

# OWNER'S MANUAL



## MANUAL CHAIN HOIST ACH SERIES



**Capacity**  
**0.25 Ton through 20 Ton**

## WARRANTY INFORMATION AND TECHNICAL SERVICE

All products sold by Atlas Lifting & Rigging are warranted to be free of defects in material and artistry from the date of shipment. If one of our products needs repair or service, please get in touch with Technical Service at 1-833-ALR-LIFT, 8 AM to 5 PM, Monday through Friday, anywhere in the US.

### Warranty Period and Coverage

- ALR products carry a limited warranty of 2 years.
- Accessories carry a limited warranty of one year from the date of receipt.
- This warranty covers only the initial purchaser of the product from the date of delivery.
- This warranty covers any defects in workmanship or materials subject to the limitations stated below.
- This warranty does not cover failures due directly or indirectly to misuse, abuse, negligence, accidents, normal wear-and-tear, improper repair, alterations, or lack of maintenance.

### Limitations on This Warranty

The product must be used in accordance with ALR recommendations. It should not have been misused, abused, neglected, or improperly maintained, nor should it have undergone negligent handling or unauthorized repairs or alterations.

If any defect in material or workmanship occurs during the stated warranty period, ALR will inspect the product. At its discretion, ALR will either repair or replace the product free of charge and deliver it F.O.B. (Free On Board) to the Atlas Lifting & Rigging place of business or the customer's location.

Customers must obtain a Return Goods Authorization form from ALR or an authorized ALR service center before shipping the product for warranty evaluation. An explanation of the issues must accompany the product. You must return the product with prepaid freight. Upon repair, it will be covered for the remainder of the original warranty period. Other restrictions may apply; please contact Technical Service for further details about warranty conditions.

If it is determined that the product was misused, abused, neglected, used negligently, or subjected to unauthorized repairs or modifications, the customer will be responsible for the return shipping costs.

Atlas Lifting & Rigging disclaims any other warranties concerning the product's merchantability or fitness for a particular application, whether expressed or implied. Atlas Lifting & Rigging will not be liable for any death or injuries to persons or property or for incidental, contingent, special, or consequential damages, loss, or expense arising in connection with the use or inability to use the product, regardless of whether such damage, loss, or expense results from negligence, willful misconduct, or any other reason related to Atlas Lifting & Rigging. It must not have been misused, abused, neglected, or poorly maintained without authorized repairs or alterations.

If any defects in material or workmanship occur during the specified warranty period, the product will be inspected by ALR. At its discretion, ALR will either replace or repair the hoist at no cost to the customer and deliver it free on board (F.O.B.) from the Atlas Lifting & Rigging place of business.

Customers must obtain a Return Goods Authorization form from ALR or an authorized ALR service center before sending in the product for warranty assessment. A detailed explanation of the product issues must be included with the return. The product should be shipped freight prepaid. Upon repair, the product will be covered for the remainder of the original warranty period. Other restrictions may apply. For further details about warranty restrictions, please contact Technical Service.

If it is determined that the product was misused, abused, neglected, used carelessly, or subjected to unauthorized repair or modification, the customer will be responsible for the cost of returning the product.

Atlas Lifting & Rigging disclaims all other warranties, whether expressed or implied, regarding the product's merchantability or suitability for a specific application. Atlas Lifting & Rigging will not be liable for any death or injuries to persons or property or for incidental, contingent, special, or consequential damages, losses, or expenses that arise in connection with the use or inability to use the product. This applies regardless of whether such damage, loss, or expense results from any act by Atlas Lifting & Rigging, whether negligent or willful or from any other reason.

### Technical Support

Please contact Technical Service at 1-833-ALR-LIFT. **When calling, you will be asked to provide proof of initial purchase.** If a product requires further inspection, the Technical Service representative will explain and assist with any additional action needed.

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## 1.0 IMPORTANT INFORMATION AND WARNINGS

Manual chain hoist equipment should only be operated or maintained by individuals who have thoroughly read and understood the entire contents of this operator's manual. Failure to read and comply with the guidelines in this manual can result in serious injury, death, or damage to property.

### 1.1 Term and Summary

This manual contains essential information for personnel involved in the installation, operation, and maintenance of this product. Even if you are experienced with this type of equipment, it is highly recommended that you read this manual thoroughly before installing, operating, or performing maintenance on the product.

#### **Danger, Warning, Caution, and Notice**

Throughout this manual, steps and procedures can present hazardous situations. The following signal words are used to identify the degree or level of hazard seriousness.

**DANGER** Danger refers to a situation that is imminently hazardous, which, if not avoided, can lead to death, serious injury, or property damage.

**WARNING** Warning indicates a hazardous situation that, if not avoided, could result in death, serious injury, or property damage.

**CAUTION** Caution indicates a potentially dangerous situation that, if not avoided, may result in minor to moderate injury and property damage.

**NOTICE** Notices are used to inform people about installation, operation, or maintenance information that is important but not directly related to hazards.

### 1.2 WARNING !!!

1. **Read and understand** the entire owner's manual before attempting operation. Failure to comply with instructions and warnings may cause serious injury.
2. **Understand and follow** all procedures as set forth in American National Standards titled "Performance Standard for Manually Chain Operated Chain Hoists," ANSI/ASME HST-3; and "Manually Chain Operated Hoists," ANSI/ASME B30.21. These standards are available through the American Society of Mechanical Engineers at [www.asme.org](http://www.asme.org).
3. **Do not** use until proper training and knowledge have been obtained. This Chain hoist is designed and intended for use by properly trained and experienced personnel only. If you are not familiar with the proper and safe operation of a Chain hoist,
4. **Do not** use this Chain hoist for other than its intended use. If used for other purposes, ALR disclaims any real or implied warranty and holds itself harmless from any injury that may result from that use.
5. **Do not** use if the hoist is damaged. Do not use it until it has been repaired or replaced. Always inspect the Chain hoist for damage prior to use.
6. **Do not** use a Chain hoist to lift, support, or transport people or to lift or support loads over people.
7. **Do not** load beyond the rated capacity. See Name Plate.
8. **Do not** operate the hoist unless the load is centered between the top and bottom hooks.
9. **Do not** use the chain as a sling. This may cause damage to the chain.
10. **Do not** use more than one hoist to hoist a load, if this is unavoidable, each hoist must have the same capacity as the weight of the payload unless there are operational processes and procedures in place to ensure safe operation of the hoist.
11. **Never** allow the chain to "set" over sharp edges. All pulls or lifts must be made with a straight chain that is free of obstacles.
12. **Do not** use a hoist if the chain is twisted, kinked, or damaged.
13. **Do not** attempt to lengthen or repair the load chain.

14. **Do not** use the hoist if either hook is stretched, deformed, or has a broken or missing safety latch. Always replace the safety latch and/or the hook before placing the hoist back in service.
15. **Do not** heat treat or weld any part of the Chain Hoist, especially the load chain.
16. **Do not** leave a load on the Chain Hoist unattended.
17. **Do not** shock load the Chain Hoist, chain, or hook.
18. **Do not** operate the Chain Hoist unless it is rigged to pull in a straight line from hook to hook, and the frame can swivel freely on the upper hook.
19. **Do not** wrap the load chain around it, hook it onto itself as a choker chain, or bring the load in contact with the Chain Hoist.
20. **Do not** use more than hand power to pull the hand chain.
21. **Do not** point load the hook – ensure the hook is correctly positioned with the load at the optimum position
22. **Do not** use spray lubricates in or near brake discs.
23. **Do not** take up the load chain until the end ring or lower hook becomes jammed against the frame.
24. If the Chain hoist is challenging to operate, then the load exceeds the hoist's capacity. Reduce load or select a hoist of larger capacity.
25. do not use this device to measure load weight on hoists with the overload warning Chain.
26. If a load hook has been distorted due to an overload on the hoist, the whole hoist may also be damaged. An overloaded hoist must be withdrawn from service immediately and tagged out until a competent person checks it.

## **WARNING SPECIAL NOTE FOR USER:**

**TWISTING OF CHAIN** The chain hoist has multiple falls on the load chain. **THE LOAD CHAIN MUST BE INSPECTED FOR TWIST BEFORE EACH LIFT.** If the chain hoist bottom hook has looped through the multi-fall of the load chain, this can create a twist in the load chain that can damage the chain hoist and cause injury.

