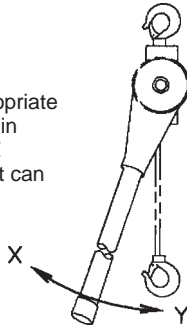


Operating & Servicing Instructions For **CHANCE**

2-Ton Nylon Strap Hoist (Catalog No. C312-0000)

Hoist Capacity - 4000 lbs. (1800 kg.)

NOTE:
This hoist must be used with appropriate length insulating link sticks if used in energized line work (see CHANCE catalog for insulated link sticks that can be used with this hoist).



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 A. B. Chance Company.

! CAUTION

This hoist is not an insulated hot line tool.

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

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, determined the position and how the hoist is to be attached.

! WARNING

The hoist must be positioned so the load hook and the 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 must 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 THE LOAD TO BEAR ON THE SAFETY LATCHES.**

The strap may be quickly extended to hook to a load by operating the "RELEASE LEVER" on the handle with the "SHIFT KEY" in the "DOWN" position.

The handle may be operated in one of two positions on this hoist. To move the handle from one side to the other, with no load on the hoist, operate and hold the "RELEASE LEVER" while swinging the handle through the "6 o'clock" position to the other side.

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

Maximum load rating - 2 Ton (4000 lbs./1800 kg)

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 falls.

The handwheel, 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 LEVER" to the "UP" position and rotate the wheel.

Lift the load by moving the handle in full, even strokes. Do not slam or jerk the handle. If excessive force (more than 150 lbs.) 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" must be in the "UP" position for holding the load. This will help prevent accidental lowering of the load.

LOWERING A LOAD

WARNING

Never let the hoist self-ratchet or the handle fly loose. The quickly moving handle can cause injury, and self-ratcheting may damage the hoist.

Holding onto the handle, set the "SHIFT KEY" to the "DOWN" position. 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". While maintaining control, slowly move the handle 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 the hoist, the "RELEASE LEVER" may be operated to extend the strap for unhooking.

WARNING

Never operate the "RELEASE LEVER" while the hoist is loaded.

REPAIR PARTS LIST FOR CHANCE TWO TON NYLON RATCHET HOIST

HANDLE BODY SUBASSEMBLY	E309-0263	Nylon Web Assembly	E309-0262
Handle Body	P309-0054	Spool	P309-0260
Oilite Bearing	058614	Split Rings	P309-0539
Release Key	P309-0346 +	Loop Pin	P309-0528
Pin	019486 +	Screw, (Web Anchor)	P001-0177
Spring	056010 +	Web Clamp for Spool	P309-0062
Handle Dog Subassembly	E309-0354 +	Yoke Spool	P309-0531
Washer	056014 +	Tension Pin	P309-0272
Screw	056013 +	Hoist Hand Wheel	P309-0523
Stop Bolt	019673 +	Snap Rings	056011 +
Spring	P309-0307 +	Up & Down Lever (Shift Key Lever)	P309-0444 +
Jam Nut	056748 +	Spring Washer	056689 +
Handle Bolt	P001-0178	Reversing Rod (Shift Key)	P309-0445
HOUSING		Pin	059036 +
SUBASSEMBLY W/ HOOK	E309-0258	Screw	056163 +
* Oilite Bearing	058613	Body Dog Assembly	E309-0354 +
* Oilite Bearing	019305	Main Shaft Pin	P309-0066
REMAINING PARTS		Main Shaft Assembly	P309-0259
Pin	056016	Unloader Plate Subassembly	E309-0356 +
Belt Guide	P309-0271	Spring	056009 +
Belt Idler	P309-0057	Spring	P309-0352 +
Strap Loop Pin	P309-0270	Wear Strip	P309-0818 +
Pin	P309-0347 +	Handle	E309-0264
Idler Pin	P309-0266	Lower Hook Assembly	E309-0855

+ C309-0349 Repair Kit includes all items marked +.

* Included in housing subassembly.

WARNING

When placing the hoist in operating position care must be taken to make sure that the load hook and the housing hook of the hoist are on the same centerline. If the hoist is restricted from adjusting itself to form a straight line with the direction of loading damage to the hoist could occur.

