Operating, Maintenance & Parts Manual

LSB-A Series

3/4 to 6 Ton Model Numbers LSB1500A LSB3000A LSB6000A LSB12000A

Follow all instructions and warnings for inspecting, maintaining and operating this hoist.

The use of any hoist presents some risk of personal injury or property damage. That risk is greatly increased if proper instructions and warnings are not followed. Before using this hoist, each operator should become thoroughly familiar with all warnings, instructions, and recommendations in this manual. Retain this manual for future reference and use.

Forward this manual to the hoist operator. Failure to operate the equipment as directed in the manual may cause injury.

Should you have any questions or have problems with this product, please call Coffing Hoists at **(800) 477-5003**

Before using the hoist, fill in the information below:

Model No.

Serial No.

Purchase Date





SAFETY PRECAUTIONS

Each Coffing LSB-A Manually Lever Operated Chain Hoist is built in accordance with the specifications contained herein and at the time of manufacture complies with our interpretation of applicable sections of *American Society of Mechanical Engineers Code (ASME) B30.21 and the *American National Standards Institute ANSI/ASME HST-3M. *Copies of this Standard can be obtained from ASME Order Department, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300, U.S.A.

Improper operation of a hoist can create a potentially hazardous situation which, if not avoided, could result in death or serious injury. To avoid such a potentially hazardous situation, the operator shall:

- 1. **NOT** operate a malfunctioning or unusually performing hoist.
- 2. **NOT** operate the hoist until you have thoroughly read and understood the manufacturer's Operating and Maintenance Instructions or Manuals.
- NOT operate a hoist which has been modified without the manufacturer's approval or certification to be in conformity with applicable OSHA regulations.
- 4. **NOT** lift or pull more than rated load for the hoist.
- 5. **NOT** use damaged hoist or hoist that is NOT working properly.
- 6. **NOT** use hoist with twisted, kinked, damaged, or worn load chain.
- 7. NOT operate with any lever extension (cheater bar).
- 8. **NOT** attempt to "free-chain" the hoist while a load is applied.
- 9. **NOT** use the hoist to lift, support, or transport people.
- 10. **NOT** lift loads over people and make sure all personnel remain clear of the supported load.
- 11. **NOT** attempt to lengthen the load chain or repair damaged load chain.
- 12. Protect the hoist's load chain from weld splatter or other damaging contaminants.
- NOT operate hoist when it is restricted from forming a straight line from hook to hook in the direction of loading.
- 14. **NOT** use load chain as a sling or wrap load chain around load.
- 15. **NOT** apply the load to the tip of the hook or the hook latch.
- 16. **NOT** apply load unless load chain is properly seated in the chain wheel(s) or sprocket(s).
- NOT apply load if bearing prevents equal loading on all load supporting chains.
- 18. NOT operate beyond the limits of the load chain travel.
- 19. **NOT** leave load supported by the hoist unattended unless specific precautions have been taken.
- 20. **NOT** allow the chain or hook to be used as an electrical or welding ground.
- 21. **NOT** allow the chain or hook to be touched by a live welding electrode.

- 22. NOT remove or obscure the warnings on the hoist.
- 23. **NOT** operate a hoist which has NOT been securely attached to a suitable support.
- 24. **NOT** operate a hoist unless load slings or other approved single attachments are properly sized and seated in the hook saddle.
- 25. **NOT** lift loads that are NOT balanced and that the holding action is NOT secure, taking up slack carefully.
- 26. **NOT** operate a hoist unless all persons are and remain clear of the supported load.
- 27. Report malfunctions or unusual performances of a hoist, after it has been shut down until repaired.
- NOT operate a hoist on which the safety placards or decals are missing or illegible.
- 29. Be familiar with operating controls, procedures, and warnings.

ACAUTION

Improper operation of a hoist can create a potentially hazardous situation which, if not avoided, could result in minor or moderate injury. To avoid such a potentially hazardous situation, the operator shall:

- 1. Maintain a firm footing or be otherwise secured when operating the hoist.
- 2. Check brake function by tensioning the hoist prior to each lift or pulling operation.
- 3. Use hook latches. Latches are to retain slings, chains, etc. under slack conditions only.
- 4. Make sure the hook latches are closed and not supporting any parts of the load.
- 5. Make sure the load is free to move and will clear all obstructions.
- 6. Avoid swinging the load or hook.
- 7. Avoid lever "fly-back" by keeping a firm grip on the lever until operating stroke is completed and the lever is at rest.
- 8. Inspect the hoist regularly, replace damaged or worn parts, and keep appropriate records of maintenance.
- 9. Use the hoist manufacturer's recommended parts when repairing the unit.
- 10. Lubricate load chain per hoist manufacturer's recommendations.
- 11. **NOT** use the hoist load limiting or warning device to measure load.
- 12. NOT operate except with manual power.
- 13. **NOT** permit more than one operator to pull on lever at the same time. More than one operator is likely to cause hoist overload.
- 14. **NOT** allow your attention to be diverted from operating the hoist.
- 15. **NOT** allow the hoist to be subjected to sharp contact with other hoists, structures, or objects through misuse.
- 16. **NOT** adjust or repair the hoist unless qualified to perform such adjustments or repairs.



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HOIST SPECIFICATIONS

Coffing Lever Hoists are made of the best selected materials, to produce top of the line material handling equipment. Coffing Lever Hoists are manufactured and processed through up to date streamlined production facilities by skilled engineers under strict quality control. All lever hoists are tested before leaving our factory.

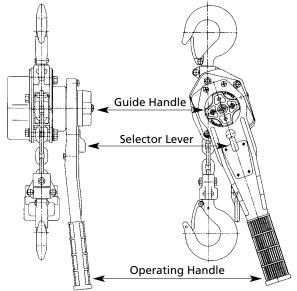


Figure 1 - Lever Hoist

Table 1 - Hoist Specifications

Rated Capacity (tons)	Std. Lift (ft)	dia.	Minimum Distance Between Hooks (in)		Length of operating handle s) (in)		Test Load (tons)
.75	5	ø5.6mmx1	11⁵/₅	46	9 ¹ / ₄	13	1.125
1.5	5	ø7.1mmx1	14 ³¹ / ₃₂	55	13 ³/₄	21	2.25
3	5	ø9mmx1	16 ⁹ / ₁₆	77	13 ³/₄	33	4.5
6	5	ø9mmx2	22 ⁷ /16	84	13³/4	63	9.0

The design, materials and specifications are subject to change for improvements without notice.

APPLICATION INFORMATION

- 1. Inspect carefully for any damage that may occur during shipping. Check for loose, missing, or damaged parts.
- 2. Lubricate the load chain along with whole length with machine oil (See Figure 2).

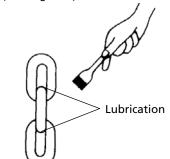


Figure 2 - Chain Lubrication

- 3. Examine the load chain to ensure that there is no twist. When your lever hoist is a 6 ton that lifts on 2 falls of load chains, twists can arise from the bottom hook being accidentally turned over through the load chains (See Figure 3).
- Confirm that the supporting structure is strong enough to support the full rated capacity of the lever hoist with a generous factor of safety.

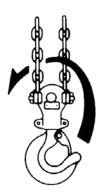
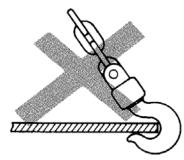


Figure 3 - Correcting Chain Twist



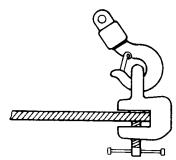
SAFETY INFORMATION

- 1. Keep the load within the rated capacity marked on the lever hoist. An excess load may lead to an accident. The lever hoist is overloaded when the pulling effort indicated in the standard specifications is exceeded (See Table 1).
- Before operating, lift and lower the load about 4" and test the brake system. Ineffective braking may lead to an accident.
- Loads must be lifted as slowly as possible. Load swinging and abrupt shocks will impose on the lever hoist excessive burdens double or more the weight of the load.
- Extreme temperatures will affect the durability of the lever hoist. In subzero temperatures loads must be lifted and lowered very slowly and carefully.





5. When hooking, the load must be applied squarely to the center of the hook and the hook must not come loose during operation. NEVER USE THE HOOK DIRECTLY ON A LOAD (See Figure 4). Use the attachments as shown in Figure 5.





