

OPERATION, SERVICE AND PARTS MANUAL

BUDGIT®

USA HAND CHAIN HOISTS

| Rated Load | Model | Catalog Number | |
|--------------------------|-----------------------------|-----------------|----------------|
| | | Hook Suspension | Lug Suspension |
| ¼ Ton | Standard Spark Resistant | 8260 8260SR | 8301 8301SR |
| ½ Ton | Standard Spark Resistant | 8261 8261SR | 8302 8302SR |
| 1 Ton | Standard Spark Resistant | 8262 8262SR | 8303 8303SR |
| 1½ Ton | Standard Spark Resistant | 8259 8259SR | 8300 8300SR |
| 2 Ton (1 Load Chain) | Standard Spark Resistant | 8263 8263SR | 8304 8304SR |
| 2 Ton (2 Load Chains) | Standard Spark Resistant | 8258 8258SR | 8299 8299SR |
| 3 Ton | Standard Spark Resistant | 8264 8264SR | 8305 8305SR |
| 4 Ton | Standard Spark Resistant | 8265 8265SR | 8306 8306SR |
| 5 Ton | Standard Spark Resistant | 8266 8266SR | 8307 8307SR |
| 6 Ton | Standard Spark Resistant | 8267 8267SR | 8308 8308SR |



FOREWORD

This book is written to assist in installation, operation, maintenance and service for BUDGIT USA hand chain 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. The BUDGIT USA hand chain hoist is a precision built spur geared hoist designed as a manually operated lifting mechanism for any type of lifting operation (other than lifting or lowering persons) within the rated load of the chain hoist. Operation is by endless hand chain.

⚠ WARNING

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

1-2. This book contains installation, operation, service and parts information for 1/4, 1/2, 1, 1-1/2, 2, 3, 4, 5 and 6 ton rated chain hoists. Two models of each rating for hook suspension hoists are included; the standard hoist and the spark resistant hoist. Also included are a number of models of lug suspension hoists. All hooks have hook latches as standard. The catalog number and model number of each hoist is found on the nameplate on the hoist frame. When ordering parts, always give the catalog and model number of the hoist.

1-3. All BUDGIT USA hand chain hoists are equipped with a Load Regulator which is designed to help guard against excessive overloads. The 1/4, 1/2 and 1 ton hoists are similar to each other. Differences that occur are due to load rating and in general affect hook and chain size. The 1-1/2 and single load chain 2 ton hoists, while similar to each other, differ from the other hoists in internal gearing as well as hook and chain

size. The two load chain 2 ton hoist is internally similar to the 1 ton hoist differing in parts of chain and hook size. The 3, 4, 5 and 6 ton hoists are internally similar to the 1-1/2 and single load chain 2 ton hoists differing in parts of chain and hook size. Hoist frames are aluminum alloy. For all models except spark resistant models; load chains are welded link type of special calibrated pitch and are heat treated low alloy steel; hand chains are welded link type and are of steel; and hooks are forged steel.

1-4. Spark resistant hoists have components and finishes intended for service in certain hazardous environments.

1-5. On the lug suspension hoist model the top hook has been replaced by a suspension lug which allows this hoist to be used with BUDGIT rigid mount I-beam trolleys. The 1 ton hoist requires a special push trolley; Catalog Number 905409.

1-6. Hoists with a letter suffix of B, C, D, E, For G to the catalog number have lifts of 10 feet, 12 feet, 15 feet, 20 feet, 25 feet and 30 feet respectively. Standard lift is 8 feet.

SECTION II - INSTALLATION

2-1. Install the chain hoist by connecting the upper hook to trolley or support (support must have sufficient strength to support weight of chain hoist plus applied load). Make sure hook latch is closed before using hoist.

⚠ WARNING

Do not suspend chain hoist from tip of hook.

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 2-1.

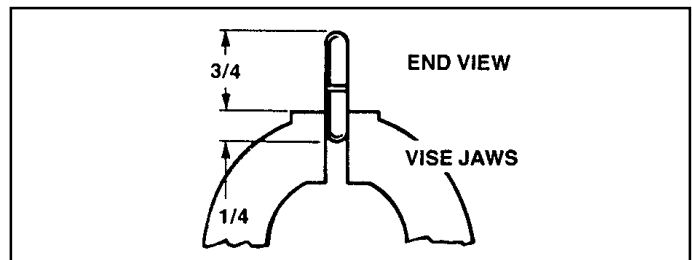


Figure 2-1.

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.

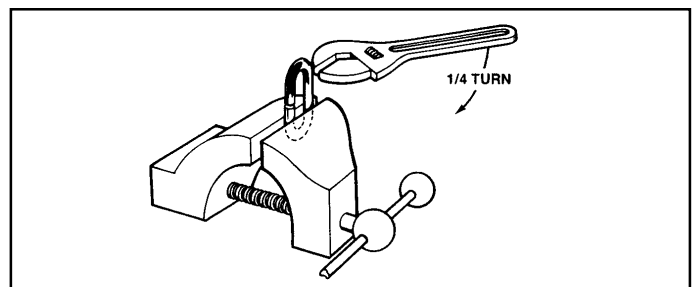


Figure 2-2.

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

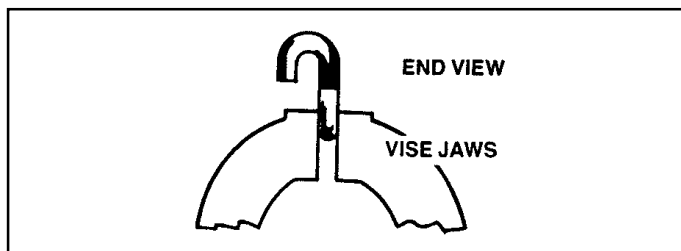


Figure 2-3.

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

2-3. For installation of a trolley hoist, follow the instructions given in the trolley literature.

SECTION III - OPERATION

3-1. GENERAL.

A BUDGIT USA hand chain 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 by applying the rules shown in the safety chart on the inside of the back cover.

⚠ 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. 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. Also, see illustrated operating rules on the inside of the back cover of this manual.

⚠ 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 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.

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.

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 judgment 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.

3-5. LOAD REGULATOR.

A BUDGIT USA hand chain hoist should not be overloaded; however, if the hoist is subjected to excessive overload the Load Regulator unit will allow the hand chain to move without increasing the load on the hoist. When this condition occurs, the hoist will continue to support the overload; however, **the overload must be released as soon as possible.**

⚠ WARNING

The Load Regulator clutch can be affected by environmental conditions, use and wear to the point that it may not operate correctly. Regulator inspection, maintenance and testing is required. See Section VIII.

SECTION IV - LUBRICATION

4-1. LUBRICATION OF INTERNAL PARTS.

All internal operating parts of the BUDGIT USA hand chain 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.

⚠ 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. Lubricate upper hooks with a few drops of bar and chain oil.

SECTION V - MAINTENANCE

5-1. GENERAL.

The following are preventive maintenance steps which should be performed periodically as operating conditions demand. Under most conditions, a yearly maintenance inspection is adequate. The entire hoist should be dismantled and its parts inspected for damage or wear and replaced as necessary. At reassembly, the hoist should be relubricated as outlined in paragraph 7-14. If the hoist has been subjected to extremely adverse conditions, such as excessive dirt or moisture, a more frequent maintenance inspection should be made. Visually check hoist after each use.

5-2. LOAD BRAKE.

If load brake shows a tendency to slip or drag, remove brake parts, as outlined in paragraph 7-5, and inspect brake friction surfaces for signs of damage, wear, dirt, or an oil film. Contact surfaces of brake flange, ratchet wheel and nut must be free of excessive scoring and clean. Faces of friction washers should be lightly wire brushed and buffed. Replace any worn parts. Load brake pawl should also be checked for signs of wear or damage.

Note

Be sure to keep brake friction surfaces free of oil at reassembly. Lubricate per paragraph 7-14.b.

5-3. LOAD CHAIN.

BUDGIT USA hand chain hoist link type load chain is made of extremely tough, hard surfaced, low alloy steel. However, it should be inspected regularly for wear (see Figure 5-1), rust or corrosion. Examine visually for gouges, nicks, weld splatter, corrosion or distorted links. Slacken chain and check bearing surfaces between links for wear. Case hardness of chain is about .010" to .015" deep. Chain must be replaced before the case is worn thru. Also check chain for elongation using a vernier caliper (see Figure 5-2). 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 load chain.

Note

On spark resistant models, coil load chains are stainless steel and must be inspected for wear and lubricated more frequently than the standard low alloy heat treated load chain.

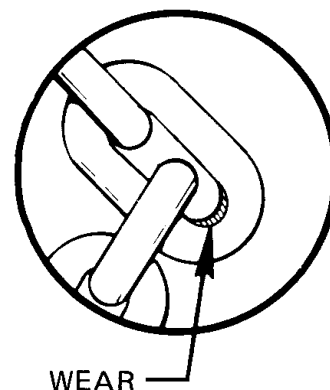


Figure 5-1. Check Chain Wear at Bearing Surfaces Between Links

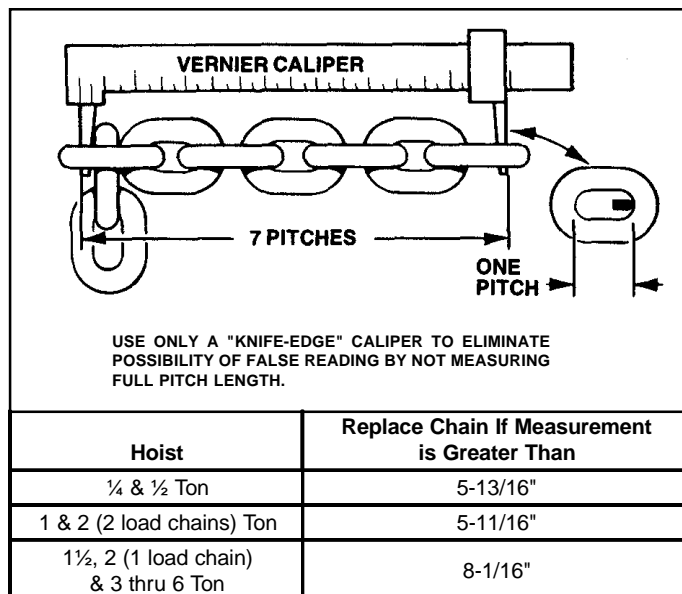


Figure 5-2. Checking Coil Chain Using Vernier Caliper

CAUTION

Do not assume that load chain is safe because it measures below replacement points given herein. Other factors, such as those mentioned in visual checks above, may render chain unsafe or ready for replacement long before elongation replacement is necessary.

⚠ WARNING

When replacing coil 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.

5-4. HOOKS.

Inspect both hooks regularly for evidence of overloading or damage. Check for proper hook opening, Figure 5-3. If hook is opened beyond the given dimension, replace immediately. If hooks are damaged, dismantle hoist and inspect all parts thoroughly. Refer to Section VII for hook removal and installation instructions.

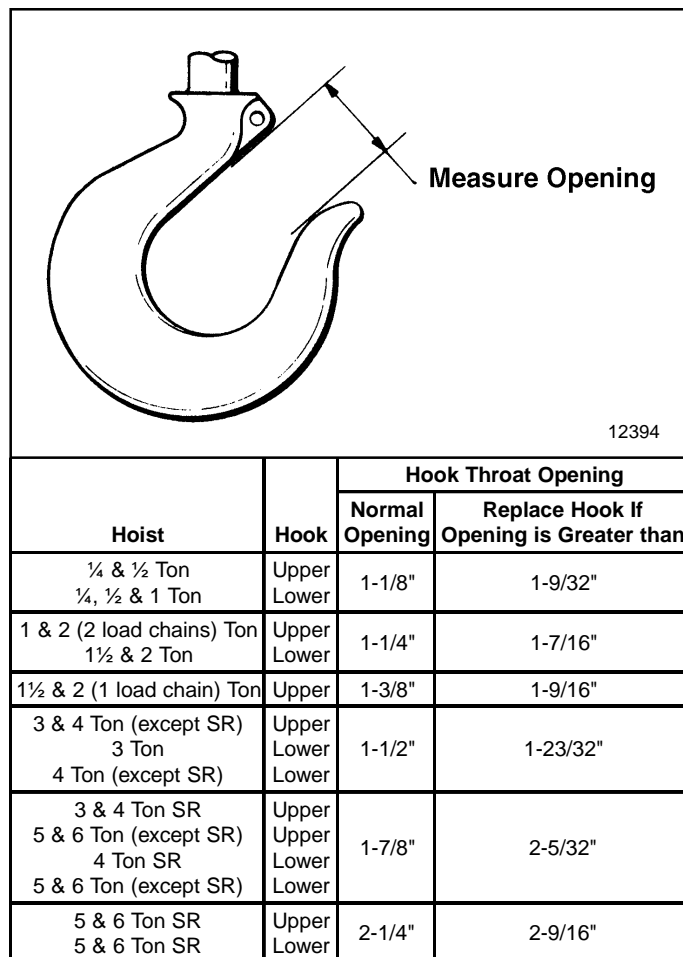


Figure 5-3. Upper Hook Opening

⚠ WARNING

Hooks, upper or lower, 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.

5-5. TESTING.

Regular testing of the hoist is required. See Section VIII.

SECTION VI - TROUBLE SHOOTING

| Trouble | Probable Cause | Remedy |
|--|--|---|
| 1. Hoist is hard to operate in hoisting direction. | <ul style="list-style-type: none"> a. Hoist is overloaded. b. Load chain is damaged, worn, elongated or binding between load chain sprocket and guide. c. Load chain dry, rusty, corroded or dirty with foreign material adhering to chain. d. Load chain sprocket worn or clogged with foreign material. e. Chain twisted. | <ul style="list-style-type: none"> a. Reduce load to within rated hoist capacity. Hoist should be dismantled and thoroughly inspected for additional damage from overloading. b. Check chain for bent or twisted links, gouges or nicks. Check for wear between links and gauge chain per paragraph 5-3. Replace if necessary. c. Clean chain by tumble polishing or clean with solvent. Lubricate per Para. 4-2. d. Clean and inspect sprocket. Replace if necessary. e. Rereeve chain hoist keeping chain free of twist. |
| 2. Load brake slips and chain hoist will not support load. | <ul style="list-style-type: none"> a. Brake friction surfaces coated with excessive oil or friction washers glazed. b. Brake parts worn or damaged. c. Load chain reeved incorrectly. d. Brake pawl hangs up. | <ul style="list-style-type: none"> a. Remove and disassemble brake. Clean and buff friction washers or install new washers. Lubricate per Section 7-14.b. before reassembly. b. Remove brake parts. Inspect brake parts. Replace worn or damaged parts. c. Remove load chain and install correctly. (See Figure 7-8.) d. Check brake pawl engagement and brake pawl spring. |
| 3. Load brake drags, hard to lower load. (Hand chain is hard to pull.) | <ul style="list-style-type: none"> a. Dirty or corroded internal parts. b. Brake friction surfaces scored. c. Load gearing damaged from overloading. d. Chain binding. | <ul style="list-style-type: none"> a. Remove and disassemble brake. Clean and buff surfaces. Install brake. Lubricate per Section 7-14.b before reassembly. b. Refer to a. above. Replace if scored excessively. c. Remove damaged gears and install new gears. Hoist should be dismantled and thoroughly inspected for additional damage from overloading. d. See items 1.b., 1.c., and 1.d. |
| 4. Chain hoist works erratically. | <ul style="list-style-type: none"> a. Load chain incorrectly installed. b. Load brake pawl or ratchet teeth worn or damaged c. Frame cracked or mutilated. d. Hand chain rubbing on cover. e. Hand chain hanging up in hand wheel. | <ul style="list-style-type: none"> a. Remove load chain. Install chain correctly. (See Figure 7-8.) b. Remove load brake parts. Inspect parts. Replace damaged parts. c. Replace frame. d. Remove interference. e. Clean and lubricate hand chain. |
| 5. Hooks opened. | <ul style="list-style-type: none"> a. Chain hoist overloaded. | <ul style="list-style-type: none"> a. Replace opened hooks. Hoist should be dismantled and thoroughly inspected for additional damage from overloading. |
| 6. Frame damaged. | <ul style="list-style-type: none"> a. Hoist subjected to overloading. b. Load chain run too far through chain block frame. c. Chain hoist subjected to extreme angular or side pulls, causing chain to bind. | <ul style="list-style-type: none"> a. Load chain hoist only to rated capacity. Replace damaged frame. Hoist should be dismantled and thoroughly inspected for additional damage from overloading. b. Replace damaged frame. c. Operate chain hoist properly. Replace damaged frame. |

(Continued on following page)

SECTION VI - TROUBLE SHOOTING (continued)

| Trouble | Probable Cause | Remedy |
|---------------------------------|--|--|
| 6. Frame damaged. (continued) | d. Chain hoist damaged by dropping or throwing. | d. Disassemble chain hoist. Inspect chain hoist. Replace damaged parts and assemble chain hoist. Whenever the frame shows evidence of damage from misuse or rough handling, the hoist should be completely dismantled, all parts inspected and damaged or worn parts replaced, as outlined in Section VII. Always apply the safety rules shown on the inside of the back cover when using BUDGIT USA hand chain hoist. |
| 7. Clutch slipping excessively. | a. Hoist is overloaded. b. Internal binding. c. Load brake locked up. d. Clutch worn. | a. Reduce load to within rated hoist capacity. Hoist should be dismantled and thoroughly inspected for additional damage from overloading. b. See item 6.d. c. See item 2.a. d. Replace clutch. |

SECTION VII - DISASSEMBLY & REASSEMBLY

7-2. GENERAL.

The following disassembly procedure applies to all hoists except as specifically noted. A complete tear down procedure is given; however, when servicing specific parts, only a partial tear down may be required.

7-3. REMOVAL OF LOAD CHAIN.

a. To remove hook from end of load chain on single load chain hoists, remove snap ring at top of sleeve, slide sleeve from body halves and separate parts. See Figure 7-1.

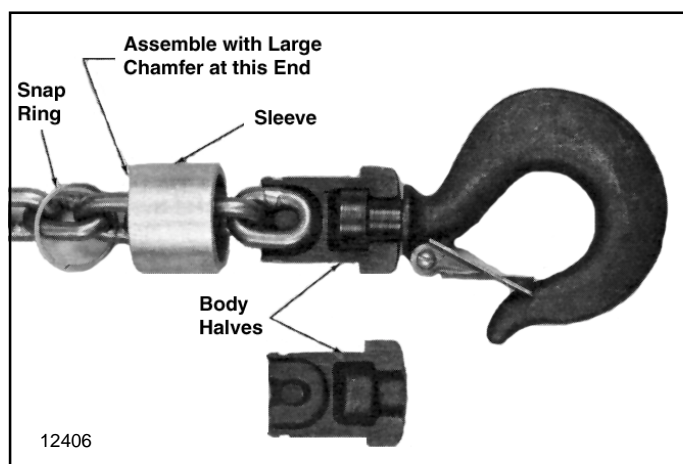


Figure 7-1. Lower Hook Connection

b. Remove hex socket head cap screw holding tail end of load chain to hoist frame.

c. Run load chain out of hoist by pulling on hand chain in lowering direction.

d. On two load chain 2 ton hoists, remove chain connection pin at upper hook bracket (see Figure 9-3a) and pull chain thru lower block; then follow steps b and c above.

e. On 3 and 4 ton hoists, remove one roll pin from chain anchor pin at upper hook bracket and remove chain anchor pin. See Figure 9-4. Pull chain thru lower block and then follow steps b and c above.

f. On 5 and 6 ton hoists, remove one retaining ring from chain anchor pin at lower block and remove chain anchor pin. See Figure 9-5. Pull chain thru upper hook assembly and lower block and then follow steps b and c above.

