

Product Parts Information



Ultra-Lo BOP SYSTEM AIR CHAIN HOIST

Models

ULBS100LCA4 and ULBS150LCA6



Save These Instructions



Form MHD56367
Edition 1
March 2007
43802156
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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 Information Manuals

| Publication | Part/Document Number | Publication | Part/Document Number |
|-----------------------------------|----------------------|--|----------------------|
| Product Safety Information Manual | MHD56295 | Product Maintenance Information Manual | MHD56368 |
| Product Information Manual | MHD56366 | | |

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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 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.
- Using other than genuine Ingersoll Rand replacement parts may invalidate 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.

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 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.

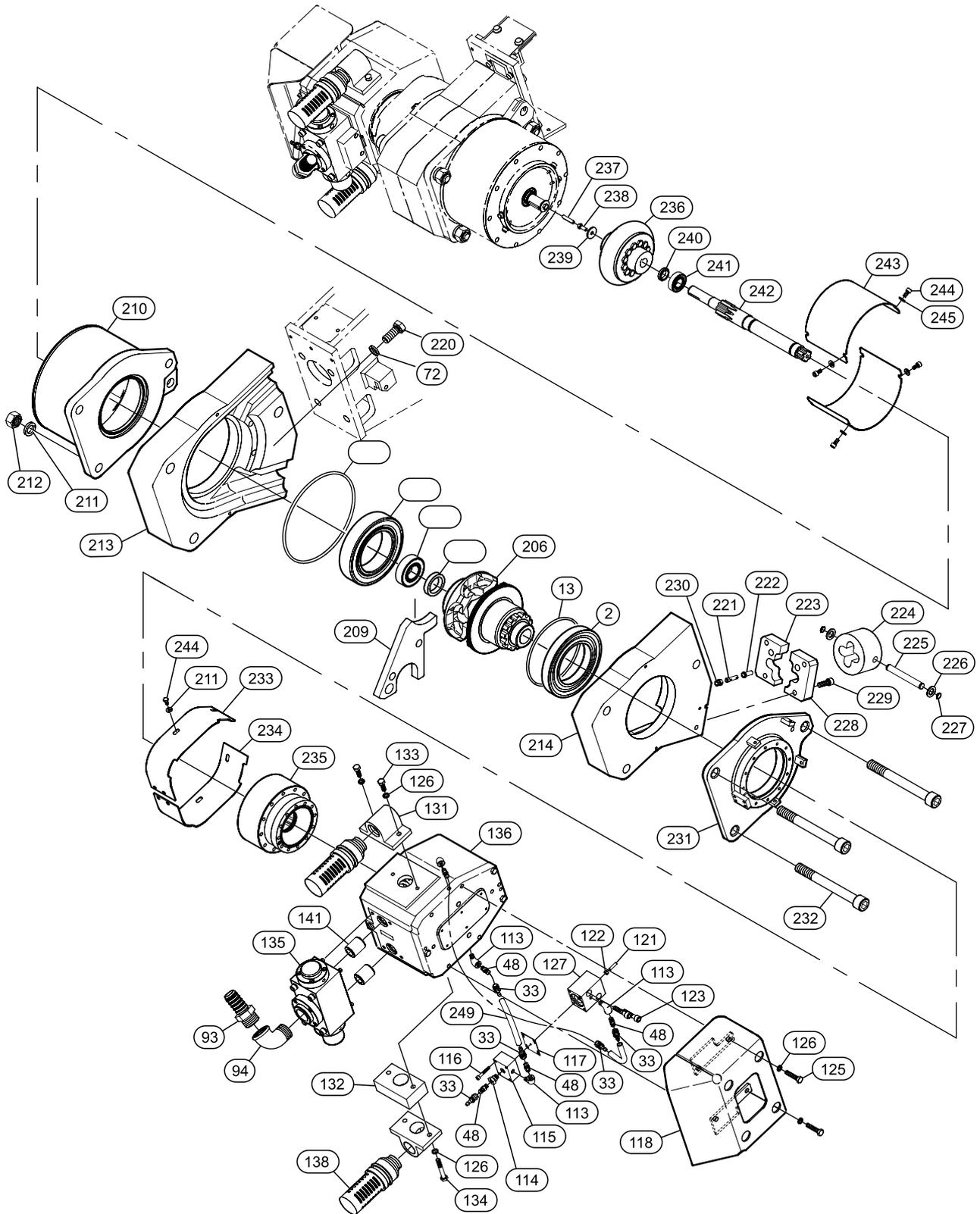
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Fax: (206) 624-6265

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Ingersoll Rand
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Phone: (33) 03-27-93-08-08
Fax: (33) 03-27-93-08-00

HOIST ASSEMBLY DRAWING - 50 TON

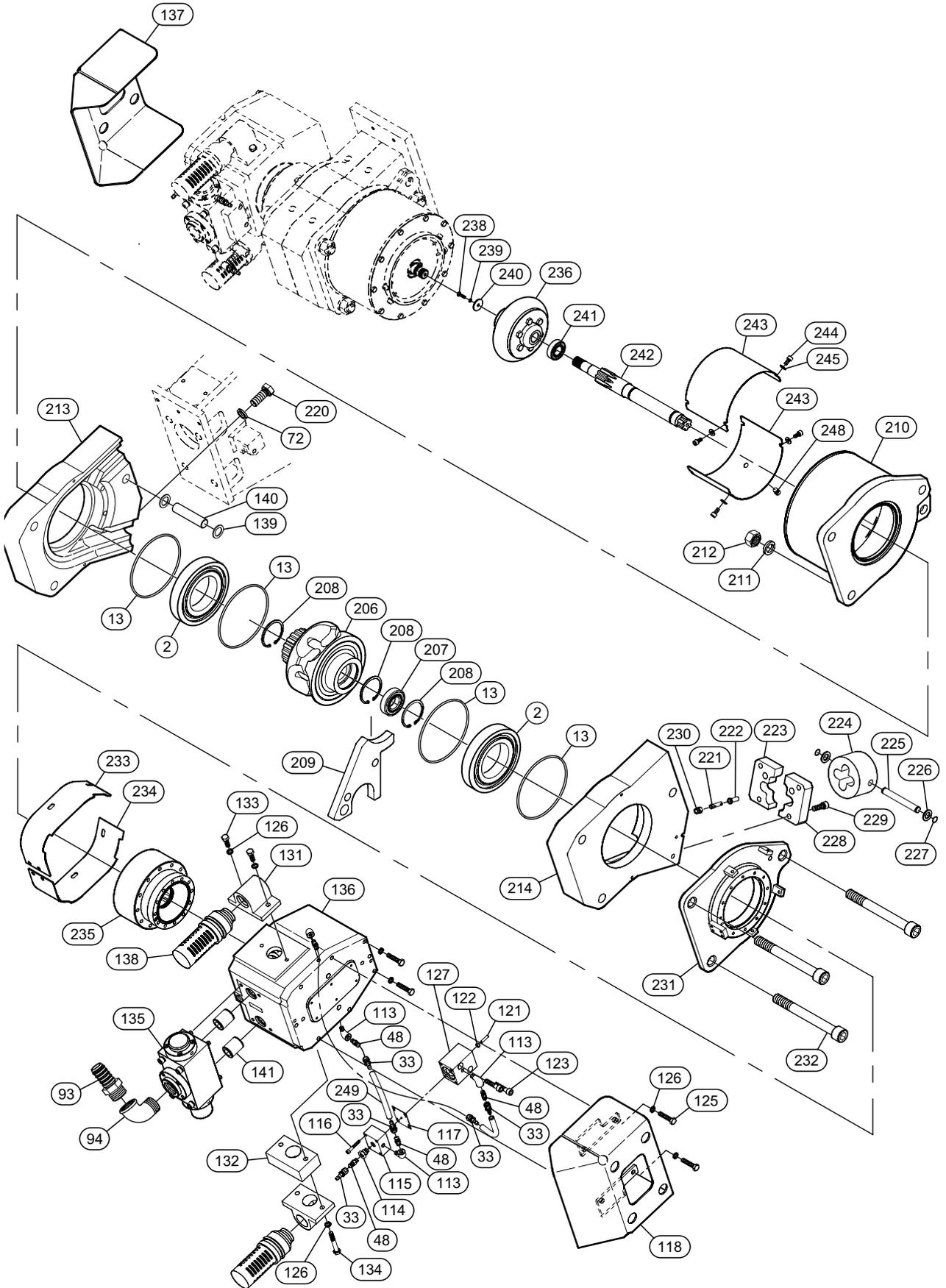


(Dwg. MHP2868)

