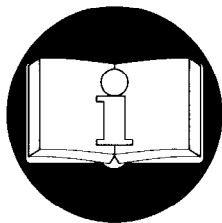


PARTS AND INSTALLATION MANUAL
for
1/4 to 15 TON
RIGID MOUNT PLAIN AND GEARED TROLLEYS
used with
“LE” ELECTRIC CHAIN HOISTS
and
“6CP/12CP” SERIES AIR CHAIN HOISTS

Tons in this manual are metric tons (2,200 lbs.)



READ THIS MANUAL BEFORE USING THESE PRODUCTS. This manual contains important safety, installation, operation and maintenance information. Make this manual available to all persons responsible for the operation, installation and maintenance of these products.

⚠ WARNING

Do not use these trolleys for lifting, supporting, or transporting people or lifting or supporting loads over people.

Always operate, inspect and maintain trolley in accordance with any federal, state or local regulations and any other applicable safety codes.

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

Form MHD56057

Edition 2

January 1996

71090039

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INGERSOLL-RAND®
MATERIAL HANDLING

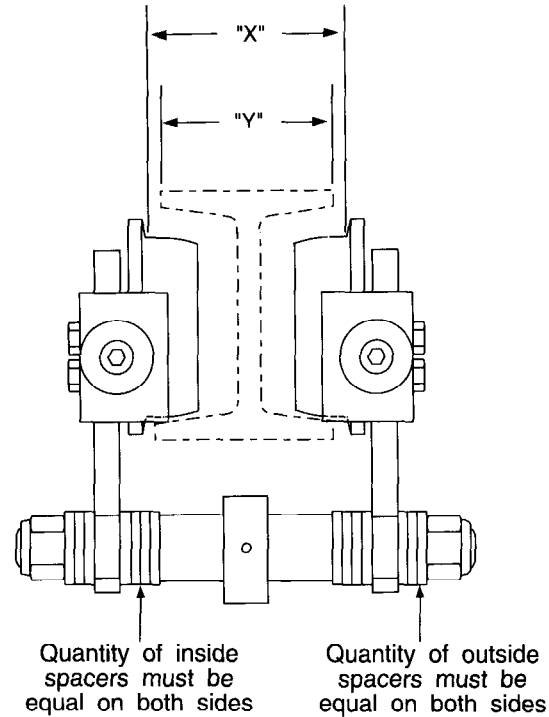
INSTALLATION

Trolley Assembly

1. If trolley is received preassembled, remove nuts (2) and washers (3) from suspension shafts (19) on plain side plate (1) side.
2. Pull plain side plate assembly from suspension shafts (19).
3. Loosen setscrews (20) in suspension bracket or top frame (22) and remove suspension bracket or top frame from suspension shafts.
4. Adjust washers (3) to provide correct trolley to beam clearance.
5. Install suspension bracket or top frame (22) on suspension shafts.
6. Align setscrews (20) with dimple positions in suspension shafts (19) and tighten setscrews.
7. Mount trolley on beam.
8. Install plain side plate assembly on suspension shafts.
9. Install remaining washers (3) and nuts (2) on suspension shafts. Verify washers are positioned to provide correct trolley to beam clearance.

Trolley To Beam Installation

When installing a trolley on a beam, measure the beam flange and temporarily install the trolley assembly on the beam to determine the exact distribution and arrangement of the washers (3). The distance between the wheel flanges should be $3/16$ to $1/4$ in. (5 to 6 mm) greater than the width of the beam flange. As shown in Dwg. MHP0370, the difference between dimensions "X" and "Y" equals the total clearance. The number of washers between the trolley side plate and the shoulder on the suspension shaft (19) must be the same in all four locations in order to keep the hoist centered under the I-beam. The remaining spacers must be equally distributed on the outside of the side plates.



(Dwg. MHP0370)

CAUTION

- Ensure position and quantity of washers between each suspension shaft shoulder and side plate is the same in all four locations.

Once the trolley has been mounted on the beam, assemble hoist to the trolley. Ensure all fasteners are secure. Ensure trolley beam stops are installed prior to operating hoist and trolley.

When installing the hoist and trolley on the beam, make certain the side plates are parallel and vertical. After installation, operate the trolley over the entire length of the beam with a capacity load suspended 4 to 6 inches (100 to 150 mm) off the floor.

PARTS ORDERING INFORMATION

Ingersoll-Rand trolleys and hoists are designed and constructed to provide long, trouble-free service. In time it may become necessary to order and install new parts to replace those that have been subjected to wear.

The use of other than **Ingersoll-Rand** Material Handling replacements parts may result in decreased trolley or hoist performance, and may, invalidate the warranty. For prompt service and genuine **Ingersoll-Rand** Material Handling parts, provide your nearest distributor with the following:

1. Complete trolley and hoist model number and serial number as it appears on the nameplate.
2. Part number and part description as shown in the manual.
3. Quantity required.