## **1.3 Introduction**

Congratulations on your ALR Chain Hoist. The ALR Chain Hoist you have chosen is a heavy-duty hoist designed to retain its operational features under normal operating conditions. This manual contains instructions on installation, safety precautions, general operating procedures, maintenance instructions, and parts breakdown. To achieve years of satisfactory service from your ALR Chain Hoist, careful operation, regular maintenance, and lubrication should be applied as instructed within this ALR manual.

Before operating, installing, or maintaining your ALR Chain Hoist, please read this manual's contents. Only competent and experienced personnel should continuously operate, install, or maintain this hoist. Failure to comply with the instructions contained within this manual can result in both physical and/or property damage. In keeping with statutory requirements and best use for your ALR Chain

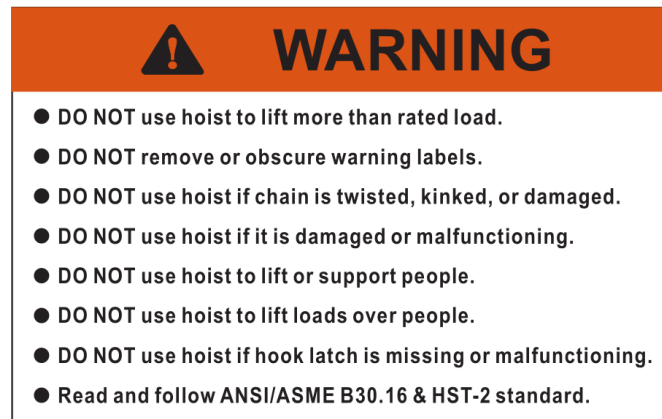
We recommend a periodic maintenance check every 12 months via your ALR distributor. ALR's experienced and competent personnel will perform a complete service, including preventative maintenance, genuine spares, and repairs.

On completion of installation, but before your ALR Chain Hoist being put into regular service, the following procedures should be carried out –

1. Check that all joints and fasteners are tight and secure.
2. Operate the hoist with both no and full load and check that the operation is always smooth.
3. Check operation of hoist brake under light load and full load conditions.
4. Traveling units - run throughout the full extent of the runway, ensuring adequate clearance at all times.
5. Please ensure your ALR Test Certificate has been stored and the unit(s) placed in your lifting register for future reference.

## 1.4 Warning Label

The warning label in Figure 1 is supplied with each hoist shipped from the factory. Read and obey all warnings attached to this hoist. The label does not show the actual size.



*Figure 1* Warning Label Attached to Chain Hoist

## 2.0 UNPACKING

Open the carton and check for shipping damage. Report any damage immediately to your distributor and shipping agent. Do not discard shipping material until the Chain Hoist is assembled and running properly. Read this entire instruction manual thoroughly for set-up, maintenance, and safety instructions.

### 2.1 Content of Carton

- 1 Manual Chain Hoist
- 1 Owner's Manual
- 1 Test certificate

## 3.0 PRE-OPERATION INSPECTION

Your ALR Chain HOIST has been tested and conforms to ANSI/ASME B30.16 and HST-2 standards.

On completion of installation, but before your ALR Chain Hoist being put into regular service, the following procedures should be carried out –

1. Check that all joints and fasteners are tight and secure.
2. Operate the hoist with both no and full load and check that the operation is always smooth.
3. Check the operation of the hoist brake under light load and full load conditions.
4. Traveling units - run throughout the full extent of the runway, ensuring adequate clearance at all times.
5. Please ensure your ALR Test Certificate has been stored and the unit(s) placed in your lifting register for future reference.

## 4.0 OPERATION

- 1) Face the hand chain wheel side of the hoist.
- 2) To raise the load, pull hand chain clockwise.
- 3) To lower the load, pull hand chain counterclockwise.

NOTE: The clicking sound of the pawl when a load is being raised indicates normal operation.

### 4.1 Introduction

#### WARNING

MANUAL CHAIN HOIST OPERATORS SHALL BE REQUIRED TO READ THE OPERATION SECTION OF THIS MANUAL, THE WARNINGS CONTAINED IN THIS MANUAL, INSTRUCTION AND WARNING LABELS ON THE HOIST OR LIFTING SYSTEM, AND THE OPERATION SECTIONS OF ANSI/ASME B30.16 AND ASME B30.10. THE OPERATOR SHALL ALSO BE REQUIRED TO BE FAMILIAR WITH THE MANUAL CHAIN HOIST AND HOIST CONTROLS BEFORE BEING AUTHORIZED TO OPERATE THE HOIST OR LIFTING SYSTEM.

MANUAL CHAIN HOIST OPERATORS SHOULD BE TRAINED IN PROPER RIGGING PROCEDURES FOR THE ATTACHMENT OF LOADS TO THE HOIST HOOK.

MANUAL CHAIN HOIST OPERATORS SHOULD BE TRAINED TO BE AWARE OF POTENTIAL MALFUNCTIONS OF THE EQUIPMENT THAT REQUIRE ADJUSTMENT OR REPAIR AND TO BE INSTRUCTED TO STOP OPERATION IF SUCH MALFUNCTIONS OCCUR AND IMMEDIATELY TO ADVISE THEIR SUPERVISOR SO CORRECTIVE ACTION CAN BE TAKEN.

HOIST OPERATORS SHOULD **NOT** HAVE A HISTORY OF OR BE PRONE TO SEIZURES, LOSS OF PHYSICAL CONTROL, PHYSICAL DEFECTS, OR EMOTIONAL INSTABILITY THAT COULD RESULT IN ACTIONS OF THE OPERATOR BEING A HAZARD TO THE OPERATOR OR OTHERS.

HOIST OPERATORS SHOULD **NOT** OPERATE A HOIST OR LIFTING SYSTEM WHEN UNDER THE INFLUENCE OF ALCOHOL, DRUGS, OR MEDICATION.

#### NOTICE

- . Read ANSI/ASME B30.16 and ANSI/ASME B30.10.
- . Read the Owner's Manual.
- . Read all warning labels attached to manual chain hoist.

### 4.2 Safety Procedures

1. The chain hoist must always be rigged to lift in a straight line from hook to hook. It is essential that the chain hoist is free to swivel on the upper hook. Under no circumstances should the frame of the chain hoist bear on any support while in use, as this could cause bending of the hook or frame, leading to damage of the unit.
2. When preparing to lift or move a load, be sure that the attachments to both hooks are firmly seated in the saddles of the hooks. Avoid off-center loading of any kind, especially loading on the tip of the hook. Also, observe that the chain hangs straight (without twists) from the chain hoist to the lower hook.
3. When lifting, raise the load only enough to clear the floor or support and check to be sure the brake will hold the load and that attachments to the load are firmly seated. Continue the lift only after you are assured the load is free of all obstructions.
4. Only load within the rated capacity of the chain hoist. Rated capacity can be achieved with the following hand chain pulls. Since these hand chain pulls can easily be applied by one person, under no circumstances should more than one person operate the hoist hand chain. Overloading can cause immediate failure of some load-carrying parts or damage, causing failure at less than rated capacity. When in doubt, use the following larger capacity ALR Chain Hoist.

## 5.0 CARE IN USE

1. Always examine the hoist carefully prior to use—your life and others may be at risk. Look for cracks or damage, particularly with hooks and load chains.
2. Keep the load chain clean and oiled to prevent undue damage or wear. When in use, avoid dragging the load chain through dirt or mud.
3. When the hoist is used outdoors or in a corrosive environment, ensure it is regularly and adequately lubricated.
4. Only operate the hoist if you have a clear view of the bottom hook and the load.

### 5.1 Maintenance & Inspection

The maintenance instructions in this manual are intended as a guide to the necessary procedures to be carried out by competent and experienced personnel to prolong the unit's service life. ALR does not accept responsibility for the manner in which the instructions in this manual are observed or for any consequence thereof.

To maintain continuous and satisfactory operation, a regular inspection procedure must be initiated so that worn or damaged parts can be replaced before they become unsafe. The intervals of inspection must be determined by the individual application and are based on the type of service to which the chain hoist will be subjected. The inspection of chain hoists is divided into two general classifications designated as frequent and periodic.

### Inspection

#### General

The inspection procedure is based on ASME B30.16. The following definitions are from ASME B30.16 and pertain to the inspection procedure.

**Designated Person** – A person selected or assigned as competent to perform specific duties.

**Qualified Person** – A person who, by possession of a recognized degree or certificate of professional standing, or who, by extensive knowledge, training, and experience, has successfully demonstrated the ability to solve or resolve problems relating to the subject matter and work.

**Normal Service** – that distributed service that involves operation with randomly distributed loads within the rated load limit or uniform loads less than 65% of the rated load for more than 15% of the time.

