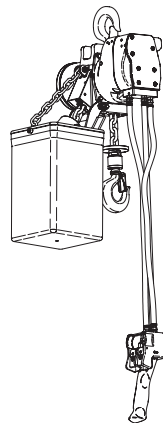


# Product Parts Information



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## Second Generation Liftchain Industrial Air Hoist Models LC2A015S and LC2A030D



(Dwg. MHP2659)



**Save These Instructions**



Form MHD56297

Edition 1

October 2004

71441307

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Only allow **Ingersoll-Rand** Certified Service Technicians to perform maintenance on these hoist. For additional information contact **Ingersoll-Rand** factory or nearest Distributor.

Refer to **Product Safety Information Manual for Pneumatic, Hydraulic and Electric Hoists Form MHD56295, Product Information Manual Form MHD56296 and Product Maintenance Information Manual Form MHD56279.**

Manuals can be downloaded from [www.airwinch.com](http://www.airwinch.com)

The use of other than genuine **Ingersoll-Rand** parts may result in a hazard, decreased performance and increased maintenance and may void all warranties.

The original language of this manual is English.

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

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## PARTS ORDERING INFORMATION

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The **LC2A** and **LC2A-030** hoists are designed and constructed to provide long, trouble-free service. In time it may be necessary to order and install new parts to replace those that have been subjected to wear.

The use of other than genuine **Ingersoll-Rand** replacement parts may result in decreased hoist performance, and may, at the company's option, to invalidate the warranty.

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 hoist.
- Using other than genuine Ingersoll-Rand parts may void the warranty.

### 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.

Hoists 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 hoist is provided inside the back cover of this manual.

### Disposal



When the life of the hoist 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:

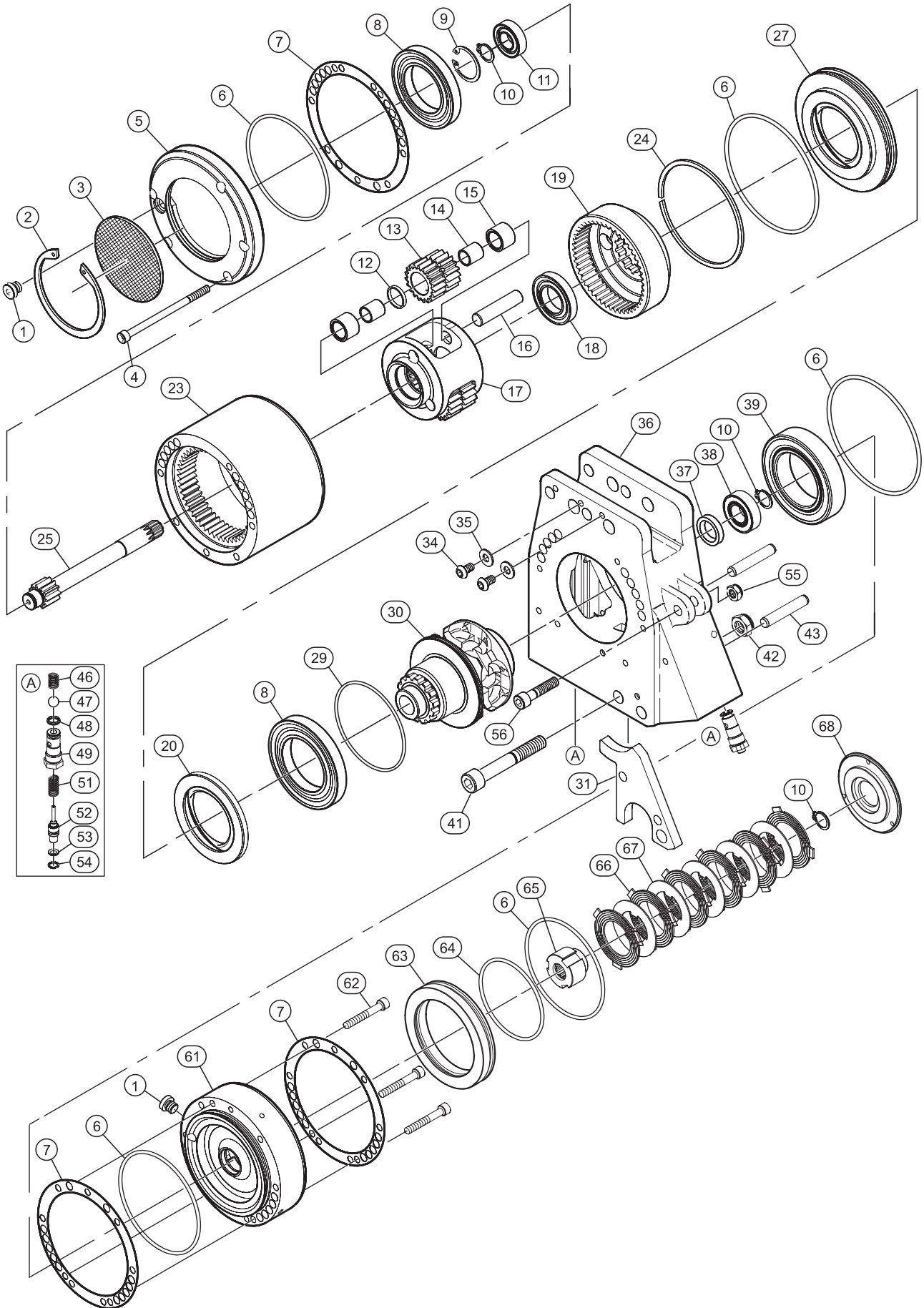
**Ingersoll-Rand**  
2724 Sixth Avenue South  
Seattle, WA 98124-0046 USA  
Phone: (206) 624-0466  
Fax: (206) 624-6265