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

Trolley/Hoist Model Number _____

Trolley/Hoist Serial Number _____

Date Purchased _____

Returned Goods Policy

If it becomes necessary to return the complete trolley and/or hoist or certain parts to the factory, contact the distributor from whom you purchased the unit(s), or the nearest **Ingersoll-Rand** distributor in your area.

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

NOTICE

• **Continuing improvements and advancement of design may cause changes to this trolley 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.**

Disposal

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

For additional information contact:

Ingersoll-Rand Material Handling

2724 Sixth Avenue South
Seattle, Wa. 98124 USA
Phone: (206) 624-0466
Fax: (206) 624-6265

or

Ingersoll-Rand Material Handling Douai Operations

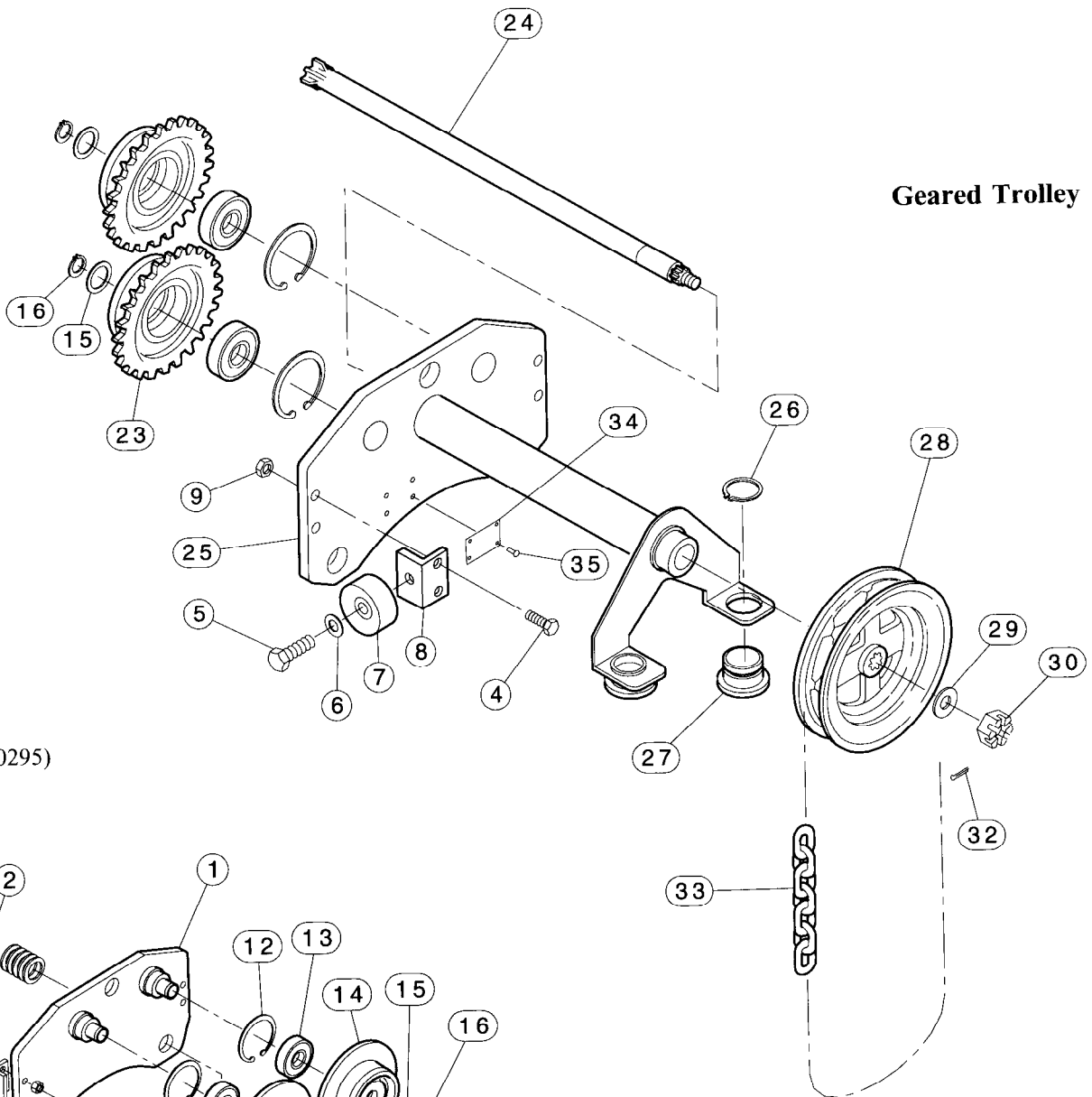
111, avenue Roger Salengro
59450 Sin Le Noble, France
Phone: (33) 27-93-08-08
Fax: (33) 27-93-08-00

Supplemental Information

For additional information on "LE" and Palair CP Series hoists consult the following manuals:
"LE" Hoist Parts Manual Form Number MHD56023.

