Test hoist upon completion of any disassembly or maintenance.

Testing should be performed by a trained, designated service technician. Observe the operation of the hoist through several NO LOAD operating cycles. Ensure that slack chain can be taken up by pulling on free end of chain. Turn the control lever to the DOWN position, push thumb latch and ensure that free chain can be obtained by pulling on lower hook.

Attach a nominal load (approximately 50-100 lbs.) to the hook and observe the operation of the hoist through several lifting and lowering cycles. If operation appears smooth and unrestricted, test hoist with rated load.

Test the REL-H SERIES hoist at rated load.

Hoist must perform smoothly in both raising and lowering operations. If hoist fails to perform smoothly, proceed with required steps of Frequent, and Periodic Inspections as needed to resolve any operational issues before returning hoist to use in any application.

---

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Model</th>
<th>REL-H SERIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity:</td>
<td>18,000 - 30,000 lbs.</td>
</tr>
<tr>
<td>Travel:</td>
<td>60 inches</td>
</tr>
<tr>
<td>Headroom:</td>
<td>30 inches</td>
</tr>
<tr>
<td>Handle:</td>
<td>34 inches</td>
</tr>
<tr>
<td>Stroke:</td>
<td>52 inches</td>
</tr>
<tr>
<td>Weight:</td>
<td>120 - 153 lbs.</td>
</tr>
</tbody>
</table>

**NOTICE**

Sizes, weights and tool specifications listed in this manual are subject to change without notice. Please consult factory for information and updates.

**WARNING**

All information found in this guide must be read and understood before use or testing of this tool. Failure to read and understand these warnings and safe handling instructions could result in severe personal injury and or death.
REGISTRATION
UPON RECEIPT OF THIS TOOL, COMPLETE THE REGISTRATION BELOW.

COMPANY ________________________________________________________

ADDRESS ___________________________________________________________________

PHONE ____________________ FAX __________________________

SERIAL NUMBER ____________________

DATE OF PURCHASE ____________________

DEALER NAME ____________________________________________________

DISTRIBUTED BY

CAUTION

The information in this manual is intended to guide the user in the use and application of this tool. It is not intended as a substitute for proper training and experience in safe work practices for this type of equipment.

Consult your supervisor or safety personnel if you have any questions regarding the safe operation of this tool.

REGISTRATION
UPON RECEIPT OF THIS TOOL, COMPLETE THE REGISTRATION BELOW.

COMPANY ________________________________________________________

ADDRESS ___________________________________________________________________

PHONE ____________________ FAX __________________________

SERIAL NUMBER ____________________

DATE OF PURCHASE ____________________

DEALER NAME ____________________________________________________

The information in this manual is intended to guide the user in the use and application of this tool. It is not intended as a substitute for proper training and experience in safe work practices for this type of equipment.

Consult your supervisor or safety personnel if you have any questions regarding the safe operation of this tool.

LEVER ASSEMBLY
Press Lever Bushing into Lever.

LUBRICATE Safety Pin Assembly & Spring with a light coating of bearing grease with graphite.


INSTALLATION OF LOAD CHAIN
LUBRICATE entire Load Chain thoroughly with a penetrating oil containing graphite.

Turn Reverse lever to the UP position and insert Load chain into Lower Hoist Body (Frame) as far as possible.

Operate Lever until a manageable length of chain extends from the side of the Hoist Body (Frame).

Install the Chain End Lug with a Connecting Link and Spring Clip.

Hoist assembly is complete. (Single Chain ONLY)

REL-6000H Load Chain and Lug Hook Connection

Install the Lug Hook onto the other end of the Load Chain with a Connecting Link and Spring Clip.

Install Connecting Link to Bottom of Hoist Body and connect Lug Hook to Connecting Link.

