoll Rand** factory or nearest Distributor.

For additional supporting documentation refer to Table 1 on page 2. Manuals can be downloaded from www.winchandhoistsolutions.com

The use of other than genuine **Ingersoll Rand** replacement parts may result in safety hazards, decreased performance and increased maintenance and may invalidate all warranties.

The original language of this manual is English.

Refer all communications to the nearest **Ingersoll Rand** Office or Distributor.

Table 1: Product Manuals

Publication	Document/Form Number	Publication	Document/Form Number
Product Safety Information Manual (Non-Man Rider Trolley)	MHD56291	Product Maintenance Information Manual	MHD56156
Product Information Manual	MHD56289		

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PARTS ORDERING INFORMATION

For prompt service and genuine **Ingersoll Rand** replacement parts, provide your nearest Distributor with the following:

1. Complete model number and serial number as it appears on the data (name) plate.
2. Part number(s) and part description as shown in this manual.
3. Quantity required.

For your convenience and future reference it is recommended that the following information be recorded.

Model Number _____

Serial Number _____

Date Purchased _____

NOTICE

- **Continuing improvement and advancement of design may cause changes to this equipment which are not included in this manual. Manuals are periodically revised to incorporate changes. Always check the manual edition number on the front cover for the latest issue.**
- **Sections of this manual may not apply to your product.**
- **The use of other than genuine Ingersoll Rand replacement parts may result in safety hazards, decreased performance and increased maintenance and may invalidate all warranties.**

■ Return Goods Policy

Ingersoll Rand will not accept any returned goods for warranty or service unless prior arrangements have been made and written authorization has been provided from the location the goods were purchased.

Products which have been modified without **Ingersoll Rand** approval, mishandled or overloaded will not be repaired or replaced under warranty.

A printed copy of the warranty which applies to this trolley is provided inside the back cover of this manual.

■ Disposal



When the life of the product has expired, it is recommended that it be disassembled, degreased and parts separated as to materials so that they may be recycled.

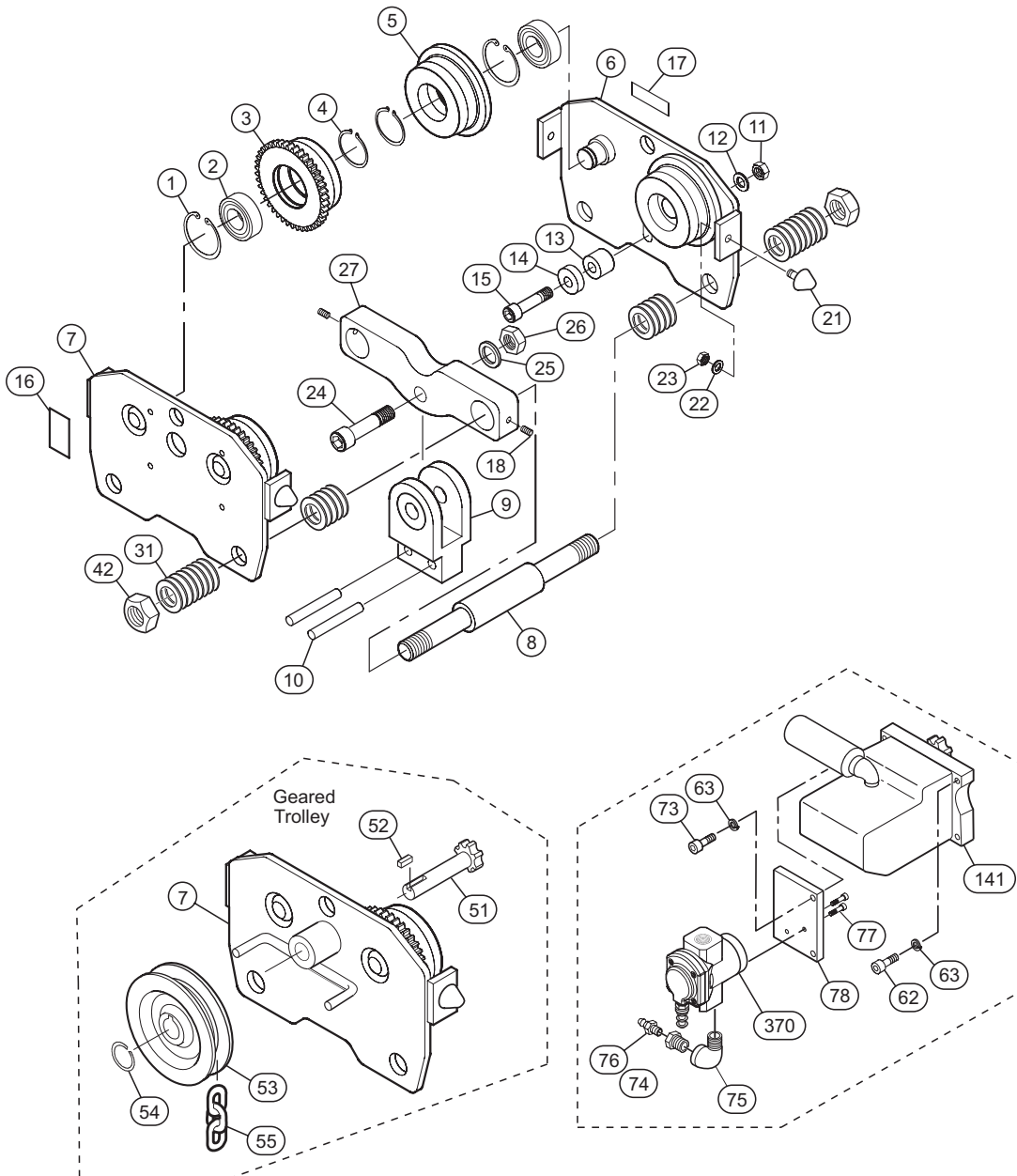
For additional information contact:

Ingersoll Rand
2724 Sixth Avenue South
Seattle, WA 98134 USA
Phone: (206) 624-0466
or (866) 273-3278
Fax: (206) 624-6265

or

**Ingersoll Rand
Douai Operations**
529, Avenue Roger Salengro
59450 Sin Le Noble, France
Phone: (33) 03-27-93-08-08
Fax: (33) 03-27-93-08-00

1.5 TON PLAIN, GEARED AND MOTORIZED TROLLEY ASSEMBLY PARTS DRAWING



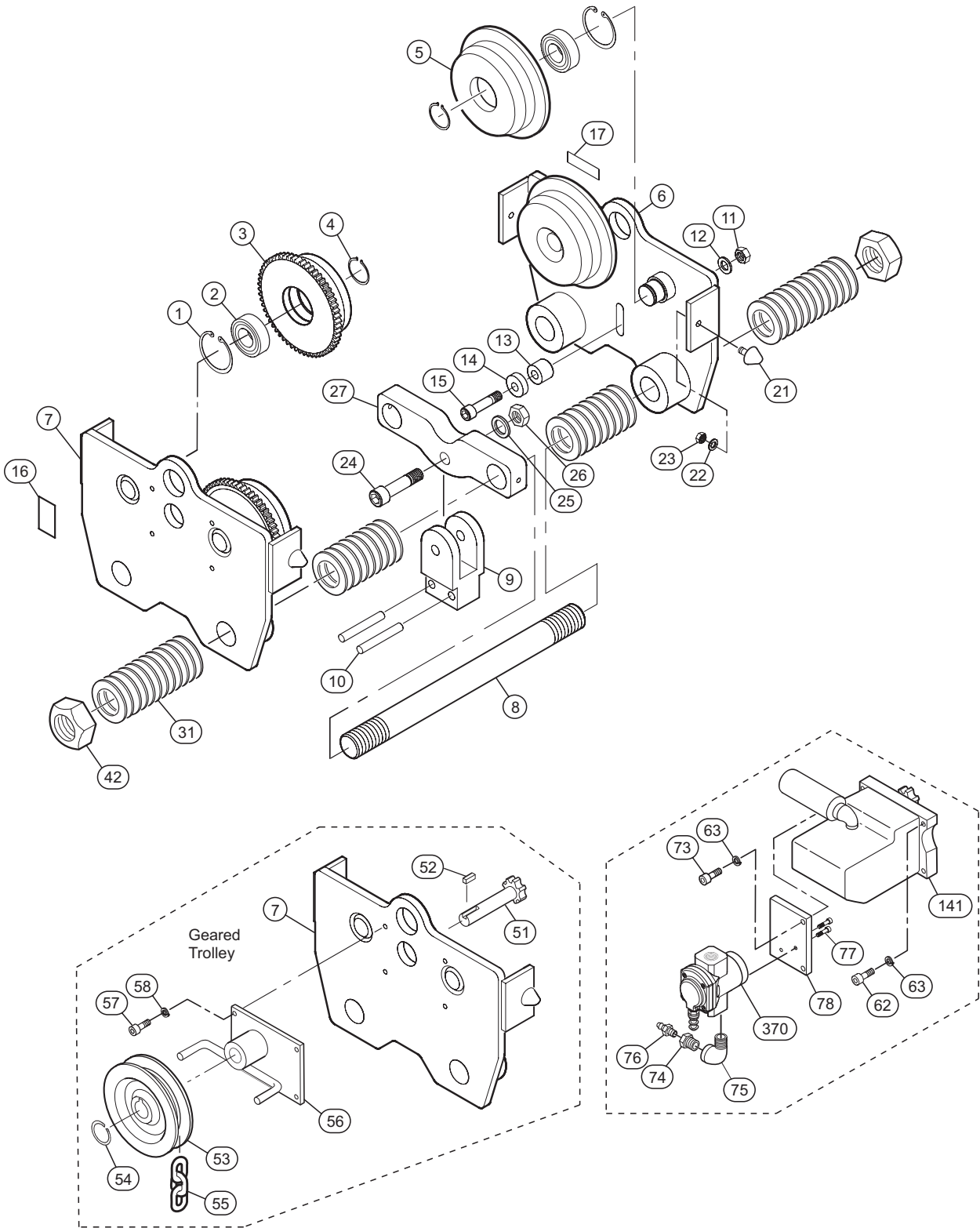
(Dwg. MHP2672)

1.5 TON PLAIN, GEARED AND MOTORIZED TROLLEY ASSEMBLY PARTS LIST

Item No.	Description of Part	Total Qty	Part Number			
			Plain	Geared	Motorized	Motor-E
1	Retainer Ring	4	47703052			
2	Bearing	4	50150005			
3	Geared Wheel	2	---	96340033		
	Geared Wheel (T1 Option)			96340055		
4	Retainer Ring	4	47700025			
5	Plain Wheel	()	96340034 (4)	96340034 (2)		
	Plain Wheel (T1 Option)		96340056 (4)	96340056 (2)		
6	Side Plate (Plain)	()	96340030 (2)	96340030 (1)		
7	Side Plate (Geared)	1	---	96340057	96340032	
8	Suspension Shaft	2	96340035			
9	Hoist Adapter	1	95240174			
10	Pin	2	96443244			
11	Nut	1	---	43706311		
12	Washer	1	---	45001112		
13	Spacer	1	---	96340070		
14	Bearing	1	---	50150001		
	Bearing (T1 Option)		---	50511001		
15	Capscrew	1	---	41324206		
16	Warning Label	1	04306445			
17	Logo Label	1	99990103			
18	Setscrew	2	42007507			
21	Bumper (T1 Option)	4	69805541			
22	Lockwasher (T1 Option)	4	45201008			
23	Nut (T1 Option)	4	43003511			
24	Capscrew	1	95240176			
25	Washer	1	45001116			
26	Nut	1	58250754			
27	Support Lug	1	95240177			
31	Washer	60 **	45001124			
42	Nut	4	43706611			
51	Pinion Shaft	1	---	96090173	---	
52	Key	1	---	60204724	---	
53	Hand Wheel	1	---	96090165	---	
	Hand Wheel (T1 Option)		---	96090181	---	
54	Retainer Ring	1	---	47700020	---	
55	Hand Chain (bulk)	As Req'd	---	36099917	---	
63	Lockwasher	4	---	45201008		
73	Capscrew	2	---	41326706		
74	Fitting Reducer	1	---	61338032		
75	Elbow	1	---	61330832		
76	Fitting	1	---	61629732		
77	Capscrew	2	---	41330506		
78	Support Plate	1	---	96090275		
141	Motor	1	---	96090229		
370	Shut-off Valve Assembly 1/2 inch BSP	1	---	36170015		

** Shipped from Factory with quantity of washers, refer to Product Information Manual Form MHD56289 for installation instructions.