HOIST ASSEMBLY PARTS LIST - 50 TON

| Item No. | Description of Part | Total Qty | Part Number | Item No. | Description of Part | Total Qty | Part Number |
|----------|-------------------------|-----------|-----------------|----------|---------------------|-----------|-----------------|
| 33 | Fitting, Hose Connector | 5 | 51029 | 212 | Nut | 3 | 43006111 |
| 48 | Fitting, Nipple | 4 | 68237528 | 213 | Chain Guide | 1 | 96230361 |
| 72 | Lockwasher | 8 | 45201120 | 214 | Chain Guide | 1 | 96230362 |
| 113 | Fitting, Elbow | 4 | 68280132 | 220 | Capscrew | 4 | 41001401 |
| 114 | Fitting, Reducer | 1 | 96360018 | 221 | Limit Pin | 1 | 96230042 |
| 115 | Valve Cap | 1 | 96360025 | 222 | Limit Pin Plug | 1 | 96230366 |
| 116 | Capscrew | 4 | 41327406 | 223 | Wear Plate | 1 | 96230371 |
| 117 | Diaphragm | 1 | 65125832 | 224 | Protective Sheathe | 1 | 96230035 |
| 118 | Cover | 1 | 96160020 | 225 | Pin | 1 | 96230036 |
| 119 | Cover | 1 | 96160002 | 226 | Washer | 2 | 45001416 |
| 120 | Cover | 1 | 96160004 | 227 | Retainer Ring | 2 | 47801639 |
| 121 | Pin | 1 | 42007107 | 228 | Wear Plate | 1 | 96230364 |
| 122 | Nut | 1 | 43707611 | 229 | Capscrew | 4 | 41312706 |
| 123 | Capscrew | 2 | 41323206 | 230 | Spring | 1 | 96230041 |
| 125 | Capscrew | 4 | | 231 | Motor Flange | 1 | 96230321 |
| 126 | Lockwasher | 4 | 45201010 | 232 | Capscrew | 3 | 41318506 |
| 127 | Housing, Valve | 1 | 96360024 | 233 | Case Guard | 1 | 96230109 |
| 128 | Pin | 2 | 46000816 | 234 | Case Guard | 1 | 96230110 |
| 129 | Gear Housing | 1 | 96160003 | 235 | Brake Assembly | 1 | Contact Factory |
| 130 | Motor Housing | 1 | 96160001 | 236 | Coupler Assembly | 1 | 60064141 |
| 131 | Bracket, Muffler | 2 | 96160007 | 237 | Key | 1 | 60205924 |
| 132 | Manifold | 1 | 96230367 | 238 | Capscrew | 1 | 41020501 |
| 133 | Capscrew | 2 | 41020401 | 239 | Washer | 1 | 96290309 |
| 134 | Capscrew | 2 | 41022801 | 240 | Washer | 1 | 96290307 |
| 135 | Valve Assembly | 1 | Contact Factory | 241 | Bearing | 1 | 50150005 |
| 136 | Motor Assembly | 1 | Contact Factory | 242 | Shaft | 1 | 96230368 |
| 138 | Muffler | 2 | Contact Factory | 243 | Coupler Guard | 2 | 96290308 |
| 141 | Sleeve | 2 | 68119928 | 244 | Capscrew | 8 | 41301306 |
| 209 | Chain Guide | 1 | 96230117 | 245 | Washer | 8 | 45001108 |
| 210 | Reducer Assembly | 1 | Contact Factory | 249 | Tube | 1 | Contact Factory |
| 211 | Lockwasher | 3 | 45201024 | | | | |

HOIST ASSEMBLY DRAWING - 75 TON

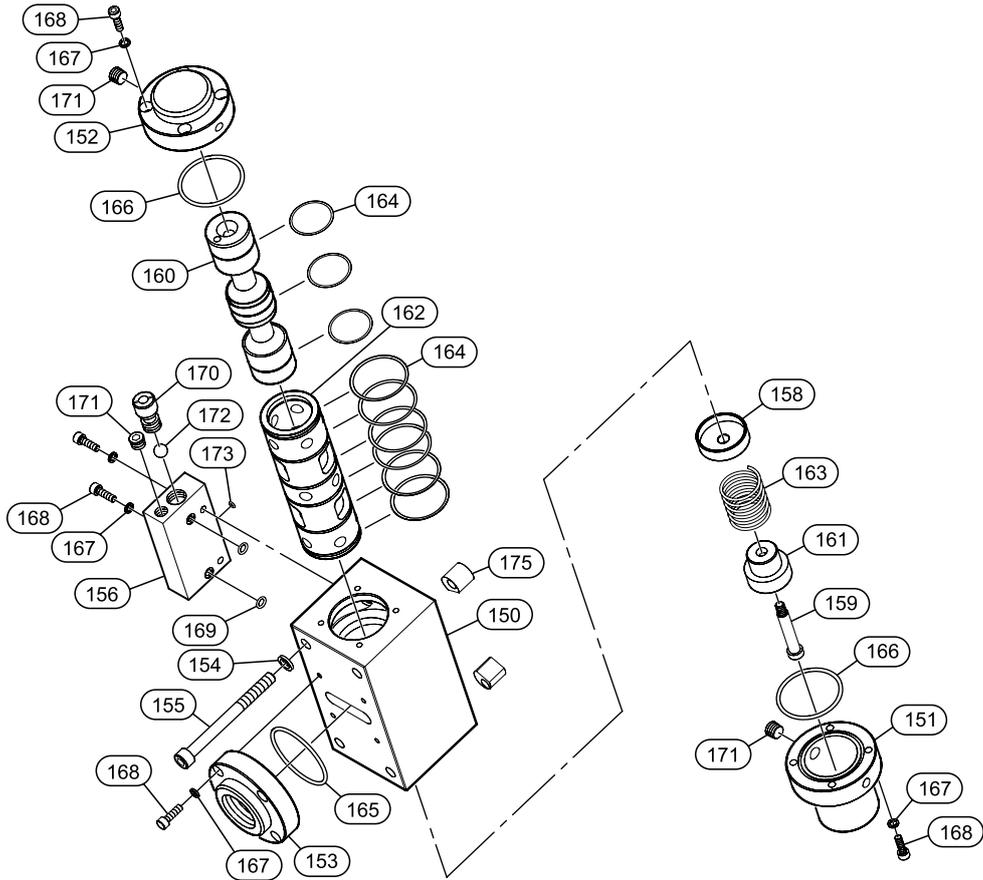


(Dwg. MHP2905)

HOIST ASSEMBLY PARTS LIST - 75 TON

| Item No. | Description of Part | Total Qty | Part Number | Item No. | Description of Part | Total Qty | Part Number |
|----------|---------------------|-----------|-----------------|----------|---------------------|-----------|-----------------|
| 2 | Bearing | 2 | 51200020 | 209 | Chain Stripper | 1 | 96230117 |
| 48 | Fitting, Nipple | 4 | 68237528 | 210 | Reducer Assembly | 1 | Contact Factory |
| 71 | Capscrew | 8 | 41314706 | 211 | Lockwasher | 3 | 45201024 |
| 93 | Fitting, Hose End | 2 | 61655228 | 212 | Nut | 3 | 43006111 |
| 94 | Fitting, Elbow | 2 | 68218928 | 213 | Chain Guide | 1 | 96230361 |
| 113 | Fitting, Elbow | 4 | 68280132 | 214 | Chain Guide | 1 | 96230362 |
| 114 | Fitting, Reducer | 1 | 96360018 | 220 | Capscrew | 4 | 41001401 |
| 115 | Valve Cap | 1 | 96360025 | 221 | Limit Pin | 1 | 96230042 |
| 116 | Capscrew | 4 | 41327406 | 222 | Limit Pin Plug | 1 | 96230366 |
| 117 | Diaphragm | 1 | 65125832 | 223 | Wear Plate | 1 | 96230371 |
| 118 | Cover | 1 | 36230386 | 224 | Protective Sheathe | 1 | 96230035 |
| 119 | Cover | 1 | 96160002 | 225 | Pin | 1 | 96230036 |
| 120 | Cover | 1 | 96160004 | 226 | Washer | 2 | 45001416 |
| 121 | Pin | 1 | 42007107 | 227 | Retainer Ring | 2 | 47801639 |
| 122 | Nut | 1 | 43707611 | 228 | Wear Plate | 1 | 96230364 |
| 123 | Capscrew | 2 | 41323206 | 229 | Capscrew | 4 | 41312706 |
| 124 | Capscrew | 6 | 41324906 | 230 | Spring | 1 | 96230041 |
| 128 | Pin | 2 | 46000816 | 231 | Motor Flange | 1 | 96230321 |
| 129 | Gear Housing | 1 | 96160003 | 232 | Capscrew | 3 | 41318506 |
| 130 | Motor Housing | 1 | 96160001 | 233 | Case Guard | 1 | 96230109 |
| 131 | Bracket, Muffler | 2 | 96160007 | 234 | Case Guard | 1 | 96230110 |
| 132 | Manifold | 1 | 96230367 | 235 | Brake Assembly | 1 | Contact Factory |
| 133 | Capscrew | 2 | 41020401 | 236 | Coupler Assembly | 1 | 96230390 |
| 134 | Motor Assembly | 2 | 41022801 | 237 | Key | 1 | 60205924 |
| 135 | Valve Assembly | 1 | Contact Factory | 238 | Capscrew | 1 | 41010601 |
| 136 | Motor Assembly | 1 | Contact Factory | 239 | Washer | 1 | 45201006 |
| 137 | Cover | 1 | 36230387 | 240 | Washer | 1 | 96230392 |
| 138 | Muffler | 2 | Contact Factory | 241 | Bearing | 1 | 50150005 |
| 139 | Spacer | 2 | 96230032 | 242 | Shaft | 1 | 96230368 |
| 140 | Pin | 1 | 46406518 | 243 | Coupler Guard | 2 | 96230393 |
| 141 | Sleeve | 2 | 68119928 | 244 | Capscrew | 8 | 41325606 |
| 206 | Sprocket | 1 | 96238001 | 245 | Washer | 8 | 45001108 |
| 207 | Bearing | 1 | 50170007 | 248 | Plug | 1 | 66962941 |
| 208 | Retainer Ring | 2 | 47703072 | 249 | Tube | 1 | Contact Factory |

