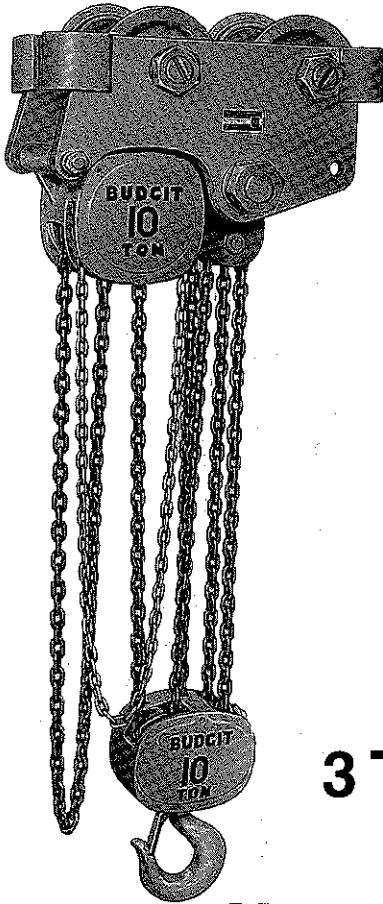


OPERATION, SERVICE AND PARTS MANUAL



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BUDGIT®

HI-CAP®

ARMY TYPE TROLLEY HOISTS

**3 TO 10 TON RATED LOADS
STANDARD MODELS
AUDIO LIFT REGULATOR MODELS**

LIFTTECH 

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BUDGIT

FOREWORD

This book is written to assist in installation, operation, maintenance and service for BUDGIT HI-CAP Army Type Trolley Hoists. Study its contents thoroughly before attempting operation. By applying correct operating procedures and practicing the helpful maintenance suggestions, you will be assured optimum performance and service.

It will likely be a long time before you will need the repair and parts information included, so file this book for future reference.

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SECTION I - GENERAL DESCRIPTION

1.1 RATED LOADS AND MODELS.

BUDGIT HI-CAP Army Type Trolley Hoists are built in six (6) rated loads (3, 4, 5, 6, 8 and 10-ton) and in three model variations. They are: Standard Models, Audio Lift Regulator Models, and Spark and Corrosion Resistant Models.

WARNING

This equipment is not designed or suitable as a power source for lifting or lowering persons.

a. Standard Models. These are designed for general purpose lifting and have forged steel upper and lower hooks, special alloy steel load chain, and plated hand chain. Hooks are equipped with spring type latches.

b. Audio Lift Regulator Models. "ALR" models are the same as standard models, except they are equipped with a built-in overload protection device. This device replaces the conventional hand chain wheel and helps provide protection for hoists and operator against dangerous overloads. The Audio Lift Regulator not only warns the operator by audible clicking when the chain

hoist begins to exceed its rated load, but also limits the chain hoist's lift capability whenever the overload becomes excessive. These models are identified in two ways: (1) the catalog number on the chain hoist nameplate is prefixed by the letter "R" (Example: R-3305), and (2) triangular shaped red labels with wording "Equipped with Audio Lift Regulator" are affixed on end covers at both sides of chain hoist.

c. Spark and Corrosion Resistant Models. "SR" models are designed for service in hazardous atmospheres and areas where resistance to corrosion is vitally important. These models have: bronze alloy hooks, with latches; special chrome nickel stainless steel alloy load chains and aluminum hand chains. For identity, the letters "SR" are stamped on the chain block nameplate following the catalog number (Example): 3305SR.

1-2. DIFFERENCES BETWEEN SIZES

All 3 through 10-ton BUDGIT HI-CAP Army Type Trolley Hoists are of the same basic design, differing only in hook sizes, frames, lower blocks and reeving of load chains. 3 and 4-ton chain hoists are reeved with two (2) parts of chain; 5 and 6-ton have three (3) parts; 8-ton has four (4) parts; 10-ton has five (5) parts of chain. Hoisting mechanism (gearing, load brake, load sprocket, hand chain wheel) is common to all sizes.

SECTION II - INSTALLATION

2-1. Your new BUDGIT HI-CAP Army Type Trolley Hoist can be installed with a minimum of effort by using the following directions.

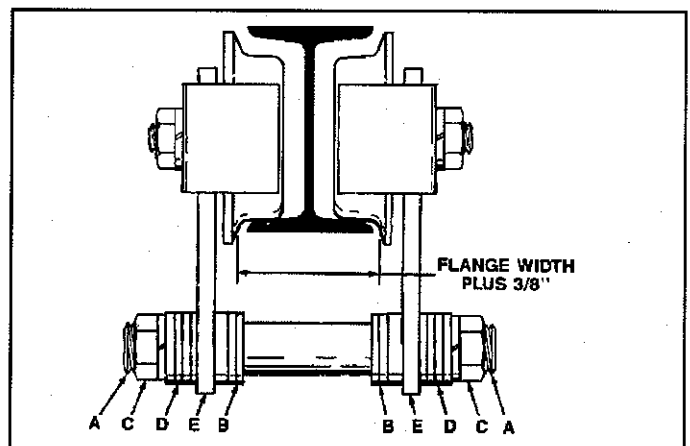


Figure 2-1. Installation of Trolley on I-Beam.

a. The span between the insides of the trolley wheel flanges must equal the flange width plus $3/8$ ". This distance is obtained by installing the correct number of spacer washers on hoist studs (A) at position (B).

b. Due to manufacturing tolerances, I-beams having the same size designation may actually vary widely in the width of their flanges. This makes it impossible to prescribe the specific number of washers to use at (B) for any particular I-beam. Therefore, before installing the trolley on your I-beam, proceed as follows.

(1) Measure the I-beam width and add $3/8$ " to this figure. With unit on the floor or a suitable table, remove hex nuts (C), lockwashers, and spacer washer (D) from hoist studs (A). Remove side plates (E) and adjust number of washers (D) at the (B) positions to arrive at the required span determined above. The number of washers at the four (B) positions MUST NOT vary more than one washer.

(2) Replace side plates (E) and extra spacer washers (D), lockwashers and nuts (C).

(3) Making sure both side plates are firmly against spacer washers (B), measure the distance between the insides of the trolley wheel flanges to make sure it equals the width of the I-beams plus 3/8". If not, again adjust number of washers at (B) position.

When width is correct, the trolley may be placed on the I-beam, by one of two methods:

(a) If it can be slipped directly over the end of the beam, it need not be disassembled.

(b) If it cannot be slipped over the end of the I-beam, remove the hex nuts, lockwashers, outer spacer washers and one side plate and reassemble unit on the beam.

2-2. If hand chain is of improper length (chain should hang about 2'-6" above floor) modify its length following instructions below (two wrenches may be used in place of a wrench and a vise.)

a. Insert split connecting link in a vise so that three-quarters of the link is above the top of the vise jaws as shown in Figure 2-2, View "A" (an adjustable wrench may be used in place of vise if preferred).

b. Place wrench on top part of link, tighten jaws. Then twist link open wide enough to insert ends of chain to be joined. See Figure 2-2, View "B".

c. Insert ends of chain on open link, make sure there is no twist in the chain.

d. Place wrench on top part of link, tighten jaws and twist back until link is closed.

SECTION III - OPERATION

3-1. GENERAL

A BUDGIT HI-CAP Army Type Trolley Hoist is an extremely versatile tool and will perform any number of load handling jobs when operated properly and its features are used to advantage. Operation is easy, once you have become acquainted with its convenient controls and their functions. Always practice hoist safety.

WARNING

This equipment is not designed or suitable as a power source for lifting or lowering persons.

3-2. TO RAISE LOAD HOOK

While facing the hand chain wheel cover side of the hoist (this eliminates reaching over the load), pull down on the right hand chain to raise the load hook.

3-3. TO LOWER LOAD HOOK

While facing the hand chain wheel cover side of the hoist, pull down on the left hand chain to lower the load hook.

3-4. HI-CAP Army Type Trolley Hoists equipped with BUDGIT Audio Lift Regulators are operated in the normal manner. The regulator will warn the operator (by audible clicking of rollers in detents) when load begins to exceed the rated capacity of the chain hoist. Continued pulling on the right-hand chain (facing chain wheel side of chain hoist) will cause the regulator to release and limit the chain hoist's lift capabilities if overload is excessive. At release (slipping) of regulator, pull on hand chain lessens to about one-third of the amount of pull present prior to release. The load will not drop because it is being held by the load brake.

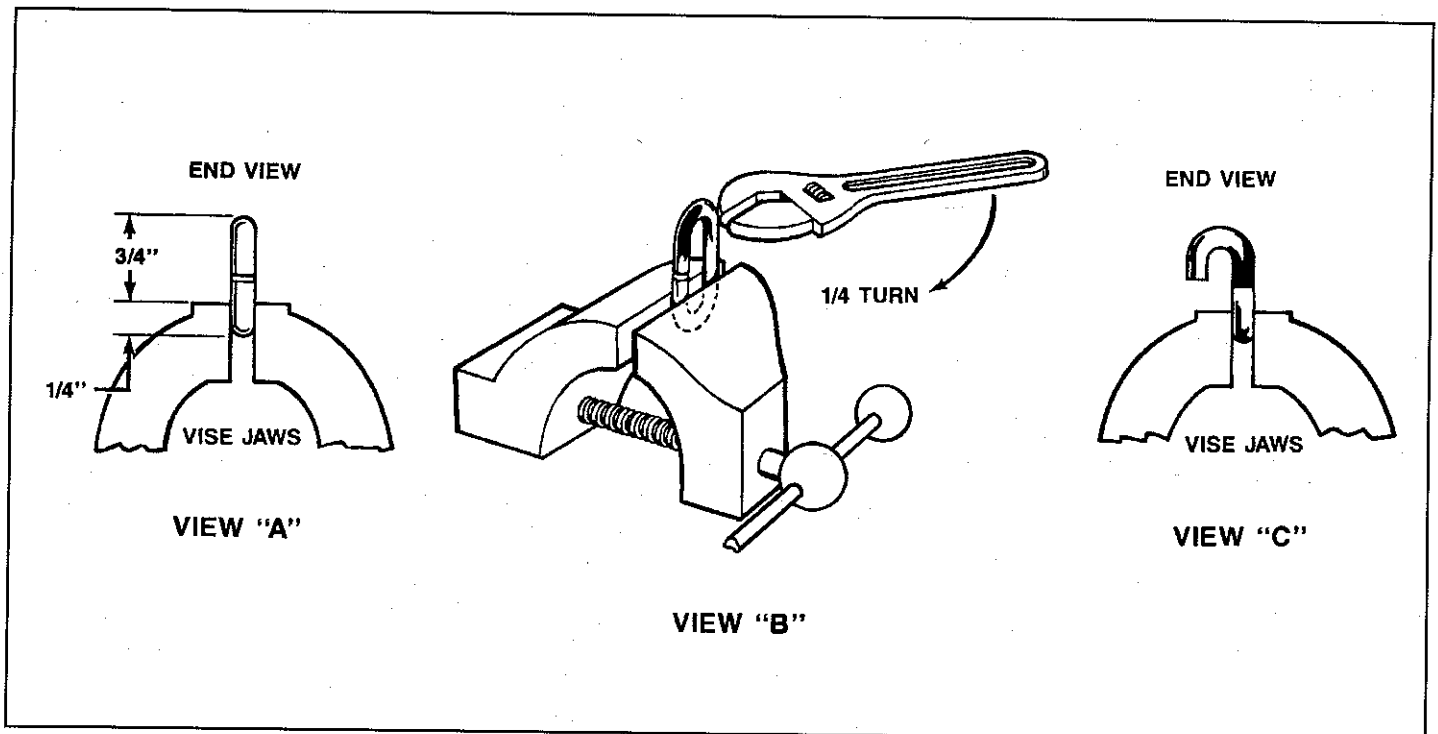


Figure 2-2. Opening Split Connecting Link

3-5. OPERATING PRECAUTIONS

Safe operation of an overhead hoist is the operator's responsibility. Listed below are some basic rules that can make an operator aware of dangerous practices to avoid and precautions to take for his own safety and the safety of others. Observance of these rules in addition to frequent examinations and periodic inspection of the equipment may save injury to personnel and damage to equipment.