7-4. REMOVAL OF HAND CHAIN AND HAND CHAIN WHEEL.

a. If load chain has not been removed per paragraph 7-3, operate hoist in lowering direction.

b. Open split connecting link in hand chain (see paragraph 2-2) and pull hand chain from hoist.

c. Remove four hex socket button head cap screws holding hand chain wheel cover and lift off cover.

d. A self-locking nut on the end of the pinion shaft secures the hand chain wheel. Remove nut, flat washer, brake stop and hand chain wheel.

e. No disassembly of the hand chain wheel is to be attempted. The hand chain wheel contains the Load Regulator which is preset at the factory. Any adjustment should be undertaken only by an authorized BUDGIT repair station.

7-5. REMOVAL OF LOAD BRAKE PARTS.

a. Pull two friction washers and brake ratchet off shaft of brake flange while holding brake pawl open. See Figure 7-5.

b. Remove brake pawl spring. To remove pawl, take retaining ring off end of pawl pin and remove washer and pawl. Note relationship of spring retainer plate (if present) to stop in frame. Slide spacer washer and spring retainer plate (where they occur) off pawl pin.

c. Unscrewing the load brake flange (counterclockwise) from the pinion shaft, will require extra effort. The easiest way is; after removal of the sprocket gear on 1/4, 1/2, 1 and two load chain 2 ton models (see paragraph 7-6) or the intermediate gear on 1-1/2, single load chain 2, and 3 thru 6 ton models (see paragraph 7-7), turn the pinion counterclockwise with a 6

or 12 point 17 mm hex socket on a flex handle or ratchet and hold the load brake flange with a face spanner resting against the brake pawl pin (see Figure 7-2). If it becomes necessary to remove the load brake flange without removing any gearing, hold load brake flange with face spanner and turn pinion shaft with a 6" or larger crescent wrench fitted over the flat surface under the end thread on the pinion shaft.

d. Do not remove pawl pin unless damaged, requiring replacement. A self-locking hex nut secures the pawl pin to the frame. This is accessible in the opening in the frame near the upper hook nut (or lug mounting nut). See Figure 7-4.

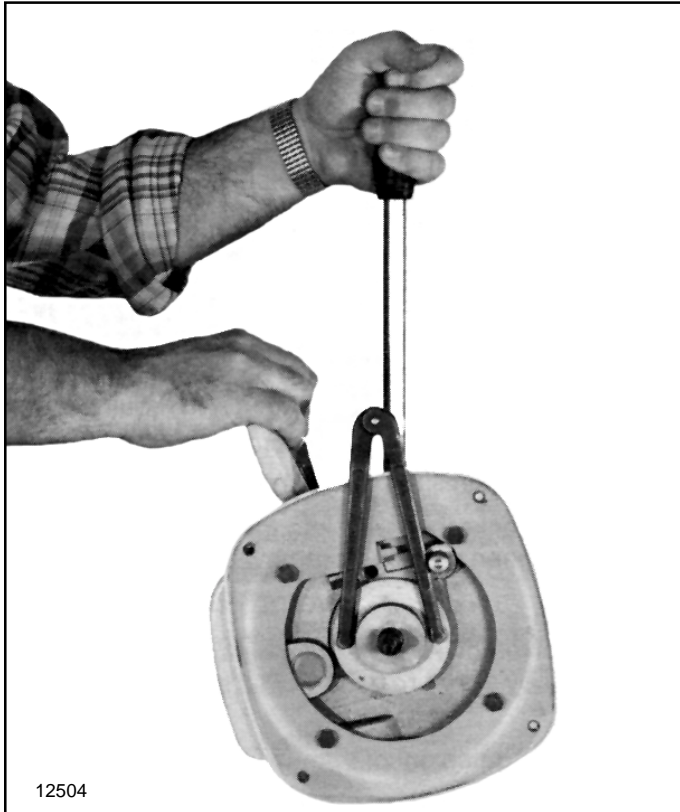


Figure 7-2. Removing Load Brake Flange

7-6. REMOVAL OF GEARING (1/4, 1/2, 1 and Two Load Chain 2 Ton Models).

a. Unscrew four hex socket button head cap screws holding gearcase cover and remove cover.

b. Lift out sprocket gear with integral chain sprocket (load chain must have been previously removed from hoist).

Note

Do not remove two bushings from their bores in the frame unless they show evidence of wear or damage and require replacement.

c. Remove retaining ring from pinion shaft (on hand wheel side of frame) and tap out pinion shaft. See Figure 7-3. Ball bearing should come out with pinion shaft.

Note

Do not remove needle roller bearing from frame unless it is worn or damaged and replacement is required.

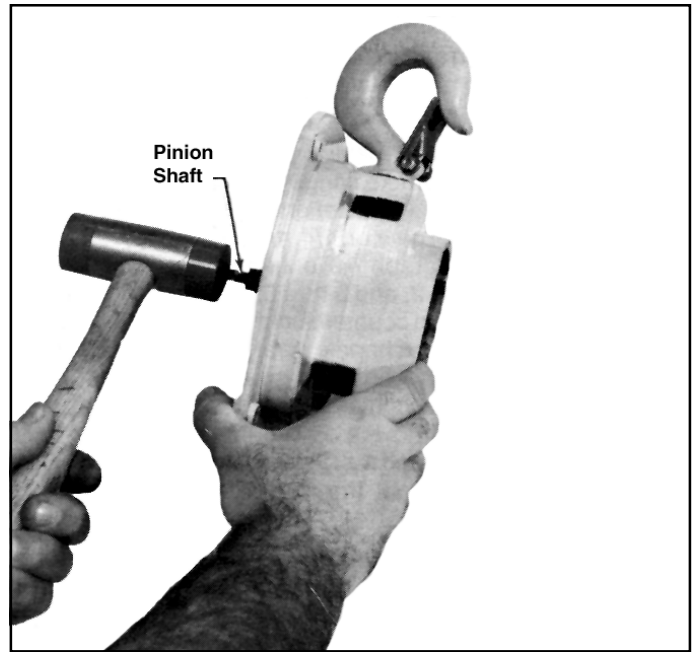


Figure 7-3. Removing Pinion Shaft

d. Pull chain guide out of frame.

7-7. REMOVAL OF GEARING (All Other Models).

a. Unscrew six hex socket button head cap screws holding gearcase cover and remove cover.

b. Lift out intermediate pinion with intermediate gear attached and with a washer on each end. To separate intermediate gear from pinion, press gear off shaft. A woodruff key joins the two.

Note

Do not remove needle roller bearings from frame unless they are worn or damaged and require replacement.

c. Remove pinion shaft as outlined in paragraph 7-6.c.

d. Lift out sprocket gear with integral chain sprocket (load chain must have been previously removed from hoist).

Note

Do not remove needle roller bearings from frame unless they are worn or damaged and require replacement.

e. Pull chain guide out of frame.

7-8. REMOVAL OF UPPER HOOK (Hook Suspension Models).

a. Align grooved pin in hook nut with opening in frame and drive out pin with drift punch. Use drift punch to hold nut while hook is being unscrewed.

b. Unscrew and remove hook, nut and washer.

Note

Keep hook and nut together as they are drilled at assembly and are not interchangeable.

7-9. REMOVAL OF SUSPENSION LUG (Lug Suspension Models).

a. For 1/4, 1/2, 1, 1-1/2 and single load chain 2 ton hoists, hold nuts with wrench and unscrew two flat head cap screws (hex head cap screws on 1-1/2 and single load chain 2 ton models) to remove suspension lug.

b. For two load chain 2 ton, 3 and 4 ton hoists, align grooved pin in upper block bolt with opening in frame and drive out pin with a drift punch. Use drift punch to hold nut while bolt is being unscrewed. Unscrew and remove bolt, nut and washer.

Note

Keep bolt and nut together as they are drilled at assembly and are not interchangeable.

c. For 5 and 6 ton hoists, hold self-locking nuts while unscrewing bolts.

7-10. DISASSEMBLY OF LOWER BLOCKS (3 Thru 6 Ton Hoists).

a. Remove spring pin in sprocket shaft; then remove sprocket shaft, sprocket, bearings and washers.

b. Remove cotter pin in hook nut; hold nut and unscrew hook; remove nut, thrust bearing and thrust washer.

7-11. REASSEMBLY.

7-12. GENERAL.

The procedure to be followed for reassembly is in reverse order of the disassembly steps outlined above. There are; however, certain precautionary steps that must be taken, as outlined in paragraphs 7-13 thru 7-21 below.

7-13. CLEANING AND INSPECTION OF PARTS.

a. Before assembly, all parts should be thoroughly cleaned and inspected to determine their serviceability. Do not wash shielded ball bearing (from pinion shaft) out with solvent. Also, hand chain wheel, which contains Load Regulator, should not be degreased.

b. Grease should be evident at joint between chain wheel and load brake nut and also chain wheel and regulator collar of Load Regulator. If not, test hoist per Section VIII to assure grease has not been baked or washed out by environmental conditions.

c. Replace parts that are excessively worn or damaged.

7-14. LUBRICATION OF PARTS.

a. Lubricate upper and lower hooks with bar and chain oil. Apply on hook shanks and surfaces between hook, frame, washer and nut on upper hooks. Apply on hook shanks and body halves on lower hooks. Lubricate hook bearings with MOLYKOTE BR2 Plus grease (by Dow Corning) or equal.

b. Lubricate gearing with MOLYKOTE BR2 Plus grease or equal. Apply same grease to sprocket bearing surfaces and apply a light film of this grease to sprocket bushings or bearings. On 1½ and 2 ton models, do the same for intermediate gear and pinion. Apply BR2 Plus grease to pinion bearing surfaces and apply a film of this grease to the pinion needle bearing. Lubricate load brake pawl with a small amount of BR2 Plus grease at support pin and ratchet engagement tip. While making sure that the load brake friction surfaces do not become greased, lubricate the ratchet inner bearing surfaces. For lubrication of the load brake threads, apply a small amount of BR2 Plus grease on the leading internal threads of the load brake nut which is part of the hand chain wheel assembly. When the hand chain wheel is assembled to the pinion shaft any excess grease will be brought to the end of the pinion shaft where it can be wiped off.

⚠ WARNING

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

c. Load chain should be lubricated with a light film of bar and chain oil. It is important that the bearing surfaces between the links are lubricated. Note Figure 5-1.

7-15. INSTALLING SUSPENSION LUG (Lug Suspension Models).

a. For 1/4, 1/2 and 1 ton models, the flat head hex socket cap screws fastening the suspension lug to the hoist frame must be torqued to 70 to 80 foot-pounds.

b. The hex head cap screws for the 1-1/2, single load chain 2, 5 and 6 ton models must be torqued to 195 to 205 foot-pounds. The self-locking plastic material in the nuts must be undamaged and resilient.

c. On two load chain 2, 3 and 4 ton models (round nut with pin), be certain original nut is used. The nut side with the greater distance to the center of the hole on the 2 ton model should face the top of hoist. See Figure 7-4.

7-16. INSTALLING UPPER HOOKS (Hook Suspension Models).

When installing upper hook, be certain original nut is used. The nut side with the greater distance to the center of the hole should face the hook. See Figure 7-4.

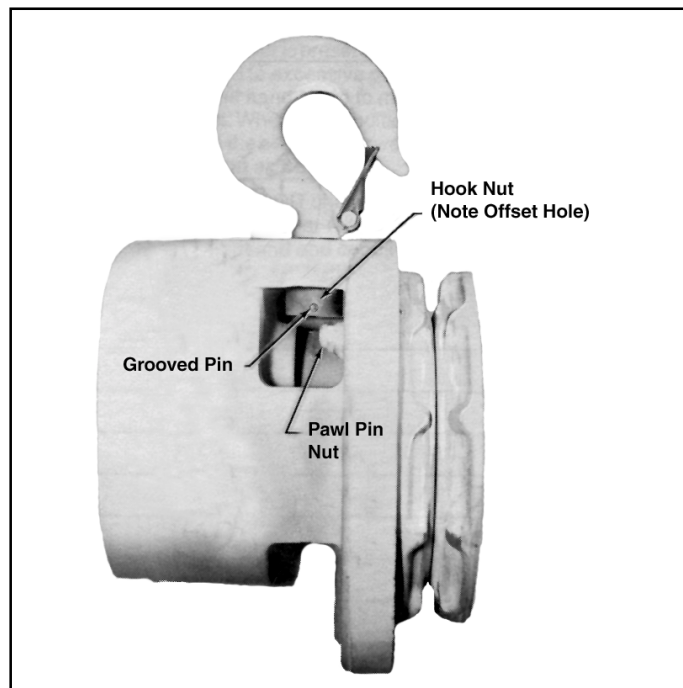


Figure 7-4. Installing Upper Hook and Nut

7-17. INSTALLING GEARING.

a. Before gearing is installed, be certain chain guide is properly seated in hoist frame.

b. Press ball bearing, if required, onto pinion shaft before installing pinion shaft.

c. On 1-1/2, single load chain 2 and 3 thru 6 ton models, press intermediate gear onto intermediate pinion shaft (with woodruff key in place) before installing in frame. Also, remember to replace the washers on each end of shaft.

7-18. INSTALLING LOAD BRAKE PARTS.

a. The threads between the pinion shaft and brake flange are to be clean and dry. Pretreat these threads only with LOCTITE Primer 'T'. Apply LOCTITE 680 to shaft threads 3/16" from thread relief (the inside edge). Set pinion shaft in hoist frame and lock with retaining ring. Assemble brake flange to pinion shaft. Torque flange to 25 foot-pounds.

b. After the load brake flange is in place, the order of assembly is; friction washer, then ratchet, then second friction washer. On the 1/4 and 1/2 ton models only, the friction washers are of different diameters. The large diameter friction washer goes on first, followed by the ratchet and then the smaller diameter friction washer. On the other models the light colored woven friction washer goes on first, followed by the ratchet and then the dark colored molded friction washer. The brake pawl and spring are then installed. The brake pawl spring has a closed end. On 1/4 and 1/2 ton hoist models, the open end must be installed to the pawl. On other models, the closed end must be installed to the pawl. The open end of the spring on 1 and two load chain 2 ton models goes against the adapter assembly. See Figure 7-5.

CAUTION

Make sure the brake pawl spring is properly seated.

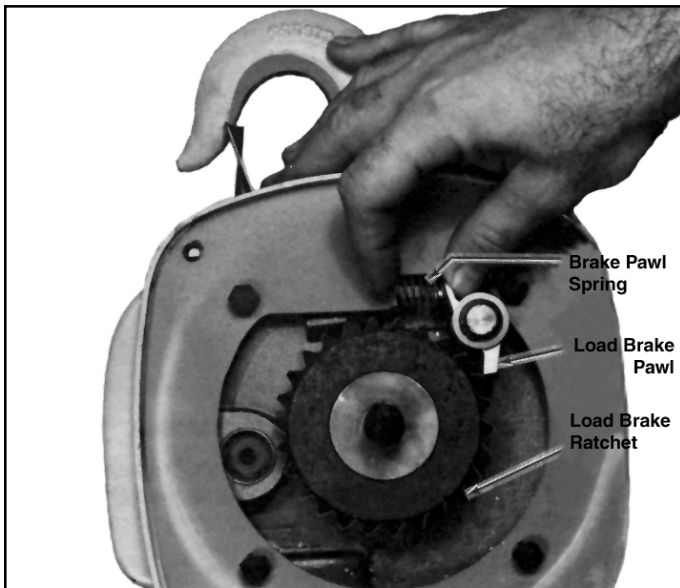


Figure 7-5. Installing Load Brake Pawl

c. Install hand wheel on pinion shaft. Turn clockwise thru several clicks of brake pawl to bring brake friction surfaces into contact before brake stop (see paragraph 7-18.d, for installation), flat washer and nut are installed. Lube should be in hand chain wheel threads so that excess is wiped **out**, not **in**.



Figure 7-6. Brake Stop Position for 1/4 and 1/2 Ton Models

d. Install brake stop in position shown in Figure 7-6 for 1/4 and 1/2 ton models or in position shown in Figure 7-7 for other models.



Figure 7-7. Brake Stop Position for Other Models

e. To facilitate installation of the load chain, delay replacing hand chain and hand chain wheel cover until after load chain has been installed.

7-19. INSTALLING LOAD CHAIN

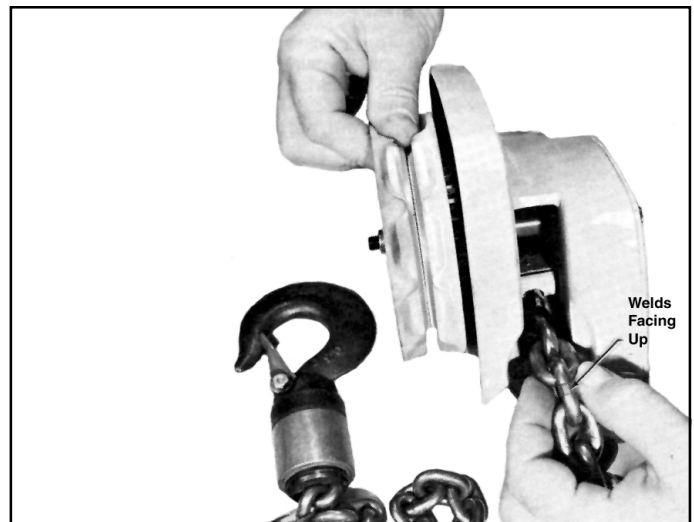


Figure 7-8. Installing Load Chain

⚠ WARNING

When installing load chain, it is possible to feed it into the wrong side of hoist, which will result in a reversed hoist action and the load brake will not function.

- Lay hoist on workbench. By rotating hand chain wheel, run load chain thru hoist. The first link into the hoist from the load side must be a horizontal link (into a horizontal pocket) so that the tail chain will be in the proper position for fastening to the hoist frame. Be sure the welded side of the chain links face up so they do not enter the vertical slots of the sprocket. Make sure chain is not twisted. See Figure 7-8.
- Attach tail end of load chain to hoist frame. On the 1-1/2, single load chain 2 and 3 thru 6 ton models only, there is a washer under the head of the hex socket head cap screw securing the chain.
- On the two load chain 2 and 3 thru 6 ton models, reeve the hoist in accordance with Figure 7-9. Make sure there is no twist in the chain.