HOIST MOTOR VALVE ASSEMBLY DRAWING AND PARTS LIST

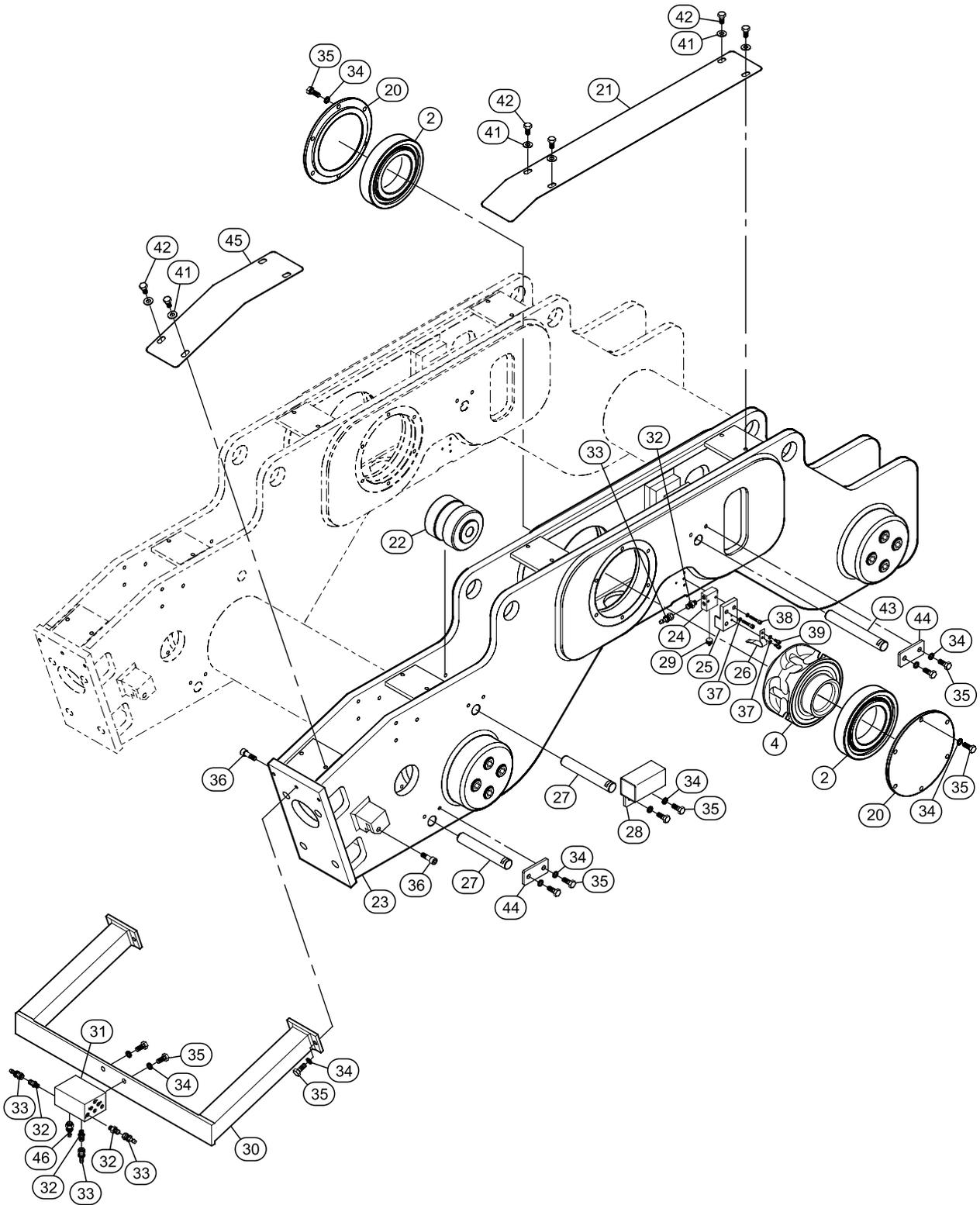


(Dwg. MHP2869)

| Item No. | Description of Part | Total Qty | Part Number | Item No. | Description of Part | Total Qty | Part Number |
|----------|---------------------|-----------|-------------|----------|---------------------|-----------|-------------|
| 150 | Body | 1 | 96170103 | 163 | Spring | 1 | 69129841 |
| 151 | Cover | 1 | 96170104 | 164 | 'O' Ring | 6 | 58236429 |
| 152 | Cover | 1 | 96170109 | 165 | 'O' Ring | 1 | 58228029 |
| 153 | Air Collector Cover | 1 | 96170107 | 166 | 'O' Ring | 2 | 58235729 |
| 154 | Washer | 4 | 45201010 | 167 | Washer | 14 | 45201006 |
| 155 | Capscrew | 4 | 41330706 | 168 | Capscrew | 14 | 41322206 |
| 156 | Manifold Block | 1 | 96170108 | 169 | 'O' Ring | 2 | 58212529 |
| 158 | Spring Retainer | 1 | 96170106 | 170 | Plug | 1 | 96170007 |
| 159 | Capscrew | 1 | 65280532 | 171 | Plug | 3 | 65125832 |
| 160 | Spindle | 1 | 96170102 | 172 | Rubber Ball | 1 | 69401725 |
| 161 | Retainer | 1 | 96170105 | 173 | 'O' Ring | 1 | 58227729 |
| 162 | Bushing | 1 | 96170101 | 175 | Washer | 2 | 96170114 |

SERVICE NOTES

HOIST SUSPENSION ASSEMBLY DRAWING - 50 TON

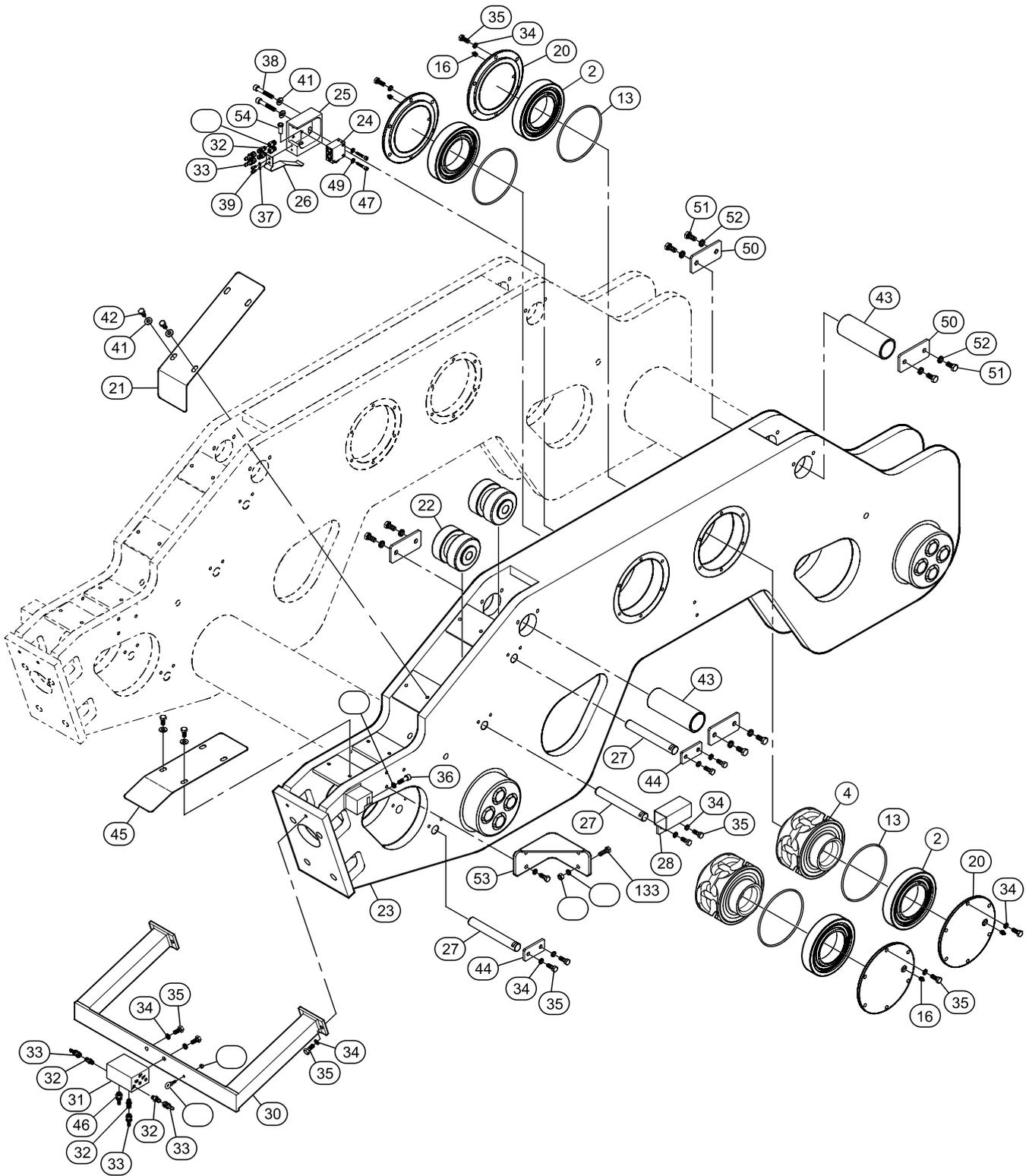


(Dwg. MHP2864)

HOIST SUSPENSION ASSEMBLY PARTS LIST - 50 TON

| Item No. | Description of Part | Total Qty | Part Number |
|----------|-------------------------|-----------|-----------------|
| 2 | Bearing | 2 | 51200020 |
| 4 | Sprocket | 1 | 96230004 |
| 20 | Cover | 2 | 96290227 |
| 21 | Guard | 2 | 96290306 |
| 22 | Guide Roller | 1 | 96290292 |
| 23 | Hoist Support Frame | 1 | 96290258 |
| 24 | Limit Switch | 1 | 68552732 |
| 25 | Bracket | 1 | 95960030 |
| 26 | Spring | 1 | 95230058 |
| 27 | Pin | 2 | 96290279 |
| 28 | Hose Support Plate | 1 | 96260681 |
| 29 | Fitting | 1 | 95960031 |
| 30 | Frame | 1 | 96290298 |
| 31 | Manifold | 1 | 96290305 |
| 32 | Fitting, Nipple | 19 | 68237528 |
| 33 | Fitting, Hose Connector | 19 | 51029 |
| 34 | Lockwasher | 24 | 45201010 |
| 35 | Capscrew | 22 | 41020701 |
| 36 | Capscrew | 2 | 96290304 |
| 37 | Washer | 4 | 45201005 |
| 38 | Capscrew | 2 | 41322106 |
| 39 | Capscrew | 2 | 41326306 |
| 41 | Washer | 6 | 45001110 |
| 42 | Capscrew | 6 | 41023101 |
| 43 | Pin | 1 | 96290278 |
| 44 | Plate | 2 | 96290291 |
| 45 | Guard | 1 | Contact Factory |
| 46 | Fitting, Connector | 1 | Contact Factory |