**Heavy Service** – that service that involves operation within the rated load limit that exceeds normal service.

**Severe Service** – that service which involves standard or heavy service with abnormal operating conditions.

#### Inspection Classification

**Initial Inspection** – Prior to initial use, all new, altered, or modified hoists shall be inspected by a designated person to ensure compliance with the applicable provisions of this manual.

**Inspection Classification** – the inspection procedure for hoists in regular service is divided into two general classifications based on the intervals in which inspection should be performed. The intervals, in turn, depend on the nature of the critical components of the hoist and the degree of their exposure to wear, deterioration, or malfunction. The 2 general classifications are designated as **Frequent** and **Periodic**.

**Frequent Inspection** – Visual examinations by the operator or designated person with intervals per the following criteria.

- 1) Normal service – monthly
- 2) Heavy service – weekly to monthly
- 3) Severe service – daily to weekly
- 4) Special or infrequent service – as recommended by a qualified person before and after each occurrence.

**Periodic Inspection** – Visual inspection by a designated person with intervals per the following criteria.

- 1) Normal service – yearly
- 2) Heavy service – semi-annually
- 3) Severe service – quarterly
- 4) Special or infrequent service – as recommended by a qualified person before and after each occurrence.



**Frequent Inspection** – Inspection should be made on a frequent basis as follows. Frequent inspections are observations made during operation for any defects or damage that may appear between period inspections. Evaluation and resolution of the results of frequent inspection shall be made by a designated person so that the manual chain hoist is maintained in a safety working condition.

- 1) All functional operating mechanisms for proper operation and adjustment, maladjustment and unusual sounds.
- 2) Manual chain hoist brake system for proper operation.
- 3) Hooks and safety latches in accordance with ASME B30.10
- 4) Safety latches operation

**Periodic Inspection** – Inspection should be made on a periodic basis as follows. Evaluation and resolution of the results of periodic inspection shall be made by a designated person so that the manual chain hoist is maintained in safety working condition.

For inspections where load suspension parts of the hoists are disassembled, a load test per ASME B30.16 must be performed on the manual chain hoist after it is re-assembled and prior to its return to service.

- 1) Requirements of frequent inspection
- 2) Evidence of loose bolts & nuts.
- 3) Evidence of worn, corroded, cracked or distorted parts, such as hook, load pin, gears load chain.
- 4) Evidence of damaged or excessive wear of load sheave and idle sheaves.
- 5) Evidence of worn or old contaminated friction discs, worn pawls & ratchet.
- 6) Nameplate on chain hoist is illegible.
- 7) End connection of load chain.

**Occasionally Use Hoist** – Chain hoists are used infrequently shall be inspected as follows prior to placing in service.

- 1) Hoist idle more than 1 month but less than 1 year: Inspect per Frequent Inspection criteria.
- 2) Hoist idle more than 1 year: Inspect per Periodic Inspection criteria.

#### **Inspection Methods and Criteria**

- 1) The items are based on those listed in ASME B30.16 for the Frequent and Periodic Inspection.
- 2) Frequent Inspection – NOT intended to involve disassembly of the manual chain hoist.  
Disassembly for further inspection would be required only if Frequent Inspection results so indicate.  
Disassembly for further inspection should only be performed by a qualified person trained in the disassembly and re-assembly of the manual chain hoist.
- 3) Periodic Inspection – Disassembly of the chain hoist is optional.  
Disassembly for further inspection should only be performed by a qualified person trained in the disassembly and re-assembly of the manual chain hoist.

Parts should be from ALR or ALR's Service Agents. Using 'commercial' or other manufacturer's parts to repair the ALR Chain Hoist may cause load loss. [www.ALRLift.com](http://www.ALRLift.com) or [info@ALRLift.com](mailto:info@ALRLift.com)

**WARNING - TO AVOID INJURY** - Use only ALR supplied replacement parts. Parts may look alike, but ALR parts are made of specific materials or processed to achieve specific properties.

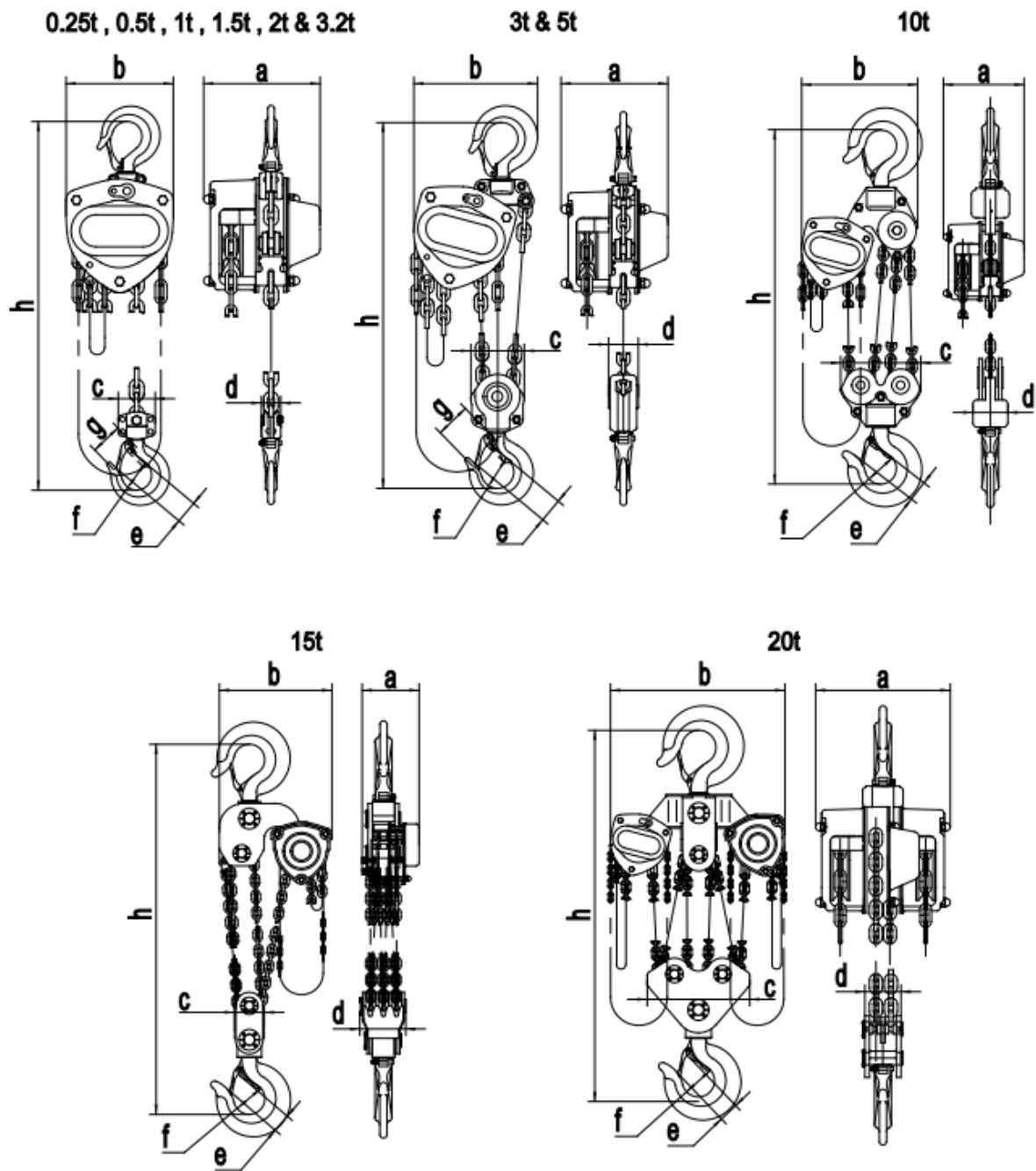
## **6.0 STORAGE OF HOIST**

Note: Always store unit in a clean and dry area. Ensure that all repair and maintenance work is carried out by qualified personnel, using only the specified genuine parts from ALR.

If there are any questions or comments, please contact either your local supplier or ALR. ALR can also be reached at our web site: [www.ALRLift.com](http://www.ALRLift.com).

The ALR ACH-Series Chain Hoists comply with ANSI/ASME B30.16 and HST-2 standards.