3 TON PLAIN, GEARED AND MOTORIZED TROLLEY ASSEMBLY PARTS DRAWING



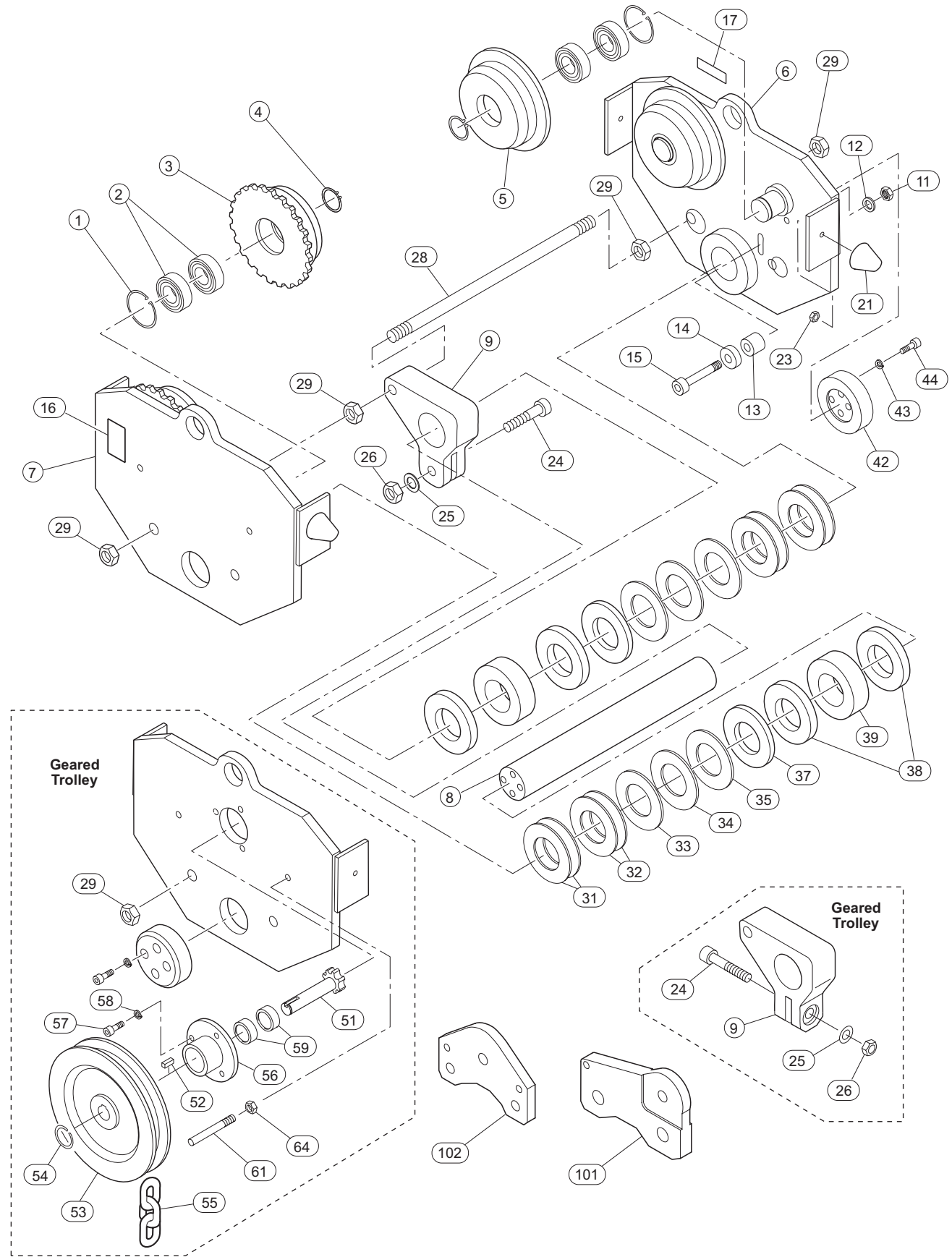
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3 TON PLAIN, GEARED AND MOTORIZED TROLLEY ASSEMBLY PARTS LIST

Item No.	Description of Part	Total Qty	Part Number			
			Plain	Geared	Motorized	Motor-E
1	Retainer Ring	4	47703062			
2	Bearing	4	50150006			
3	Geared Wheel	2	---	95240065		
	Geared Wheel (T1 Option)			95240071		
4	Retainer Ring	4	47700030			
5	Plain Wheel	()	95240066 (4)	95240066 (2)		
	Plain Wheel (T1 Option)		95240072 (4)	95240072 (2)		
6	Side Plate (Plain)	()	95240171 (2)	95240171(1)		
7	Side Plate (Geared)	1	---	95240170		
8	Suspension Shaft	2	95240165			
9	Hoist Adapter	1	95240173			
10	Pin	2	96443245			
11	Nut	1	---	43706311		
12	Washer	1	---	45001112		
13	Spacer	1	---	95230138		
14	Bearing	1	---	50150001		
	Bearing (T1 Option)		---	505511001		
15	Capscrew	1	---	41329606		
16	Warning Label	1	04306445			
17	Logo Label	1	99990103			
21	Bumper (T1 Option)	4	69805541			
22	Lockwasher (T1 Option)	4	45201008			
23	Nut (T1 Option)	4	43003511			
24	Capscrew	1	95240182			
25	Washer	1	45001120			
26	Nut	1	43703311			
27	Support Lug	1	95240166			
31	Washer	92 **	45000136			
42	Nut	4	43007411			
51	Pinion Shaft	1	---	96090173	---	
52	Key	1	---	60204724	---	
53	Hand Wheel	1	---	96090165	---	
	Hand Wheel (T1 Option)		---	96090181	---	
54	Retainer Ring	1	---	47700020	---	
55	Hand Chain (bulk)	As Req'd	---	36099917	---	
56	Support	1	---	95240086	---	
57	Capscrew	4	---	41321806	---	
58	Lockwasher	4	---	45201008	---	
63	Lockwasher	4	---	45201008		
73	Capscrew	2	---	41326706		
74	Fitting Reducer	1	---	61338032		
75	Elbow	1	---	61330832		
76	Fitting	1	---	61629732		
77	Capscrew	2	---	41330506		
78	Support Plate	1	---	96090275		
141	Motor	1	---	45615		
370	Shut-off Valve Assembly 1/2 inch BSP	1	---	36170015		

** Shipped from Factory with quantity of washers, refer to Product Information Manual Form MHD56289 for installation instructions.