CAUTION

The equipment covered in this instruction guide must be installed, used, and serviced only by competent personnel familiar with and following good work and safety practices. This equipment is for use by such personnel and is not intended as a substitute for adequate training and experience in safe procedures for this type of equipment.

The information contained in this instruction guide has been compiled as a result of review of the product, its intended application and use considerations. However, this instruction guide does not cover all details or situations in equipment use nor does it provide for every possible contingency to be encountered in relation to installation, operation or maintenance. Should additional information and details be desired or specific situations arise which are not covered adequately for the user's purpose, consult your supervisor and the appropriate rules for safe work practices.

CARE AND SERVICE OF YOUR HOIST

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.**

THE 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 maintain. Years of life will be added 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.
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 must be lubricated with 30 wt. oil. All other moving parts must be lubricated with oil or film of 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.

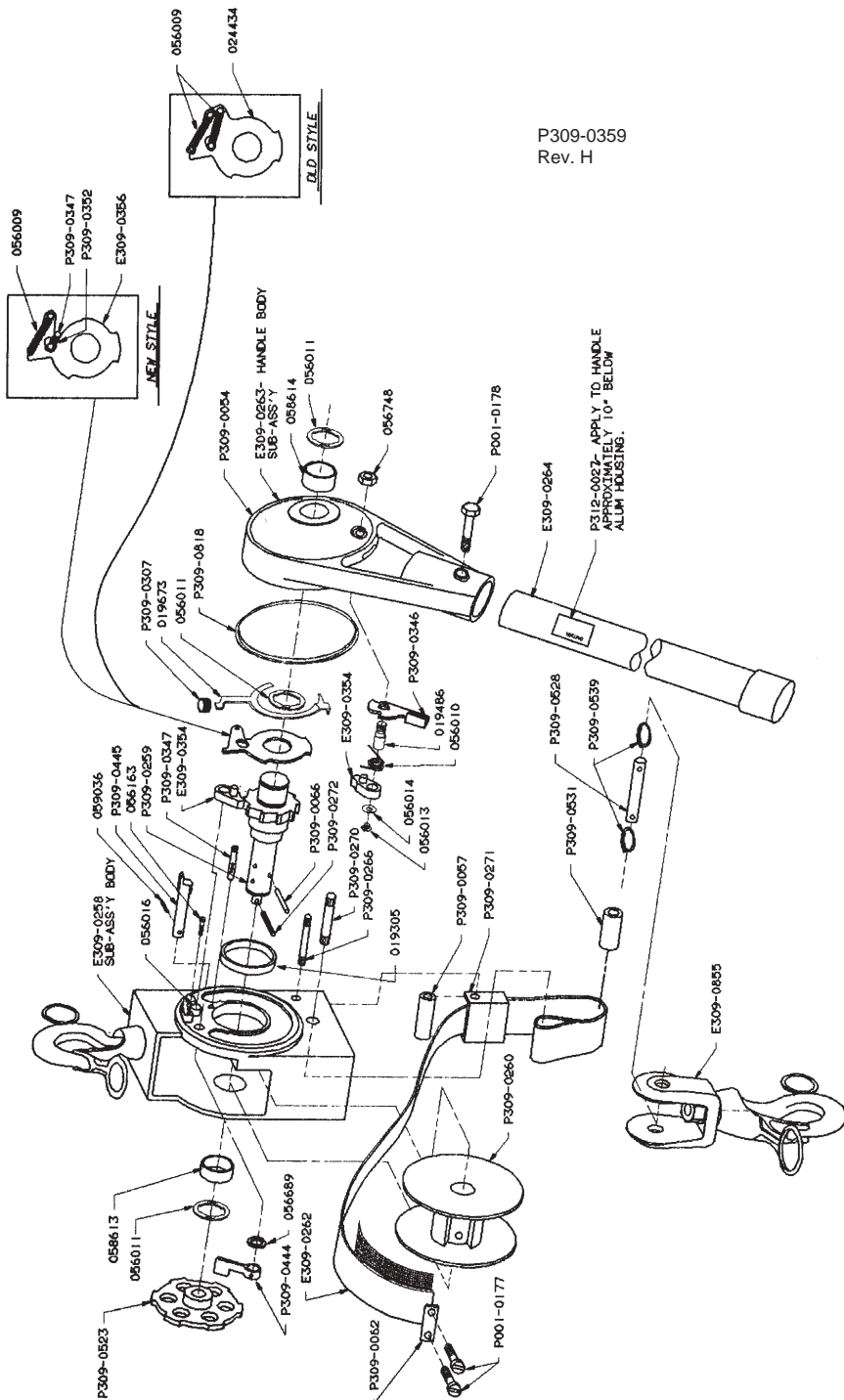
DISASSEMBLY INSTRUCTIONS

! WARNING

Always wear safety glasses and other appropriate protective equipment during the following procedures. Use the correct tools for the operations being performed.

In order to best visualize these instructions, study and refer to the exploded view of the hoist.

1. Remove snap ring (056011) from handle end shaft (P309-0259).
2. Push "Release Key" (P309-0346) in the indented area of the handle in the direction marked "Release" to disengage the working pawl from the unloader plate and lift handle (E309-0263) off the shaft. This will expose the mechanism.
3. The working pawl (E309-0354) may be removed by first removing screw (056013) and washer (056014) from the post supporting the pawl.



Torsion spring (056010) may be removed after the pawl has been removed.

4. When reassembling working pawl and spring (056010), place the short leg of the spring against the pin on the pawl (E309-0354), and the long leg of the spring against the handle housing (P309-0054). This should move the pawl towards the center of the housing.
5. If necessary to replace the pawl post (019486) or release key (P309-0346), remove nut (056748), press the pawl post out of housing (P309-0054) with a careful and steady force. In replacing the new pawl post (019486), be certain it is pressed in straight, using an even pressure, and that release key (P309-0346) is in position before pressing post into housing. Install nut (056748), tighten securely.
