



# Electric Chain Hoist

## (Quantum)



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# Product Safety Information



Save these Instructions



**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. Unless otherwise noted, tons in this manual are metric tons (2,200lb).

**WARNING**

- Do not use this hoist for lifting, supporting, or transporting people or lifting or supporting loads over people.
- Always operate, inspect and maintain this hoist in accordance with American National Standards Institute Safety Code (ASME B30.16) and any other applicable safety codes and regulations.
- Refer all communications to the nearest Ingersoll-Rand Material Handling Office or Distributor.

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## SAFETY INFORMATION

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This manual provides important information for all personnel involved with the safe installation, operation and proper maintenance of this product. Even if you feel you are familiar with this or similar equipment, you should read this manual before operating the hoist.

### ■ Danger, Warning, Caution and Notice

Throughout this manual there are steps and procedures which, if not followed, may result in an injury. The following signal words Danger is used to indicate the presence of a hazard which will cause severe injury, death, or substantial property damage if the warning is ignored.

**DANGER**

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

**WARNING**

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

**CAUTION**

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury or property damage.

**NOTICE**

Indicates information or a company policy that relates directly or indirectly to the safety of personnel or protection of property.

### ■ Safety Summary

**DANGER**

- The ground (earth), green or green/yellow wire, must not carry any power. When hoist is supplied with a trolley, the power supply is enclosed in the trolley relay box.

**WARNING**

- The supporting structures and load-attaching devices used in conjunction with these hoists must provide a liberal safety factor. This is the customer's responsibility. If in doubt, consult a registered structural engineer.
- Electrical installation should be performed by licensed electricians in accordance with the latest edition of the National Electrical Code (ANSI/NFPA 70) and any applicable local, state and national electrical codes and ordinances.

**WARNING**

- The hoist or hoist/trolley combination selected can weigh as much as 110 lbs. (50 kg). If parts of the trolley or hoist are dropped, they can cause injury or property damage. Adequately support the hoist and trolley when lifting item into place on the beam.
- After performing any maintenance on the hoist, test hoist before returning hoist to service.
- Do not attempt to remove the load sheave until the chain stripper has been removed.
- Never perform maintenance on a hoist system while is supporting a load. Disconnect power from hoist system.

**CAUTION**

- Owners and users are advised to examine specific, local or other regulations, including American National Standards Institute and/or OSHA Regulations which may apply to a particular type of use of this product before installing or putting hoist to use.
- Before connection of the electric chain hoist, check to ensure that the voltage specified on the serial number label matches that which is available.
- Hoist operation must be in accordance with the control pendant symbols. If hoist does not operate in accordance with control pendant symbols then hoist is misphased. Should this be the case, then on single phase hoists the two power cables (L1 and L2) must be switched. For three phase hoists switch any two power cables.
- Do not pile chain carelessly in the chain container. Piling the chain carelessly into the container by hand may lead to kinking or twisting that can jam the hoist.
- Ensure chain stopper is attached to load chain.
- Avoid clamping, knotting and crushing of electrical cable. Check cable clamps and anchoring devices are securely attached and tight.
- Should the brake solenoid hum, buzz or vibrate, then the air gap must be reset in accordance with "MAINTENANCE" manual.
- Do not use trichloroethylene to clean parts.
- A swinging load can cause injury and/or damage to property. Do not allow load to swing freely.

**NOTICE**

- Continuing improvement and advancement of design may cause changes to this hoist 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.

**Ingersoll-Rand** Material Handling hoists are manufactured in accordance with the latest ASME B30.16 standards.

The Occupational Safety and Health Act of 1970 generally places the burden of compliance with the user, not the manufacturer. Many OSHA requirements are not concerned or connected with the manufactured product but are, rather, associated with the final installation. It is the owner's and user's responsibility to determine the suitability of a product for any particular use. It is recommended that all applicable industry, trade association, federal, state and local regulations be checked. Read all operating instructions and warnings before operation.

**Rigging:** It is the responsibility of the operator to exercise caution, use common sense and be familiar with proper rigging techniques. Refer to ASME B30.9 for rigging information, American National Standards Institute, 1430 Broadway, New York, NY 10018.

The National Safety Council, Accident Prevention Manual for Industrial Operations, Eighth Edition and other recognized safety sources make a common point: Employees who work near suspended loads or assist in hooking on or arranging a load should be instructed to keep out from under the load. From a safety standpoint, one factor is paramount: conduct all lifting operations in such a manner that if there were an equipment failure, no personnel would be injured. This means keep out from under a raised load and keep out of the line of force of any load.