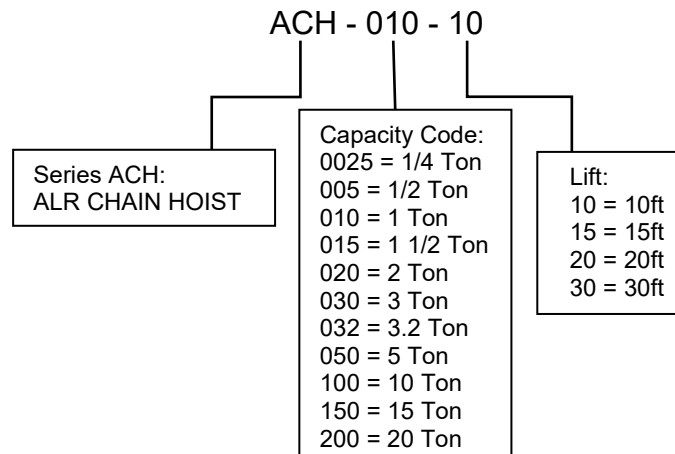
## 7.0 SPECIFICATIONS



# ACH SERIES CHAIN HOIST SPECIFICATIONS & DIMENSIONS

Product Number		ACH-0025	ACH-005	ACH-010	ACH-015	ACH-020	ACH-030	ACH-032	ACH-050	ACH-100	ACH-150	ACH-200
Capacity	(ton)	0.25	0.5	1	1.5	2	3	3.2	5	10	15	20
No. of Falls		1	1	1	1	1	2	1	2	4	6	8
Capacity	(lbs)	550	1,100	2,200	3,300	4,400	6,600	7,000	11,000	22,000	33,000	44,000
Capacity Test Load	(lbs)	825	1,650	3,300	4,950	6,600	9,900	10,560	16,500	33,000	49,500	66,000
Capacity Test Load	(ton)	0.375	0.75	1.5	2.25	3	4.5	4.8	7.5	15	22.5	25
Load Chain	(mm)	4×12	5×15	6×18	7.1×21	8×24	7.1×21	10×30				
Standard Lift	(ft)	10	10	10	10	10	10	10	10	10	10	10
Hand Chain	(mm)	3×15×10										
Overhaul Ratio	per 1 ft	4.7	7.7	13.0	17.2	21.0	34.3	33.5	69.5	139.0	208.5	277.9
Height	h (in)	9.8	11.2	11.6	13.8	14.8	20.1	19.1	23.6	29.9	39.4	45.3
Length	a (in)	3.8	5.1	6.4	6.7	7.2	6.7	7.5	7.6	7.6	8.7	9.1
Width	b (in)	4.3	5.5	6.3	7.2	8.0	8.3	9.3	11.1	14.2	19.4	25.8
Net Weight	(lbs)	10.0	19.1	27.3	34.1	43.9	52.8	60.3	92.2	183.9	336.6	451.0
Gross Weight	(lbs)	11.0	20.4	28.4	36.0	45.8	54.6	63.6	95.7	196.0	365.2	481.8
Pull to Rated Load	(N)	220	260	308	348	379	363	381	353	379	409	445×2
Dimensions	a (in)	3.8	5.1	6.4	6.7	7.2	6.7	7.5	7.6	7.6	8.7	9.1
	b (in)	4.3	5.5	6.3	7.2	8.0	9.3	9.3	11.1	14.2	19.4	25.8
	c (in)	1.2	1.7	2.0	2.5	2.5	4.2	2.7	5.2	10.4	4.3	11.3
	d (in)	0.8	1.0	1.2	1.3	1.3	2.1	1.5	2.5	3.7	6.7	4.8
	e (in)	1.1	1.1	1.3	1.3	1.5	1.7	1.7	2.0	2.5	3.1	3.2
	f (in)	1.3	1.3	1.6	1.7	1.8	2.0	1.9	2.4	3.3	3.9	4.3
	g (in)	1.4	1.4	1.8	1.9	2.0	2.5	2.5	3.1			
	h (in)	9.8	11.2	11.6	13.8	14.8	20.1	19.1	23.6	29.9	39.4	45.3

## 7.1 Stock Number



## 8.0 USING THE CHAIN HOIST

### Prior to Operation

1. Support for the hoist may be hook, clevis pin, trolley, or beam clamp. Whatever method of suspension is chosen, the support components **must** be rated equal to, or greater than the capacity of the chain hoist.
2. If the chain hoist has not been used for an extended period of time, check for proper operation before putting into service.
3. The brake mechanism must be kept clean and free from dirt, water, and oil. Never allow oil to penetrate the brake mechanism. Always keep your chain hoist clean and store in a clean, dry location.
4. Although oiling the chain is not mandatory, a light coat of 30-weight oil applied periodically to the chain will create easier operation and prolong the life of the chain.
5. Check the chain for damage and elongation. Replace damaged chain before using the chain hoist.

The load chain supplied with your ALR chain hoist is designed, manufactured, and tested for proper fit and durability. Over a period of time, the chain may need to be replaced. For your own safety, use factory replacement chain only.

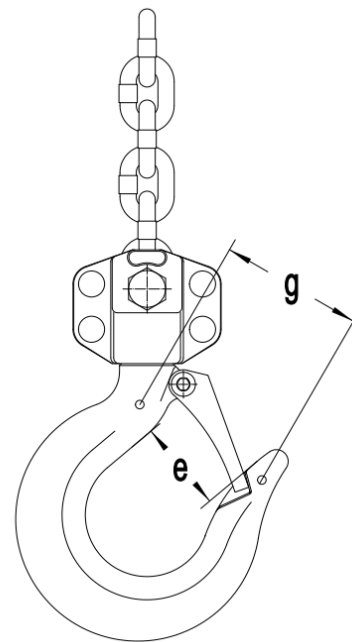


Figure 2

**⚠ WARNING** Use of other than factory replacement chain may cause serious injury and/or damage to the hoist.

- The top and bottom hooks on your ALR chain hoist are designed to open to warn of an overload. Both top and bottom hooks for 0.5 to 10 ton hoists have two indicator points (A, Figure 2) cast into the hook for measurement. Refer to Table 2 (page 18) to determine if a hook needs to be replaced.

Hooks for 20-ton hoists do not have indicator points. Measurements are made at the jaw opening (B, Figure 2).

- It is important to check top and bottom hooks for proper opening. If the safety latch no longer contacts the hook opening, replace the hook.

**Never side load the top or bottom hook; this practice is dangerous and could lead to serious injury.**

- If the vertical angle at the neck of the bottom or top hook reaches 10°, replace the hook (see Figure 3).

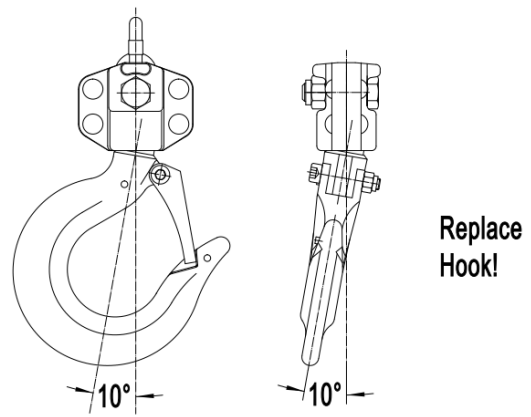


Figure 3

## 9.0 HOOKING THE LOAD

- Secure the upper hook.
- Place the bottom hook securely into the object to be lifted.
- Place ropes or chain in the center of the bottom hook, making sure the safety latch is secure. Never load the hook in front of the safety latch. See Figure
- Avoid lifting one load with two hoists. If this is unavoidable, apply equal weight to both hoists and use hoists with the proper lift capacity. **Capacity of each hoist must be equal to the total load to be lifted.**
- Check that the chain is not twisted at the bottom hook. All welds should face the same direction (Figure 4).
- For hoists with two or more falls of chain, make sure the bottom hook is not turned over. This may cause the chain to twist.

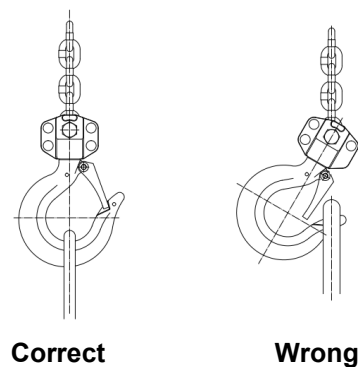


Figure 4

## 10.0 RAISING THE LOAD

To raise the load, pull the right side of the hand chain (A, Figure 5) clockwise.

To lower the load, pull the left side of the hand chain (B, Figure 5) counterclockwise.

**Important:** Make sure the hoist has an adequate length of load chain to raise or lower the load in a safe manner. Do not attempt to lower the hoist beyond its limit.