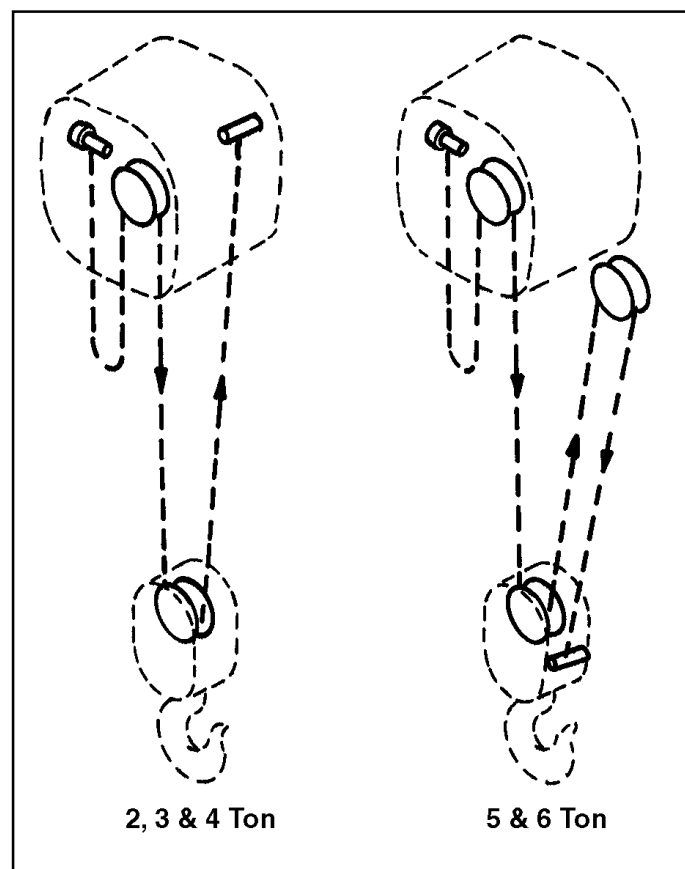


Figure 7-9. Reeving for 2 thru 6 Ton Models

- Anchor the end of the chain as shown in the proper parts list illustration. In order that the last link falls in the correct position to be anchored, the chain must have an even number of links.

7-20. ASSEMBLY OF LOWER BLOCK.

When installing sleeve on single load chain hoists, be certain large chamfer in one end is positioned as noted in Figure 7-1.

21. ASSEMBLY OF HAND CHAIN WHEEL COVER AHAHD CHAIN.

- Replace hand chain wheel cover and secure with four hex socket button head cap screws.
- Feed hand chain over hand chain wheel keeping chain welds facing away from wheel. Make sure chain is not twisted. Connect ends of hand chain with open split connecting link. Twist connecting link closed.
- Lubricate hand chain with a light, rust preventative oil.
- Check operation of hoist and test in accordance with paragraph 8-2.

IMPORTANT

After completion of reassembly and before being placed in service, the BUDGIT USA hand chain hoist should be tested with rated load to ensure safe operation.

SECTION VIII - SPECIAL LOAD REGULATOR INFORMATION

8-1. GENERAL.

- BUDGIT USA hand chain hoists are equipped with a Load Regulator in the hand chain wheel which is designed to help guard against excessive overloads.
- The Load Regulator is preset at the factory. If a BUDGIT chain hoist is subjected to excessive overload, the Load Regulator unit will allow the hand chain to move without increasing the load on the hoist. When this condition occurs, the hoist will continue to support the overload; however, **the overload must be released as soon as possible.**
- Testing of the BUDGIT chain hoist in accordance with paragraph 8-2 is necessary at regular intervals which should be determined by amount and conditions of use.

8-2. TEST PROCEDURE.

- Suspend hoist from an overhead structure capable of supporting several times the rated load of the hoist. Position hoist so that all parts of hoist and test load, when suspended on load hook, are free of obstructions and can hang in a straight line. Attach the load hook to a test load equal to the rated load of the hoist. Operate hand chain to lift the load. If slippage occurs and rated load cannot be lifted, the Load Regulator requires adjustment or replacement. Adjustment should be attempted only by an authorized BUDGIT repair station.
- If hoist operates properly with rated load on hook, it should next be tested with a load equal to two times rated load. With this overload attached to the load hook, complete slippage should occur. If hand chain wheel does not slip, the Load Regulator requires adjustment or replacement. Adjustment should be attempted only by an authorized BUDGIT repair station.
- For Load Regulator adjustment, the complete hoist must be returned to an authorized BUDGIT repair station. Alternatively, a new hand chain wheel containing the Load Regulator may be obtained from an authorized BUDGIT repair station.

SECTION IX - PARTS LIST

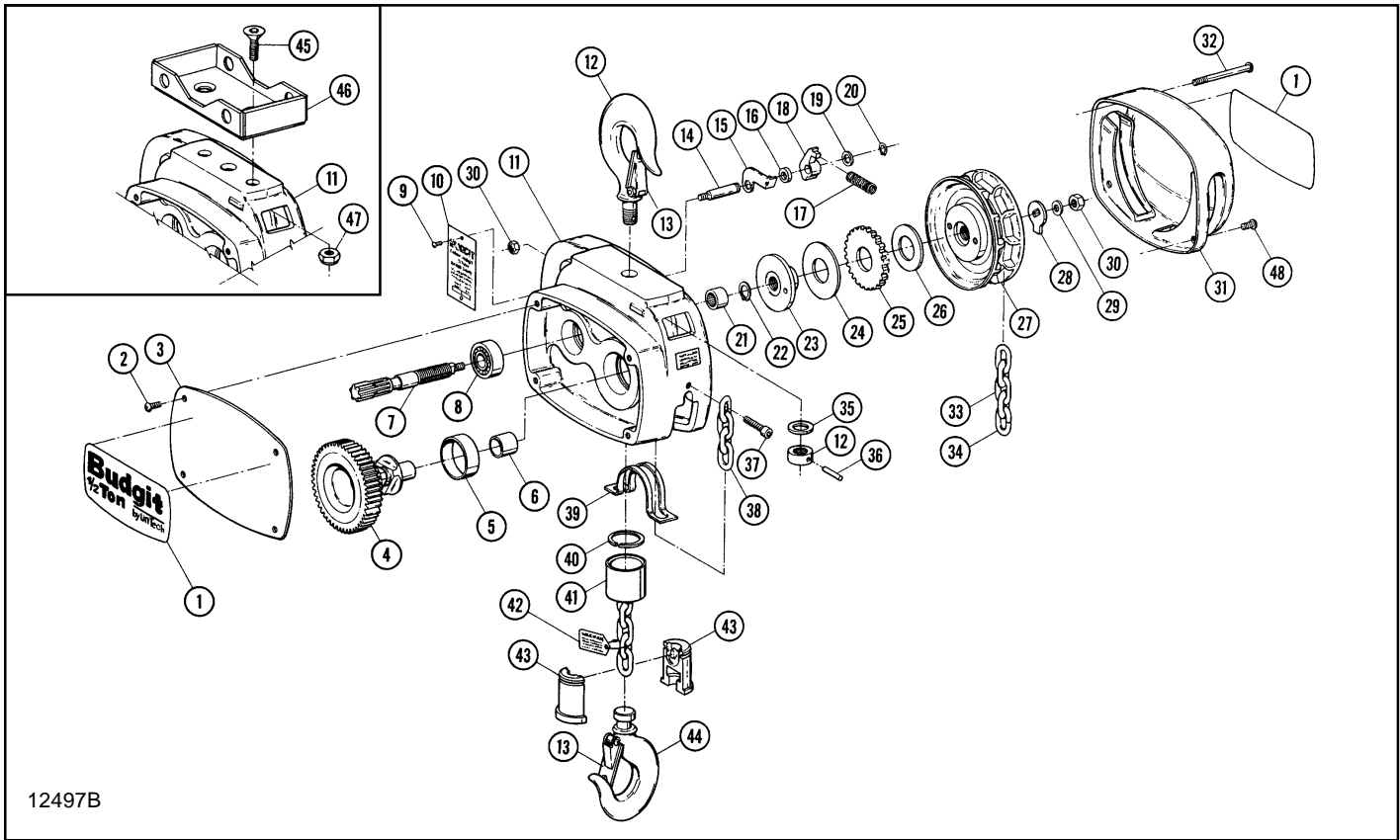


Figure 9-1. 1/4 and 1/2 Ton Models

| Ref. No. | Description | Part Number | | | Qty. Req'd |
|----------|--|--------------------|--------------------|--------------------|------------|
| | | Hook Suspension | Lug Suspension | Spark Resistant | |
| 1 | Label - Capacity 1/4 Ton 1/2 Ton | BCH-101 BCH-102 | BCH-101 BCH-102 | BCH-101 BCH-102 | 2 2 |
| 2 | Screw - Hex Socket Head (Self-Locking 1/4-20 x 5/8) | * | * | * | 4 |
| 3 | Cover - Gearcase | BCH-104 | BCH-104 | BCH-104 | 1 |
| 4 | Gear - Sprocket | BCH-105 | BCH-105 | BCH-295 | 1 |
| 5 | Bushing | BCH-106 | BCH-106 | BCH-106 | 1 |
| 6 | Bushing | BCH-107 | BCH-107 | BCH-107 | 1 |
| 7 | Shaft - Pinion | BCH-108 | BCH-108 | BCH-108 | 1 |
| 8 | Bearing-Ball | BCH-109 | BCH-109 | BCH-109 | 1 |
| 9 | †Screw-Self-Tapping (#2-32x1/8) | * | * | * | 2 |
| 10 | Nameplate 1/4 Ton 1/2 Ton | BCH-111 BCH-113 | BCH-111 BCH-113 | BCH-112 BCH-112 | 1 1 |
| 11 | Frame | BCH-114 | BCH-115 | BCH-114 | 1 |
| 12 | Warning Label (on frame) | BCH-116 | BCH-116 | BCH-116 | 1 |
| 13 | Upper Hook & Nut Assembly | BCH-117 | -- | BCH-118 | 1 |
| | Latch Assembly | | | | |
| | Upper Hook | BCH-119 | -- | BCH-120 | 1 |
| | Lower Hook | BCH-119 | BCH-119 | BCH-120 | 1 |
| 14 | Pin - Pawl | BCH-121 | BCH-121 | BCH-121 | 1 |
| 15 | Plate - Spring Retainer | BCH-122 | BCH-122 | BCH-122 | 1 |
| 16 | Washer - Spacer | BCH-123 | BCH-123 | BCH-123 | 1 |
| 17 | Spring - Brake Pawl | BCH-124 | BCH-124 | BCH-124 | 1 |
| 18 | Pawl - Brake | BCH-125 | BCH-125 | BCH-125 | 1 |

* Not available as individual parts.

† Drill .078" diameter holes thru frame when replacing metal tacks.

(Continued on following page)

Figure 9-1. 1/4 and 1/2 Ton Models (continued)

| Ref. No. | Description | Part Number | | | Qty. Req'd |
|----------|--|-----------------|----------------|-----------------|------------|
| | | Hook Suspension | Lug Suspension | Spark Resistant | |
| 19 | Washer - Flat | BCH-126 | BCH-126 | BCH-126 | 1 |
| 20 | Ring - Retaining | BCH-127 | BCH-127 | BCH-127 | 1 |
| 21 | Bearing - Needle | BCH-128 | BCH-128 | BCH-128 | 1 |
| 22 | Ring - Retaining | BCH-129 | BCH-129 | BCH-129 | 1 |
| 23 | Flange - Load Brake | BCH-130 | BCH-130 | BCH-130 | 1 |
| 24 | Friction Washer-Brake | BCH-131 | BCH-131 | BCH-131 | 1 |
| 25 | Ratchet - Brake | BCH-132 | BCH-132 | BCH-132 | 1 |
| 26 | Friction Washer - Brake | BCH-133 | BCH-133 | BCH-133 | |
| 27 | Load Regulator Assembly | | | | |
| | 1/4 Ton | BCH-134 | BCH-134 | BCH-134 | 1 |
| | 1/2 Ton | BCH-135 | BCH-135 | BCH-135 | 1 |
| 28 | Stop - Brake | BCH-136 | BCH-136 | BCH-136 | 1 |
| 29 | Washer - Flat (5/16 N Pltd.) | * | * | * | 1 |
| 30 | Nut - Hex, Self-Locking (Thin 5/16-24 Pltd.) | * | * | * | 2 |
| 31 | Cover - Chain Wheel | BCH-139 | BCH-139 | BCH-139 | 1 |
| 32 | Screw - Hex Socket Head | BCH-140 | BCH-140 | BCH-140 | 2 |
| 33 | Chain - Hand | | | | |
| | For 8' Lift | BCH-141 | BCH-141 | BCH-142 | 1 |
| | For 10' Lift | BCH-143 | BCH-143 | BCH-144 | 1 |
| | For 12' Lift | BCH-145 | BCH-145 | BCH-146 | 1 |
| | For 15' Lift | BCH-147 | BCH-147 | BCH-148 | 1 |
| | For 20' Lift | BCH-149 | BCH-149 | BCH-150 | 1 |
| | For 25' Lift | BCH-151 | BCH-151 | BCH-152 | 1 |
| | For 30' Lift | BCH-153 | BCH-153 | BCH-154 | 1 |
| | For Non-Standard Lift (order chain length equal to two times lift, minus 1'**) | BCH-155 | BCH-155 | BCH-156 | As Req'd. |
| 34 | Link - Open | BCH-157 | BCH-157 | BCH-157 | 1 |
| 35 | Thrust Washer - Bearing | BCH-158 | -- | BCH-158 | 1 |
| 36 | Pin - Grooved | BCH-159 | -- | BCH-159 | 1 |
| 37 | Screw - Hex Socket Head (Self-Locking 1/4-20 x 1) | * | * | * | 1 |
| 38 | Chain - Load | | | | |
| | For 8' Lift | BCH-161 | BCH-161 | BCH-260 | 1 |
| | For 10' Lift | BCH-163 | BCH-163 | BCH-262 | 1 |
| | For 12' Lift | BCH-165 | BCH-165 | BCH-264 | 1 |
| | For 15' Lift | BCH-167 | BCH-167 | BCH-266 | 1 |
| | For 20' Lift | BCH-169 | BCH-169 | BCH-268 | 1 |
| | For 25' Lift | BCH-171 | BCH-171 | BCH-270 | 1 |
| | For 30' Lift | BCH-173 | BCH-173 | BCH-272 | 1 |
| | For Non-Standard Lift (order chain length equal to one times lift, plus 1' **) | BCH-175 | BCH-175 | BCH-274 | As Req'd. |
| 39 | Guide - Chain | BCH-177 | BCH-177 | BCH-177 | 1 |
| | Lower Block Assembly (includes ref. nos. 13, 40, 41, 43 & 44) | BCH-190 | BCH-190 | BCH-190 | 1 |
| | Body & Sleeve Kit (includes ref. nos. 40, 41 & 43) | BCH-178 | BCH-178 | BCH-179 | 1 |
| 40 | Ring - Retaining | BCH-180 | BCH-180 | BCH-180 | 1 |
| 41 | Sleeve | BCH-181 | BCH-181 | BCH-182 | 1 |
| 42 | Warning Tag Assembly | BCH-183 | BCH-183 | BCH-183 | 1 |
| 43 | Body Half - Lower Block | BCH-184 | BCH-184 | BCH-184 | 2 |
| 44 | Hook - Lower | BCH-185 | BCH-185 | BCH-186 | 1 |
| 45 | Screw - Flat Head Socket (1/2-13x 1-1/4) | -- | * | * | 2 |
| 46 | Weldment - Suspension Lug | -- | BCH-188 | BCH-188 | 1 |
| 47 | Nut - Hex, Self-Locking (Thin 1/2-13) | -- | * | * | 2 |
| 48 | Screw - Hex Socket Head (1/4-20 x 5/8) | * | * | * | 2 |

* Not available as individual parts.

