



**Operating Instructions and Parts Manual**  
**Lever-Operated Compact Chain Hoist**  
JLH Compact Series 0.25T and 0.5T



**Part No. M-181205**  
Revision E 03/2018  
ECR 180207154725



# Warnings

1. Read and understand the entire owner's manual before attempting operation. Failure to comply with instructions and warnings may cause serious injury.
2. This lever hoist is designed and intended for use by properly trained and experienced personnel only. If you are not familiar with the proper and safe operation of a lever hoist, do not use until proper training and knowledge have been obtained.
3. Do not use this lever hoist for other than its intended use. If used for other purposes, JET disclaims any real or implied warranty and holds itself harmless from any injury that may result from that use.
4. Do not use lever hoist to lift, support or transport people; or to lift or support loads over people.
5. Do not exceed the rated capacity of the hoist.
6. Do not attempt to extend the lever handle using a "cheater pipe" or any other such device.
7. Do not strike the lever handle with a hammer or any other object.
8. Do not use the load chain as a sling. This may cause damage to the chain.
9. Always inspect the lever hoist for damage prior to use. If hoist is damaged, do not use until it has been repaired or replaced.
10. Do not use more than one lever hoist to lift or move a load. If this is unavoidable, each hoist must have the same capacity as the load to be moved.
11. Never allow chain to "set" over sharp edges. All pulls or lifts must be made with straight chain that is free of obstacles.
12. If the lever handle is difficult to operate, then the load exceeds the capacity of the hoist. Reduce load or select a hoist of larger capacity.
13. Do not use hoist if the chain is twisted, kinked or damaged.
14. Do not operate hoist unless load is centered between top and bottom hooks.
15. On hoists with the overload warning lever, do not use this device to measure load weight.
16. Always take time to study the job to be performed and choose the safest method. Do not place yourself or other people in an unsafe position.
17. Always maintain your balance and firm footing when operating the lever hoist.
18. Leave all internal maintenance and inspections to a qualified JET Service Center.
19. Do not attempt to lengthen or repair load chain.
20. Replace chain with factory replacement chain only. Do not use any other type of chain.
21. If welding near the hoist, do not allow the chain or hook to be touched by a live electrode. Prevent weld splatter upon the chain.
22. Never use the hoist if either hook is stretched, deformed, or has a broken or missing safety latch. Always replace the safety latch and/or the hook before placing the hoist back in service.
23. Be sure supporting structures and load-attaching devices used in conjunction with this lever hoist provide an adequate safety factor to handle the rated load plus the weight of the equipment. If in doubt, consult a qualified structural engineer.
24. CALIFORNIA PROPOSITION 65 WARNING: This product contains chemicals known to the State of California to cause cancer, or birth defects or other reproductive harm.
25. Understand and follow all procedures as set forth in American National Standards titled "Performance Standard for Manually Lever Operated Chain Hoists" (ANSI/ASME HST-3) and "Manually Lever Operated Hoists" (ANSI/ASME B30.21).
26. Keep visitors a safe distance from the work area. **Keep children away.**

# Introduction

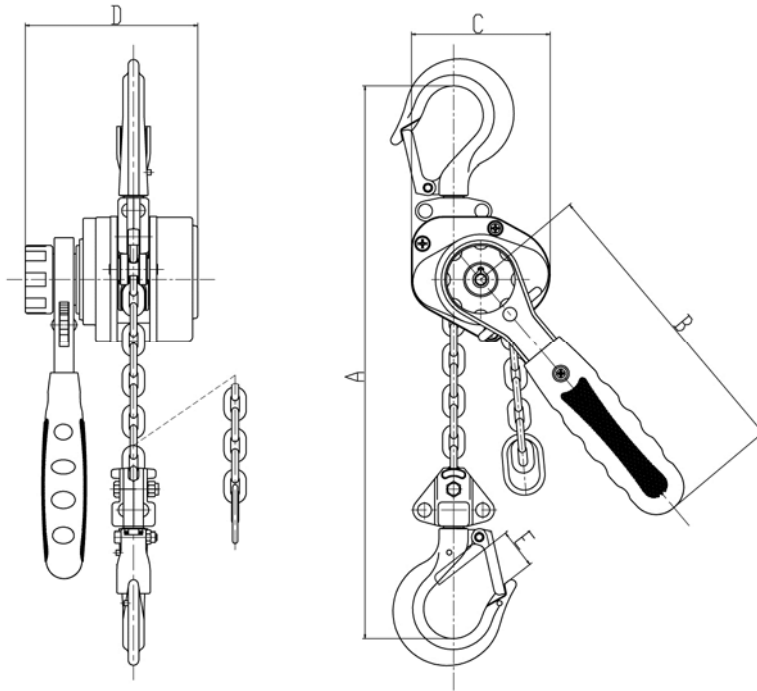
This manual is provided by JET covering the safe operation and maintenance procedures for the JET JLH Compact Series Lever Hoists. This manual contains instructions on installation, safety precautions, general operating procedures, maintenance instructions and parts breakdown. This tool has been designed and constructed to provide consistent, long-term operation if used in accordance with instructions set forth in this manual. If there are any questions or comments, please contact either your local supplier or JET.