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

# POWERHEAD AND BRAKE ASSEMBLY DRAWING

1.5 and 3 ton Hoist Capacities

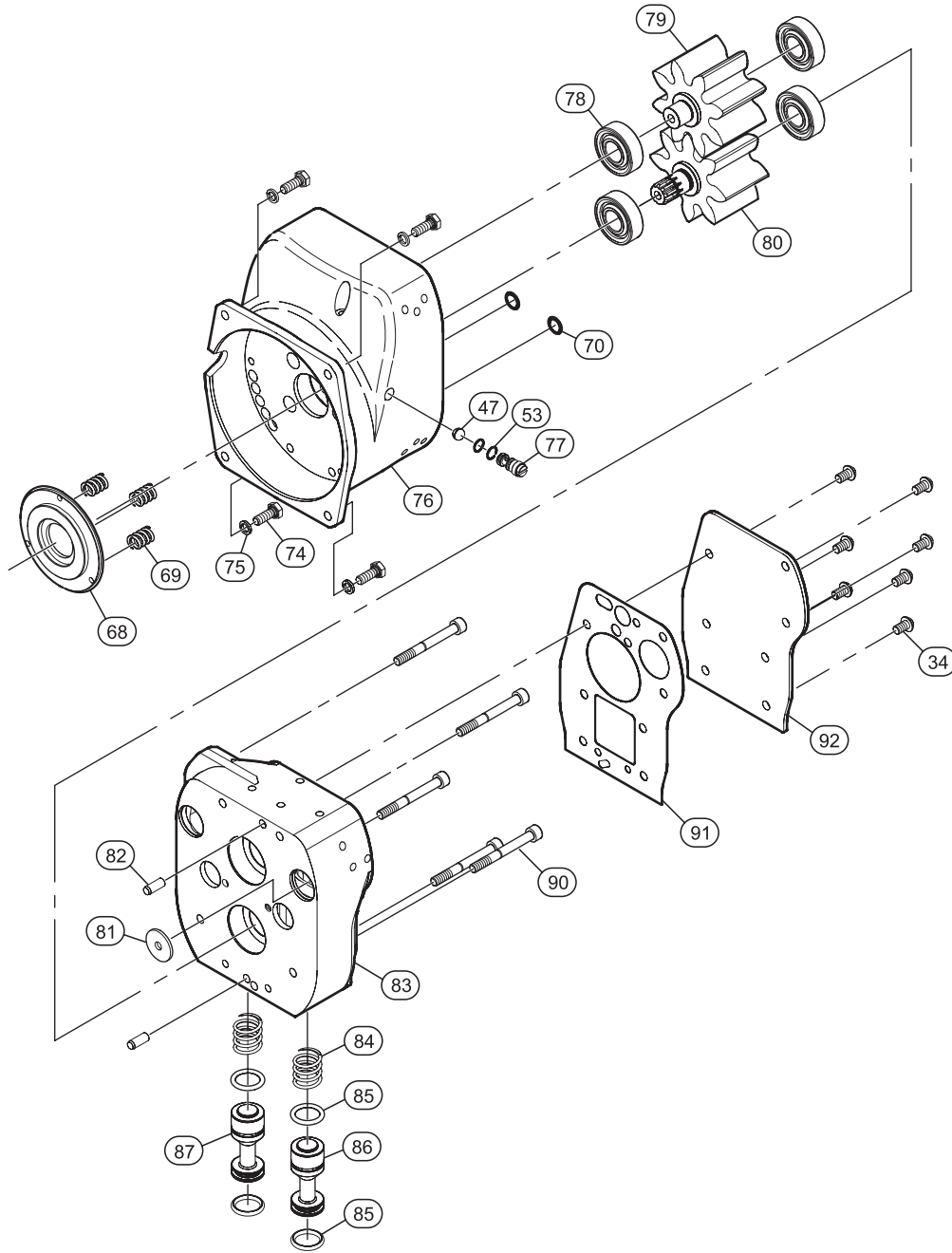


(Dwg. MHP2650)

## POWERHEAD AND BRAKE ASSEMBLY PARTS LIST

Item No.	Description of Part	Total Qty	Part Number	Item No.	Description of Part	Total Qty	Part Number
1	Plug	2	65110441	35	Washer	2	45001106
2	Retainer Ring	1	47703080	36	Hoist Body	1	96443069
3	Exhaust Washer	1	96443190	37	Oil Seal	1	58019830
4	Capscrew	5	41332506	38	Bearing	1	50050002
5	Reduction Gear End Cover	1	96443008	39	Bearing	1	50050009
6	'O' Ring	5	58235229	41	Capscrew	1	41329406
7	Gasket	3	96441048	42	Nut	1	75583M
8	Bearing	2	50800009	43	Pin	2	46002816
9	Retainer Ring	1	47703032	46	Spring	2	69128541
10	Retainer Ring	3	47700015	47	Ball	2	69401625
11	Bearing	1	50000002	48	'O' Ring	2	58214029
12	Spacer	3	96441047	49	Valve Housing	2	96443032
13	Planetary Gear	3	96441002	51	Spring	2	69113941
14	Bearing Ring	6	56362041	52	Valve	2	96443033
15	Needle Bearing	6	56562141	53	'O' Ring	2	58209229
16	Gear Shaft Pin	3	96441046	54	Snap Ring	2	47859641
17	Planetary Carrier	1	96441006	55	Nut	1	51720M8
18	Bearing	1	50800005	56	Capscrew	1	41326706
19	Ring Gear	1	96441003	61	Brake Housing	1	96441012
20	Oil Seal	1	58012130	62	Capscrew	3	41301106
23	Reducer Housing	1	96441007	63	Piston	1	96441014
24	Stop Ring	1	47829332	64	'O' Ring	1	58235129
25	Pinion Shaft	1	96443005	65	Splined Hub	1	96441013
27	Cover	1	96443009	66	Friction Plate	6	63028241
29	'O' Ring	1	582372326	67	Drive Plate	5	63061941
30	Sprocket	1	96443039	68	Brake Reaction Plate	1	96441015
31	Chain Stripper	1	96443041	---	Reduction Gear Assembly	1	76441152
34	Capscrew	2	41201604				