6 TON PLAIN AND GEARED TROLLEY ASSEMBLY PARTS DRAWING

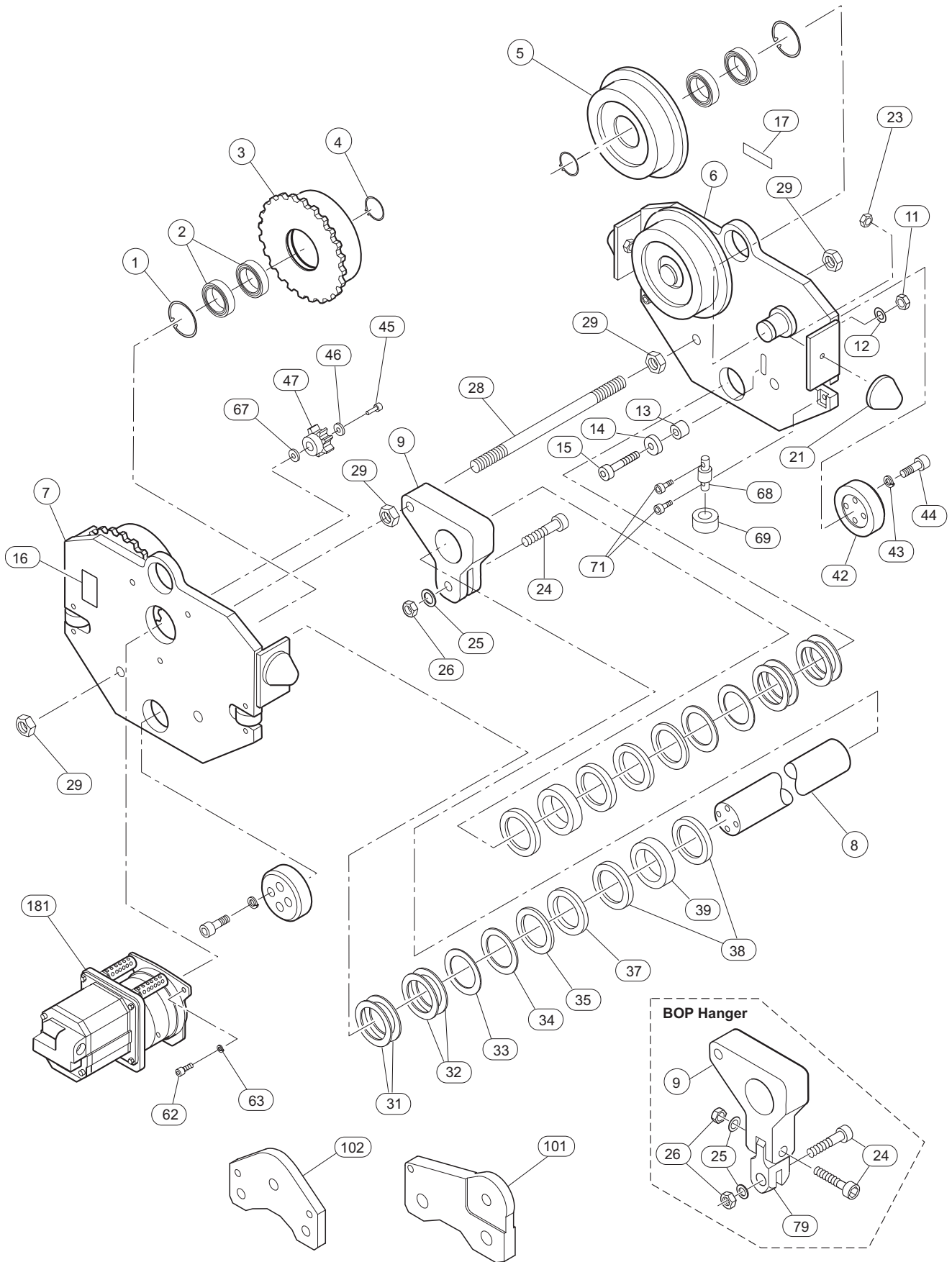


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6 TON PLAIN AND GEARED TROLLEY ASSEMBLY PARTS LIST

Item No.	Description of Part	Total Qty.	6 ton Part Number	
			Plain	Geared
1	Retainer Ring	4	47703072	
2	Ball Bearing	8	50170007	
3	Geared Wheel	2	---	95230011
	Geared Wheel (T1 Option)			95230040
4	Retainer Ring	4	47700035	
5	Plain Wheel	()	95230012 (4)	95230012 (2)
	Plain Wheel (T1 Option)		95230041 (4)	95230041 (2)
6	Side Plate (Plain)	()	95238123 (2)	95238123 (1)
7	Side Plate (Geared)	1	---	95238122
8	Suspension Shaft	2	95237125	
9	Hoist Support	1	95238128	95237126
11	Nut	1	---	43706311
12	Washer	1	---	45001112
13	Spacer	1	---	95230138
14	Bearing (T1 Option)	1	---	50150001
15	Capscrew	1	---	41329606
16	Label Warning	1	04306445	
17	Label I-R	1	99990102	
21	Bumper (T1 Option)	4	59852532	
23	Nut (T1 Option)	4	43706511	
24	Capscrew	1	41323706	
25	Washer	1	45001416	
26	Nut	1	43703711	
28	Screw Rod	1	95230137	
29	Nut	4	43004011	
31	Spacer 0.098 in. (2.5 mm)	4	95230129	
32	Spacer 0.118 in. (3 mm)	4	95230130	
33	Spacer 0.138 in. (3.5 mm)	2	95230131	
34	Spacer 0.157 in. (4 mm)	2	95230132	
35	Spacer 0.197 in. (5 mm)	2	95230133	
37	Spacer 0.59 in. (15 mm)	2	95230134	
38	Spacer 0.984 in. (25 mm)	4	95230135	
39	Spacer 1.673 in. (42.5 mm)	2	95230136	
42	Tightening Washer	2	95230124	
43	Lockwasher	8	45201012	
44	Capscrew	8	41321306	
51	Pinion Shaft	1	---	95230143
52	Key	1	---	95230029
53	Hand Wheel	1	---	95230141
54	Retainer Ring	1	---	47700025
55	Hand Chain (bulk)	As Req'd	---	35239901
56	Support	1	---	95230027
57	Capscrew	3	---	41323506
58	Lockwasher	3	---	45201010
59	Bushing	2	---	59104926
61	Chain Guide	2	---	95230142
64	Nut	2	---	43003611
101	Hoist Support (LCA060S 6t)	1	95237039	
102	Hoist Support (LCA060D 6t)	1	94127417	

6 TON MOTORIZED AND BOP TROLLEY ASSEMBLY PARTS DRAWING

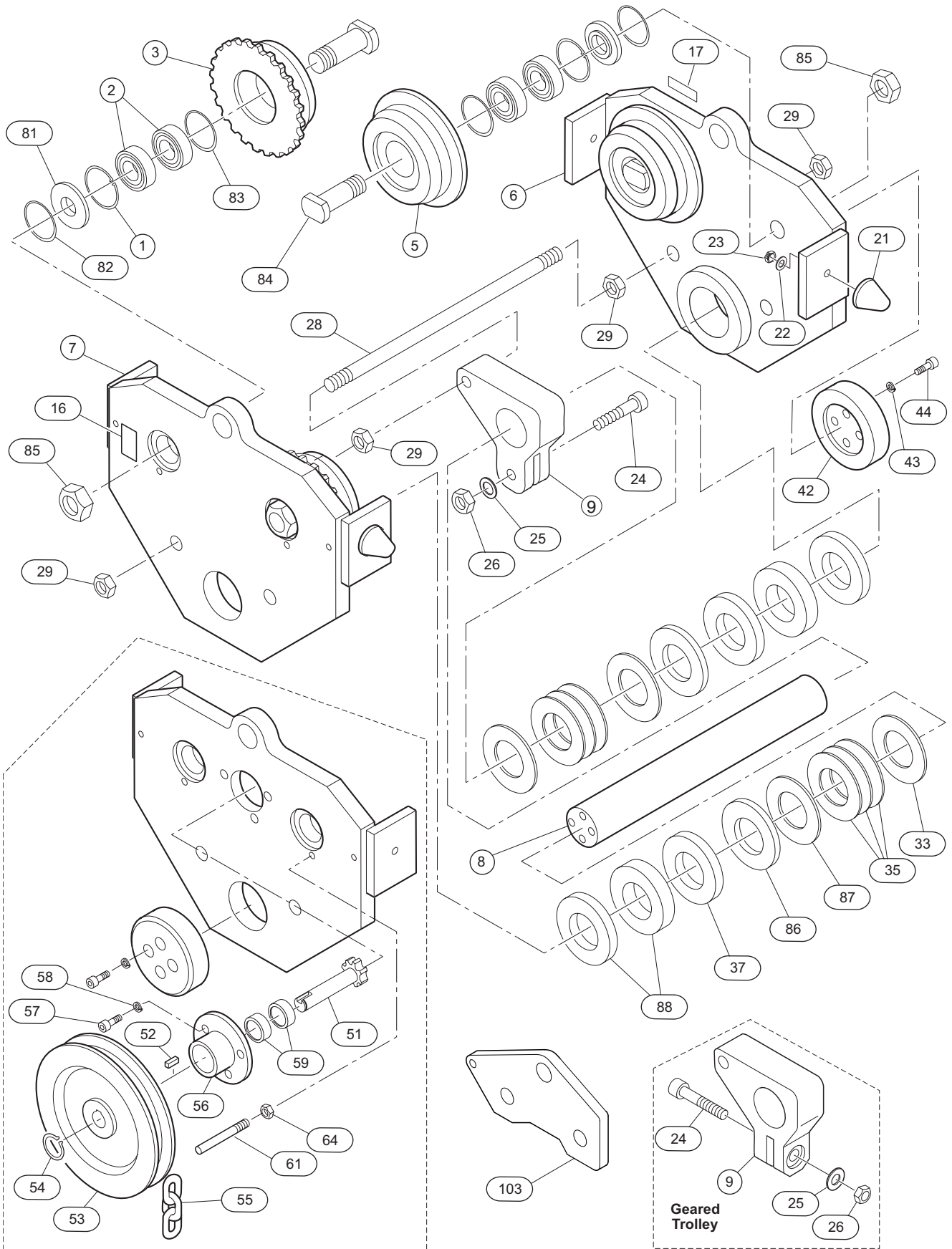


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6 TON MOTORIZED AND BOP TROLLEY ASSEMBLY PARTS LIST

Item No.	Description of Part	Total Qty.	6 ton Part Number	
			Motorized	BOP
1	Retainer Ring	4	47703072	
2	Bearing	8	50170007	
3	Geared Wheel	2	95230011	
	Geared Wheel (T1 Option)		95230040	
4	Retainer Ring	4	47700035	
5	Plain Wheel	2	95230012	
	Plain Wheel (T1 Option)		95230041	
6	Side Plate (Plain)	1	95238123	95238121
7	Side Plate (Geared)	1	95238122	95238120
8	Suspension Shaft	1	95237125	
9	Hoist Support	1	95238128	95237126
11	Nut	1	43706311	
12	Washer	1	45001112	
13	Spacer	1	95230138	
14	Ball Bearing	1	50150001	
15	Capscrew	1	41329606	
16	Label Warning	1	04306445	
17	Label I-R	1	99990102	
21	Bumper (T1 Option)	4	59852532	
23	Nut (T1 Option)	4	43706511	
24	Capscrew	()	41323706 (1)	41323706 (2)
25	Washer	()	45001416 (1)	45001416 (2)
26	Nut	()	43703711 (1)	43703711 (2)
28	Screw Rod	1	95230137	
29	Nut	4	43004011	
31	Spacer 0.098 in. (2.5 mm)	4	95230129	
32	Spacer 0.118 in. (3 mm)	4	95230130	
33	Spacer 0.138 in. (3.5 mm)	2	95230131	
34	Spacer 0.157 in. (4 mm)	2	95230132	
35	Spacer 0.197 in. (5 mm)	2	95230133	
37	Spacer 0.59 in. (15 mm)	2	95230134	
38	Spacer 0.984 in. (25 mm)	4	95230135	
39	Spacer 1.673 in. (42.5 mm)	2	95230136	
42	Tightening Washer	2	95230124	
43	Lockwasher	8	45201012	
44	Capscrew	8	41321306	
45	Screw	1	41325606	
46	Washer	1	45701008	
47	Drive Gear	1	95230010	
62	Capscrew	3	41323506	
63	Lockwasher	3	45201010	
67	Washer	1	45000424	
68	Roller Axle	4	---	95240064
69	Roller	4	---	69810341
71	Capscrew	8	---	41321306
79	Hoist Support	1	---	95237127
181	Motor and Reducer Assembly	1	75460001	
101	Hoist Support (LCA060S 6t)	1	95237039	
102	Hoist Support (LCA060D 6t)	1	34127417	

12 TON PLAIN AND GEARED TROLLEY ASSEMBLY PARTS DRAWING

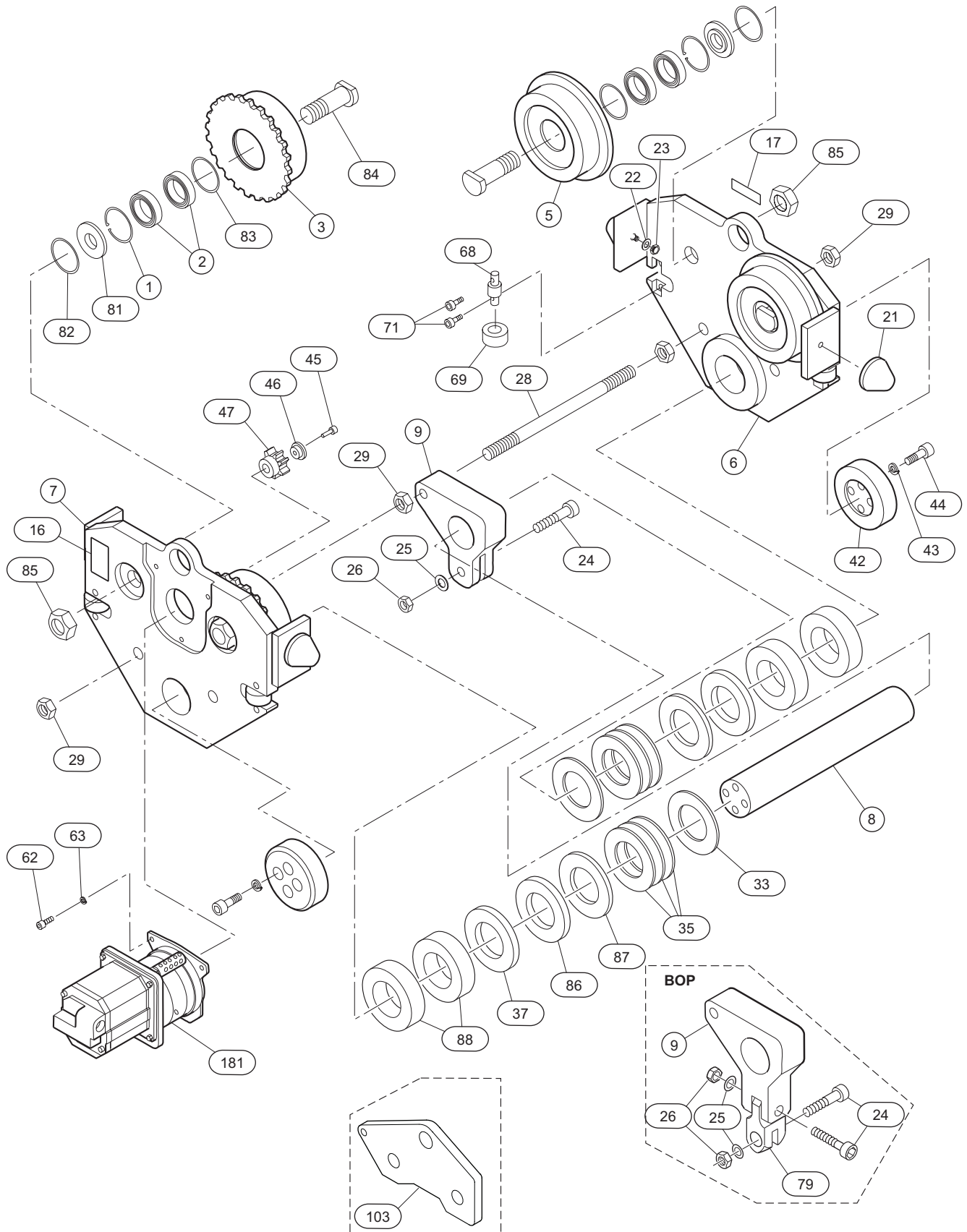


(Dwg. MHP1518)