** Round up to next full foot of length

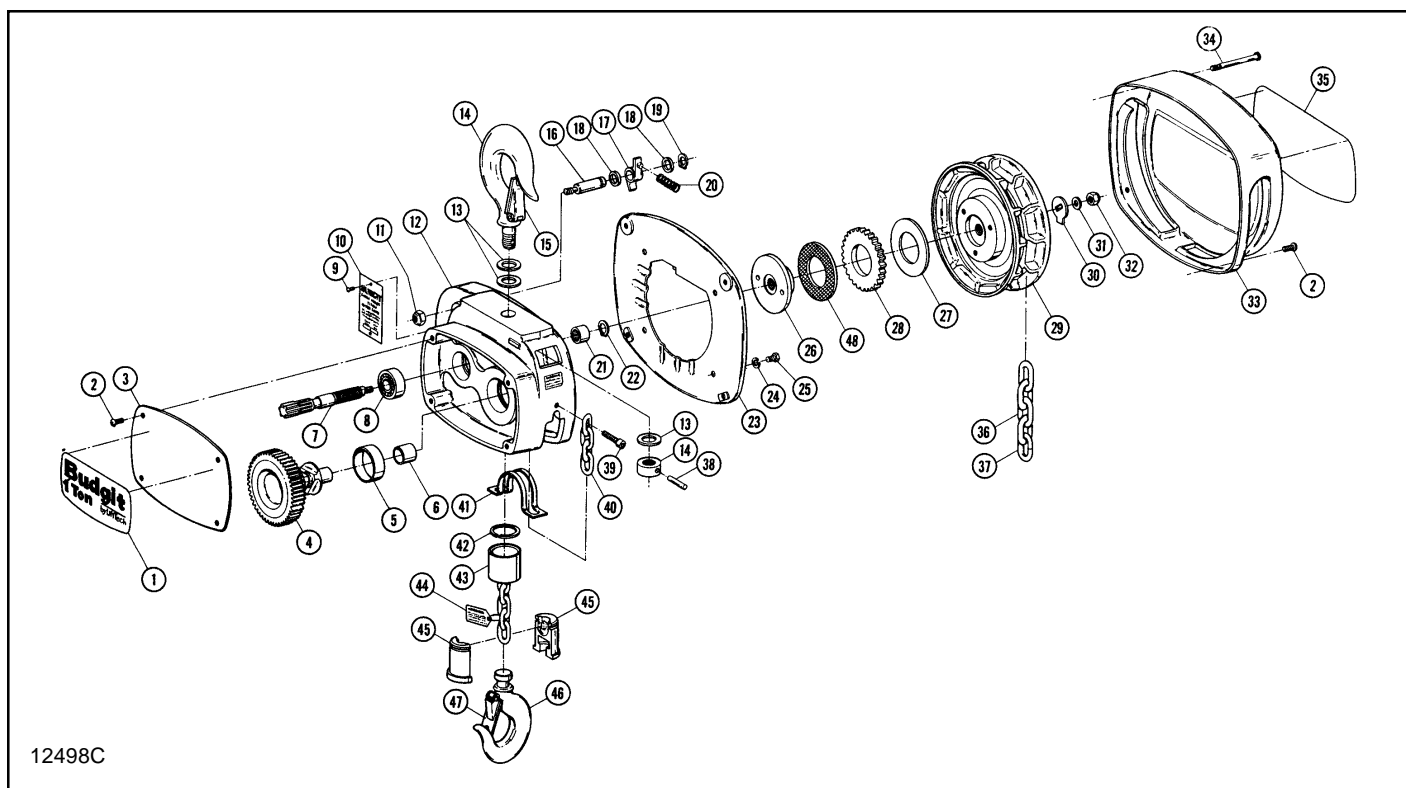


Figure 9-2. 1 Ton Hook Suspension Models

| Ref. No. | Description | Part Number | | Qty. Req'd |
|----------|---|-----------------|-----------------|------------|
| | | Hook Suspension | Spark Resistant | |
| 1 | Label - Capacity | BCH-201 | BCH-201 | 1 |
| 2 | Screw - Hex Socket Head (Self-Locking 1/4-20 x 5/8) | * | * | 6 |
| 3 | Cover - Gearcase | BCH-203 | BCH-203 | 1 |
| 4 | Gear - Sprocket | BCH-204 | BCH-295 | 1 |
| 5 | Bushing | BCH-205 | BCH-205 | 1 |
| 6 | Bushing | BCH-206 | BCH-206 | 1 |
| 7 | Shaft - Pinion | BCH-207 | BCH-207 | 1 |
| 8 | Bearing - Ball | BCH-208 | BCH-208 | 1 |
| 9 | †Screw - Self-Tapping (#2-32 x 1/8) | * | * | 2 |
| 10 | Nameplate | BCH-210 | BCH-211 | 1 |
| 11 | Nut - Hex, Self-Locking (Thin 3/8-24 Pltd.) | * | * | 1 |
| 12 | Frame | BCH-213 | BCH-213 | 1 |
| | Warning Label (on frame) | BCH-214 | BCH-214 | 1 |
| 13 | Washer - Flat | BCH-215 | BCH-215 | 3 |
| 14 | Upper Hook & Nut Assembly | BCH-216 | BCH-217 | 1 |
| 15 | Latch Assembly - Hook | BCH-218 | BCH-219 | 1 |
| 16 | Pin - Pawl | BCH-220 | BCH-220 | 1 |
| 17 | Pawl - Brake | BCH-221 | BCH-221 | 1 |
| 18 | Washer - Flat | BCH-222 | BCH-222 | 2 |
| 19 | Ring - Retaining | BCH-223 | BCH-223 | 1 |
| 20 | Spring - Brake Pawl | BCH-224 | BCH-224 | 1 |
| 21 | Bearing - Needle | BCH-225 | BCH-225 | 1 |
| 22 | Ring - Retaining | BCH-226 | BCH-226 | 1 |
| 23 | Adaptor Assembly - Chain Wheel | BCH-227 | BCH-227 | 1 |
| 24 | Lockwasher - Spring (1/4Pltd.) | * | * | 4 |
| 25 | Screw - Hex Head (1/420 x 1/2 Pltd.) | * | * | 4 |
| 26 | Flange - Load Brake | BCH-230 | BCH-230 | 1 |
| 27 | Friction Washer - Hand Chain Side | | | 1 |
| | Commercial Hoists | BCH-297 | BCH-297 | |
| | Military Hoists Only | BCH-231 | BCH-231 | |
| 28 | Ratchet - Brake | BCH-232 | BCH-232 | |
| 29 | Load Regulator Assembly | BCH-233 | BCH-233 | 1 |

* Not available as individual parts.

† Drill .078" diameter holes thru frame when replacing metal tacks.

(Continued on following page)

Figure 9-2. 1 Ton Hook Suspension Models (continued)

| Ref. No. | Description | Part Number | | Qty. Req'd |
|----------|---|-----------------|-----------------|------------|
| | | Hook Suspension | Spark Resistant | |
| 30 | Stop - Brake | BCH-234 | BCH-234 | 1 |
| 31 | Washer - Flat (5/16 N Pltd.) | * | * | 1 |
| 32 | Nut - Hex, Self-Locking (Thin 5/16-24 Pltd.) | * | * | 1 |
| 33 | Cover - Chain Wheel | BCH-237 | BCH-237 | 1 |
| 34 | Screw - Hex Socket Head | BCH-238 | BCH-238 | 2 |
| 35 | Label - Capacity | BCH-239 | BCH-239 | 1 |
| 36 | Chain - Hand | | | |
| | For 8' Lift | BCH-240 | BCH-241 | 1 |
| | For 10' Lift | BCH-242 | BCH-243 | 1 |
| | For 12' Lift | BCH-244 | BCH-245 | 1 |
| | For 15' Lift | BCH-246 | BCH-247 | 1 |
| | For 20' Lift | BCH-248 | BCH-249 | 1 |
| | For 25' Lift | BCH-250 | BCH-251 | 1 |
| | For 30' Lift | BCH-252 | BCH-253 | 1 |
| | For Non-Standard Lift | BCH-254 | BCH-255 | As |
| | (order chain length equal to two times lift, minus 1' **) | | | Req'd. |
| 37 | Link - Open | BCH-256 | BCH-256 | 1 |
| 38 | Pin - Grooved | BCH-257 | BCH-257 | 1 |
| 39 | Screw - Hex Socket Head (Self-Locking 5/16-18 x 3/4) | * | * | 1 |
| 40 | Chain - Load | | | |
| | For 8' Lift | BCH-259 | BCH-260 | 1 |
| | For 10' Lift | BCH-261 | BCH-262 | 1 |
| | For 12' Lift | BCH-263 | BCH-264 | 1 |
| | For 15' Lift | BCH-265 | BCH-266 | 1 |
| | For 20' Lift | BCH-267 | BCH-268 | 1 |
| | For 25' Lift | BCH-269 | BCH-270 | 1 |
| | For 30' Lift | BCH-271 | BCH-272 | 1 |
| | For Non-Standard Lift | BCH-273 | BCH-274 | As |
| | (order chain length equal to one times lift, plus 1' **) | | | Req'd. |
| 41 | Guide - Chain | BCH-275 | BCH-275 | 1 |
| | Lower Block Assembly (includes ref. nos. 42, 43, 45, 46 & 47) | BCH-298 | BCH-296 | 1 |
| | Body & Sleeve Kit (includes ref. nos. 42, 43 & 45) | BCH-276 | BCH-277 | 1 |
| 42 | Ring - Retaining | BCH-278 | BCH-278 | 1 |
| 43 | Sleeve | BCH-279 | BCH-280 | 1 |
| 44 | Warning Tag Assembly | BCH-281 | BCH-281 | 1 |
| 45 | Body Half - Lower Block | BCH-282 | BCH-282 | 2 |
| 46 | Hook - Lower | BCH-283 | BCH-284 | 1 |
| 47 | Latch Assembly - Hook | BCH-285 | BCH-286 | 1 |
| 48 | Friction Washer - Flange Side | | | 1 |
| | Commercial Hoists | BCH-297 | BCH-297 | |
| | Military Hoists Only | BCH-294 | BCH-294 | |

* Not available as individual parts.

** Round up to next full foot of length.

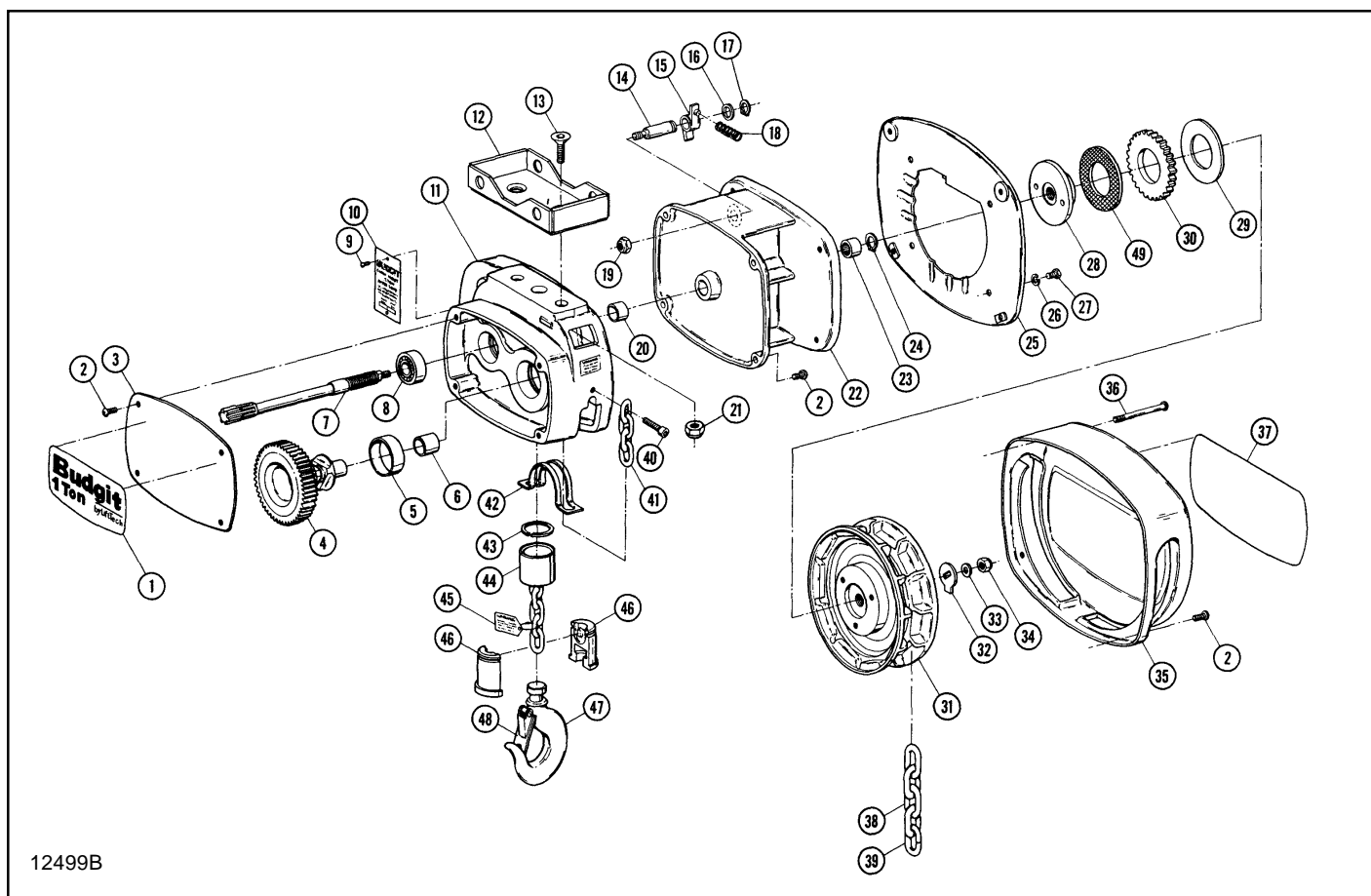


Figure 9-2a. 1 Ton Trolley Hoist Models

| Ref. No. | Description | Part Number | | Qty. Req'd |
|----------|---|----------------|-----------------|------------|
| | | Lug Suspension | Spark Resistant | |
| 1 | Label - Capacity | BCH-201 | BCH-201 | 1 |
| 2 | Screw - Hex Socket Head (Self-Locking 1/4-20 x 5/8) | * | * | 10 |
| 3 | Cover - Gearcase | BCH-203 | BCH-203 | 1 |
| 4 | Gear - Sprocket | BCH-204 | BCH-295 | 1 |
| 5 | Bushing | BCH-205 | BCH-205 | 1 |
| 6 | Bushing | BCH-206 | BCH-206 | 1 |
| 7 | Shaft - Pinion | BCH-287 | BCH-287 | 1 |
| 8 | Bearing - Ball | BCH-208 | BCH-208 | 1 |
| 9 | †Screw - Self-Tapping (12-32 x 1/8) | * | * | 2 |
| 10 | Nameplate | BCH-210 | BCH-211 | 1 |
| 11 | Frame | BCH-288 | BCH-288 | 1 |
| | Warning Label (on frame) | BCH-214 | BCH-214 | 1 |
| 12 | Weldment-Suspension Lug | BCH-289 | BCH-289 | 1 |
| 13 | Screw - Flat Head Socket (1/2-13 x 1-1/4) | * | * | 2 |
| 14 | Pin - Pawl | BCH-220 | BCH-220 | 1 |
| 15 | Pawl - Brake | BCH-221 | BCH-221 | 1 |
| 16 | Washer - Flat | BCH-222 | BCH-222 | 1 |
| 17 | Ring-Retaining | BCH-223 | BCH-223 | 1 |
| 18 | Spring - Brake Pawl | BCH-224 | BCH-224 | 1 |
| 19 | Nut - Hex, Self-Locking (Thin 3/8-24 Pltd.) | * | * | 1 |
| 20 | Bushing | BCH-291 | BCH-291 | 1 |
| 21 | Nut-Hex, Self-Locking (Thin 1/2-13) | * | * | 2 |
| 22 | Adaptor - Rigid Mount Chain Wheel | BCH-293 | BCH-293 | 1 |
| 23 | Bearing - Needle | BCH-225 | BCH-225 | 1 |
| 24 | Ring - Retaining | BCH-226 | BCH-226 | 1 |

* Not available as individual parts.

† Drill .078" diameter holes thru frame when replacing metal tacks.

(Continued on following page)

Figure 9-2a. 1 Ton Trolley Hoist Models (continued)

| Ref. No. | Description | Part Number | | Qty. Req'd |
|----------|--|----------------|-----------------|------------|
| | | Lug Suspension | Spark Resistant | |
| 25 | Adaptor Assembly - Chain Wheel | BCH-227 | BCH-227 | 1 |
| 26 | Lockwasher | BCH-228 | BCH-228 | 4 |
| 27 | Screw - Hex Head (1/4-20 x 1/2 Pltd.) | * | * | 4 |
| 28 | Flange - Load Brake | BCH-230 | BCH-230 | 1 |
| 29 | Friction Washer - Hand Chain Side | | | 1 |
| | Commercial Hoists | BCH-297 | BCH-297 | |
| | Military Hoists Only | BCH-231 | BCH-231 | |
| 30 | Ratchet - Brake | BCH-232 | BCH-232 | 1 |
| 31 | Load Regulator Assembly | BCH-233 | BCH-233 | 1 |
| 32 | Stop - Brake | BCH-234 | BCH-234 | 1 |
| 33 | Washer - Flat (5/16 N Pltd.) | * | * | 1 |
| 34 | Nut - Hex, Self-Locking (Thin 5/16-24 Pltd.) | * | * | 1 |
| 35 | Cover - Chain Wheel | BCH-237 | BCH-237 | 1 |
| 36 | Screw- Hex Socket Head | BCH-238 | BCH-238 | 2 |
| 37 | Label - Capacity | BCH-239 | BCH-239 | 1 |
| 38 | Chain - Hand | | | |
| | For 8' Lift | BCH-240 | BCH-241 | 1 |
| | For 10' Lift | BCH-242 | BCH-243 | 1 |
| | For 12' Lift | BCH-244 | BCH-245 | 1 |
| | For 15' Lift | BCH-246 | BCH-247 | 1 |
| | For 20' Lift | BCH-248 | BCH-249 | 1 |
| | For 25' Lift | BCH-250 | BCH-251 | 1 |
| | For 30' Lift | BCH-252 | BCH-253 | 1 |
| | For Non-Standard Lift (order chain length equal to two times lift, minus 1'**) | BCH-254 | BCH-255 | As Req'd. |
| 39 | Link - Open | BCH-256 | BCH-256 | 1 |
| 40 | Screw - Hex Socket Head (Self-Locking 5/16-18 x 1) | * | * | 1 |
| 41 | Chain - Load | | | |
| | For 8' Lift | BCH-259 | BCH-260 | 1 |
| | For 10' Lift | BCH-261 | BCH-262 | 1 |
| | For 12' Lift | BCH-263 | BCH-264 | 1 |
| | For 15' Lift | BCH-265 | BCH-266 | 1 |
| | For 20' Lift | BCH-267 | BCH-268 | 1 |
| | For 25' Lift | BCH-269 | BCH-270 | 1 |
| | For 30' Lift | BCH-271 | BCH-272 | 1 |
| | For Non-Standard Lift (order chain length equal to one times lift, plus 1'**) | BCH-273 | BCH-274 | As Req'd |
| 42 | Guide - Chain | BCH-275 | BCH-275 | 1 |
| | Lower Block Assembly (includes ref. nos. 43,44, 46, 47 & 48) | BCH-298 | BCH-296 | 1 |
| | Body & Sleeve Kit (includes ref. nos. 43, 44 & 46) | BCH-276 | BCH-277 | |
| 43 | Ring-Retaining | BCH-278 | BCH-278 | 1 |
| 44 | Sleeve | BCH-279 | BCH-280 | 1 |
| 45 | Warning Tag Assembly | BCH-281 | BCH-281 | 1 |
| 46 | Body Half - Lower Block | BCH-282 | BCH-282 | 2 |
| 47 | Hook - Lower | BCH-283 | BCH-284 | 1 |
| 48 | Latch Assembly - Hook | BCH-285 | BCH-286 | 1 |
| 49 | Friction Washer - Flange Side | | | 1 |
| | Commercial Hoists | BCH-297 | BCH-297 | |
| | Military Hoists Only | BCH-294 | BCH-294 | |

* Not available as individual parts.

