

Operating and  
Servicing Instructions  
for

**CHANCE**®

Convertible - Rated  
<sup>3</sup>/<sub>4</sub>-Ton - 1<sup>1</sup>/<sub>2</sub>-Ton Nylon Strap Hoists  
and 1 - 2-Ton Nylon Strap Hoists

Refer to any questions about the use, application, repair or testing of this hoist to:

**Hubbell / Chance**  
**210 N. Allen St.**  
**Centralia, MO 65240**  
**Phone: (573) 682-5521**

**<sup>3</sup>/<sub>4</sub> - 1<sup>1</sup>/<sub>2</sub> Ton Catalog Numbers**

Rubber Glove Models:

C309-0451

T309-0682

T309-0839

Hotstick Models:

C309-0452

T309-0663

T309-0685

**1 - 2 Ton Catalog Numbers**

Rubber Glove Models:

T309-0811

Hot Stick Models:

T309-0683

T309-0840

These instructions do not claim to cover all details or variations in equipment, nor to provide for all possible conditions to be met concerning installation, operation, or maintenance of this equipment. If further information is desired or if particular problems are encountered which are not sufficiently covered in this guide, contact Hubbell / Chance

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**CHANCE**®

POWER SYSTEMS, INC.

NOTE: Because Hubbell has a policy of continuous product improvement, we reserve the right to change design and specifications without notice.

## Hoist Capacity

Two hoist ratings are available. One is convertible for either 3/4 ton (1500 lb./675 kg.) or 1 1/2 ton (3000 lb./1350 kg.) capacity. The other is convertible for either 1-ton (2000 lb./900 kg.) or 2-ton (4000 lb./1800 kg.) capacity.

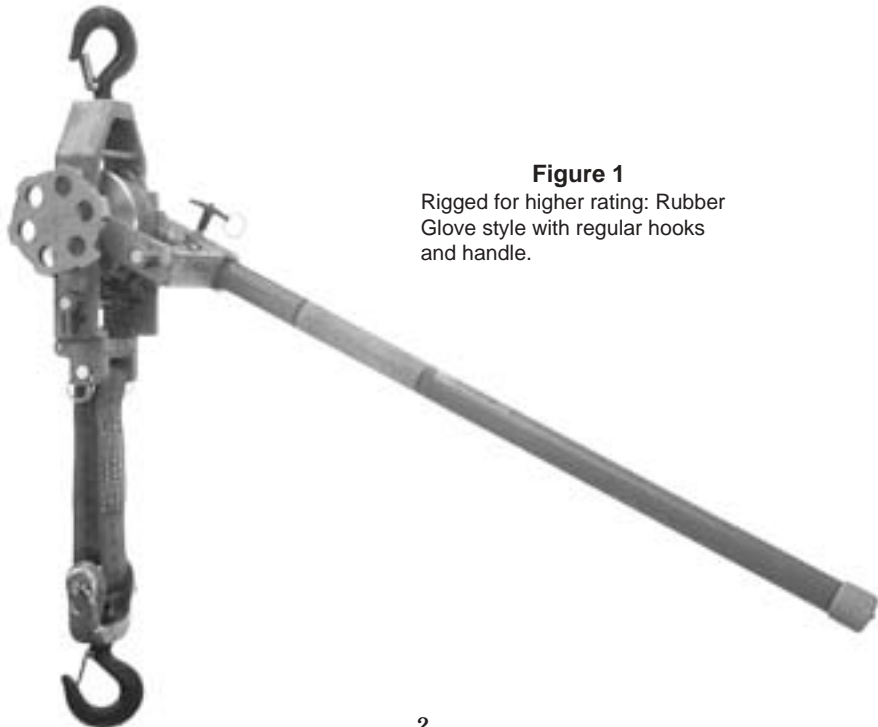
To rig the hoist for the higher rating, the strap must be run around the roller (P309-0531) in the load hook yoke, and back to the lower clevis in the housing. The housing loop pin (P309-0528) must be inserted through the loop in the end of the strap attaching it to the housing. Secure the pin with a keeper ring (P309-0539) inserted through the hole in both ends of the pin. (Refer to Fig. 1 and exploded view).

To rig the hoist for the lower rating, remove the housing loop pin (P309-0528), remove the strap, and reinsert the pin in the housing for storage. Remove the pin from the load hook yoke. Insert the yoke spool into the loop in the end of the strap. Pin the yoke spool/strap loop end into the yoke using the loop pin. Secure the pin with a keeper ring (P309-0539) inserted through the hole in both ends of the pin. (Refer to Fig. 2 and exploded view).

