

Liftchain Industrial Hydraulic Hoist



Models

LC2H060S to LC2H250Q

(Chain Size: 12mm X 45mm)

Product Parts Information



Save These Instructions



Form MHD56466

Edition 4

October 2016

CCN 46882775

General Information

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 [Table 1, p. 2](#).

Manuals can be downloaded from www.ingersollrandproducts.com

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

Original instructions are in English. Other languages are a translation of the original instructions.

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

Table 1. Product Information Manuals

Publication	Document Number (CCN)
Product Safety Information Manual	MHD56295 (71441281)
Product Maintenance Information Manual	MHD56467 (46880118)
Product Information Manual	MHD56465 (46880092)

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Parts Ordering Information

These products 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.

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

Model Number: _____

Serial Number: _____

Date of Purchase: _____

When ordering replacement parts, please specify 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.

The data (name) plate is located on the product.

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 parts other than genuine Ingersoll Rand replacement parts may result in safety hazards, decreased performance and increased maintenance, and will 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 that have been modified without **Ingersoll Rand** approval, mishandled or overloaded will not be repaired or replaced under warranty. A printed copy of the warranty that applies to this product is provided inside the back cover of the product information manual or in some cases the parts 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

20017 72nd Avenue South

Kent, WA 98032 USA

Phone: (877) 584-0370

Fax: (253) 398-3473

or

Ingersoll Rand

Douai Operations

529, Avenue Roger Salengro

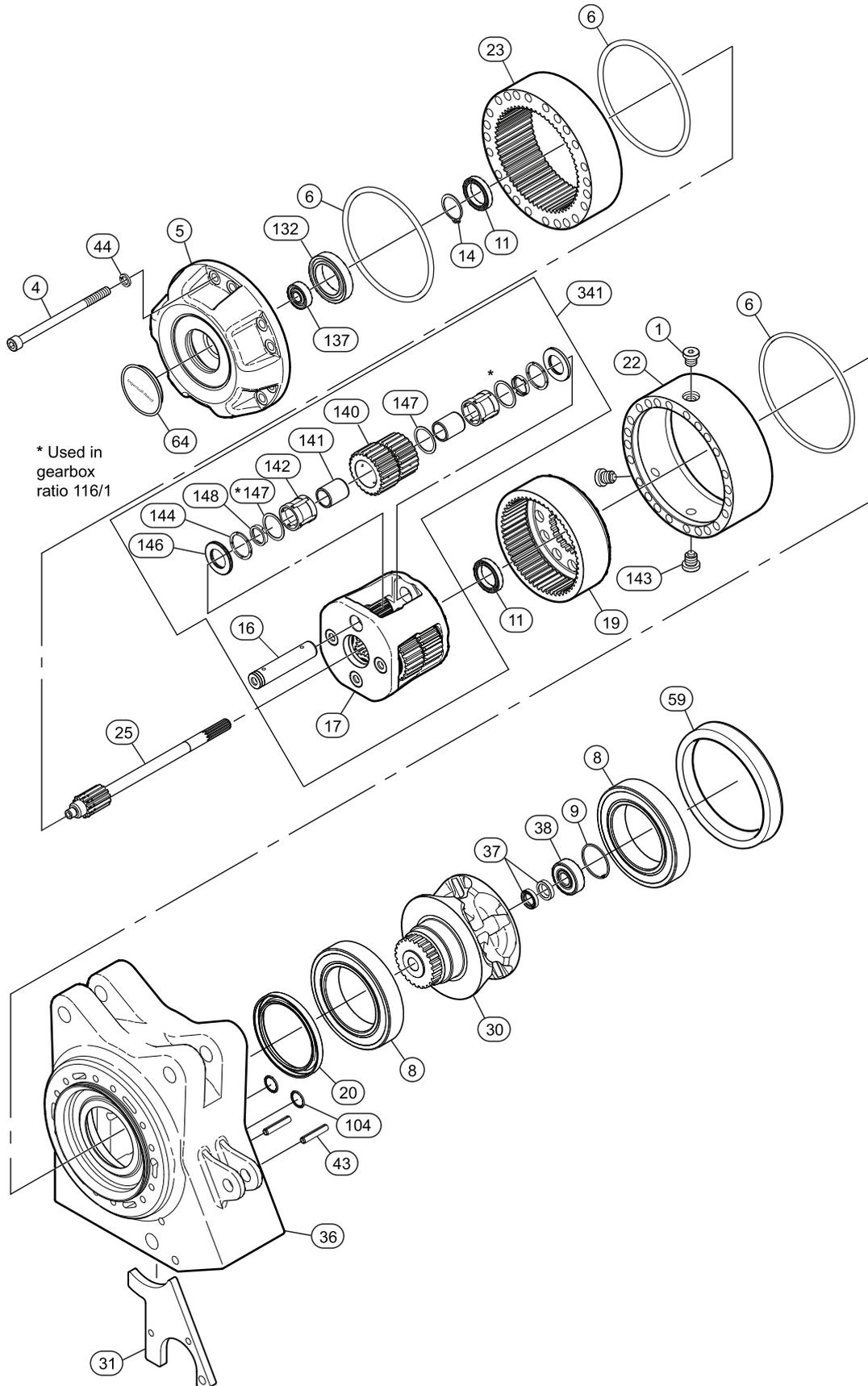
59450 Sin Le Noble, France

Phone: (33) 03-27-93-08-08

Fax: (33) 03-27-93-08-00

1 and 2 Chain Fall(s) Hoist Powerhead Assembly

Figure 1. 1 and 2 Chain Fall(s) Hoist Powerhead Assembly Drawing (MHP3108)



1 and 2 Chain Fall(s) Hoist Powerhead Assembly

Table 2. 1 and 2 Chain Fall(s) Hoist Powerhead Assembly Parts List

Item No.	Description of Part	Total Qty	Part Number
1	Plug	2	6511-0741
4	Capscrew	12	4133-4506
5	Reduction Gear End Cover	1	9645-0029
6 ^(a)	'O' Ring	3	5824-0029
8	Bearing	2	5005-0015
9	Retainer Ring	1	4770-3042
11	Bearing	2	5090-0006
14	Retainer Ring	1	4770-0030
16	Planet Axle, Ratio 116\1	4	9645-0024
	Planet Axle, Ratio 76\1	4	9645-0309
17	Planetary Carrier, Ratio 116\1	1	9645-0019
	Planetary Carrier, Ratio 76\1	1	9645-0310
19	Ring Gear, 58 Th, Ratio 116\1	1	9645-0011
	Ring Gear, 57 Th, Ratio 76\1	1	9645-0013
20 ^(a)	Oil Seal	1	5801-5130
22	Reducer Housing	1	9645-0121
23	Ring Gear	1	9645-0010
25	Pinion Shaft	1	9645-0282
30	Sprocket	1	9645-0043
31	Chain Stripper	1	9645-0063
36	Hoist Body	1	9645-0042
37 ^(a)	Oil Seal	2	5801-9830
38	Bearing	1	5025-0002
43	Pin	2	4650-5520
44	Lockwasher	12	4520-1010
59	Adapter Ring	1	9649-0069
64 ^(a)	'O' Ring	1	5820-8529
104 ^(a)	'O' Ring	2	5822-2829
132	Bearing	1	5090-0008
137	Bearing	1	5010-0001
140	Planetary Gear, Ratio 116\1	4	9645-0012
	Planetary Gear, Ratio 76\1	4	9645-0014
141	Internal Bearing Ring, Ratio 116\1	8	5630-0642
	Internal Bearing Ring, Ratio 76\1	8	5630-4042
142	Needle Bearing, Ratio 116\1	8	5650-3530
	Needle Bearing, Ratio 76\1	8	5650-3332
143	Plug	1	6517-0242
144	Needle Bearing	8	5731-2632
146	Needle Bearing Spacer	8	5605-4225
147	Spacer, Ratio 116\1	12	9645-0136
	Spacer, Ratio 76\1 ^(b)	4	9645-0311