# MOTOR WITHOUT EMERGENCY STOP ASSEMBLY DRAWING AND PARTS LIST

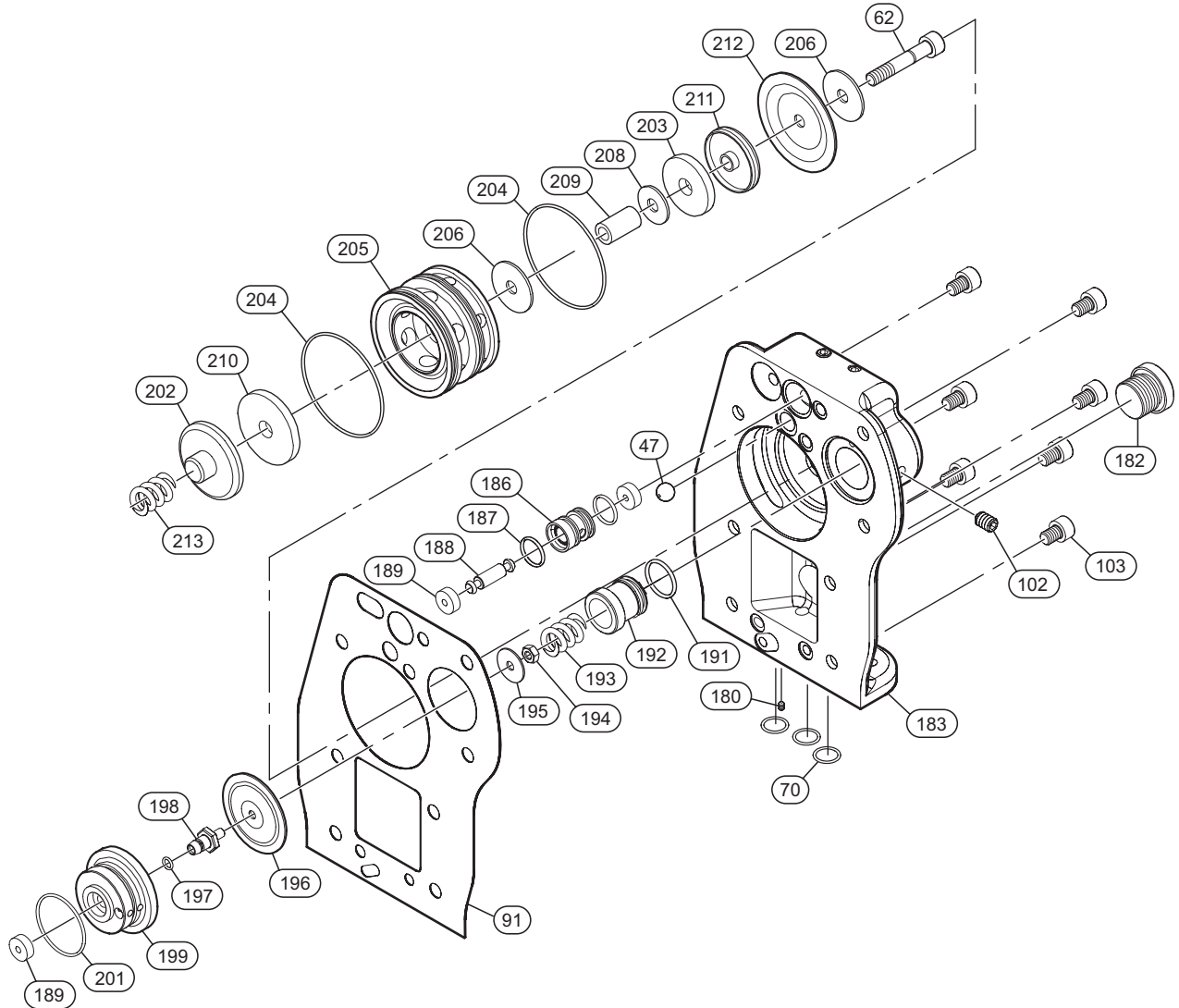


(Dwg. MHP2652)

Item No.	Description of Part	Total Qty	Part Number	Item No.	Description of Part	Total Qty	Part Number
34	Capscrew	7	41201604	80	Drive Gear **	1	76441256
47	Ball	1	69401625	81	Exhaust Washer	1	96441145
53	'O' Ring	2	58209229	82	Pin	2	46001116
68	Brake Reaction Plate	1	96441015	83	Motor Cover	1	96441023
69	Springs	3	69165532	84	Spring	2	69113741
70	'O' Ring	2	58237429	85	'O' Ring	4	58238129
74	Capscrew	4	41023001	86	Valve	1	96441024
75	Lockwasher	4	45201006	87	Valve	1	96441025
76	Motor Housing	1	96441016	90	Capscrew	5	41332206
78	Bearing	4	50100002	91	Gasket	1	96441188
79	Idle Gear **	1	76441256	92	Cover Plate	1	96441027

\*\* Idle Gear (79) and Drive Gear (80) are not sold separately.