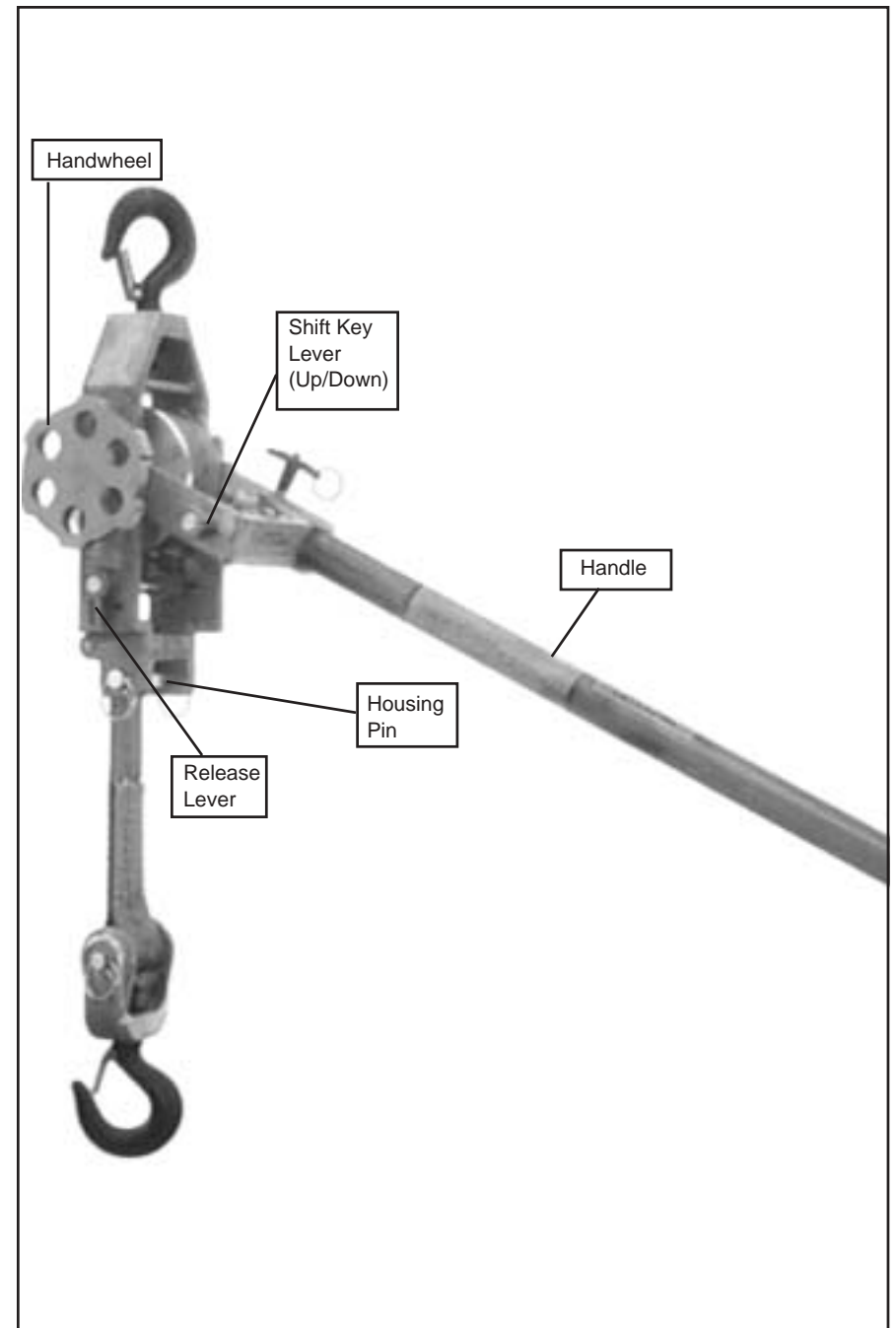
**NOTE:** These hoists must be used with appropriate length insulating link sticks if they are used in energized line work (see Chance® Catalog for insulated link sticks that can be used with these hoists).