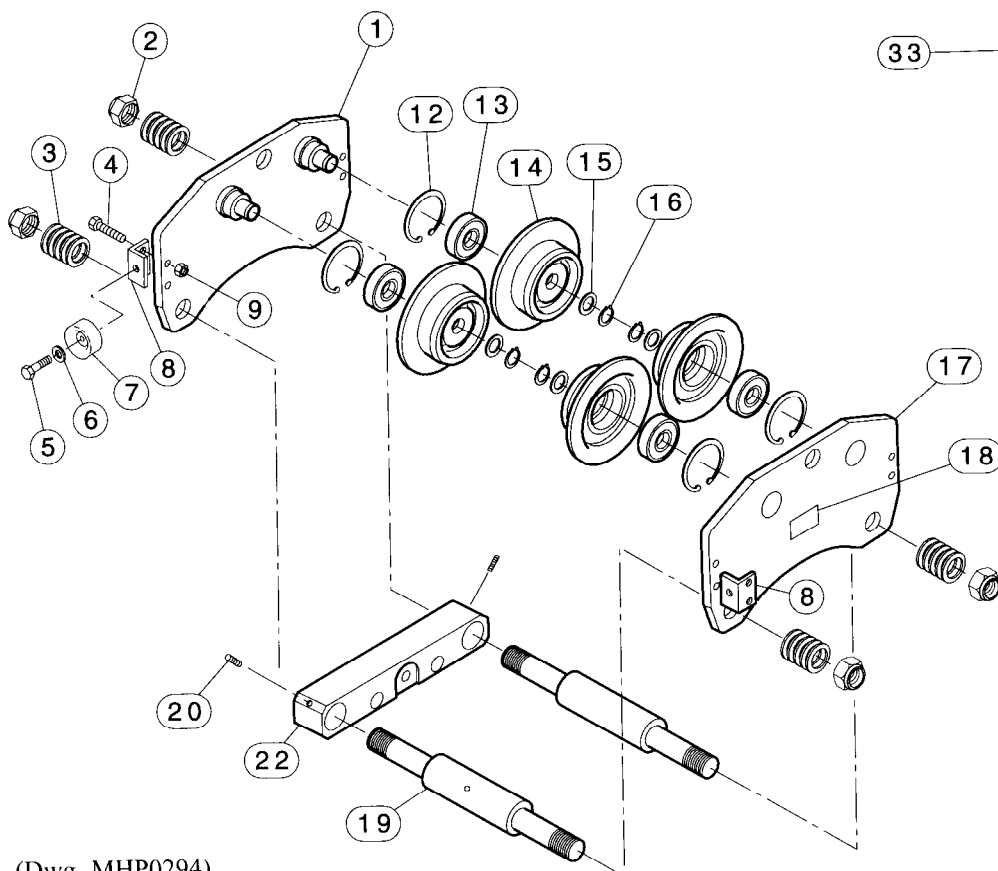
Palair CP Hoist Parts, Operation and Maintenance Manual Form Number MHD56039.

1/4 TO 5 METRIC TON PLAIN AND GEARED TROLLEY ASSEMBLY



Geared Trolley

(Dwg. MHP0295)



Plain Trolley

(Dwg. MHP0294)