Assembly is complete for the REL-6000H hoist.
SUPER FRAME (REL-H SERIES)


REVERSING RING & STOP PIN ASSEMBLY

Install two (2) Reverse Ring Springs and Release Pin Spring onto Reversing Ring Assembly. LUBRICATE mating surfaces of Right Frame and Reversing Ring-Stationary Pin Assembly with a calcium base bearing grease. Turn Reverse Lever to DOWN, retracting Stop Pin. Align Reversing Ring Assembly with Stop Pin. Slide the Reverse Ring Assembly onto the Right Frame and Sprocket Shaft.
Remove Reversing Lever & Lever Spring by guiding Reversing Lever through the inside of the Left Frame.

Secure Right Frame Assembly in vise.

Remove Locking Pawl Spring from Stationary Pin. The Locking Pawl and Pawl Spring will be FREE for removal from Frame.

Press Stationary Pins from Right Frame ONLY if replacement is required.

In cases where damage to the hoist or internal assemblies has occurred, and the chain is lodged within the assembly, it is recommended that the manufacturer be contacted at 800-966-3530 for instruction specific to the individual case at hand.

HOIST BODY ASSEMBLY

Install Reversing Lever Spring over Reversing Lever and seat on shoulder of Lever. Work Reversing Lever through Left Frame.

Secure Right Frame Assembly in vise.

Remove Locking Pawl Spring from Stationary Pin. The Locking Pawl and Pawl Spring will be FREE for removal from Frame. Sprocket Shaft is FREE for removal from Frame. Press Stationary Pins from Right Frame ONLY if replacement is required.

LUBRICATE Sprocket Shaft with a multipurpose lithium base bearing grease.

Insert Sprocket shaft through Right Frame. Connect Locking Pawl Spring to Locking Pawl. LUBRICATE Locking Pawl with Lithium Grease. Insert Locking Pawl through the Right Frame and attach Spring to Stationary Pin.

LUBRICATE Support Hook with Lithium Grease. Place Support Hook Assembly into Hook Seat.Mate Left & Right Frame halves, and secure with six (6) Hex Head Cap Screws.

If you have any questions regarding the proper use operation or maintenance of this tool, consult your area supervisor, or contact Reliable Equipment & Service Co., Inc. at 800-966-3530
The REL-H Series hoists from RELIABLE promises to provide years of service, under the rigorous conditions demanded by the Power Utility & Construction Industries. The durable, malleable iron external frame and lever assemblies house internal components constructed and tested to provide smooth and safe operation.

**FEATURES:**
- The lever action can be reversed simply by releasing the safety pin and rotating handle for inverted applications.
- Safety hooks rotate 360° and feature spring latches to simplify a secure connection at the support and the load.
- The thumb latch releases chain for fast easy connection to the load.
- Slack may be quickly removed by pulling on the free end of the chain.
- Redundant safety measures prevent handle rotation or chain release under load if the operator were to lose control.
- The REL-H Series utilizes a multiple chain configuration to offer increased capacity.
- The chain lug hook may be detached to provide a longer lift capacity and faster operation in 4-1/2 ton applications.

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Model</th>
<th>REL-22000H</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>22,000 lbs.</td>
</tr>
<tr>
<td>Travel</td>
<td>60 inches</td>
</tr>
<tr>
<td>Headroom</td>
<td>30 inches</td>
</tr>
<tr>
<td>Handle</td>
<td>34 inches</td>
</tr>
<tr>
<td>Stroke</td>
<td>52 inches</td>
</tr>
<tr>
<td>Weight</td>
<td>130 lbs.</td>
</tr>
</tbody>
</table>

Manufactured to meet or exceed ASME B30.21.
**REL-26000H**

**MANUALLY LEVER OPERATED 13 TON ROLLER CHAIN HOIST**

The REL-H Series hoists from RELIABLE promises to provide years of service, under the rigorous conditions demanded by the Power Utility & Construction Industries. The durable, malleable iron external frame and lever assemblies house internal components constructed and tested to provide smooth and safe operation.