1 and 2 Chain Fall(s) Hoist Powerhead Assembly

Table 2. 1 and 2 Chain Fall(s) Hoist Powerhead Assembly Parts List (continued)

Item No.	Description of Part	Total Qty	Part Number
148	Ring, Ratio 116\1	8	9645-0137
	Ring, Ratio 76\1	8	9645-0312
341	Planet Support Assembly , Ratio 116\1 (c)	1	3645-0133
	Planet Support Assembly , Ratio 76\1 (c)	1	3645-0308

(a) Recommended spares, 2 years normal operation.

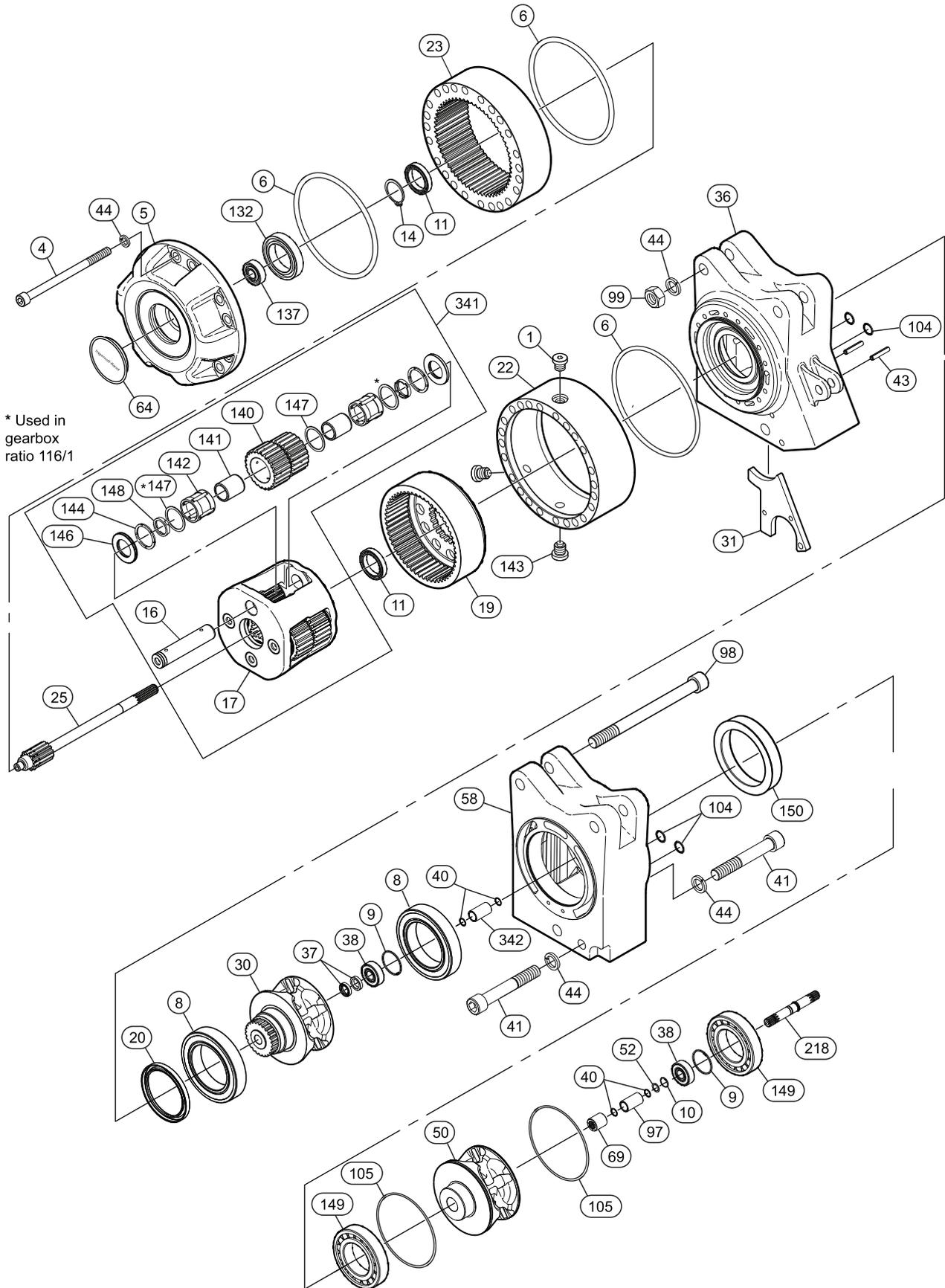
(b) Note quantity differences between gear box ratio.

(c) Do not disassemble planet support assembly item 341.

Note: Ensure correct ordering of gear box parts, standard ratio 116\1 or high speed ratio 76\1.

3 and 4 Chain Falls Hoist Powerhead Assembly

Figure 2. 3 and 4 Chain Falls Hoist Powerhead Assembly Drawing (MHP3110)



3 and 4 Chain Falls Hoist Powerhead Assembly

Table 3. 3 and 4 Chain Falls Hoist Powerhead Assembly Parts List

Item No.	Description of Part	Total Qty	Part Number
1 ^(a)	Plug	2	6511-0741
4	Capscrew	12	4133-4506
5	Reduction Gear End Cover	1	9645-0029
6 ^(a)	'O' Ring	3	5824-0029
8	Bearing	2	5005-0015
9	Retainer Ring	2	4770-3042
10	Retainer Ring	1	4770-0015
11	Bearing	2	5090-0006
14	Retainer Ring	1	4770-0030
16	Planet Axle, Ratio 116\1	4	9645-0024
	Planet Axle, Ratio 76\1	4	9645-0309
17	Planetary Carrier, Ratio 116\1	1	9645-0019
	Planetary Carrier, Ratio 76\1	1	9645-0310
19	Ring Gear, 58 Th, Ratio 116\1	1	9645-0011
	Ring Gear, 57 Th, Ratio 76\1	1	9645-0013
20 ^(a)	Oil Seal	1	5801-5130
22	Reducer Housing	1	9645-0121
23	Ring Gear	1	9645-0010
25	Pinion Shaft	1	9645-0282
30	Sprocket	1	9645-0043
31	Chain Stripper	1	9645-0063
36	Hoist Body	1	9645-0042
37 ^(a)	Oil Seal	2	5801-9830
38	Bearing	2	5025-0002
40 ^(a)	'O' Ring	6	5821-8129
41	Capscrew	2	4132-3906
43	Pin	2	4650-5520
44	Lockwasher	12	4520-1010
50	Sprocket	1	9645-0055
52	Spacer	1	9645-0320
58	Chain Guide Housing	1	9645-0050
64 ^(a)	'O' Ring	1	5820-8529
69	Coupling Sleeve	1	9645-0360
97	Spacer Ring	1	9645-0143
104 ^(a)	'O' Ring	4	5822-2829
105 ^(a)	'O' Ring	2	5821-2829
132	Bearing	1	5090-0008
137	Bearing	1	5010-0001
140	Planetary Gear, Ratio 116\1	4	9645-0012
	Planetary Gear, Ratio 76\1	4	9645-0014
141	Internal Bearing Ring, Ratio 116\1	8	5630-0642