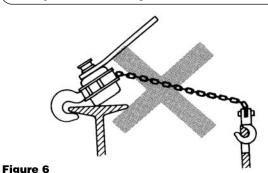
Figures 6 through 9 show improper hooking methods, which may cause the hook to elongate or bend. These hooking methods may also obstruct the load chain flow to the load sheave and prevent the lever hoist from operating properly.

- Never run the chain out too far. When the lever hoist is run out beyond the range of lift, a dangerous excessive load will be imposed on the load chain, stop grip and gearing.
- 7. The selector lever must be set to the "UP" position when the lever hoist is under a load during hoisting or pulling.

8. Lifting a load with two lever hoists is not recommended. If the job is unavoidable, keep the load well within the total rated capacity of the two lever hoists; lift with exceptional care while maintaining proper balance, angle and lifting speed.

ACAUTION

In applications similar to Figures 6 through 9, be sure to use the correct slings and attachments to ensure safe operation and long life of the lever hoist.



A CONTRACT OF CONTRACT.

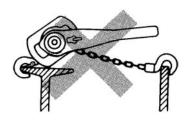


Figure 8

Figure 7







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- 9. Do not throw or drop the lever hoist from high places; do not drag the lever hoist in transportation. Doing so may cause damage that may lead to an accident.
- Never leave or store the lever hoist with the brake system locked. Loosen the brake system by operating the lever hoist as if lowering a load.
- 11. Always service and repair the lever hoist after use. Thoroughly clean the dust or if used in the rain, wipe off the dirt and moisture and lubricate the lever hoist to prevent rust.
- 12. Inspect the hooks and load chain for bends and any other types of defects. Also check to see if the hooks rotate. If any defect is found, replace the defective component before using the lever hoist again.

OPERATION

HOISTING (PULLING) AND LOWERING (RELEASING)

ACAUTION

Do not forget to lubricate the load chain, rotation section of the bottom hook and the chain guides.

1. Hoisting (Pulling)

Set the selector lever to the "UP" position. Take up the slacked load chain by turning the guide handle clockwise. Nest, manipulate the operating handle clockwise.

2. Lowering (Releasing)

Set the selector lever to the "DOWN" position. Manipulate the operating handle counterclockwise. When there is no load on the lever hoist, the load chain can be slacked by turning the guide handle counterclockwise.

FREE-WHEELING

This operation is for making quick large adjustments of the load chain length.

Set the selector lever to the "N" position and pull the load chain out in the desired direction.

Free-chaining will not be possible during the following conditions:

- 1. When the lever hoist is under a load.
- 2. When the guide handle is in contact with something and not rotating freely.
- 3. When the brake has locked from a large or abrupt load: Turn the guide handle 45° counterclockwise to unlock the brake.
- 4. When the brake is locked:

The brake can be unlocked by setting the selector lever to the "DOWN" position and manipulating the operating handle counterclockwise.

RESETTING

The lever hoist will automatically change from the free-chaining condition to the brake locked condition when a load is applied.

Apply the load with one of the following two methods:

- a. Turn the guide handle clockwise till the brake locks from the force of the load.
- b. Pull firmly on the stop grip until the brake locks from the force of the load (See Photo 1).

Next, turn the selector lever to the "UP" position and hoist or pull by manipulating the operating handle.



Photo 1 - Slack Chain Take-Up

MAINTENANCE

The lever hoist is designed and made to withstand heavy-duty materials handling operations, but wear and damage are unavoidable after a long period of use and depending on the place and method of use. This is why we suggest that your company or workshop adapt a periodical inspection program for the lever hoist.

- 1. Never leave the lever hoist in a damp environment or damp weather such as rain. Always store the lever hoist in a dry airy area.
- 2. Proper lubrication will help lengthen the life of the lever hoist. Before storing check to see if the lever hoist is well lubricated. Be especially sure that the moving parts such as gears and bearings are well lubricated.

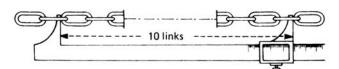
LOAD CHAIN

Load chains worn-out or elongated beyond the permissible dimensions must be replaced at once. Replace the entire load chain immediately if even one link of the load chain is extensively worn-out, elongated or damaged.

HOOKS

If the hook opening is elongated beyond the permissible dimension, the hook is dangerously deformed and must be replaced at once. No deformation of the hook will arise when the lever hoist is used and maintained properly.





Standard (in.)

6.732

8.346

10.748

Limit (in.)

6.866

8.511

10.964

Diameter (ømm)

5.6

7.1

9

Figure 10 - Chain Inspection

Capacity (tons)

.75

1.5

3 & 6

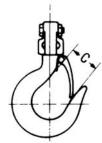


Figure 11 - Hook Inspection

	"C" Dimension		
Capacity (tons)	Standard Size (in.)	Limit (in.)	
.75	1 ³ / ₁₆	1 ⁵/16	
1.5	1 ¹⁷ /32	1 ¹¹ / ₁₆	
3	1 ²¹ / ₃₂	1 ¹³ / ₁₆	
6	2 ³ /64	2 ¹ / ₄	

NOTE: Limit *C (in.) are the maximum permissible dimensions of the hooks, which are about 10% wider than the standard hook openings.

TROUBLE SHOOTING

Probable Cause	Remedy			
Slip caused by ineffective braking.				
 Worn-out friction discs. Excessive oil on the braking surface. Incorrect assembly of the brake system. 	 Replace with new friction discs. Disassemble and clean. Assemble correctly. 			
Load dropped while lowering.				
 Damaged friction discs. Foreign matters in the braking system. 	 Replace with new ones. Disassemble and clean. 			
Jammed operating handle.				
Over-tightening of the brake.	Operate the lever hoist as if lowering a load.			
Noises during hoisting and lowering operation.				
Wear or deformation of the load chain and load sheave.	Replace with new parts.			
Operating handle becomes difficult to operate during lifting or lowering operation.				
 Over-hoisting or over-lowering. Twist in the load chain causing it to get caught between load sheave and load chain guide. 	 Operate the hoist in opposite direction. Operate the hoist in opposite direction and remove the twist from the load chain. 			



NOTES



INSPECTION AND MAINTENANCE CHECK LIST LEVER OPERATED CHAIN HOIST

Type of Hoist ____

Location

Manufacturer_

Capacity (Tons) _

Original Installation Date _____

Manufacturer's Serial No.

Item	Frec	uency of Ins	pection	Possible Deficiencies	OK	Action Required
	Fre	equent	Periodic			Required
	Daily	Monthly	1-12 Mo.			
Load Chain	*	*	*	Inadequate lubrication, excessive wear or stretch, cracked, damaged or twisted links, corrosion or foreign substance		
Hooks	*	*	*	Excessive throat opening, bent or twisted more than 10°, damaged hook latch, wear, chemical damage, cracks		
Hook Retainers	*	*	*	Worn or damaged nuts, pins, washers, collars used to secure hook in load block or housing		
Ratchet Handle Pawl & Load Pawl			*	Wear, cracks, broken teeth Wear, cracks or binding		
Pawl Springs			*	Breaks, corrosion, loss of tension		
Retaining Rings			*	Missing or loss of retention		
Pawl Stud			*	Excessive wear, pawl retention, looseness		
Sheave, Pinion Shaft, Chain Attachments			*	Distortion, cracks, excessive wear, damaged threads, build up of foreign substances		
Gearing			*	Inadequate lubrication, distortion, cracks, worn or broken teeth		
Bearings, Shafts			*	Inadequate lubrication, distortion, cracks, excessive wear		
Housing, Load Block, Outrigger, Hook Swivels			*	Cracks, distortion, loose bolts, nuts or rivets. Internal build up of foreign substances		
Nuts, Bolts, Rivets			*	Looseness, stripped or damaged threads		
Supporting Structure			*	Damage or wear which restricts ability to support imposed loads		
Capacity Plate & Decals			*	Missing, damaged or illegible		
NOTE: Refer to Maintenance and	Inspection Se	ections of the	Hoist-Mainte	nance Manual for further details.		

FREQUENCY OF INSPECTION

Frequent — Indicates items requiring inspection daily to monthly. Daily inspections may be performed by the operator if properly designated.