**FEATURES:**

The lever action can be reversed simply by releasing the safety pin and rotating handle for inverted applications. Safety hooks rotate 360° and feature spring latches to simplify a secure connection at the support and the load. The thumb latch releases chain for fast easy connection to the load. Slack may be quickly removed by pulling on the free end of the chain. Redundant safety measures prevent handle rotation or chain release under load if the operator were to lose control. The REL-H Series hoists utilizes a multiple chain configuration to offer increased capacity. The chain lug hook may be detached to provide a longer lift capacity and faster operation in 4-1/2 ton applications.

**DISASSEMBLY & PARTS REPLACEMENT LEVER ASSEMBLY**

Clamp Lever Assembly in a vise, and chisel the heads OFF of the two (2) Round Head Rivets. Punch Rivets through Lever and Lever Pawl Cover. Free Lever Pawl Pin from Lever Pawl Cover. Remove Lever Pawl Cover from Lever Assembly. Punch Roll Pin through Lever to free Thumb Latch. In the event that an inspection reveals the need for repair or replacement of a part or assembly: Repair and testing should be performed by a trained, designated technician before returning hoist to operation.

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Model</th>
<th>REL-26000H</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>26,000 lbs.</td>
</tr>
<tr>
<td>Travel</td>
<td>60 inches</td>
</tr>
<tr>
<td>Headroom</td>
<td>30 inches</td>
</tr>
<tr>
<td>Handle</td>
<td>34 inches</td>
</tr>
<tr>
<td>Stroke</td>
<td>52 inches</td>
</tr>
<tr>
<td>Weight</td>
<td>140 lbs.</td>
</tr>
</tbody>
</table>
**DO NOT** disassemble Lever Assembly if no defects are disclosed by the inspections.

Inspect Lever Bushing for wear and scoring.
Inspect Sprocket shaft for excessive wear, scoring, damage to the teeth, or stripped threads.
Check lubrication port for obstruction.
Inspect Reverse Ring/Stationary Pin Assembly for damage, wear, loose or broken Pins, and worn or missing springs. Inspect Locking Pawl Release Pin for looseness.

**Reverse Ring Assembly**

**Do not** remove Safety Latch Assembly from Hooks if no defects are disclosed by the inspections.

**DISASSEMBLY OF HOIST BODY**
Clamp hoist body assembly in a vise, and remove the five (5) Hex Head Cap Screws.
Punch screws through Frame for removal.
Separate left frame from right frame.
Light force may be required to separate the Frame.

**NOTE:** Use CAUTION to avoid personal injury or damage to the Hoist Body/Frame Assembly.
Support Hook Assembly will be freed when frame halves are separated. (Secure or Support)

---

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Model</th>
<th>REL-30000H</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity:</td>
<td>30,000 lbs.</td>
</tr>
<tr>
<td>Travel:</td>
<td>60 inches</td>
</tr>
<tr>
<td>Headroom:</td>
<td>30 inches</td>
</tr>
<tr>
<td>Handle:</td>
<td>34 inches</td>
</tr>
<tr>
<td>Stroke:</td>
<td>52 inches</td>
</tr>
<tr>
<td>Weight:</td>
<td>153 lbs.</td>
</tr>
</tbody>
</table>

**REL-30000H**

**MANUALLY LEVER OPERATED**

**15 TON ROLLER CHAIN HOIST**

The REL-H Series hoists from RELIABLE promises to provide years of service, under the rigorous conditions demanded by the Power Utility & Construction Industries.
The durable, malleable iron external frame and lever assemblies house internal components constructed and tested to provide smooth and safe operation.

**FEATURES:**
The lever action can be reversed simply by releasing the safety pin and rotating handle for inverted applications.
Safety hooks rotate 360° and feature spring latches to simplify a secure connection at the support and the load.
The thumb latch releases chain for fast easy connection to the load.
Slack may be quickly removed by pulling on the free end of the chain.
Redundant safety measures prevent handle rotation or chain release under load if the operator were to lose control.
The REL-H Series hoists utilizes a multiple chain configuration to offer increased capacity.
The chain lug hook may be detached to provide a longer lift capacity and faster operation in 4-1/2 ton applications.