Figure 5

## 11.0 HAND CHAIN – CUTTING AND INSTALLING

To cut the hand chain in order to increase or shorten:

To change the length of the *hand chain*, the chain must be cut and links *added* to increase the overall length or links *removed* to decrease the length. This is done as follows:

1. Insert one link lengthwise into the vise (Figure 6). Be sure that the side opposite the weld lies completely below the surface of the vise jaw (about 1/3 of a link). This prevents nicking or cutting the lower part of the link.
2. Using a hack saw, cut through the upper part of the link at the weld.
3. Loosen the link, reposition the link vertically at the edge of the vise with the level of the cut above the vise jaw (Figure 7).
4. Tighten the vise jaw.
5. Using an adjustable wrench, twist the link horizontally from front to back. (Figure 8) Open just far enough to insert (or remove) a second chain link.

**Note:** Chain length is now ready to lengthen or shorten.

6. Insert or remove the second end link at the opening in the first end link.
7. Using an adjustable wrench, twist the link horizontally until the link is in the original closed position. See Figure 9.

**CAUTION** Do not push the link inward from the curved ends. This will distort the link. Check that the link is closed and free of twist.

8. If installing entire new chain, insert the end of the hand chain into the groove at the top of the hand chain wheel (see Figure 11). Rotate the hand chain wheel and pull the chain through.
9. Re-weld the link at the cut.
10. Grind off excess on the weld so that it is smooth.

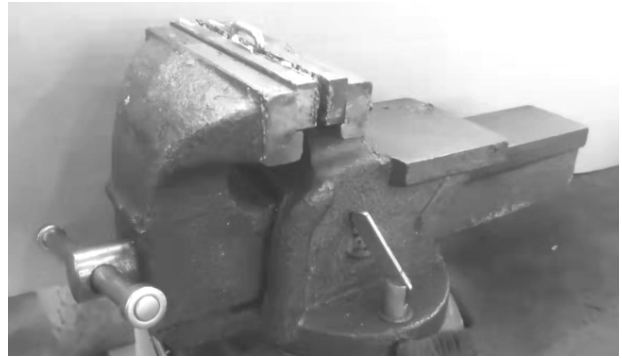


Figure 6



Figure 7

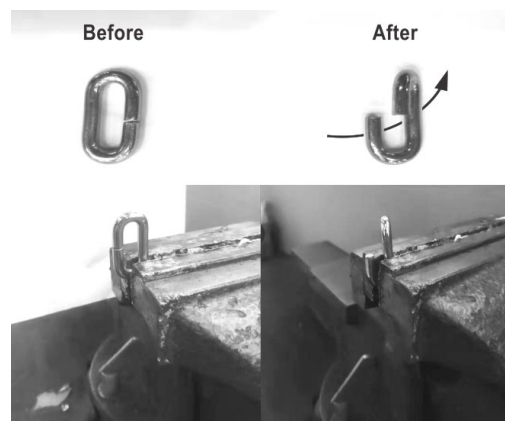


Figure 8

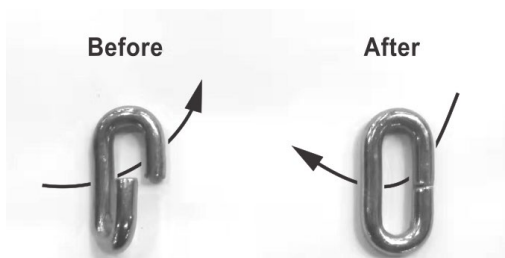


Figure 9

## 12.0 LOAD CHAIN AND BOTTOM HOOK

### Load Chain Inspection

Over time, the load chain will wear or elongate. This can cause damage to the hoist, breakage, or non-engagement of the load sheave.

**⚠WARNING** Do not operate the hoist with a twisted, kinked or damaged load chain. Do not splice the load chain. Check the chain for excessive wear or stretch. Failure to comply may cause serious injury.

1. Test the hoist under load in both the lifting and lowering directions, observing the operation of chain and sprockets. Chain should feed smoothly into and away from the sprockets.
2. If the chain binds, jumps, or is noisy, make sure it is clean and properly lubricated. If the trouble persists, inspect the chain and mating parts for wear, distortion, or other damage.
3. Clean the chain before inspection. Examine for gouges, nicks, weld splatter, corrosion, and distorted links. Slacken the chain and move adjacent links to one side, looking for wear at the contact points. If you see wear or suspect stretching, measure the chain as follows:
  - Select an unworn, unstretched length of chain (i.e. at the slack end).
  - Suspend the chain vertically under tension and, using a caliper type gauge, measure the outside length of several links about 12 to 24 inches.
  - Measure the same number of links in used sections and calculate the percentage of the increase in length.
4. If the length of used chain exceeds 2-1/2 percent of the unused chain, replace the chain. (See "Load Limits" on page 18 for specific link measurements.)

**⚠WARNING** Do not add to the load chain. Replace the entire chain. Failure to comply may cause serious injury.

### Load Chain Removal

Remove the old load chain as follows while referring to Figure 12:

1. Remove the *cotter pin* (A) and the *chain anchor pin* (C) on the *chain anchor* (D), allowing the end of the chain to fall free.
2. Pull the *hand chain* (Fig. 5) until the load chain is completely removed from the gear assembly.

### Attaching Load Chain to Load Chain Sprocket

Install the new load chain onto the load chain sprocket as follows, referring to Fig. 10:

1. Position the *load chain sprocket* by rotating the *hand chain wheel* so that the wide and narrow grooves show.
2. Insert the load chain into the sprocket grooves so that the chain will wind up and back over the sprocket. *Welds must face away from the sprocket.*
3. Rotate the hand chain wheel so that the load chain falls six to eight inches at the back of the sprocket.

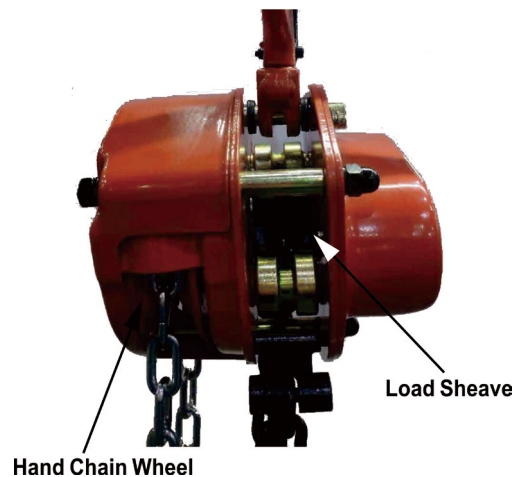


Figure 10

Referring to Figure 11:

4. Insert one end of the *chain link* (B) into the *chain anchor* (D).
5. Insert the *chain anchor pin* (C) through the *chain anchor* (D) and *chain link* (B) and secure with the *cotter pin* (A).

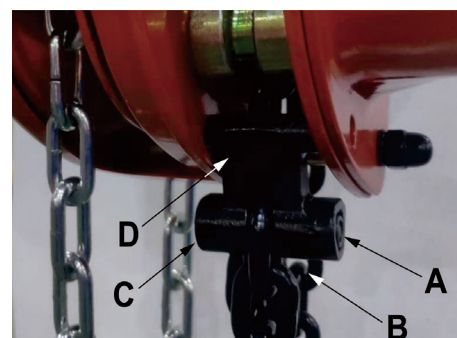


Figure 11

Continue with *Load Chain and Bottom Hook Installation* on the following page, proceeding to the section that applies to your hoist: 1/4- to 2-Ton & 3.2-Ton hoists, 3- to 5-Ton hoists, or 10-Ton Hoists.

## 13.0 LOAD CHAIN AND BOTTOM HOOK INSTALLATION

The following procedure assumes that the *load chain* has been attached to the *chain anchor* (A, Figure 12) and fed through the *load chain sprocket* as described in the previous section. This section completes the load chain and bottom hook installation.

### Chain Installation – 0.25- to 2- & 3.2-Ton Hoists

Referring to Figure 12:

1. Remove the *lock nut* and *bolt* from the *lower hook* (D).
2. Insert the last *chain link* (C) into the lower hook slot.
3. Re-insert the bolt through the lower hook slot and chain link.
4. Re-attach the lock nut to the bolt and tighten.