3 and 4 Chain Falls Hoist Powerhead Assembly

Table 3. 3 and 4 Chain Falls Hoist Powerhead Assembly Parts List (continued)

Item No.	Description of Part	Total Qty	Part Number
	Internal Bearing Ring, Ratio 76\1	8	5630-4042
142	Needle Bearing	8	5650-3530
	Needle Bearing	8	5650-3332
143	Plug	1	6517-0242
144	Needle Bearing, Ratio 116\1 only	8	5731-2632
146	Needle Bearing Spacer	8	5605-4225
147	Bearing, Ratio 116\1	12	9645-0136
	Bearing, Ratio 76\1 ^(b)	4	9645-0311
148	Ring, Ratio 116\1	8	9645-0137
	Ring, Ratio 76\1	8	9645-0312
149	Bearing	2	5120-0012
150	Adapter	1	9645-0056
218	Pinion Shaft	1	9645-0359
341	Planet Support Assembly , Ratio 116\1 ^(c)	1	3645-0133
	Planet Support Assembly , Ratio 76\1, ^(c)	1	3645-0308
342	Spacer, Ring	1	9645-0361

^(a) Recommended spares, 2 years normal operation.

^(b) Note quantity differences between gear box ratio.

^(c) Do not disassemble planet support assembly item 341.

Note: Ensure correct ordering of gear box parts, standard ratio 116\1 or high speed ratio 76\1.

Hydraulic Motor and Disc Brake Assembly

Figure 3. Hydraulic Motor and Disc Brake Assembly Drawing (MHP3109)

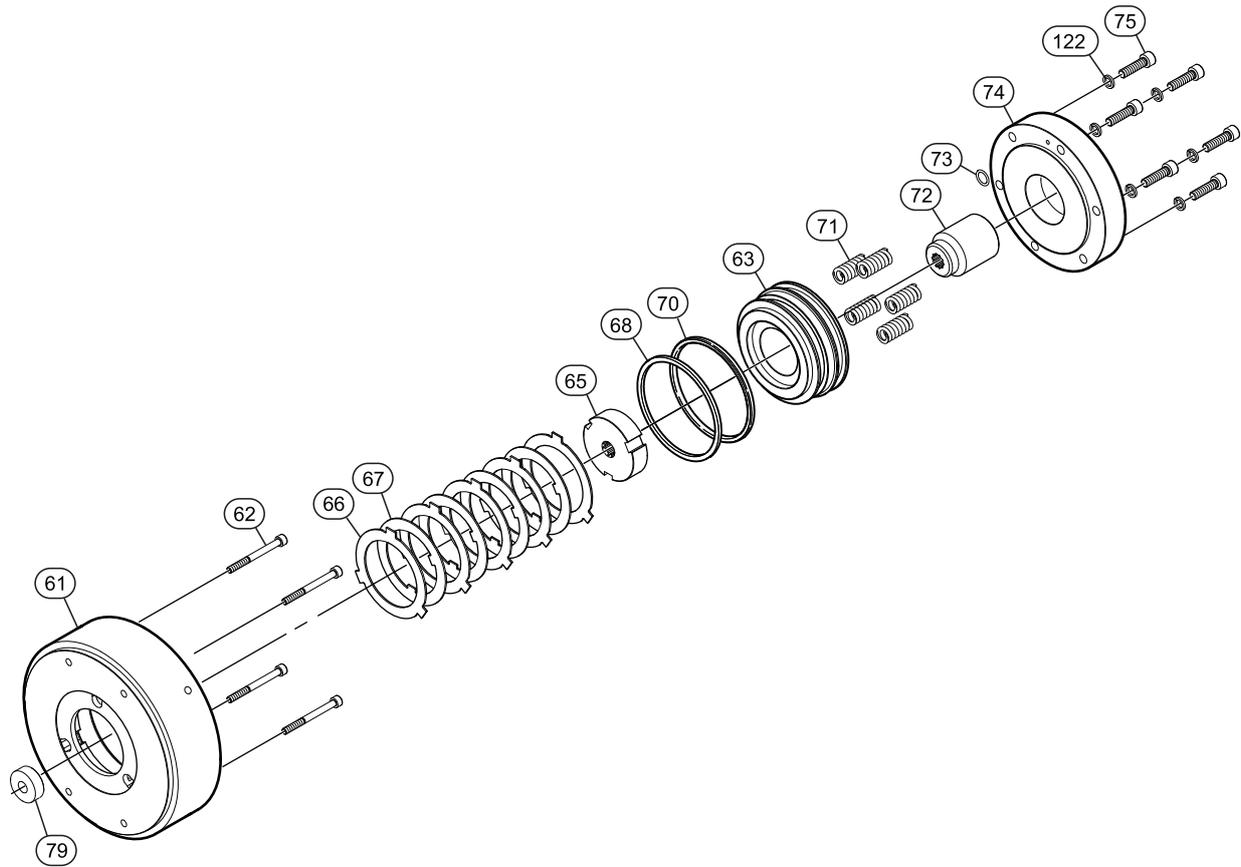


Table 4. Hydraulic Motor and Disc Brake Assembly Parts List

Item No.	Description of Part	Total Qty	Part Number
61	Brake Housing	1	9645-0286
62	Capscrew	4	4133-3106
63	Piston	1	9645-0288
65	Coupling	1	9645-0289
66	Friction Disc	5	6305-9932
67	Drive Disc	4	6306-0032
68	'O' Ring	1	5824-0529
70	'O' Ring	1	5824-0429
71	Spring	5	6915-9432
72	Coupling	1	9535-0017
73	'O' Ring	1	5821-6529
74	Motor Adapter	1	9645-0287
75	Capscrew	6	4132-5006
76	Capscrew	2	4131-2706
77	Drain Tube	1	9645-0352
78	Motor, Standard 30 cm ³	1	6400-0147
	Motor, High Speed 40 cm ³	1	6400-0144
79	Spacer, Ring	1	9645-02

Hydraulic Motor and Disc Brake Assembly

Table 4. Hydraulic Motor and Disc Brake Assembly Parts List (continued)