** Round up to next full foot of length.

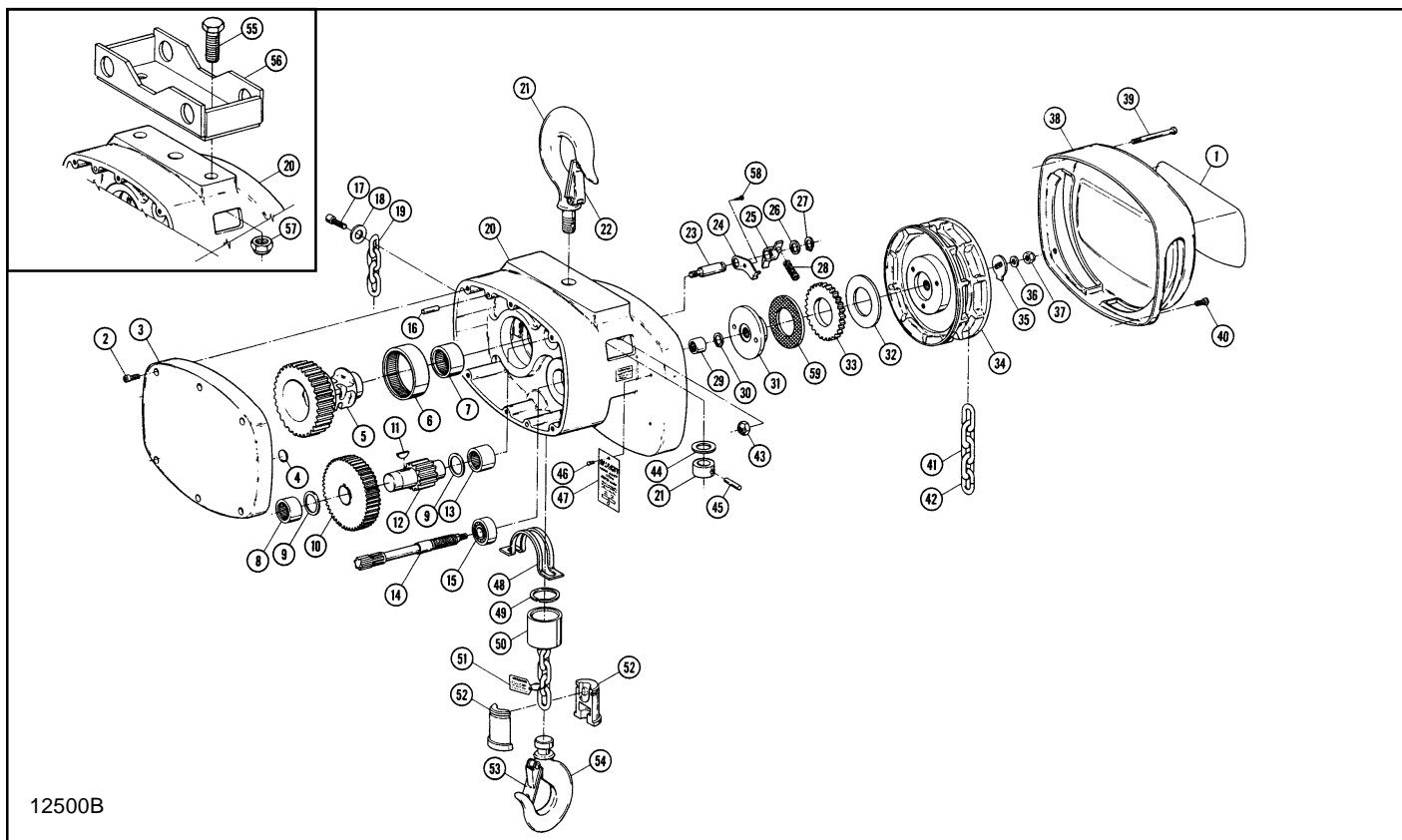


Figure 9-3. 1½ and Single Load Chain 2 Ton Models

| Ref. No. | Description | Part Number | | | Qty. Req'd |
|----------|---|--------------------|--------------------|--------------------|------------|
| | | Hook Suspension | Lug Suspension | Spark Resistant | |
| 1 | Label - Capacity 1-1/2 Ton 2 Ton | BCH-301 BCH-302 | BCH-301 BCH-302 | BCH-301 BCH-302 | 2 2 |
| 2 | Screw - Hex Socket Head (Self-Locking 1/4 20 x 1) | | | | 6 |
| 3 | Cover - Gearcase | BCH-304 | BCH-304 | BCH-304 | 1 |
| 4 | Plug - Expansion (3/4 Dia.) | * | * | * | 1 |
| 5 | Gear - Sprocket | BCH-306 | BCH-306 | BCH-408 | 1 |
| 6 | Bearing - Needle | BCH-307 | BCH-307 | BCH-307 | 1 |
| 7 | Bearing - Needle | BCH-308 | BCH-308 | BCH-308 | 1 |
| 8 | Bearing - Needle | BCH-309 | BCH-309 | BCH-309 | 1 |
| 9 | Thrust Washer - Bearing | BCH-310 | BCH-310 | BCH-310 | 2 |
| 10 | Gear - Intermediate | BCH-311 | BCH-311 | BCH-311 | 1 |
| 11 | Key - Woodruff (No. 91) | * | * | * | 1 |
| 12 | Pinion - Intermediate | BCH-313 | BCH-313 | BCH-313 | 1 |
| 13 | Bearing - Needle | BCH-314 | BCH-314 | BCH-314 | 1 |
| 14 | Shaft - Pinion | BCH-315 | BCH-315 | BCH-315 | 1 |
| 15 | Bearing - Ball | BCH-316 | BCH-316 | BCH-316 | 1 |
| 16 | Pin - Dowel | BCH-317 | BCH-317 | BCH-317 | 2 |
| 17 | Screw - Hex Socket Head (Self-Locking 3/8-16 x 1) | * | * | * | 1 |
| 18 | Washer - Flat (3/8 W Pltd.) | * | * | * | 1 |
| 19 | Chain - Load | | | | |
| | For 8' Lift | BCH-320 | BCH-320 | BCH-321 | 1 |
| | For 10' Lift | BCH-322 | BCH-322 | BCH-323 | 1 |
| | For 12' Lift | BCH-324 | BCH-324 | BCH-325 | 1 |
| | For 15' Lift | BCH-326 | BCH-326 | BCH-327 | 1 |
| | For 20' Lift | BCH-328 | BCH-328 | BCH-329 | 1 |
| | For 25' Lift | BCH-330 | BCH-330 | BCH-331 | 1 |
| | For 30' Lift | BCH-332 | BCH-332 | BCH-333 | 1 |
| | For Non-Standard Lift (order chain length equal to one times lift, plus 1' 1-1/2"*) | BCH-334 | BCH-334 | BCH-335 | As Req'd. |

* Not available as individual parts.

** Round up to next full foot of length.

(Continued on following page)

Figure 9-3. 1½ and Single Load Chain 2 Ton Models (continued)

| Ref. No. | Description | Part Number | | | Qty. Req'd |
|----------|---|-----------------|----------------|-----------------|------------|
| | | Hook Suspension | Lug Suspension | Spark Resistant | |
| 20 | Frame | BCH-336 | BCH-337 | BCH-336 | 1 |
| | Warning Label (on frame) | BCH-338 | BCH-338 | BCH-338 | 1 |
| 21 | Upper Hook & Nut Assembly | BCH-339 | -- | BCH-340 | 1 |
| 22 | Latch Assembly-Hook | BCH-341 | -- | BCH-342 | 1 |
| 23 | Pin - Pawl | BCH-343 | BCH-343 | BCH-343 | 1 |
| 24 | Plate - Spring Retainer | BCH-344 | BCH-344 | BCH-344 | 1 |
| 25 | Pawl - Brake | BCH-345 | BCH-345 | BCH-345 | 1 |
| 26 | Washer - Flat | BCH-346 | BCH-346 | BCH-346 | 1 |
| 27 | Ring - Retaining | BCH-347 | BCH-347 | BCH-347 | 1 |
| 28 | Spring - Brake Pawl | BCH-348 | BCH-348 | BCH-348 | 1 |
| 29 | Bearing - Needle | BCH-349 | BCH-349 | BCH-349 | 1 |
| 30 | Ring - Retaining | BCH-350 | BCH-350 | BCH-350 | 1 |
| 31 | Flange - Load Brake | BCH-351 | BCH-351 | BCH-351 | 1 |
| 32 | Friction Washer - Hand Chain Side | | | | 1 |
| | Commercial Hoists | BCH-297 | BCH-297 | BCH-297 | |
| | Military Hoists Only | BCH-352 | BCH-352 | BCH-352 | |
| 33 | Ratchet - Brake | BCH-353 | BCH-353 | BCH-353 | 1 |
| 34 | Load Regulator Assembly | BCH-354 | BCH-354 | BCH-354 | 1 |
| 35 | Stop - Brake | BCH-355 | BCH-355 | BCH-355 | 1 |
| 36 | Washer - Flat (5/16 N Pltd.) | * | * | * | 1 |
| 37 | Nut - Hex, Self-Locking | BCH-357 | BCH-357 | BCH-357 | 1 |
| 38 | Cover - Chain Wheel | BCH-358 | BCH-358 | BCH-358 | 1 |
| 39 | Screw - Hex Socket Head | BCH-359 | BCH-359 | BCH-359 | 2 |
| 40 | Screw - Hex Socket Head | BCH-360 | BCH-360 | BCH-360 | 2 |
| 41 | Chain - Hand | | | | |
| | For 8' Lift | BCH-361 | BCH-361 | BCH-362 | 1 |
| | For 10' Lift | BCH-363 | BCH-363 | BCH-364 | 1 |
| | For 12' Lift | BCH-365 | BCH-365 | BCH-366 | 1 |
| | For 15' Lift | BCH-367 | BCH-367 | BCH-368 | 1 |
| | For 20' Lift | BCH-369 | BCH-369 | BCH-370 | 1 |
| | For 25' Lift | BCH-371 | BCH-371 | BCH-372 | 1 |
| | For 30' Lift | BCH-373 | BCH-373 | BCH-374 | 1 |
| | For Non-Standard Lift (order chain length equal to two times lift, minus 1'') | BCH-375 | BCH-375 | BCH-376 | As Req'd. |
| 42 | Link - Open | BCH-377 | BCH-377 | BCH-377 | 1 |
| 43 | Nut - Hex, Self-Locking | BCH-378 | BCH-378 | BCH-378 | 1 |
| 44 | Washer-Thrust | BCH-379 | -- | BCH-379 | 1 |
| 45 | Pin - Grooved | BCH-380 | -- | BCH-380 | 1 |
| 46 | †Screw - Self-Tapping (#2-32 x 1/8) | * | * | * | 2 |
| 47 | Nameplate | | | | |
| | 1-1/2 Ton | BCH-382 | BCH-382 | BCH-383 | 1 |
| | 2 Ton | BCH-384 | BCH-384 | BCH-383 | 1 |
| 48 | Guide - Chain | BCH-385 | BCH-385 | BCH-385 | 1 |
| | Lower Block Assembly (includes ref. nos. 49, 50, 52 53 & 54) | BCH-409 | BCH-409 | BCH-410 | 1 |
| | Body & Sleeve Kit (includes ref. nos. 49, 50 & 52) | BCH-386 | BCH-386 | BCH-387 | 1 |
| 49 | Ring - Retaining | BCH-388 | BCH-388 | BCH-388 | 1 |
| 50 | Sleeve | BCH-389 | BCH-389 | BCH-390 | 1 |
| 51 | Warning Tag Assembly | BCH-391 | BCH-391 | BCH-391 | 1 |
| 52 | Body Half - Lower Block | BCH-392 | BCH-392 | BCH-392 | 2 |
| 53 | Latch Assembly - Hook | BCH-393 | BCH-393 | BCH-394 | 1 |
| 54 | Hook - Lower | BCH-395 | BCH-395 | BCH-396 | 1 |
| 55 | Bolt - Hex Head (3/4-10 x 2 Grade 5) | -- | * | * | 2 |
| 56 | Weldment - Suspension Lug | -- | BCH-398 | BCH-398 | 1 |
| 57 | Nut - Hex, Self-Locking (Thin 3/4-10) | -- | * | * | 2 |
| 58 | ††Screw - Self-Tapping (#10-16 x 1/4) | * | * | * | 1 |
| 59 | Friction Washer - Flange Side | | | | 1 |
| | Commercial Hoists | BCH-297 | BCH-297 | BCH-297 | |
| | Military Hoists Only | BCH-401 | BCH-401 | BCH-401 | |

* Not available as individual parts.

** Round up to next full foot of length.

† Drill .078" diameter holes thru frame when replacing metal tacks.

†† Drill .159" diameter hole 3/16" deep when replacing metal tack.

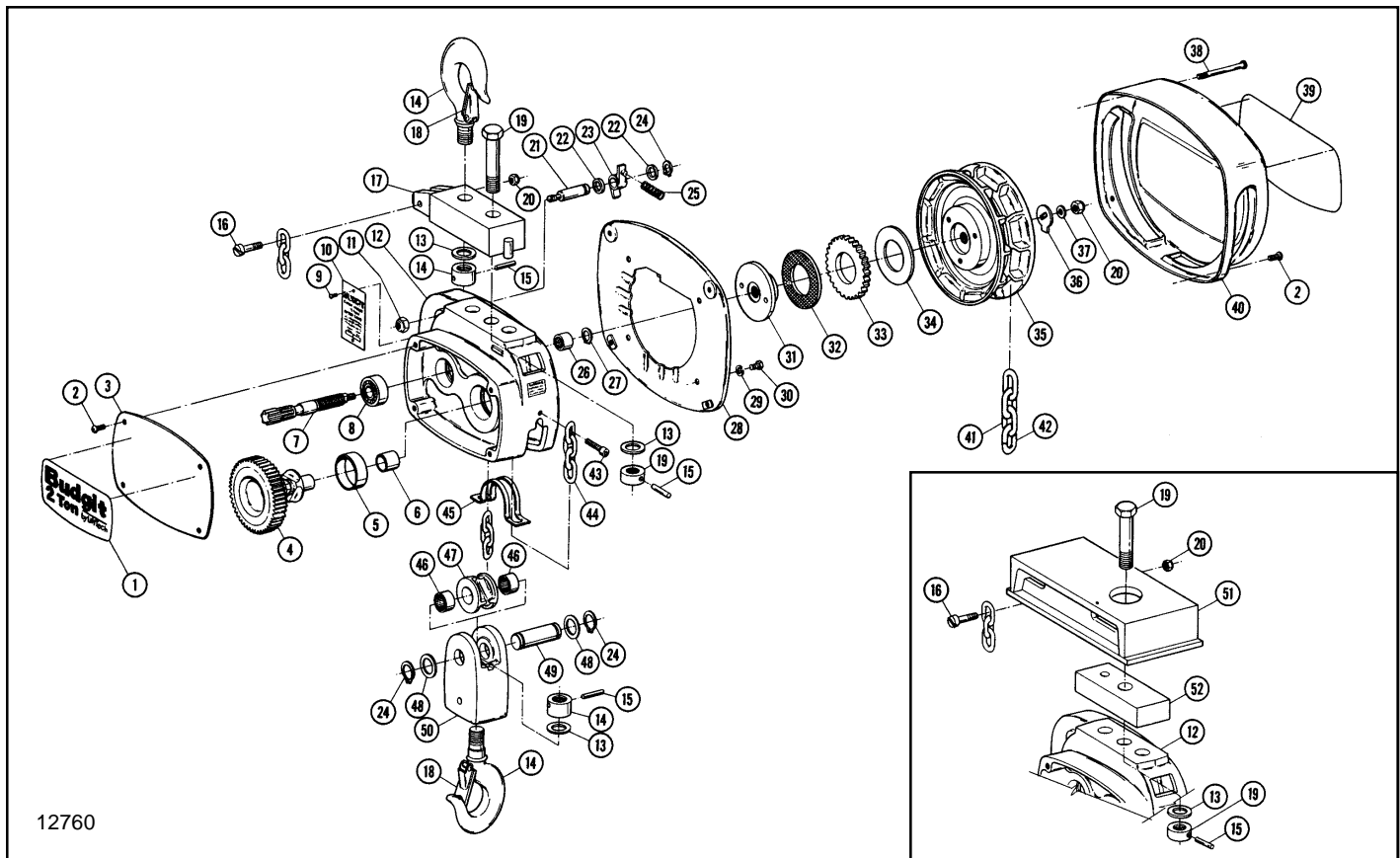


Figure 9-3a. 2 Load Chain 2 Ton Models

| Ref. No. | Description | Part Number | | | Qty. Req'd |
|----------|---|----------------------|----------------------|----------------------|------------|
| | | Hook Suspension | Lug Suspension | Spark Resistant | |
| 1 | Label - Capacity 1-1-1/2 Ton 2 Ton | BCH-3001 BCH-3002 | BCH-3001 BCH-3002 | BCH-3001 BCH-3002 | 1 1 |
| 2 | Screw - Hex Socket Head (Self-Locking 1/4-20 x 5/8) | * | * | * | 6 |
| 3 | Cover - Gearcase | BCH-203 | BCH-203 | BCH-203 | 1 |
| 4 | Gear - Sprocket | BCH-204 | BCH-204 | BCH-295 | 1 |
| 5 | Bushing | BCH-205 | BCH-205 | BCH-205 | 1 |
| 6 | Bushing | BCH-206 | BCH-206 | BCH-206 | 1 |
| 7 | Shaft - Pinion | BCH-207 | BCH-207 | BCH-207 | 1 |
| 8 | Bearing - Ball | BCH-208 | BCH-208 | BCH-208 | 1 |
| 9 | †Screw - Self-Tapping (#2-32x1/8) | * | * | * | 2 |
| 10 | Nameplate | BCH-211 | BCH-211 | BCH-211 | 1 |
| 11 | Nut - Hex, Self-Locking (Thin 3/8-24 Pltd.) | * | * | * | 1 |
| 12 | Frame | BCH-213 | BCH-213 | BCH-213 | 1 |
| | Warning Label | BCH-214 | BCH-214 | BCH-214 | 1 |
| 13 | Washer - Flat | BCH-3003 | -- | BCH-3003 | 3‡ |
| 14 | Upper Hook & Nut Assembly | BCH-3004 | -- | BCH-3005 | 1 |
| | Lower Hook & Nut Assembly | BCH-3004 | BCH-3004 | BCH-3005 | 1 |
| 15 | Pin - Grooved | BCH-257 | -- | BCH-257 | 3‡ |
| 16 | Pin - Chain Connection | BCH-3006 | BCH-3006 | BCH-3006 | 1 |
| 17 | Upper Hook Bracket | BCH-3007 | -- | BCH-3007 | 1 |

* Not available as individual parts.

† Drill .078" diameter holes thru frame when replacing metal tacks.