Periodic — Indicates items requiring inspection monthly to yearly. Inspections to be performed by or under the direction of a properly designated person. The exact period of inspection will depend on frequency and type of usage. Determination of this period will be based on the user's experience. It is recommended that the user begin with a monthly inspection and extend the periods to quarterly, semi-annually or annually based on user's monthly experience.

Figure 12A — Recommended Inspection and Maintenance Check List

NOTE: This inspection and maintenance check list is in accordance with our interpretation of the requirements of the Safety Standard for Overhead Hoists ASME B30.16. It is, however, the ultimate responsibility of the employer/user to interpret and adhere to the applicable requirements of this safety standard.



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	INSPECTOR'S REPORT			
ITEM		REMARKS (LIST DEFICIENCIES AN	ID RECOMMENDED ACTION)	
Inspector's Signature	Date Inspected	Approved by	Date	

Figure 12B — Recommended Inspector's Report

	C	OFFING LEVER OPERATED CHAI	N HOIST			
FIGURE COMPONENT TYPE OF LUBRICANT TYPE OF SERVIC NUMBERS FREQUENCY OF LUBRICANT						
			HEAVY	NORMAL	INFREQUENT	
See Figures 12-15	Load Chain	SAE 20-30 gear oil	Daily	Weekly	Monthly	
See Figures 12-15	Load Pawl Shaft, Pinion Shaft, Gear & Bearings, Pinion & Gear Teeth	Multi-purpose Lithium base bearing grease	At periodic i	At periodic inspection (see Figure 10A)		
See Figures 12-15	Bottom Block Shaft, Bearing & Hook Swivel	SAE 20-30 gear oil	Monthly	Yearly	Yearly	

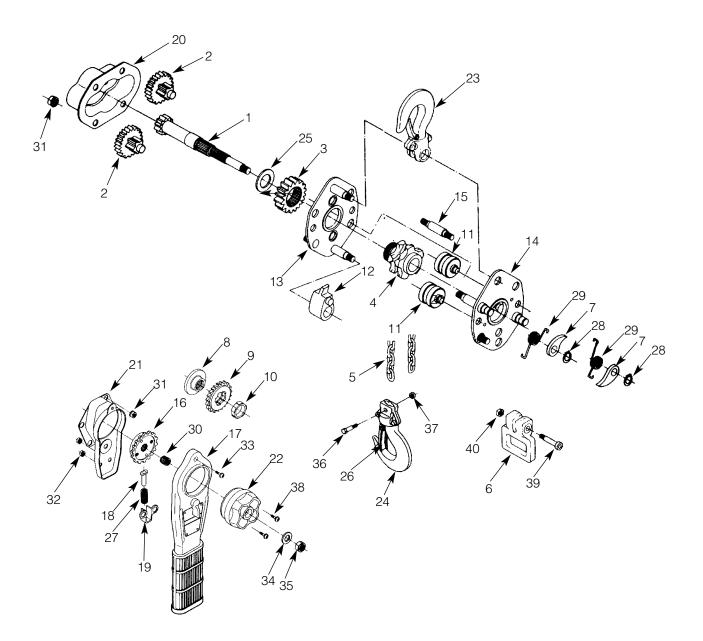
(*) This lubrication schedule is based on a hoist operating in normal environment conditions. Hoists operating in adverse atmospheres containing excessive heat, corrosive fumes or vapors, abrasive dust, etc., should be lubricated more frequently.

CAUTION - DO NOT LUBRICATE BRAKE AREA OF HOIST.

Figure 13 — Recommended Lubrication Schedule



Figure 14 - 0.75 Ton Model



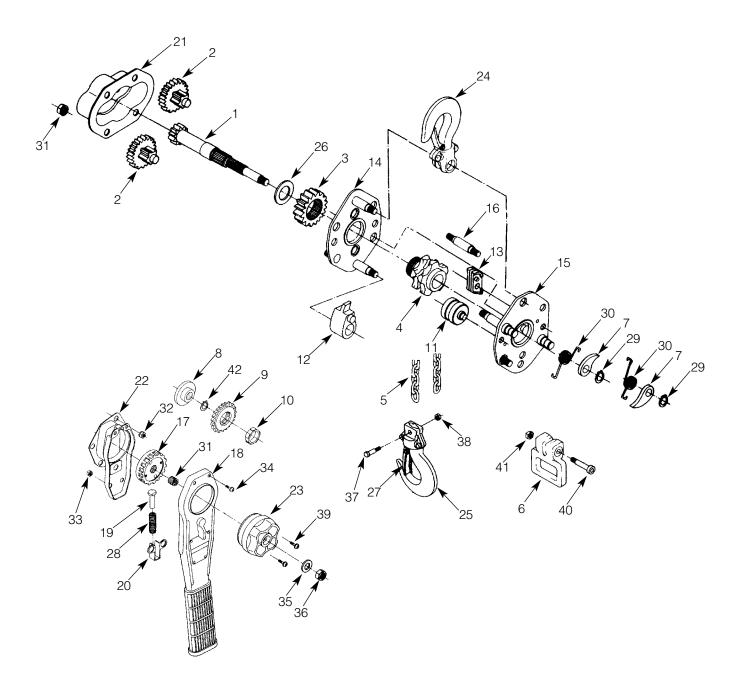


Parts List for 0.75 Ton Model

Ref.	St for 0.75 fon Model	Part	
No.	Description	No.	Qty
1	Pinion Shaft	IRB4001	1
2	Pinion with Pinion Gear	IRB4002T	2
3	Load Gear	IRB4004	1
4	Load Sheave	IRB4005	1
5	Load Chain	T56	1
6	Stop Grip	IRB40062	1
7	Pawl	IRB4007	2
8	Disc Hub	IRB4008	1
9	Ratchet Wheel	IRB4009	1 set
10	Interlocking Ring	IRB4011	1
11	Chain Guide	IRB4012A	2
12	Stripper	IRB4015A	1
13	Gear Side Plate	IRB4018A	1
14	Handle Side Plate	IRB4020A	1
15	Stay Bolt (D)	IRB4021	1
16	Disc Nut	IRB4023	1
17	Operating Handle	IRB4024	1
18	Spring Shaft	IRB4030	1
19	Shaft Base	IRB4031	1
20	Gear Cover	IRB4037	1
21	Ratchet Cover	IRB4040T	1
22	Guide Handle	IRB4042	1
23	Top Hook Assembly	IRB4048U	1
24	Bottom Hook Assembly	IRB4053U	1
25	Pinion Shaft Washer	IRB4059	1
26	Safety Latch Assembly	JHH5074T	2
27	Change-over Spring	IRB4101	1
28	Snap Ring	SRC51010	2
29	Pawl Spring	IRB4104	2
30	Free-Wheeling Spring	IRB4106	1
31	Spring Nut	HSNM8	8
32	Spring Nut	HSNM6	2
33	Screw & Spring Washer	CMSM6 x 10S2	1
34	Flat Washer	IRB4136	1
35	Lock Nut	HNNM8	1
36	Chain Fastening Bolt	IRB4124	1
37	Lock Nut	HUN1M6	1
38	Screw & Spring Washer	CMSM6 x 25S2	2
39	Socket Bolt	CBM6 x 35	1
40	Lock Nut	HNNM6	1