HOIST SUSPENSION ASSEMBLY DRAWING - 75 TON

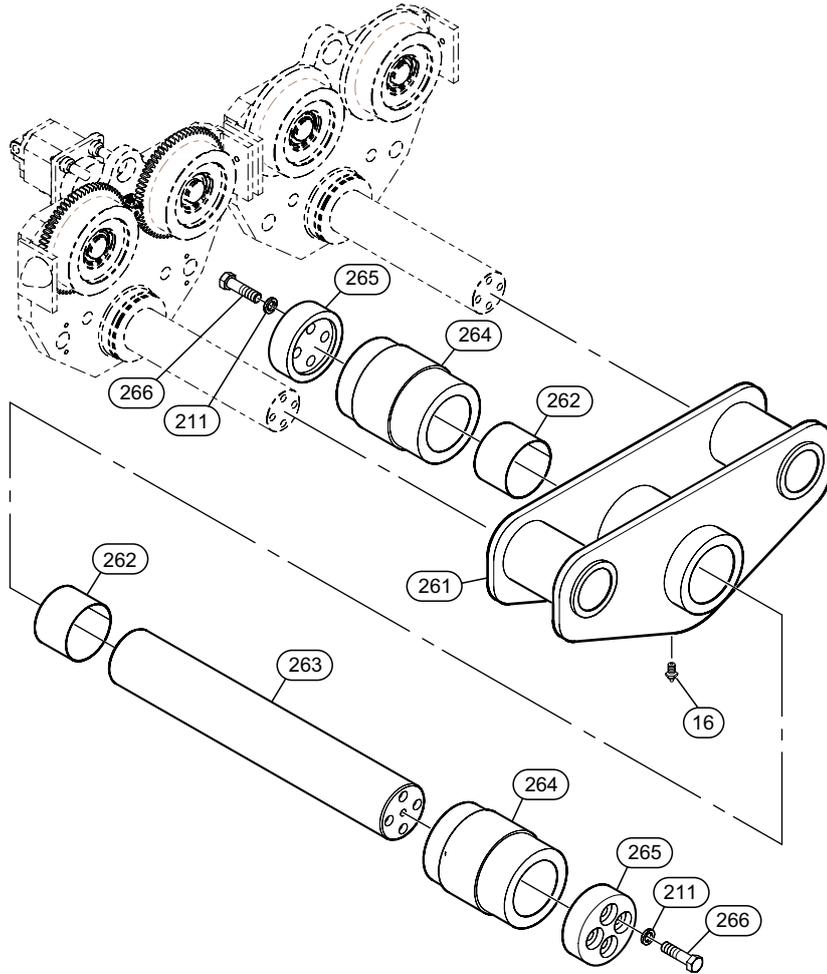


(Dwg. MHP2901)

HOIST SUSPENSION ASSEMBLY PARTS LIST - 75 TON

| ITEM NO. | DESCRIPTION OF PART | QTY TOTAL | PART NUMBER |
|----------|-------------------------|-----------|-------------|
| 2 | Bearing | 4 | 51200020 |
| 4 | Sprocket | 2 | 96230004 |
| 13 | O' Ring | 4 | 58207229 |
| 16 | Grease Fitting | 4 | 67301727 |
| 20 | Cover | 4 | 96290277 |
| 21 | Guard | 1 | 96290397 |
| 22 | Guide Roller | 2 | 96290292 |
| 23 | Hoist Support Frame | 1 | 96290401 |
| 24 | Limit Switch | 1 | 68595341 |
| 25 | Bracket | 1 | 96290440 |
| 26 | Spring | 1 | 96290441 |
| 27 | Pin | 3 | 96290400 |
| 28 | Hose Support Plate | 1 | 96230381 |
| 30 | Frame | 1 | 96290298 |
| 31 | Manifold | 1 | 96290305 |
| 32 | Fitting, Nipple | 2 | 68237528 |
| 33 | Fitting, Hose Connector | 2 | 51029 |
| 34 | Lockwasher | 24 | 45201010 |
| 35 | Capscrew | 22 | 41020701 |
| 36 | Capscrew | 2 | 96290304 |
| 37 | Lockwasher | 4 | 45201005 |
| 38 | Capscrew | 2 | 41323306 |
| 39 | Capscrew | 2 | 41326306 |
| 41 | Washer | 20 | 45001110 |
| 42 | Capscrew | 8 | 41023101 |
| 43 | Pin | 2 | 96290410 |
| 44 | Plate | 2 | 96290291 |
| 45 | Guard | 1 | 96290398 |
| 47 | Capscrew | 2 | 41301106 |
| 49 | Washer | 2 | 45001106 |
| 50 | Plate | 4 | 96290409 |
| 51 | Capscrew | 8 | 41000601 |
| 52 | Washer | 10 | 45201012 |
| 53 | Bracket | 1 | 96290451 |
| 54 | Pin | 1 | 96230366 |
| 133 | Capscrew | 6 | 41020401 |

TROLLEY HANGER BRACKET DRAWING AND PARTS LIST - 75 TON

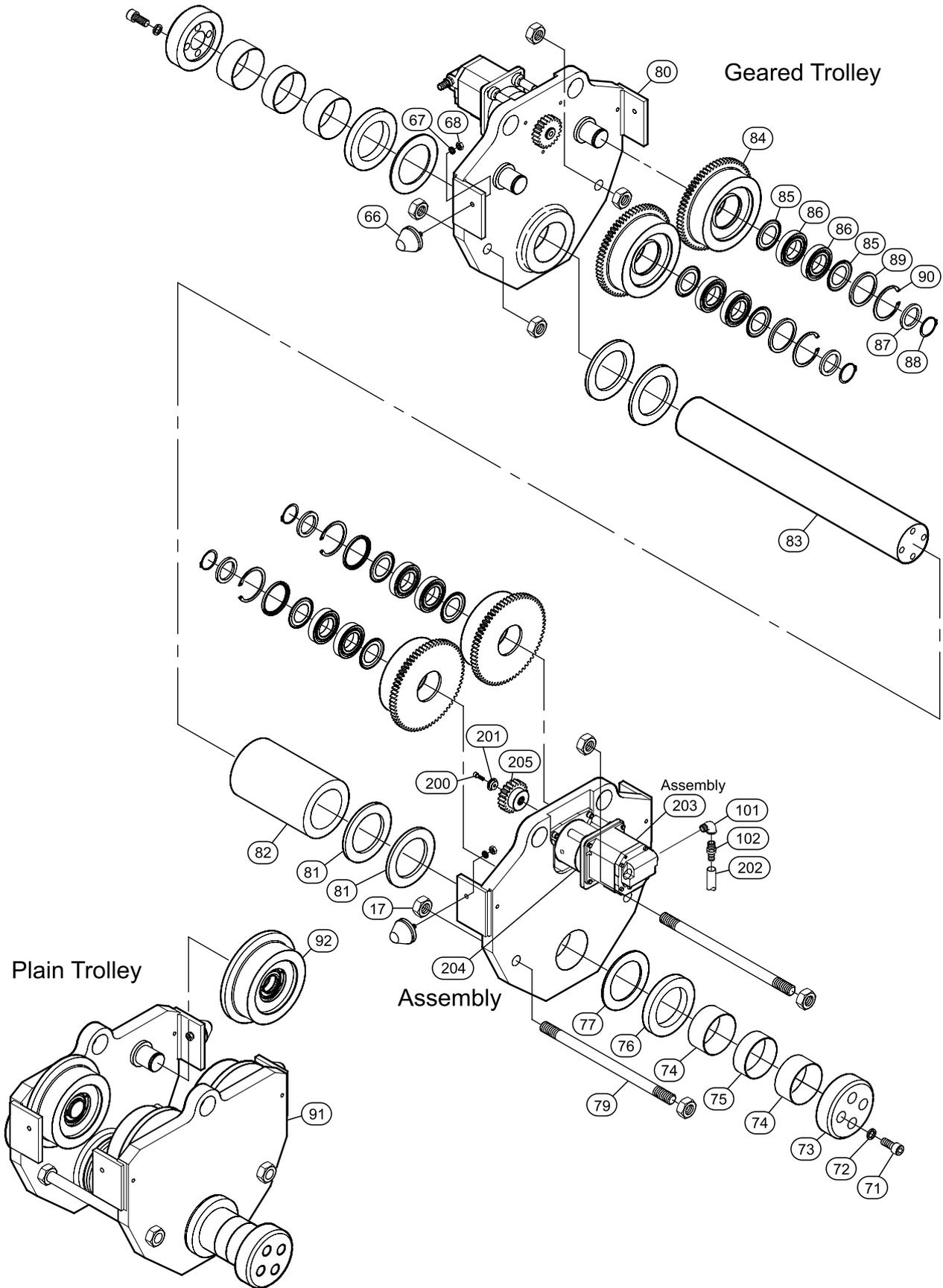


(Dwg. MHP2907)

| ITEM NO. | DESCRIPTION OF PART | QTY TOTAL | PART NUMBER | ITEM NO. | DESCRIPTION OF PART | QTY TOTAL | PART NUMBER |
|----------|---------------------|-----------|-------------|----------|---------------------|-----------|-----------------|
| 16 | Grease Fitting | 1 | 67301727 | 263 | Shaft | 1 | 96290411 |
| 211 | Lockwasher | 8 | 45201024 | 264 | Spacer | 2 | Contact Factory |
| 261 | Support | 1 | 96290388 | 265 | Cap | 2 | 96290412 |
| 262 | Bushing | 2 | 59009526 | 266 | Capscrew | 8 | 41021601 |