This manual has been produced by **Ingersoll-Rand** to provide dealers, mechanics, operators and company personnel with the information required to install, operate, maintain and repair the products described herein.

It is extremely important that mechanics and operators be familiar with the servicing procedures of these products, or like or similar products, and are physically capable of conducting the procedures. These personnel shall have a general working knowledge that includes:

1. Proper and safe use and application of mechanic's common hand tools as well as special **Ingersoll-Rand** or recommended tools.
2. Safety procedures, precautions and work habits established by accepted industry standards.

**Ingersoll-Rand** cannot know of, or provide all the procedures by which product operations or repairs may be conducted and the hazards and/or results of each method. If operation or maintenance procedures not specifically recommended by the manufacturer are conducted, it must be ensured that product safety is not endangered by the actions taken. If unsure of an operation or maintenance procedure or step, personnel should place the product in a safe condition and contact supervisors and/or the factory for technical assistance.

The following warnings and operating instructions have been adapted in part from American National (Safety) Standard ASME B30.16 and are intended to avoid unsafe operating practices which might lead to injury or property damage.

**Ingersoll-Rand** recognizes that most companies who use hoists have a safety program in force at their facility. In the event that some conflict exists between a rule set forth in this

publication and a similar rule already set by an individual company, the more stringent of the two should take precedence.

Safe Operating Instructions are provided to make an operator aware of unsafe practices to avoid and are not necessarily limited to the following list. Refer to specific sections in the manual for additional safety information.

1. Only allow personnel trained in safety and operation of this hoist to operate this product.
2. Only operate a hoist if you are physically fit to do so.
3. When a "**DO NOT OPERATE**" sign is placed on the hoist, or controls, do not operate the hoist until the sign has been removed by designated personnel.
4. Do not use hoist if hook latch has been sprung or broken.
5. Check that the hook latches are engaged before using.
6. Before each shift, check the hoist for wear and damage. Never use a hoist that inspection indicates is worn or damaged.
7. Never lift a load greater than the rated capacity of the hoist. Refer to capacity labels attached to hoist.
8. Do not use more than one hook on a single load.
9. Never place your hand inside the throat area of a hook.
10. Never use the load chain as a sling.
11. Only operate a hoist when the chain is centered over the hook. Do not "side pull" or "yard".
12. Never operate a hoist with twisted, kinked or damaged chain.
13. Do not force hook into place by hammering.
14. Be certain the load is properly seated in the saddle of the hook.
15. Do not support the load on the tip of the hook.
16. Never run the chain over a sharp edge.
17. Pay attention to the load at all times when operating the hoist.
18. Make sure everyone is clear of the load path. Do not lift a load over people.
19. Never use the hoist for lifting or lowering people, and never allow anyone to stand on a suspended load.
20. Do not swing a suspended load.
21. Do not leave load suspended when hoist is not in use.
22. Never weld or flame cut a load suspended by the hoist.
23. Do not operate hoist if chain jumping, excessive noise, jamming, overloading, or binding occurs.
24. Shut off electrical supply before performing any maintenance.
25. Avoid collision or bumping of hoist.
26. After use, or when in a non-operational mode, the chain hoist should be secured against unauthorized and unwarranted use.

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## WARNING LABELS AND TAG

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Each hoist is shipped from the factory with the warning labels and tag shown. If the labels or tag are not attached to your hoist, order new labels or tag and install them. Refer to

the parts list for the part numbers. Labels and tag are shown smaller than actual size.



**WARNING**

Failure to follow these warnings may result in death, severe injury or property damage:

- Do not operate this hoist before reading operation and maintenance manual. 
- Do not lift people or loads over people.
- Do not lift more than rated load.
- Do not operate unless load is centered under hoist.
- Do not operate with twisted, kinked or damaged chain or wire rope.
- Do not operate a damaged or malfunctioning hoist.
- Do not remove or obscure warning labels.
- Do not operate a wire rope hoist when rope is not properly seated in its groove.

Read the latest edition of ASME/ANSI B30.16 and National Electric Code (ANSI/NFPA 70). Comply with other federal, state and local rules.

P/N 04612776  
for air and electric chain  
and wire rope hoists

**INGERSOLL-RAND**  
MATERIAL HANDLING

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## WARNING SYMBOL IDENTIFICATION

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Read Manuals Before  
Operating Product

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## PRODUCT PARTS INFORMATION

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**CAUTION**

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

**NOTICE**

- Hoist repairs should be carried out by designated trained personnel. Consult your nearest Ingersoll-Rand certified service center, or lift care specialists for additional information.

The original language of this manual is English.

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

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

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[www.irttools.com](http://www.irttools.com)

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