‡ Quantities for trolley hoists only: Ref. No. 13 2 Req'd
Ref. No. 15 2 Req'd

(Continued on following page)

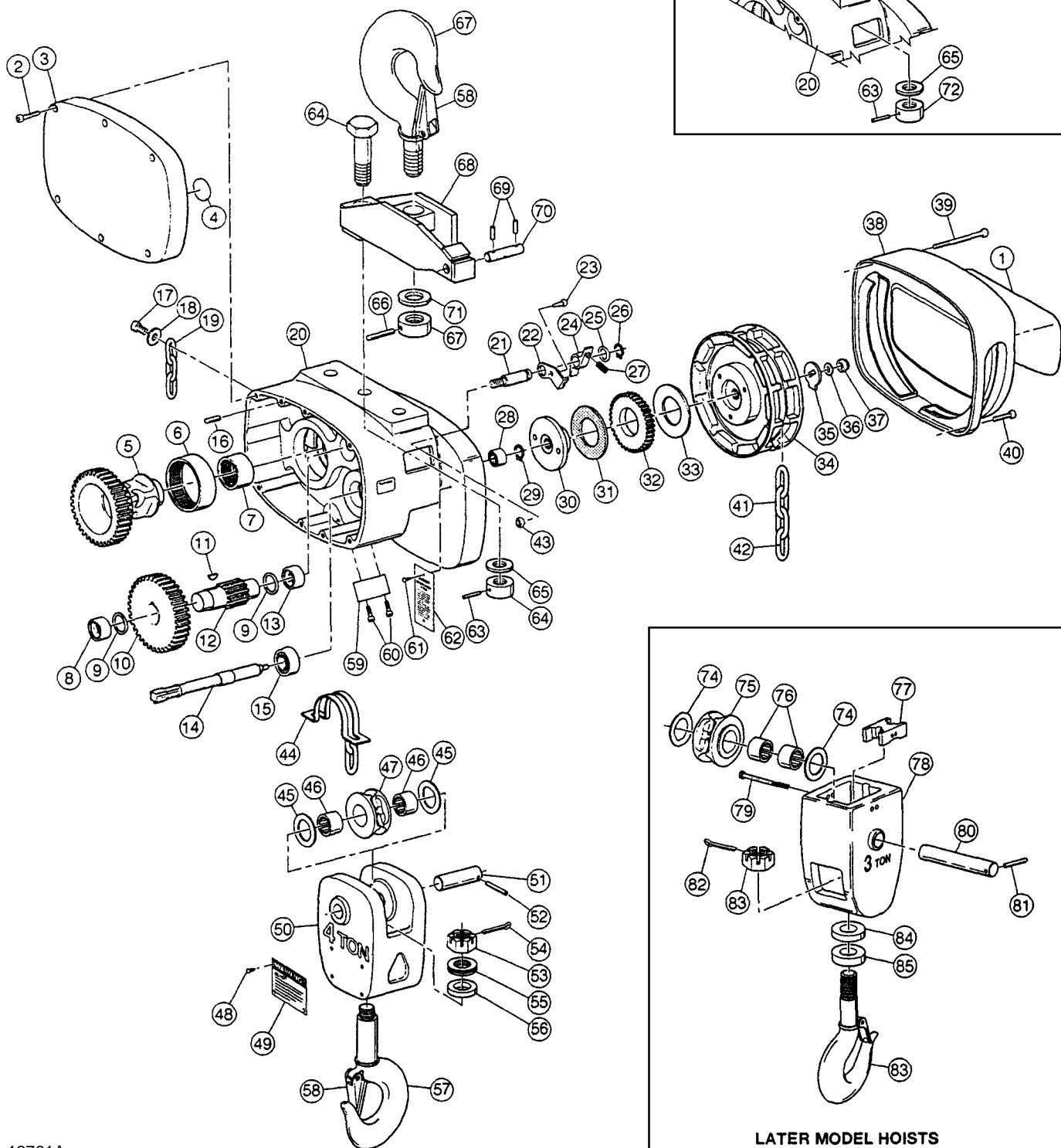
Figure 9-3a. 2 Load Chain 2 Ton Models (continued)

| Ref. No. | Description | Part Number | | | Qty. Req'd |
|----------|--|-----------------|----------------|-----------------|------------|
| | | Hook Suspension | Lug Suspension | Spark Resistant | |
| 18 | Latch Assembly- Hook | BCH-218 | BCH-218 | BCH-219 | 2‡ |
| 19 | Bolt & Nut Assembly | BCH-3008 | BCH-3008 | BCH-3008 | 1 |
| 20 | Nut - Hex, Self-Locking (Thin 5/16-24 Pltd.) | * | * | * | 2 |
| 21 | Pin - Pawl | BCH-220 | BCH-220 | BCH-220 | 1 |
| 22 | Washer - Flat | BCH-222 | BCH-222 | BCH-222 | 2 |
| 23 | Pawl - Brake | BCH-221 | BCH-221 | BCH-221 | 1 |
| 24 | Ring - Retaining | BCH-223 | BCH-223 | BCH-223 | 3 |
| 25 | Spring - Brake Pawl | BCH-224 | BCH-224 | BCH-224 | 1 |
| 26 | Bearing - Needle | BCH-225 | BCH-225 | BCH-225 | 1 |
| 27 | Ring - Retaining | BCH-226 | BCH-226 | BCH-226 | 1 |
| 28 | Adaptor Assembly - Chain Wheel | BCH-227 | BCH-227 | BCH-227 | 1 |
| 29 | Lockwasher - Spring (1/4 Pltd.) | * | * | * | 4 |
| 30 | Screw - Hex Head (1/4-20 x 1/2 Pltd.) | * | * | * | 4 |
| 31 | Flange - Load Brake | BCH-230 | BCH-230 | BCH-230 | 1 |
| 32 | Friction Washer - Flange Side | | | | 1 |
| | Commercial Hoists | BCH-297 | BCH-297 | BCH-297 | |
| | Military Hoists Only | BCH-294 | BCH-294 | BCH-294 | |
| 33 | Ratchet - Brake | BCH-232 | BCH-232 | BCH-232 | 1 |
| 34 | Friction Washer - Hand Chain Side | | | | 1 |
| | Commercial Hoists | BCH-297 | BCH-297 | BCH-297 | |
| | Military Hoists Only | BCH-231 | BCH-231 | BCH-231 | |
| 35 | Load Regulator Assembly | BCH-233 | BCH-233 | BCH-233 | 1 |
| 36 | Stop - Brake | BCH-234 | BCH-234 | BCH-234 | 1 |
| 37 | Washer - Flat (5/16 N Pltd.) | * | * | * | 1 |
| 38 | Screw - Hex Socket Head | BCH-238 | BCH-238 | BCH-238 | 2 |
| 39 | Label - Capacity | | | | |
| | 1-1/2 Ton | BCH-3009 | BCH-3009 | BCH-3009 | 1 |
| | 2 Ton | BCH-3010 | BCH-3010 | BCH-3010 | 1 |
| 40 | Cover - Chain Wheel | BCH-237 | BCH-237 | BCH-296 | 1 |
| 41 | Chain - Hand | | | | |
| | For 8' Lift | BCH-240 | BCH-240 | BCH-241 | 1 |
| | For 10' Lift | BCH-242 | BCH-242 | BCH-243 | 1 |
| | For 12' Lift | BCH-244 | BCH-244 | BCH-245 | 1 |
| | For 15' Lift | BCH-246 | BCH-246 | BCH-247 | 1 |
| | For 20' Lift | BCH-248 | BCH-248 | BCH-249 | 1 |
| | For 25' Lift | BCH-250 | BCH-250 | BCH-251 | 1 |
| | For 30' Lift | BCH-252 | BCH-252 | BCH-253 | 1 |
| | For Non-Standard Lift (order chain length equal to two times lift, minus 1'**) | BCH-254 | BCH-254 | BCH-255 | As Req'd. |
| 42 | Link - Open | BCH-256 | BCH-256 | BCH-256 | 1 |
| 43 | Screw - Hex Socket Head (Self-Locking 5/16-18 x 3/4) | * | * | * | 1 |
| 44 | Chain - Load | | | | |
| | For 8' Lift | BCH-3011 | BCH-3011 | BCH-3012 | 1 |
| | For 10' Lift | BCH-3013 | BCH-3013 | BCH-3014 | 1 |
| | For 12' Lift | BCH-3015 | BCH-3015 | BCH-3016 | 1 |
| | For 15' Lift | BCH-3017 | BCH-3017 | BCH-3018 | 1 |
| | For 20' Lift | BCH-3019 | BCH-3019 | BCH-3020 | 1 |
| | For 25' Lift | BCH-3021 | BCH-3021 | BCH-3022 | 1 |
| | For 30' Lift | BCH-3023 | BCH-3023 | BCH-3024 | 1 |
| | For Non-Standard Lift (order chain length equal to two times lift, plus 2'**) | BCH-273 | BCH-273 | BCH-274 | As Req'd. |
| 45 | Guide Chain | BCH-275 | BCH-275 | BCH-275 | 1 |
| | Lower Block & Hook Assembly (includes ref. nos. 46 thru 50) | | | | 1 |
| | 1-1/2 Ton | BCH-3025 | BCH-3025 | BCH-3026 | 1 |
| | 2 Ton | BCH-3027 | BCH-3027 | BCH-3028 | 1 |
| 46 | Bearings - Needle | BCH-3029 | BCH-3029 | BCH-3029 | 2 |
| 47 | Sprocket | BCH-3030 | BCH-3030 | BCH-3031 | 1 |
| 48 | Washer - Flat (9/16 N Pltd.) | * | * | * | 2 |
| 49 | Shaft - Sprocket | BCH-3032 | BCH-3032 | BCH-3032 | 1 |
| 50 | Body - Lower Block | | | | |
| | 1-1/2 Ton | BCH-3033 | BCH-3033 | BCH-3033 | 1 |
| | 2 Ton | BCH-3034 | BCH-3034 | BCH-3034 | 1 |
| 51 | Bracket - Lug Suspension | BCH-3035 | BCH-3035 | BCH-3035 | 1 |
| 52 | Spacer - Lug | BCH-3036 | BCH-3036 | BCH-3036 | 1 |

* Not available as individual parts.

** Round up to next full foot of length

‡ Quantities for trolley hoists only: Ref. No. 18 1 Req'd



LATER MODEL HOISTS

Figure 9-4. 3 and 4 Ton Models

| Ref. No. | Description | Part Number | | | Qty. Req'd |
|----------|---|-----------------|----------------|-----------------|------------|
| | | Hook Suspension | Lug Suspension | Spark Resistant | |
| 1 | Label - Capacity | | | | |
| | 3 Ton | BCH-421 | BCH-421 | BCH-421 | 1 |
| | 4 Ton | BCH-422 | BCH-422 | BCH-422 | 1 |
| 2 | Screw- Hex Socket Head (Self-Locking 1/4-20 x 1) | * | * | * | 6 |
| 3 | Cover - Gearcase | BCH-304 | BCH-304 | BCH-304 | 1 |
| 4 | Plug - Expansion (3/4 Dia.) | * | * | * | 1 |
| 5 | Gear-Sprocket | BCH-306 | BCH-306 | BCH-408 | 1 |
| 6 | Bearing - Needle | BCH-307 | BCH-307 | BCH-307 | 1 |
| 7 | Bearing - Needle | BCH-308 | BCH-308 | BCH-308 | 1 |
| 8 | Bearing - Needle | BCH-309 | BCH-309 | BCH-309 | 1 |
| 9 | Thrust Washer-Bearing | BCH-310 | BCH-310 | BCH-310 | 2 |
| 10 | Gear - Intermediate | BCH-311 | BCH-311 | BCH-311 | 1 |
| 11 | Key- Woodruff (No. 91) | * | * | * | 1 |
| 12 | Pinion - Intermediate | BCH-313 | BCH-313 | BCH-313 | 1 |
| 13 | Bearing - Needle | BCH-314 | BCH-314 | BCH-314 | 1 |
| 14 | Shaft - Pinion | BCH-315 | BCH-315 | BCH-315 | 1 |
| 15 | Bearing - Ball | BCH-316 | BCH-316 | BCH-316 | 1 |
| 16 | Pin - Dowel | BCH-317 | BCH-317 | BCH-317 | 2 |
| 17 | Screw - Hex Socket Head (Self-Locking 3/8-16 x 1) | * | * | * | 1 |
| 18 | Washer - Flat (Plain 3/8 W Pltd.) | * | * | * | 1 |
| 19 | Chain - Load | | | | |
| | For 8' Lift | BCH-423 | BCH-423 | BCH-424 | 1 |
| | For 10' Lift | BCH-425 | BCH-425 | BCH-426 | 1 |
| | For 12' Lift | BCH-427 | BCH-427 | BCH-428 | 1 |
| | For 15' Lift | BCH-429 | BCH-429 | BCH-430 | 1 |
| | For 20' Lift | BCH-431 | BCH-431 | BCH-432 | 1 |
| | For 25' Lift | BCH-433 | BCH-433 | BCH-434 | 1 |
| | For 30' Lift | BCH-435 | BCH-435 | BCH-436 | 1 |
| | For Non-Standard Lift (order chain length equal to two times lift, plus 2'') | BCH-334 | BCH-334 | BCH-335 | As Req'd. |
| 20 | Frame | BCH-437 | BCH-437 | BCH-437 | 1 |
| | Warning Label | BCH-338 | BCH-338 | BCH-338 | 1 |
| 21 | Pin - Pawl | BCH-343 | BCH-343 | BCH-343 | 1 |
| 22 | Plate - Spring Retainer | BCH-344 | BCH-344 | BCH-344 | 1 |
| 23 | †Screw - Self-Tapping (#10-16 x 1/4) | * | * | * | 1 |
| 24 | Pawl - Brake | BCH-345 | BCH-345 | BCH-345 | 1 |
| 25 | Washer - Special | BCH-346 | BCH-346 | BCH-346 | 1 |
| 26 | Ring - Retaining | BCH-347 | BCH-347 | BCH-347 | 1 |
| 27 | Spring - Brake Pawl | BCH-348 | BCH-348 | BCH-348 | 1 |
| 28 | Bearing - Needle | BCH-349 | BCH-349 | BCH-349 | 1 |
| 29 | Ring - Retaining | BCH-350 | BCH-350 | BCH-350 | 1 |
| 30 | Flange - Load Brake | BCH-351 | BCH-351 | BCH-351 | 1 |
| 31 | Friction Washer - Flange Side | | | | 1 |
| | Commercial Hoists | BCH-297 | BCH-297 | BCH-297 | |
| | Military Hoists Only | BCH-401 | BCH-401 | BCH-401 | |
| 32 | Ratchet - Brake | BCH-353 | BCH-353 | BCH-353 | 1 |
| 33 | Friction Washer - Hand Chain Side | | | | 1 |
| | Commercial Hoists | BCH-297 | BCH-297 | BCH-297 | |
| | Military Hoists Only | BCH-352 | BCH-352 | BCH-352 | |
| 34 | Load Regulator Assembly | BCH-354 | BCH-354 | BCH-354 | 1 |
| 35 | Stop - Brake | BCH-355 | BCH-355 | BCH-355 | 1 |
| 36 | Washer- Flat (Plain 5/16 N Pltd.) | * | * | * | 1 |
| 37 | Nut - Hex, Self-Locking (Thin 5/16-24) | * | * | * | 1 |
| 38 | Cover - Chain Wheel | BCH-358 | BCH-358 | BCH-358 | 1 |
| 39 | Screw - Hex Socket Head | BCH-359 | BCH-359 | BCH-359 | 2 |
| 40 | Screw - Hex Socket Head (Self-Locking 1/4-20 x 3/4) | * | * | * | 2 |
| 41 | Chain - Hand | | | | |
| | For 8' Lift | BCH-361 | BCH-361 | BCH-362 | 1 |
| | For 10' Lift | BCH-363 | BCH-363 | BCH-364 | 1 |
| | For 12' Lift | BCH-365 | BCH-365 | BCH-366 | 1 |
| | For 15' Lift | BCH-367 | BCH-367 | BCH-368 | 1 |
| | For 20' Lift | BCH-369 | BCH-369 | BCH-370 | 1 |
| | For 25' Lift | BCH-371 | BCH-371 | BCH-372 | 1 |
| | For 30' Lift | BCH-373 | BCH-373 | BCH-374 | 1 |
| | For Non-Standard Lift (order chain length equal to two times lift, minus 1'') | BCH-375 | BCH-375 | BCH-376 | As Req'd. |

* Not available as individual parts.

** Round up to next full foot of length.

† Drill .159" diameter hole 3/16" deep when replacing metal tack.

(Continued on following page)

Figure 9-4. 2, 3 and 4 Ton Models (continued)

| Ref. No. | Description | Part Number | | | Qty. Req'd |
|----------|--|-----------------|----------------|-----------------|------------|
| | | Hook Suspension | Lug Suspension | Spark Resistant | |
| 42 | Link - Open | BCH-377 | BCH-377 | BCH-377 | 1 |
| 43 | Nut - Hex, Self-Locking (Thin 3/8-24) | * | * | * | 1 |
| 44 | Guide - Chain | BCH-385 | BCH-385 | BCH-385 | 1 |
| | Lower Block & Hook Assembly (includes ref. nos. 45 thru 58) | BCH-438 | BCH-438 | BCH-439 | 1 |
| | 3 Ton | BCH-440 | BCH-440 | BCH-441 | 1 |
| | 4 Ton | BCH-442 | BCH-442 | BCH-442 | 2 |
| 45 | Washer - Hardened | BCH-443 | BCH-443 | BCH-443 | 2 |
| 46 | Bearing - Needle | BCH-444 | BCH-444 | BCH-444 | 1 |
| 47 | Sprocket | * | * | * | 4 |
| 48 | ††Screw - Self-Tapping (#6-20 x 1/2) | BCH-445 | BCH-445 | BCH-445 | 1 |
| 49 | Label - Warning | | | | |
| 50 | Body - Lower Block | BCH-446 | BCH-446 | BCH-446 | 1 |
| | 3 Ton | BCH-447 | BCH-447 | BCH-448 | 1 |
| | 4 Ton | BCH-449 | BCH-449 | BCH-449 | 1 |
| 51 | Shaft - Sprocket | BCH-450 | BCH-450 | BCH-450 | 1 |
| 52 | Pin - Spring | * | | | |
| 53 | Nut - Slotted | | | | |
| | 3 Ton | * | * | -- | 1 |
| | 7/8-14 Pltd. | -- | -- | * | 1 |
| | 7/8-9 Pltd. | * | * | -- | 1 |
| | 4 Ton | -- | -- | * | 1 |
| | 7/8-14 Pltd. | * | * | * | 1 |
| | 1-8 Plain | | | | |
| 54 | Pin - Cotter (5/32 Dia. x 1-1/2) | | | | 1 |
| 55 | Bearing - Thrust | | | | |
| | 3 Ton | BCH-451 | BCH-451 | BCH-451 | 1 |
| | 4 Ton | BCH-451 | BCH-451 | BCH-452 | 1 |
| 56 | Washer - Thrust | | | | |
| | 3 Ton | BCH-453 | BCH-453 | BCH-453 | 1 |
| | 4 Ton | BCH-453 | BCH-453 | BCH-454 | 1 |
| 57 | Hook - Lower | | | | |
| | 3 Ton | BCH-455 | BCH-455 | BCH-456 | 1 |
| | 4 Ton | BCH-457 | BCH-457 | BCH-458 | 1 |
| 58 | Latch Assembly - Hook | BCH-459 | -- | BCH-460 | 2 |
| | | -- | BCH-459 | -- | 1 |
| | Later Model Hoists: | | | | |
| | 3 Ton | BCH-459 | -- | BCH-460 | 1 |
| | 4 Ton | BCH-459 | -- | BCH-479 | 1 |
| 59 | Stop - Lower Block | BCH-461 | BCH-461 | BCH-461 | 1 |
| 60 | Screw - Hex Socket Head Self-Locking (1/4-20 x 5/8 Pltd.) | * | * | * | 2 |
| 61 | †††Screw - Self-Tapping (#2-32 x 1/8) | * | * | * | 2 |
| 62 | Nameplate | BCH-462 | BCH-462 | BCH-462 | 1 |
| 63 | Pin - Grooved | BCH-463 | BCH-463 | BCH-463 | 1 |
| | Later Model Hoists: Pin - Spring | BCH-480 | BCH-480 | BCH-480 | 1 |
| 64 | Upper Block Bolt & Nut Assembly | BCH-464 | -- | BCH-464 | 1 |
| | Later Model Hoists: | BCH-481 | -- | BCH-481 | 1 |
| 65 | Washer - Thrust | BCH-465 | BCH-465 | BCH-465 | 1 |
| | Upper Hook & Nut Assembly (Includes Ref. Nos. 58, 66 and 67) | BCH-468 | -- | BCH-469 | 1 |
| | Later Model Hoists | | | | |
| | 3 Ton | BCH-468 | -- | BCH-482 | 1 |
| | 4 Ton | BCH-468 | -- | BCH-483 | 1 |
| 66 | Pin - Grooved | BCH-470 | -- | BCH-470 | 1 |
| | Later Model Hoists: Pin - Spring | BCH-480 | -- | BCH-480 | 1 |
| 67 | Hook & Nut Assembly | BCH-471 | -- | BCH-472 | 1 |
| | Later Model Hoists: | BCH-471 | -- | BCH-484 | 1 |
| | 3 Ton | | | | |
| | 4 Ton | BCH-471 | -- | BCH-485 | 1 |
| 68 | Bracket - Upper Hook | BCH-473 | -- | BCH-474 | 1 |
| 69 | Pin - Roll | BCH-475 | BCH-475 | BCH-475 | 2 |
| 70 | Pin - Chain Anchor | BCH-476 | BCH-475 | BCH-476 | 1 |
| 71 | Washer - Thrust | BCH-465 | -- | BCH-465 | 1 |

* Not available as individual parts.