1/4 TO 5 METRIC TON PLAIN AND GEARED TROLLEY PARTS LIST

| ITEM NO. | DESCRIPTION OF PART | TOTAL QTY. | PART NO. | | | | | |
|----------|--|------------|-------------------------------|-----------|----------|-------------------------|-------------|-------------|
| | | | 1/4 t | 1/2 t | 1 t | 2 t | 3 t | 5 t |
| 1 | Side Plate (Plain) | 1 | 9741-010-OH | | | 9741-020-OH | 9741-030-OH | 9741-050-OH |
| • 2 | Nut | 4 | 51011 | | | | 53366 | 52286 |
| 3 | Washer | See () | 52018 (36) | | | | 53076 (32) | 54087 (32) |
| 4 | Capscrew | 8 | 52906 | | 71084081 | | 71097869 | |
| 5 | Capscrew* | 4 | 71098446 | | | | | 52905 |
| 6 | Washer* | 4 | 54785 | | | | | 51833 |
| 7 | Bumper* | 4 | 52973 | | | | | 51722 |
| 8 | Bracket* | 4 | 21575 | | | | | 21576 |
| 9 | Nut* | 8 | 54668 | | 71020887 | | 71020895 | |
| 12 | Retainer Ring | 4 | 71893 | | 71894 | 71895 | 71896 | |
| • 13 | Bearing | 4 | 71888 | | 71889 | 71890 | 71891 | |
| --- | Wheel Assy. (Plain) (Incls. items 12, 13 and 14) | 4 | 70818 | | 70819 | 70820 | 70821 | |
| | Wheel Assy. (Plain, Copper Plated)** (Incls. items 12, 13 and 14) | | 70818-CP | | 70819-CP | 70820-CP | 70821-CP | |
| | Wheel Assy. (Plain, Solid Bronze)** (Incls. items 12, 13 and 14) | | 71003966 | | 71003974 | 71003982 | 71003990 | |
| 14 | Wheel (Plain) | 4 | Order Complete Wheel Assembly | | | | | |
| | Wheel (Plain, Copper Plated)** | | | | | | | |
| | Wheel (Plain, Solid Bronze)** | | 9429 | | 8952 | 9686 | 8946 | |
| 15 | Washer | 4 | 70822 | | 70823 | 70824 | 70825 | |
| 16 | Retainer Ring | 4 | 70827 | | 70828 | 70829 | 70830 | |
| 17 | Side Plate (Plain) | 1 | 9741-010 | | 9741-020 | 9741-030 | 9741-050 | |
| 18 | Nameplate | 1 | 71093686 | | | | | |
| 19 | Suspension Shaft (3-5 in.) | 2 | 9614-020-A | | | | 9614-030-A | 9614-050-A |
| | Suspension Shaft (5-7 in.) | | 9614-020-B | | | | 9614-030-B | 9614-050-B |
| | Suspension Shaft (7-9 in.) | | 9614-020-C | | | | 9614-030-C | 9614-050-C |
| | Suspension Shaft (9-11 in.) | | 9614-020-D | | | | 9614-030-D | 9614-050-D |
| 20 | Setscrew | 2 | 53154 | | | | 51088 | 50855 |
| 22 | Suspension Bracket*** | 1 | 9613-003 | 9613-005L | 9613-010 | 9613-020LD 9613-020D | 9613-030D | 9613-050D |
| --- | Wheel Assy. (Geared) (Incls. items 12, 13 and 23) | 2 | 70885 | | | 70886 | 70887 | 70888 |
| | Wheel Assy. (Geared, Copper Plated)** (Incls. items 12, 13 and 23) | | 70885-CP | | | 70886-CP | 70887-CP | 70888-CP |
| | Wheel Assy. (Geared, Solid Bronze)** (Incls. items 12, 13 and 23) | | 71004014 | | | 71004022 | 71004030 | 71004048 |
| 23 | Wheel (Geared) | 2 | Order Complete Wheel Assembly | | | | | |
| | Wheel (Geared, Copper Plated)** | | | | | | | |
| | Wheel (Geared, Solid Bronze)** | | 9429-1 | | | 8951 | 9687 | 8947 |

• Recommended Spare

* Optional. Does not come as standard with trolley. Parts must be ordered separately.

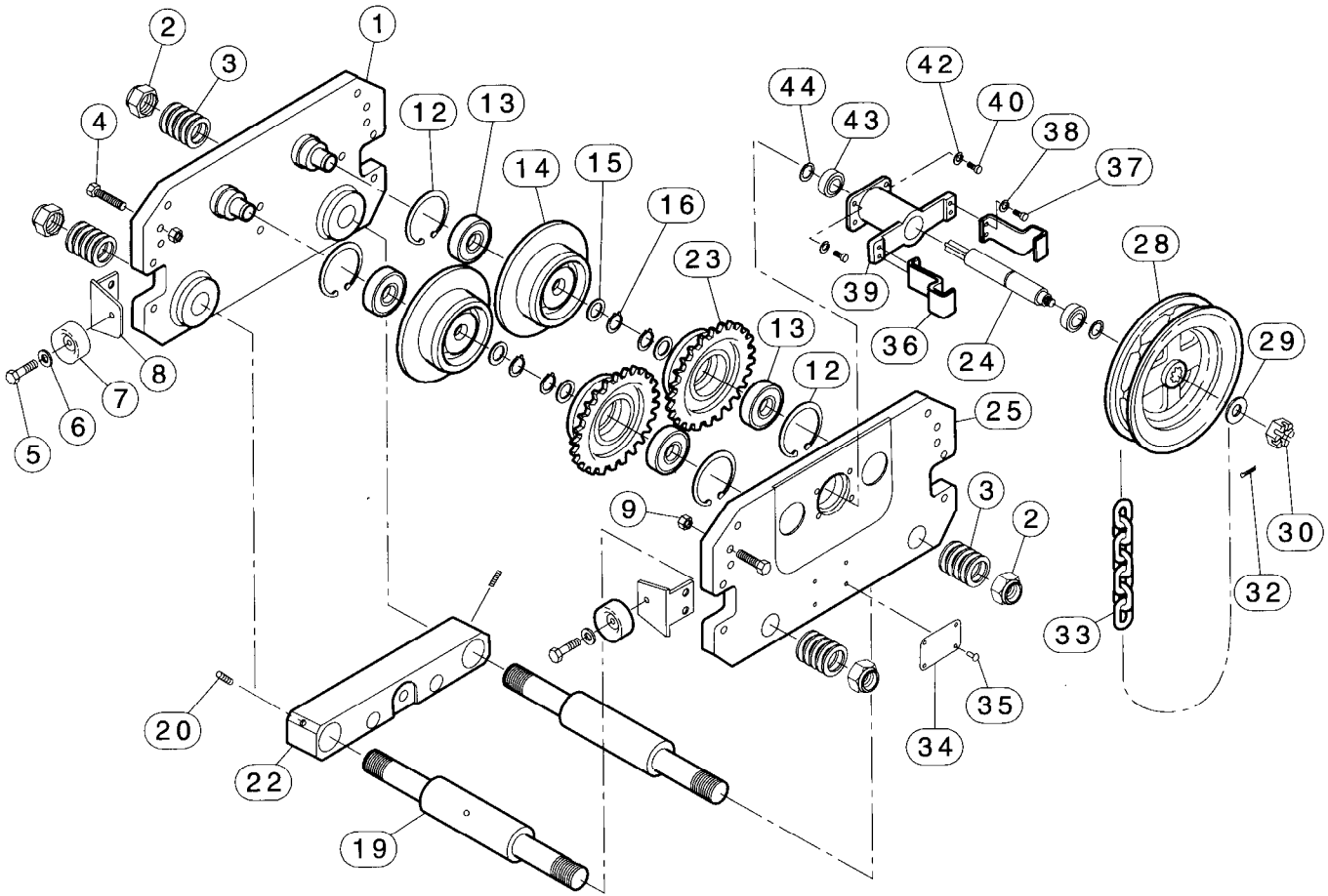
** Optional. S•COR•E Spark and Corrosion Resistant Feature.