---

**DISASSEMBLY OF FRAME**

Disassemble Lever Assembly if no defects are disclosed by the inspections.
Inspect Lever Bushing for wear and scoring.
Inspect Sprocket shaft for excessive wear, scoring, damage to the teeth, or stripped threads.
Check lubrication port for obstruction.
Inspect Reverse Ring/Stationary Pin Assembly for damage, wear, loose or broken Pins, and worn or missing springs.
Inspect Locking Pawl Release Pin for looseness.

Reverse Ring Assembly

**Do not** remove Safety Latch Assembly from Hooks if no defects are disclosed by the inspections.

**Check hoist body (Frame) for cracks, damage or distortion which may have been caused by misuse, overloading or dropping.**

**Disassembly is recommended to permit detailed internal inspection.**

---

Refer to Inner Frame Assembly illustration at the top of the following Page.
Inspect Reversing Lever and R.L. Spring for wear, damage or distortion.
Inspect (Chain) teeth on the lower Sprocket Shaft for wear, damage or distortion.
Inspect Locking Pawl and L.P. Spring for wear, damage or distortion.
Check all Frame surfaces which mate, (Seat) Sprocket Shaft, Locking Pawl, and Support Hook for wear and scoring.
Inspect Support Hook using dye penetrant, magnetic particle inspection (Magnaflux) or other acceptable detection method.
Complete Disassembly is not recommended.
BEFORE USING THIS TOOL, READ THE WARNINGS and the recommended practices described in this manual. Failure by the operator to read and fully understand these warnings will leave this person unqualified to use and operate this tool. Property damage, severe personal injury, and/or death could result by not following these warnings.

These warnings will appear in appropriate locations when they are pertinent to the particular subject being shown. Read each one carefully and follow them strictly.

Eye Protection

WARNING
Always wear eye protection to avoid injury from flying debris. Failure to do so may result in serious personal injury.

Skin Irritation

WARNING
Oil and lubricants may cause irritation. Use care to prevent contact with skin. In case of accidental contact, wash affected area immediately.

Hard Hat

WARNING
Always wear a hard hat to avoid injury from falling debris. Failure to do so can result in serious personal injury.

Foot Protection

WARNING
Always wear foot protection. Failure to do so can result in serious personal injury.

Hearing Protection

WARNING
Always wear hearing protection, to avoid hearing loss due to long term exposure to high noise levels.

Protective Gloves

WARNING
Always wear protective gloves. Failure to do so can result in serious personal injury.

Eye Protection

WARNING
Always wear eye protection to avoid injury from flying debris. Failure to do so may result in serious personal injury.

Skin Irritation

WARNING
Oil and lubricants may cause irritation. Use care to prevent contact with skin. In case of accidental contact, wash affected area immediately.

Hard Hat

WARNING
Always wear a hard hat to avoid injury from falling debris. Failure to do so can result in serious personal injury.

Foot Protection

WARNING
Always wear foot protection. Failure to do so can result in serious personal injury.

Hearing Protection

WARNING
Always wear hearing protection, to avoid hearing loss due to long term exposure to high noise levels.

Protective Gloves

WARNING
Always wear protective gloves. Failure to do so can result in serious personal injury.

Additional inspection of chain (chain removed)
Remove End Lug and Lug Hook (REL-12000H) prior to removal of load chain.
To remove chain place reversing lever in the down position, depress the thumb latch and pull on chain above bottom hook.
Clean and lubricate chain thoroughly.
See cleaning under General Maintenance
See lubrication under Assembly in this manual.

Inspect Load Chain for:
Bent or turned pins
Side plates that are spread or open.
Compare links in heavily used areas of chain to links at the free end to assess chain condition.
Locked or obstructed joints.
All joints should operate under light manipulation.
Corrosion, pitting or discoloration of chain
Wear or damage (i.e. gouges, nicks, weld splatter)
NOTE: Excessive wear, damage or deterioration described above should be addressed immediately.
Manufacturer recommends replacement with chain and connecting links from RELIABLE EQUIPMENT.