Figure 15 - 1.5 Ton Model



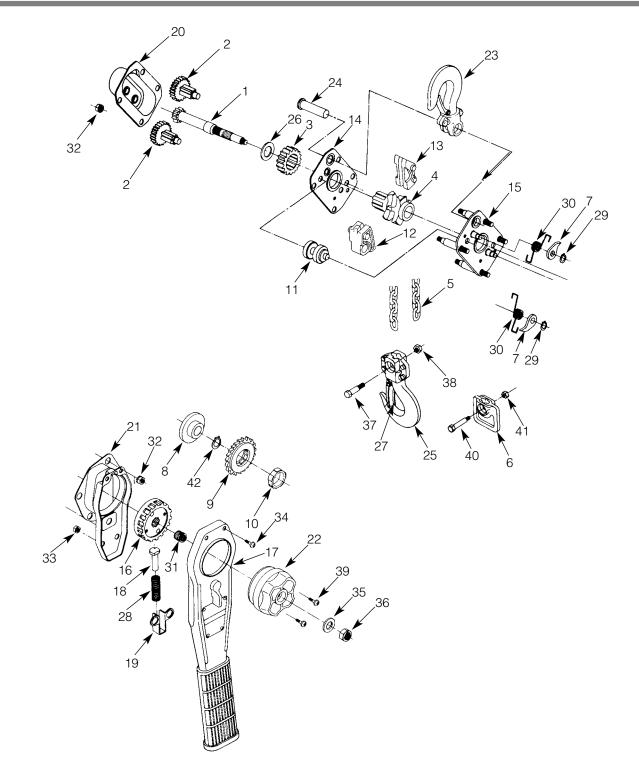


Parts List for 1.5 Ton Model

Ref.	Tor 1.5 Ton Model	Part	
No.	Description	No.	Qty
1	Pinion Shaft	KRB4001	1
2	Pinion with Pinion Gear	KRB4002T	2
3	Load Gear	KRB4004	1
4	Load Sheave	KRB4005	1
5	Load Chain	V71	1
6	Stop Grip	KRB40062	1
7	Pawl	IRB4007	2
8	Disc Hub	KRB4008	1
9	Ratchet Wheel	KRB4009	1 set
10	Interlocking Ring	KRB4011	1
11	Chain Guide	KRB4012A	1
12	Stripper	KRB4015A	1
13	Chain Guide	KRB4017	1
14	Gear Side Plate	KRB4018A	1
15	Handle Side Plate	KRB4020A	1
16	Stay Bolt (D)	KRB4021	1
17	Disc Nut	KRB4023	1
18	Operating Handle	NRB4024	1
19	Spring Shaft	IRB3030	1
20	Shaft Base	IRB3031	1
21	Gear Cover	KRB4037	1
22	Ratchet Cover	KRB4040T	1
23	Guide Handle	IRB4042	1
24	Top Hook Assembly	KRB4048U	1
25	Bottom Hook Assembly	KRB4053U	1
26	Pinion Shaft Washer	IRB4059	1
27	Safety Latch Assembly	KHH5074T	2
28	Change Over Spring	IRB3116	1
29	Snap Ring	SRC51010	2
30	Pawl Spring	KRB4104	2
31	Free Wheeling Spring	KRB4106	1
32	Spring Nut	HSNM8	8
33	Spring Nut	HSNM8	2
34	Screw & Spring Washer	CMSM6 x 10S2	2
35	Flat Washer	IRB4136	1
36	Lock Nut	HNNM8	1
37	Chain Fastening Bolt	KHH5048	1
38	Lock Nut	HUN1M8	1
39	Screw & Spring Washer	CMSM6 x 25S2	2
40	Socket Bolt	CBM8 x 50	1
41	Lock Nut	HNNM8	1
42	Snap Ring	SRC51014	1