### **WARNING**

**These hoists are not insulated live line tools.**



**Figure 1**  
Rigged for higher rating: Rubber  
Glove style with regular hooks  
and handle.



**Figure 2**

## Operating Instructions

REFER TO A.S.M.E. STANDARD 30.21 FOR MORE INFORMATION ON OPERATION, MAINTENANCE, AND TESTING OF THIS HOIST.

### FOR SAFE HOIST OPERATION:

1. **NEVER** operate this hoist if you are not familiar with how the hoist works.
2. **NEVER** lift people or loads over people.
3. **NEVER** use a hoist as a load binder.
4. **NEVER** use a hoist beyond rated capacity.
5. **NEVER** use replacement parts other than those supplied by A. B. Chance.
6. **NEVER** use a cheater or longer handle in the hoist.
7. **NEVER** allow the strap to come in contact with any object.
8. **NEVER** use the hoist if the pull is not hook to hook straight line.
9. **NEVER** leave a load suspended in the air.
10. **NEVER** use a hoist as a tow line.
11. **NEVER** use a hoist that is worn or malfunctioning.

### CONSIDER THE WORK AREA

Determine the position and how the hoist is to be attached, based on the job to be accomplished, the structure to which the hoist is to be attached, and the type and weight of the load to be moved.

### WARNING

The hoist must be positioned so the load hook and housing hook are in a straight line pull. The strap and/or housing must not be forced out of line which could cause binding or damage to equipment. The handle and controls of the hoist must be free to operate and not contact objects which could cause the controls to move or damage the hoist.

The load must seat in the hook so the load is in line with the shank of the hook and centerline of the strap. **DO NOT LOAD HOOKS ON THE POINT.**

The safety latches must be closed to secure the hook and prevent accidental loss of the load. **NEVER ALLOW LOAD TO BEAR ON SAFETY LATCHES.**

The strap may be quickly extended to hook to a load by operating the “RELEASE LEVER” with the “SHIFT KEY LEVER” in the “DN” (DOWN) position.

The strap is painted red near the spool end.

### WARNING

**NEVER LOAD THE HOIST WHEN THE RED PAINT ON THE STRAP CAN BE SEEN.**

### WARNING

**ALWAYS INSPECT THE HOIST FOR WEAR, DAMAGE, AND PROPER OPERATION BEFORE EACH USE.**

If accessories, such as slings, wire grips or link sticks are used with the hoist, the rated working load of these items must be equal to or greater than the load.

## Lifting Loads

### WARNING

**MAKE SURE THE WORK AREA IS CLEAR OF ALL UNNECESSARY EQUIPMENT AND PERSONNEL BEFORE MOVING A LOAD. PERSONNEL AND EQUIPMENT SHOULD BE MOVED CLEAR OF THE AREA IN CASE THE LOAD SHOULD FALL.**

Refer to Fig. 2 for identification of hoist controls.

The handwheel or eyenut, located on the side of the hoist, may be used to quickly take up the slack strap prior to lifting the load. Move the “SHIFT KEY LEVER” to the “UP” position and rotate the wheel or eyenut.

Lift the load by moving the handle in full, even strokes. Do not slam or jerk the handle. If excessive force (more than 100 lb. for  $3/4$  - 1 $1/2$  Ton — 150 lb. for 1 - 2 Ton) is required to operate the handle, the hoist is probably overloaded. Check the load and/or rigging before proceeding. If the load is greater than the rating of the hoist **DO NOT LIFT THE LOAD.**

### WARNING

**NEVER OVERLOAD THE HOIST. NEVER USE A CHEATER OR EXTEND THE HANDLE.**

### CAUTION

**ONCE THE LOAD IS LIFTED INTO POSITION, THE “SHIFT KEY LEVER” MUST BE IN THE “UP” POSITION FOR HOLDING THE LOAD. THIS WILL HELP PREVENT ACCIDENTAL LOWERING OF THE LOAD.**

### LOWERING A LOAD (Requires more than 25 lb.)

Hold onto the handle, set the “SHIFT KEY LEVER” to the “DN” (DOWN) position.

