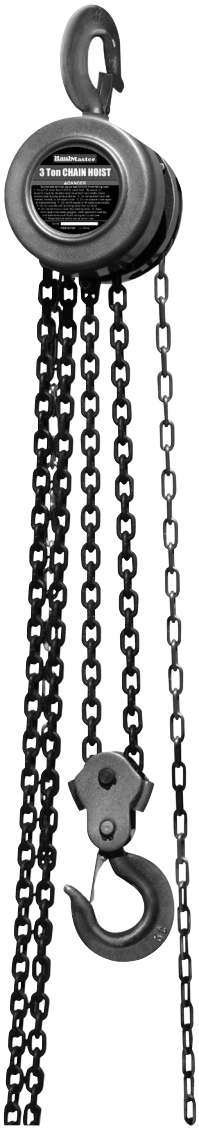
Owner's Manual & Safety Instructions

Save This Manual Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number in the back of the manual near the assembly diagram (or month and year of purchase if product has no number). Keep this manual and the receipt in a safe and dry place for future reference. 20i

HaulMaster®

3 Ton CHAIN HOIST



Visit our website at: http://www.harborfreight.com
Email our technical support at: productsupport@harborfreight.com

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When unpacking, make sure that the product is intact and undamaged. If any parts are missing or broken, please call 1-888-866-5797 as soon as possible.

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No portion of this manual or any artwork contained herein may be reproduced in any shape or form without the express written consent of Harbor Freight Tools.
Diagrams within this manual may not be drawn proportionally. Due to continuing improvements, actual product may differ slightly from the product described herein.
Tools required for assembly and service may not be included.

⚠WARNING

Read this material before using this product.
Failure to do so can result in serious injury.
SAVE THIS MANUAL.

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WARNING SYMBOLS AND DEFINITIONS	
⚠	This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.
⚠ DANGER	Indicates a hazardous situation which, if not avoided, will result in death or serious injury.
⚠ WARNING	Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
⚠ CAUTION	Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
NOTICE CAUTION	Addresses practices not related to personal injury.

IMPORTANT SAFETY INFORMATION

⚠WARNING

TO PREVENT SERIOUS INJURY AND DEATH:

Basic Safety Information

1. **Do not lift more than rated load. Be aware of dynamic loading!** Sudden load movement may briefly create excess load causing product failure.
2. **Do not operate when load is not centered underneath.**
3. **Do not operate hoist with twisted, kinked, or damaged chain.** Inspect chain carefully before every use.
4. **Do not operate a damaged or malfunctioning hoist.** Inspect hoist carefully and test operation before every use.
5. **Do not lift people or lift loads over people.** Falling loads can injure or kill people.
6. **Do not operate hoist with anything other than manual power (by hand).**
7. **Do not remove or cover warning labels and/or tags.** These carry important safety information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
8. The warnings, precautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

Installation Specific Safety Information

1. The Supporting Structure the Hoist is mounted to must be designed to withstand the loads and forces imposed by the Hoist for the rated load.
2. Install in location that allows the operator to move and stay clear of the load.
3. Where the slack chain hanging from the Hoist may create a hazard, use an appropriate chain container (not provided) to contain the excess chain.
4. Inspect the Hoist as explained in Frequent Inspection on page 8 after installation but before use.

Inspection, Testing, and Maintenance Specific Safety Information

1. Perform a “Frequent Inspection” at least monthly, see page 8.
2. Perform a “Periodic (Thorough) Inspection” at least yearly, see page 9.
3. More frequent inspections are needed for hoists that are used heavily.
4. Raise test loads only to the minimum extent needed and stay well clear of load at all times during testing.

Operation Specific Safety Information

1. Wear ANSI-approved safety goggles, ANSI-approved hard hat, and steel-toed work boots during setup and use.
2. This product is not a toy. Do not allow children to play with or near this item.
3. Use as intended only.
   - Do not use to handle molten material.
   - Do not use for aircraft purposes.
   - Do not use to link towed vehicles.
4. Keep hands clear of moving parts.

⚠ SAVE THESE INSTRUCTIONS.