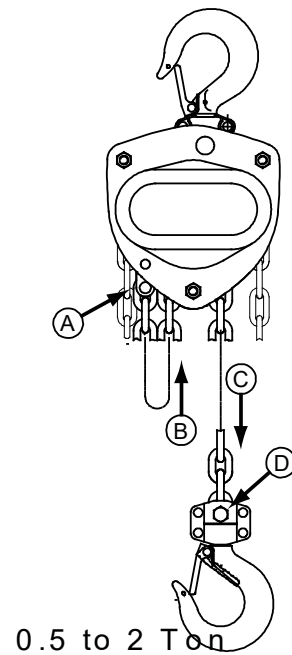


Figure 12

### Chain Installation – 3- to 5-Ton Hoists

Referring to Figure 13:

1. After installing the load chain into the *load chain sprocket* (B), run the remaining chain through your hand to remove any twist. The last link of the chain must be in the same direction as the first. If not, cut off the last link.
2. Insert the last link into the pulley of the lower hook (C).
3. Pull the load chain through and up from the underside of the *pulley* (C, D).
4. Remove the cotter pin and chain anchor pin in the *upper hook slot* (E).
5. Insert the last link into the upper hook slot.
6. Check that the load chain is not twisted.
7. Re-position the chain anchor pin back through the upper hook slot and the last chain link and secure with the cotter pin.

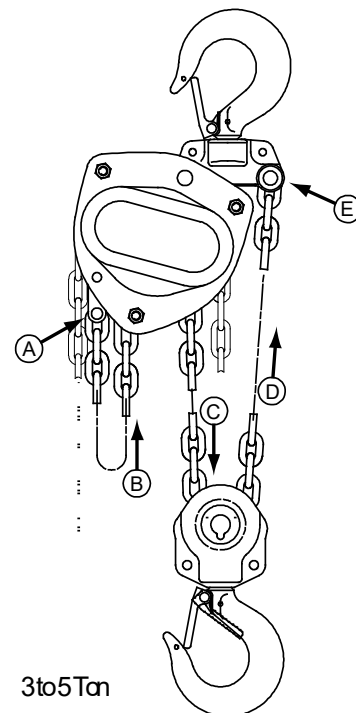


Figure 13



## Chain Installation – 10-Ton Hoist

Referring to Figure 14:

1. After installing the load chain into the load chain sprocket (B), run the remaining chain through your hand to remove any twist. The last link of the chain must be in the same direction as the first. If not, cut off the last link.
2. Insert the last link into the left side pulley of the lower hook (C).
3. Pull the load chain through and up from the underside of the pulley (C, D).
4. Insert the last link into the right hand pulley of the upper hook, moving the chain up, then around and down (D, E). Check that the load chain is not twisted and *welds face away from the pulley*.
5. Insert the last link into the right side pulley of the lower hook, pulling around, then up from the underside of the pulley (E, F). Check that the load chain is not twisted and *welds face away from the pulley*.
6. Remove the *cotter pin* and *chain anchor pin* in the upper hook slot (G).
7. Insert the last link into the upper hook slot.
8. Check that the load chain is not twisted.

Re-position the *chain anchor pin* back through the upper hook slot and the last chain link and secure with the *cotter pin*.

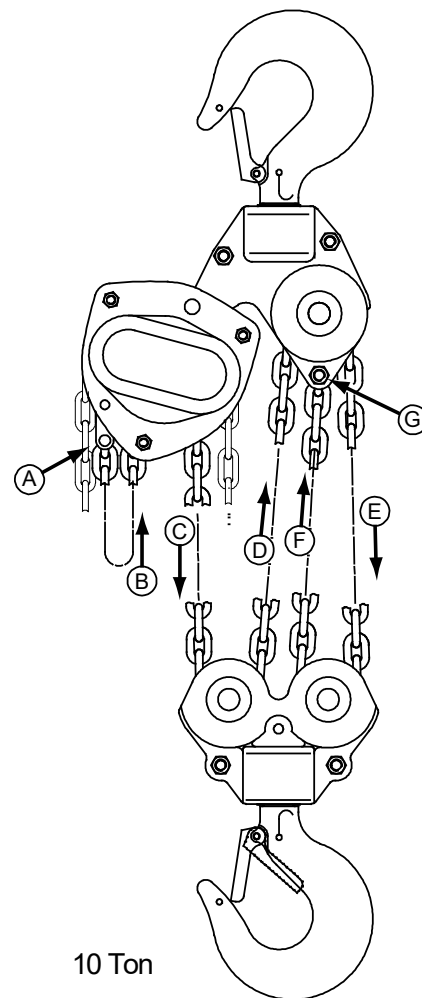


Figure 14

## 14.0 OVERLOAD PROTECTION

The ACH chain hoist has an optional overload protection feature in the form of a slip clutch (these are identified by a suffix of "OP" in the model number). The overload limiter is effective at greater than 180% of the rated hoist capacity.

The overload limiter will allow the Hand Chain Wheel #30 to move without lifting the load, if the load is too heavy for the hoist. The overload limiter has been pre-adjusted at the factory and should not require any adjustment by the user. If future adjustments or repairs to the overload limiter should not be done by the operator, this must be done by qualified personnel.

## 15.0 LOAD LIMITS

### Load Chain

Capacity	9 Links Normal	9 Links Limit
0.25 ton	4.25"	4.38"
0.5 ton	5.31"	5.47"
1 ton	6.73"	6.93"
1.5 ton	7.43"	7.66"
2 ton	8.50"	8.75"
3 ton	7.43"	7.66"
3.2 ton	10.62"	10.94"
5 ton	10.62"	10.94"
10 ton	10.62"	10.94"
15 ton	10.62"	10.94"
20 ton	10.62"	10.94"

Table 1

Carefully inspect the entire load chain. As illustrated in Figure 15, measure the length of nine consecutive links with callipers. Check every three feet, especially where excessive wear is indicated. Any load chain that shows noticeable deformation or heat influence must be replaced. Never extend the load chain by welding a second piece to the original.

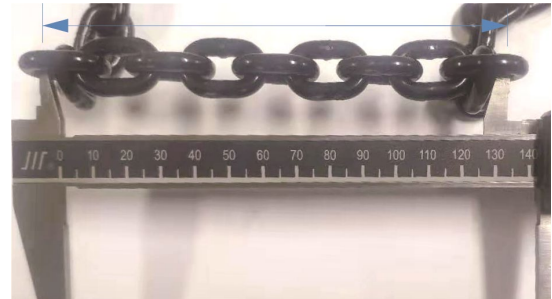


Figure 15

### Hooks (Top & Bottom)

Capacity	"g" Norm	"g" Limit	"e" Norm	"e" Limit
0.25 ton	1.4"	1.54"	1.04"	1.15"
0.5 ton	1.63"	1.80"	1.04"	1.15"
1 ton	1.95"	2.14"	1.24"	1.36"
1.5 ton	2.05"	2.26"	1.40"	1.54"
2 ton	2.17"	2.38"	1.52"	1.67"
3 ton	2.44"	2.69"	1.69"	1.86"
3.2 ton	2.44"	2.69"	1.69"	1.86"
5 ton	3.32"	3.65"	2.09"	2.3"
10 ton	3.54"	3.90"	2.52"	2.77"
20 ton	--	--	3.23"	3.55"

Table 2

See Figure 16. Replace the hook when the "e" or "g" measurement is wider than "e" or "g" Limit in the table above. Never heat-treat the hook or attach anything to the hook by welding.

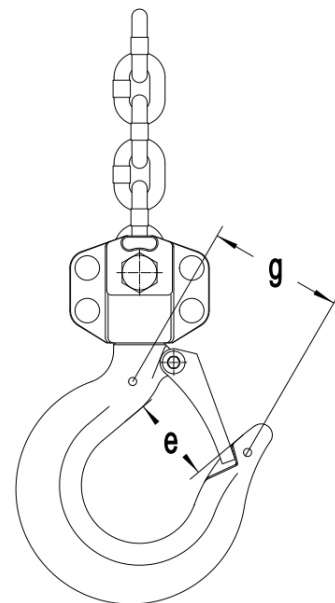


Figure 16

## 16.0 TIMING MARKS FOR SPUR GEAR REPLACEMENT

If the spur gears #11 on the ACH chain hoist need replacement or removal for any reason, make sure they are re-installed correctly. Figure 17 shows the proper orientation of the timing marks when meshing the gears.

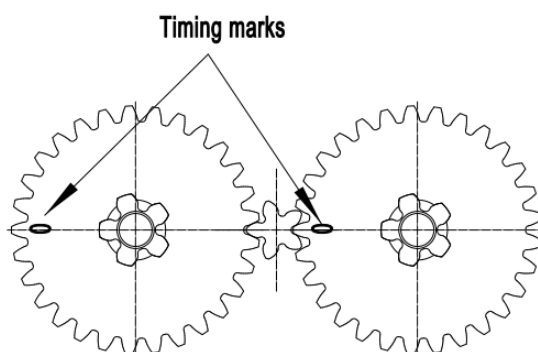


Figure 17

## 17.0 REPLACEMENT PARTS

When ordering Parts, please provide the Hoist model number, and serial number located on the hoist name plate (see Figure 18 below).