WARNING

DO read ANSI B30.16 Safety Standard for Overhead Hoists and the Operation, Service and Parts Manual.

DO be familiar with hoist operating controls, procedures, and warnings.

DO make sure the hoist suspension hook is securely attached to a suitable support.

DO maintain firm footing or be otherwise secured when operating hoist.

DO make sure that load slings or other approved single attachments are properly sized and seated in the hook saddle.

DO make sure the hook latch, if used, is closed and not supporting any part of the load.

DO make sure that load is free to move and will clear all obstructions.

DO take up slack carefully, check load balance, lift a few inches, and check load holding action before continuing.

DO make sure all persons stay clear of the suspended load.

DO avoid swinging of load or load hook.

DO protect load chain from weld spatter or other damaging contaminants.

DO promptly report any malfunction, unusual performance, or damage, of the hoist.

DO inspect hoist regularly, replace damaged or worn parts, and keep appropriate records of maintenance.

DO use the hoist manufacturer's recommended parts when repairing a hoist.

DO use hook latches wherever possible.

DO apply lubricant to load chain as recommended.

DO NOT lift more than rated load.

DO NOT use the hoist load limiting device to measure the load.

DO NOT use damaged hoist or hoist that is not working correctly.

DO NOT use hoist with twisted, kinked, damaged, or worn chain.

DO NOT lift a load unless chain is properly seated in chain wheel(s) or sprocket(s).

DO NOT use load chain as a sling or wrap load chain around the load.

WARNING

DO NOT lift a load if any binding prevents equal loading on all supporting chains.

DO NOT apply the load to the tip of the hook.

DO NOT operate unless load is centered under hoist.

DO NOT operate hoist with other than manual power.

DO NOT permit more than one operator to pull on a single hand chain at one time.

DO NOT allow your attention to be diverted from operating the hoist.

DO NOT operate hoist beyond limits of load chain travel.

DO NOT use hoist to lift, support, or transport people.

DO NOT lift loads over people.

DO NOT leave a suspended load unattended unless specific precautions have been taken.

DO NOT allow sharp contact between two hoists or between hoist and obstructions.

DO NOT allow the chain or hook to be used as a ground for welding.

DO NOT allow the chain or hook to be touched by a live welding electrode.

DO NOT remove or obscure the warnings on the hoist.

DO NOT adjust or repair a hoist unless qualified to perform hoist maintenance.

DO NOT attempt to lengthen the load chain or repair damaged load chain.

The user is also here warned that overloading of the hoist can take place by means other than applying a high hand chain force. Proper rigging and observance of the rules listed here can help avoid such external causes of overload. Use good common sense and judgement at all times.

Never operate hoist with hooks that have opened up. See figure 5-3.

The supporting structure or anchoring means must have a load rating at least equal to that of the hoist.

Hoist must not be used in locations that will not allow operator movement to be free of the load.

Before using the hoist, the operator shall be certain that all personnel in the area are clear of the load.

In all cases, after trolley has been installed on I-beam, make sure a suitable stop is secured to each end of the beam to prevent the trolley from rolling off.

After unit is suspended, check load chain for chain twist. Remove chain twist, if any.

SECTION IV - LUBRICATION

4-1. LUBRICATION OF INTERNAL PARTS

All internal operating parts of the BUDGIT HI-CAP Army Type Trolley Hoist that require lubrication are prelubricated at time of assembly by the factory. Periodic greasing only is recommended, and intervals are dependent upon type of service. See Section V—Maintenance (paragraph 5-4, Lubrication).

WARNING

Do Not Oil Load Brake. It is extremely important the load brake friction surfaces be kept free of any oil film, so do not apply oil internally.

4-2. LUBRICATION OF EXTERNAL PARTS

a. Load chain should always be protected from wear with a light film of bar and chain oil, especially when subjected to damp or corrosive atmospheres.

b. Lubricate lower hooks at the swivel point with bar and chain oil periodically, as required.

4-3. Trolley wheel bearings are of the permanently lubricated type.

SECTION V - MAINTENANCE

5-1. GENERAL

The following are recommended maintenance services and disassembly-reassembly procedures for HI-CAP Army Type Trolley Hoists. The inspections outlined are based on average use of chain hoist. More frequent inspection intervals are recommended for chain hoists subjected to severe service or exposed to adverse environments.

5-2. MONTHLY INSPECTION

a. Inspect Load Chain.

(1) Operate chain hoist under load and observe operation of chain over load sprocket in both directions of chain travel. Chain should feed smoothly into and away from the sprocket. If chain binds, jumps or is noisy, first see that it is clean, properly lubricated, and free of twists. If trouble persists, inspect chain and mating parts for wear, distortion or other damage.

(2) Clean chain for inspection. Examine visually for gouges, nicks, weld spatter, corrosion or distorted links. Slacken chain and check bearing surfaces between links for wear (see Figure 5-1). Case hardness of chain is about .015" deep. Chain must be replaced before the case is worn through. Also check for elongation using a vernier caliper (see Figure 5-2). The chain should be gauged throughout its entire length. The maximum gauge length allowable over 7 pitches is 8-1/16 inches. If chain exceeds this dimension, it must be replaced. Chain with excessively pitted, corroded, nicked, gouged, twisted or worn links should be replaced using factory approved chain. Never weld or attempt to repair coil chain.

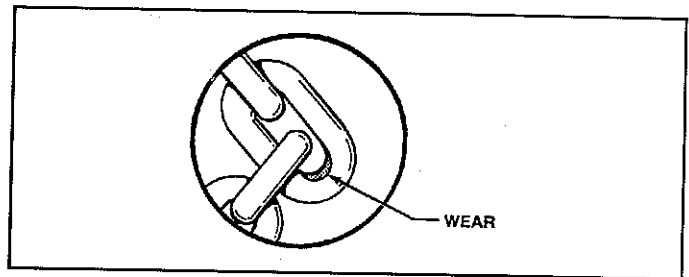


Figure 5-1. Check Chain Wear at Bearing Surfaces Between Links.

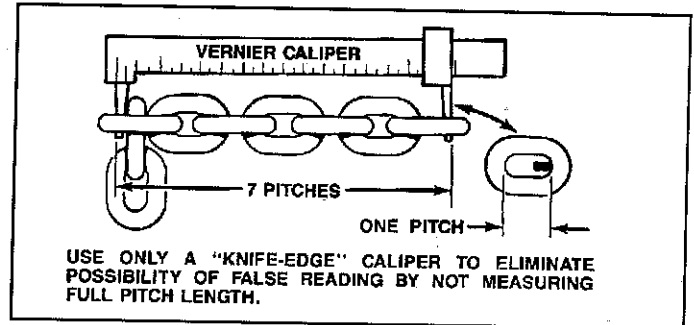


Figure 5-2. Checking Coil Load Chain Using Vernier Caliper.

NOTE

On spark resistant models, coil load chains are stainless steel and must be inspected for wear and lubricated more frequently than the standard alloy heat treated load chain. Surface hardness treatment is no more than .001" deep.

CAUTION

It must not be assumed that load chain is safe because it measures below replacement point given herein. Other factors, such as those mentioned in visual check above, may render chain unsafe or ready for replacement long before elongation replacement is necessary.

WARNING

When replacing load chain, use only factory approved chain conforming to factory specifications for material, hardness, strength and link dimensions. Chain not conforming to BUDGIT hoist specifications may be dangerous as it will not fit in the load sprocket and chain guide correctly, causing damage to hoist, and it will wear prematurely, deform and eventually break.

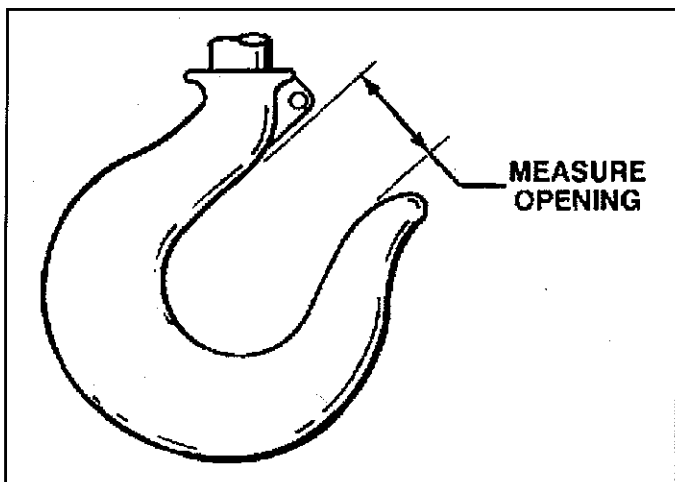
(3) Check connection of tail end of load chain at side of frame. Replace anchor pin if bent or broken.

(4) Check connection of load end of load chain at either frame or lower block (depending upon reeving). Replace bent or broken connecting pin.

(5) Lubricate load chain if required. See paragraph 4-2, above.

b. Inspect Hand Chain.

(1) Operate unloaded hand chain hoist by overhauling hand chain at slow rate and then at a rapid rate observing operation of chain over hand chain wheel. Follow the instructions outlined in Section 5-2.a. for inspecting hand chain. Hand chain is not case hardened. Check for elongation using a vernier caliper over 7 pitches as shown in Figure 5-2. The maximum gauge length is 7-5/8 inches over the 7 pitches. If the chain exceeds this dimension it must be replaced.



Hook Size Identification		Hook Throat Opening	
Letter	Number	Normal Opening	Replace Hook if Opening is Greater Than
—	6	1-3/8	1-9/16
I	7	1-1/2	1-11/16
J	9	1-7/8	2-1/8
K	11	2-1/4	2-9/16
L	12	2-1/2	2-7/8
—	13	3	3-7/16
N	14	3-3/8	3-7/8

Either a letter or a number as charted above is cast into body of hook to indicate size. The letters "C", "A", or "B" which may also appear on hook identify hook material. Dimensions given are for standard hooks.

Figure 5-3. Correct Hook Openings.

c. Inspect Lower Block.

(1) Check for bent or distorted hook. If hook is opened beyond the opening dimension given in Figure 5-3, or has more than 10 degrees twist from the plane of the unbent hook, it must be replaced. Also check to see that hook swivels. Lubricate if necessary.

(2) Check for idler sprockets and bearings in lower blocks for freedom of movement and signs of damage. Lubricate if required. Replace damaged parts.

(3) Check hook latch. Replace damaged or bent latch or broken spring.

! WARNING

Hooks damaged from chemicals, deformation or cracks or having more than 15 percent in excess of normal throat opening or more than 10 degrees twist from the plane of the unbent hook, or opened, allowing the hook latch to bypass hook tip MUST BE REPLACED. Any hook that is twisted or has excessive throat opening, indicates abuse or overloading of the hoist. Other load bearing components of the hoist should be inspected for damage.

5-3. ANNUAL INSPECTION

Trolley hoist must be partially disassembled to perform the following inspections. Refer to Section 7, below, for disassembly and reassembly procedure.

a. Inspect Load Brake and Overload Device.

(1) Remove chain wheel guide cover and lift out chain wheel and load brake assembly. Refer to paragraph 7-1.c. Unscrew load brake flange from hub of hand chain wheel to inspect friction surfaces and ratchet. Check friction surfaces on load brake flange, friction washer, ratchet, and chain wheel hub. Check condition of ratchet teeth, pawl and pawl spring. Replace any parts broken, scored, damaged or badly worn.