*** Supplied with hoist assembly. Model LE3-010 use 9613-010. Model LE2-010 and LE3-020 use 9613-020LD. Model LE4-020 use 9613-020D.

Parts List continued on page 10.

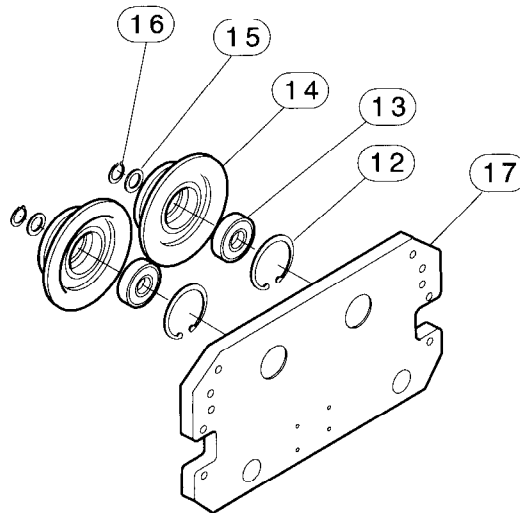
7-1/2 TO 15 METRIC TON PLAIN AND GEARED TROLLEY ASSEMBLY

Geared Trolley



(Dwg. MHP0289)

Plain Trolley



(Dwg. MHP0293)

7-1/2 TO 15 METRIC TON PLAIN AND GEARED TROLLEY PARTS LIST

| ITEM NO. | DESCRIPTION OF PART | TOTAL QTY. | PART NO. | | |
|----------|---|------------|-------------------------------|---------|------------|
| | | | 7-1/2 t | 10 t | 15 t |
| 1 | Side Plate (Plain) | 1 | 9741-100P | | 18047 |
| • 2 | Nut | 4 | 51492 | | 53412 |
| 3 | Washer | See () | 54579 (28) | | 54053 (32) |
| 4 | Capscrew | 8 | 71097869 | | |
| 5 | Capscrew* | 4 | 52905 | | |
| 6 | Washer* | 4 | 51833 | | |
| 7 | Bumper* | 4 | 51722 | | |
| 8 | Bracket* | 2 | 21576-1 | | |
| 9 | Nut* | 8 | 71020895 | | |
| 10 | Bracket* | 2 | 21576-2 | | |
| 12 | Retainer Ring | 4 | 71601 | | 52355 |
| • 13 | Bearing | 4 | 52883 | | 52417 |
| --- | Wheel Assy. (Plain) (Incls. items 12, 13 and 14) | 4 | 71607 | | --- |
| | Wheel Assy. (Plain, Copper Plated)** (Incls. items 12, 13 and 14) | | 71607-CP | | --- |
| | Wheel Assy. (Plain, Solid Bronze)** (Incls. items 12, 13 and 14) | | 71004006 | | --- |
| 14 | Wheel (Plain) | 4 | Order Complete Wheel Assembly | | 18452 |
| | Wheel (Plain, Copper Plated)** | | | | 18452-CP |
| | Wheel (Plain, Solid Bronze)** | | 8943 | 8213-3 | |
| 15 | Washer | 4 | 71699 | | --- |
| 16 | Retainer Ring | 4 | 71700 | | 51069 |
| 17 | Side Plate (Plain) | 1 | 9741-100G | | 18047 |
| 18 | Nameplate | 1 | 71093686 | | |
| 19 | Suspension Shaft (3-5 in. flange) | 2 | 9614-100-1 | | --- |
| | Suspension Shaft (6-8 in. flange) | | 9614-100-2 | | 9614-150-2 |
| | Suspension Shaft (8-10 in. flange) | | 9614-100-3 | | 9614-150-3 |
| | Suspension Shaft (10-12 in. flange) | | 9614-100-4 | | 9614-150-4 |
| 20 | Setscrew | 2 | 52528 | 50855 | 54052 |
| 22 | Top Frame (LE Models) | 1 | 12308 | 10139-1 | 11602 |
| | Top Frame 6CP6000 | | 22193 | --- | |
| | Top Frame 12CP6000 | | 22194 | --- | |
| | Top Frame 12CP12000 | | --- | | 22195 |
| --- | Wheel Assy. (Geared) (Incls. items 12, 13 and 23) | 2 | 71606 | | --- |
| | Wheel Assy. (Geared, Copper Plated)** (Incls. items 12, 13 and 23) | | 71606-CP | | --- |
| | Wheel Assy. (Geared, Solid Bronze)** (Incls. items 12, 13 and 23) | | 71004055 | | --- |
| 23 | Wheel (Geared) | 2 | Order Complete Wheel Assembly | | 18451 |
| | Wheel (Geared, Copper Plated)** | | | | 18451-CP |
| | Wheel (Geared, Solid Bronze)** | | 8944 | 8234-3 | |