12 TON PLAIN AND GEARED TROLLEY ASSEMBLY PARTS LIST

Item No.	Description of Part	Total Qty.	12 ton Part Number	
			Plain	Geared
1	Retainer Ring	4	47703072	
2	Bearing	8	51200007	
3	Geared Wheel Flat Beam -E	2	---	95447006
	Geared Wheel Flat Beam (T1 Option)		95447070	
	Geared Wheel Taper Beam -N (T1 Option)		95447008	
	Geared Wheel Taper Beam (T1 Option)		95447017	
5	Plain Wheel Flat Beam -E	()	95447005 (4)	95447005 (2)
	Plain Wheel Flat Beam (T1 Option)	()	95447069 (4)	95447069 (2)
	Plain Wheel Taper Beam -N (T1 Option)	()	95447007 (4)	95447007 (2)
	Plain Wheel Taper Beam (T1 Option)	()	95447018 (4)	95447018 (2)
6	Side Plate (Plain)	()	96298002 (2)	96298002 (1)
7	Side Plate (Geared)	1	---	96298001
8	Suspension Shaft	2	96297003	
9	Hoist Support	1	96298077	96298078
16	Label Warning	1	04306445	
17	Label I-R	1	99990102	
21	Bumper (T1 Option)	4	69886832	
22	Washer (T1 Option)	4	45201012	
23	Nut (T1 Option)	4	43003611	
24	Capscrew	1	41321206	
25	Washer	1	45001424	
26	Nut	1	43706611	
28	Screw Rod	1	96290014	
29	Nut	4	43006111	
33	Spacer 0.138 in. (3.5 mm)	2	96290005	
35	Spacer 0.197 in. (5 mm)	6	96290006	
37	Spacer 0.59 in. (15 mm)	2	96290009	
42	Tightening Washer	2	96290004	
43	Lockwasher	8	45201016	
44	Capscrew	8	41325906	
51	Pinion Shaft	1	---	95230143
52	Key	1	---	95230029
53	Hand Wheel	1	---	95230141
54	Retainer Ring	1	---	47700025
55	Hand Chain (bulk)	As Req'd	---	35239901
56	Support	1	---	95230027
57	Capscrew	3	---	41323506
58	Lockwasher	3	---	45201010
59	Bushing	2	---	59104926
61	Chain Guide	2	---	95230142
64	Nut	2	---	43003611
81	Spacer	4	95440004	
82	Seal	4	58212629	
83	Seal	4	58304207	
84	Wheel Axle	4	95237017	
85	Nut	4	43006711	
86	Spacer 0.394 in. (10 mm)	2	96290008	
87	Spacer 0.236 in. (6 mm)	2	96290007	
88	Spacer 1.339 in. (34 mm)	4	96290010	
103	Hoist Support	1	95267155	

12 AND 12.5 TON MOTORIZED AND BOP TROLLEY ASSEMBLY PARTS DRAWING

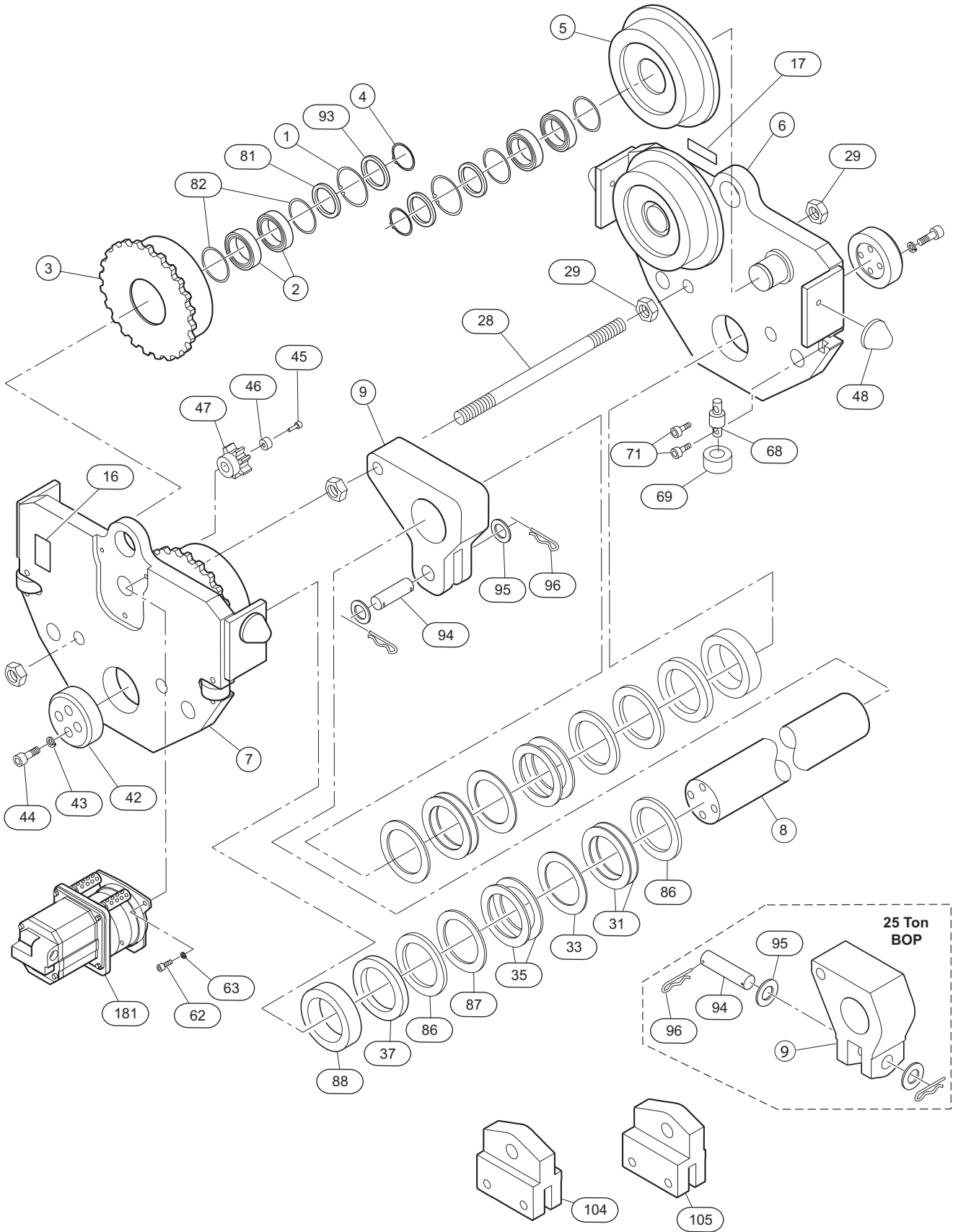


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12 AND 12.5 TON MOTORIZED AND BOP TROLLEY ASSEMBLY PARTS LIST

Item No.	Description of Part	Total Qty.	12 ton Part Number	
			Motorized	Motor-BOP
1	Retainer Ring	4	47703072	
2	Bearing	8	51200007	
3	Gear Wheel Flat Beam -E	2	95447006	
	Gear Wheel Flat Beam (T1 Option)		95447070	
	Gear Wheel Taper Beam -N (T1 Option)		95447008	
	Gear Wheel Taper Beam (T1 Option)		95447017	
5	Plain Wheel Flat Beam -E	2	95447005	
	Plain Wheel Flat Beam (T1 Option)	2	95447069	
	Plain Wheel Taper Beam -N (T1 Option)	2	95447007	
	Plain Wheel Taper Beam (T1 Option)	2	95447018	
6	Side Plate (Plain) 12 ton	1	96298002	96378005
	Side Plate (Plain) 12.5 ton (TD-20)		---	96290337
7	Side Plate (Geared) 12 ton	1	96298001	96378004
	Side Plate (Geared) 12.5 ton (TD-20)		---	96290336
8	Suspension Shaft	2	96297003	
	Suspension Shaft (TD-20)		---	96290342
9	Hoist Support	1	96298077	96298078
	Hoist Support (TD-20)		---	96290338
16	Label Warning	1	04306445	
17	Label I-R	1	99990102	
21	Bumper (T1 Option)	4	69886832	
22	Washer (T1 Option)	4	45201012	
23	Nut (T1 Option)	4	43003611	
24	Capscrew	()	41321206 (1)	41321206 (2)
	Capscrew (TD-20)		---	41333806 (2)
25	Washer	()	45001424 (1)	45001424 (2)
26	Nut	()	43706611 (1)	43706611 (2)
28	Screw Rod	1	96290014	
29	Nut	4	43006111	
33	Spacer 0.138 in. (3.5 mm)	2	96290005	
35	Spacer 0.197 in. (5 mm)	6	96290006	
37	Spacer 0.59 in. (15 mm)	2	96290009	
42	Tightening Washer	2	96290004	
43	Lockwasher	8	45201016	
44	Capscrew	8	41325906	
45	Screw	1	41324906	
46	Washer	1	96290013	
47	Drive Gear	1	96290012	
62	Capscrew	(3)	41323506	
63	Lockwasher	3	45201010	
68	Roller Axle	4	---	96290045
69	Roller	4		69810341
71	Capscrew	8		41312706
79	Hoist Support	1		96297079
	Hoist Support (TD-20)		96290340	
81	Spacer	4	95440004	
82	Seal	4	58212629	
83	Seal	4	58304207	
84	Wheel Axle	4	95237017	
	Wheel Axle (TD-20)		---	95230252
85	Nut	4	43006711	
	Nut (TD-20)		---	96290354
86	Spacer 0.394 in. (10 mm)	2	96290008	
87	Spacer 0.236 in. (6 mm)	2	96290007	
88	Spacer 1.339 in. (34 mm)	4	96290010	
103	Hoist Support	1	95267155	
	Hoist Support (TD-20)		---	95260317
181	Motor and Reduction Assembly	1	35460001	