Specifications

Rated Capacity	6,000 lb.
Maximum Extension	10′
Suspension Hook Opening	1-1/2"
Suspension Hook Depth	2-1/2"
Load Hook Opening	1-1/2"
Load Hook Depth	2-1/2"

Installation Instructions

Read the <u>ENTIRE</u> IMPORTANT SAFETY INFORMATION section at the beginning of this manual including all text under subheadings therein before set up or use of this product.

<u>Note:</u> For additional information regarding the parts listed in the following pages, refer to *Parts List and Diagram* on page 10.

1. The Supporting Structure the Hoist is mounted to must be designed to withstand the loads and forces imposed by the Hoist for the rated load.

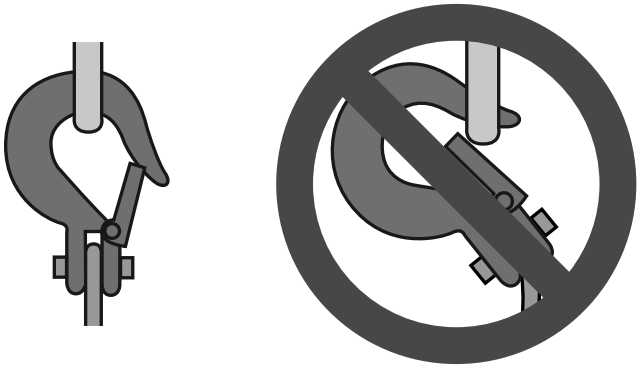


Figure A: Correct and incorrect Suspension Hook attachment

2. Properly seat the Suspension Hook on the Supporting Structure at its intended load bearing point (shown in Figure A on the left).
3. Do not allow the Hook Hitch to support any part of the load. Do not apply the load to the point of the Suspension Hook (shown in Figure A on the right).

Operation Instructions

Read the ENTIRE IMPORTANT SAFETY INFORMATION section at the beginning of this manual including all text under subheadings therein before set up or use of this product.

⚠WARNING

TO PREVENT SERIOUS INJURY: Operation of a vertical Hoist involves more than pulling the hand chain. The use of vertical Hoists is subject to certain hazards that cannot be met by mechanical means, but only by the exercise of intelligence, care, common sense, and experience in anticipating the motions that will occur as a result of operating the controls.

Before Operating Hoist

1. Familiarize yourself with all operating controls of the Hoist and with the operation(s) to be performed. Instructions include, the warnings on the hoist, and the safety and operating instructions portion of this manual.
2. **⚠WARNING! TO PREVENT SERIOUS INJURY FROM HOIST FAILURE:**
   Do not use damaged equipment.
   If adjustments or repairs are necessary, or any defects are known, have the problem corrected by a qualified technician before further use.
3. Do not operate a Hoist with an out-of-order sign.
4. Only a qualified technician should perform maintenance to the Hoist.
5. Do not use the chain as a ground for welding. Do not touch a welding electrode to the chain.
6. Only operate with hand power, with no more than one operator per hand chain.
7. Designate a work area that is clean and well-lit. The work area must not allow access by children or pets to prevent distraction and injury.
8. There must not be objects, such as utility lines, nearby that will present a hazard while working.
9. Inspect the hoist as explained in Frequent Inspection on page 8 after installation but before use.