• Recommended Spare

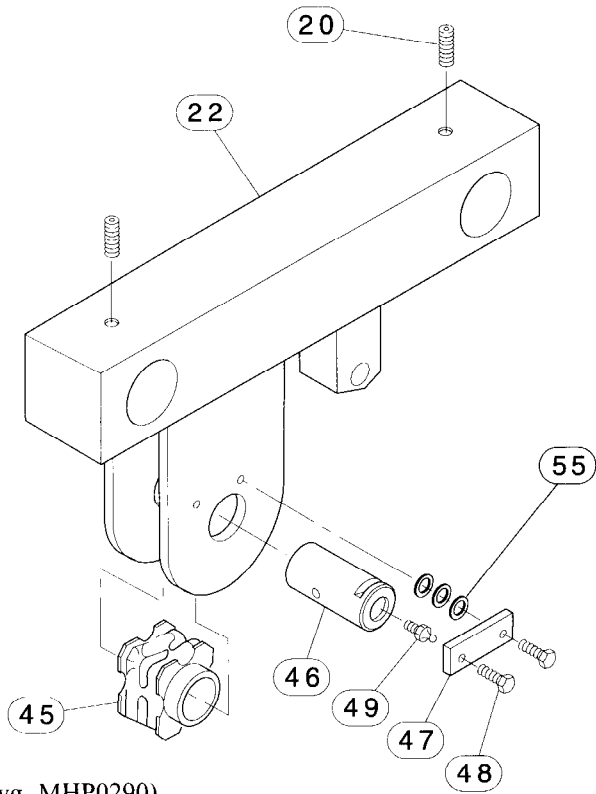
* Optional. Does not come as standard with trolley. Parts must be ordered separately.

** Optional. S•COR•E Spark and Corrosion Resistant Feature.

Parts List continued on page 10.

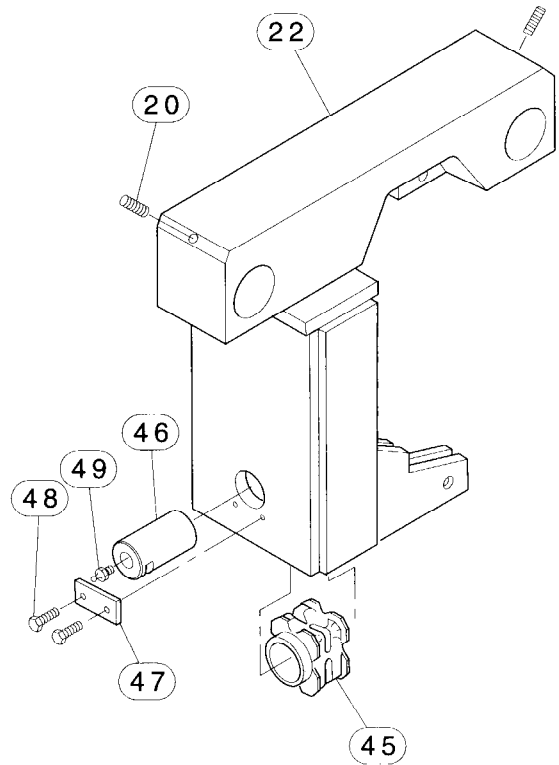
7-1/2 TO 15 METRIC TON TOP FRAME ASSEMBLIES