6. The holding pawl can be removed by unhooking the two extension springs from the unloader plate and from screw (056163) in the housing. Remove snap ring (056011) and slide unloader plate off shaft (P309-0259) after which pawl can be lifted off post (056016).
7. In replacing the holding pawl, make sure the pin which is permanently secured to the pawl is faced to the outside, so that it projects through the unloader plate, when it is replaced on the shaft.
8. To remove shaft (P309-0259) - the ratchet gear and shaft are an integral part - remove hand knob roll pin (P309-0272), hoist hand wheel (P309-0523) and snap ring (056011). Then remove two web anchor screws (P001-0177), web clamp (P309-0062) and nylon web assembly (E309-0262). Next, remove the spool (P309-0260) by driving out pin (P309-0066). Shaft (P309-0259) will now move out of housing (E309-0258).
9. If the top hook or safety latch is damaged, the hook/housing must be replaced as a unit. The new housing has all required bearings installed.
10. The shift key (P309-0444) is removed by removing the pin (059036) holding the shift key finger (P309-0445) to the shift key.
11. The oilite bearings (058614, 058613, 019305) can be replaced in the accepted manner of pressing them out and pressing the new ones in, using appropriately sized bushing drivers.

INSPECTION

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 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 torn 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, worn pins, or battered areas caused by impacts. All castings should be

inspected closely for cracks or other signs of damage. Replace any parts that do not appear normal.

Look carefully at the spool where the strap winds for signs of crushing caused by severe overloading.

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

Safety latches must be in place and working properly.

Look at springs for stretching, bent hooks, or wear.

Inspect the ratchet teeth for chipping or rounding.

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

ASSEMBLY

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 must be lubricated with a film of light grease.

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

TESTING

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

Suspend the hoist from a support that can hold the test loads. With a load of 100 lbs. on the hoist, carefully raise and lower the load. The handle should be operated to rotate the spool at least one complete revolution, (ten teeth) in one tooth increments to ensure 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 hoist 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 establish a procedure for the routine inspection, repair, and testing of this hoist, based on usage, to ensure a safe working environment.

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

Hubbell / Chance
210 N. Allen St.
Centralia, MO 65240
573-682-5521

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



P309-0359 Rev. H