SERVICE NOTES

TROLLEY ASSEMBLY DRAWING - 50 TON

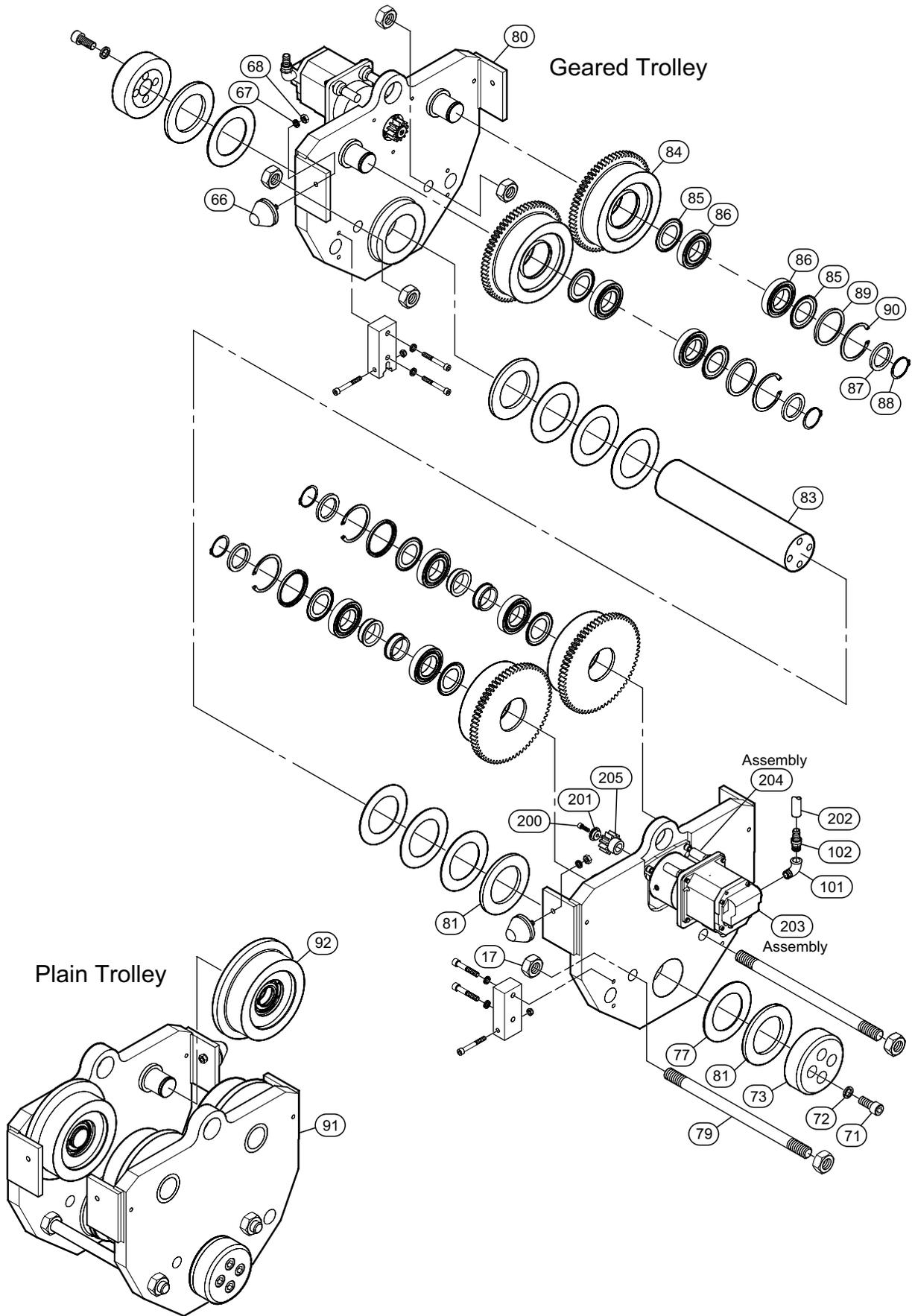


(Dwg. MHP2862)

TROLLEY ASSEMBLY PARTS LIST - 50 TON

| ITEM NO. | DESCRIPTION OF PART | QTY TOTAL | PART NUMBER |
|----------|-----------------------------|-----------|-------------|
| 17 | Nut | 8 | 43006711 |
| 66 | Bumper | 2 | 69886832 |
| 67 | Washer | 2 | 45201012 |
| 68 | Nut | 2 | 43003611 |
| 71 | Capscrew | 8 | 41314706 |
| 72 | Lockwasher | 8 | 45201120 |
| 73 | Cap, Axle | 2 | 96290290 |
| 74 | Bushing | 4 | 59009426 |
| 75 | Bushing | 2 | 96290303 |
| 76 | Spacer | 2 | 96290295 |
| 77 | Spacer (5 mm) | 2 | 96290294 |
| 79 | Shaft | 2 | 96290031 |
| 80 | Trolley Side Plate (Geared) | 2 | 96290289 |
| 81 | Spacer (10 mm) | 4 | 96290293 |
| 82 | Spacer | 1 | 96290296 |
| 83 | Axle | 1 | 96290297 |
| 84 | Wheel, Geared | 4 | 96297019 |
| 85 | Washer | 8 | 58324111 |
| 86 | Bearing | 8 | 51200011 |
| 87 | Spacer | 4 | 95960045 |
| 88 | Retainer Ring | 4 | 47700055 |
| 89 | Spacer | 4 | 95960044 |
| 90 | Retainer Ring | 4 | 47703100 |
| 91 | Trolley Side Plate (Plain) | 2 | 96290284 |
| 92 | Wheel (Plain) | 4 | 96297020 |
| 101 | Fitting, Elbow | 1 | 61330832 |
| 102 | Fitting, Adapter | 1 | 61631841 |
| 200 | Capscrew | 1 | 41324906 |
| 201 | Washer | 1 | 96290013 |
| 202 | Hose (bulk) | 1 | 68027141 |
| 203 | Assembly, Motor | 1 | 35460001 |
| 204 | Assembly, Gearbox | 1 | 35460001 |
| 205 | Gear, Drive | 1 | 96290012 |

TROLLEY ASSEMBLY DRAWING - 75 TON

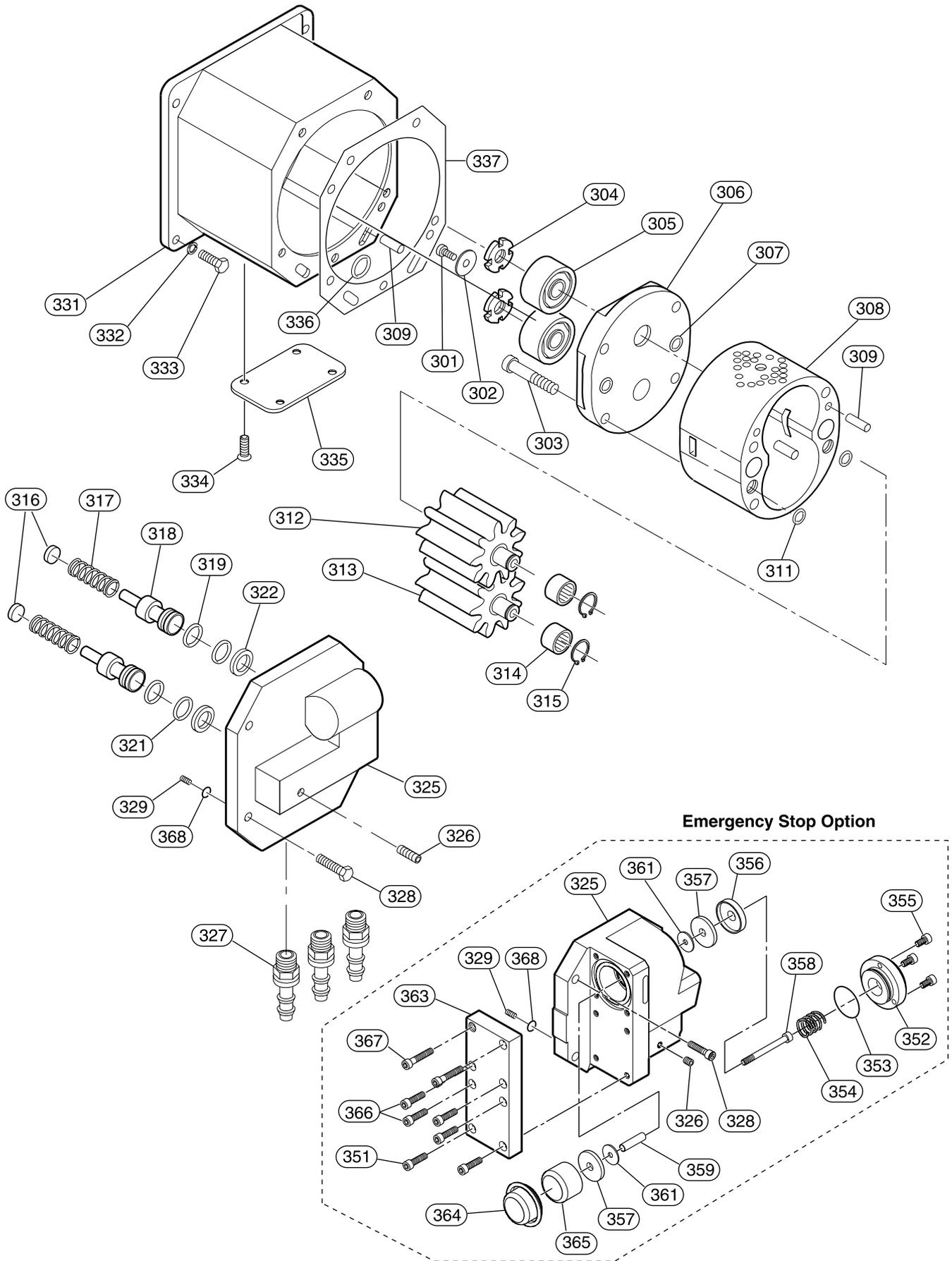


(Dwg. MHP2906)