### WARNING

**NEVER LET THE HOIST SELF-RATCHET OR THE HANDLE TO FLY LOOSE. THE QUICKLY MOVING HANDLE CAN CAUSE INJURY AND SELF-RATCHETING MAY DAMAGE THE HOIST.**

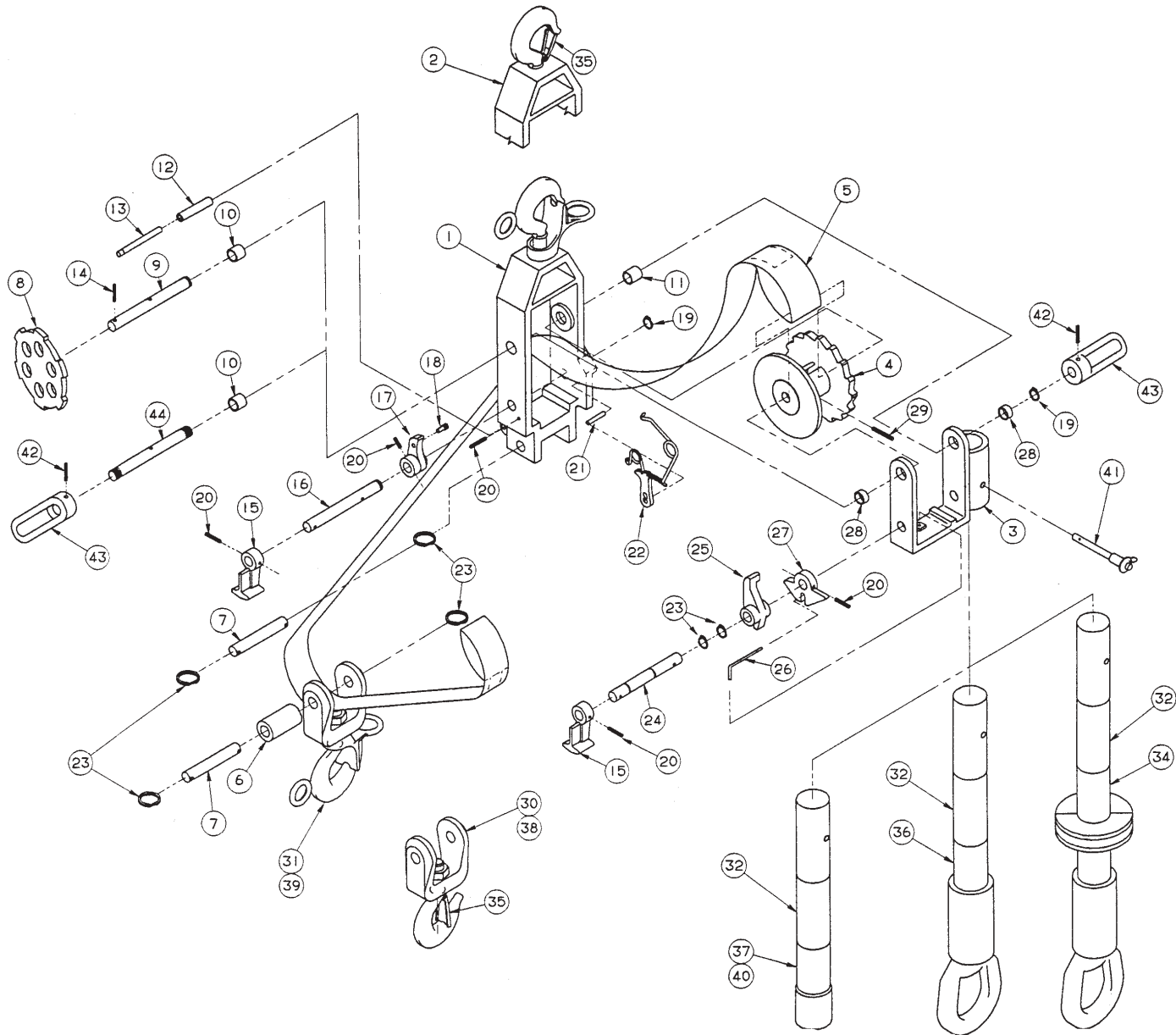
Operate the handle until the “WORKING DOG” engages the ratchet wheel tooth. Additional pressure on the handle in the same direction will release the “HOLDING DOG”. Slowly move the handle, maintaining control, in the opposite direction, lowering the load, until the “HOLDING DOG” engages the ratchet wheel. The “WORKING DOG” will then release allowing the operator to repeat this movement to lower the load.

When the load is completely off of the hoist, the strap “RELEASE LEVER” may be operated to quickly extend the strap for unhooking.