Figure 16 - 3 Ton Model



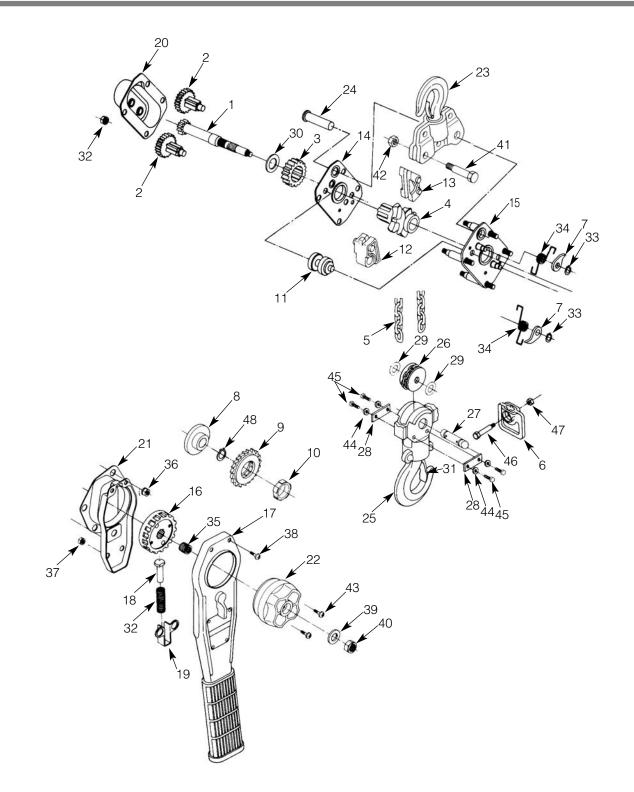


Parts List for 3 Ton Model

Pinion Shaft NRB4001 1 2 Pinion with Pinion Gear NRB40021 2 3 Load Gear NRB4004 1 4 Load Sheave NRB4005 1 5 Lead Chain V9 1 6 Stop Grip NRB4007 2 7 Pawl NRB4007 2 8 Disc Hub KRB4008 1 9 Ratchet Wheel KRB4009 1 set 10 Interlocking Ring KRB4011 1 11 Chain Guide NRB4015 1 12 Stripper NRB4015 1 13 Chain Guide NRB4018 1 14 Gear Side Plate NRB4020 1 15 Handle Side Plate NRB4020 1 16 Disc Nut KRB4023 1 17 Operating Handle NRB4020 1 18 Spring Shaft IRB3030 1 19 <td< th=""><th>Ref. No.</th><th>Description</th><th>Part No.</th><th>Qty</th></td<>	Ref. No.	Description	Part No.	Qty
3Load GearNRB400414Load SheaveNRB400515Load ChainV916Stop GripNRB4006217PawlNRB400728Disc HubKRB400819Ratchet WheelKRB40091 set10Interlocking RingKRB4011111Chain GuideNRB4012112StripperNRB4016113Chain GuideNRB4017114Gear Side PlateNRB4020115Handle Side PlateNRB4024116Disc NutKRB4023117Operating HandleNRB4024118Spring ShaftIRB3030120Gear CoverNRB40407121Ratchet CoverNRB40407122Guide HandleIRB4042123Top Hook AssemblyNRB40431124Yoke PinNRB4053U125Bottom Hook AssemblyNRB4053U126Prinion Shaft WasherNRB4053U127Safey Latch AssemblyNRB4053U128Change Over SpringIRB4166129Snap RingSRC51012230Pring NutHSNM10833Spring NutHSNM10834Serew & Spring WasherIRM5106135Flat WasherIRM5106136 </td <td>1</td> <td>Pinion Shaft</td> <td>NRB4001</td> <td></td>	1	Pinion Shaft	NRB4001	
4Load SheaveNRB400515Load ChainV916Stop GripNRB400727PawlNRB400728Disc HubKRB400819Ratchet WheelKRB4008110Interfocking RingKRB4011111Chain GuideNRB4012112StripperNRB4017113Chain GuideNRB4017114Gear Side PlateNRB4018115Handle Side PlateNRB4020116Disc NutKRB4023117Operating HandleNRB4023118Spring ShaftIRB3030119Shaft BaseIRB3031120Gear CoverNRB4031121Ratchet CoverNRB40431122Guide HandleIRB4042123Top Hook AssemblyNRB40631124Yoke PinNRB40531125Bottom Hook AssemblyNRB40531126Pinion Shaft WasherRB40531127Safet Lath AssemblyIRB3116128Change Over SpringIRB3116129Snap RingSC112231Free Wheeling SpringNR84106132Spring NutHSM1082233Spring NutHSM108134Sorew & Spring WasherCMSM8 x 10S22 <td>2</td> <td>Pinion with Pinion Gear</td> <td>NRB4002T</td> <td>2</td>	2	Pinion with Pinion Gear	NRB4002T	2
5 Load Chain V9 1 6 Stop Grip NRB40062 1 7 Pawl NRB40062 1 7 Pawl NRB40062 1 8 Disc Hub NRB4010 1 9 Ratchet Wheel KRB4009 1 set 10 Interiocking Ring KRB4011 1 11 Chain Guide NRB4012 1 12 Stripper NRB4015 1 13 Chain Guide NRB4017 1 14 Gear Side Plate NRB4013 1 15 Handle Side Plate NRB4020 1 16 Disc Nut KRB4023 1 17 Operating Handle NRB4024 1 18 Spring Shaft IRB3031 1 19 Shaft Base IRB4032 1 21 Ratchet Cover NRB4031 1 22 Guide Handle IRB4042 1 23	3	Load Gear	NRB4004	1
6Stop GripNRB4006217PawlNRB400728Disc HubRRB400819Ratchet WheelKRB40081 set10Interlocking RingKRB4011111Chain GuideNRB4015112StripperNRB4015113Chain GuideNRB4017114Gear Side PlateNRB4018115Handle Side PlateNRB4020116Disc NutKRB4023117Operating HandleNRB4021118Spring ShaftIRB3031120Gear CoverNRB4027121Ratchet CoverNRB4037122Guide HandleIRB40427123Top Hook AssemblyNRB4031124Yoke PinNRB40401125Bottom Hook AssemblyNRB4053126Prinon Shaft WasherNRB4053127Salety Latch AssemblyRB4053128Change Over SpringIRB3116129Snap RingSrC1012230Pawl Spring NutHSM100833Spring NutHSM106134Screw & Spring WasherCMSM6 x 10S2235Flat WasherIRB4136136Lock NutHNNM8137Chain Fastening BoltNRB4124138Lock NutHNNM81 <td>4</td> <td>Load Sheave</td> <td>NRB4005</td> <td>1</td>	4	Load Sheave	NRB4005	1
7PawlNRB400728Disc HubKRB400819Ratchet WheelKRB40091 set10Interlocking RingKRB4011111Chain GuideNRB4012112StripperNRB4015113Chain GuideNRB4017114Gear Side PlateNRB4018115Handle Side PlateNRB4023116Disc NutKRB4023117Operating HandleIRB3030118Spring ShaftIRB3031120Gear CoverNRB4027121Ratchet CoverNRB4037122Guide HandleIRB4047123Top Hook AssemblyNRB40407124Yoke PinNRB4041125Bottom Hook AssemblyNRB4051126Pinion Shaft WasherNRB4051127Safety Latch AssemblyNRB4051128Change Over SpringIRB3116129Snap RingSRC5102230Pawl Spring NutHSM100831Free Wheeling SpringRH8136132Spring NutHSM108134Sorew & Spring WasherCMSM6 x 10S2235Flat WasherRH3136136Lock NutHNNM6137Chain Fastening BoltNRB4124138Lock NutHNNM6	5	Load Chain	V9	1
8Disc HubKRB400819Ratchet WheelKRB40091 set10Interlocking RingKRB4010111Chain GuideRRB4011112StripperNRB4015113Chain GuideNRB4017114Gear Side PlateNRB4018115Handle Side PlateNRB4020116Disc NutKRB4023117Operating HandleNRB4024118Spring ShaftIRB3030120Gear CoverNRB4037121Ratchet CoverNRB40407122Guide HandleIRB4042123Top Hook AssemblyNRB40830124Yoke PinNRB4051125Bottom Hook AssemblyNRB40530126Pinion Shaft WasherNRB4051127Safety Latch AssemblyIRB3116128Change Over SpringIRB3116129Snap RingSRC51012231Free Wheeling SpringIRB316132Spring NutHSM10833Spring NutHSM10134Screw & Spring WasherCMSM6 x 10S2235Find WasherIRB4136136Lock NutHNIM6137Chain Fastening BoltNRB4124138Lock NutHNIM6139Screw & Spring WasherC	6	Stop Grip	NRB40062	1
9Ratchet WheelKRB40091 set10Interlocking RingKRB4011111Chain GuideNRB4012112StripperNRB4015113Chain GuideNRB4017114Gear Side PlateNRB4018115Handle Side PlateNRB4023116Disc NutKRB4023117Operating HandleNRB4024118Spring ShaftIRB3031120Gear CoverNRB4037121Ratchet CoverNRB40407122Guide HandleIRB4042123Top Hook AssemblyNRB4051124Yoke PinNRB4051125Bottom Hook AssemblyNRB4053126Pinion Shaft WasherNRB4051127Safety Latch AssemblyHR5031128Change Over SpringIRB316129Snap RingSRC51012230Pawl Spring NutHSM10831Free Wheeling SpringKH5010232Spring NutHSM10833Spring NutHSM10134Cack NutHNNM8137Chain Fastening BoltNRB4124138Lock NutHNNM8139Screw & Spring WasherCMSM6 x 2SS2236Lock NutHNNM6137Chain Fastening BoltKME40	7	Pawl	NRB4007	2
10Interlocking RingKRB4011111Chain GuideNRR4012112StripperNRR4016113Chain GuideNRR4016114Gear Side PlateNRR4018115Handle Side PlateNRB4020116Disc NutKRR4023117Operating HandleNR84024118Spring ShaftIRB3030120Gear CoverNR84037121Ratchet CoverNR840407122Guide HandleIRB4042123Top Hook AssemblyNR84081124Yoke PinNR84051125Bottom Hook AssemblyNR84059126Pinion Shaft WasherNR84059127Safety Latch AssemblyKHH5074T228Change Over SpringIRB3116129Snap RingSRC51012230Pawl SpringNR84106131Free Wheeling SpringNR84106132Spring NutHSM10834Screw & Spring WasherIRB4136135Iat WasherIRB4136136Lock NutHNNM8137Chain Fastening BoltNR84124138Lock NutHNM8139Screw & Spring WasherIRB4136139Screw & Spring WasherINSM6 x2552230Screw & Spri	8	Disc Hub	KRB4008	1
11 Chain Guide NRB4012 1 12 Stripper NRB4015 1 13 Chain Guide NRB4015 1 14 Gear Side Plate NRB4017 1 15 Handle Side Plate NRB4020 1 16 Disc Nut KRB4023 1 17 Operating Handle NRB4024 1 18 Spring Shaft IRB3030 1 19 Shaft Base IRB3031 1 20 Gear Cover NRB4040T 1 21 Ratchet Cover NRB4037 1 22 Guide Handle NRB4040T 1 23 To Hook Assembly NRB4048U 1 24 Yoke Pin NRB4051 1 25 Bottom Hook Assembly NRB4059 1 26 Prinion Shaft Washer NRB4059 1 27 Safety Latch Assembly KHH5074T 2 28 Change Over Spring RRB4106	9	Ratchet Wheel	KRB4009	1 set
12StripperNRB4015113Chain GuideNRB4017114Gear Side PlateNRB4017115Handle Side PlateNRB4020116Disc NutKRB4023117Operating HandleNRB4024118Spring ShaftIRB3030119Shaft BaseIRB3031120Gear CoverNRB4037121Ratchet CoverNRB40407122Guide HandleIRB4042123Top Hook AssemblyNRB40401124Yoke PinNRB4051125Bottom Hook AssemblyNRB4051126Pinion Shaft WasherNRB4053U127Safety Latch AssemblyKHH5074T228Change Over SpringIRB3116129Snap RingSRC51012230Pawl SpringSRC51012231Free Wheeling SpringHSNM10833Spring NutHSNM6134Sorew & Spring WasherCMSM6 x 10S2235Flat WasherIRB4136136Lock NutHNNM8137Chain Fastening BoltNRB4124138Lock NutHNNM8139Screw & Spring WasherCMSM6 x 25S2240Socket BoltLiH5048139Screw & Spring WasherLiH50481	10	Interlocking Ring	KRB4011	1
13 Chain Guide NRB4017 1 14 Gear Side Plate NRB4018 1 15 Handle Side Plate NRB4020 1 16 Disc Nut KRB4023 1 17 Operating Handle IRB3030 1 18 Spring Shaft IRB3030 1 20 Gear Cover IRB3031 1 21 Ratchet Cover NRB4042 1 22 Guide Handle IRB4042 1 23 Top Hook Assembly NRB40401 1 24 Yoke Pin NRB4051 1 25 Bottom Hook Assembly NRB4053U 1 26 Pinion Shaft Washer NRB4053U 1 27 Safety Latch Assembly NRB4053U 1 28 Change Over Spring IRB3116 1 29 Snap Ring SRC51012 2 30 Pawl Spring Nut HSNM10 8 33 Spring Nut HSNM2	11	Chain Guide	NRB4012	1
14Gear Side PlateNRB4018115Handle Side PlateNRB4020116Disc NutKRB4023117Operating HandleNRB4024118Spring ShaftIRB3030119Shaft BaseIRB3031120Gear CoverNRB4037121Ratchet CoverNRB40407122Guide HandleIRB4042123Top Hook AssemblyNRB4048U124Yoke PinNRB4051125Bottom Hook AssemblyNRB4053U126Pinion Shaft WasherNRB4059127Safety Latch AssemblyKHH5074T228Change Over SpringIRB3116129Snap RingSRC51012230Pawl SpringKHH5010231Free Wheeling SpringNRB4106132Spring NutHSNM8234Spring NutHSNM8235Flat WasherIRB4136136Lock NutINRB4124137Chain Fastening BoltNRB4124138Lock NutHUN1101139Strew & Spring WasherGMSM6 x2SS2240Socket BoltLHH5048134Screw & Spring WasherGMSM6 x2SS2241Lock NutLock NutHNM81	12	Stripper	NRB4015	1
15Handle Side PlateNRB4020116Disc NutKRB4023117Operating HandleNRB4024118Spring ShaftIRB3030119Shaft BaseIRB3031120Gear CoverNRB4037121Ratchet CoverNRB40407122Guide HandleIRB4042123Top Hook AssemblyNRB40417124Yoke PinNRB4051125Bottom Hook AssemblyNRB4053126Pinion Shaft WasherNRB4053127Safety Latch AssemblyNRB4059128Change Over SpringIRB3116129Snap RingSRC51012230Pawl SpringSRC51012231Free Wheeling SpringNRB4106132Spring NutHSNM10833Spring NutHSNM8234Screw & Spring WasherCMSM6 x 10S2235Flat WasherIRB4136136Lock NutHNM8137Chain Fastening BoltNRB4124138Lock NutHUN1101139Screw & Spring WasherCMSM6 x 2SS2240Socket BoltLindsonLindson139Screw & Spring WasherCMSM6 x 2SS2240Socket BoltLindson139Screw & Spring WasherCMSM6 x 2SS22	13	Chain Guide	NRB4017	1