Operating Controls

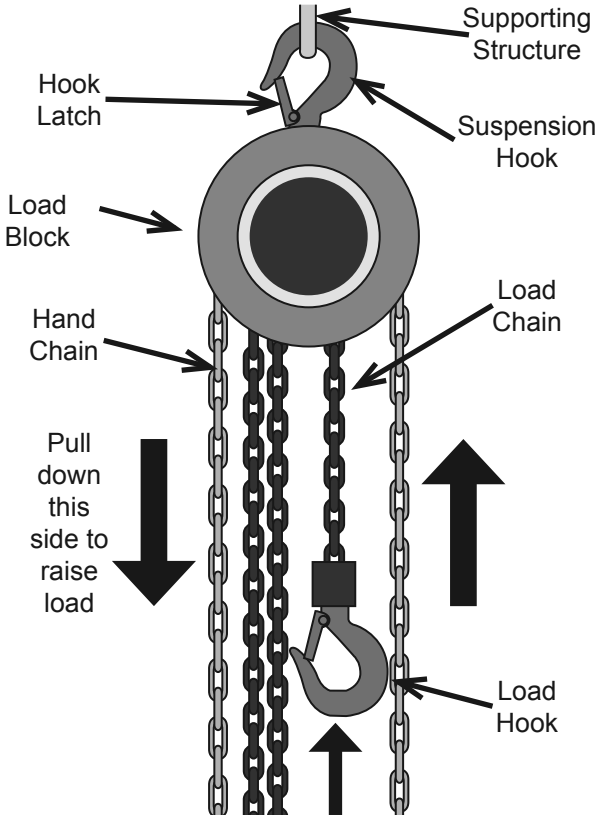


Figure B: To Raise the Load

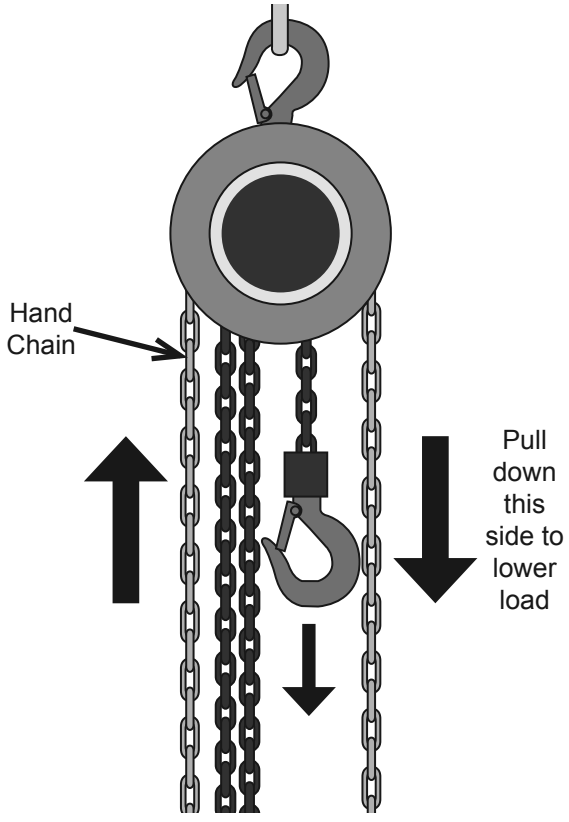


Figure C: To Lower the Load

Applying the Load

1. Do not wrap the hoist chain around the load.
2. Attach the load to the load hook securely by properly rated, suitable means, such as chains, shackles, hooks, lifting slings, etc. Load must be attached to prevent accidental disconnection.

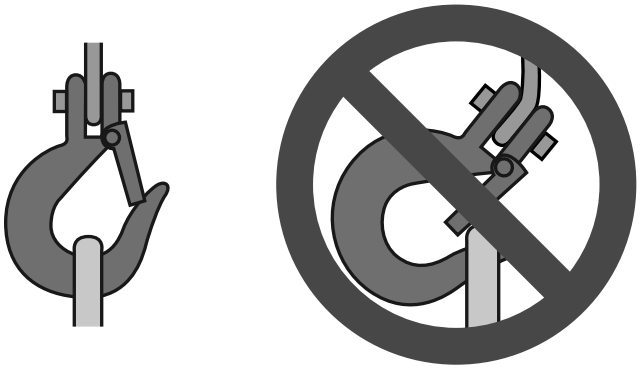


Figure D: Correct and incorrect Load Hook attachment

3. Properly seat the sling or other device in the saddle of the Load Hook (shown in Figure D on the left). Do not allow the hook hitch to support any part of the Load.
4. Do not apply the load to the point of the hook (shown in Figure D on the right side diagram).
5. Before moving the load, make sure chains are not kinked or twisted or that multiple part chains are not twisted around each other.
6. Do not operate the hoist unless chain is seated properly on the drum, pulleys, or sprockets.
7. Do not operate the hoist unless the hoist unit is centered over the load.
8. Do not pick up a load in excess of the rated load appearing on the hoist or load block, except during properly authorized tests. Do not use a hoist overload limiting device to measure the maximum load to be lifted.
9. Give specific attention to load balancing and hitching or slinging to prevent load slipping.