TROLLEY ASSEMBLY PARTS LIST - 75 TON

| ITEM NO. | DESCRIPTION OF PART | QTY TOTAL | PART NUMBER |
|----------|-----------------------------|-----------|-----------------|
| 17 | Nut | 8 | 43006711 |
| 66 | Bumper | 2 | 69886832 |
| 67 | Washer | 2 | 45201012 |
| 68 | Nut | 2 | 43003611 |
| 71 | Capscrew | 8 | 41314706 |
| 72 | Washer | 8 | 45201120 |
| 73 | Cap, Axle | 2 | 96290032 |
| 77 | Spacer (3.5 mm) | 4 | 96290028 |
| 78 | Spacer (2.5 mm) | 12 | 96290023 |
| 79 | Shaft | 2 | 96290031 |
| 80 | Trolley Side Plate (Geared) | 2 | 96290069 |
| 81 | Spacer (10 mm) | 8 | 96290026 |
| 83 | Axle | 1 | 96290439 |
| 84 | Wheel, Geared | 4 | 96297019 |
| 85 | Washer | 8 | 58324111 |
| 86 | Bearing | 8 | 51200011 |
| 87 | Spacer | 4 | 95960045 |
| 88 | Retainer Ring | 4 | 47700055 |
| 89 | Spacer | 4 | 95960044 |
| 90 | Retainer Ring | 4 | 47703100 |
| 91 | Trolley Side Plate (Plain) | 2 | 96290068 |
| 92 | Wheel (Plain) | 4 | 96297020 |
| 101 | Fitting, Elbow | 1 | 61330832 |
| 102 | Fitting, Adapter | 1 | 61631841 |
| 200 | Capscrew | 1 | 41324906 |
| 201 | Washer | 1 | 96290013 |
| 202 | Hose (bulk) | 1 | 68027141 |
| 203 | Assembly, Motor | 1 | 35460001 |
| 204 | Reducer Assembly | 1 | Contact Factory |
| 205 | Gear, Drive | 1 | 96290012 |

TROLLEY MOTOR ASSEMBLY DRAWING



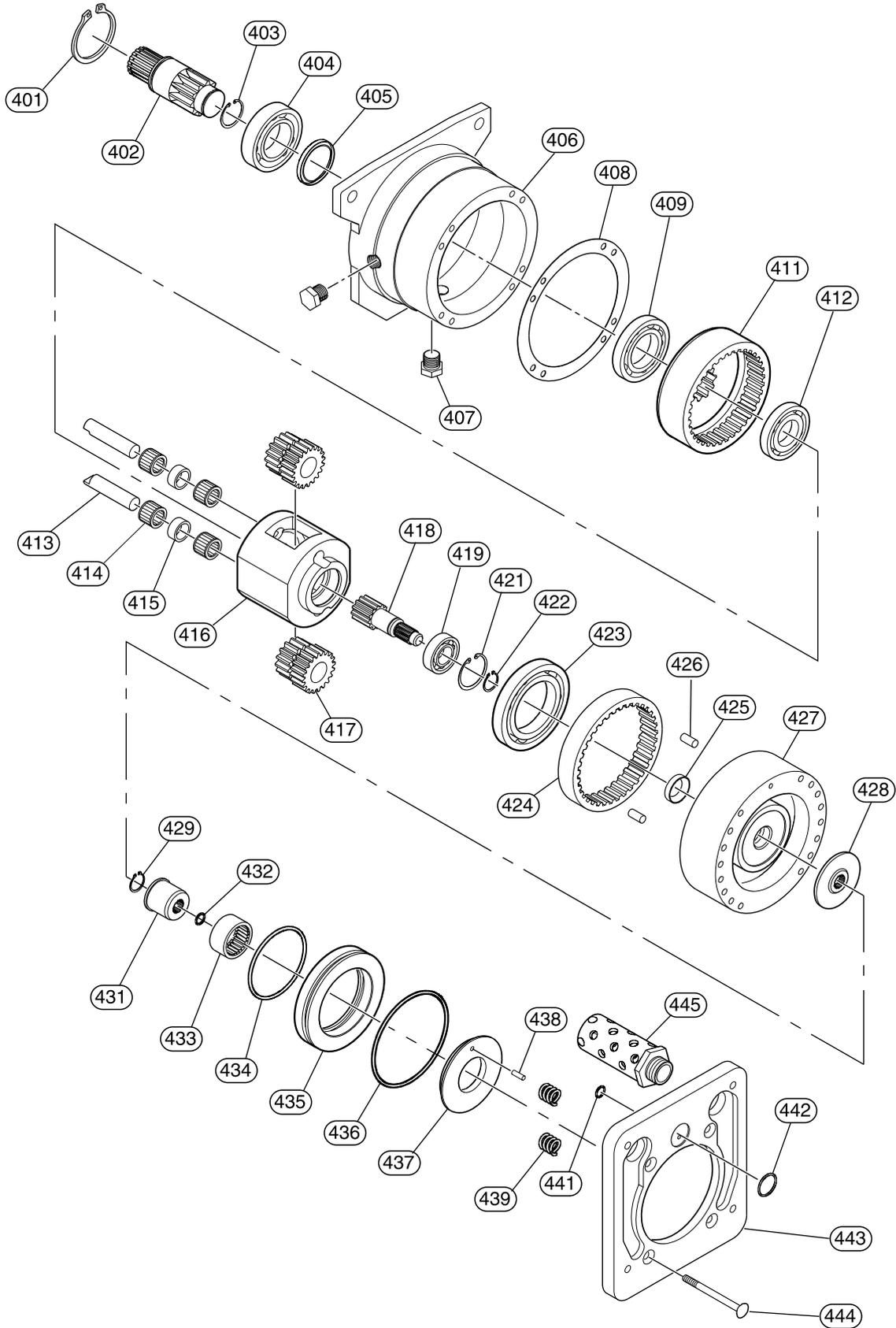
(Dwg. MHP1651)

TROLLEY 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' Ring4.6 | 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

TROLLEY MOTOR REDUCER WITH BRAKE DRAWING



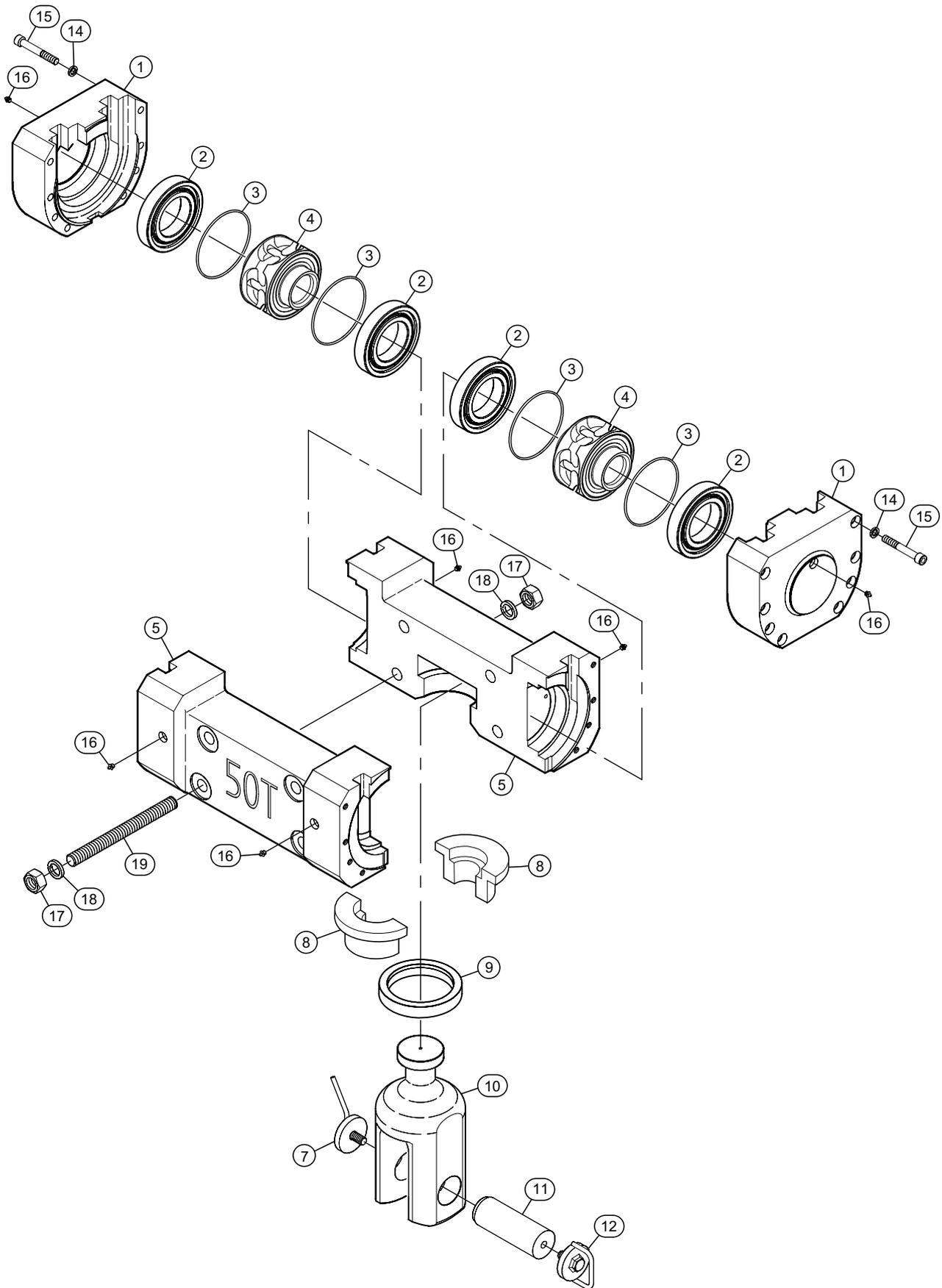
(Dwg. MHP1543)

TROLLEY MOTOR REDUCER WITH BRAKE PARTS LIST

| Item No. | Description of Part | Total Qty. | Part Number |
|----------|-----------------------|------------|-------------|
| 181 | Reducer Assembly | 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