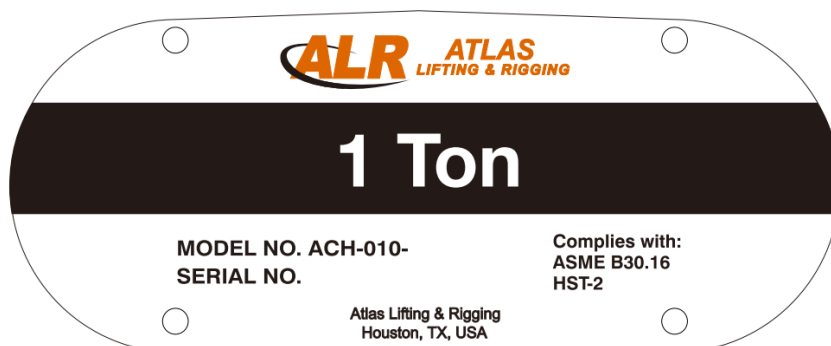
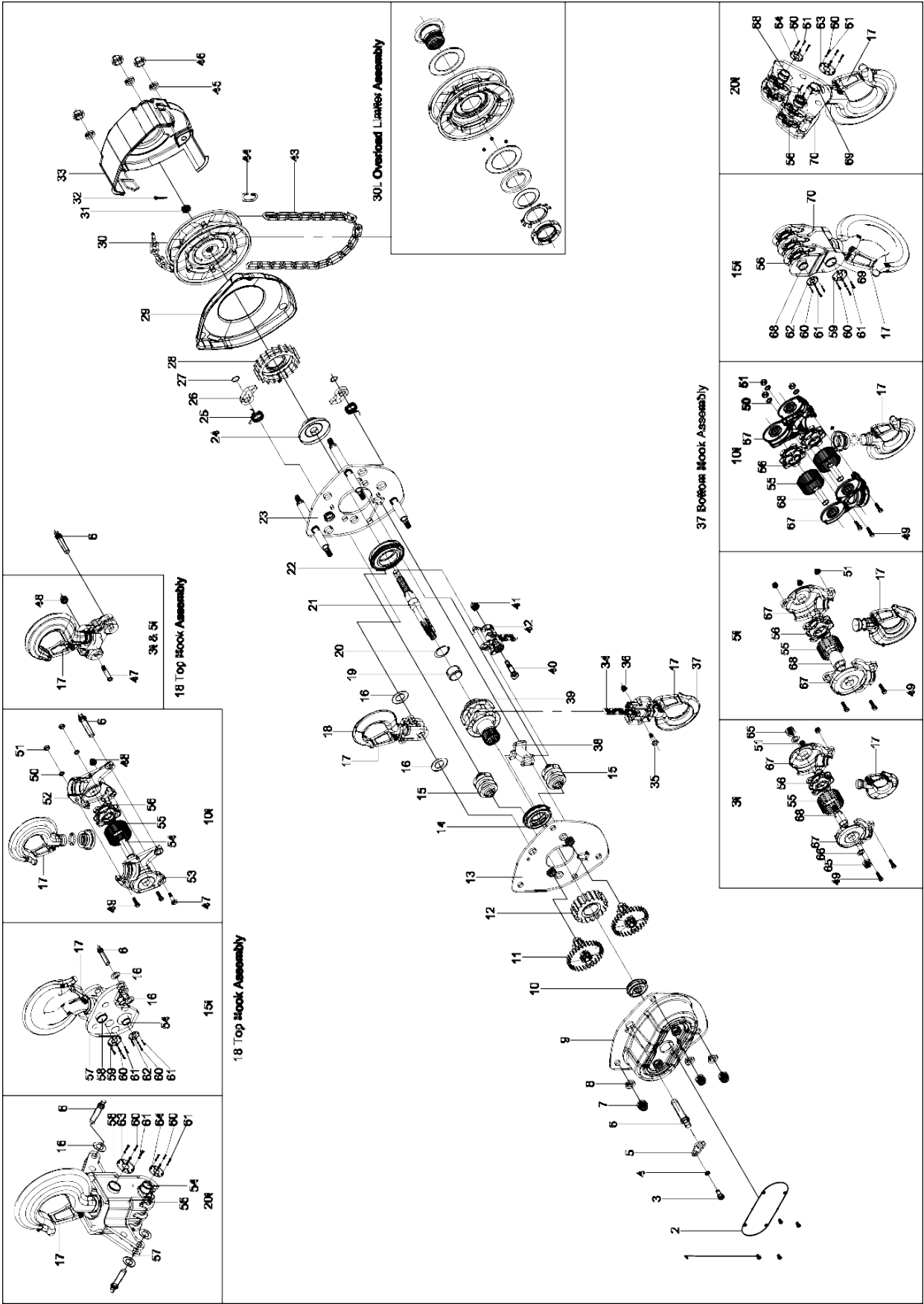


Figure 18 ACH Name Plate

### 17.1 Manual Chain Hoist Parts

Replacement parts are listed on the following pages. To order parts or reach our service department, call 1-833-ALR-LIFT, Monday through Friday (see our website for business hours, [www.ALRLift.com](http://www.ALRLift.com)). Having the Model Number and Serial Number of your machine available when you call will allow us to serve you quickly and accurately.

ACH Chain Hoist Parts Breakdown



Parts List: ACH Manual Chain Hoist (0.25 Ton to 20 Ton)

ACH Series Hand Chain Operated Hoist BOM

Index No.	Description	Qty.	Part No.													
			0.25 ton	0.5 ton	1 ton	1.5 ton	2 ton	3 ton	3.2 ton	5 ton	10 ton	15ton	20 ton			
1	Rivet	4	P-P-ACH0025-01	P-ACH005-01					P-ACH010-01				N/A			
		8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH010-01			
2	Name Plate	1	P-P-ACH0025-02	P-ACH005-02	P-ACH010-02	P-ACH015-02	P-ACH020-02	P-ACH030-02	P-ACH032-02	P-ACH050-02	P-ACH100-02	P-ACH150-02	N/A			
		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH200-02			
3	Screw	1		P-ACH010-03					P-ACH030-03				N/A			
		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH030-03			
4	Washer	1		P-ACH010-04					P-ACH030-04				N/A			
		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH030-04			
5	Shaft Cover Plate	1		P-ACH010-05					P-ACH030-05				N/A			
		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH030-05			
6	Top Hook Shaft	1	P-ACH0025-06	P-ACH005-06	P-ACH010-06	P-ACH030-05	P-ACH020-06	P-ACH030-06					N/A			
		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH050-06			
7	Acorn Nut	3	P-ACH0025-07		P-ACH030-07		P-ACH020-07	P-ACH030-07					N/A			
		6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH050-07			
8	Lock Washer	3	P-ACH0025-08		P-ACH030-08		P-ACH020-08	P-ACH030-08					N/A			
		6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH050-08			
9	Gear Cover Assembly	1	P-ACH0025-09	P-ACH005-09	P-ACH010-09	P-ACH030-09	P-ACH020-09	P-ACH030-09					N/A			
		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH050-09			
10	Seal Type Caged Ball Bearing	1	P-ACH0025-10	P-ACH005-10	P-ACH010-10	P-ACH030-10	P-ACH020-10	P-ACH030-10					N/A			
		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH050-10			
11	Spur Gear Assembly	2	P-ACH0025-11	P-ACH005-11	P-ACH010-11	P-ACH030-11	P-ACH020-11	P-ACH030-11					N/A			
		4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH050-11			
12	Load Gear	1	P-ACH0025-12	P-ACH005-12	P-ACH010-12	P-ACH030-12	P-ACH020-12	P-ACH030-12					N/A			
		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH050-12			
13	Gear Side Plate Assembly	1	P-ACH0025-13	P-ACH005-13	P-ACH010-13	P-ACH030-13	P-ACH020-13	P-ACH030-13					N/A			
		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH050-13			
14	Seal Type Caged Ball Bearing	1	P-ACH0025-14	P-ACH005-14	P-ACH010-14	P-ACH030-14	P-ACH020-14	P-ACH030-14					N/A			
		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH050-14			
15	Guide Roller	2	P-ACH0025-15	P-ACH005-15	P-ACH010-15	P-ACH030-15	P-ACH020-15	P-ACH030-15					N/A			
		4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH050-15			
16	Washer	2	P-ACH0025-16	N/A	P-ACH010-16	P-ACH030-16	P-ACH020-16	P-ACH030-16					N/A			
		4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH100-16	N/A			
17	Cast Safety Latch Assembly	2	P-ACH0025-17	P-ACH005-17	P-ACH010-17	P-ACH015-17	P-ACH020-17	P-ACH030-17					N/A			
		1	P-ACH0025-18	P-ACH005-18	P-ACH010-18	P-ACH015-18	P-ACH020-18	P-ACH030-18	P-ACH032-17	P-ACH050-17	P-ACH100-17	P-ACH200-17	N/A			
18	Top Hook Assembly	1							P-ACH032-18	P-ACH050-18	P-ACH100-18	P-ACH200-18	N/A			
		2	P-ACH0025-19	P-ACH005-19	P-ACH010-19	P-ACH020-19	P-ACH030-19	P-ACH030-19					N/A			
19	Needle Bearing	1		N/A					N/A	N/A	N/A	N/A	P-ACH050-19			
		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH050-19			
20	C-Clip	1	P-ACH0025-20		P-ACH010-20		P-ACH020-20	P-ACH010-20					N/A			
		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH050-20			
21	Drive Shaft	1	P-ACH0025-21	P-ACH005-21	P-ACH010-21	P-ACH030-21	P-ACH020-21	P-ACH030-21					N/A			
		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH050-21			
22	Seal Type Caged Ball Bearing	1	P-ACH0025-22	P-ACH005-22	P-ACH010-22	P-ACH030-22	P-ACH020-22	P-ACH030-22					N/A			
		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH050-22			
23	Wheel Side Plate Assembly	1	P-ACH0025-23	P-ACH005-23	P-ACH010-23	P-ACH030-23	P-ACH020-23	P-ACH030-23					N/A			
		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH050-23			
24	Disc Hub	1	P-ACH0025-24	P-ACH005-24	P-ACH010-24		P-ACH020-24	P-ACH010-24					N/A			
		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH050-24			
25	Pawl Spring	2	P-ACH0025-25	P-ACH005-25			CH030-25						N/A			
		4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH050-25			