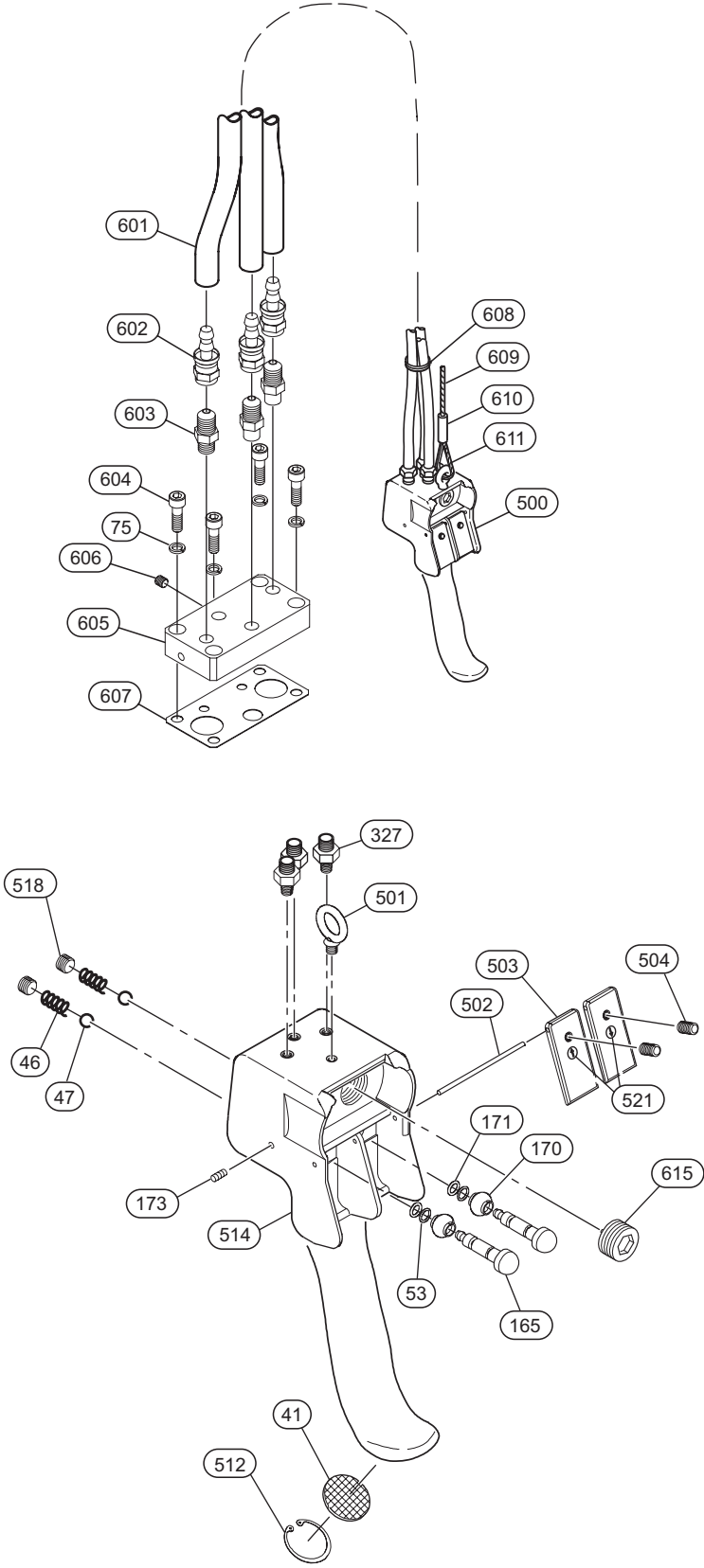
## EMERGENCY STOP PENDANT ADAPTER ASSEMBLY DRAWING AND PARTS LIST



(Dwg. MHP2654)

Item No.	Description of Part	Total Qty	Part Number	Item No.	Description of Part	Total Qty	Part Number
47	Ball	4	69401625	195	Washer	1	45701004
62	Capscrew	1	41301106	196	Diaphragm	1	96441097
70	'O' Ring	3	58237429	197	'O' Ring	1	58222329
91	Gasket	1	96441188	198	Plunger	1	96360017
102	Screw	1	42009407	199	Base Plate	1	96441095
103	Capscrew	7	41332306	201	'O' Ring	1	58237029
180	Setscrew	1	96441187	202	Cap	1	96441101
182	Plug	1	65128928	203	Seal	1	96170056
183	Emergency Stop End Cover	1	96441077	204	'O' Ring	2	58237129
186	Valve Seat	1	96441106	205	Valve Seat	1	96441098
187	'O' Ring	2	58205029	206	Washer	2	45701006
188	Axle	1	96441105	208	Washer	1	45601006
189	Seal	3	96441103	209	Sleeve	1	96441102
191	'O' Ring	1	58211729	210	Seal	1	96441104
192	Regulating Screw	1	96441096	211	Cap	1	96441100
193	Spring	1	69137041	212	Diaphragm	1	96441099
194	Stop Nut	1	43001111	213	Spring	1	69158732

REMOTE TWO LEVER PENDANT ASSEMBLY DRAWING



(Dwg. MHP2666)



## REMOTE TWO LEVER PENDANT ASSEMBLY PARTS LIST

Item No.	Description of Parts	Total Qty	Part Number	Item No.	Description of Parts	Total Qty	Part Number
500	Pendant Assembly	1	PHS2E	601	Hose **	As req'd	50923
41	Exhaust Washer	1	67600303	602	Fitting, Adapter	2	51029
46	Spring	2	69128541	603	Fitting, Nipple	3	68237528
47	Ball	2	69401625	604	Capscrew	4	41322206
53	'O' Ring	2	58209229	605	Adapter Plate	1	96441026
75	Lockwasher	4	45201006	606	Setscrew	1	4200-7406
165	Valve	2	95790104	607	Gasket	1	96441093
170	Protector	2	95790107	608	Hose Tie	1	54235
171	'O' Ring	2	58235329	609	Strain Relief Wire	As req'd	71073506
173	Screw	1	42008307	610	Sleeve Clamp	1	54799
327	Fitting	3	61652632	611	Thimble	1	71111827
501	Lifting Eye	1	64222332	614	Fitting, Barbed*	5	6165-2632
502	Pin	1	95790040	615	Plug	1	6519541
503	Lever	2	95790122	---	Exhaust Valve Kit **	As req'd	20417
504	Screw	2	42006207	---	Repair Kit	1	75790183
512	Retainer Ring	1	47713030	***	Label: "Read the Manual"	1	96180098
514	Pendant handle	1	95790116	***	Label: "Do Not Use for Lifting Personnel"	1	96180100
518	Plug	2	65107741				
	Label Kit ***	1	95790111				

\* Fittings (614) are not illustrated and may be used on hose ends in place of fittings (102).

\*\* Required for hose lengths greater than 20 ft (6 m).