PERIODIC INSPECTION
Inspect each part for wear, cracks, bending and distortion. Discard worn or damaged parts and replace with new factory authorized parts.
Clean and lubricate all parts and assemblies during inspection, and before disassembly.
If any Conditions requiring additional inspection or repair are found hoist shall be immediately tagged and repaired by a trained, designated technician before returning to operation.
Inspect all parts and operations as required by frequent and chain inspection criteria.
Lifting Lever should be removed to provide visual access prior to continuing the periodic inspection.

TO REMOVE LIFTING LEVER ASSEMBLY
Place reverse lever in the “UP” position.
Pull free end of chain assembly until bottom hook assembly contacts frame assembly.
Rotate lever cap screw counterclockwise to remove remaining slack, and continue turning. (Tension should increase slightly until screw begins to unthread from assembly) Continue until lever cap screw is free of lever assembly.
Remove Lever Washer.

Remove Lever Assembly from Hoist Body.
Check all nuts, bolts for damaged or stripped threads and rivets for looseness.
Check Lever for damage or distortion.
Check Trip Rod for damage or bending.
Inspect Lever Pawl Assembly and operation. (Lever Pawl, Trip Pin, Release Spring, and Rivet) Replace entire assembly if any component is bent, worn or damaged.
Check Lever Pawl for binding with Lever Pawl Pin.

Inspect Lever Pawl Spring and Release Spring. Confirm Thumb Latch activation of Lever Pawl. Lever Pawl should move freely when latch is depressed, and return upon release.

(Minimum required clearance between Lever Pawl and Lever Bushing should be 5/16’) Inspect Safety Pin Assembly and Safety Spring. Pull Safety Pin Knob and observe Lever Pawl action. The pawl should move out toward the lever casting. Check Safety Release Spring if the Lever Pawl does not move appropriately when Safety Pin Knob is pulled.
GENERAL SAFETY

Failure to heed these warnings could result in property damage, serious personal injury or death.

ELECTRICAL SHOCK HAZARD

Always wear and use the necessary clothing, equipment and safety practices to protect against electrical shock.

Failure to observe this warning can result in serious injury or death.
GENERAL MAINTENANCE

It is recommended that a planned inspection routine be established.
Inspection intervals and procedures should be determined with respect to frequency and severity of use, as well as exposure to conditions that may cause wear or deterioration during use and storage.

An Inspection Check List can be found later in this manual.

Confirm operation of all components, and inspect each part for wear, cracks, bending and distortion.

Frequent Inspections should be performed daily to monthly by the trained operator or other designated person, and does not require a written report.

Under NORMAL usage and conditions the hoist should receive a monthly inspection.

Under HEAVY usage or adverse conditions the hoist should be inspected weekly to monthly.

Under SEVERE usage or extreme conditions the hoist should be inspected daily to weekly.

Periodic Inspections are in-depth in nature but DO NOT require complete disassembly.

Some disassembly may be required to permit a more detailed inspection. A written test report is recommended and should be kept on file for later reference as needed.

Under NORMAL usage and conditions the hoist should receive a yearly inspection.

An evaluation by a designated person may indicate the hoist to require disassembly for a more detailed inspection.

Under HEAVY usage, a semiannual inspection may be required. An evaluation by a designated person may indicate the hoist to require disassembly for a more detailed inspection.

Under SEVERE usage, a quarterly inspection may be required. An evaluation by a designated person may indicate the hoist to require disassembly for a more detailed inspection.

Inspection of Hoists NOT in Regular Use:

For a hoist that has been unused for 1-5 months, refer to Frequent Inspections above.

For a hoist that has remained idle in excess of 6 months, refer to Periodic Inspections above.

Clean all parts thoroughly with an acid-free solvent. Roller chain should be soaked in solvent and agitation to ensure that all joints are free from foreign matter. Remaining deposits of dirt and grease may be removed using a stiff bristled brush dipped in the cleaning solvent.

WARNING: Read and follow all safety and handling instructions for cleaning solvents.