18 AND 25 TON MOTORIZED ASSEMBLY PARTS DRAWING

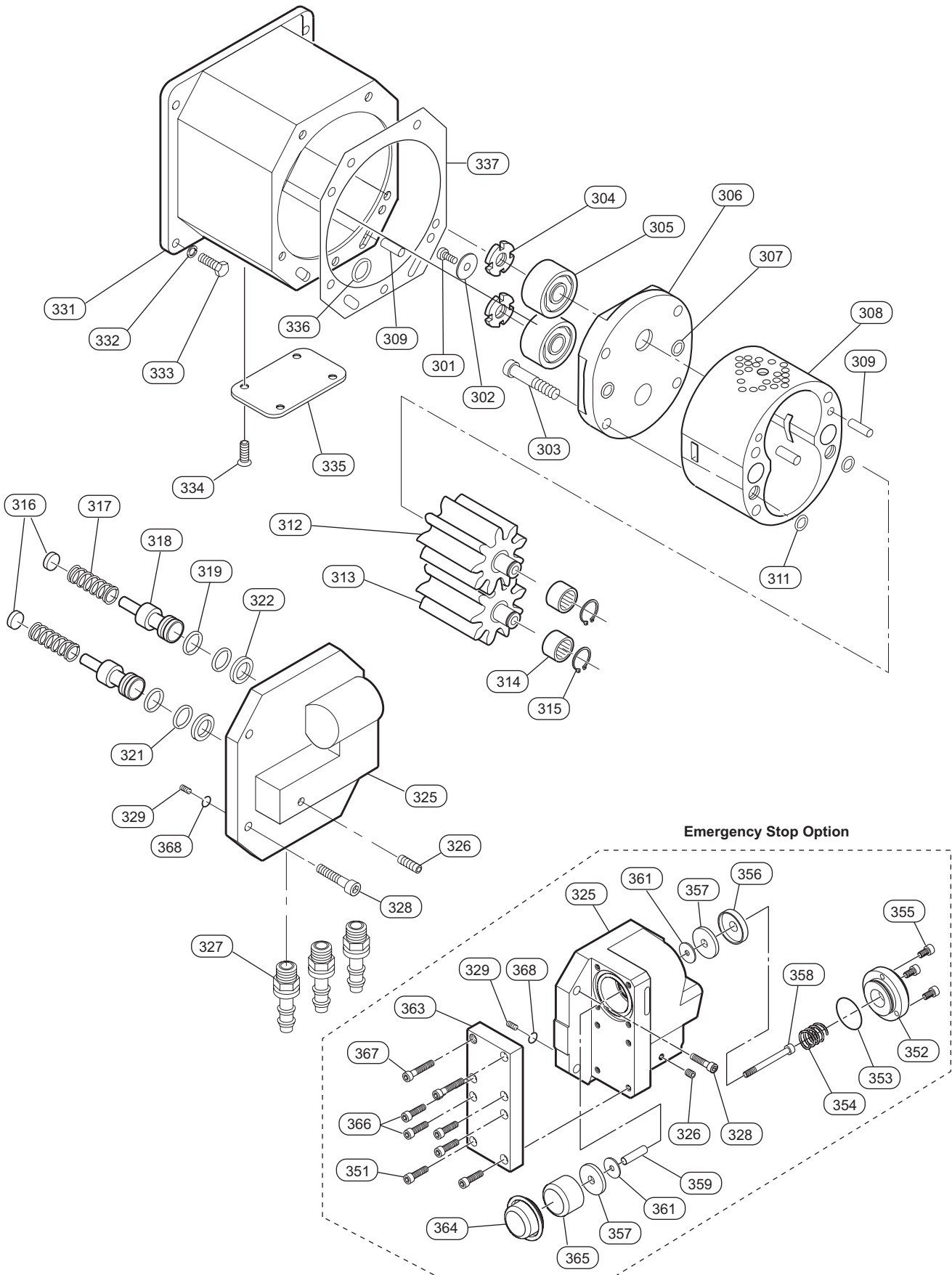


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18 AND 25 TON MOTORIZED ASSEMBLY PARTS LIST

Item No.	Description of Part	Total Qty.	18 and 25 ton Part Number		
			Motorized	Motor BOP	TD-20 Option
1	Retainer Ring	4		47703100	
2	Ball Bearing	8		51200011	
3	Geared Wheel -E	2		96297019	
	Geared Wheel -E-R (T1 Option)			96297053	
	Geared Wheel -N			96297021	
	Geared Wheel -N-R (T1 Option)			95967043	
4	Retainer Ring	4		47707055	
5	Plain Wheel -E	2		96297020	
	Plain Wheel -E-R (T1 Option)			96297054	
	Plain Wheel -N			96297022	
	Plain Wheel -N-R (T1 Option)			95967076	
6	Side Plate (Plain)	1	96298043	95968118	96290223
7	Side Plate (Geared)	1	96298042	95968117	96290222
8	Suspension Shaft	2	96297033		96290229
9	Hoist Support	1	96298081	96298082	96290826
16	Label Warning	1		04306445	
17	Label I-R	1		99990102	
28	Screw Rod	1		96290031	
29	Nut	4		43006711	
31	Spacer 0.098 in. (2.5 mm)	4		96290023	
33	Spacer 0.138 in. (3.5 mm)	2		96290028	
35	Spacer 0.197 in. (5 mm)	4		96290024	
37	Spacer 0.59 in. (15 mm)	2		96290027	
42	Tightening Washer	2		96290032	
43	Lockwasher	8		45201020	
44	Screw	8		41328506	
45	Screw	1		41324906	
46	Washer	1		96290013	
47	Drive Gear	1		96290012	
48	Bumper Assembly (T1 Option)	4		36290012	
62	Screw	3		41323506	
63	Lockwasher	3		45201010	
68	Roller Axle	4	---		95230191
69	Roller	4	---		95230189
71	Capscrew	8	---		41312706
81	Spacer	4		95960045	
82	Seal	8		58324111	
86	Spacer 0.394 in. (10 mm)	2		96290026	
87	Spacer 0.236 in. (6 mm)	2		96290025	
88	Spacer 1.339 in. (34 mm)	4		96290029	
93	Spacer	4		95960044	
94	Axle	1	96297083		96290228
95	Washer	2		45001139	
96	Cotter Pin	2		47863832	
104	Hoist Support (25t)	1	95908063		95900167
105	Hoist Support (18t)	1	95908065		---
181	Motor and Reduction Assembly	1		75460001	

2 HP MOTOR ASSEMBLY PARTS DRAWING



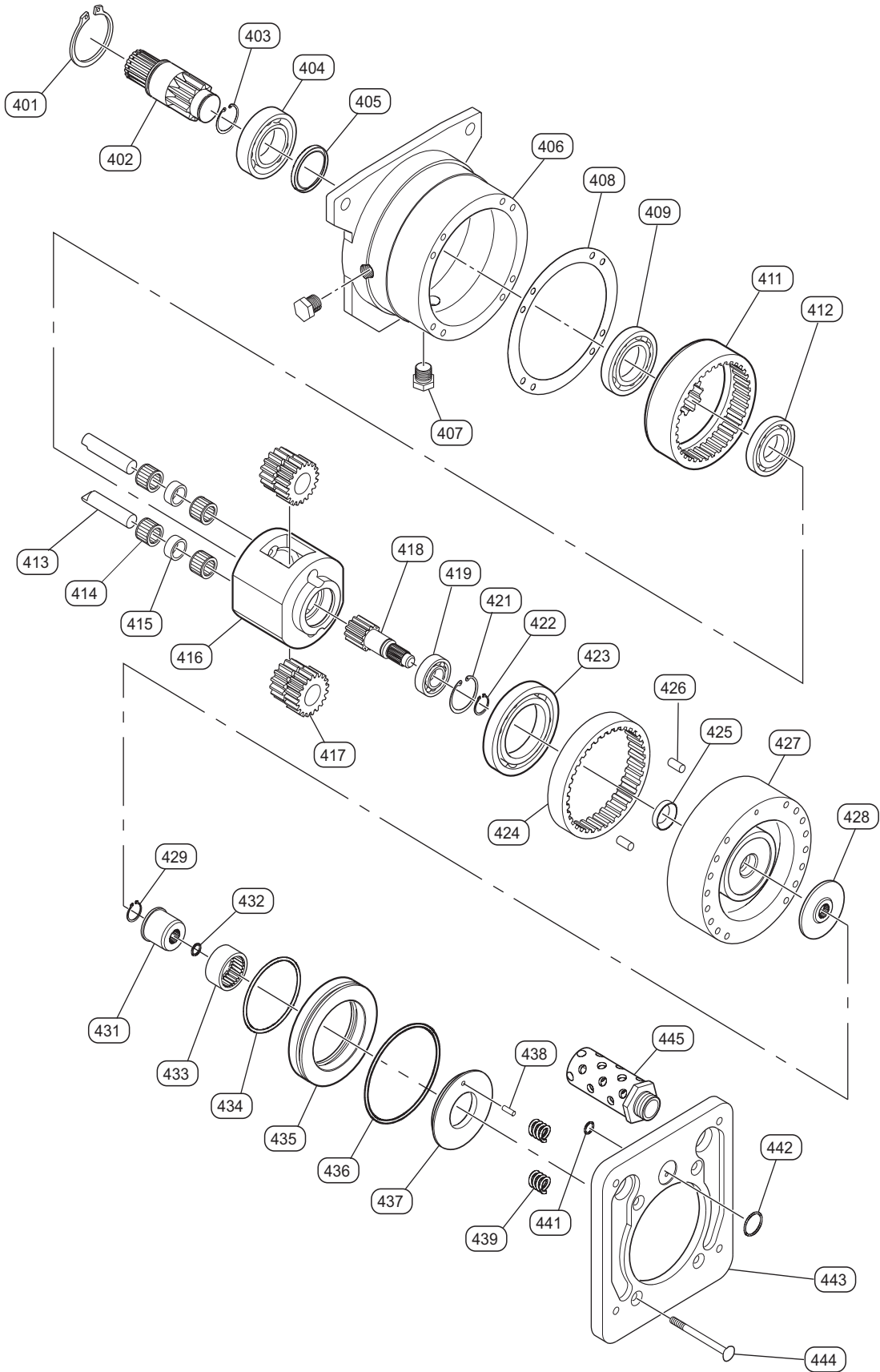
(Dwg. MHP1651)

2 HP MOTOR ASSEMBLY PARTS LIST

Item No.	Description of Part	Total Qty.	Part Number	
			Without Emergency Stop	With Emergency Stop
300	Motor Assembly without Emergency Stop (Incl's items 301 through 328)	1	36090437	---
	Motor Assembly with Emergency Stop (Incl's items 301 through 328 and 351 through 368)		---	36090430
301	Screw	1	41306706	
302	Washer	1	96090032	
303	Capscrew	4	41300806	
304	Locknut	2	57000002	
305	Bearing	2	50600002	
306	Motor Flange	1	96090008	
• 307	'O' Ring	()	58222329 (2)	58222329 (3)
308	Motor Housing	1	96090277	96090007
309	Pin	6	46000416	
• 311	'O' Ring	2	58205029	
312	Idle Gear (Set Only)	1	36090128	
313	Driving Gear (Set Only)			
314	Needle Bearing	2	56461912	
315	Retainer Ring	2	47801339	
316	Slide Valve	2	94120030	
317	Spring	2	94240224	
318	Slide Valve	2	94240212	
• 319	Quad-ring	2	58231229	
• 321	Quad-ring	2	58228929	
322	Stop	2	96090042	
325	Motor Cover	1	96090079	96090270
326	Set Screw	1	42007707	42008307
327	Fitting	()	61652632 (3)	61652632 (5)
328	Screw	4	41312206	---
329	Setscrew	2	42007407	
331	Motor Housing	1	96180015	
332	Lockwasher	4	45201006	
333	Capscrew	4	41322606	
334	Capscrew	4	41104503	
335	Cover	1	96180036	
• 336	'O' Ring	2	58224929	
• 337	Gasket	1	96180066	
351	Capscrew	6	---	41322206
352	Cover	1	---	96170059
• 353	'O' Ring	1	---	58214829
354	Spring	1	---	69158732
355	Capscrew	3	---	41326306
356	Valve Cone	1	---	96170053
• 357	Seal	2	---	96170056
358	Screw	1	---	41308206
359	Spacer	2	---	96170055
361	Washer	2	---	45700005
363	Cover	1	---	96090271
• 364	Diaphragm	1	---	67716341
365	Valve Cone	1	---	96170054
366	Screw	4	---	41322306
367	Screw	2	---	41324306
• 368	'O' Ring	2	---	58212229