**The JLH Compact Series Lever Hoists comply with OSHA regulations, ANSI/ASME B30.21 and HST-3 Standards.**

Record your purchase information here for quick reference:

Model No.:	Stock No.:	Serial No.:
Purchased From:		Date Purchased:

# Specifications (JLH-25/50)



Stock Number	Description	Rated Capcty. (ton)	Standard Lift (ft.)	Min. Distance between hooks (in.) "A"	No. of falls	Load Chain Diameter (mm)	Lift per full turn (in.)	Lbs. Pull to Lift capacity	Lever Length (in.) "B"	(in.) "C"	Overall width (in.) "D"	Hook Throat Opening (in.) "E"	Net Weight (lbs)
181205	JLH-25-5	0.25	5	1.40	1	3.2	0.42	44.97	5.71	2.68	3.43	0.83	3.53
181210	JLH-25-10	0.25	10	1.40	1	3.2	0.42	44.97	5.71	2.68	3.43	0.83	4.41
181215	JLH-25-15	0.25	15	1.40	1	3.2	0.42	44.97	5.71	2.68	3.43	0.83	5.29
181505	JLH-50-5	0.5	5	1.65	1	4.3	0.33	54.01	6.30	3.19	3.96	0.96	5.51
181510	JLH-50-10	0.5	10	1.65	1	4.3	0.33	54.01	6.30	3.19	3.96	0.96	7.05
181515	JLH-50-15	0.5	15	1.65	1	4.3	0.33	54.01	6.30	3.19	3.96	0.96	8.60

NOTE: The above stock numbers are representative; chain is available in other lengths. Specify length when ordering.

*The specifications in this manual were current at time of publication, but because of our policy of continuous improvement, JET reserves the right to change specifications at any time and without prior notice, without incurring obligations.*

## Unpacking

Open carton and check for shipping damage. Report any damage immediately to your distributor and shipping agent. Do not discard any shipping material until the Lever Hoist is assembled and running properly. Read this entire instruction manual thoroughly for set-up, maintenance and safety instructions.

### Contents of the Carton

- 1 Lever Hoist
- 1 Carry Pouch
- 1 Owner's Manual
- 1 Product Registration Card

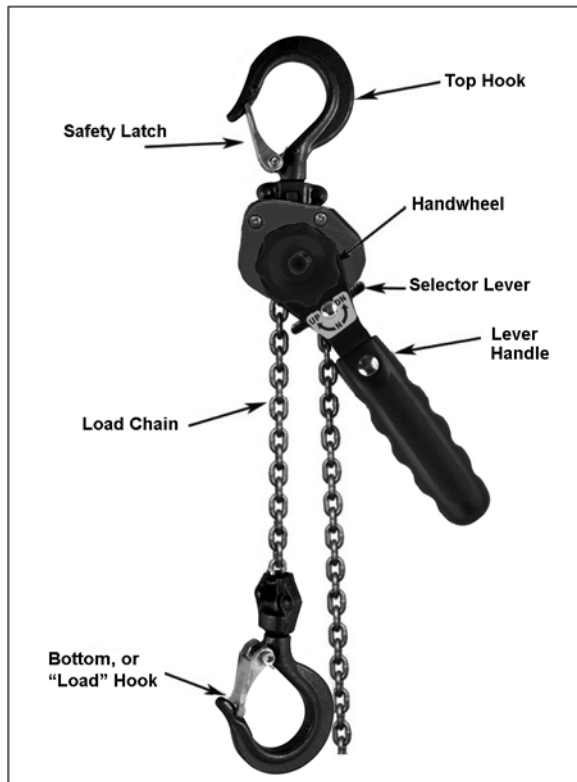


Figure 1  
Features and terminology

## Installation

Support for the hoist may be hook, clevis pin, trolley, or beam clamp. Whatever method of suspension is chosen, the support components **must** be rated equal to, or greater than the capacity of the lever hoist. Supporting structures (such as I-Beams, etc.) should be installed by properly licensed professional installers.