Lubrication - HOOKS: Allow a few drops of gear oil to run along shank into Frame Assembly.

SUPER SPROCKET SHAFT: Remove Lever Cap Screw and attach a grease gun forcing grease to bearing surfaces through lubrication passage.

SUPER SPROCKET PIN & BUSHING: Remove one Cotter Pin and unseat Sprocket Pin.

Apply a few drops of gear oil between Sprocket Pin and Bushing and work into assembly.

LOAD CHAIN: Lubricate entire chain with a penetrating oil containing graphite.

Work oil into each link and around Sprocket. Remove excess oil from Chain.

Never apply grease to the chain.

All maintenance or disassembly should take place on a flat, clean work surface covered with towels or wipers so as to have a clean space for the disassembled parts.

Discard the worn or damaged parts and replace with new factory authorized parts.

When disposing of tool parts or components, observe all federal, state, and local guidelines.

WARNING: Tool frame, handles and chain may cut or pinch. Please use extreme caution.

Worn or damaged parts (i.e. bent handle or chain) may malfunction during operation, causing more extensive damage to the tool, load and/or severe injury to the operator or bystander.

All parts must be replaced with new parts if signs of wear or damage are evident.

Keep WARNING Labels clean and legible. DO NOT REMOVE Replace decals when necessary.

Observe during operation for any damage caused by or related to the applications in progress.

NOTE: Any unsatisfactory findings MUST be remedied before returning hoist to field operation.

DAILY MAINTENANCE

The life, reliability, and safety of the tool is dependent on proper inspection & maintenance. Clean and inspect all surfaces (i.e; hooks, latches, body, lever, chain, safety pin, etc...)

Refer to the Inspection Check List found in this manual for items which require attention.

WARNING: Tool frame, handles and chain may cut or pinch. Please use extreme caution.

Worn or damaged parts (i.e. bent handle or chain) may malfunction during operation, causing more extensive damage to the tool, load and/or severe injury to the operator or bystander.

All parts must be replaced with new parts if signs of wear or damage are evident.

Keep WARNING Labels clean and legible. DO NOT REMOVE Replace decals when necessary.

Observe during operation for any damage caused by or related to the applications in progress.

NOTE: Any unsatisfactory findings MUST be remedied before returning hoist to field operation.

RECOMMENDED LUBRICATION SCHEDULE

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>TYPE OF LUBRICANT</th>
<th>TYPE &amp; FREQUENCY OF SERVICE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>HEAVY</td>
</tr>
<tr>
<td>Load Chain</td>
<td>Penetrating Oil w/graphite or SAE 20-30 gear oil</td>
<td>Daily</td>
</tr>
<tr>
<td>Sprocket Shaft</td>
<td>Bearing Grease Multi Purpose - Lithium Base</td>
<td>Monthly</td>
</tr>
<tr>
<td>Top Hook</td>
<td></td>
<td>Monthy</td>
</tr>
<tr>
<td>Bottom Hook</td>
<td></td>
<td>Monthy</td>
</tr>
<tr>
<td>Super Sprocket Pin &amp; Bushing</td>
<td>SAE 20-30 Gear Oil</td>
<td>Weekly</td>
</tr>
<tr>
<td>Locking Pawel</td>
<td></td>
<td>Monthly</td>
</tr>
<tr>
<td>Reverse Ring Stop Pin Rocker Arm &amp; R.A. Shaft Pin Assy R.A.Center Post, Reverse Cam</td>
<td>Bearing Grease Calcium Base w/Graphite</td>
<td>Service at Periodic Inspection</td>
</tr>
<tr>
<td>Reversing Ring - Shoulder Pin Assy</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This Lubrication Schedule is based on a hoist operating under NORMAL conditions.

Operation under adverse conditions (i.e. dust, extreme heat, corrosive environments) may require more frequent Lubrication.