(2) On Audio Lift Regulator Models, the overload protection device is built into the hand chain wheel. It is nonadjustable and cannot be disassembled for repair. Refer to paragraph 7-1.f.

b. Inspect Idler Gears and Load Sprocket Gear.

(1) Remove gear cover, idler gears and pinion shaft as a unit, paragraph 7-1.k., and then disassemble pinion shaft and idler gears from cover. Clear parts with suitable cleaning solvent and air dry thoroughly. Inspect teeth on idler gears and check condition of needle bearings in gears. Check teeth and splines on pinion shaft. Replace any parts that are broken, damaged or badly worn.

(2) Remove load sprocket gear, paragraph 7-1.l. Clean gear with suitable cleaning solvent and inspect condition of internal gear teeth and splines. Replace if any teeth or splines are broken, damaged or badly worn.

(3) Visually inspect chain pockets in load sprocket. If excessive wear or damage is observed, remove chain stripper, sprocket and chain guide as outlined in paragraphs 7-1.j. and m. and replace parts as necessary.

c. Reassemble and Test Chain Hoist. Reassemble chain hoist following assembly steps outlined in paragraphs 7-3 and 7-4. Lubricate during assembly using lubricants specified in Section 4. After assembly is complete, test chain hoist as outlined in paragraph 7-5 and Section 8.

5-4. LUBRICATION

HI-CAP Army Type Trolley Hoists are lubricated internally by the factory at assembly and will normally require no additional lubrication (except load chain, paragraph d., below) until the trolley hoist is disassembled for inspection or replacement of parts.

a. Lubricate trolley hoist during assembly at the following points.

b. Lubricate hook bearings with heavy duty lithium soap grease with EP additives (Dow Corning MOLYKOTE BR-2 Plus or equal) at assembly.

c. Lubricate idler and sprocket gears, pawl shaft, brake hub face and threads on brake flange and hand chain wheel with NLGI No. 2 EP grease at assembly. Apply only a light film of grease to brake hub to prevent excess grease from entering brake mechanism.

d. Lubricate load chain periodically with light film of bar and chain oil (LUBRIPLATE or equal).

e. Lubricate needle bearings in load sprocket and idler sprockets with a good grade of NLGI No. 2 EP bearing grease.

f. For drive wheel gears use Mobiltach 325 NC or equal.

g. Lubricate once each year or every 200 hours of operation.

! WARNING

It is extremely important that load brake friction washer be kept dry, as an oily film may cause slippage, thereby, permitting a load to drop.

SECTION VI - TROUBLESHOOTING

TROUBLE	POSSIBLE CAUSE	REMEDY
1. Hoist is hard to operate in hoisting direction.	<p>a. Hoist is overloaded.</p> <p>b. Load chain is damaged, worn, elongated or binding between load chain sprocket and guide.</p> <p>c. Load chain dry, rusty, corroded or dirty with foreign material adhering to chain.</p> <p>d. Load chain sprocket worn or clogged with foreign material.</p> <p>e. Chain twisted.</p>	<p>a. Reduce load to within hoist rated load.</p> <p>b. Check chain for bent or twisted links, gouges or nicks. Check for wear between links and gauge chain per paragraph 5-2.a.(2). Replace if necessary.</p> <p>c. Clean chain by tumble polishing or clean with solvent. Lubricate per paragraph 5-4.</p> <p>d. Clean and inspect sprocket. Replace if necessary.</p> <p>e. Rereeve chain hoist keeping chain free of twist.</p>
2. Load brake slips and chain hoist will not support load.	<p>a. Brake friction surfaces coated with excessive oil or friction washers glazed.</p> <p>b. Brake parts worn or damaged.</p> <p>c. Load chain reeved incorrectly.</p>	<p>a. Remove and disassemble brake. Clean and buff friction washers or install new washers.</p> <p>b. Remove brake parts. Inspect brake parts. Replace worn or damaged parts.</p> <p>c. Remove load chain and install correctly. (See Figure 7-4.)</p>
3. Load brake drags, hard to lower load. (Hand chain is hard to pull.)	<p>a. Dirty or corroded internal parts.</p> <p>b. Brake friction surfaces scored.</p> <p>c. Load gearing damaged from over-loading.</p> <p>d. Chain binding.</p>	<p>a. Remove and disassemble brake. Clean and buff surfaces. Install brake.</p> <p>b. Refer to a. above. Replace if scored excessively.</p> <p>c. Remove damaged gears and install new gears.</p> <p>d. See items 1.b., 1.c., and 1.d.</p>
4. Chain hoist works erratically.	<p>a. Load chain incorrectly installed.</p> <p>b. Load brake pawl or ratchet teeth worn or damaged.</p> <p>c. Frame cracked or mutilated.</p>	<p>a. Remove load chain. Install chain correctly (See Figure 7-4.)</p> <p>b. Remove load brake parts. Inspect parts. Replace damaged parts.</p> <p>c. Replace frame.</p>
5. Frame damaged.	<p>a. Hoist subjected to overloading.</p> <p>b. Load chain run too far through chain block frame.</p> <p>c. Chain hoist subjected to extreme angular or side pulls. Causing chain to bind.</p> <p>d. Chain hoist damaged by dropping or throwing.</p>	<p>a. Load chain hoist only to rated capacity. Replace damaged frame.</p> <p>b. Replace damaged frame.</p> <p>c. Operate chain hoist properly. Replace damaged frame.</p> <p>d. Disassemble chain hoist. Inspect chain hoist. Replace damaged parts and assemble chain hoist.</p>
6. Hooks opened.	<p>a. Chain hoist overloaded.</p>	<p>a. Replace opened hooks. Check for other damage from overloading.</p>

SECTION VII - DISASSEMBLY & REASSEMBLY

7-1. DISASSEMBLY

- a. Remove trolley hoist from I-beam and hoist from trolley by reversing procedure given for installation.
- b. Lay trolley to one side and begin dismantling chain hoist.
- c. Remove three socket head cap screws and lockwashers and lift straight up on chain wheel guide cover. See Figure 7-1. Remove hand chain from chain wheel.

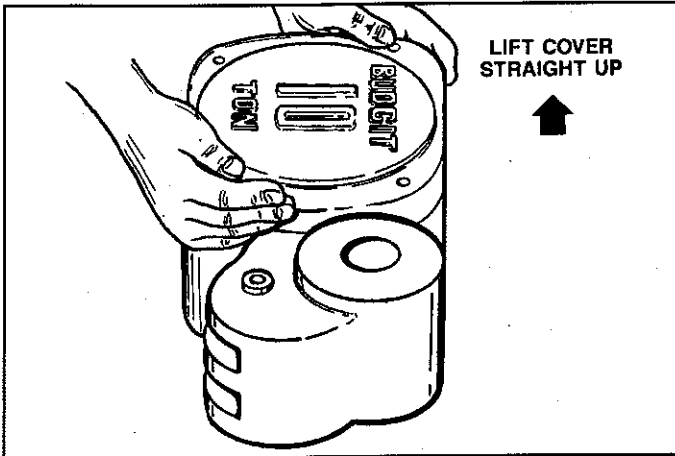


Figure 7-1. Removing Hand Chain Cover.

- d. Remove elastic stop nut from end of pinion shaft and lift off flat washer and brake stop lug. Lift chain wheel and load brake assembly from pinion shaft.
- e. To disassemble load brake, hold brake flange and turn chain wheel counterclockwise. Remove ratchet and friction washer from brake flange.

NOTE

Do not remove needle bearing assembly from bore of ratchet unless bearing is damaged and requires replacement.

- f. On Audio Lift Regulator Models, the chain wheel and regulator assembly is of a riveted construction and is not to be disassembled. If chain wheel is worn or damaged or if test, paragraph 8-2, shows that regulator is not functioning properly, the complete chain wheel and regulator assembly must be replaced.
- g. Remove brake pawl and shaft from frame. Do not remove pawl spring and stud from frame unless replacement is necessary.
- h. Remove load chain as follows: First disconnect tail end of chain from anchor at side of frame by removing anchor pin. Next disconnect other end of chain from its anchor at frame or lower block, depending upon chain reeving. See Figure 7-4.

(1) On 3 and 4-ton models, drive out roll pin securing chain anchor pin in frame and take out anchor pin, freeing end of chain.

(2) On 5 and 6-ton models, remove the retaining rings from ends of anchor pin in lower block body. Remove anchor pin, freeing end of chain.

(3) On 8-ton models, drive out roll pin securing upper idler shaft in frame and remove shaft, freeing upper idler sprocket and chain anchor block. Drive out pin and separate chain from anchor block.

(4) On 10-ton models, drive out roll pin securing anchor pin in lower block body and remove anchor pin, freeing end of chain.

(5) With both ends of load chain disconnected, pull chain through frame and lower block to remove it.

i. Remove upper idler sprockets from frame (5, 6, 8 and 10-ton models) by driving out roll pins securing idler shaft in frame. Push out shafts to remove sprockets and washers. **DO NOT** remove needle bearings from idler sprockets unless inspection reveals replacement is necessary.

j. Remove two screws and lockwashers fastening chain stripper to load chain guide and lift out stripper.

NOTE

The load chain sprocket cannot be removed from frame until stripper is removed from guide.

k. Remove four socket head cap screws securing gear cover to frame and remove gear cover by tapping pinion shaft with a soft face hammer to free cover. Idler gears and pinion shaft will come off with cover. Remove shaft and then disassemble idler gears by removing idler gear retaining plate. **DO NOT** remove needle bearings from idler gears unless inspection reveals replacement is necessary.

l. Place frame, gear side up, on bench. Remove spiral-type external retaining ring from shaft of load chain sprocket and lift off sprocket gear.

m. Remove spiral-type internal retaining ring holding load chain sprocket bearing assembly in frame. Turn frame over on gear side and tap gently on bench to remove load sprocket and bearings from frame. Remove chain guide from frame.

n. Disassemble lower block assembly as follows, based on chain hoist rated load.

(1) On 3 through 6-ton models, drive out roll pin and remove idler shaft from body. Remove idler sprocket and two washers.

(2) On 8 and 10-ton models, drive out two roll pins and remove two idler shafts, two idler sprockets and four spacer washers from body.

NOTE

Do not remove needle bearing from idler sprockets unless inspection reveals replacement is necessary.

(3) To remove lower hook from body, remove cotter pin from hook nut, unscrew hook from nut and separate hook, thrust bearing, load washer and hook nut from lower block body.

7-2. CLEANING AND INSPECTION OF PARTS

a. Before reassembly, all parts except bracket friction washer and sealed bearings should be thoroughly cleaned with a suitable cleaning solvent. Inspect all parts to determine their serviceability. Replace any parts that are excessively worn, corroded or damaged.

b. Check frame, covers and lower block body for cracks or other damage. Check hook for distortion, nicks, elongated or bent shanks, or too wide throat openings (Figure 5-3). Inspect hooks for cracks using dye penetrant, magnetic particle or other suitable crack detecting method.

c. Inspect load chain as outlined in paragraph 5-2.a.

d. Inspect brake friction washer for glazing and wear. Inspect faces of brake flange and ratchet for scoring and hand wheel for wear or damage. Check pawl spring for proper action and tension. Inspect acme thread on brake flange and in hand chain wheel hub for damage. Inspect hand chain wheel hub surface. Hard chrome must be continuous and smooth. If scored or worn, replace hub.

e. Inspect pinion shaft and gears for wear and damage. Check chain sprocket and stripper for wear, distortion, and damage.