### WARNING

**NEVER ATTEMPT TO OPERATE THE “RELEASE LEVER” WHILE THE HOIST IS LOADED.**

# Servicing Your Strap Hoist



## REPAIR PARTS LIST FOR CHANCE CONVERTIBLE RATED NYLON STRAP NOISTS

ITEM	DESCRIPTION	PART NO.
1	Housing Assembly (H/S)	E309-0849
2	Housing Assembly (R/G)	E309-0850
3	Handle Casting	P309-0512
4	Ratchet Spool	P309-0513
5	Strap	P309-0473
6	Yoke Spool	P309-0531
7	Loop Pin	P309-0528
8	Hand Wheel	P309-0523
9	Main Shaft	P309-0522
10	Bearing	P308-0540
11	Bearing	P309-0541
12	Idler Roller	P309-0526
13	Groove Pin	P309-0547
14	Roll Pin 3/16" x 1"	P309-0545
15	Release Lever	P309-0871
16	Holding Dog Shaft	P309-0524
17	Holding Dog	P309-0525
18	Dog Spring Pin	P309-0537
19	Snap Ring	P309-0532
20	Roll Pin 1/8" x 7/8"	P309-0527
21	Body Spring Pin	P001-0017
22	Pawl Control Assembly	P309-0808
23	Split Ring	P309-0539
24	Working Dog Shaft	P309-0519
25	Working Dog	P309-0515
26	Reversing Rod	P309-0517
27	Reversing Cam	P309-0872
28	Bearing	P309-0533
29	Roll Pin 5/32" x 1 1/2"	P309-0546
30	Load Hook Assy. (1-2T R/G) Bronze Yoke	E309-0853
31	Load Hook Assy. (1-2T H/S) Bronze Yoke	E309-0854
32	Label	P309-0426
33	Label	P312-0027
34	Handle 40" Lg. w/Guard	E309-0843
35	Latch Assembly (R/G)	P309-0392
36	Handle 30" Lg. (H/S)	P309-0475
37	Handle 30": Lg. (R/G)	P309-0474
38	Load Hook Assy. (R/G) Aluminum Yoke	E309-0851
39	Load Hook Assy. (H/S) Aluminum Yoke	E309-0852
40	Handle 36" Lg. (R/G)	P309-0690
41	Ball-Lok Pin	P309-0829
42	Roll Pin	P309-0272
43	Eye Nut (H/S)	P309-0848
44	Long Shaft	P309-0835

## **WARNING**

**ALWAYS WEAR SAFETY GLASSES AND OTHER APPROPRIATE PROTECTIVE EQUIPMENT DURING THE FOLLOWING PROCEDURES. USE THE CORRECT TOOLS FOR THE OPERATIONS BEING PERFORMED.**

### **DISASSEMBLY PROCEDURE**

1. Unroll the strap from the hoist by following the procedures outlined previously for extending the strap. When the strap is fully extended, the spool (P309-0512) will be exposed. Locate the roll pin (P309-0546) which goes through the spool. Using a long 1/8" punch, drive this roll pin completely out of the spool.
2. Remove the retaining ring (P309-0532) from the handle end of the main shaft (P309-0522). Holding the handle and spool, grasp the handwheel and pull the main shaft from the hoist. **CAUTION WHEN THE SHAFT IS REMOVED, THE HANDLE ASSEMBLY, SPOOL, AND STRAP WILL BE LOOSE AND COULD FALL.**
3. Lay the handle assembly aside. The spool and strap can be removed from the housing. If the strap is to be removed completely, it may be necessary to drive pin (P309-0547) from the lower housing. Use a 1/4" punch and drive the pin from the handle side of the hoist toward the handwheel side. Remove the pin and idler roller (P309-0526).

### **HOUSING SUB-ASSEMBLY**

1. Remove the roll pin (P309-0527) from the holding dog (P309-0525).
2. Disconnect pawl control spring (P309-0808) from the housing. Leave the spring attached to holding dog unless the spring or dog must be replaced.
3. Remove the retaining ring (P309-0532) from the handle end of the holding dog shaft (P309-0524). Remove the shaft from the housing.

### **HANDLE SUB-ASSEMBLY**

1. Remove the roll pin (P309-0527) from the reversing cam (P309-0869).
2. Locate the retaining ring (P309-0532) on the lever end of the working dog shaft (P309-0519). Slide this ring down the shaft toward the working dog (P309-0515) approximately 2 inches.
3. Slide the working dog and shaft out of the handle housing (P309-0512). Remove the reversing cam (P309-0869), working dog (P309-0515), and reversing rod (P309-0517).
4. If it is necessary to fully remove the working dog and shaft (P309-0519) for repairs, remove the two retaining rings (P309-0532) from the shaft.