Moving the Load

1. Do not engage in any activity which will divert the operator's attention while operating the Hoist.
2. Respond to signals from a designated person only. However, always obey a stop signal, no matter who gives it.
3. Do not lift or lower a load with the hoist until the operator and all other personnel are clear of the load.
4. Make sure the load and hoist will clear all obstacles before moving or rotating the load.
5. Do not lift a load more than a few inches until it is well balanced in the sling or lifting device.
6. Each time a load approaching rated capacity is handled, check hoist brake action by lifting the load just clear of supports and continuing only after verifying that the brake system is operating properly.
7. **WARNING! Do not carry any load over any person.**
8. **WARNING! TO PREVENT SERIOUS INJURY: Do not carry personnel on the hook or the load.**
9. Avoid swinging the load or load hook when traveling the hoist.
10. On trolley mounted hoists, avoid contact between trolleys and between trolleys and stops.

Parking the Load

1. Do not leave a suspended Load unattended unless specific precautions have been instituted and are in place.
2. Position the load block above head level for storage when the hoist is not in use.
3. Exercise care when removing a sling from under a landed and blocked Load.

Procedures not specifically explained in this manual must be performed only by a qualified technician.

⚠WARNING

TO PREVENT SERIOUS INJURY:

Remove any load before performing any inspection, maintenance, or cleaning procedures.

TO PREVENT SERIOUS INJURY FROM TOOL FAILURE:
Do not use damaged equipment. If abnormal noise or vibration occurs, have the problem corrected before further use.

Frequent Inspection

Perform the procedures in this section BEFORE INITIAL USE and AT LEAST MONTHLY. Inspection is needed more often for heavily used hoists.

1. Check operating mechanisms for proper operation, proper adjustment, and unusual sounds such as, but not limited to, binding noise of the chain and bearing squeal.
2. Frequent Braking System Inspection
   a. The braking system must automatically stop and hold up to the rated load if the hand chain is released.
3. Frequent Hook Inspection

   Check hooks for the following problems:
   a. distortion, such as bending, twisting, or increased throat opening;
   b. wear;
   c. cracks, nicks, or gouges;
   d. latch engagement (if equipped);
   e. damaged or malfunctioning latch (if equipped);
   f. hook attachment and securing means.
4. Frequent Hoist Load Chain Inspection:
   a. Test the hoist under load in lifting and lowering directions and observe the operation of the chain and sprockets. The chain should feed smoothly into and away from the sprockets.
   b. If the chain binds, jumps, or is noisy, first see that it is clean and properly lubricated. If the trouble persists, inspect the chain and mating parts for wear, distortion, or other damage.
   c. Examine visually for gouges, nicks, weld spatter, corrosion, and distorted links. Slacken the chain and move the adjacent links to one side to inspect for wear at the contact points. If wear is observed or if stretching is suspected, the chain should be measured as follows:
      1) Select an unworn, unstretched length of the chain (e.g., at the slack end).
      2) Suspend the chain vertically under tension and, using a caliper-type gauge, carefully measure the outside length of any convenient number of links approximately 12″ to 24″ overall.
      3) Carefully measure the same number of links in the used sections and calculate the percentage increase in length.
      4) If the used chain is 2.5% longer than the unused chain, replace the chain.
5. Check load chain reeving.

⚠WARNING! TO PREVENT SERIOUS INJURY FROM HOIST FAILURE: Do not use damaged equipment. If any defect or damage is noted, have the problem corrected before further use.

Periodic (Thorough) Inspection

A qualified technician should perform the procedures in this section AT LEAST YEARLY. Inspection is needed more often for heavily used hoists.

Remove or open access covers to allow inspection of components.