LE Hoist 7-1/2 Metric Ton Capacity



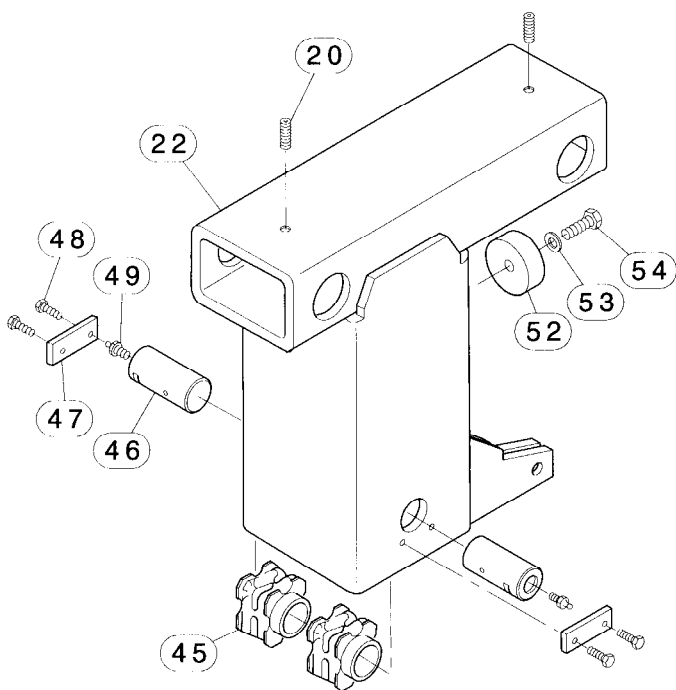
(Dwg. MHP0290)

LE Hoist 10 Metric Ton Capacity



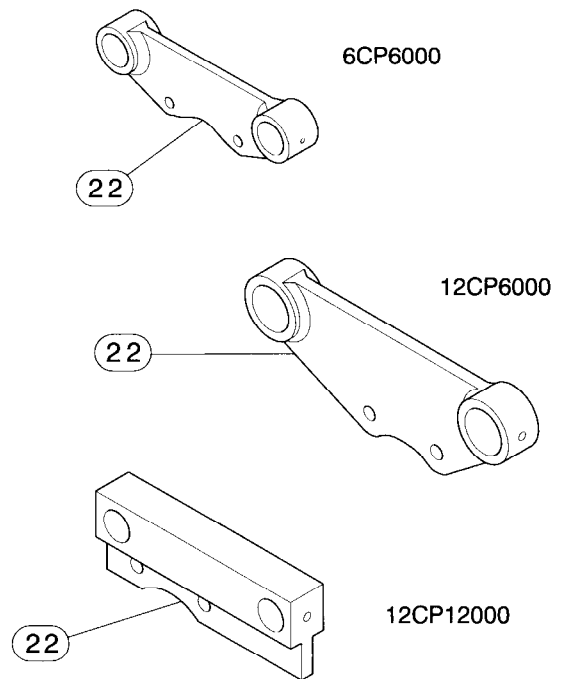
(Dwg. MHP0291)

LE Hoist 15 Metric Ton Capacity



(Dwg. MHP0292)

CP Series Hoist



(Dwg. MHP0861)

7-1/2 TO 15 METRIC TON TOP FRAME PARTS LIST

| ITEM NO. | DESCRIPTION OF PART | TOTAL QTY. | PART NO. | | |
|----------|-----------------------|------------|------------|------------|-------|
| | | | 7-1/2 t | 10 t | 15 t |
| 20 | Setscrew | 2 | 52528 | 50855 | 54052 |
| 22 | Top Frame (LE Models) | 1 | 12308 | 10139-1 | 11602 |
| | Top Frame 6CP6000 | | 22193 | --- | |
| | Top Frame 12CP6000 | | 22194 | --- | |
| | Top Frame 12CP12000 | | --- | | 22195 |
| 45 | Sheave | See () | 71669 (1) | 71669 (2) | |
| 46 | Axle | See () | 8274-1 (1) | 8274-1 (2) | |
| 47 | Keeper Plate | See () | 8292 (1) | 8292 (2) | |
| 48 | Capscrew | See () | 52263 (2) | 52263 (4) | |
| 49 | Grease Fitting | See () | 51469 (1) | 51469 (2) | |
| 52 | Bumper | 1 | --- | | 51722 |
| 53 | Washer | 3 | --- | | 51833 |
| 54 | Capscrew | 1 | --- | | 51832 |
| 55 | Washer | 6 | 50918 | --- | |

Top Frame Assemblies shown are for mounting LE Electric Hoists and CP Series Air Hoists only. Contact your local distributor or the factory for Top Frame Assemblies suitable for mounting other hoists.

1/4 TO 15 METRIC TON PLAIN AND GEARED TROLLEY PARTS LIST

1/4 to 5 ton Trolleys (Parts List continued from page 5)

| ITEM NO. | DESCRIPTION OF PART | TOTAL QTY. | PART NO. | | | | |
|----------|--|------------|-----------|-------|----------|----------|----------|
| | | | 1/4 t | 1/2 t | 1 t | 2 t | 3 t |
| 24 | Pinion | 1 | 9966 | | | | |
| 25 | Side Plate (Geared) | 1 | 9939-010 | | 9939-020 | 9939-030 | 9939-050 |
| 26 | Retainer Ring | 2 | 51398 | | | | |
| • 27 | Bushing | 2 | 2982-1 | | | | |
| 28 | Handwheel (Nylon) | 1 | 70877 | | | | |
| | Handwheel (Cast Iron)* | | 70763 | | | | |
| | Handwheel (Cast Iron, Copper Plated)** | | 70763-CP | | | | |
| 29 | Washer | 1 | 70876 | | | | |
| 30 | Nut | 1 | 70875 | | | | |
| 32 | Pin | 1 | 51996 | | | | |
| 33 | Hand Chain | 1 | HCCF005 | | | | |
| | Hand Chain (Zinc Plated)** | | HCCF005ZP | | | | |
| 34 | Warning Label | 1 | 04306445 | | | | |
| 35 | Rivet | 4 | 50915 | | | | |