7-3. REASSEMBLY

a. The procedure to be followed to reassemble chain hoist is in reverse order of the disassembly steps outlined in paragraph b., above. Listed below are special assembly precautions which should be observed to assure proper assembly. Lubricate chain hoist parts during assembly using lubricants specified in paragraph 5-4.

b. Lower Block Assembly. When installing load hook in lower block body, the load washer (3 through 6-ton models) must be positioned over the hook shank with beveled and recessed side facing down as shown in Figure 7-2. The thrust bearing must be installed over load washer with stamped shield side facing up. Lubricate shank of hook and thrust bearing.

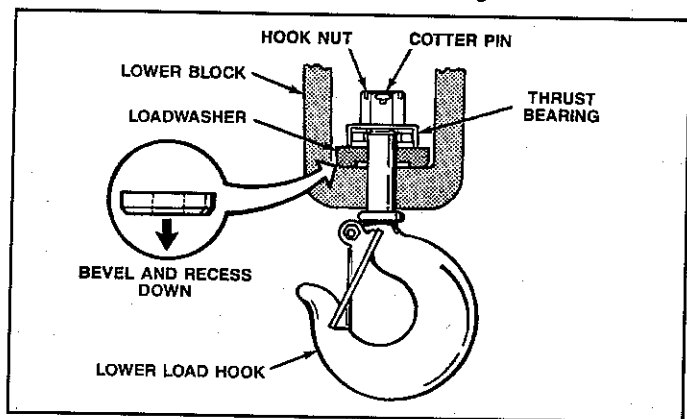


Figure 7-2. Installation of Load Washer (3 Through 6-Ton)

c. Load brake and hand chain wheel should be installed in the following manner:

(1) If pawl spring and stud were removed, install new spring and stud in frame. Install brake pawl on pawl shaft and insert shaft in frame.

(2) Apply a light film of grease to acme thread on brake flange and install flange on pinion shaft in frame. Wipe off any excess grease. Position friction washer over flange.

(3) Press needle bearing (if removed) into bore of brake ratchet and lightly grease. Install ratchet on flange over friction washer. Teeth on ratchet must face in proper direction to engage brake pawl. Apply a light film of graphite grease to ratchet teeth.

NOTE

Use care when assembling and greasing brake parts to prevent any grease from getting onto friction washer and mating surfaces on flange and ratchet.

(4) Lube hub face lightly, allowing counterbores to accumulate reserve amount. Screw hand chain wheel and hub assembly onto acme thread of brake flange by turning clockwise until brake pawl and ratchet click. Continue turning until boss on chain wheel hub is at its closest position to upper hook.

(5) Install brake stop lug on pinion shaft, positioned so that gap between lug and boss on hub is 1/4" to 3/8" wide, as shown in Figure 7-3. It may be necessary to remove stop lug and turn it over on shaft to achieve the required gap.

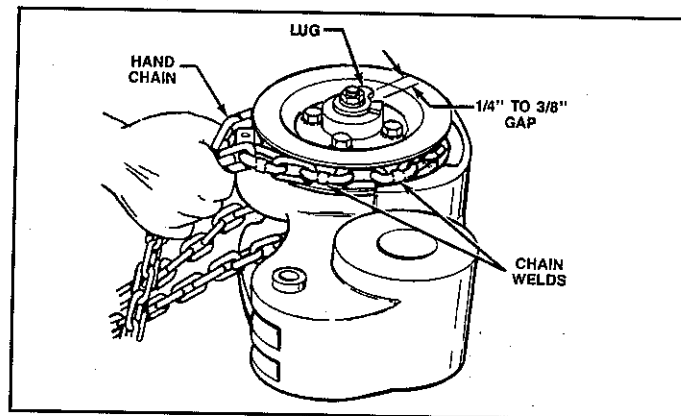


Figure 7-3. Positioning Brake Stop Lug.

CAUTION

The lug must be counterclockwise of the boss, as shown in Figure 7-3, for proper brake action.

(6) Install flat washer and elastic stop nut on threaded end of pinion shaft to secure stop lug. Early model chain blocks have external retaining ring in place of the flat washer and stop nut.

d. When installing hand chain on chain wheel, position chain so that welds, Figure 7-3, are away from bottom of chain pockets as shown. Hold hand chain in place on chain wheel and install chain wheel guide cover. Secure cover to frame with three socket head cap screws and lockwashers.

7-4. REEVING LOAD CHAIN

If the load chain has been removed from chain hoist during disassembly or for replacement it must be reeved using the following sequence:

a. Insert tail end of load chain into pockets of the load chain sprocket from the load side. Make sure the welded side of links is facing outward from the sprocket.

b. Fasten the tail end of load chain to frame by inserting the screw type anchor pin at position "A" in illustrations.

c. Now using the lead end of the load chain, continue reeving according to the illustration in Figure 7-4, applicable to your chain hoist. Make sure there is absolutely no twist in the chain.

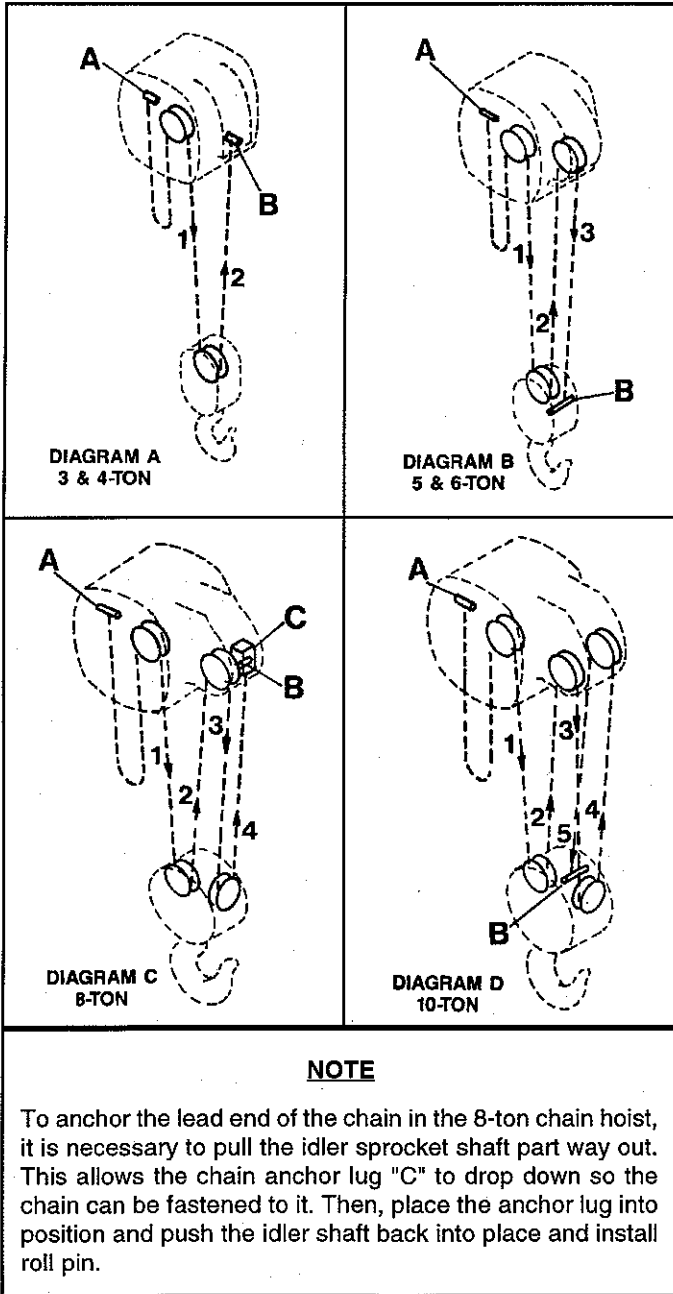


Figure 7-4. Reeving Diagrams

d. Anchor the lead end of the chain at point "B" indicated in the illustrations. In order that the last link falls in the correct position to be anchored, you must make sure the number of links in the chain agrees with the following.

- | | | |
|-------------|---|----------------------|
| 3 and 4-Ton | — | Odd number of links |
| 5 and 6-Ton | — | Even number of links |
| 8-Ton | — | Even number of links |
| 10-Ton | — | Even number of links |

NOTE

The chain used in BUDGIT chain hoists was developed especially for hoisting. Ordinary chain is unsatisfactory for use with BUDGIT chain hoists, and if used, would be dangerous. When replacing load chain, use only factory approved chain. BUDGIT load chain is now coded with an embossment to identify approved chain.

7-5. TESTING CHAIN HOIST

a. General. After completion of reassembly and before placing chain hoist in service, chain hoist should be tested to ensure proper operation. To test: Suspend chain hoist from an overhead supporting member of sufficient strength to carry combined weight of chain hoist and test weight and make the following checks:

b. Check Operation.

(1) Pull hand chain rapidly in both directions. Hand chain and wheel should spin freely and load chain should operate smoothly through chain hoist in both directions of travel.

(2) Apply a light load (100 to 200 pounds) to load hook. Pull hand chain to raise load. Lift load a short distance off floor and release hand chain. Observe if brake locks instantly and does not allow load to drift. Pull hand chain to lower load and release chain. Observe if brake stops load instantly and does not allow it to drift.

(3) Apply a rated capacity load to chain hoist and check for smooth and proper operation in both raise and lower directions.

⚠ WARNING

Do not lift more than rated load except for test purposes. If any load sustaining parts have been altered, replace or repaired, hoists should be load tested at 125% of rated capacity by a designated, qualified person, with a written report recording test load, as recommended in ANSI B30.16 Safety Standards.

SECTION VIII - AUDIO LIFT REGULATOR INFORMATION

8-1. GENERAL

The Audio Lift Regulator overload device is manufactured and preset for your particular chain hoist. There are no adjustments to be made and the regulator is lubricated with special long lasting high graphite content grease. Observance of the following suggested test procedure will assist you to operate your chain hoist properly so as to permit you to obtain full benefit from its overload protection. It is recommended that the test be performed at regular intervals based on type service to which chain hoist is subjected. For light service, annual testing will be adequate. For medium service, test every six months; and for heavy service, test every 90 days or oftener depending on severity of service.

8-2. TEST PROCEDURE

- a. Suspend chain hoist on an overhead structure capable of supporting weight of chain hoist and test load specified in Figure 8-1.
- b. Attach load hook to a test load of the weight specified in chart for the capacity of the chain hoist being tested. Operate chain hoist in raising direction to take slack out of load chain.
- c. Attach a spring scale to R.H. hand chain (as viewed facing hand chain wheel cover) and pull on scale. If regulator is operating properly, it will release at or before the pounds-pull value listed in the "Maximum Hand Chain Pull At Initial Release" column in Figure 8-1.

⚠ CAUTION

If regulator does not release at or before the maximum hand chain pull value, DO NOT continue to pull. The regulator assembly is not operating and must be replaced. Pull beyond that listed for initial release will greatly increase overload and may cause damage to chain hoist or other equipment.

- d. If regulator releases before lifting rated hoist capacity the regulator assembly must be replaced.

Rated Hoist Load (Tons)	HI-CAP Army Type Trolley Hoist Catalog Number	Average Hand Chain Pull, Hoisting (Lbs.)	Maximum Hand Chain Pull At Initial Release (Lbs.)	Recommended Test Load (Lbs.)
3	3305 3317	63	109	9,000
4	3306 3318	84	145	12,000
5	3307 3319	72	124	15,000
6	3308 3320	86	148	18,000
8	3309 3321	89	154	24,000
10	3310 3322	92	159	30,000

Figure 8-1. Audio Lift Regulator Test Data.

SECTION IX - PARTS LIST

The following parts illustrations and parts lists, cover standard model and Audio Lift Regulator model BUDGIT HI-CAP Army Type Trolley Hoists. These parts lists are also applicable to spark and corrosion resistant models except for special hooks, load chains and hand chains. Part numbers for the special parts must be obtained from the factory.