** Round up to next full foot of length.

†† Drill .116" diameter hole 7/16" deep when replacing metal tack.

††† Drill .078" diameter holes thru frame when replacing metal tacks.

(Continued on following page)

Figure 9-4. 2, 3 and 4 Ton Models (continued)

| Ref. No. | Description | Part Number | | | Qty. Req'd |
|----------|--|-----------------|----------------|-----------------|------------|
| | | Hook Suspension | Lug Suspension | Spark Resistant | |
| 72 | Upper Bolt & Nut Assembly | -- | BCH-477 | -- | 1 |
| | Later Model Hoists: | -- | BCH-486 | -- | 1 |
| 73 | Bracket - Lug Suspension | -- | BCH-478 | -- | 1 |
| | Later Model Hoists: | | | | 1 |
| | Lower Block Assembly | | | | |
| | 3 Ton | BCH-1401 | BCH-1401 | BCH-1402 | |
| | 4 Ton | BCH-1403 | BCH-1403 | BCH-1404 | |
| 74 | Hardened Washer | BCH-1405 | BCH-1405 | BCH-1405 | 2 |
| 75 | Sprocket | BCH-1406 | BCH-1406 | BCH-1406 | 1 |
| 76 | Needle Bearings | BCH-1407 | BCH-1407 | BCH-1407 | 2 |
| 77 | Chain Guide | BCH-1408 | BCH-1408 | BCH-1408 | 1 |
| 78 | Lower Block Body | | | | 1 |
| | 3 Ton | BCH-1409 | BCH-1409 | BCH-1410 | |
| | 4 Ton | BCH-1411 | BCH-1411 | BCH-1412 | |
| 79 | Slotted Fillister Head Machine Screw - Plated (1/4-20 x 3) | BCH-1413 | BCH-1413 | BCH-1413 | 2 |
| 80 | Sprocket Shaft | BCH-1414 | BCH-1414 | BCH-1414 | 1 |
| 81 | Spring Pin - Plated (3/16 x 1-3/8) | BCH-1415 | BCH-1415 | BCH-1415 | 1 |
| 82 | Cotter Pin (5/32 x 1-1/2) | BCH-1416 | BCH-1416 | -- | 1 |
| | 3 Ton - Cotter Pin (5/32 x 1-3/4) | -- | -- | BCH-1417 | 1 |
| | 4 Ton - Spring Pin - Plated (1/4 x 2) | -- | -- | BCH-1418 | 1 |
| 83 | Hook | | | | 1 |
| | 3 Ton | BCH-1419 | BCH-1419 | BCH-1420 | |
| | 4 Ton | BCH-1421 | BCH-1421 | BCH-1422 | |
| | Nut | * | * | * | 1 |
| | 3 Ton | * | * | * | 1 |
| | 4 Ton | | | | |
| | Hook Latch | | | | |
| | 3 Ton | BCH-459 | BCH-459 | BCH-460 | |
| | 4 Ton | BCH-459 | BCH-459 | BCH-479 | |
| 84 | Thrust Bearing | | | | 1 |
| | 3 Ton | BCH-1423 | BCH-1423 | BCH-1424 | |
| | 4 Ton | BCH-1423 | BCH-1423 | BCH-1425 | |
| 85 | Load Washer | | | | 1 |
| | 3 Ton | BCH-1426 | BCH-1426 | BCH-1427 | |
| | 4 Ton | BCH-1426 | BCH-1426 | -- | |

* Not available as individual parts.

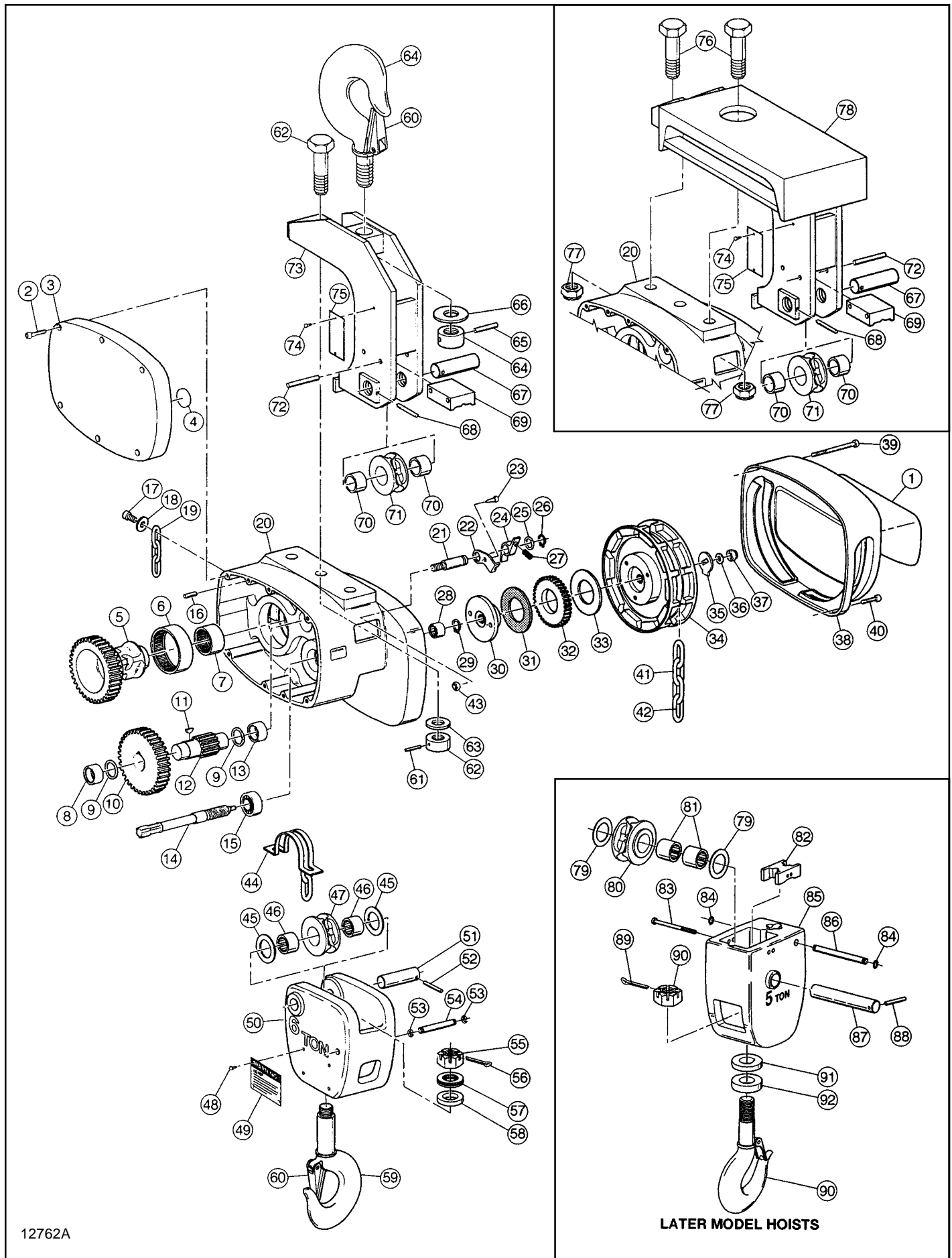


Figure 9-5. 5 and 6 Ton Models

| Ref. No. | Description | Part Number | | | Qty. Req'd |
|----------|---|-----------------|----------------|-----------------|------------|
| | | Hook Suspension | Lug Suspension | Spark Resistant | |
| 1 | Label - Capacity | | | | |
| | 5 Ton | BCH-501 | BCH-501 | BCH-501 | 1 |
| | 6 Ton | BCH-502 | BCH-502 | BCH-502 | 1 |
| 2 | Screw - Hex Socket Head (Self-Locking 1/4-20 x 1) | * | * | * | 6 |
| 3 | Cover - Gearcase | BCH-304 | BCH-304 | BCH-304 | 1 |
| 4 | Plug - Expansion (3/4 Dia.) | * | * | * | 1 |
| 5 | Gear - Sprocket | BCH-306 | BCH-306 | BCH-408 | 1 |
| 6 | Bearing - Needle | BCH-307 | BCH-307 | BCH-307 | 1 |
| | Bearing - Needle | BCH-308 | BCH-308 | BCH-308 | 1 |
| 8 | Bearing - Needle | BCH-309 | BCH-309 | BCH-309 | 1 |
| 9 | Thrust Washer - Bearing | BCH-310 | BCH-310 | BCH-310 | 2 |
| 10 | Gear-Intermediate | BCH-311 | BCH-311 | BCH-311 | 1 |
| 11 | Key - Woodruff (No. 91) | * | * | * | 1 |
| 12 | Pinion - Intermediate | BCH-313 | BCH-313 | BCH-313 | 1 |
| 13 | Bearing-Needle | BCH-314 | BCH-314 | BCH-314 | 1 |
| 14 | Shaft - Pinion | BCH-315 | BCH-315 | BCH-315 | 1 |
| 15 | Bearing-Ball | BCH-316 | BCH-316 | BCH-316 | 1 |
| 16 | Pin - Dowel | BCH-317 | BCH-317 | BCH-317 | 2 |
| 17 | Screw - Hex Socket Head (Self-Locking 3/8-16 x 1) | * | * | * | 1 |
| 18 | Washer - Flat (Plain 3/8 W Pltd.) | * | * | * | 1 |
| 19 | Chain - Load | | | | |
| | For 8' Lift | BCH-503 | BCH-503 | BCH-504 | 1 |
| | For 10' Lift | BCH-505 | BCH-505 | BCH-506 | 1 |
| | For 12' Lift | BCH-507 | BCH-507 | BCH-508 | 1 |
| | For 15' Lift | BCH-509 | BCH-509 | BCH-510 | 1 |
| | For 20' Lift | BCH-511 | BCH-511 | BCH-512 | 1 |
| | For 25' Lift | BCH-513 | BCH-513 | BCH-514 | 1 |
| | For 30' Lift | BCH-515 | BCH-515 | BCH-516 | 1 |
| | For Non-Standard Lift (order chain length equal to two times lift, plus 2'') | BCH-334 | BCH-334 | BCH-335 | As Req'd. |
| 20 | Frame | BCH-437 | BCH-437 | BCH-437 | 1 |
| | Warning Label | BCH-338 | BCH-338 | BCH-338 | 1 |
| 21 | Pin - Pawl | BCH-343 | BCH-343 | BCH-343 | 1 |
| 22 | Plate - Spring Retainer | BCH-344 | BCH-344 | BCH-344 | 1 |
| 23 | †Screw - Self-Tapping (#10-16x114) | * | * | * | 1 |
| 24 | Pawl - Brake | BCH-345 | BCH-345 | BCH-345 | 1 |
| 25 | Washer - Special | BCH-346 | BCH-346 | BCH-346 | 1 |
| 26 | Ring - Retaining | BCH-347 | BCH-347 | BCH-347 | 1 |
| 27 | Spring - Brake Pawl | BCH-348 | BCH-348 | BCH-348 | 1 |
| 28 | Bearing - Needle | BCH-349 | BCH-349 | BCH-349 | 1 |
| 29 | Ring - Retaining | BCH-350 | BCH-350 | BCH-350 | 1 |
| 30 | Flange - Load Brake | BCH-351 | BCH-351 | BCH-351 | 1 |
| 31 | Friction Washer - Flange Side | | | | 1 |
| | Commercial Hoists | BCH-297 | BCH-297 | BCH-297 | |
| | Military Hoists Only | BCH-401 | BCH-401 | BCH-401 | |
| 32 | Ratchet - Brake | BCH-353 | BCH-353 | BCH-353 | |
| 33 | Friction Washer - Hand Chain Side | | | | 1 |
| | Commercial Hoists | BCH-297 | BCH-297 | BCH-297 | |
| | Military Hoists Only | BCH-352 | BCH-352 | BCH-352 | |
| 34 | Load Regulator Assembly | BCH-354 | BCH-354 | BCH-354 | 1 |
| 35 | Stop - Brake | BCH-355 | BCH-355 | BCH-355 | 1 |
| 36 | Washer - Flat (Plain 5/16 N Pltd.) | * | * | * | 1 |
| 37 | Nut - Hex, Self-Locking (Thin 5/16-24) | * | * | * | 1 |
| 38 | Cover - Chain Wheel | BCH-358 | BCH-358 | BCH-358 | 1 |
| 39 | Screw - Hex Socket head | BCH-359 | BCH-359 | BCH-359 | 2 |
| 40 | Screw - Hex Socket Head (Self-Locking 1/4-20 x 3/4) | * | * | * | 2 |
| 41 | Chain - Hand | | | | |
| | For 8' Lift | BCH-361 | BCH-361 | BCH-362 | 1 |
| | For 10' Lift | BCH-363 | BCH-363 | BCH-364 | 1 |
| | For 12' Lift | BCH-365 | BCH-365 | BCH-366 | 1 |
| | For 15' Lift | BCH-367 | BCH-367 | BCH-368 | 1 |
| | For 20' Lift | BCH-369 | BCH-369 | BCH-370 | 1 |
| | For 25' Lift | BCH-371 | BCH-371 | BCH-372 | 1 |
| | For 30' Lift | BCH-373 | BCH-373 | BCH-374 | 1 |
| | For Non-Standard Lift (order chain length equal to two times lift, minus 1'') | BCH-375 | BCH-375 | BCH-376 | As Req'd. |

* Not available as individual parts.

** Round up to next full foot of length.

† Drill .159" diameter hole 3/16" deep when replacing metal tack.

(Continued on following page)

Figure 9-5. 5 and 6 Ton Models (continued)

| Ref. No. | Description | Part Number | | | Qty. Req'd |
|----------|--|-----------------|----------------|-----------------|------------|
| | | Hook Suspension | Lug Suspension | Spark Resistant | |
| 39 | Screw - Hex Socket head | BCH-359 | BCH-359 | BCH-359 | 2 |
| 40 | Screw - Hex Socket Head (Self-Locking 1/4-20 x 3/4) | * | * | * | 2 |
| 41 | Chain - Hand | | | | |
| | For 8' Lift | BCH-361 | BCH-361 | BCH-362 | 1 |
| | For 10' Lift | BCH-363 | BCH-363 | BCH-364 | 1 |
| | For 12' Lift | BCH-365 | BCH-365 | BCH-366 | 1 |
| | For 15' Lift | BCH-367 | BCH-367 | BCH-368 | 1 |
| | For 20' Lift | BCH-369 | BCH-369 | BCH-370 | 1 |
| | For 25' Lift | BCH-371 | BCH-371 | BCH-372 | 1 |
| | For 30' Lift | BCH-373 | BCH-373 | BCH-374 | 1 |
| | For Non-Standard Lift (order chain length equal to two times lift, minus 1'**) | BCH-375 | BCH-375 | BCH-376 | As Req'd. |
| 42 | Link - Open | BCH-377 | BCH-377 | BCH-377 | 1 |
| 43 | Nut - Hex, Self-Locking (Thin 3/8-24) | - - | * | * | 1 |
| 44 | Guide - Chain | BCH-385 | BCH-385 | BCH-385 | 1 |
| | Lower Block & Hook Assembly (includes ref. nos. 45 thru 60) | BCH-517 | BCH-517 | BCH-518 | 1 |
| | 5 Ton | | | | |
| | 6 Ton | BCH-519 | BCH-519 | BCH-520 | 1 |
| 45 | Washer - Hardened | BCH-442 | BCH-442 | BCH-442 | 2 |
| 46 | Bearing - Needle | BCH-443 | BCH-443 | BCH-443 | 2 |
| 47 | Sprocket | BCH-444 | BCH-444 | BCH-444 | 1 |
| 43 | ††Screw - Self-Tapping (#6-20 x 1/2) | | | | 4 |
| 49 | Label - Warning | BCH-445 | BCH-445 | BCH-445 | 1 |
| 50 | Body - Lower Block | | | | |
| | 5 Ton | BCH-521 | BCH-521 | BCH-522 | 1 |
| | 6 Ton | BCH-523 | BCH-523 | BCH-524 | 1 |
| 51 | Shaft - Sprocket | BCH-449 | BCH-449 | BCH-449 | 1 |
| 52 | Pin - Spring | BCH-450 | BCH-450 | BCH-450 | 1 |
| 59 | Ring - Retaining | BCH-525 | BCH-525 | BCH-525 | 2 |
| 54 | Pin - Chain Anchor | BCH-526 | BCH-526 | BCH-526 | 1 |
| 55 | Nut - Slotted | | | | |
| | 5 Ton | * | * | -- | 1 |
| | 1-8 Thick | | | | |
| | 1-1/4-7 Pltd. | - - | -- | * | 1 |
| | 6 Ton | * | * | -- | 1 |
| | 1-1/8-7 | | | | |
| | 1-1/4-7 Pltd. | -- | -- | * | 1 |
| 56 | Pin - Cotter | | | | |
| | (5/32 Dia.x 1-1/2) | * | * | -- | 1 |
| | (1/4 Dia x 1-3/4) | -- | -- | * | 1 |
| 57 | Bearing-Thrust | | | | |
| | 5 Ton | BCH-452 | BCH-452 | BCH-527 | 1 |
| | 6 Ton | BCH-528 | BCH-528 | BCH-527 | 1 |
| 58 | Washer - Thrust | | | | |
| | 5 Ton | BCH-454 | BCH-454 | -- | 1 |
| | 6 Ton | BCH-529 | BCH-529 | -- | 1 |
| 59 | Hook - Lower | | | | |
| | 5 Ton | BCH-530 | BCH-530 | BCH-531 | 1 |
| | 6 Ton | BCH-532 | BCH-532 | BCH-531 | 1 |
| 60 | Latch Assembly - Hook | BCH-460 | -- | BCH-533 | 2 |
| | | -- | BCH-460 | -- | 1 |
| | Later Model Hoists: | | | | |
| | 5 Ton | BCH-460 | -- | BCH-533 | 1 |
| | 6 Ton | BCH-460 | -- | BCH-553 | 1 |
| 61 | Pin - Grooved | BCH-463 | -- | BCH-463 | 1 |
| | Later Model Hoists: Pin - Spring | BCH-554 | -- | BCH-554 | 1 |
| 62 | Upper Block Bolt & Nut Assembly | BCH-534 | -- | BCH-534 | 1 |
| | Later Model Hoists: | BCH-555 | -- | BCH-555 | 1 |
| 63 | Washer - Thrust | BCH-465 | -- | BCH-465 | 1 |
| 64 | Hook & Nut Assembly (Includes Ref. Nos. 60, 64, and 65) | BCH-537 | -- | BCH-538 | 1 |
| | Later Model Hoists: | | | | |
| | 5 Ton | BCH-537 | -- | BCH-556 | 1 |
| | 6 Ton | BCH-537 | | BCH-557 | 1 |

* Not available as individual parts.