## Pre-Operation Inspection

### Inspecting the Load Chain

1. A chain stop must be attached to the second-to-last link on the slack end of the chain. See Figure 2.

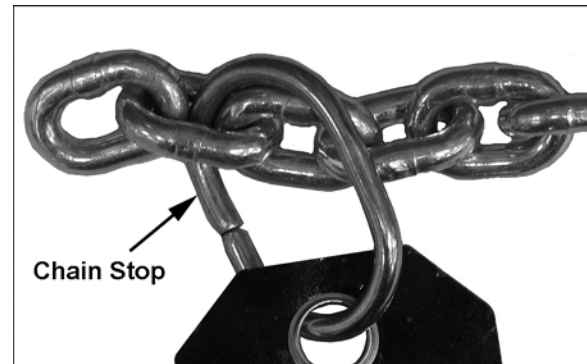


Figure 2

**WARNING** Do not operate the hoist with a twisted, kinked or damaged chain. Do not splice the chain.

2. Check that the chain does not twist along its length from hoist to hook. If twist is present on units with multiple falls, the hook must be passed back through the chain loop to remove all twist in the chain.
3. Replace the chain if links are stretched too long or severely worn on the surface, especially at the points where links contact each other. See "Allowable Limits" on page 12 for measuring chain elongation.
4. Do not use a chain that is cracked or severely rusted.
5. Periodically apply a light coat of 30W oil to the chain. This will create easier operation and prolong the chain's life. For optimum results, clean the chain with an acid-free solution before oiling.

**WARNING** The load chain supplied with your JET lever hoist is designed, manufactured, and tested for proper fit and durability. If chain should ever need replacing, for your own safety use factory replacement chain only. Use of other than factory replacement chain may cause serious injury and/or damage to the lever hoist.

Never extend load chain by welding a second piece to the original.

### Inspecting Hooks

It is important to check top and bottom hooks for proper opening and other signs of deformation or damage. Replace a hook immediately if any of the following problems are identified:

- The safety latch no longer contacts the hook opening.
- The vertical angle at the neck of the hook reaches  $10^\circ$  (see Figure 3).

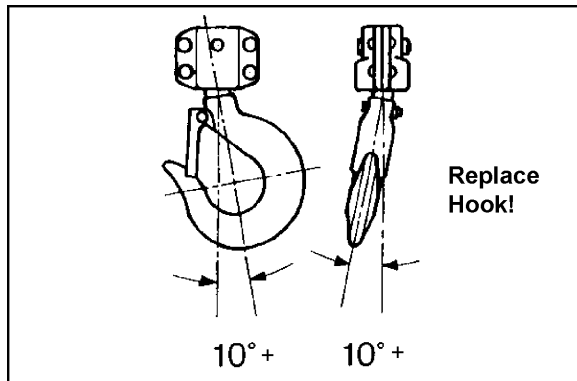


Figure 3

- Chemical corrosion or cracks on the hook.
- Excessive wear on the inside surface.
- The throat opening has enlarged. (See page 10 for the maximum allowable limits for the throat opening.)

**⚠ WARNING** Do not attempt repair of a hook by heat treating, bending or attaching anything by welding. Such procedures will weaken and may cause failure of the hook.

### Other Inspections

1. Check for appropriate clicking sounds: With the selector lever in UP position, there will be a clicking sound when the lever handle is rotated in *either direction*. When the selector lever is in DOWN position, there will be a clicking sound only when the lever handle is ratcheted back into position but not as the load is lowered. If these sounds are not present, or if *irregular* clicking noises develop, do not use the hoist – have it inspected and repaired by an authorized service center.
2. If the lever hoist has not been used for an extended period of time, check for proper operation before putting into service.
3. The brake mechanism must be kept clean and free from dirt, water, and oil. Never allow oil to penetrate the braking mechanism. The brake should not slip while using the hoist.