7-1/2 to 15 ton Trolleys (Parts List continued from page 7)

| ITEM NO. | DESCRIPTION OF PART | TOTAL QTY. | PART NO. | | |
|----------|-----------------------------|------------|-----------|------|-------|
| | | | 7-1/2 t | 10 t | 15 t |
| 24 | Pinion | 1 | 71614 | | |
| 25 | Side Plate (Geared) | 1 | 9741-100G | | 18451 |
| 28 | Handwheel | 1 | 71608 | | |
| | Handwheel (Copper Plated)** | | 71608-CP | | |
| 29 | Washer | 1 | 70876 | | |
| 30 | Nut | 1 | 71701 | | |
| 32 | Pin | 1 | 51996 | | |
| 33 | Hand Chain | 1 | HCCF005 | | |
| | Hand Chain (Zinc Plated)** | | HCCF005ZP | | |
| 34 | Warning Label | 1 | 04306445 | | |
| 35 | Rivet | 4 | 50915 | | |
| 36 | Chain Guide | 2 | 71621 | | |
| 37 | Capscrew | 4 | 71702 | | |
| 38 | Washer | 4 | 71703 | | |
| 39 | Pinion Holder | 1 | 71683 | | |
| 40 | Capscrew | 4 | 71704 | | |
| 42 | Washer | 4 | 71705 | | |
| • 43 | Bearing | 2 | 71622 | | |
| 44 | Retainer Ring | 2 | 71684 | | |

• Recommended Spare

* Optional. Does not come as standard with trolley. Parts must be ordered separately.

** Optional. S•COR•E Spark and Corosion Resistant Feature.

HOIST AND WINCH LIMITED 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 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 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.

United States Office Locations

For Order Entry and Order Status

Ingersoll-Rand Distribution Center
P.O. Box 618
510 Hester Drive
White House, TN 37188
Phone: (615) 672-0321
Fax: (615) 672-0801

For Technical Support

Ingersoll-Rand Material Handling
P.O. Box 24046
2724 Sixth Avenue South
Seattle, WA 98124-0046
Phone: (206) 624-0466
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Regional Sales Offices

Chicago, IL
888 Industrial Drive
Elmhurst, IL 60126
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Fax: (708) 530-3891

Detroit, MI
23192 Commerce Drive
Farmington Hills, MI 48335
Phone: (810) 476-6677
Fax: (810) 476-6670

Houston, TX
Suite 150
2500 East T.C. Jester
Houston, TX 77008
Phone: (713) 864-3700
Fax: (713) 864-2244

Los Angeles, CA
11909 E. Telegraph Road
Santa Fe Springs, CA 90670
Phone: (310) 948-4189
Fax: (310) 948-1828

Philadelphia, PA
P.O. Box 425
900 E. 8th Ave., Suite 103
King of Prussia, PA 19406
Phone: (610) 337-5930
Fax: (610) 337-5912

International Office Locations

Offices and distributors in principal cities throughout the world. Contact the nearest **Ingersoll-Rand** office for the name and address of the distributor in your country or write/fax to:

Ingersoll-Rand Material Handling
P.O. Box 24046
2724 Sixth Avenue South
Seattle, WA 98124-0046
USA
Phone: (206) 624-0466
Fax: (206) 624-6265

Canada National Sales Office Regional Warehouse Toronto, Ontario
51 Worcester Road
Rexdale, Ontario
M9W 4K2
Phone: (416) 675-5611
Fax: (416) 213-4510
Order Desk
Fax: (416) 213-4506

Regional Sales Offices

Calgary, Alberta
44 Harley Road S.E.
Calgary, Alberta
T2V 3K3
Phone: (403) 252-4180
Fax: (403) 252-4462

Edmonton, Alberta
1430 Weber Center
5555 Calgary Trail N.W.
Edmonton, Alberta
T6H 5G8
Phone: (403) 438-5039
Fax: (403) 437-3145

Montreal, Quebec
3501 St. Charles Blvd.
Kirkland, Quebec
H9H 4S3
Phone: (514) 695-9040
Fax: (514) 695-0963

British Columbia
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Richmond, B. C.
V7C 5C7
Phone: (604) 278-0459
Fax: (604) 278-1254

Latin America Operations Ingersoll-Rand Production Equipment Group
730 N.W. 107 Avenue
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33172-3107
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111, avenue Roger Salengro
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Asia Pacific Operations Ingersoll-Rand (Japan) Ltd.
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Yokohama-shi, Kanagawa
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World Trade Center
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Krasnopresnenskaya Nab. 12
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