BOTTOM BLOCK ASSEMBLY DRAWING - 50 TON

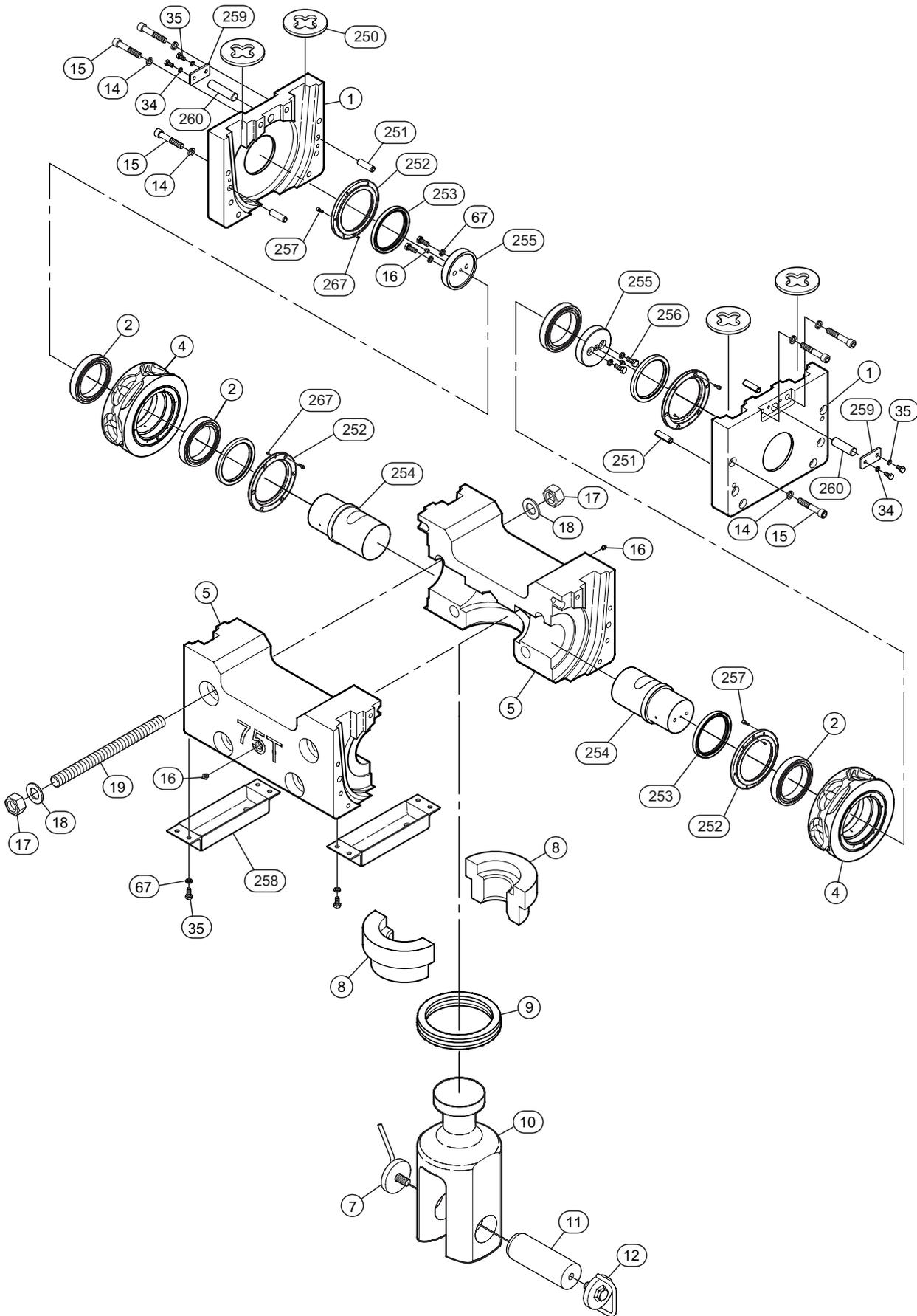


(Dwg. MHP2863)

BOTTOM BLOCK ASSEMBLY PARTS LIST - 50 TON

| Item No. | Description of Part | Total Qty | Part Number |
|----------|-----------------------|-----------|-----------------|
| 1 | Cover | 2 | 96290310 |
| 2 | Bearing | 4 | 51200020 |
| 3 | 'O' Ring | 4 | 58207229 |
| 4 | Sprocket | 2 | 96230004 |
| 5 | Lower Block | 2 | 96290315 |
| 6 | Hook (not shown) | 1 | Contact Factory |
| 7 | Clamp Screw | 1 | 96290322 |
| 8 | Split Ring (2 pieces) | 1 | 96230030 |
| 9 | Bearing | 1 | 54700030 |
| 10 | Clevis | 1 | 96290326 |
| 11 | Pin | 1 | 86290324 |
| 12 | Clamp Screw | 1 | 86290323 |
| 14 | Lockwasher | 16 | 45201016 |
| 15 | Capscrew | 16 | 41319306 |
| 16 | Grease Fitting | 6 | 67301727 |
| 17 | Nut | 8 | 43006711 |
| 18 | Lockwasher | 8 | 45201030 |
| 19 | Stud | 4 | 96290318 |

BOTTOM BLOCK ASSEMBLY DRAWING - 75 TON

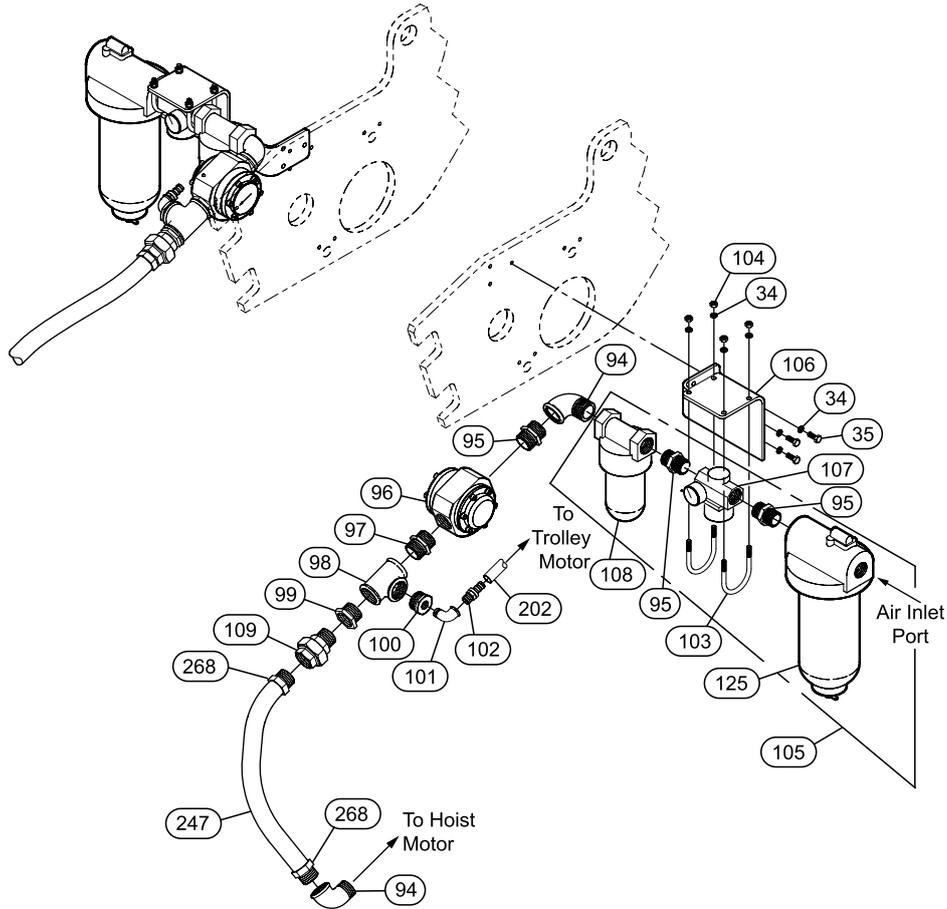


(Dwg. MHP2902)

BOTTOM BLOCK ASSEMBLY PARTS LIST - 75 TON

| Item No. | Description of Part | Total Qty | Part Number |
|----------|-----------------------|-----------|-----------------|
| 1 | Cover | 2 | 96290390 |
| 2 | Bearing | 4 | 51900022 |
| 4 | Sprocket | 2 | 96290373 |
| 5 | Lower Block | 2 | 86290399 |
| 6 | Hook (not shown) | 1 | Contact Factory |
| 7 | Clamp Screw | 1 | 96430137 |
| 8 | Split Ring (2 pieces) | 1 | 96430022 |
| 9 | Bearing | 1 | 54700040 |
| 10 | Clevis | 1 | 96430133 |
| 11 | Pin | 1 | 96430134 |
| 15 | Capscrew | 16 | 41332606 |
| 16 | Grease Fitting | 4 | 67301727 |
| 17 | Nut | 8 | 43004711 |
| 18 | Lockwasher | 8 | 45000136 |
| 19 | Stud | 4 | 96290391 |
| 34 | Washer | 4 | 45201010 |
| 35 | Capscrew | 4 | 41000601 |
| 67 | Lockwasher | 12 | 45201012 |
| 250 | Chain Stopper | 4 | 96290406 |
| 251 | Roll Pin | 4 | 45604020 |
| 252 | Oil Seal Support | 4 | 96290394 |
| 253 | Oil Seal | 4 | 58022030 |
| 254 | Axle | 2 | 96290393 |
| 255 | Stop Ring | 2 | 96290392 |
| 256 | Capscrew | 4 | 41003401 |
| 257 | Capscrew | 24 | 41322606 |
| 258 | Cover | 2 | 96290405 |
| 259 | Locking Plate | 2 | 96290291 |
| 260 | Pin | 2 | 96290395 |
| 267 | Grease Fitting | 4 | 67102627 |