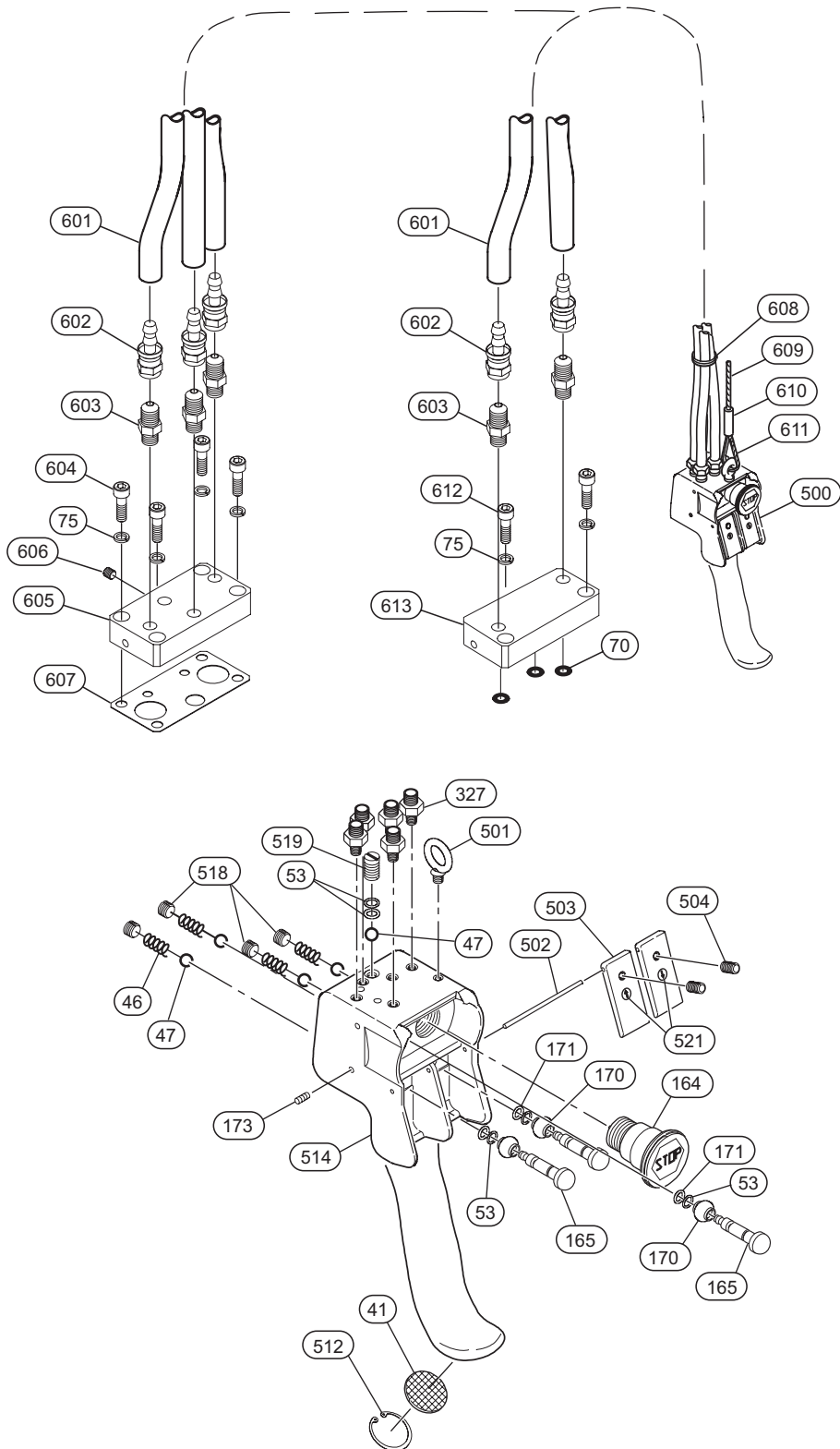
0 - 19 ft (0 - 6 m) Hose Length, 0 Exhaust Valve Kits Required.

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.

\*\*\* Not illustrated

# REMOTE EMERGENCY STOP TWO LEVER PENDANT ASSEMBLY DRAWING



(Dwg. MHP2655)

## REMOTE EMERGENCY STOP TWO LEVER PENDANT ASSEMBLY PARTS LIST

Item No.	Description of Parts	Total Qty	Part Number	Item No.	Description of Parts	Total Qty	Part Number
500	Pendant Assembly	1	PHS2E-U	521	Label Kit ***	1	95790111
41	Exhaust Washer	1	67600303	601	Hose **	As req'd	50923
46	Spring	4	69128541	602	Fitting, Adapter	5	51029
47	Ball	5	69401625	603	Fitting, Nipple	5	68237528
53	'O' Ring	5	58209229	604	Capscrew	4	41322206
70	'O' Ring	3	58237429	605	Adapter Plate	1	96441026
75	Lockwasher	6	45201006	606	Setscrew	1	4200-7406
164	Valve, Emergency Stop	1	95790108	607	Gasket	1	96441093
165	Valve	3	95790104	608	Hose Tie	1	54235
170	Protector	3	95790107	609	Strain Relief Wire	As req'd	71073506
171	'O' Ring	3	58235329	610	Sleeve Clamp	1	54799
173	Screw	1	42008307	611	Thimble	1	71111827
327	Fitting	5	61652632	612	Capscrew	2	41324306
501	Lifting Eye	1	64222332	613	Adapter	1	96441173
502	Pin	1	95790040	614	Fitting, Barbed*	5	6165-2632
503	Lever	2	95790122	---	Exhaust Valve Kit **	As req'd	20417
504	Screw	2	42006207	---	Repair Kit	1	75790183
512	Retainer Ring	1	47713030	***	Label: "Read the Manual"	1	96180098
514	Pendant handle	1	95790116	***	Label: "Do Not Use for lifting Personnel"	1	96180100
518	Plug	4	65107741				
519	Plug	1	95790106				

\* Fittings (614) are not illustrated and may be used on hose ends in place of fittings (102).

\*\* Required for hose lengths greater than 20 ft (6 m).

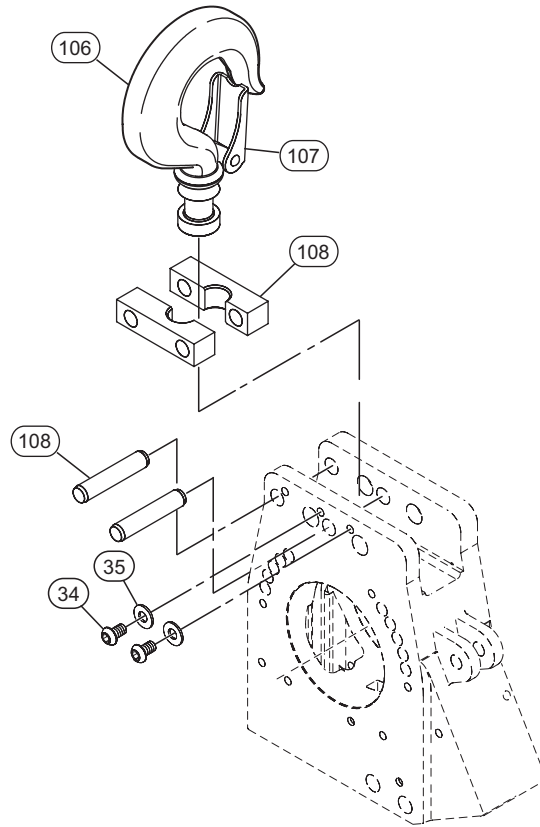
0 - 19 ft (0 - 6 m) Hose Length, 0 Exhaust Valve Kits Required.