## Operation

The JLH Compact Lever Hoist may be used either in vertical position as a hoist; or in angled or horizontal position as a puller. Below is the general procedure for operating the hoist:

1. Set the top hook securely.

2. Correctly center the load on the bottom hook (Figure 4). Incorrect loading is dangerous to the operator, the lever hoist, and the load.
  - Never load the hook in front of the safety latch (A, Figure 5).
  - Never load the hook tip (B, Figure 5).
  - Never load the hook off the centerline (C, Figure 5).
  - Never load the hook sideways (D, Figure 5).

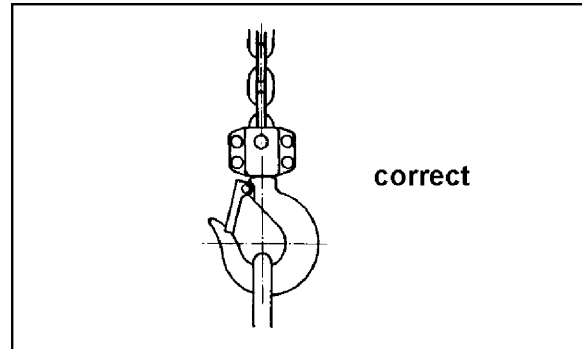


Figure 4

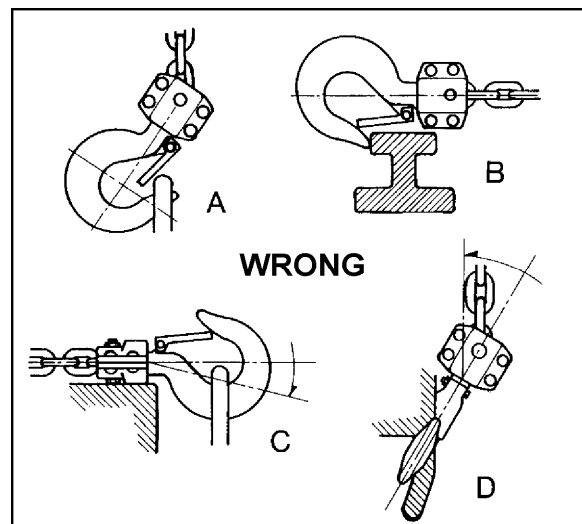


Figure 5

3. Rotate the handwheel clockwise while simultaneously pulling down on the load chain. The handwheel will snap back into place, re-engaging the gear.
4. Move selector switch to the UP position. Ratchet the lever to raise or pull the load. Do not overload the lever hoist.

**⚠ WARNING** Do not touch the handwheel while lifting or lowering. Do not operate freewheel mode while there is a load on the hoist.

5. To release or lower the load, turn selector switch on the handle to the DOWN position and ratchet the handle.

NOTE: If the chain is pulled too suddenly in free-wheel mode, the brake may set preventing further pulling. Re-set the hoist by repeating step number 3 above, and then set the hoist back into freewheel mode to continue the operation.

Avoid lifting one load with two hoists. If this is unavoidable, apply equal weight to both hoists and use hoists with the proper lift capacity. **Capacity of each hoist must be equal to the total load to be lifted.**

### Precautions

- During lifting operations, do not stand under the load.
- Do not use any extension on the lever handle. See Figure 6.
- Do not use your foot to apply pressure to the lever handle. See Figure 7.
- Prevent the chain from dragging over sharp edges or corners. This will cause links to weaken, bend, or break. See Figure 8.
- When connecting to a wire rope sling or strap system, the lever hoist must be applied along a straight line parallel to the surface on which it is resting. See Figure 9.