• Recommended Spare

MOTOR-REDUCER WITH BRAKE PARTS DRAWING



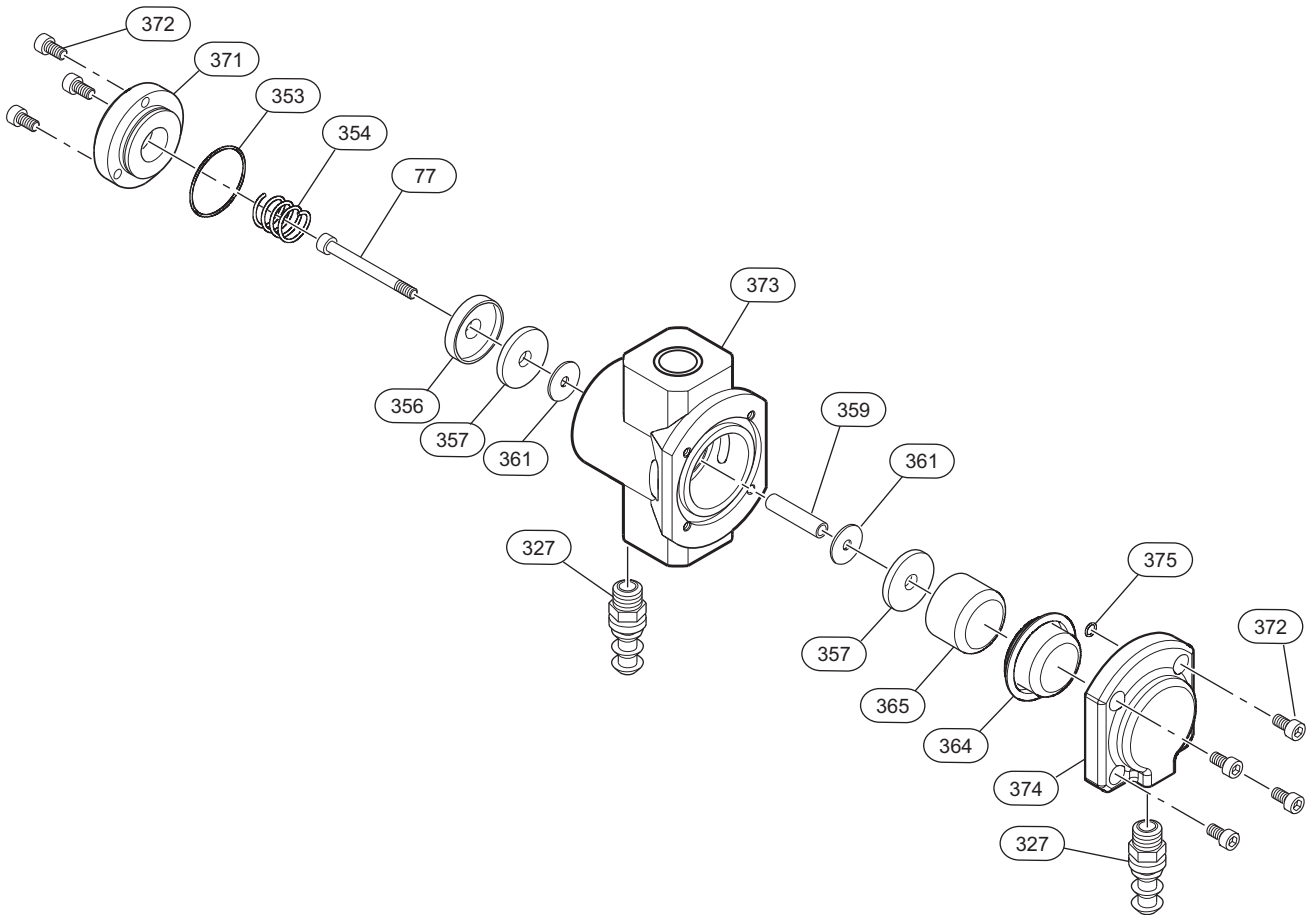
(Dwg. MHP1543)

MOTOR-REDUCER WITH BRAKE PARTS LIST

Item No.	Description of Part	Total Qty.	Part Number
181	Motor and Reducer Assembly (Incl's Motor on page 36)	1	35460001
401	Retainer Ring	1	47700030
402	Drive Shaft	1	95460008
403	Retainer Ring	1	47802139
404	Bearing	1	50050006
405	Seal Washer	1	58017530
406	Gear Case	1	95460007
407	Plug	2	65125832
• 408	Gasket	1	96180042
409	Bearing	1	50800006
411	Ring Gear	1	96090094
412	Bearing	1	50800005
413	Planet Axle	2	96090039
414	Needle Roller Bearing	4	56501513
415	Spacer Ring	2	96090095
416	Planet Support	1	96090014
417	Double Planet Gear	2	96090096
418	Shaft Sun Gear	1	96180011
419	Bearing	1	50000002
421	Retainer Ring	1	47703032
422	Retainer Ring	1	47700015
423	Bearing	1	50800009
424	Ring Gear	1	96090038
425	Seal Washer	1	58019830
426	Pin	2	46001116
427	Brake Body	1	96180057
428	Friction Disc	1	96090049
429	Retainer Ring	1	47700012
431	Coupling	1	96180014
• 432	'O' Ring	1	58218229
433	Needle Roller Bearing	1	56323225
• 434	'O' Ring	1	58232229
435	Brake Piston	1	96090113
• 436	'O' Ring	1	58232329
437	Brake Disc	1	96180012
438	Pin	1	46406118
439	Spring	4	69165532
• 441	'O' Ring	1	58212529
• 442	'O' Ring	1	58218129
443	Flange	1	95460009
444	Screw	4	41103903
• 445	Muffler	2	68497432

• Recommended Spare

SHUT-OFF VALVE ASSEMBLY DRAWING AND PARTS LIST



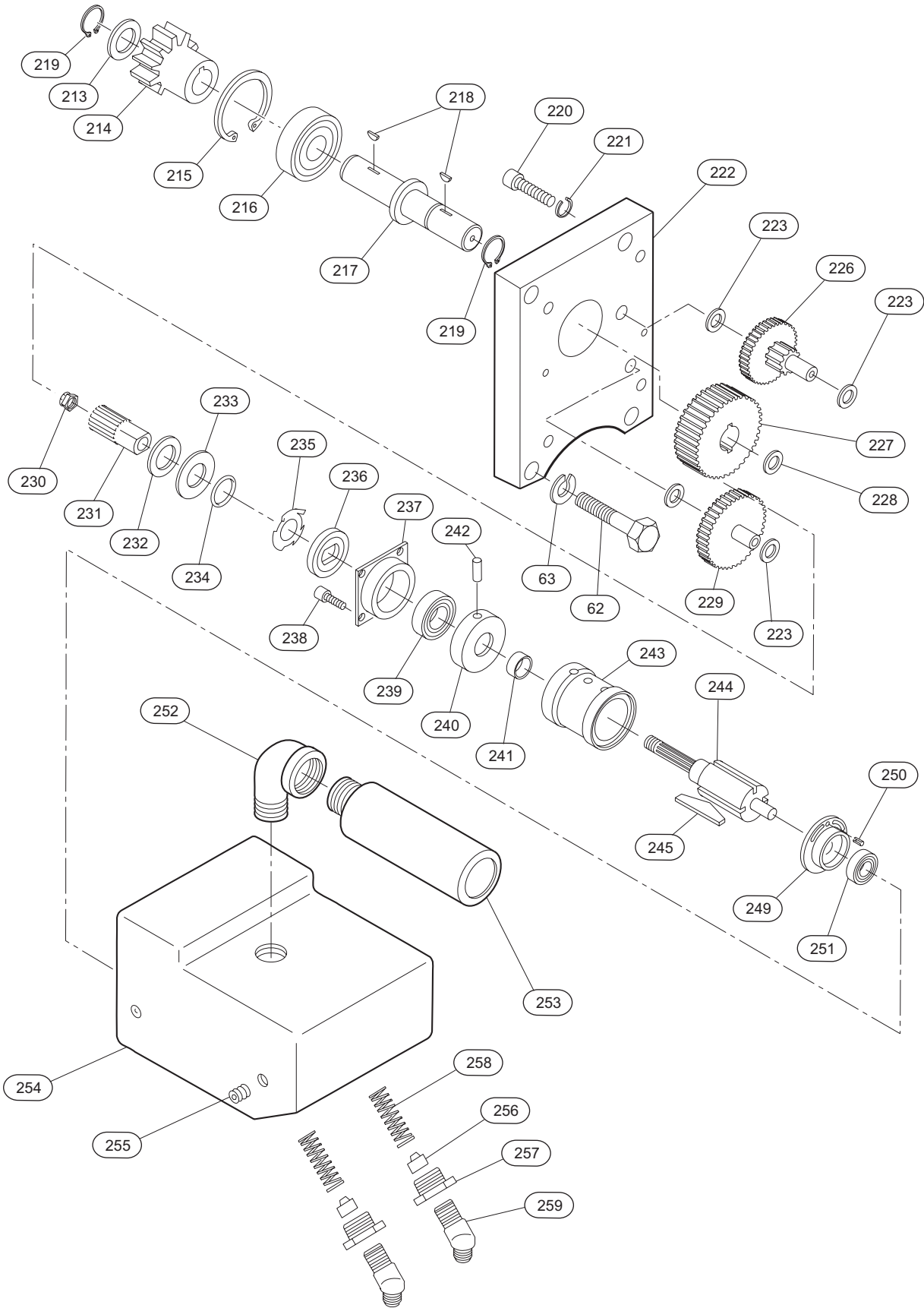
(Dwg. MHP1583)

Item No.	Description of Part	Total Qty.	Part Number
			1/2 inch BSP
77	Screw	1	41326106
370	Shut-off Valve Assembly (Includes items 327 through 375)	1	36170015
327	Fitting	2	61652632
353	'O' Ring	1	58214829
354	Spring	1	69158732
356	Valve Cone	1	96170053
• 357	Seal Washer	2	96170056
359	Spacer	1	96170055
361	Washer	2	45700005
• 364	Diaphragm	1	67716341
365	Valve Cone	1	96170054
371	Cover	1	96170059
372	Screw	7	41326306
373	Body	1	96170051
374	Cover	1	96170052
• 375	'O' Ring	1	58209229