NOTE

When ordering replacement parts, include with the order the exact Catalog Number and Model Number from the chain hoist nameplate.

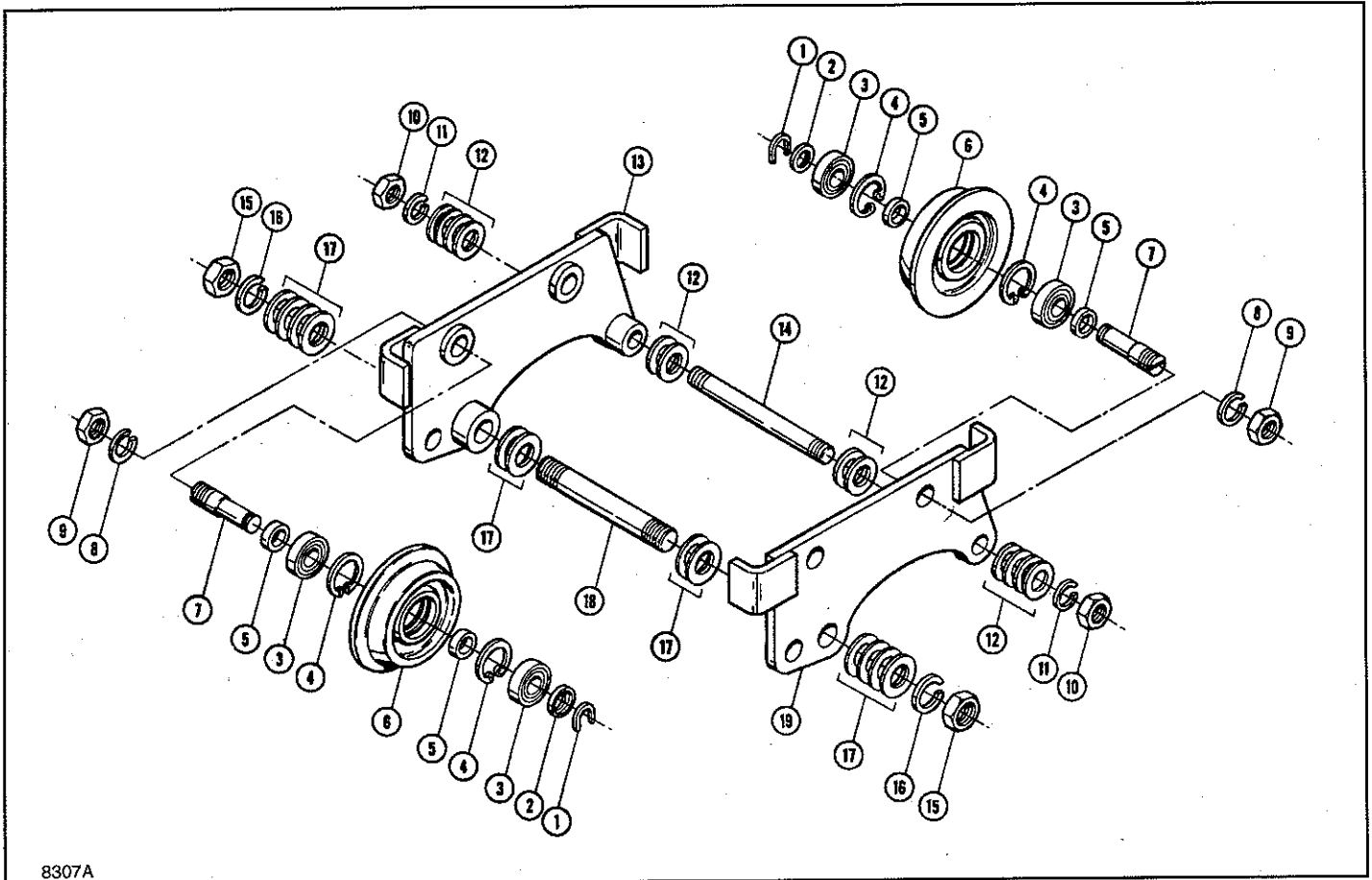
⚠ WARNING

NON-FACTORY AUTHORIZED ALTERATIONS OR MODIFICATION OF EQUIPMENT AND USE OF NON-FACTORY REPAIR PARTS CAN LEAD TO DANGEROUS OPERATION AND INJURY.

TO AVOID INJURY:

- DO NOT alter or modify equipment without factory authorization.
- DO use only factory provided replacement parts.

The numbers assigned to the parts of our various assemblies in our parts lists are not the part numbers used in manufacturing the part. They are identification numbers, that when given with the hoist serial number, permit us to identify, select or manufacture, and ship the correct part needed for any hoist.



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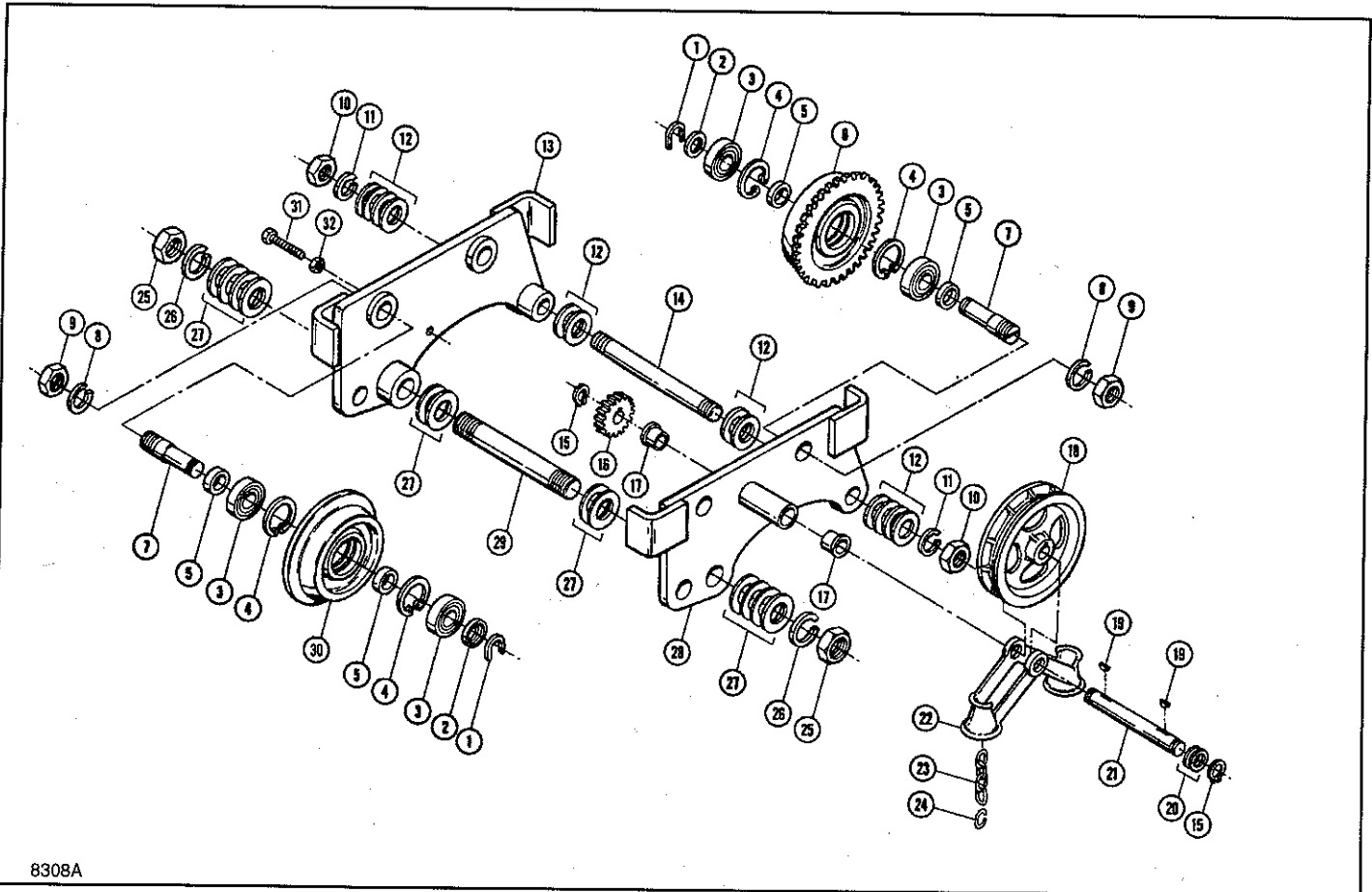
Figure 9-1. Army Type Push Trolley.

Ref. No.	Part Number			Description	Qty. Req'd.
	3 & 4-Ton	5 & 6-Ton	8 & 10-Ton		
1	ATP-301	APT-401	APT-501	C Washer	4
2	ATP-302	ATP-402	ATP-502	Cup Washer	4
3	ATP-303	ATP-403	ATP-503	Ball Bearing	8
4	ATP-304	ATP-404	ATP-504	Retaining Ring	8
5	ATP-305	ATP-405	ATP-505	Spacer	8
6				Plain Wheel	4
	ATP-306	ATP-406	ATP-506	Standard	
	ATP-320	ATP-420	ATP-520	Spark Resistant	
	ATP-321	ATP-421	--	Patented Track	
7	ATP-307	ATP-407	ATP-507	Shaft	4
8				Spring Lock Washer	4
	ATP-308	--	--	1-1/4 For 3 & 4-Ton	
	--	ATP-408	--	1-5/8 For 5 & 6-Ton	
	--	--	ATP-508	2 For 8 & 10-Ton	
9				Heavy Hex Self-locking Jam Nut	4
	ATP-309	--	--	1-1/4 - 7 For 3 & 4-Ton	
	--	ATP-409	--	1-5/8 - 5-1/2 For 5 & 6-Ton	
	--	--	ATP-509	2 - 4-1/2 For 8 & 10-Ton	
10				Heavy Hex Jam Nut	2
	ATP-310	ATP-416	--	1-1/8 - 7 for 3, 4, 5 & 6-Ton	
	--	--	ATP-511	7/8 - 9 For 8 & 10-Ton	
11				Spring Lock Washer	2
	ATP-311	ATP-415	--	1-1/8 For 3, 4, 5 & 6-Ton	
	--	--	ATP-512	7/8 For 8 & 10-Ton	

Figure 9-1. Army Type Push Trolley (Continued).