16Disc NutKRB4023117Operating HandleNRB4024118Spring ShaftIRB3030119Shaft BaseIRB3031120Gear CoverNRB4037121Ratchet CoverNRB4040T122Guide HandleIRB4042123Top Hook AssemblyNRB4040T124Yoke PinNRB4051125Bottom Hook AssemblyNRB4053U126Pinion Shaft WasherNRB4053U127Safety Latch AssemblyNRB40574T228Change Over SpringIRB3116129Snap RingSRC51012230Pawl SpringKHH5074T231Free Wheeling SpringNRB4106133Spring NutHSN100833Spring NutHSN100834Sorew & Spring WasherCMSM6 x 10S2235Flat WasherIRB4136136Lock NutHNNM8137Chain Fastening BoltNRB4124138Lock NutHUN11100139Srew & Spring WasherCMSM6 x 25S2240Socket BoltLiH5048141Lock NutHNNM81	14	Gear Side Plate	NRB4018	1
17Operating HandleNRB4024118Spring ShaftIRB3030119Shaft BaseIRB3031120Gear CoverNRB4037121Ratchet CoverNRB4037122Guide HandleIRB4042123Top Hook AssemblyNRB40401124Yoke PinNRB4051125Bottom Hook AssemblyNRB4053U126Pinion Shaft WasherNRB4053U127Safety Latch AssemblyKHH5074T228Change Over SpringIRB3116129Snap RingSRC51012230Pawl SpringNutKHH5010231Free Wheeling SpringNRB4106132Spring NutHSNM10833Spring NutScrew & Spring WasherCMSM6 x 10S2234Screw & Spring WasherIRB4136136Lock NutHNNM8137Chain Fastening BoltMRB4124138Lock NutHUN1110139Screw & Spring WasherCMSM6 x 25S2240Socket BoltLuH5048141Lock NutHNNM81	15	Handle Side Plate	NRB4020	1
18Spring ShaftIRB3030119Shaft BaseIRB3031120Gear CoverNRB4037121Ratchet CoverNRB4040T122Guide HandleIRB4042123Top Hook AssemblyNRB4048U124Yoke PinNRB4051125Bottom Hook AssemblyNRB4053U126Pinion Shaft WasherNRB4059127Safety Latch AssemblyKHH5074T228Change Over SpringIRB3116129Snap RingSRC51012230Pawl SpringSRC51012231Free Wheeling SpringNRB4106132Spring NutHSNM8234Screw & Spring WasherCMSM6 x 10S2235Flat WasherIRB4136136Lock NutHNNM8137Chain Fastening BoltNRB4124138Lock NutHUN1M10139Screw & Spring WasherCMSM6 x 25S2240Socket BoltLHH5048141Lock NutHNNM81	16	Disc Nut	KRB4023	1
19NatIRB3031120Gear CoverNRB4037121Ratchet CoverNRB4040T122Guide HandleIRB4042123Top Hook AssemblyNRB4048U124Yoke PinNRB4051125Bottom Hook AssemblyNRB4053U126Pinion Shaft WasherNRB4059127Safety Latch AssemblyKHH5074T228Change Over SpringIRB3116129Snap RingSRC51012230Pawl SpringKHH5010231Free Wheeling SpringNRB4106132Spring NutHSNM10833Spring NutHSNM8234Screw & Spring WasherCMSM6 x10S2235Flat WasherIRB4136136Lock NutHNNM8137Chain Fastening BoltNRB4124138Lock NutHUN1110139Screw & Spring WasherCMSM6 x25S2240Socket BoltLH50481	17	Operating Handle	NRB4024	1
20Gear CoverNRB4037121Ratchet CoverNRB4040T122Guide HandleIRB4042123Top Hook AssemblyNRB4048U124Yoke PinNRB4051125Bottom Hook AssemblyNRB4053U126Pinion Shaft WasherNRB4059127Safety Latch AssemblyKHH5074T228Change Over SpringIRB3116129Snap RingSRC51012230Pawl Spring NutSRC51012231Free Wheeling SpringNRB4106132Spring NutHSNM8234Screw & Spring WasherCMSM6 x 10S2235Flat WasherIRB4136136Lock NutHNNM8137Chain Fastening BoltNRB4124138Lock NutHUN1110139Screw & Spring WasherCMSM6 x 25S2240Socket BoltLHH5048141Lock NutHNNM81	18	Spring Shaft	IRB3030	1
21Ratchet CoverNRB4040T122Guide HandleIRB4042123Top Hook AssemblyNRB408U124Yoke PinNRB4051125Bottom Hook AssemblyNRB4053U126Pinion Shaft WasherNRB4059127Safety Latch AssemblyKHH5074T228Change Over SpringIRB3116129Snap RingSRC51012230Pawl SpringKHH5070231Free Wheeling SpringNRB4106132Spring NutHSNM10833Spring NutHSNM8234Screw & Spring WasherCMSM6 x 10S2235Flat WasherIRB4136136Lock NutHNNM8137Chain Fastening BoltNRB4124138Lock NutHUN1110139Socket BoltLHH5048141Lock NutHNNM81	19	Shaft Base	IRB3031	1
22Guide HandleIRB4042123Top Hook AssemblyNRB4048U124Yoke PinNRB4051125Bottom Hook AssemblyNRB4053U126Pinion Shaft WasherNRB4059127Safety Latch AssemblyKHH5074T228Change Over SpringIRB3116129Snap RingSRC51012230Pawl SpringKHH5010231Free Wheeling SpringNRB4106132Spring NutHSNM10833Spring NutSNRS234Screw & Spring WasherCMSM6 x 10S2235Flat WasherIRB4136136Lock NutHNNM8137Chain Fastening BoltNRB4124138Lock NutHUN1M10139Screw & Spring WasherCMSM6 x 25S2240Socket BoltLHH5048141Lock NutHNNM81	20	Gear Cover	NRB4037	1
23Top Hook AssemblyNRB4048U124Yoke PinNRB4051125Bottom Hook AssemblyNRB4053U126Pinion Shaft WasherNRB4059127Safety Latch AssemblyKHH5074T228Change Over SpringIRB3116129Snap RingSRC51012230Pawl SpringKHH5010231Free Wheeling SpringNRB4106132Spring NutHSNM8234Screw & Spring WasherCMSM6 x 10S2235Flat WasherIRB4136136Lock NutHNNM8137Chain Fastening BoltNRB4124138Lock NutHUN1M10139Screw & Spring WasherCMSM6 x 25S2240Socket BoltLHH5048141Lock NutHNNM81	21	Ratchet Cover	NRB4040T	1
24Yoke PinNRB4051125Bottom Hook AssemblyNRB4053U126Pinion Shaft WasherNRB4059127Safety Latch AssemblyKHH5074T228Change Over SpringIRB3116129Snap RingSRC51012230Pawl SpringKHH5010231Free Wheeling SpringNRB4106132Spring NutHSNM10833Spring NutHSNM8234Screw & Spring WasherCMSM6 x 10S2235Flat WasherIRB4136136Lock NutHNNM8137Chain Fastening BoltNRB4124138Lock NutHUN1110139Screw & Spring WasherCMSM6 x 25S2240Socket BoltLHH5048141Lock NutHNNM81	22	Guide Handle	IRB4042	1
25Bottom Hook AssemblyNRB4053U126Pinion Shaft WasherNRB4059127Safety Latch AssemblyKHH5074T228Change Over SpringIRB3116129Snap RingSRC51012230Pawl SpringKHH5010231Free Wheeling SpringNRB4106132Spring NutHSNM10833Spring NutHSNM8234Screw & Spring WasherCMSM6 x 10S2235Flat WasherIRB4136136Lock NutHNNM8137Chain Fastening BoltNRB4124138Lock NutLOck Nut139Screw & Spring WasherCMSM6 x 25S2240Socket BoltLHH5048141Lock NutHNNM81	23	Top Hook Assembly	NRB4048U	1
26Pinion Shaft WasherNRB4059127Safety Latch AssemblyKHH5074T228Change Over SpringIRB3116129Snap RingSRC51012230Pawl SpringKHH5010231Free Wheeling SpringNRB4106132Spring NutHSNM10833Spring NutHSNM8234Screw & Spring WasherCMSM6 x 10S2235Flat WasherIRB4136136Lock NutHNNM8137Chain Fastening BoltNRB4124138Lock NutHUN1M10139Screw & Spring WasherCMSM6 x 25S2240Socket BoltLHH5048141Lock NutHNNM81	24	Yoke Pin	NRB4051	1
27Safety Latch AssemblyKHH5074T228Change Over SpringIRB3116129Snap RingSRC51012230Pawl SpringKHH5010231Free Wheeling SpringNRB4106132Spring NutHSNM10833Spring NutHSNM8234Screw & Spring WasherCMSM6 x 10S2235Flat WasherIRB4136136Lock NutHNNM8137Chain Fastening BoltNRB4124139Screw & Spring WasherCMSM6 x 25S2240Socket BoltLHH5048141Lock NutHNNM81	25	Bottom Hook Assembly	NRB4053U	1
28Change Over SpringIRB3116129Snap RingSRC51012230Pawl SpringKHH5010231Free Wheeling SpringNRB4106132Spring NutHSNM10833Spring NutHSNM8234Screw & Spring WasherCMSM6 x 10S2235Flat WasherIRB4136136Lock NutHNNM8137Chain Fastening BoltNRB4124138Lock NutHUN1M10139Screw & Spring WasherCMSM6 x 25S2240Socket BoltLHH5048141Lock NutHNNM81	26	Pinion Shaft Washer	NRB4059	1
29Snap RingSRC51012230Pawl SpringKHH5010231Free Wheeling SpringNRB4106132Spring NutHSNM10833Spring NutHSNM8234Screw & Spring WasherCMSM6 x 10S2235Flat WasherIRB4136136Lock NutHNNM8137Chain Fastening BoltNRB4124138Lock NutHUN1M10139Screw & Spring WasherCMSM6 x 25S2240Socket BoltLHH5048141Lock NutHNNM81	27	Safety Latch Assembly	KHH5074T	2
30Pawl SpringKHH5010231Free Wheeling SpringNRB4106132Spring NutHSNM10833Spring NutHSNM8234Screw & Spring WasherCMSM6 x 10S2235Flat WasherIRB4136136Lock NutHNNM8137Chain Fastening BoltNRB4124138Lock NutHUN1M10139Screw & Spring WasherCMSM6 x 25S2240Socket BoltLHH5048141Lock NutHNNM81	28	Change Over Spring	IRB3116	1
31Free Wheeling SpringNRB4106132Spring NutHSNM10833Spring NutHSNM8234Screw & Spring WasherCMSM6 x 10S2235Flat WasherIRB4136136Lock NutHNNM8137Chain Fastening BoltNRB4124138Lock NutHUN1M10139Screw & Spring WasherCMSM6 x 25S2240Socket BoltLHH5048141Lock NutHNNM81	29	Snap Ring	SRC51012	2
32Spring NutHSNM10833Spring NutHSNM8234Screw & Spring WasherCMSM6 x 10S2235Flat WasherIRB4136136Lock NutHNNM8137Chain Fastening BoltNRB4124138Lock NutHUN1M10139Screw & Spring WasherCMSM6 x 25S2240Socket BoltLHH5048141Lock NutHNNM81	30	Pawl Spring	KHH5010	2
33Spring NutHSNM8234Screw & Spring WasherCMSM6 x 10S2235Flat WasherIRB4136136Lock NutHNNM8137Chain Fastening BoltNRB4124138Lock NutHUN1M10139Screw & Spring WasherCMSM6 x 25S2240Socket BoltLHH5048141Lock NutHNNM81	31	Free Wheeling Spring	NRB4106	1
34Screw & Spring WasherCMSM6 x 10S2235Flat WasherIRB4136136Lock NutHNNM8137Chain Fastening BoltNRB4124138Lock NutHUN1M10139Screw & Spring WasherCMSM6 x 25S2240Socket BoltLHH5048141Lock NutHNNM81	32	Spring Nut	HSNM10	8
35Flat WasherIRB4136136Lock NutHNNM8137Chain Fastening BoltNRB4124138Lock NutHUN1M10139Screw & Spring WasherCMSM6 x 25S2240Socket BoltLHH5048141Lock NutHNNM81	33	Spring Nut	HSNM8	2
36Lock NutHNNM8137Chain Fastening BoltNRB4124138Lock NutHUN1M10139Screw & Spring WasherCMSM6 x 25S2240Socket BoltLHH5048141Lock NutHNNM81	34	Screw & Spring Washer	CMSM6 x 10S2	2
37Chain Fastening BoltNRB4124138Lock NutHUN1M10139Screw & Spring WasherCMSM6 x 25S2240Socket BoltLHH5048141Lock NutMNM81	35	Flat Washer	IRB4136	1
38 Lock Nut HUN1M10 1 39 Screw & Spring Washer CMSM6 x 25S2 2 40 Socket Bolt LHH5048 1 41 Lock Nut HNNM8 1	36	Lock Nut	HNNM8	1
39 Screw & Spring Washer CMSM6 x 25S2 2 40 Socket Bolt LHH5048 1 41 Lock Nut HNNM8 1	37	Chain Fastening Bolt	NRB4124	1
40 Socket Bolt LHH5048 1 41 Lock Nut HNNM8 1	38	Lock Nut	HUN1M10	1
41Lock NutHNNM81	39	Screw & Spring Washer	CMSM6 x 25S2	2
	40	Socket Bolt	LHH5048	1
42 Snap Ring SRC51014 1	41	Lock Nut	HNNM8	1
	42	Snap Ring	SRC51014	1