• Recommended Spare

SERVICE NOTES

1.5 AND 3 TON TROLLEY MOTOR ASSEMBLY PARTS DRAWING



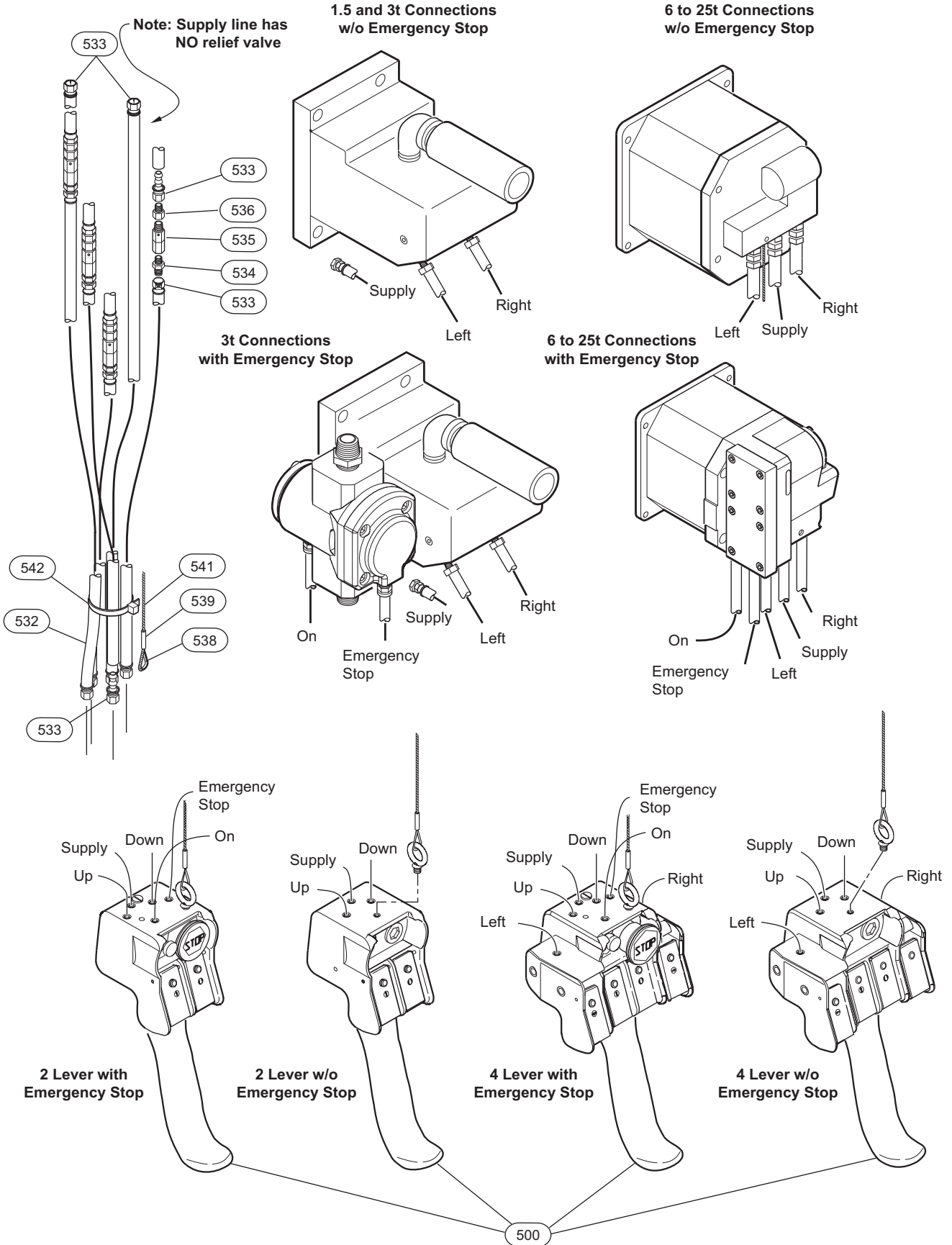
(Dwg. MHP1581)

1.5 AND 3 TON TROLLEY MOTOR ASSEMBLY PARTS LIST

Item No.	Description of Part	Total Qty.	Part Number
- - -	Power Unit Assembly (1.5 ton trolley)	1	96090229
- - -	Power Unit Assembly (3 ton trolley)	1	45615
62	Capscrew	4	41325006
63	Lockwasher	4	45201008
213	Washer (1.5 ton trolley)	1	45001412
214	Pinion Gear (1.5 ton trolley)	1	96090191
	Pinion Gear (3 ton trolley)		45624
215	Retainer Ring	1	Y147-16
216	Bearing	1	39163
217	Spindle Shaft	1	45606
218	Key	2	37142
219	Retainer Ring	2	Y145-18
220	Capscrew	4	Y99-42
221	Lockwasher	4	Y14-416-C
222	Plate	1	45614
223	Washer	4	Y48-14
226	Gear	1	44768
227	Gear	1	44020-1
228	Thrust Race	1	42384
229	Gear	1	44767
230	Nut	1	Y192-1-Z
231	Pinion Shaft	1	45608
232	Spacer	1	37128
233	Washer	1	73473
• 234	'O' Ring	1	Y325-13
• 235	Finger Spring	1	30297
• 236	Brake Lining	1	45619
237	Brake Cone	1	45617
238	Capscrew	4	Y154-52
239	Bearing	1	30469
240	End Plate	1	45620
241	Spacer	1	30437
242	Roll Pin (Included with Cylinder, item 243)	2	Y178-20
243	Cylinder (Includes Roll Pin, item 242)	1	37683
244	Rotor	1	45605
• 245	Rotor Blade	4	30741
249	End Plate	1	31601
250	Pin	1	32814
• 251	Bearing	1	Y65-7
252	Elbow	1	Y43-3-C
253	Muffler	1	43874-1
254	Motor Housing	1	45613
255	Pipe Plug	2	Y227-2
256	Piston	2	45603
257	Inlet Adapter	2	45609
• 258	Spring	2	45793
259	Fitting Hose Adapter	2	61629732

• Recommended spare

PENDANT HOSE ASSEMBLY PARTS DRAWING



(Dwg. MHP1598)

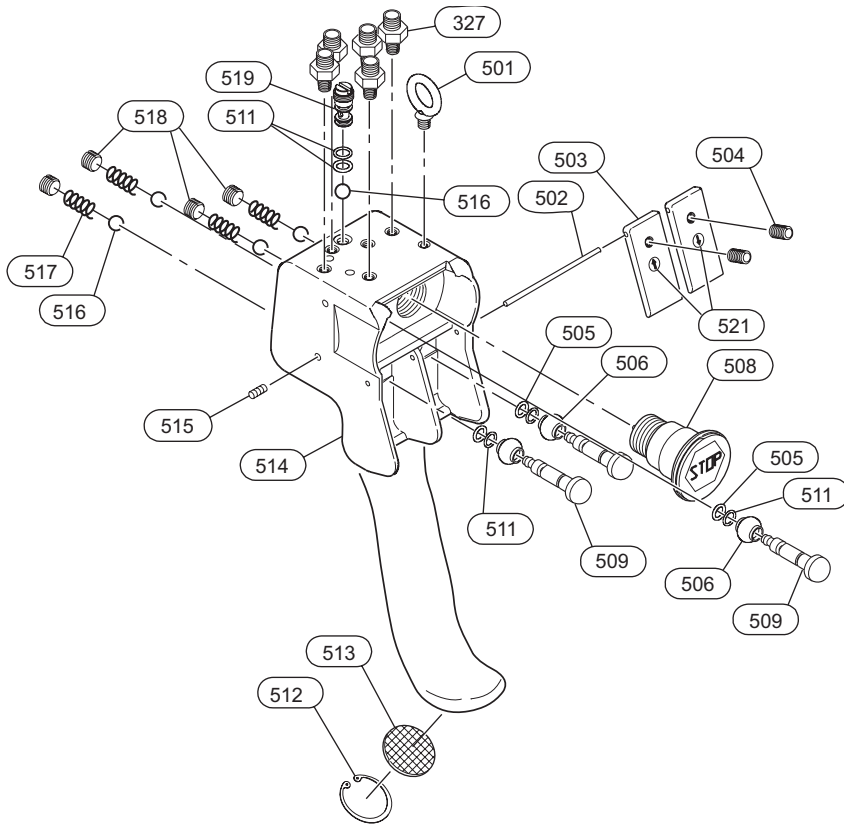
PENDANT HOSE ASSEMBLY PARTS LIST

Item No.	Description of Part	Total Qty.	Part Number
500	Pendant Assembly	1	Refer to Pendant Assembly Parts List
532	Hose (specify length when ordering)	3 (5)	50923
533	Fitting, Hose End	As Req'd	51029
534	Fitting, Connector	As Req'd	71048268
535	Exhaust Valve Kit (required for hose lengths greater than 20 ft. (6 m) (Incl's items 533 (2), 534 (1), 535 (1), and 536 (1))	As Req'd*	20417
536	Fitting Connector	As Req'd	71048284
538	Thimble	1	71111827
539	Sleeve Clamp	1	54799
541	Strain Relief Wire (specify length when ordering)	1	71073506
542	Hose Tie	As Req'd	54235

- () Quantity required for Remote Control with Emergency Stop
 * 0 - 19 ft. (0 - 6 m) Hose Length, 0 Exhaust Valve Kits Required
 20 - 39 ft. (6 - 12 m) Hose Length, 2 Exhaust Valve Kits Required
 40 - 59 ft. (12 - 18 m) Hose Length, 4 Exhaust Valve Kits Required

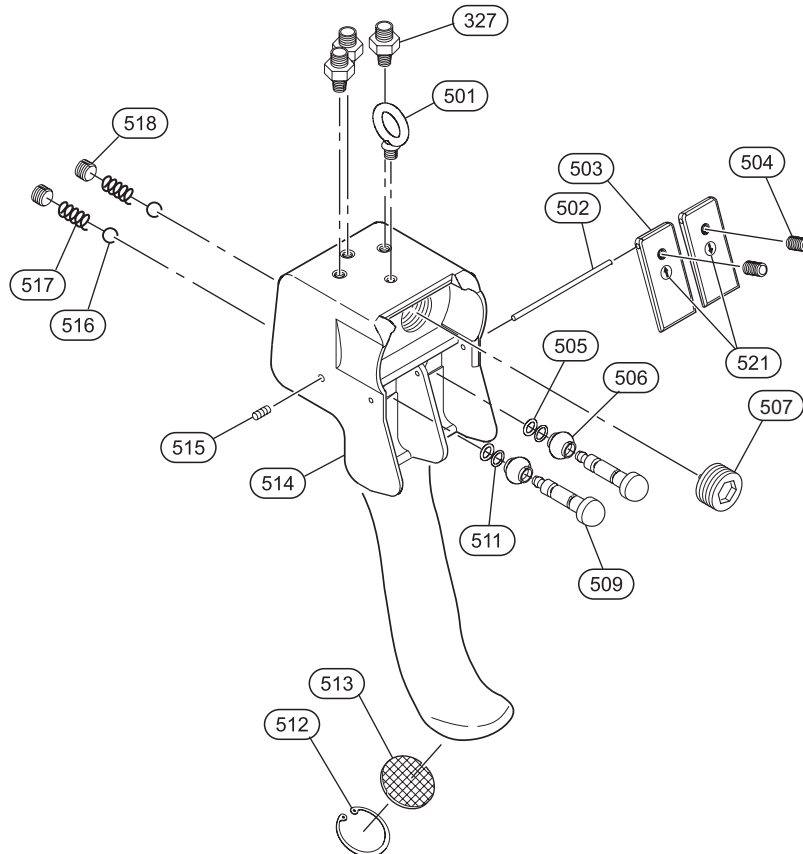
TWO FUNCTION PENDANT CONTROL ASSEMBLY PARTS DRAWING

2 Function with Emergency Stop



(Dwg. MHP1544)

2 Function without Emergency Stop



(Dwg. MHP1558)