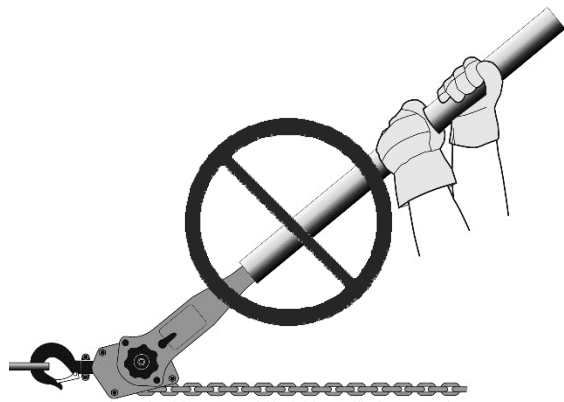


Figure 6

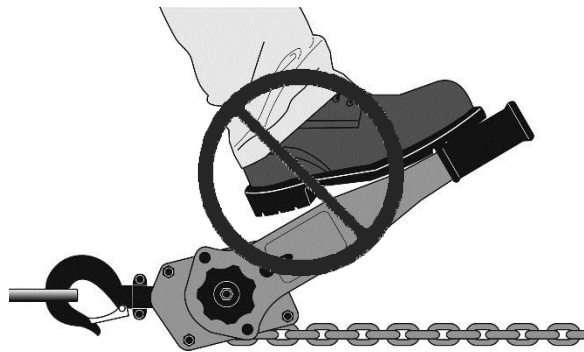


Figure 7

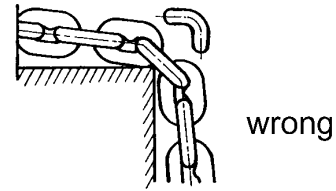


Figure 8

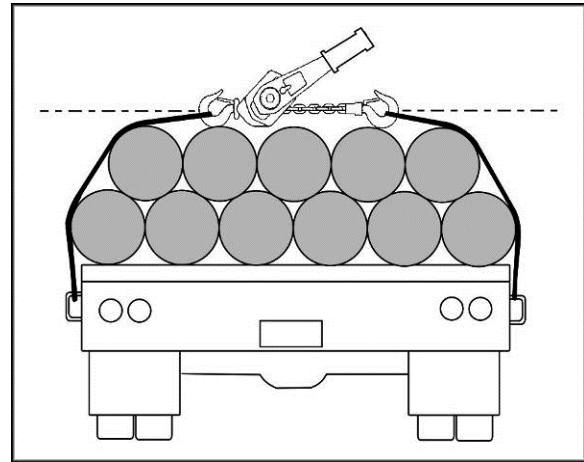


Figure 9

- When lifting loads, hook the load with slings. **Do not use the lever hoist chain as a sling** (Figure 10).
- Both ends of a sling or rope must be completely on the inside of the safety latch before pulling or lifting the load. Do not put one end on the inside of the latch and leave the other end on the hook end outside the latch.

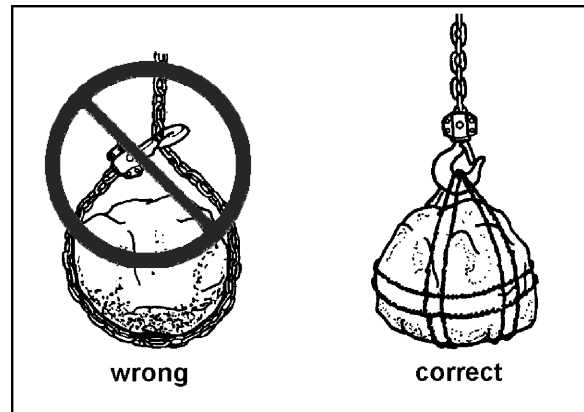


Figure 10

# Inspection and Maintenance

Read and follow ANSI Inspection and Maintenance Instructions. Know the meaning of Frequent Inspection, Periodic Inspection, Normal Service, Heavy Service, and Severe Service. It is the customer's responsibility to understand and follow all ANSI and JET inspection and maintenance instructions.

The lever hoist should be stored in a clean, dry environment. Clean and oil the hoist before storage.

Hoists that are installed out-of-doors should be covered or brought inside when not in use.

Periodically apply a light coat of 30W oil to the load chain. Also lubricate the safety latches and the bearings in the hooks.

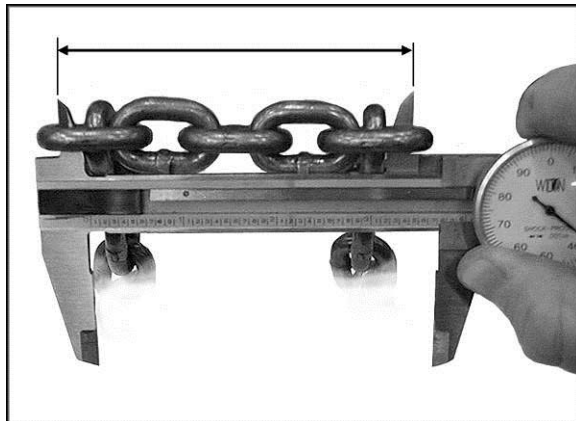
Annually, the hoist should be disassembled, inspected, and cleaned by trained and experienced personnel only.