Ref. No.	Part Number			Description	Qty. Req'd.
	3 & 4-Ton	5 & 6-Ton	8 & 10-Ton		
12	ATP-312	--	--	Spacer	
	--	ATP-414	--	For 3 & 4-Ton	28
	--	--	ATP-513	For 5 & 6-Ton	32
13	ATP-313	ATP-410	ATP-510	For 8 & 10-Ton	26
	ATP-322	ATP-422	ATP-521	Side Plate	1
	ATP-314	ATP-412	ATP-514	Standard	
14	ATP-315	--	--	Spark Resistant	
	--	ATP-417	--	Stud	1
	--	--	ATP-515	Heavy Hex Jam Nut	2
15	ATP-315	--	--	1-3/8 - 6 For 3 & 4-Ton	
	--	ATP-417	--	1-5/8 - 5-1/2 For 5 & 6-Ton	
	--	--	ATP-515	2-1/4 - 4-1/2 For 8 & 10-Ton	
16	ATP-316	--	--	Spring Lock Washer	2
	--	ATP-418	--	1-3/8 For 3 & 4-Ton	
	--	--	ATP-516	1-5/8 For 5 & 6-Ton	
17	ATP-317	--	--	2-1/4 For 8 & 10-Ton	
	--	ATP-419	--	Spacer	
	--	--	ATP-517	For 3 & 4-Ton	28
18	ATP-318	ATP-413	ATP-518	For 5 & 6-Ton	32
	ATP-319	ATP-411	ATP-519	For 8 & 10-Ton	26
	ATP-323	ATP-423	ATP-522	Stud	1
19	ATP-319	ATP-411	ATP-519	Side Plate	1
	ATP-323	ATP-423	ATP-522	Standard	
				Spark Resistant	

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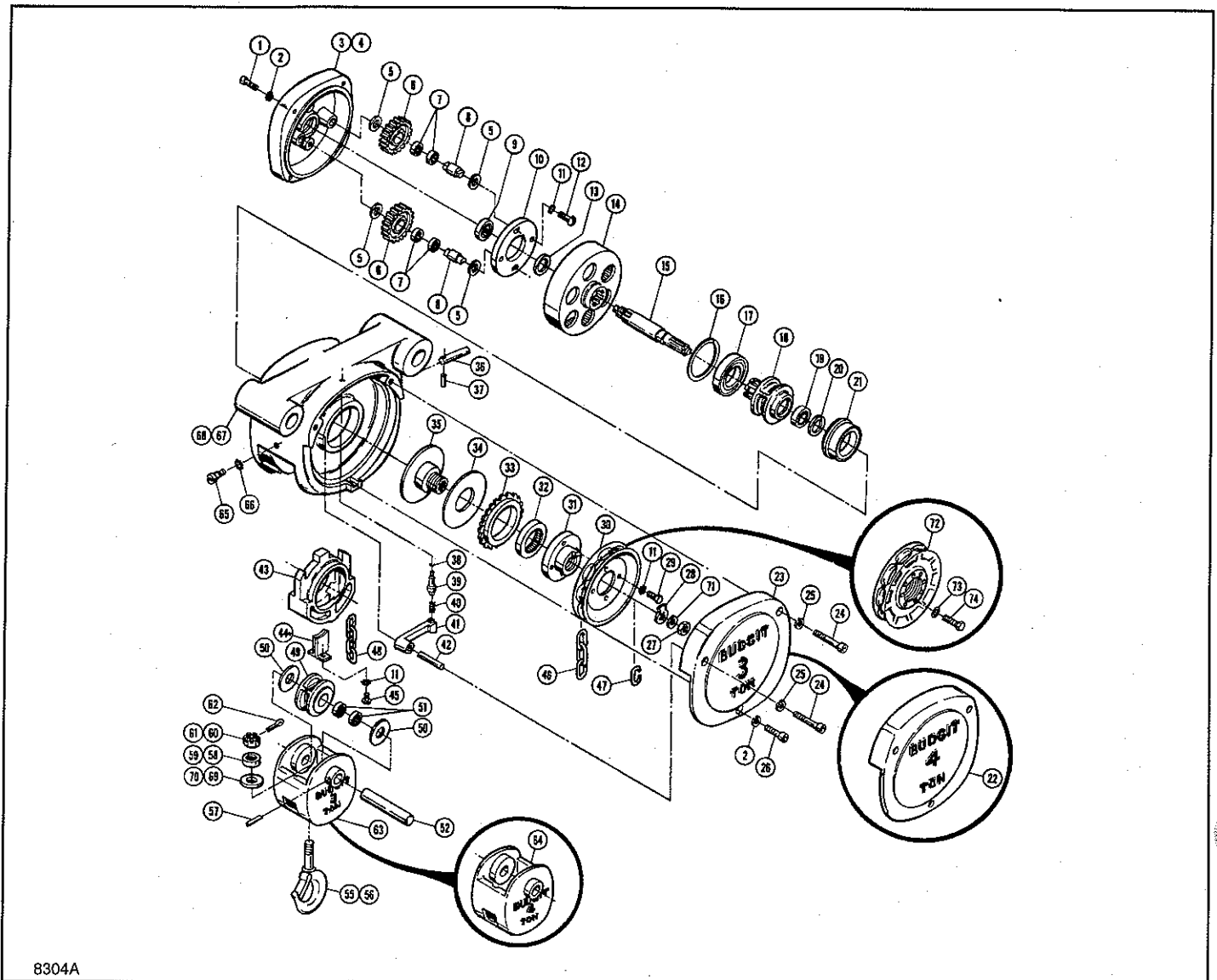
Figure 9-2. Army Type Hand Geared Trolley.

Ref. No.	Part Number			Description	Qty. Req'd.
	3 & 4-Ton	5 & 6-Ton	8 & 10-Ton		
1	ATG-301	APG-401	APG-501	C Washer	4
2	ATG-302	ATG-402	ATG-502	Cup Washer	4
3	ATG-303	ATG-403	ATG-503	Ball Bearing	8
4	ATG-304	ATG-404	ATG-504	Retaining Ring	8
5	ATG-305	ATG-405	ATG-505	Spacer	8
6				Geared Wheel	2
	ATG-306	ATG-406	ATG-506	Standard	
	ATG-333	ATG-431	ATG-531	Spark Resistant	
	ATG-334	ATG-432	--	Patented Track	
7	ATG-307	ATG-407	ATG-507	Shaft	4
8				Spring Lock Washer	4
	ATG-308	--	--	1-1/4 For 3 & 4-Ton	
	--	ATG-408	--	1-5/8 For 5 & 6-Ton	
	--	--	ATG-508	2 For 8 & 10-Ton	
9				Heavy Hex Self-locking Jam Nut	4
	ATG-309	--	--	1-1/4 - 7 For 3 & 4-Ton	
	--	ATG-409	--	1-5/8 - 5-1/2 For 5 & 6-Ton	
	--	--	ATG-509	2 - 4-1/2 For 8 & 10-Ton	
10				Heavy Hex Jam Nut	2
	ATG-310	ATG-416	--	1-1/8 - 7 For 3, 4, 5 & 6-Ton	
	--	--	ATG-511	7/8 - 9 For 8 & 10-Ton	
11				Spring Lock Washer	2
	ATG-311	ATG-415	--	1-1/8 For 3, 4, 5 & 6-Ton	
	--	--	ATG-512	7/8 For 8 & 10-Ton	

Figure 9-2. Army Type Hand Geared Trolley (Continued).

Ref. No.	Part Number			Description	Qty. Req'd.
	3 & 4-Ton	5 & 6-Ton	8 & 10-Ton		
12	ATG-312	--	--	Spacer	
	--	ATG-414	--	For 3 & 4-Ton	28
	--	--	ATG-513	For 5 & 6-Ton	32
13				For 8 & 10-Ton	26
	ATG-313	ATG-428	ATG-510	Plain Side Plate	1
14	ATG-335	ATG-433	ATG-532	Standard	
	ATG-314	ATG-425	ATG-514	Spark Resistant	
15	ATG-315	ATG-413	ATG-517	Stud	1
16	ATG-316	ATG-427	ATG-528	Retaining Ring	2
17	ATG-317	ATG-417	ATG-527	Pinion	1
18	ATG-318	ATG-410	ATG-515	Flange Bearing	2
19	ATG-319	ATG-411	ATG-516	Hand Chain Wheel	1
20	ATG-320	ATG-412	ATG-518	Woodruff Key (No. 9 Alloy per SAE J502)	2
21	ATG-321	ATG-430	ATG-519	Machinery Bushing	3
22	ATG-322	ATG-421	ATG-524	Shaft	1
23				Chain Guide	1
	ATG-323	ATG-422	ATG-525	Hand Chain	As Req'd
24	ATG-336	ATG-434	ATG-533	Natural	
	ATG-337	ATG-435	ATG-534	Plated	
	ATG-324	ATG-423	ATG-526	Spark Resistant	
25	ATG-325	--	--	Open Link	1
26	--	ATG-420	--	Heavy Hex Jam Nut	2
	--	--	ATG-523	1-3/8 - 6 For 3 & 4-Ton	
				1-5/8 - 5-1/2 For 5 & 6-Ton	
27				2-1/4 - 4-1/2 For 8 & 10-Ton	
	ATG-326	--	--	Spring Lock Washer	2
	--	ATG-419	--	1-3/8 For 3 & 4-Ton	
28				1-5/8 For 5 & 6-Ton	
				2-1/4 For 8 & 10-Ton	
	ATG-327	--	--	Spacer	
29	--	ATG-418	--	For 3 & 4-Ton	28
	--	--	ATG-521	For 5 & 6-Ton	32
				For 8 & 10-Ton	26
30	ATG-328	ATG-424	ATG-520	Geared Side Plate	1
	ATG-338	ATG-436	ATG-535	Standard	
31	ATG-329	ATG-426	ATG-529	Spark Resistant	
	ATG-330	ATG-429	ATG-530	Stud	1
32	ATG-339	ATG-437	ATG-536	Plain Wheel	2
	ATG-340	ATG-438	--	Standard	
	ATG-331	--	--	Spark Resistant	
	ATG-332	--	--	Patented Track	
				Set Screw	1
				Heavy Hex Jam Nut (1/2 - 13)	1

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Figure 9-3. 3 and 4-Ton HI-CAP Army Type Chain Hoist Parts.

Ref. No.	Part Number	Description	Qty. Req'd.
1	ACB-301	Hex Socket Head Cap Screw (1/4-20 x 1-3/4)	4
2	ACB-302	Hi-Collar Spring Lock Washer (1/4)	5
3	ACB-303	Gear Cover (3-Ton)	1
4	ACB-304	Gear Cover (4-Ton)	1
5	ACB-305	Idler Shaft Spacer Washer	4
6	ACB-306	Idler Gear	2
7	ACB-307	Needle Bearing (For Idler Gear)	4†
8	ACB-308	Idler Gear Shaft	2
9	ACB-309	Bearing (For Pinion Shaft)	1
10	ACB-310	Retaining Plate	1
11	ACB-311	External Tooth Lock Washer (5/16)	8
12	ACB-312	Hex Socket Button Head Cap Screw (5/16-18 x 3/4)	2
13	ACB-313	Spirolox Ring (For Load Wheel Gear)	1
14	ACB-314	Pocket Wheel Gear	1
15	ACB-315	Pinion Shaft	1
16	ACB-316	Spirolox Retaining Ring	1
17	ACB-317	Pocket Wheel Bearing (Large)	1
18	ACB-318	Load Pocket Wheel	1

Figure 9-3. 3 and 4-Ton HI-CAP Army Type Chain Hoist Parts (Continued).