1. First, follow all Frequent Inspection procedures. Additionally:
2. Check fasteners for evidence of loosening.
3. Check load blocks, suspension housings, hand chain wheels, chain attachments, clevises, yokes, suspension bolts, shafts, gears, bearings, pins, rollers, and locking and clamping devices for evidence of wear, corrosion, cracks, and distortion.
4. Check hook retaining nuts or collars, and pins, welds, or rivets used to secure the retaining members for evidence of damage.
5. Check load sprockets, idler sprockets, drums, and pulleys for evidence of damage and wear.
6. Check the brake mechanism for evidence of worn, glazed, or oil contaminated friction disks; worn pawls, cams, or ratchets; and corroded, stretched, or broken pawl springs.
7. Check supporting structure or trolley, if used, for evidence of damage.
8. Check warning label for legibility and replacement.
9. Check end connections of load chains for evidence of wear, corrosion, cracks, damage, and distortion.
10. Check the hoist and hoist mounting for evidence of missing parts.

⚠WARNING! TO PREVENT SERIOUS INJURY FROM HOIST FAILURE: Do not use damaged equipment. If any defect or damage is noted, have the problem corrected before further use.

Storage Inspection

1. A Hoist that has been idle for a period of a month or more, but less than a year, must be inspected before being placed in service according to the Frequent Inspection requirements.
2. A Hoist that is used in infrequent service, which has been idle for a period of a year or more, must be inspected according to the Periodic Inspection requirements and then tested according to the procedure in the Testing section below before being used.

Maintenance

1. Quarterly (every 3 months), clean off load chain, then lubricate load chain links with lithium grease. Apply grease to inner surfaces of load chain, where the links rub against each other.
2. Repair or replacement of hoist components must be performed only by a qualified technician using only identical replacement parts with the same rating.
3. Operating mechanisms and brakes may require adjustment.
4. Note the following regarding specific components:Replace damaged or worn hooks and chains. Do not repair them by welding or reshaping.
   a. Replace or repair all critical parts that are cracked, broken, bent, excessively worn, or missing.
   b. Replace missing or illegible warning labels.
5. Do not repair load-sustaining members by welding. Replace them as needed.
6. Lubricate all moving parts regularly using grease.
7. After maintenance work is completed and before restoring the hoist to normal operation:
   a. reinstall guards;
   b. reactivate safety devices;
   c. remove replaced parts and loose material;
   d. remove maintenance equipment.

Testing

1. Before use, test repaired hoists and hoists that have not been used for a year or more.
2. Check all functions of the hoist, including lifting and lowering, with the hoist unloaded first. (This hoist may require a small load or pull on the load hook to test lowering/extending.)
3. After testing in the unloaded state, attach a 100 lb. load and retest to check proper load control and to check brake operation.

PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT, OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

Parts List

Part	Description
1	Load Chain
2	Suspension Plate
3	Stay A
4	Load Chain Wheel
5	Drive Shaft
6	Gear
7	Pinion Shaft
8	Disk Gear
9	Hand Chain Wheel
10	Brake Seat
11	Friction Disk
12	Roller Gear
13	Bearing Race
14	Ratchet Disk

Part	Description
15	Hand Chain
16	Pawl Spring
17	Pawl
18	Hand Chain Wheel Cover
19	Snap Ring
20	Pawl Pin
21	Left Side Plate
22	Suspension Plate
23	Suspension Pin
24	Dam Board
25	Snap Ring
26	Pin
27	Guide Roller
28	Steel Sheath

Part	Description
29	Stay B
30	Hook Hanger
31	Bent Plate
32	Roller
33	Gear Cover
34	Shaft
35	Needle
36	Idle Sheave
37	Hook Holder
38	Hook
39	Hook Throat Latch
40	Double Spring

Record Product's Serial Number Here:_____

Note: If product has no serial number, record month and year of purchase instead.

Note: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts. Specify UPC 193175321367 when ordering parts.

Assembly Diagram

Limited 90 Day Warranty

Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 90 days from the date of purchase. This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear, or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

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