## Allowable Limits for Load Chain and Hooks

### Load Chain

Carefully inspect the entire load chain. As illustrated in Figure 11, measure five consecutive links with calipers to find the length. Compare the results with the table in Figure 11. Check every three feet and especially where excessive wear is indicated. Any load chain that shows noticeable deformation or heat influence must be replaced with a new one.

**⚠ WARNING** Never extend load chain by welding a second piece to the original.



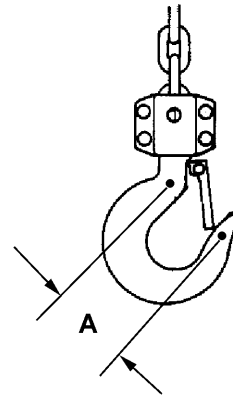
Hoist Capacity	5 Links Normal (mm)	5 Links Limit Replace if $\geq$
0.25 ton	45	46.3
0.5 ton	60	61.8

Figure 11

### Hooks (Top and Bottom)

Replace the hook when the distance between indicator points – “A” in Figure 12 – is wider than the limits given in the table.

Never heat treat the hook or attach anything to the hook by welding.



Hoist Capacity	“A” Dimension Normal (mm)	“A” Dimension Replace if $\geq$
0.25 ton	35.5	37.3
0.5 ton	41	43.1

Figure 12



# Troubleshooting JLH Compact Lever Hoists

The numbers in parentheses refer to the parts breakdown on the following page.

Trouble	Probable Cause	Remedy*
Hoist will not lift (no clicking sound).	Pawl (#21) not engaging ratchet disc (#24); possible dirt or foreign material.	Clean and lubricate pawl/ratchet disc assemblies.
	Pawl spring (#20) is damaged.	Replace pawl spring.
	Selector switch spring is loose or damaged.	Tighten or replace selector switch spring.
Load slips or drifts while being lowered.	Dirt/corrosion/foreign material in hoist components.	Inspect and correct problem. Keep hoist clean and lubricated.
	Brake is slipping. Brake seat (#23) is worn from long-term use, or is damaged from overloading or misuse.	Replace disc hub. Do not overload hoist.
Hoist will not lower load.	The brake has caught. (Hoist was left under load condition for extended period, or was shock-loaded while operating.)	Place selector lever in DOWN position and pull hard on the lever handle to reset the brake. Resume operation.
	Brake components are corroded or damaged.	Replace components as needed; keep hoist clean and lubricated.
Hoist will not freewheel.	Brake has caught because load chain was pulled too hard.	Reset by rotating handwheel clockwise while pulling down on load chain. Return hoist to freewheel mode and continue. Pull load chain less forcibly.

\* Any disassembly or repair of the lever hoist should be performed by properly trained personnel.