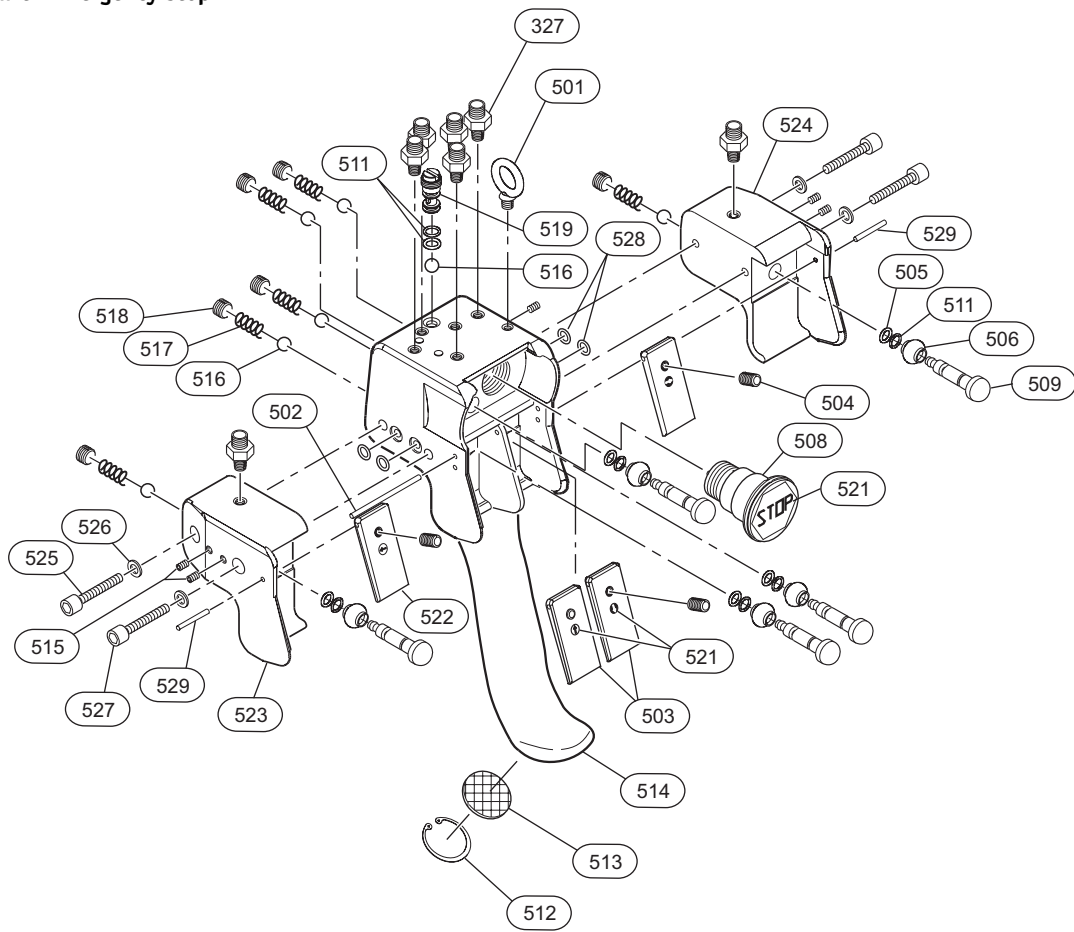
TWO FUNCTION PENDANT CONTROL ASSEMBLY PARTS LIST

Item No.	Description of Part	Total Qty.	Part Number				
			Without Emergency Stop			With Emergency Stop	
327	Fitting	3 (5)	68237528				
500	Pendant Assembly	1	PHS2E	PHS2E-R	PHS2E-F	PHS2E-U	PHS2E-RU
501	Lifting Eye	1	64222332				
502	Pin	1	95790040				
503	Lever	2	95790122				
504	Screw	2	42008607				
• 505	'O' Ring	2 (3)	58235329				
506	Protector	2 (3)	95790107				
507	Plug	1	65129541			---	
508	Emergency Stop Valve	1	---			95790108	
509	Valve	2 (3)	95790104				
• 511	'O' Ring	2 (5)	58209229				
512	Retainer Ring	1	47713030				
513	Exhaust Washer	1	67600303				
514	Pendant Handle	1	Not sold separately. Order new pendant, item 500.				
515	Screw	2 (3)	42008307				
• 516	Ball	2 (5)	69401625				
517	Spring	2 (4)	69128541				
518	Plug	2 (4)	65107741				
519	Plug	1	95790106				
521	Label Kit	1	95790111				
*	Label: "Read the Manual"	1	96180098				
*	Label: "Do Not Use Lifting Personnel"	1	96180100				

- Recommended Spare
- * Not illustrated
- () Quantity Required for Pendants with Emergency Stop
- R = Spark and Corrosion Resistance Package
- F = Food Grade
- U = With Emergency Stop
- RU = Emergency Stop and Spark and Corrosion Resistance Package

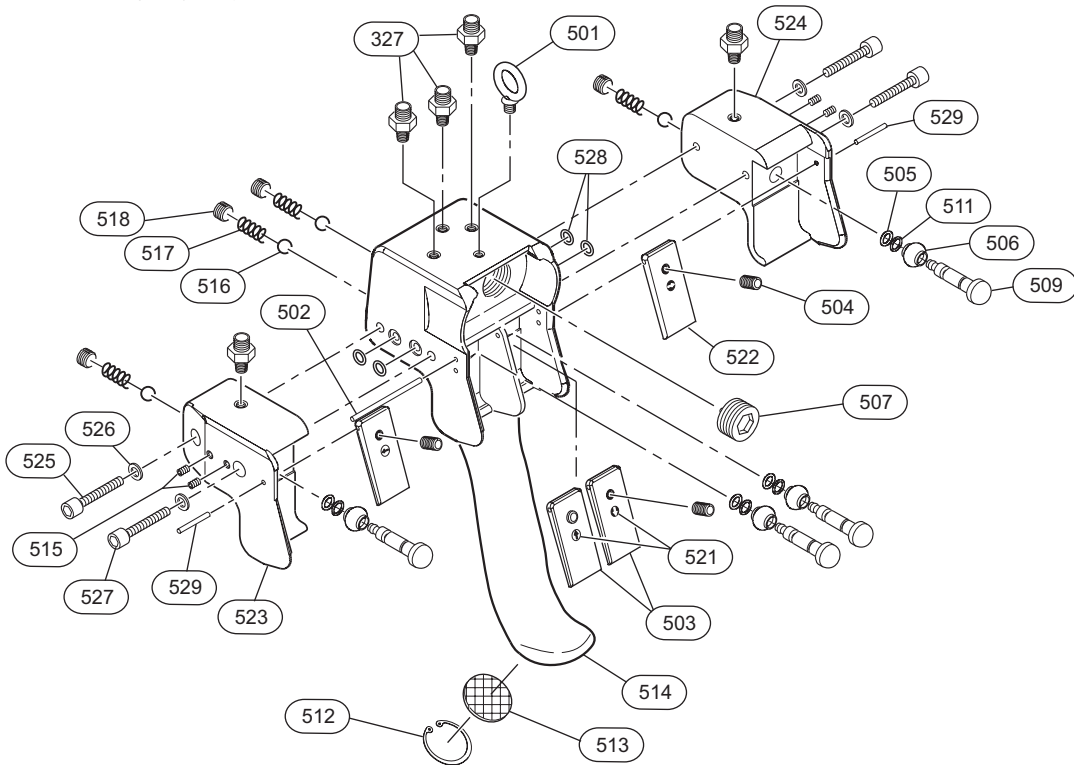
FOUR FUNCTION PENDANT CONTROL ASSEMBLY PARTS DRAWING

4 Function with Emergency Stop



(Dwg. MHP1545)

4 Function without Emergency Stop



(Dwg. MHP1577)

FOUR FUNCTION PENDANT CONTROL ASSEMBLY PARTS LIST

Item No.	Description of Part	Total Qty.	Part Number			
			Without Emergency Stop		With Emergency Stop	
500	Pendant Assembly	1	PHS4E	PHS4E-R	PHS4E-U	PHS4E-RU
327	Fitting Hose	5 (7)	68237528			
501	Lifting Eye	1	64222332			
502	Pin	1	95790040			
503	Lever	2	95790122			
504	Screw	4	42008607			
• 505	'O' Ring	4 (5)	58235329			
506	Protector	4 (5)	95790107			
507	Plug	1	65129541		---	
508	Emergency Stop Valve	1	---		95790108	
509	Valve	4 (5)	95790104			
• 511	'O' Ring	4 (7)	58209229			
512	Retainer Ring	1	47713030			
513	Exhaust Washer	1	67600303			
514	Pendant Handle *	1	Order item 500			
515	Screw	4 (5)	42008307			
• 516	Ball	4 (7)	69401625			
517	Spring	4 (6)	69128541			
518	Plug	4 (6)	65107741			
519	Plug	1	95790106		---	
521	Label Kit	1	95790111			
522	Lever	2	95790128			
523	Attachment (Left)	1	95790125	95790143	95790125	95790143
524	Attachment (Right)	1	95790126	95790142	95790126	95790142
525	Screw	2	41330506			
526	Washer	4	45201005			
527	Screw	2	41322106			
• 528	'O' Ring	4	58218229			
529	Pin	2	95790127			
**	Label: "Read the Manual"	1	96180098			
**	Label: "Do Not Use Lifting Personnel"	1	96180100			

- Recommended Spare
- * Not sold separately. Order new pendant
- ** Not illustrated
- () Quantity Required for Pendants with Emergency Stop

ACCESSORIES

Description	Part Number
Lubricant	LUBRI-LINK-GREEN
Grease (EP#1)	ARO 33153
Spindle Oil	ARO 29655
Lubricator (1/2 inch BSP inline) (CE only)	L30-06-000
Air Filter BSP (CE only)	F30-06-000
Regulator (1/2 inch BSP inline) (CE only)	R30-06-000
Motor Mounting Kit (3t. Motorized)	TR-KSTUD

SERVICE NOTES

SERVICE NOTES

WARRANTY

Ingersoll Rand Company (I-R) warrants to the original user its Hoists and Winches (Products) to be free of defects in material and workmanship for a period of two years from the date of purchase. **I-R** will repair, without cost, any Product found to be defective, including parts and labor charges, or at its option, will replace such Products or refund the purchase price less a reasonable allowance for depreciation, in exchange for the Product. Repairs or replacements are warranted for the remainder of the original warranty period.

If any Product proves defective within its original two year warranty period, it should be returned to any Authorized Hoist and Winch Service Distributor, transportation prepaid with proof of purchase or warranty card.

This warranty does not apply to Products which **I-R** has determined to have been misused or abused, improperly maintained by the user, or where the malfunction or defect can be attributed to the use of non-genuine **I-R** parts.

I-R makes no other warranty, and all implied warranties including any warranty of merchantability or fitness for a particular purpose are limited to the duration of the expressed warranty period as set forth above. I-R's maximum liability is limited to the purchase price of the Product and in no event shall I-R be liable for any consequential, indirect, incidental, or special damages of any nature rising from the sale or use of the Product, whether based on contract, tort, or otherwise.

Note: Some states do not allow limitations on incidental or consequential damages or how long an implied warranty lasts so that the above limitations may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which may vary from state to state.

IMPORTANT NOTICE

It is our policy to promote safe delivery of all orders.

This shipment has been thoroughly checked, packed and inspected before leaving our plant and receipt for it in good condition has been received from the carrier. Any loss or damage which occurs to this shipment while enroute is not due to any action or conduct of the manufacturer.

VISIBLE LOSS OR DAMAGE

If any of the goods called for on the bill of lading or express receipt are damaged or the quantity is short, do not accept them until the freight or express agent makes an appropriate notation on your freight bill or express receipt.

CONCEALED LOSS OR DAMAGE

When a shipment has been delivered to you in apparent good condition, but upon opening the crate or container, loss or damage has taken place while in transit, notify the carrier's agent immediately.

DAMAGE CLAIMS

You must file claims for damage with the carrier. It is the transportation company's responsibility to reimburse you for repair or replacement of goods damaged in shipment. Claims for loss or damage in shipment must not be deducted from the **Ingersoll Rand** invoice, nor should payment of **Ingersoll Rand** invoice be withheld awaiting adjustment of such claims as the carrier guarantees safe delivery.

You may return products damaged in shipment to us for repair, which services will be for your account and form your basis for claim against the carrier.