ACH Series Hand Chain Operated Hoist BOM

Index No.	Description	Qty.	Part No.														
			0.25 ton	0.5 ton	1 ton	1.5 ton	2 ton	3 ton	3.2 ton	5 ton	10 ton	15ton	20 ton				
26	Pawl	2	P-ACH0025-26	P-ACH005-26						P-ACH050-26						N/A	
		4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH050-26
27	Snap Ring	2	P-ACH0025-27	P-ACH005-27							P-ACH050-27					N/A	
		4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH050-27
28	Sintered Ratchet Disc	1	P-ACH0025-28	P-ACH005-28		P-ACH010-28	P-ACH020-28	P-ACH010-28		P-ACH050-28						N/A	
		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH050-28
29	Dust Cover	1	P-ACH0025-29	P-ACH005-29		P-ACH010-29	P-ACH020-29	P-ACH030-29		P-ACH050-29						N/A	
		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH050-29
30	Hand Chain Wheel	1	P-ACH0025-30	P-ACH005-30		P-ACH010-30	P-ACH020-30	P-ACH030-30		P-ACH050-30						N/A	
		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH050-30
30L	Overload Limiter Assembly	1	P-ACH0025-30L	P-ACH005-30L		P-ACH010-30L	P-ACH020-30L	P-ACH030-30L		P-ACH050-30L						N/A	
		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH050-30L
31	Pinion Nut	1		P-ACH030-31			P-ACH020-31	P-ACH030-31		P-ACH050-31						N/A	
		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH020-31
32	Split Pin	1		P-ACH030-32			P-ACH020-32	P-ACH030-32		P-ACH050-32						N/A	
		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH020-32
33	Hand Wheel Cover Assembly	1	P-ACH0025-33	P-ACH005-33		P-ACH010-33	P-ACH020-33	P-ACH030-33		P-ACH050-33						N/A	
		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH050-33
34	Load Chain	As Req'd	P-ACH0025-34	P-ACH005-34		P-ACH010-34	P-ACH020-34	P-ACH030-34		P-ACH050-34						N/A	
		1	P-ACH0025-35	P-ACH005-35		P-ACH010-35	P-ACH020-35	P-ACH030-35		P-ACH050-35							N/A
35	Load Pin	1	P-ACH0025-36	P-ACH005-37		P-ACH010-36	P-ACH020-36	P-ACH030-36		P-ACH050-36						N/A	
		1	P-ACH0025-37	P-ACH005-38		P-ACH010-37	P-ACH020-37	P-ACH030-37		P-ACH050-37						N/A	P-ACH200-37
37	Bottom Hook Assembly	1	P-ACH0025-38	P-ACH005-38		P-ACH010-38	P-ACH020-38	P-ACH030-38		P-ACH050-38						N/A	
		1	P-ACH0025-39	P-ACH005-39		P-ACH010-39	P-ACH020-39	P-ACH030-39		P-ACH050-39							N/A
38	Stripper	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH050-38
		1	P-ACH0025-39	P-ACH005-39		P-ACH010-39	P-ACH020-39	P-ACH030-39		P-ACH050-39							N/A
39	Load Sheave	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH050-39
		1	P-ACH005-40			P-ACH010-40	P-ACH020-40	P-ACH030-40		P-ACH050-40							N/A
40	Socket Cap Screw	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH050-40
		1		P-ACH010-41			P-ACH020-41	P-ACH030-41		P-ACH050-41							N/A
41	Lock Nut	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH050-40
		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH050-41
42	Anchor Plate	1	P-ACH0025-42	P-ACH005-42		P-ACH010-42	P-ACH020-42	P-ACH030-42		P-ACH050-42						N/A	
		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH050-42
43	Hand Chain	As Req'd	P-ACH0025-43							P-ACH010-43							N/A
		1	P-ACH0025-44	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
44	Connecting Link	2	N/A							P-ACH010-45							N/A
		3	P-ACH0025-45														N/A
45	Lock Washer	6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH010-45
		3	P-ACH0025-46														N/A
46	Acorn Nut	6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH010-46
		1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
47	Load Pin	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
48	Lock Nut	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
49	Socket Head Cap Screw	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
50	Lock Washer	5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
51	Hexagon Nut	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

ACH Series Hand Chain Operated Hoist BOM

Index No.	Description	Qty.	Part No.											
			0.25 ton	0.5 ton	1 ton	1.5 ton	2 ton	3 ton	3.2 ton	5 ton	10 ton	15ton	20 ton	
52	Right Top Hook Holder	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH100-52	N/A	N/A	
53	Left Top Hook Holder	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH100-53	N/A	N/A	
54	Top Idle Shaft	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH100-54	P-ACH150-54	P-ACH200-54	
55	Roller Pin	34	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH100-55	N/A	N/A	
		28	N/A	N/A	N/A	N/A	N/A	P-ACH030-55	N/A	N/A	N/A	N/A	N/A	
		34	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH050-55	N/A	N/A	N/A	
		29	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH100-55	N/A	N/A	
		90	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
56	Idle Sheave	210	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH200-55	
		3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
		5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
		7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
		1	N/A	N/A	N/A	N/A	N/A	P-ACH030-56	N/A	P-ACH050-56	N/A	N/A	P-ACH200-56	
57	Top Hook Holder	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
58	Hook Shaft	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH150-57	P-ACH200-57	
59	Slotted baffle	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH150-58	P-ACH200-58	
60	Hexagon Socket Head Cap Screw	16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH200-59	N/A
		20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH200-60	N/A
61	Lock Washer	16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH200-61	N/A	N/A
62	Slotted baffle	20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH200-61
		4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
63	Bottom Hook Holder	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH200-62	N/A	N/A
64	Slotted baffle	6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH150-63	P-ACH200-63	N/A
65	Bottom Hook Holder	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH200-64	N/A
66	Bottom Idle Shaft	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH100-65	N/A	N/A
67	Bottom Hook Shaft	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH050-66	P-ACH101-66	N/A
		1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH100-66	N/A
			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P-ACH200-67	P-ACH200-67	N/A

Record your purchase and installation information here

Purchased from: \_\_\_\_\_

Date: \_\_\_\_\_

Serial Number: \_\_\_\_\_

Model Number: \_\_\_\_\_

Location Installed: \_\_\_\_\_

Date Installed: \_\_\_\_\_

Date in Service: \_\_\_\_\_

**Strength - Safety - Reliability**

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