Ref. No.	Part Number	Description	Qty. Req'd.
19	ACB-319	Pocket Wheel Bearing (Small)	2
20	ACB-320	Spirolox Retaining Ring	1
21	ACB-321	Ball Bearing	1
22	ACB-322	Chain Wheel Guide Cover (4-Ton)	1
23	ACB-323	Chain Wheel Guide Cover (3-Ton)	1
24	ACB-324	Hex Socket Head Cap Screw (5/16-18 x 2-3/4)	2
25	ACB-325	Spring Lock Washer (5/16)	2
26	ACB-326	Hex Socket Head Cap Screw (1/4-20 x 2-1/2)	1
27	ACB-327	Elastic Stop Nut (For Pinion Shaft)	1
28	ACB-328	Brake Stop Lug	1
29	ACB-329	Hex Head Machine Bolt (5/16-18 x 1/2)	4
30	ACB-330	Hand Chain Wheel	1
31	ACB-331	Chain Wheel Hub	1
32	ACB-332	Needle Bearing (For Ratchet Wheel)	1
33	ACB-333	Load Brake Ratchet	1
34	ACB-334	Friction Washer	1
35	ACB-335	Load Brake Flange Assembly	1
36	ACB-336	Anchor Pin (For Load Chain)	1
37	ACB-337	Slotted Spring Pin (3/16 x 1 Pltd.)	1
38	ACB-338	External Tooth Lock Washer (1/4)	1
39	ACB-339	Pawl Spring Stud	1
40	ACB-340	Pawl Spring	1
41	ACB-341	Load Brake Pawl	1
42	ACB-342	Brake Pawl Shaft	1
43	ACB-343	Load Chain Guide	1
44	ACB-344	Chain Stripper	1
45	ACB-345	Slotted Round Head Machine Screw (5/16-18 x 5/8)	2
46	ACB-346	Hand Chain	As Req'd
47	ACB-347	Open Link (For Hand Chain)	1
48	ACB-348	Load Chain	As Req'd
49	ACB-349	Idler Sprocket Lower Block	1
50	ACB-350	Idler Washer	2
51	ACB-351	Needle Bearings (For Idler Sprocket)	2
52	ACB-352	Idler Shaft	1
55	ACB-355	Hook and Latch Assembly (3-Ton)	1
56	ACB-356	Hook and Latch Assembly (4-Ton)	1
57	ACB-357	Slotted Spring Pin (3/16 x 1-3/8 Pltd.)	1
58	ACB-358	Thrust Bearing (3-Ton)	1
59	ACB-359	Thrust Bearing (4-Ton)	1
60	ACB-360	Hex Thick Slotted Nut (3/4-10) (3-Ton)	1
61	ACB-361	Hex Slotted Nut (7/8-9 Pltd.) (4-Ton)	1
62	ACB-362	Cotter Pin (5/32 x 1-1/2)	1
63	ACB-363	Lower Block Body (3-Ton)	1
64	ACB-364	Lower Block Body (4-Ton)	1
65	ACB-365	Chain Anchor Shear Pin	1
66	ACB-366	Internal Tooth Lock Washer (5/16)	1
67	ACB-367	Frame (3-Ton)	1
68	ACB-368	Frame (4-Ton)	1
69	ACB-369	Loadwasher (3-Ton)	1
70	ACB-370	Loadwasher (4-Ton)	1
71	ACB-371	Flat Washer	1
72		Audio Lift Regulator Assembly	1
	ACB-372	3-Ton	
	ACB-373	4-Ton	
73	ACB-374	External Tooth Lock Washer (5/16)	4
74	ACB-375	Hex Head Machine Bolt (5/16-18 x 1/2)	4

† Current production models have 2 short needle bearings in each idler gear. Earlier models had 1 long needle bearing in each idler gear as illustrated.

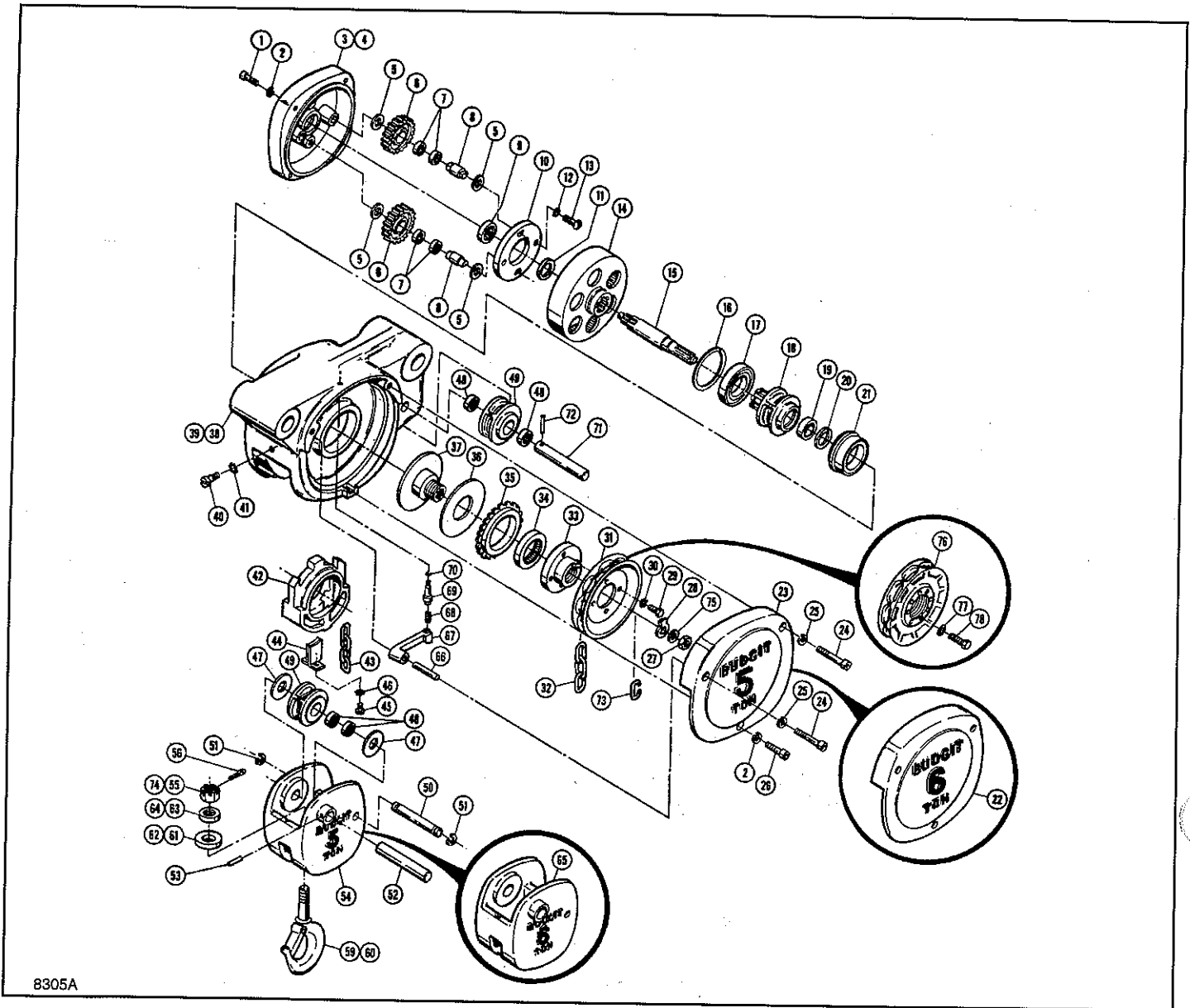
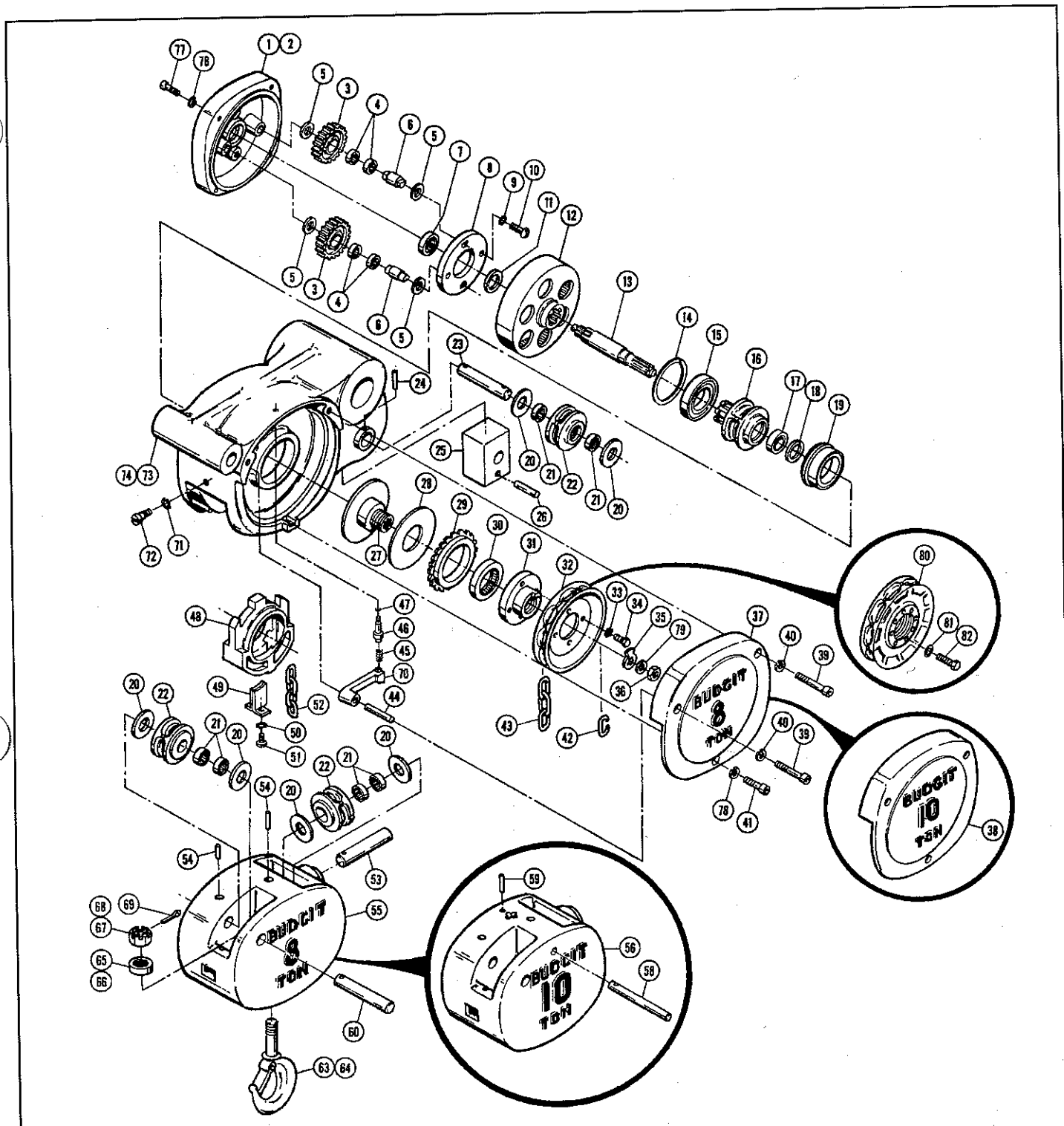


Figure 9-4. 5 and 6-Ton HI-CAP Army Type Chain Hoist Parts.

Ref. No.	Part Number	Description	Qty. Req'd.
1	ACB-401	Hex Socket Head Cap Screw (1/4-20 x 1-3/4)	4
2	ACB-402	Hi-Collar Spring Lock Washer (1/4)	5
3	ACB-403	Gear Cover (5-Ton)	1
4	ACB-404	Gear Cover (6-Ton)	1
5	ACB-405	Idler Shaft Spacer Washer	4
6	ACB-406	Idler Gear	2
7	ACB-407	Needle Bearing (For Idler Gear)	4†
8	ACB-408	Idler Gear Shaft	2
9	ACB-409	Bearing (For Pinion Shaft)	1
10	ACB-410	Retaining Plate	1
11	ACB-411	Spirolox Ring (For Load Wheel Gear)	1
12	ACB-412	External Tooth Lock Washer (5/16)	2
13	ACB-413	Hex Socket Button Head Cap Screw (5/16-18 x 3/4)	2
14	ACB-414	Pocket Wheel Gear	1

Figure 9-4. 5 and 6-Ton HI-CAP Army Type Chain Hoist Parts (Continued).