Item No.	Description of Part	Total Qty	Part Number
80	Fitting	1	6816-93
81	Fitting	1	6823-98
82	Capscrew	4	4130-13
83	Protector, Motor	1	9645-02
88	Brake Tube	1	9645-03
122	Lockwasher	10	4520-10
215	Lockwasher	2	4520-10

Hydraulic Manifold Assembly

Figure 4. Hydraulic Manifold Assembly Drawing (MHP3127)

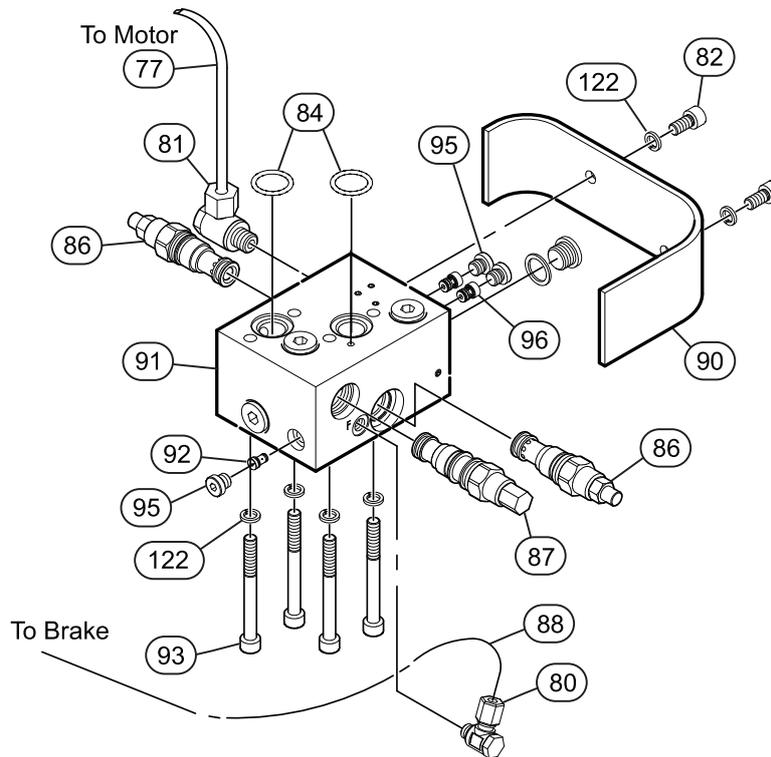


Table 5. Hydraulic Manifold Assembly Parts List

Item No.	Description of Part	Total Qty	Part Number
77	Drain Tube	1	9645-0352
80	Fitting, Regulator	1	6816-9332
81	Fitting	1	6823-9828
82	Capscrew	2	4130-1306
84	'O' Ring	2	5821-6329
85	Plug	4	6511-9732
86	Valve	2	6841-6941
87	Limit Relief Valve	1	6841-3432
88	Brake Tube		9645-0351
90	Protector	1	9645-0368
91	Manifold	1	3598-0113
92	Plug	1	6511-0741
93	Capscrew	4	4133-1706
94	Setscrew	5	4200-8107
95	Plug	3	6511-0441
96	Shuttle Valve	2	6843-0141
122	Lockwasher	2	4520-1008

Top Hook and Trolley Mount Assembly

Figure 5. Single Fall Hoist Capacity (MHP3130)

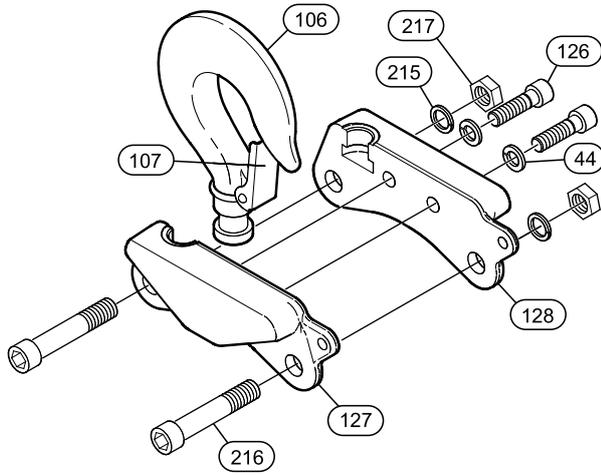


Figure 6. Double Fall Hoist Capacity (MHP3132)

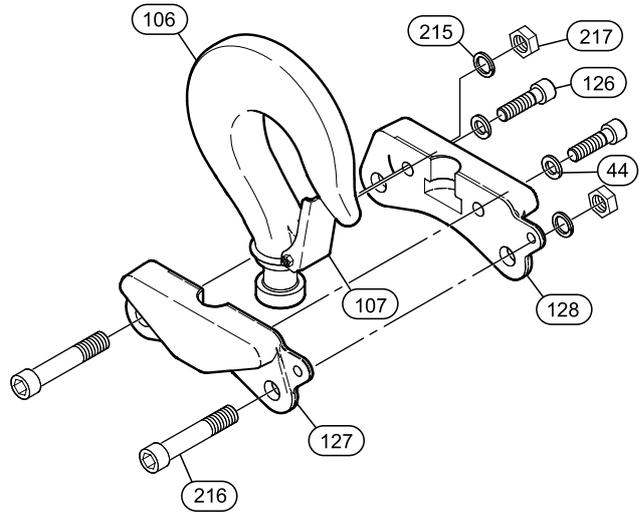


Figure 7. (MHP3131)

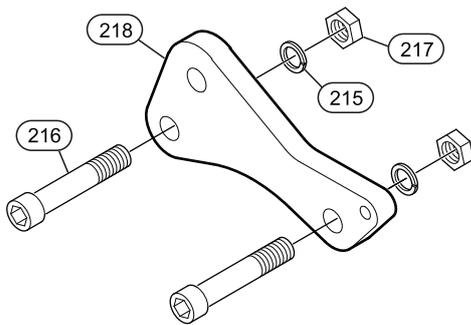


Figure 8. (MHP3133)