Figure 17 - 6 Ton Model



Parts List for 6 Ton Model

Ref.		Part	
No.	Description	No.	Qty
1	Pinion Shaft	NRB4001	1
2	Pinion with Pinion Gear	NRB4002T	2
3	Load Gear	NRB4004	1
4	Load Sheave	NRB4005	1
5	Load Chain	V9	1
6	Stop Grip	NRB40062	1
7	Pawl	NRB4007	2
8	Disc Hub	KRB4008	1
9	Ratchet Wheel	KRB4009	1 set
10	Interlocking Ring	KRB4011	1
11	Chain Guide	NRB4012	1
12	Stripper	NRB4015	1
13	Chain Guide	NRB4017	1
14	Gear Side Plate	NRB4018	1
15	Handle Side Plate	NRB4020	1
16	Disc Nut	KRB4023	1
17	Operating Handle	NRB4024	1
18	Spring Shaft	IRB3030	1
19	Shaft Base	IRB3031	1
20	Gear Cover	NRB4037	1
21	Ratchet Cover	NRB4040T	1
22	Guide Handle	IRB4042	1
23	Top Hook Assembly	QRB4048U	1
24	Yoke Pin	NRB4051	1
25	Bottom Hook Assembly	QRB4053U	1
26	Chain Wheel	QRB4055	1
27	Wheel Pin	QRB3056	1
28	Key Plate	QRB3079	2
29	Wheel Washer	HH4100083	2
30	Pinion Shaft Washer	NRB4059	1
31	Safety Latch Assembly	HH4060074T	2
32	Change Over Spring	IRB3116	1
33	Snap Ring	SRC51012	2
34	Pawl Spring	KHH5010	2
35	Free Wheeling Spring	NRB4106	1
36	Spring Nut	HSNM10	8
37	Spring Nut	HSNM8	2
38	Screw & Spring Washer	CMSM6 x 10S2	2
39	Flat Washer	IRB4136	1
40	Lock Nut	HNNM8	1
41	Chain Fastening Bolt	QRB4124	1
42	Lock Nut	HNNM10	1
43	Screw & Spring Washer	CMSM6 x 25S2	2
44	Spring Washer for 141	SWM8	4
45	Hexagon Bolt	HBM8 x 16B	4
46	Socket Bolt	LHH5048	1
47	Lock Nut	HNNM8	1
48	Snap Ring	SRC51014	1