Ref. No.	Part Number	Description	Qty. Req'd.
15	ACB-415	Pinion Shaft	1
16	ACB-416	Spirolox Retaining Ring	1
17	ACB-417	Pocket Wheel Bearing (Large)	1
18	ACB-718	Load Pocket Wheel	1
19	ACB-419	Pocket Wheel Bearing (Small)	1
20	ACB-420	Spirolox Retaining Ring	1
21	ACB-421	Ball Bearing	1
22	ACB-422	Chain Wheel Guide Cover (6-Ton)	1
23	ACB-423	Chain Wheel Guide Cover (5-Ton)	1
24	ACB-424	Hex Socket Head Cap Screw (5/16-18 x 2-3/4)	2
25	ACB-425	Spring Lock Washer (5/16)	2
26	ACB-426	Hex Socket Head Cap Screw (1/4-20 x 2-1/2)	1
27	ACB-427	Elastic Stop Nut (For Pinion Shaft)	1
28	ACB-428	Brake Stop Lug	1
29	ACB-429	Hex Head Machine Bolt (5/16-18 x 1/2)	4
30	ACB-430	External Tooth Lock Washer (5/16)	4
31	ACB-431	Hand Chain Wheel	1
32	ACB-432	Hand Chain	As Req'd
33	ACB-433	Chain Wheel Hub	1
34	ACB-434	Needle Bearing (For Ratchet Wheel)	1
35	ACB-435	Load Brake Ratchet Wheel	1
36	ACB-436	Friction Washer	1
37	ACB-437	Load Brake Flange Assembly	1
38	ACB-438	Frame (5-Ton)	1
39	ACB-439	Frame (6-Ton)	1
40	ACB-440	Chain Anchor Shear Pin	1
41	ACB-441	Internal Tooth Lock Washer (5/16)	1
42	ACB-442	Load Chain Guide	1
43	ACB-443	Load Chain	As Req'd
44	ACB-444	Chain Stripper	1
45	ACB-445	Slotted Round Head Machine Screw (5/16-18 x 5/8)	2
46	ACB-446	External Tooth Lock Washer (5/16)	2
47	ACB-447	Idler Washer (2 Upper - 2 Lower)	4
48	ACB-448	Needle Bearing	4
49	ACB-449	Idler Sprocket (1 Upper - 1 Lower)	2
50	ACB-450	Chain Anchor Pin	1
51	ACB-451	Snap Ring	2
52	ACB-452	Idler Shaft	1
53	ACB-453	Slotted Spring Pin (3/16 x 1-3/8 Pltd.)	1
54	ACB-454	Lower Block Body (5-Ton)	1
55	ACB-455	Hex Thick Slotted Nut (1-8)	1
56	ACB-456	Cotter Pin (5/32 x 1-1/2)	1
59	ACB-459	Hook and Latch Assembly (5-Ton)	1
60	ACB-460	Hook and Latch Assembly (6-Ton)	1
61	ACB-461	Loadwasher (5-Ton)	1
62	ACB-462	Loadwasher (6-Ton)	1
63	ACB-463	Thrust Bearing (5-Ton)	1
64	ACB-464	Thrust Bearing (6-Ton)	1
65	ACB-465	Lower Block Body (6-Ton)	1
66	ACB-466	Brake Pawl Shaft	1
67	ACB-467	Brake Pawl	1
68	ACB-468	Pawl Spring	1
69	ACB-469	Pawl Spring Stud	1
70	ACB-470	External Tooth Lock Washer (1/4)	1
71	ACB-471	Idler Shaft	1



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Figure 9-5. 8 and 10-Ton HI-CAP Army Type Chain Hoist Parts.

Ref. No.	Part Number	Description	Qty. Req'd.
1	ACB-501	Gear Cover (8-Ton)	1
2	ACB-502	Gear Cover (10-Ton)	1
3	ACB-503	Idler Gears	2
4	ACB-504	Needle Bearing (For Idler Gear)	4†
5	ACB-505	Idler Shaft Spacer Washer	4
6	ACB-506	Idler Gear Shaft	2

Figure 9-5. 8 and 10-Ton HI-CAP Army Type Chain Hoist Parts (Continued).

Ref. No.	Part Number	Description	Qty. Req'd.
7	ACB-507	Bearing (For Pinion Shaft)	1
8	ACB-508	Retaining Plate	1
9	ACB-509	External Tooth Lock Washer (5/16)	2
10	ACB-510	Hex Socket Button Head Cap Screw (5/16-18 x 3/4)	2
11	ACB-511	Spirolox Ring (For Load Wheel Gear)	1
12	ACB-512	Pocket Wheel Gear	1
13	ACB-513	Pinion Shaft	1
14	ACB-514	Spirolox Retaining Ring	1
15	ACB-515	Pocket Wheel Bearing (Large)	1
16	ACB-516	Load Pocket Wheel	1
17	ACB-517	Pocket Wheel Bearing (Small)	1
18	ACB-518	Spirolox Retaining Ring	1
19	ACB-519	Ball Bearing	1
20	ACB-520	Idler Wheel Washer	
		8-Ton	6
		10-Ton	8
21	ACB-521	Idler Needle Bearing	
		8-Ton	6
		10-Ton	8
22	ACB-522	Idler Sprocket	
		8-Ton	3
		10-Ton	4
23	ACB-523	Idler Shaft	1
24	ACB-524	Slotted Spring Pin (3/16 x 1-1/2 Pltd.)	1
25	ACB-525	Chain Anchor Block (8-Ton)	1
26	ACB-526	Chain Anchor Pin (8-Ton)	1
27	ACB-527	Load Brake Flange Assembly	1
28	ACB-528	Friction Washer	1
29	ACB-529	Load Brake Ratchet Wheel	1
30	ACB-530	Needle Bearing (For Ratchet Wheel)	1
31	ACB-531	Chain Wheel Hub	1
32	ACB-532	Hand Chain Wheel	1
33	ACB-533	External Tooth Lock Washer (5/16)	4
34	ACB-534	Hex Head Machine Bolt (5/16-18 x 1/2)	4
35	ACB-535	Brake Stop Lug	1
36	ACB-536	Elastic Stop Nut (For Pinion Shaft)	1
37	ACB-537	Chain Guide Cover (8-Ton)	1
38	ACB-538	Chain Guide Cover (10-Ton)	1
39	ACB-539	Hex Socket Head Cap Screw (5/16-18 x 2-3/4)	2
40	ACB-540	Spring Lock Washer (5/16)	2
41	ACB-541	Hex Head Cap Screw (1/4-20 x 2-1/2)	1
42	ACB-542	Open Link (For Hand Chain)	1
43	ACB-543	Hand Chain	As Req'd
44	ACB-544	Brake Pawl Shaft	1
45	ACB-545	Pawl Spring	1
46	ACB-546	Pawl Spring Stud	1
47	ACB-547	External Tooth Lock Washer (1/4)	1
48	ACB-548	Load Chain Guide	1
49	ACB-549	Chain Stripper	1
50	ACB-550	External Tooth Lock Washer (5/16)	2
51	ACB-551	Slotted Round Head Machine Screw (5/16-18 x 5/8)	2
52	ACB-552	Load Chain	As Req'd
53	ACB-553	Shaft (For 2nd Idler)	1
54	ACB-554	Slotted Spring Pin (3/16 x 1-3/8 Pltd.)	1

Figure 9-5. 8 and 10-Ton HI-CAP Army Type Chain Hoist Parts (Continued).

Ref. No.	Part Number	Description	Qty. Req'd.
55	ACB-555	Lower Block Body (8-Ton)	1
56	ACB-556	Lower Block Body (10-Ton)	1
58	ACB-558	Chain Anchor Pin (10-Ton)	1
59	ACB-559	Slotted Spring Pin (3/16 x 1-5/8 Pltd.)	1
60	ACB-560	Shaft (First Idler)	1
63	ACB-563	Hook and Latch Assembly (8-Ton)	1
64	ACB-564	Hook and Latch Assembly (10-Ton)	1
65	ACB-565	Thrust Bearing (8-Ton)	1
66	ACB-566	Thrust Bearing (10-Ton)	1
67	ACB-567	Round Nut (8-Ton)	1
68	ACB-568	Round Nut (10-Ton)	1
69	ACB-569	Cotter Pin (3/16 x 3-1/2)	1
70	ACB-570	Brake Pawl	1
71	ACB-571	Internal Tooth Lock Washer (5/16)	1
72	ACB-572	Shear Pin	1
73	ACB-573	Frame (8-Ton)	1
74	ACB-574	Frame (10-Ton)	1
77	ACB-577	Hex Socket Head Cap Screw (1/4-20 x 1-3/4)	4
78	ACB-578	Hi-Collar Spring Lock Washer (1/4)	5
79	ACB-579	Flat Washer	1
80		Audio Lift Regulator Assembly	1
	ACB-580	8-Ton	
	ACB-581	10-Ton	
81	ACB-582	External Tooth Lock Washer (5/16)	4
82	ACB-583	Hex Head Machine Bolt (5/16-18 x 1/2)	4

† Current production models have 2 short needle bearings in each idler gear. Earlier models had 1 long needle bearing in each idler gear as illustrated.

NOTES

Recommended Spare Parts for Your BUDGIT Chain Hoist

Certain parts of your hoist will, in time, require replacement under normal wear conditions. It is suggested that the following parts be purchased for your hoist as spares for future use.

Friction Washers
Hand Chain Wheel
Hand Chain
Load Chain
Lower Hook Assembly
Chain Wheel Guide
Pinion Shaft
Elastic Stop Nut
Hook Latches

NOTE: When ordering parts always furnish Hoist Serial Number, Catalog Number, capacity, and lift of hoist on which the parts are to be used.

Parts for your hoist are available from your local authorized BUDGIT repair station. For the location of your nearest repair station, write:

IN USA

LIFT-TECH INTERNATIONAL, division of
COLUMBUS MCKINNON CORPORATION
P.O. BOX 769
MUSKEGON, MI 49443-0769

or phone: 800 742-9269
or fax: 800 742-9270

IN CANADA

LIFT-TECH INTERNATIONAL, division of
COLUMBUS MCKINNON CORPORATION
53-D COWANSVIEW ROAD
CAMBRIDGE, ONTARIO, N1R 7L2

or phone: (519) 621-3201
or fax: (519) 621-3125

WARRANTY

WARRANTY AND LIMITATION OF REMEDY AND LIABILITY

A. Seller warrants that its products and parts, when shipped, and its work (including installation, construction and start-up), when performed, will meet applicable specifications, will be of good quality and will be free from defects in material and workmanship. All claims for defective products or parts under this warranty must be made in writing immediately upon discovery and, in any event, within one (1) year from shipment of the applicable item unless Seller specifically assumes installation, construction or start-up responsibility. All claims for defective products or parts when Seller specifically assumes installation, construction or start-up responsibility, and all claims for defective work must be made in writing immediately upon discovery and, in any event, within one (1) year from completion of the applicable work by Seller, provided, however, all claims for defective products and parts made in writing no later than eighteen (18) months after shipment. Defective items must be held for Seller's inspection and returned to the original f.o.b. point upon request. THE FOREGOING IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES WHATSOEVER, EXPRESS, IMPLIED AND STATUTORY, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS.

B. Upon Buyer's submission of a claim as provided above and its substantiation, Seller shall at its option either (i) repair or replace its product, part or work at either the original f.o.b. point of delivery or at Seller's authorized service station nearest Buyer or (ii) refund an equitable portion of the purchase price.

C. This warranty is contingent upon Buyer's proper maintenance and care of Seller's products, and does not extend to normal wear and tear. Seller reserves the right to void warranty in event of Buyer's use of inappropriate materials in the course of repair or maintenance, or if Seller's products have been dismantled prior to submission to Seller for warranty inspection.

D. The foregoing is Seller's only obligation and Buyer's exclusive remedy for breach of warranty, and is Buyer's exclusive remedy hereunder by way of breach of contract, tort, strict liability or otherwise. In no event shall Buyer be entitled to or Seller liable for incidental or consequential damages. Any action for breach of this agreement must be commenced within one (1) year after the cause of action has occurred.