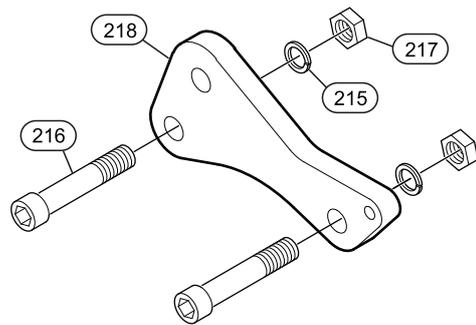
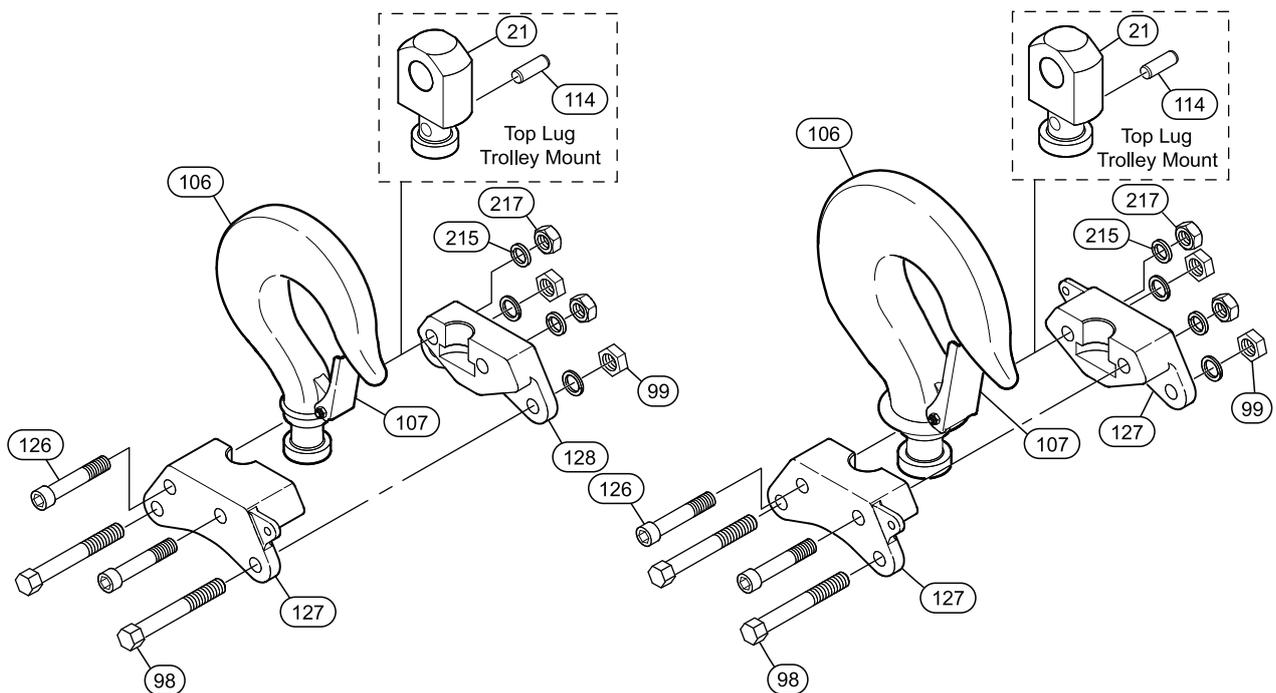


Figure 9. (MHP3019)

18 t Triple Fall Hoist Capacity

25 t Quad Fall Hoist Capacity



Top Hook and Trolley Mount Assembly

Table 6. Top Hook and Trolley Mount Assembly Parts List

Item No.	Description of Part	Total Qty	Part Number	
			Single Fall	Double Fall
--	Top Hook Assembly	1	7645-0089	7645-0090
44	Lockwasher	2	4520-1014	4520-1014
106	Hook	1	9412-8459	9623-8234
107	Hook Latch Kit	1	9412-0460	9623-0236
126	Capscrew	2	4133-4306	4133-4306
127	Half Hook Support	1	9645-0066	9645-0068
128	Half Hook Support	1	9645-0065	9645-0067
215	Washer	2	4520-1120	4520-1120
216	Capscrew	2	4133-4006	4133-4006
217	Locknut	2	4300-4011	4300-4011
218	Trolley Suspension Plate	1	9649-0071	9649-0043

Bottom Block Assembly

Figure 10. Single Fall Bottom Block Assembly Drawing (MHP3006)

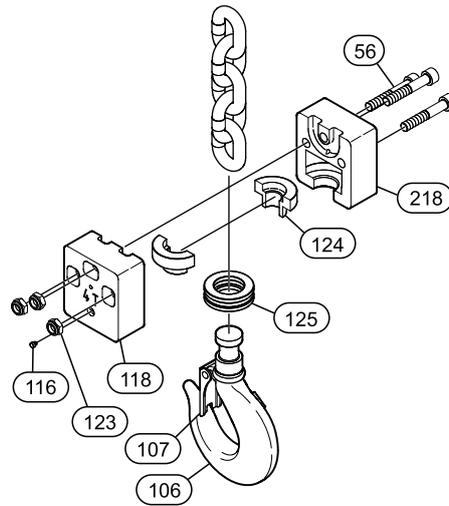


Table 7. Single fall Bottom Block Assembly Parts List

Item No.	Description of Part	Total Qty	Part Number			
			4T Single Fall		6T Single Fall	
			Standard	Option T1	Standard	Option T1
—	Bottom Block Assembly	1	7645-0118	7645-0315	7526-0100	7526-7245
44	Lockwasher	()	N/A	N/A	4520-1020 (1)	4520-1010 (2)
56	Capscrew	()	4132-3306 (3)		9526-0037 (1)	4133-0006 (2)
106	Hook	1	9645-0120	9645-0249	9412-8459	9412-8559
107	Hook Latch Kit	1	9424-0365		9412-0460	
116	Grease Fitting	1	6710-2627		6710-2627	
118	Half Hook Block	1	9645-0117	9645-0252	9526-0138	9526-8246
119	Bearing	()	—		—	
120	Sprocket	()				
122	Lockwasher	3				
123	Nut	()	75583M (3)		4300-4011 (1)	4300-6911 (2)
124	Ring (2 piece)	1	9645-0115		9412-7398	
125	Thrust Bearing	1	5400-0106		5470-0007	
129	'O' Ring	()	—		—	
131	Pin	1	—		—	
132	Center Ring	1	—		—	
133	Capscrew	3	—		—	
218	Half Hook Block	1	9645-0116	9645-0251	9526-0139	9525-8247
219	Anchor Pin	1	—		—	
224	Retainer Ring	1	—		—	

Figure 11. Double Fall Bottom Block Assembly Drawing (MHP4027)