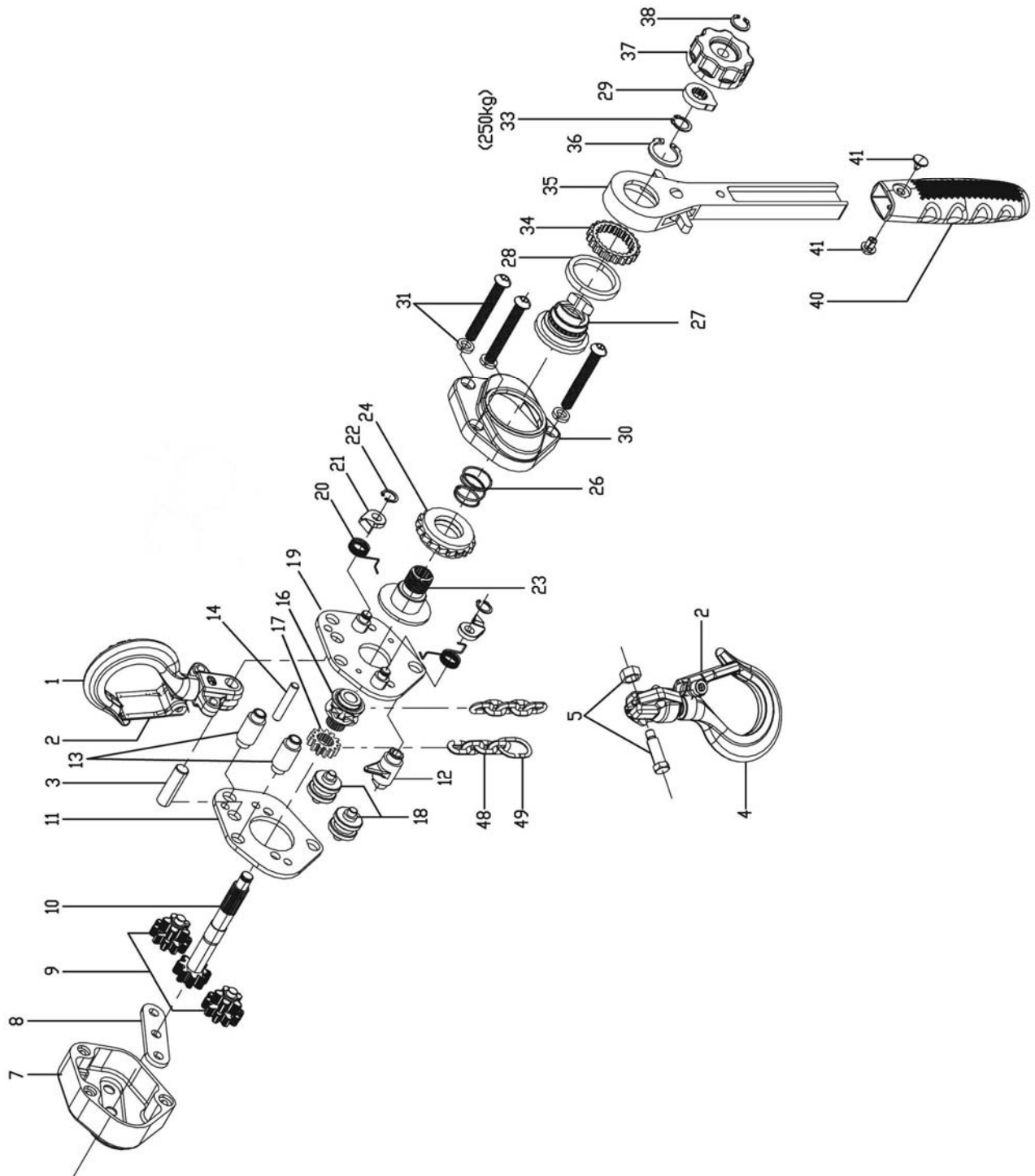
## Replacement Parts

Replacement parts are listed on the following pages. Having the Model Number and Serial Number of your machine available when you call will allow us to serve you quickly and accurately.

Non-proprietary parts, such as fasteners, can be found at local hardware stores, or may be ordered from JET.

Some parts are shown for reference only, and may not be available individually.

# JLH Compact Series Lever Hoists (JLH-25/50)



## Parts List: JLH-25 (0.25 Ton)

Parts listed under each assembly are parts that make up that assembly.

Index No.	Part No.	Description	Size	Qty
1	JLH25-1G	Top Hook Assembly		1
		Top Hook		1
		Safety Latch Kit		1
		Top Hook Holder		1
2	JLH25-2	Safety Latch Kit		2
		Safety Latch		2
		Double Spring		2
		Socket Cap Screw		2
		Lock Nut		2
3	JLH25-3	Top Hook Shaft		1
4	JLH25-4G	Bottom Hook Assembly		1
		Bottom Hook		1
		Bottom Hook Holder		1
		Safety Latch Kit		1
5	JLH25-5G	Chain pin and Lock Nut	M4	1
7	JLH25-6G	Gear Cover Set		1
8	JLH25-8	Reinforced Plate		1
9	JLH25-9	Load Gear		2
10	JLH25-10	Pinion Shaft		1
11	JLH25-11	Gear Side Plate		1
12	JLH25-12	Chain Stripper		1
13	JLH25-13	Stay Bolt		2
16	JLH25-16N	Load Sprocket		1
17	JLH25-17N	Load Gear		1
18	JLH25-18	Chain Guide		2
19	JLH25-19	Lever Side Plate Assembly		1
		Lever Side Plate		1
		Pawl Pin		2
20	JLH25-20	Pawl Spring (0.25,0.5 ton)		2
21	JLH25-21	Pawl (0.25,0.5 ton)		2
22	JLH25-22	Snap Ring (0.25,0.5 ton)	6mm	2
23	JLH25-23	Brake Seat		1
24	JLH25-24N	Fused Brake Disc		1
26	JLH25-26	Twisting Spring		1
27	JLH25-27	Brake Plate		1
28	JLH25-28	Bushing		1
29	JLH25-29	Stop Knob		1
30	JLH25-30G	Brake Cover		1
31	JLH25-31G	Socket Head Screw and Spring Washer	M5x40 and 5mm	3
33	JLH25-33	Snap Ring	9mm	1
34	JLH25-34	Change Over Gear		1
35	JLH25-35	Lever Handle Assembly		1
		Lever Handle		1
		Selector Level		1
		Change Over Pawl		1
		Snap Ring	6mm	1
		Roller	Ø5mm	1
		Change Over Spring		1
36	JLH25-36	Snap Ring	22mm	1
37	JLH25-37G	Handwheel		1
38	JLH25-38	Snap Ring	7mm	1
40	JLH25-40	Rubber Grip		1
41	JLH25-41	Bolt and Locking Nut (0.25,0.5 ton)	M3.5	1
48	JLH25-48	Load Chain – specify length	3.2x9 mm	1
49	JLH25-49	End Chain Ring		1
50	JLH25-50	Carry Pouch for JLH-25 (not shown)	95x70x180mm	1
	LM000040	Name Plate JLH-25 (not shown)		1
	JLH25-BSK	Brake Service Kit, JLH-25 (includes #23,24,27)		1