** Round up to next full foot of length.

†† Drill .116" diameter hole 7/16" deep when replacing metal tack.

(Continued on following page)

Figure 9-5. 5 and 6 Ton Models (continued)

| Ref. No. | Description | Part Number | | | Qty. Req'd |
|----------|---|-----------------|----------------|-----------------|------------|
| | | Hook Suspension | Lug Suspension | Spark Resistant | |
| 65 | Pin - Grooved | BCH-541 | -- | BCH-542 | 1 |
| | Later Model Hoists: Pin - Spring | BCH-554 | -- | BCH-554 | 1 |
| 66 | Washer-Thrust | BCH-543 | -- | BCH-543 | 1 |
| 67 | Shaft - Sprocket | BCH-544 | BCH-544 | BCH-544 | 1 |
| 68 | Pin - Spring | BCH-545 | BCH-545 | BCH-545 | 1 |
| 69 | Guide - Chain | BCH-546 | BCH-546 | BCH-546 | 1 |
| 70 | Bearing - Needle | BCH-548 | BCH-548 | BCH-548 | 2 |
| 71 | Sprocket | BCH-549 | BCH-549 | BCH-549 | 1 |
| 72 | Pin - Spring | BCH-550 | BCH-550 | BCH-550 | 2 |
| 73 | Bracket - Upper Hook | BCH-551 | -- | BCH-551 | 1 |
| 74 | †††Screw - Self-Tapping (#2-32 X 1/8) | * | * | * | 2 |
| 75 | Nameplate | BCH-462 | BCH-462 | BCH-462 | 1 |
| 76 | Bolt - Hex Head (3/4-10 X 2 Grade 5) | -- | BCH-552 | -- | 2 |
| 77 | Nut - Hex, Self-Locking (Thin 3/4-10) | -- | * | -- | 2 |
| 78 | Bracket - Lug Suspension | -- | BCH-553 | -- | 1 |
| | Later Model Hoists: | | | | 1 |
| | Lower Block Assembly | | | | |
| | 5 Ton | BCH-1501 | BCH-1501 | BCH-1502 | |
| | 6 Ton | BCH-1503 | BCH-1503 | BCH-1504 | |
| 79 | Hardened Washer | BCH-1505 | BCH-1505 | BCH-1505 | 2 |
| 80 | Sprocket | BCH-1506 | BCH-1506 | BCH-1506 | 1 |
| 81 | Needle Bearings | BCH-1507 | BCH-1507 | BCH-1507 | 2 |
| 82 | Chain Guide | BCH-1508 | BCH-1508 | BCH-1508 | 1 |
| 83 | Slotted Fillister Head Machine Screw- Plated (1/4-20 x 3) | BCH-1509 | BCH-1509 | BCH-1509 | 2 |
| 84 | Retaining Ring | BCH-1510 | BCH-1510 | BCH-1510 | 2 |
| 85 | Lower Block Body | | | | 1 |
| | 5 Ton | BCH-1511 | BCH-1511 | BCH-1512 | |
| | 6 Ton | BCH-1513 | BCH-1513 | BCH-1514 | |
| 86 | Chain Anchor Pin | BCH-1515 | BCH-1515 | BCH-1515 | 1 |
| 87 | Sprocket Shaft | BCH-1516 | BCH-1516 | BCH-1516 | 1 |
| 88 | Spring Pin - Plated (3/16 x 1-3/8) | BCH-1517 | BCH-1517 | BCH-1517 | 1 |
| 89 | Cotter Pin (5/32 x 1-1/2) | BCH-1518 | BCH-1518 | -- | 1 |
| | Spring Pin - Plated (1/4 x 2) | -- | -- | BCH-1519 | 1 |
| 90 | Hook | | | | 1 |
| | 5 Ton | BCH-1520 | BCH-1520 | BCH-1521 | |
| | 6 Ton | BCH-1520 | BCH-1520 | BCH-1522 | |
| | Nut | * | * | * | 1 |
| | Hook Latch | | | | 1 |
| | 5 Ton | BCH-460 | BCH-460 | BCH-533 | |
| | 6 Ton | BCH-460 | BCH-460 | BCH-553 | |
| 91 | Thrust Bearing | BCH-1523 | BCH-1523 | BCH-1524 | 1 |
| 92 | Load Washer | BCH-1525 | BCH-1525 | -- | 1 |

* Not available as individual parts.

††† Drill .078" diameter holes thru frame when replacing metal tacks.

SECTION X - CHAIN CONTAINERS

10-1. GENERAL.

The BUDGIT chain containers listed below are designed to fit the BUDGIT USA hand chain hoists in this manual only. Other hoists require different chain containers. All parts required for correct installation are packaged with the container assembly.

| Hoist Rated Load | Standard Container | | Spark Resistant Container | |
|------------------|--------------------|----------------|---------------------------|----------------|
| | Lift Capacity | Catalog Number | Lift Capacity | Catalog Number |
| 1/4 & 1/2 Ton | 15' | 902741 | --- | --- |
| | 25' | 902742 | 20' | 902760 |
| | 40 | 902743 | 35' | 902761 |
| 1 Ton | 10' | 902741 | --- | --- |
| | 20' | 902742 | 15' | 902760 |
| | 30' | 902743 | 25' | 902761 |
| 1½ & 2* Ton | 15' | 902750 | 10' | 902765 |
| | 30' | 902751 | 25' | 902766 |
| 2** Ton | 10' | 902742 | 8' | 902760 |
| | 15' | 902743 | 12' | 902761 |
| 3 & 4 Ton | 8' | 902750 | --- | --- |
| | 15' | 902751 | 12' | 902766 |
| 5 & 6 Ton | 10' | 902751 | 8' | 902766 |

* Single Load Chain

** Two Load Chain

10-2. INSTALLATION INSTRUCTIONS.

The BUDGIT chain container is easily installed by following the instructions below.

a. Operate hoist so that load hook is in its low position. This shortens the loop at the tail end of the load chain so that it will not interfere during installation of the container. It also allows the chain to correctly feed into the container when installation is complete.

b. Remove small parts from shipping bag (packaged with container).

c. Remove hex socket head screw (and washer on 1-1/2, single load chain 2, and 3 thru 6 ton models only) attaching tail end of load chain to hoist, save screw and allow chain to hang straight down.

d. Hold chain container bracket onto hoist and fasten to underside of hoist with hex head screw. Connection to side of hoist is then to be in the following order: bracket, load chain, and the original hex socket head screw (and washer on 1-1/2, single load chain 2, and 3 thru 6 ton models only). See Figure 10-1.

CAUTION

Tail end of load chain must be connected to assure chain does not run out of hoist during lowering.

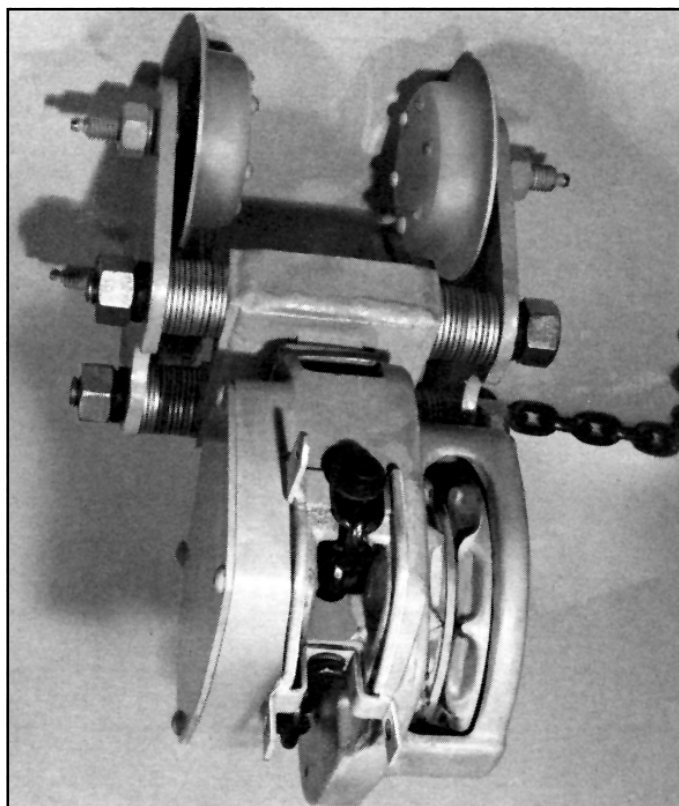


Figure 10-1. Chain Container Bracket

e. Attach hinged end of container to bracket. The hinge pin is a bolt with a self-locking nut.

f. Open, if not already open, split link (see paragraph 2-2) and connect one end of support chain to hole in chain container. See Figure 10-2. Twist link closed. Do not run load into bottom of container.

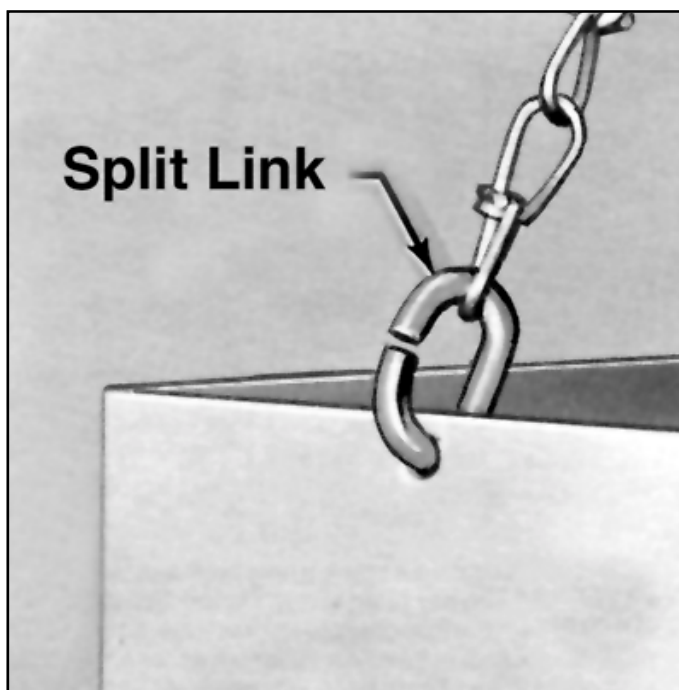


Figure 10-1. Chain Container Bracket

g. Open split link (see paragraph 2-2) and connect loose end of support chain to open hole in outstanding leg of chain container bracket. See Figure 10-3. Twist link closed.

CAUTION

Container must hang parallel to load chain. A tilted container will cause piling of chain with possible damage to hoist. If necessary, adjust container support chain. Do not run load into bottom of container.



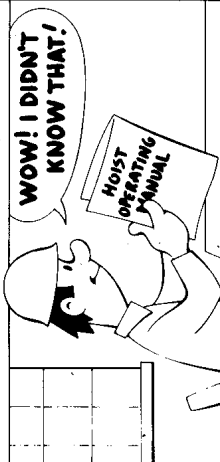
Figure 10-3. Complete Installation

Notes

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.

SAFE IS... KNOWING YOUR HOIST!
STUDY MANUFACTURER'S OPERATING INSTRUCTION MANUAL FOR CORRECT HOIST OPERATION. KNOW WHAT TO DO, -AND HOW TO DO IT! ... EVERYTIME!

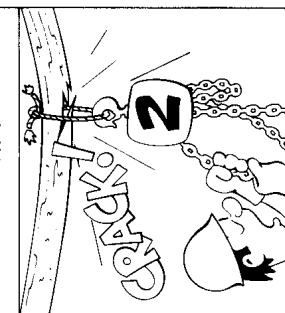
WOW! I DIDN'T KNOW THAT!



SAFE IS... NEVER OVERLOADING!
ALWAYS BE SURE TO USE PROPER CAPACITY HOIST. ...IN DOUBTFUL WEIGHT SITUATIONS USE HOISTS WITH OVERLOAD PROTECTION DEVICES WHICH WILL REJECT DANGEROUS OVERLOADS.

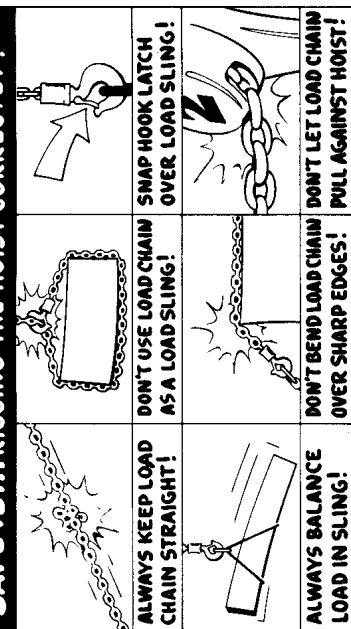


SAFE IS... MAKING SURE UPPER SUSPENSION WILL HOLD THE LOAD!

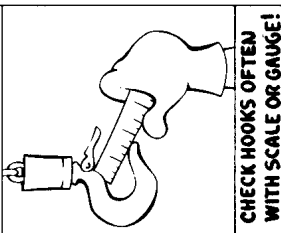


SAFE IS... RIGGING THE HOIST CORRECTLY!

| | |
|----------------------------------|--|
| ALWAYS KEEP LOAD CHAIN STRAIGHT! | DON'T USE LOAD CHAIN AS A LOAD SLING! |
| ALWAYS BALANCE LOAD IN SLING! | SNAP HOOK LATCH OVER LOAD SLING! |
| | DON'T LET LOAD CHAIN OVER SHARP EDGES! |
| | DON'T LET LOAD CHAIN PULL AGAINST HOIST! |

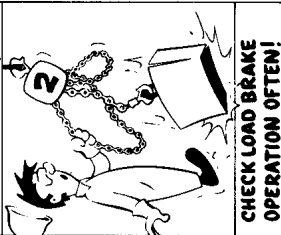


SAFE IS... NEVER USING A HOIST WITH "OPENED" HOOKS!



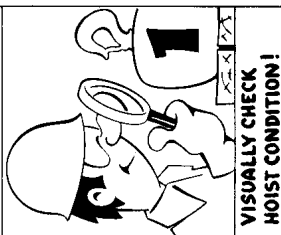
CHECK HOOKS OFTEN WITH SCALE OR GAUGE!

SAFE IS... NEVER USING A HOIST WITH SLIPPING BRAKE!




CHECK LOAD BRAKE OPERATION OFTEN!

SAFE IS... NEVER USING A DAMAGED HOIST!




VISUALLY CHECK HOIST CONDITION!

SAFE IS... USING GOOD JUDGMENT!



NEVER THROW OR DROP A HOIST!

SAFE IS... NEVER TWISTING CHAIN BY CAPSIZING LOWER BLOCK!

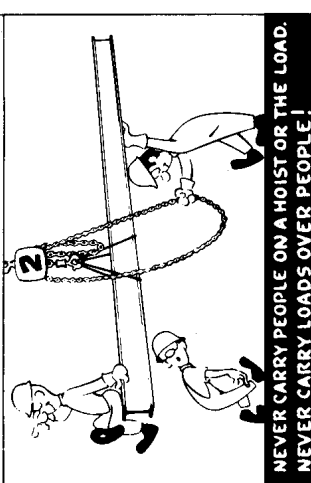


SAFE IS... ALWAYS MAKING SURE OF YOUR FOOTING!



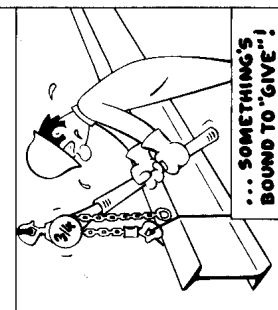
ALWAYS LOOK WHERE YOU'RE GOING!

SAFE IS... ALWAYS STAYING OUT FROM UNDER A SUSPENDED LOAD!



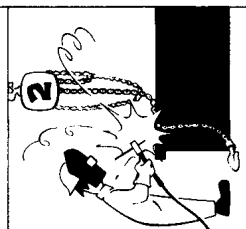
NEVER CARRY PEOPLE ON A HOIST OR THE LOAD. NEVER CARRY LOADS OVER PEOPLE!

SAFE IS... NEVER USING A PIPE (CHEATER) ON LEVER HOIST HANDLE!

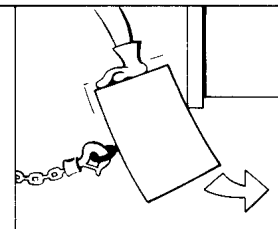


... SOMETHING'S BOUND TO "GIVE"!

SAFE IS... NEVER PERMITTING A WELDING TORCH TO HEAT LOAD CHAIN!



SAFE IS... NEVER APPLYING SHOCK LOAD TO CHAIN SUDDENLY!



SAFE IS... ALSO

- NEVER DRAGGING A LOAD CHAIN FROM UNDER THE LOAD!
- BEING A THOUGHTFUL, COURTEOUS WORKER!

Safe is Beautiful

Recommended Spare Parts for Your Budgit USA Hand 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.

| Description | Quantity for One Hoist | Quantity for Five Hoist | Quantity for Ten Hoist |
|---------------------|---------------------------|----------------------------|---------------------------|
| Brake Pawl | --- | 1 | 2 |
| Friction Washer | 2 | 4 | 6 |
| Load Chain | --- | 1 | 2 |
| Lower Hook | --- | 1 | 2 |
| Hand Chain Wheel | --- | --- | 1 |
| Upper Hook Assembly | --- | --- | 1 |

Note: When ordering parts always furnish Model and Catalog Number of Hoist 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:

Yale•Lift-Tech
P.O. Box 769
Muskegon, MI 49443-0769

Phone: **800 742-9269**
Fax: **800 742-9270**

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 accrued.

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