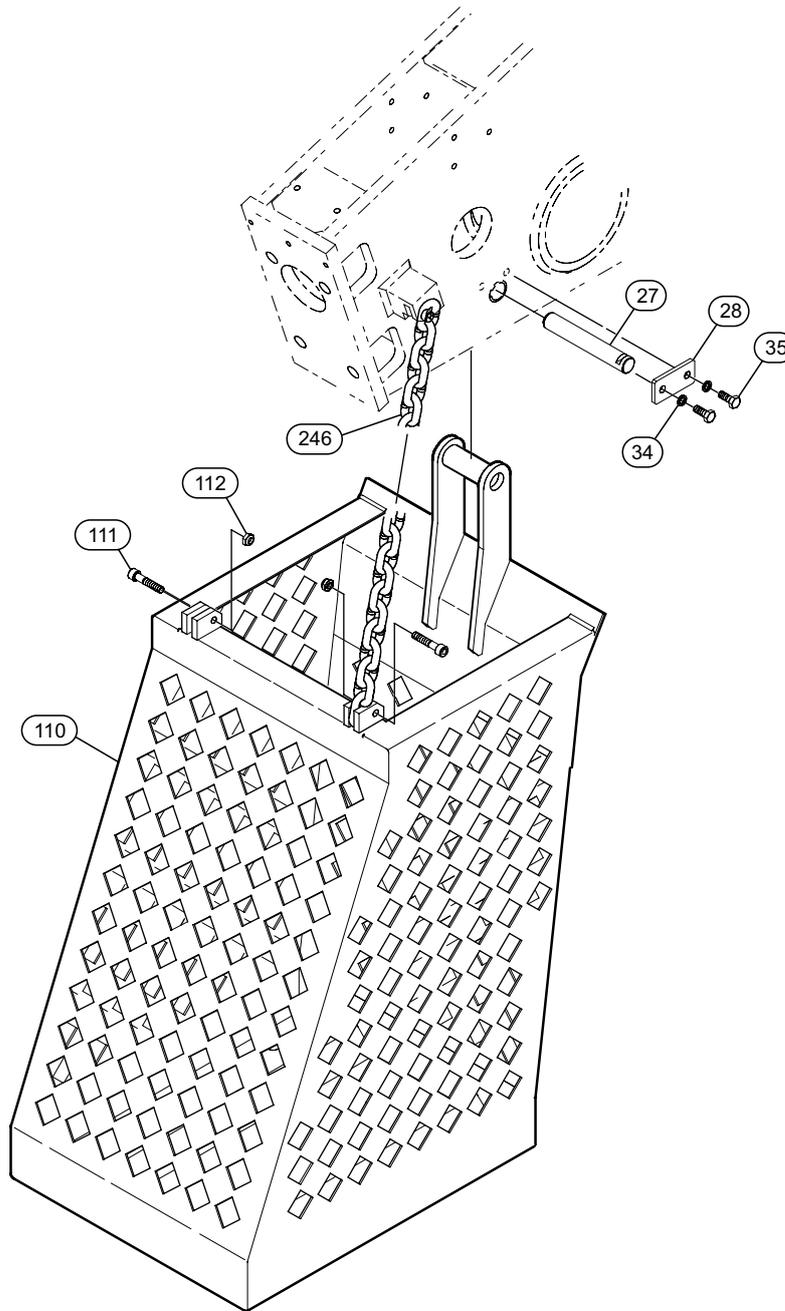
AIR SYSTEM ASSEMBLY DRAWING AND PARTS LIST



(Dwg. MHP2908)

| Item No. | Description of Part | Total Qty | Part Number | Item No. | Description of Part | Total Qty | Part Number |
|----------|---------------------|-----------|-------------|----------|---------------------|-----------|----------------|
| 34 | Washer | 7 | 45201010 | 103 | Bolt, 'U' | 2 | 61193532 |
| 35 | Capscrew | 3 | 41020701 | 104 | Nut | 4 | 43006911 |
| 94 | Fitting, Elbow | 2 | 68218928 | 105 | Assembly, FRL | 1 | 79990070 |
| 95 | Fitting, Straight | 3 | 61320628 | 106 | Mount Bracket, FRL | 1 | 96290313 |
| 96 | Valve, Shutoff | 1 | 36170022 | 107 | Regulator | 1 | Order Item 105 |
| 97 | Fitting, Connector | 1 | 61316328 | 108 | Lubricator | 1 | Order Item 105 |
| 98 | Fitting, Tee | 1 | 61346528 | 109 | Fitting, Adapter | 1 | 68333128 |
| 99 | Fitting, Reducer | 1 | 61322128 | 125 | Filter | 1 | Order Item 105 |
| 100 | Fitting, Reducer | 1 | 61320128 | 202 | Hose (bulk) | 1 | 68027141 |
| 101 | Fitting, Elbow | 1 | 61330832 | 247 | Hose (bulk) | 1 | 68055328 |
| 102 | Fitting, Adapter | 1 | 61631841 | 268 | Fitting, Hose End | 2 | 61655228 |

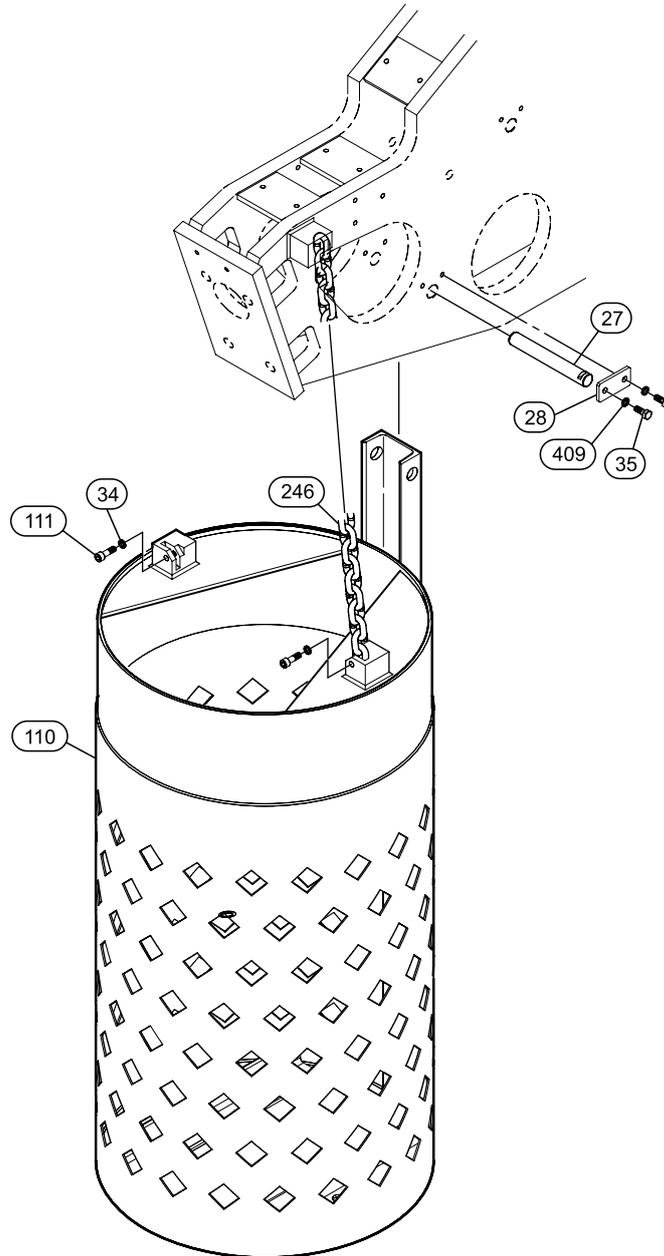
CHAIN BUCKET ASSEMBLY DRAWING AND PARTS LIST - 50 TON



(Dwg. MHP2866)

| ITEM NO. | DESCRIPTION OF PART | QTY TOTAL | PART NUMBER | ITEM NO. | DESCRIPTION OF PART | QTY TOTAL | PART NUMBER |
|----------|---------------------|-----------|-------------|----------|---------------------------|-----------|-------------|
| 27 | Rod, Hinge | 1 | 96290279 | 112 | Locknut | 2 | 75583M |
| 28 | Plate | 1 | 96290291 | 246 | Chain | 2 | 96290438 |
| 34 | Washer | 2 | 45201010 | 246 | Chain | 2 | 69089432 |
| 35 | Capscrew | 2 | 41020701 | 409 | Lockwasher | 4 | 45201012 |
| 110 | Chain Bucket | 1 | 96290302 | 431 | Capscrew | 2 | 41329606 |
| 111 | Capscrew | 2 | 41307406 | 434 | Chain Support (Not Shown) | 1 | 96290444 |

CHAIN BUCKET ASSEMBLY DRAWING AND PARTS LIST - 75 TON



(Dwg. MHP2904)

| ITEM NO. | DESCRIPTION OF PART | QTY TOTAL | PART NUMBER | ITEM NO. | DESCRIPTION OF PART | QTY TOTAL | PART NUMBER |
|----------|---------------------|-----------|-------------|----------|---------------------------|-----------|-------------|
| 27 | Roller Axle | 1 | 96290400 | 111 | Capscrew | 2 | 96290304 |
| 28 | Plate, Stop | 1 | 96290291 | 246 | Chain | 2 | 96290438 |
| 34 | Washer | 2 | 45201010 | 409 | Lockwasher (Not Shown) | 2 | 45201012 |
| 35 | Capscrew | 2 | 41023101 | 431 | Capscrew (Not Shown) | 2 | 41329606 |
| 110 | Chain Bucket | 1 | 96290436 | 434 | Chain Support (Not Shown) | 1 | 96290444 |

WARRANTY

Ingersoll Rand Company 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. **Ingersoll Rand** 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 **Ingersoll Rand** 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 **Ingersoll Rand** parts.

Ingersoll Rand 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. Ingersoll Rand maximum liability is limited to the purchase price of the Product and in no event shall Ingersoll Rand 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.