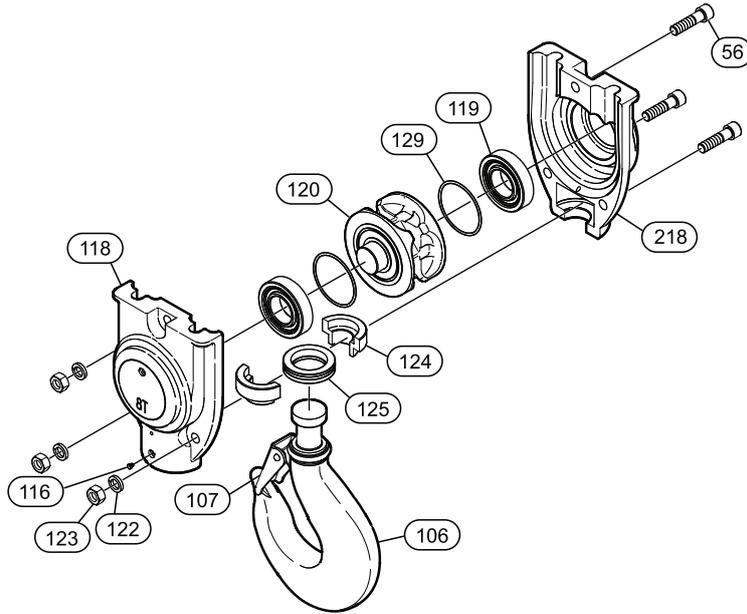


Table 8. Double Fall Bottom Block Assembly Parts List

Item No.	Description of Part	Total Qty	Part Number							
			8T Double Fall		10T Double Fall		12T Double Fall		12,5T Double Fall	
			Standard	Option T1	Standard	Option T1	Standard	Option T1	Standard	Option T1
—	Bottom Block Assembly	1	7645-0123	7645-0314	7645-1006	7645-0728	7526-0356	7645-0389	7645-0487	7645-0858
44	Lockwasher	()	4520-1012 (3)		4510-0212 (3)		4520-1012 (3)		4510-0212 (3)	
56	Capscrew	()	4132-4406 (3)		4131-0306 (3)		4131-0306 (3)		4131-0306 (3)	
106	Hook	1	9645-0124	9645-0250	9645-1009	9645-0731	9645-0278	9645-0393	9623-8234	9623-8263
107	Hook Latch Kit	1	9645-0316		9623-0236		9623-0236		9623-0236	
116	Grease Fitting	1	6710-2627		6710-2627		6710-2627		6710-2627	
118	Half Hook Block	1	9645-0125	9645-0253	9645-1014	9645-0729	9526-0352	9645-0391	9645-0488	9645-0859
119	Bearing	()	5120-0007 (2)		5120-0009 (2)		5120-0009 (2)		5120-0009 (2)	
120	Sprocket	()	9645-0127 (1)		9590-8069 (1)		9590-8069 (1)		9590-8069 (1)	
122	Lockwasher	3	—		—		—		—	
123	Nut	()	4300-3611 (3)		4300-3611 (3)		4300-3611 (3)		4300-3611 (3)	
124	Ring (2 piece)	1	9645-0126		9623-7014		9623-7014		9623-7014	
125	Thrust Bearing	1	5470-0041		5470-0013		5470-0013		5470-0013	
129	'O' ring	()	5822-8029 (2)		5822-3029 (2)		5822-3029 (2)		5822-3029 (2)	
131	Pin	1	—		—		—		—	
132	Center Ring	1	—		—		—		—	
133	Capscrew	3	—		—		—		—	
218	Half Hook Block	1	9645-0159	9645-0254	9645-1015	9645-0730	9526-0364	9645-0392	9645-0489	9645-0860
219	Anchor Pin	1	—		—		—		—	
224	Retainer Ring	1	—		—		—		—	

Bottom Block Assembly

Figure 12. Triple Bottom Block Hook Assembly Drawing (MHP3018)

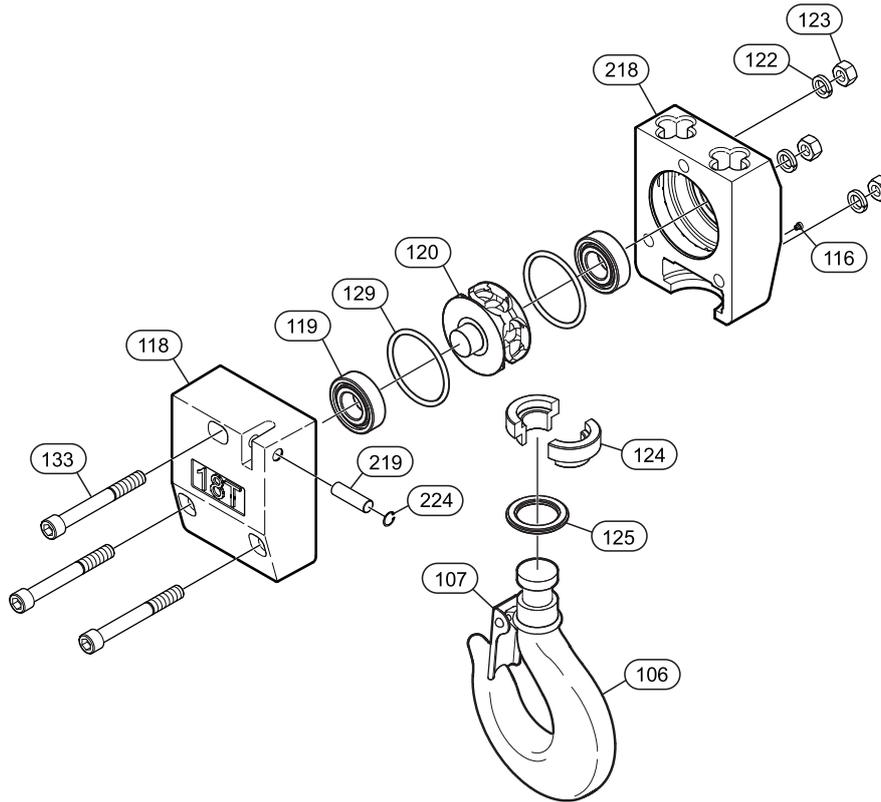


Table 9. Triple Bottom Block Hook Assembly Parts List

Item No.	Description of Part	Total Qty	Part Number			
			150T Triple Fall		180 Triple Fall	
			Standard	Option T1	Standard	Option T1
—	Bottom Block Assembly	1	7590-0248	7590-0245	7590-0009	7590-0127
44	Lockwasher	()	—		—	
56	Capscrew	()	—		—	
106	Hook	1	9596-0204	9596-0201	9596-8135	9596-8145
107	Hook Latch Kit	1	9623-0236		9596-0136	
116	Grease Fitting	1	6710-0827		6710-0827	
118	Half Hook Block	1	9590-0246	9590-0243	9590-7073	9590-0126
119	Bearing	()	5120-0009 (2)		5120-0009 (2)	
120	Sprocket	()	9590-8069 (1)		9590-8069 (1)	
122	Lockwasher	3	4520-1020		4520-1020	
123	Nut	()	4300-4011 (3)		4300-4011	
124	Ring (2 piece)	1	9596-7060		9596-7060	
125	Thrust Bearing	1	5470-0018		5470-0018	
129	'O' Ring	()	5822-3029 (2)		5822-3029 (2)	
131	Pin	1	—		—	
132	Center Ring	1	—		—	
133	Capscrew	3	4133-1206		4133-1206	
218	Half Hook Block	1	9590-0247	9590-0244	9590-7072	9590-0125
219	Anchor Pin	1	9590-7074		9590-7074	
224	Retainer Ring	1	4771-3020		4771-3020	

Figure 13. 25 Ton Quad Bottom Block Hook Assembly Drawing (MHP3029)