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.

\*\*\* Not illustrated

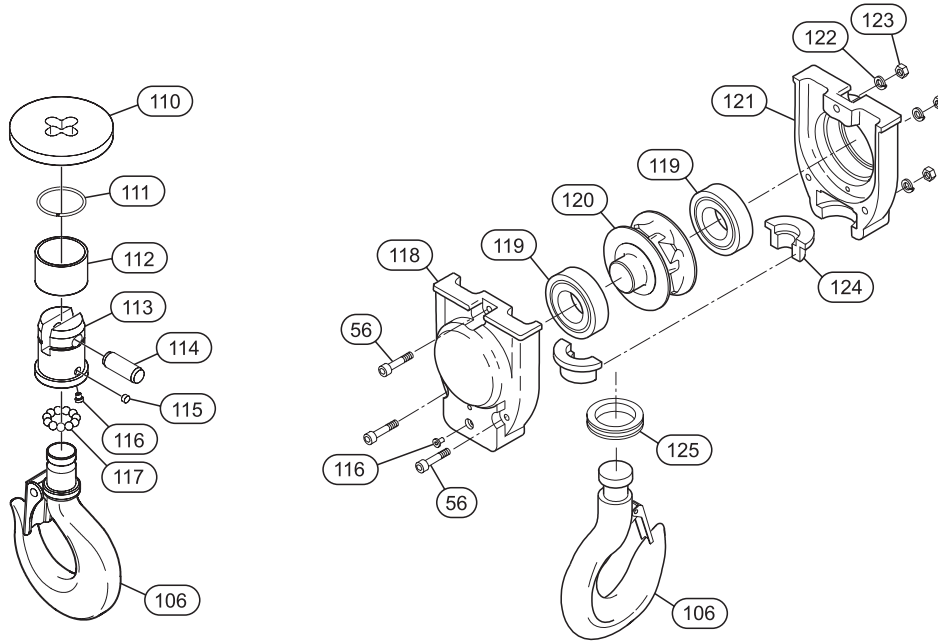
## TOP HOOK ASSEMBLY DRAWING AND PARTS LIST



(Dwg. MHP2656)

Item No.	Description of Part	Total Qty	Part Number	
			1.5 ton	3 ton
---	Top Hook Assembly	1	76443124	76443125
34	Capscrew	2	41201604	
35	Washer	2	45001106	
106	Hook	1	94248356	94248357
107	Hook Latch Kit	1	94240364	94240365
108	Hook Support	2	96443034	96443035
109	Pin	2	96443244	96443245

## BOTTOM BLOCK HOOK ASSEMBLY DRAWING AND PARTS LIST



(Dwg. MHP2657)