COFFING AUTHORIZED WARRANTY REPAIR CENTERS AND PARTS DEPOTS

As a Coffing Hoist user, you are assured of reliable repair and parts services through a network of Master Parts Depots and Service Centers that are strategically located across the United States, its territories and Canada. These facilities have been selected on the basis of their demonstrated ability to handle all parts and repair requirements promptly and efficiently.

Below is a list of the Coffing Authorized Warranty Repair Centers and Parts Depots located in United States, its territories and Canada. To quickly obtain the name of a Service Center located nearest you, call (800) 477-5004. Fax: (800) 374-6853. In the following list, the Canadian Service Centers are indicated.

ALABAMA **TOOL SMITH CO. 1300 4th Ave.S. Birmingham AL 35233 (205) 323-2576 or (800) 317-8665 Fax (205) 323-9060

ARKANSAS **HI-SPEED HOIST & CRANE 701 N. Maple St, N. Little Rock AR 72114 (501) 375-9178 Fax (501) 375-4254

**HANDLING SYSTEMS & CONVEYORS INC 10909 East Otter Creek Rd. Mabelville AR 72103 (501) 455-5898 Fax (501) 455-6179

ARIZONA **MECHANICS TOOL SERVICE 1301 E. Apache Park Place Tuscon AZ 85714 (520) 889-8484 AZ only (800) 372-6700 Fax (520) 889-6668

CALIFORNIA

CALIFURNIA **ARROW CRANE HOIST CORP. 12714 South Carmenita Road Santa Fe Springs CA 90670 (562) 921-8328 Fax (562) 921-9307

**IDG. CALIFORNIA 6842 Walker Street LaPalma CA 90623 (714) 994-6960 or (800) 464-5669 Fax (562) 948-4448

**CRANEWORKS, INC. 2585 Nicholson Street San Leandro CA 94577 (510) 357-4000 Fax (510) 357-4099

*KIMMERLE BROTHERS, INC. 12060 East Florence St. Santa Fe Springs CA 90670 (562) 946-6771 Fax (562) 944-3473

**KIMMERLE BROTHERS, INC. 226 11th St. San Franciso CA 94103 (415) 431-1163 Fax (415) 431-1693

**KIMMERLE BROTHERS, INC. 337 "M" St. Fresno CA 93721 (559) 233-1278 Fax (559) 233-4678

COLORADO *CRANE REPAIR CO. 3718 Norwood Drive Littleton CO 80125 (303) 791-7918 or (800) 878-7918 Fax (303) 791-7179

DELAWARE **P & H MORRIS MATERIAL HANDLING 137 Sandy Drive Newark DE 19713 (302) 369-5819 or (800) 346-2098 Fax (302) 369-5829

FLORIDA

FLURIDA *5.1 HERBERT CORP. 1751 S. John Young Parkway Kissimmee FL 32741 (407) 846-0588 or (800) 814-4670 Fax (407) 846-8042



UNITED STATES

FLORIDA (cont'd) **MATERIAL HANDLING SYSTEMS 720 S.W. 4th Court Dania FL 33004 (954) 921-1171 or (888) 424-6478 Fax (954) 921-7117

GEORGIA **ACE INDUSTRIES INC. 6295 McDonough Drive Norcross GA 30093 (770) 441-0898 or (800) 733-2231 Fax (800) 628-3648

*GAFFEY INC 471 Sessions St. Marietta GA 30060 (770) 939-6443 or (800) 820-6443 Fax (770) 422-2255

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*S & K AIR POWER Rt. 316 E., Box 1279 Mattoon IL 61938 (217) 258-8500 (IL only-800-955-8501) Fax (217) 258-8571

**SIEVERT ELECTRIC SERVICE 1230 South Hannah Forest Park IL 60130 (708) 771-1600 or (800) 322-9144 Fax (708) 771-3124

INDIANA **BREHOB CORP. 1334 S. Meridian St. Indianapolis IN 46225 (317) 231 8080 or (800) 632-4451 Fax (317) 231-8072

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LOUISIANA

LOUISIANA **RENTAL SERVICE 3301 Cities Service Hwy West Lake LA 70669 (318) 882-6011 Fax (318) 882-0527

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**J & B EQUIPMENT 8200 Grand Avenue South Bloomington MN 55420 (612) 884-2040 Fax (612) 346-1139

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**BEATON INDUSTRIAL, INC. 6083 Trenton Rd. Utica NY 13502 (315) 797-9346 (N.Y. only-800-724-4052) Fax (315) 797-9321

**VOLLAND ELECTRIC EQUIPMENT CO. 75 Innsbruck Drive Buffalo NY 14227 (716) 656-9900 Fax (716) 656-8899

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310 E. Wendover Avenue Greensboro NC 27405 (336) 375-6050 or (800) 326-3655 Fax (336) 375-6053

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*KEYSTONE CRANE & HOIST CO. 861 S. Washington Road McMurray PA 15317 (724) 746-5080 Fax (724) 746-5082

UNITED STATES

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**HI-SPEED ELECTRICAL CO. 3013 Thomas Street Memphis TN 38127 (901) 357-6231 Fax (901) 357-6238

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*GAFFEY, INC 4301 Garland Drive Ft. Worth TX 76117 (817) 281-1994 or (800) 284-4233 Fax (817) 581-7831

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*INDUSTRIAL HOIST SERVICES Rt. 4 - 1100 South Brooks Brazoria TX 77422 (409) 798-7077 or (800) 766-7077 Fax (409) 798-1963

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WISCONSIN **ALFERI INDUSTRIAL SALES & SERVICE 346 Smith Street Neenah WI 54956 (920) 722-6483 Fax (920) 722-6489

*LIFT INC. 6667 W. Mill Road Milwaukee WI 53218 (414) 353-5353 or (800) 728-5438 Fax (414) 353-4444

*TRESTER HOIST & EQUIPMENT 4465 124th Street Unit C Brookfield WI 53005 (262) 790-0700 or (800) 234-6098 Fax (262) 790-1009

CANADA

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BRITISH COLUMBIA AIR BRAKE REPAIR 144 W. 5th Avenue Vancouver British Columbia V5Y 1H7 (604) 879-7754

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**PRO-CRANE HOIST REPAIRS INC. 2050 Speers Road, Unit 2 Oakville Ontario L6L 2X8 (905) 825-2586

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Every hoist is thoroughly inspected and performance tested prior to shipment from the factory. If any properly installed, maintained and operated hoist as outlined in the applicable accompanying Coffing Hoists manual develops a performance problem due to defective materials or workmanship as verified by Coffing Hoists, repair or replacement of the hoist will be made to the original purchaser without charge and the hoist will be returned, transportation prepaid. This warranty does not apply where deterioration is caused by normal wear, abuse, improper or inadequate power supply, improper or inadequate maintenance, eccentric or side loading, overloading, chemical or abrasive actions, excessive heat, unauthorized modifications or repairs, or use of non-Coffing repair parts. EXCEPT AS STATED HEREIN, COFFING HOISTS MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

WARNING

Overloading and Improper Use Can Result In Injury

TO AVOID INJURY:

- Do not exceed working load limit, load rating, or capacity.
- Do not use equipment to lift people or loads over people.
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- Read and follow all instructions.

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