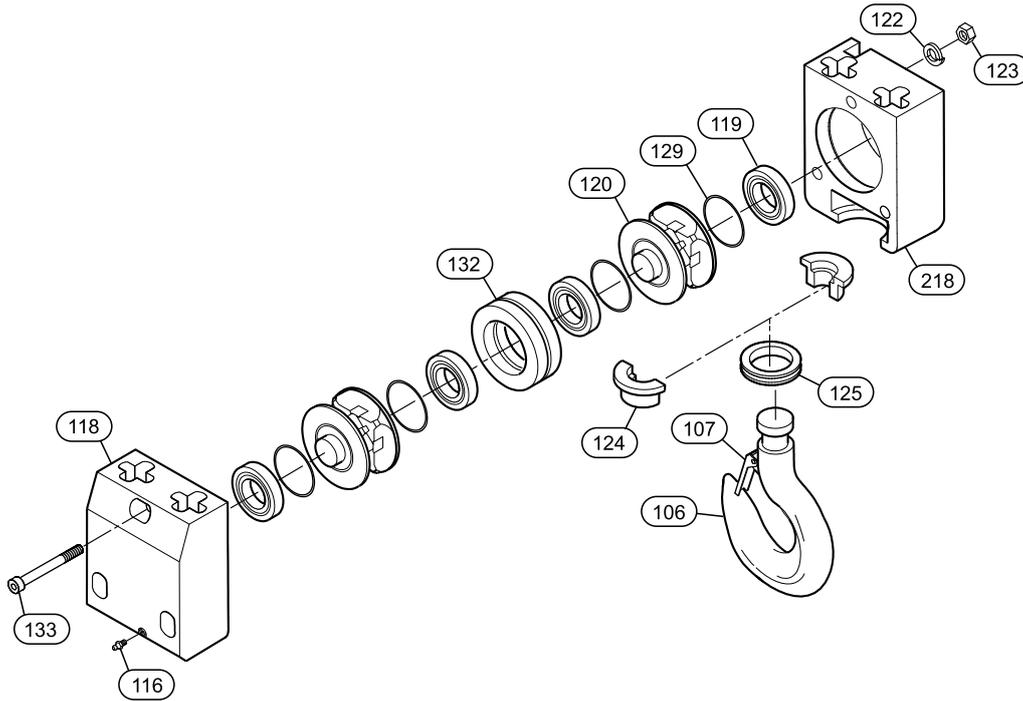


Table 10. 25 Ton Quad Bottom Block Hook Assembly Parts List

Item No.	Description of Part	Total Qty	Part Number			
			200 Quad Fall		250 Quad Fall	
			Standard	Option T1	Standard	Option T1
—	Bottom Block Assembly	1	7645-0744	7645-0468	7590-0008	7590-0131
44	Lockwasher	()	—		—	
56	Capscrew	()	—		—	
106	Hook	1	9645-0473	9623-8301	9623-8233	9623-8301
107	Hook Latch Kit	1	9623-0235		9623-0235	
116	Grease Fitting	1	6710-0827		6710-0827	
118	Half Hook Block	1	9645-0746	9623-8299	9590-7071	9590-0129
119	Bearing	()	5120-0009 (4)		5120-0009 (4)	
120	Sprocket	()	9590-8069 (2)		9590-8069 (2)	
122	Lockwasher	3	4520-1020		4520-1020	
123	Nut	()	4300-4011		4300-4011	
124	Ring (2 piece)	1	9623-7026		9623-7026	
125	Thrust Bearing	1	5470-0018		5470-0018	
129	'O' Ring	()	5822-3029 (4)		5822-3029 (4)	
131	Pin	1	4600-1116		4600-1116	
132	Center Ring	1	9590-0068		9590-0068	
133	Capscrew	3	4133-1106		4133-1106	
218	Half Hook Block	1	9645-0747	9623-8300	9590-7070	9590-0130
219	Anchor Pin	1	—		—	
224	Retainer Ring	1	—		—	

Bottom Hook Accessories Parts Assembly

Figure 14. Bottom Hook Accessories Parts Assembly Drawing (MHP3134)

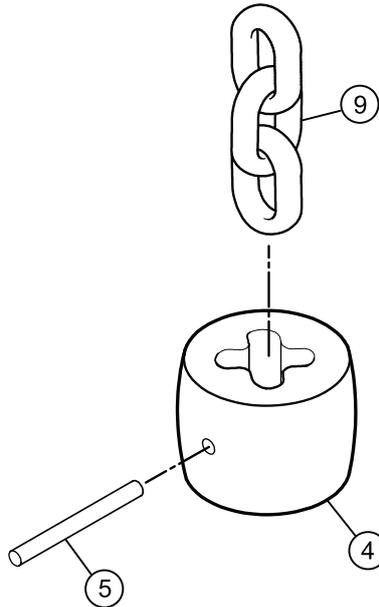


Table 11. Bottom Hook Accessories Parts List

Item No.	Description of Part	Total Qty	Part Number	
			LC2H060S /LC2H120D	LC2H180T /LC2H250Q
			6 and 12 ton	18 and 25 ton
1	Pin	1	4650-4020	
4	Buffer	1	9526-0038	
9	Load Chain (Bulk)	Specify Length (meters)	LC1645-G8ZP	

Non Metallic Chain Container Assembly

Figure 15. Non Metallic Chain Container Assembly Drawing (MHP2658)