**Note:** All parts mentioned as assembly are sold as an assembly only. When ordering replacement chain (#48), specify length.

## Parts List: JLH-50 (0.5 Ton)

Parts listed under each assembly are parts that make up that assembly.

Index No.	Part No.	Description	Size	Qty
1	JLH50-1G	Top Hook Assembly		1
		Top Hook		1
		Safety Latch Kit		1
		Top Hook Holder		1
2	JLH50-2	Safety Latch Kit		1
		Safety Latch		2
		Double Spring		2
		Socket Cap Screw		2
		Lock Nut		2
3	JLH50-3	Top Hook Shaft		1
4	JLH50-4G	Bottom Hook Assembly		1
		Bottom Hook		1
		Bottom Hook Holder		1
		Safety Latch Kit		1
5	JLH50-5G	Chain Pin & Lock Nut		1
7	JLH50-7G	Gear Cover Set		1
8	JLH50-8	Reinforced Plate		1
9	JLH50-9	Load Gear		2
10	JLH50-10	Pinion Shaft		1
11	JLH50-11	Gear Side Plate		1
12	JLH50-12	Chain Stripper		1
13	JLH50-13	Stay Bolt		2
14	JLH50-14	Pin		1
16	JLH50-16	Load Sprocket		1
17	JLH50-17	Load Gear		1
18	JLH50-18	Chain Guide		2
19	JLH50-19	Lever Side Plate Assembly		1
		Lever Side Plate		1
		Pawl Pin		2
20	JLH25-20	Pawl Spring (0.25,0.5 ton)		2
21	JLH25-21	Pawl (0.25,0.5 ton)		2
22	JLH25-22	Snap Ring (0.25,0.5 ton)	6mm	2
23	JLH50-23	Brake Seat		1
24	JLH50-24N	Fused Brake Disc		1
26	JLH50-26	Twisting Spring		1
27	JLH50-27	Brake Plate		1
28	JLH50-28	Bushing		1
29	JLH50-29	Stop Knob		1
30	JLH50-30G	Brake Cover		1
31	JLH50-31G	Socket Head Screw & Spring Washer	M6x45 & 6mm	3
34	JLH50-34	Change Over Gear		1
35	JLH50-35	Lever Handle Assembly		1
		Lever Handle		1
		Selector Lever		1
		Change Over Pawl		1
		Snap Ring	6mm	1
		Roller	Ø5mm	1
		Change Over Spring		1
36	JLH50-36	Snap Ring	25mm	1
37	JLH50-37G	Handwheel		1
38	JLH50-38	Snap Ring	7mm	1
40	JLH50-40	Rubber Grip		1
41	JLH25-41	Bolt & Locking Nut (0.25, 0.5 ton)	M3.5	1
48	JLH50-48	Load Chain – specify length	4.3x12mm	1
49	JLH50-49	End Chain Ring		1
50	JLH50-50	Carry Pouch for JLH-50 (not shown)	100x75x200mm	1
	LM000041	Name Plate JLH-50 (not shown)		1

**Note:** All parts mentioned as assembly are sold as an assembly only. When ordering replacement chain (#48), specify length.