## **Care and Service of Your Hoist**

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Your Chance hoist will give many years of satisfactory performance if used and maintained properly.

Always hang the hoist freely with a straight line between the housing hook and the load hook. **DO NOT JAM THE HOIST OR STRAP AGAINST ANY OBJECT. THIS HOIST IS INTENDED FOR INDUSTRIAL OR UTILITY USE AND IS NEVER TO BE USED FOR LIFTING PEOPLE OR LOADS OVER PEOPLE.**

The Chance hoist is extremely easy to care for. The open frame construction makes it a simple task to clean and inspect. You will add years of life to the hoist by applying the following recommendations.

1. Do not use the hoist if it does not operate properly or is damaged in any way.
2. Do not allow the strap to be pulled over any sharp edge or wrapped around a pole or crossarm. Always use a sling or other means of attachment.
3. Stop pulling before the load hook is pulled tight to the housing. Continued pulling into the housing may damage the hoist.
4. Never allow the handle to fly free, or the hoist to self-ratchet.
5. Never throw or drop the hoist. Doing so can damage the hoist.
6. Keep the strap clean. Inspect the strap and hoist before each and every use. Do not use a hoist if the strap is frayed, cut or damaged.
7. All hoists must be periodically cleaned, inspected and re-lubricated. Intervals will depend on usage. The bronze bearings and all moving parts of the hoist must be re-lubricated with 30 wt. oil or a light grease.
8. Extra care must be used when lowering a light or "bouncing" load such as a span of conductor. If the handle is "flipped" the hoist can self-ratchet which causes severe wear on the dogs, ratchet teeth, and stop areas of the hoist.
9. When operating the handle, do not "slam" the handle. A smooth, steady pressure in each direction moves the load efficiently and does not cause damage to the equipment.

## Inspection

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Thoroughly clean all metal parts with solvent and dry. The Epoxiglas handle can be cleaned and refinished as any Chance hot line tool. Refer to Chance catalog for cleaning and refinishing supplies.

### WARNING

**DO NOT ATTEMPT TO CLEAN THE STRAP. IF THE STRAP IS DIRTY OR CONTAMINATED, IT MUST BE REPLACED.**

Inspect the strap for any signs of wear, torn threads or stitching, frayed edges or cuts. Discoloration is a sign that the strap should be replaced. If there is any doubt about the integrity of the strap, replace it.

Inspect all metal parts for wear. This includes rounded edges, elongated holes, battered areas caused by impacts. All castings should be inspected closely for cracks or other signs of damage.

Inspect the ratchet spool closely for damage to the teeth. Special attention should be given to the “working surfaces” of the teeth. If the top of a tooth is rounded or sheared off from impact, the spool must be replaced. Look carefully at the spool area where the strap winds for sign of crushing caused by severe overloading.

Inspect the hooks for signs of bending or opening of the hook throat.

Safety latches must be in place and working properly.

All springs, including the reversing rod, should be inspected for signs of wear or bending. The reversing rod should be straight on the long leg. Any bending of the long leg indicates need for replacement.

Inspect the bronze bearings in the housing for wear or elongation. Replace any questionable bushings or if desired, the entire housing assembly.

## Assembly

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After all worn or damaged parts have been identified and replaced, the hoist may be reassembled in reverse order of disassembly. All bronze bearings must be lubricated with 30 wt. oil. All sliding or moving parts on shafts, etc. must be lubricated with a thin coating of light grease.

The hoist should not require great force to assemble with the exception of driving of roll pins. If parts will not fit together easily, it is likely that something is bent or damaged. Identify the problem before proceeding.

## Testing

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After assembly, the hoist must be checked for proper operations and load tested.

Suspend the hoist from a support that can hold the test loads. With a load of 100 lb. on the hoist, carefully raise and lower the load. The handle should be operated to rotate the ratchet spool at least one complete revolution (16 teeth) in one tooth increments to insure all teeth are tested.

A load equal to the rating of the hoist should then be raised and lowered in a similar manner. Attention to the operation of all controls, and the action of the dogs during testing, is essential to make sure the hoist is safe to return to duty. If the hoist passes the above tests, the hoist may be returned to the user.

It is recommended that the user establishes a procedure for the routine inspection, repair and testing of this hoist, based on usage, to ensure a safe working environment.