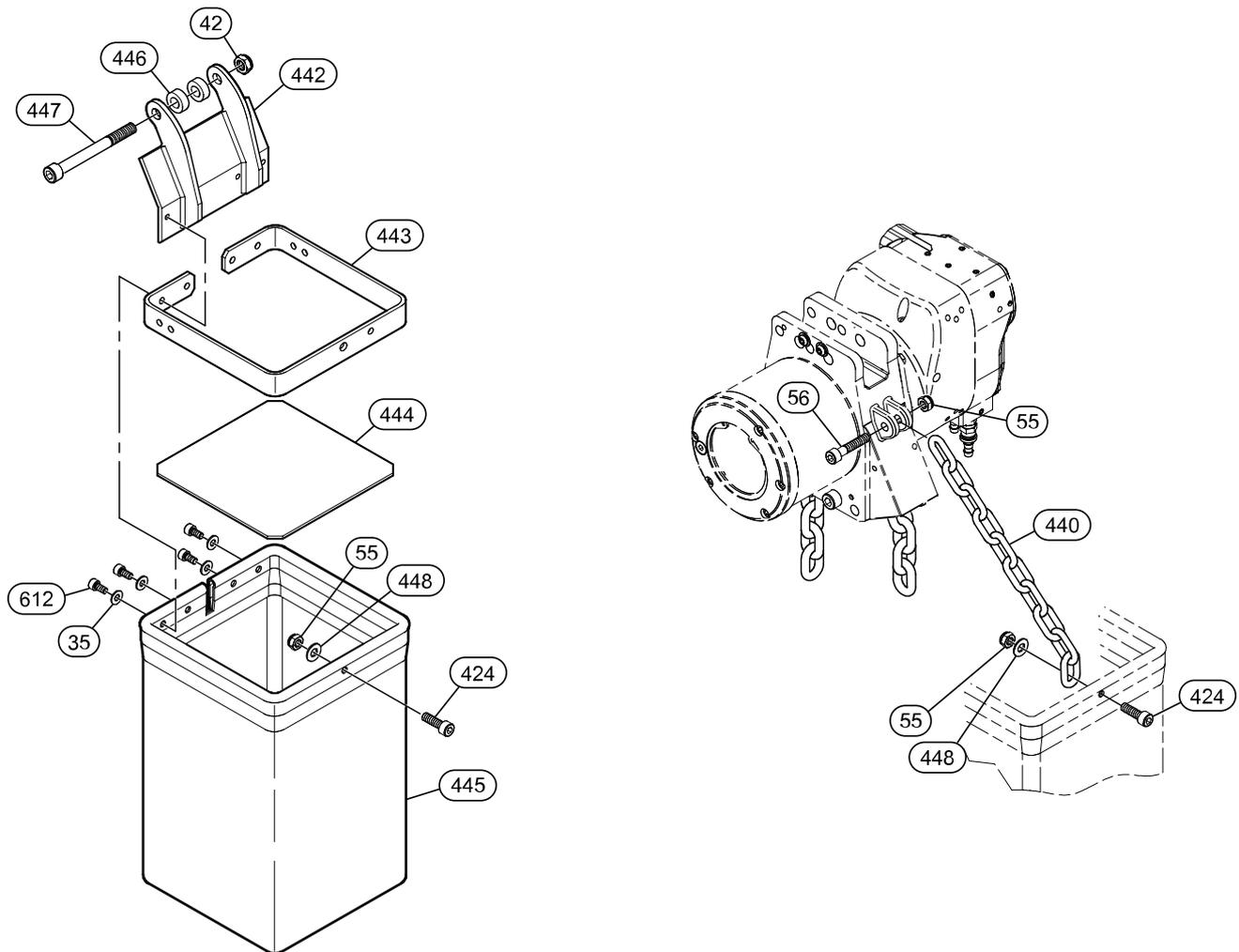


Table 12. Non Metallic Chain Container Assembly Parts List

Item No.	Description of Part	Total Qty	Part Number
			LC2H060S, LC2H120D, LC2H180T and LC2H250Q
			39.4 ft (12 m)
35	Washer	4	4560-1006
42	Nut	1	75583M
55	Nut	3	4370-6511
56	Capscrew	1	4132-6206
424	Capscrew	2	4132-4906
440	Chain (Non-Metallic Chain Container)	Specify Length	6902-9232
442	Support Bracket	1	9645-0238
443	Frame	1	9526-0054
444	Plate (Bottom)	1	9526-0057
445	Chain Container	1	9526-0056
447	Capscrew	1	4133-0306
448	Washer	2	4500-1108
612	Capscrew	4	4132-4306

Non Metallic Chain Container Assembly

Note:

Hoist shown is an example and may not look like your unit.

Specify length in ft (m) when ordering replacement.

Item not included in Non-Metallic Chain Container.

Table 13. Chain Container Assembly Part Numbers

Hoist Model	Capacity		Container Part Number	
	ft	m	Non-metallic	Metallic
LC2H060S	39	12	CB2-120D-12M	---
LC2H120D	85	26	---	CB2-120D-24M
LC2H180T			---	CB2-120D-40M
LC2H250Q	131	40	---	CB2-120D-40M

Metallic Chain Container Assembly

Figure 16. Metallic Chain Container Assembly Drawing (MHP3059)

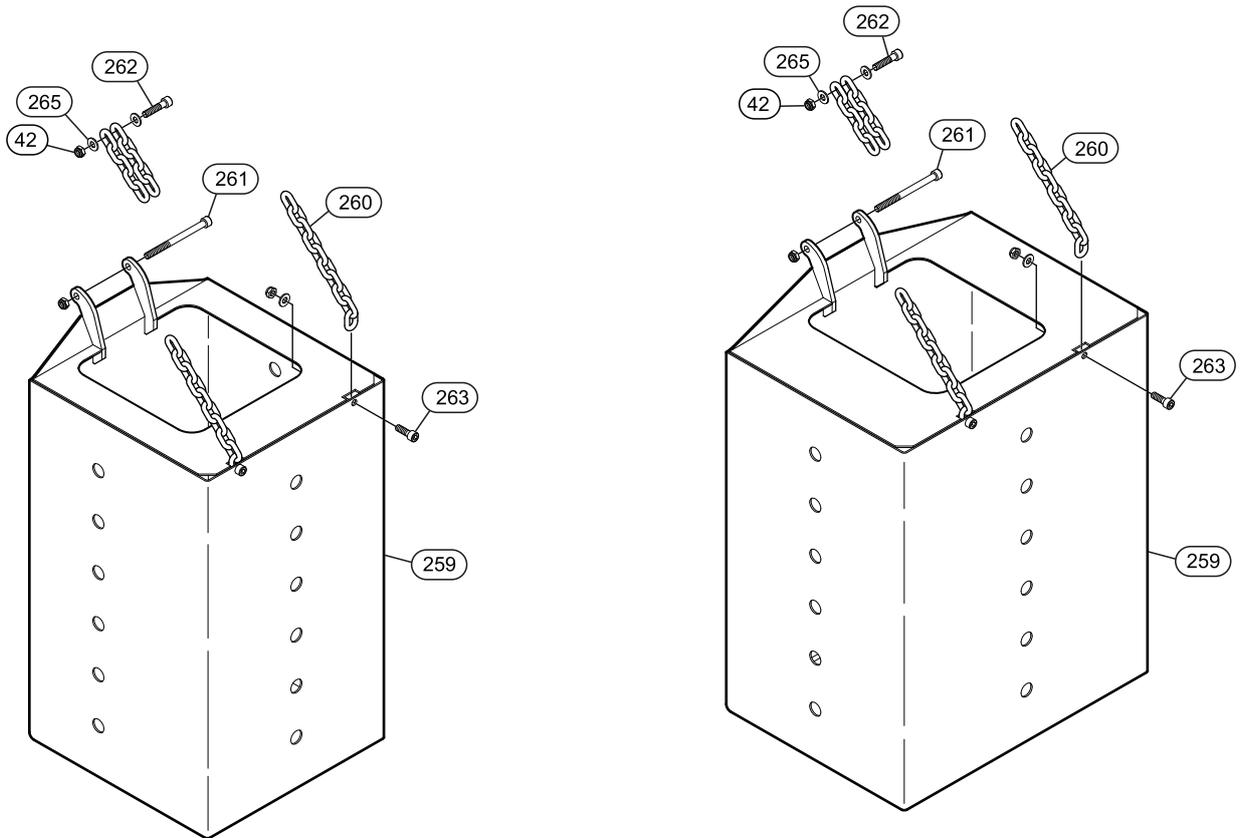


Table 14. Metallic Chain Container Assembly Parts List

Item No.	Description of Part	Total Qty	Part Number	
			LC2H060S, LC2H120D, LC2H180T and LC2H250Q	
			85.3 ft (26 m)	131.2 ft (40 m)
---	Chain Container Assembly	1	3645-0242	3645-0246
42	Nut	4	75583M	
259	Chain Container	1	9645-0243	9645-0247
260	Chain	Specify Length	6908-9432	
261	Capscrew	1	4133-0306	
262	Capscrew	1	4132-3306	
263	Capscrew	2	4132-3506	
265	Washer	4	4500-1110	



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