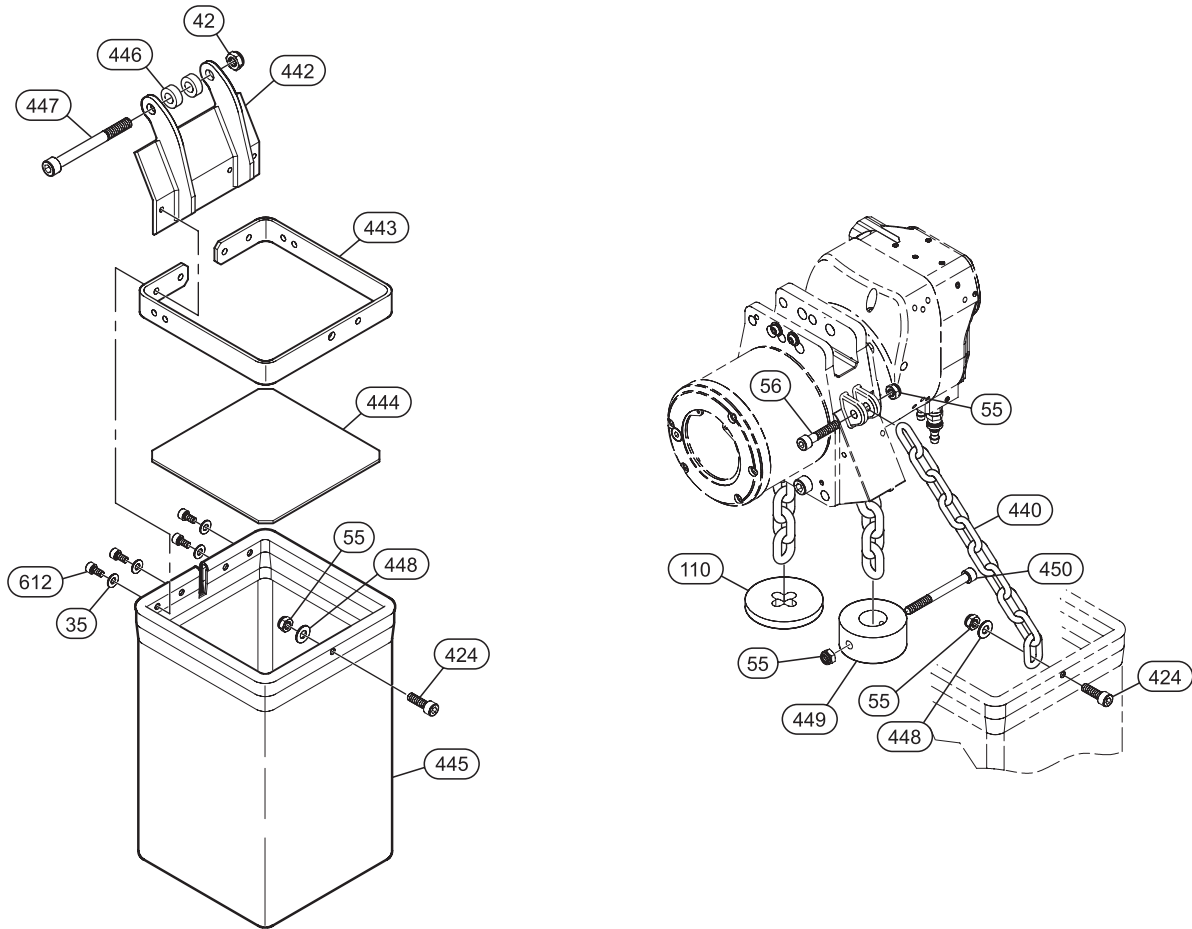
### Single Fall Hoist

Item No.	Description of Part	Total Qty	Part Number	
			1.5 ton	
			Standard	Option 'R'
106	Hook	1	94248358	94240294
107	Hook Latch Kit	1	94240364	
110	Limit Stop Washer	1	96443150	
111	Retainer Wire	1	96090148	
112	Ring	1	96090025	96090146
113	Half Hook Block	1	94240293	94240295
114	Pin	1	46001916	
115	Plug	1	96090060	
116	Grease Fitting	1	67102627	
117	Ball	11	69401125	

### Double Fall Hoist

Item No.	Description of Part	Total Qty	Part Number	
			3 ton	
			Standard	Option 'R'
56	Capscrew	3	41326706	
106	Hook	1	94248357	94240296
107	Hook Latch	1	94240365	
116	Grease Fitting	1	67102627	
118	Half Hook Block	1	94240289	94240297
119	Bearing	2	50250005	
120	Sprocket Wheel	1	94240056	94240263
121	Half Hook Block	1	94240288	94240298
122	Lockwasher	3	45201008	
123	Nut	3	43003511	
124	Ring, (2 piece)	1	94247291	
125	Thrust Bearing	1	54000006	

## HOIST CHAIN CONTAINER ASSEMBLY DRAWING AND PARTS LIST

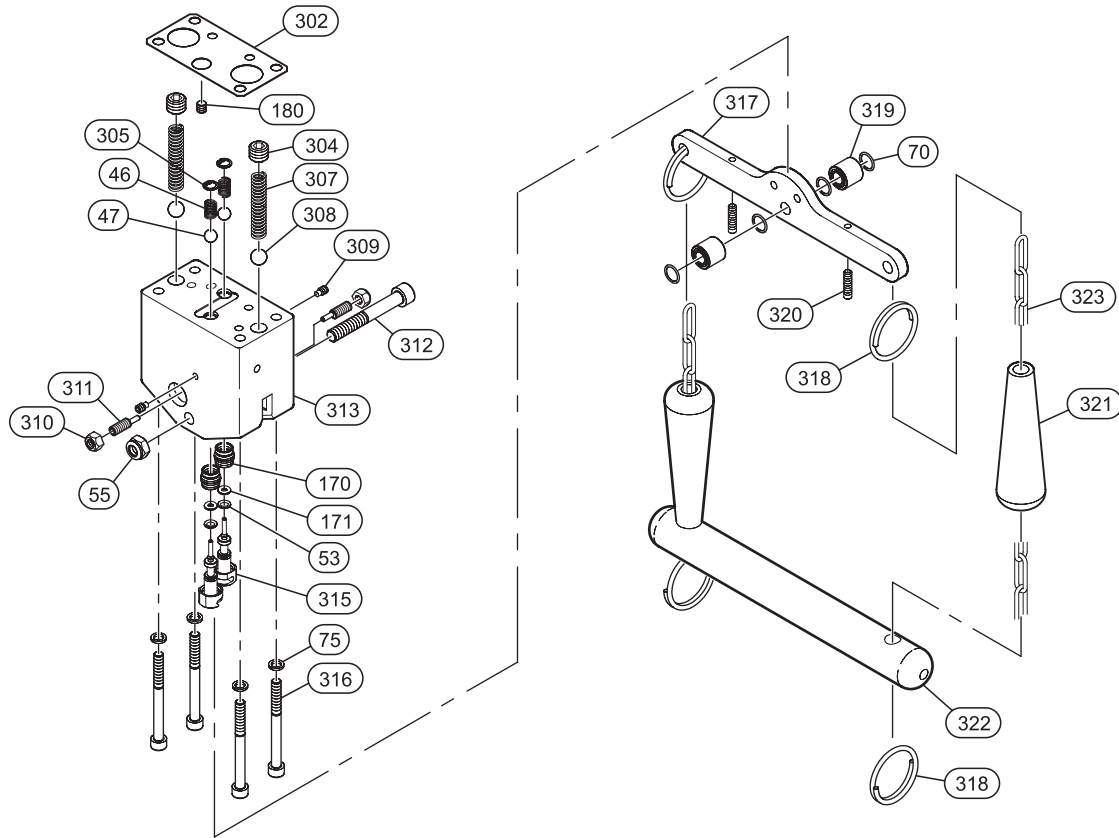


(Dwg. MHP2658)

Item No.	Description of Part	Total Qty	Part Number	Item No.	Description of Part	Total Qty	Part Number
---	Chain Container Assembly	1	76443147	443	Frame	1	94240139
35	Washer	4	45001106	444	Plate (Bottom)	1	94240161
42	Nut	1	75583M	445	Chain Container	1	94240317
55	Nut	3	51720M8	446	Washer	2	45301010
56	Capscrew	1	41326706	447	Capscrew	1	41327006
110	Limit Stop Washer	1	96443150	448	Washer	1	45001108
424	Capscrew	1	41324906	449	Chain Buffer	1	96443191
440	Chain *	As Req'd	69029232	450	Capscrew	1	41331706
442	Support Bracket	1	96443168	612	Capscrew	4	41324306

\* Specify length in ft (m) when replacement ordering.

## ROPE CONTROL ASSEMBLY DRAWING AND PARTS LIST



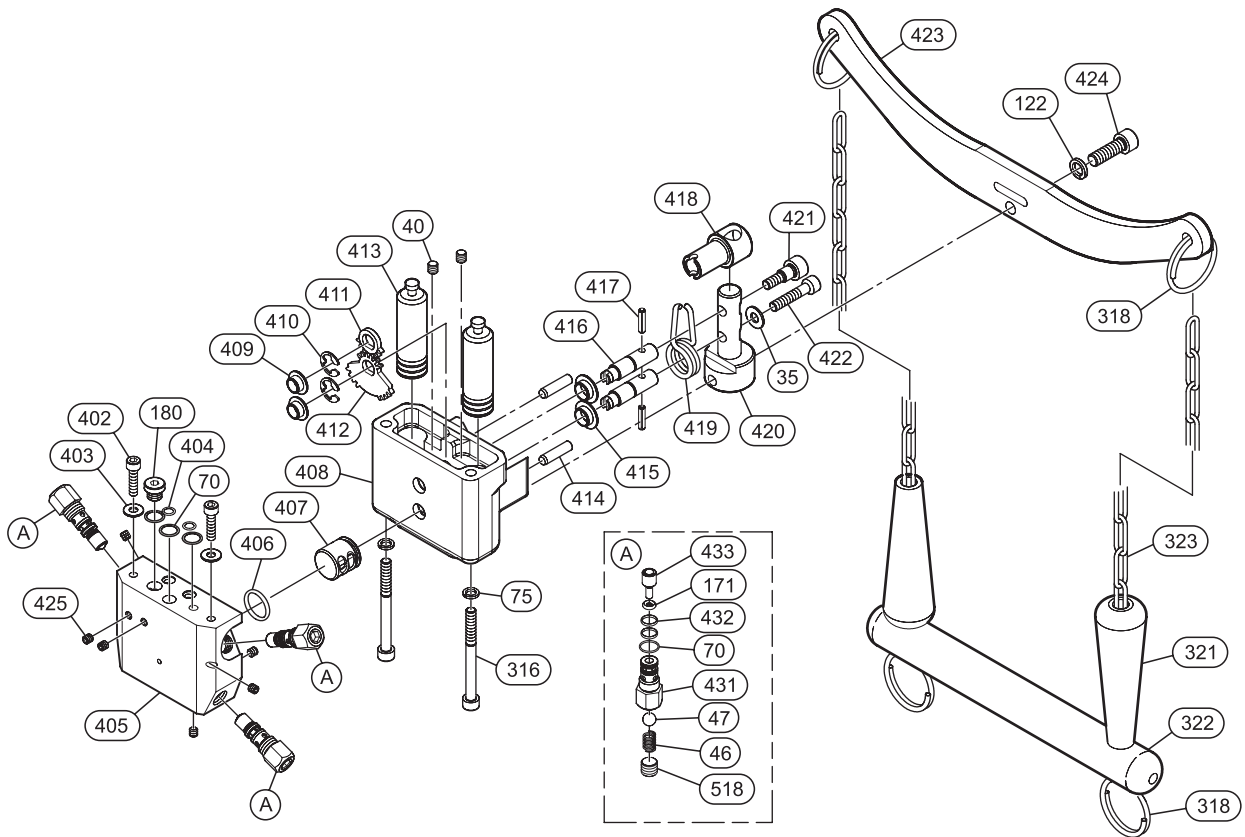
(Dwg. MHP2662)

Item No.	Description of Part	Total Qty	Part Number	Item No.	Description of Part	Total Qty	Part Number
---	Rope Control Assembly *	1		309	Screw	2	42008307
46	Spring	2	69128541	310	Nut	2	43707611
47	Ball	2	69401625	311	Adjustment Screw	2	96443177
53	'O' Ring	2	58209229	312	Capscrew	1	41321506
55	Nut	1	51720M8	313	Rope Control Block	1	96443174
70	'O' Ring	4	58237429	315	Valve	2	96443175
75	Washer	4	45201006	316	Capscrew	4	41332106
170	Protector	2	95790107	317	Lever	1	96443176
171	'O' Ring	2	58235329	318	Ring	4	90530031
180	Setscrew	1	96441187	319	Spacer	2	96443178
302	Gasket	1	96441093	320	Screw	2	42007707
304	Plug	2	42006307	321	Handle	2	33268
305	Retainer Ring	2	47713009	322	Bar	1	44806
307	Spring	2	69164741	323	Chain (bulk) **	As Req'd	69001332
308	Ball	2	69400425				

\* Rope Control Assembly (includes items 46,47,53, 55, 70,75,170,171,180, 302, 304,305, 307-313 and 315-323).

\*\* Order by ft (m).

## ROPE CONTROL WITH EMERGENCY STOP ASSEMBLY DRAWING AND PARTS LIST



(Dwg. MHP2663)

Item No.	Description of Part	Total Qty	Part Number	Item No.	Description of Part	Total Qty	Part Number
---	Rope Control Assembly *	1	76443179	409	Bushing	2	59008826
35	Washer	1	45001106	410	Retainer	2	47837241
46	Spring	3	69128541	411	Gear	1	96441088
47	Ball	3	69401625	412	Gear Cam	1	96441087
70	'O' Ring	6	58237429	413	Spool	2	96441085
75	Washer	2	45201006	414	Pin	2	46001216
122	Lockwasher	1	45201008	415	Collar	2	59008726
171	'O' Ring	3	58235329	416	Spindle Shaft	2	96441086
180	Setscrew	1	96441187	417	Roll Pin	2	46508320
316	Capscrew	2	41332106	418	Coupling	1	96441084
318	Ring	4	90530031	419	Spring	1	96443189
321	Handle	2	33268	420	Lever	1	96443182
322	Bar	1	44806	421	Shoulder Screw	1	96441108
323	Chain (bulk) **	As Req'd	69001332	422	Capscrew	1	41322306
402	Capscrew	2	41323006	423	Bar	1	96443183
403	Washer	2	45001105	424	Capscrew	1	41324906
404	'O' Ring	2	58212229	425	Pipe Plug	5	42008407
405	Rope Control Block	1	96443180	431	Valve	3	96443181
406	'O' Ring	1	58211529	432	'O' Ring	6	58237829
407	Cam	1	96443185	433	Spool	3	96443184
408	Valve Housing	1	96441082	518	Plug	3	65107741

\*\* Order by ft (m).



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**SERVICE NOTES**

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**SERVICE NOTES**

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## WARRANTY

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**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 one year 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 one 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 en route 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.