IF YOU HAVE QUESTIONS REGARDING THE REPAIR AND MAINTENANCE OF THIS TOOL, CONTACT RELIABLE EQUIPMENT AT 800-966-3530
**LEVER OPERATED CHAIN HOIST**
**INSPECTION & MAINTENANCE CHECK LIST**

**MANUFACTURED BY:** RELIABLE EQUIPMENT & SERVICE CO., INC.
**MODEL #** REL-H Series **CAPACITY** 18,000-30,000 LBS **ROLLER TYPE**
**SERIAL #** ENTERED SERVICE ON ____/____/____ **CREW #**

<table>
<thead>
<tr>
<th>Subject of Inspection</th>
<th>Conditions requiring additional inspection or repair</th>
<th>Frequency of Inspection</th>
<th>OK</th>
<th>Service Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>All functional mechanisms</td>
<td>Improper Operation, Binding, or Unusual Sounds</td>
<td>Daily Monthly Yearly</td>
<td>♦</td>
<td>♦ ♦ ♦</td>
</tr>
<tr>
<td>Load Chain</td>
<td>Inadequate lubrication, excessive wear, damage, or distortion, cracked, spread, or twisted links, corrosion or obstruction</td>
<td>♦ ♦ ♦</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hooks</td>
<td>Stretched throat opening, Distortion, damaged hook latch, wear, chemical or environmental damage, worn hook bearing, Cracks, Use dye penetrant, magnetic particle Magnafux, or other suitable detection method</td>
<td>♦ ♦ ♦</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lever Parts: Lever, Trip Rod, Pawl, Trip Pin, Release Spring and Pawl Spring, Bushing</td>
<td>Bends, cracks, distortion Straightness, ability to move pawl Wear, binding Bends, excessive wear Deformation, breaks, corrosion Excessive wear, scoring</td>
<td>♦ ♦ ♦</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sprocket, Sprocket Shaft, Chain Attachments</td>
<td>Distortion, cracks, damaged teeth, damaged, Stripped threads Excessive wear, loose or missing pins</td>
<td>♦</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reverse Ring, Shoulder Pin Assembly</td>
<td>Excessive wear, loose or missing pins</td>
<td>♦</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frames, Swivels</td>
<td>Cracks, distortion, excessive wear</td>
<td>♦</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Locking Pawl</td>
<td>Excessive wear, binding</td>
<td>♦</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reverse Springs, Locking Pawl Springs</td>
<td>Deformation, breaks, corrosion</td>
<td>♦</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pins, Bolts, Rivets</td>
<td>Looseness, thread damage, corrosion</td>
<td>♦</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warning Label</td>
<td>Missing, damaged, or illegible</td>
<td>♦</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:** Refer to Maintenance and Inspection Sections of the Hoist Maintenance Manual for additional details.

For additional information regarding frequency of inspection, see General Maintenance.

---

**PRE-OPERATION**

This tool requires regular inspection and testing by qualified trained personnel. Refer to Inspection criteria found later in this manual, and practices established by local authority. Review acceptable safe practices, local usage and safety requirements.

Visual inspection of the hoist condition and operation, as well as the support structure, rigging and load are required. **DO NOT OPERATE A DAMAGED OR MALFUNCTIONING HOIST**

**NOTE:** Stress caused by repetitive operation may reduce the integrity of support structure. Check hoist capacity and load. Overloading may damage hoist and cause personal injury or death.

**OPERATION**

Read entire manual prior to using this tool. Refer to all safety cautions and warnings. **This tool is to be used by qualified trained personnel only.**

Observe all safe working practices as dictated by local codes and the operating authority. If you are unsure of these practices please obtain training for the required application.

1. Before beginning any operation, ensure that subject is within the capacity listed for the tool. **DO NOT OVERLOAD THE HOIST** Check the load. Use a larger capacity hoist if needed.

   Ensure that the hoist has been properly inspected and is in good operating condition.

2. Ensure that the slings and other rigging are in good condition and have sufficient capacity (at least equal to the combined weight of the hoist, and it’s safe load rating) to support the load. **CLEAR THE AREA OF OBSTRUCTIONS** to the load and the proper operation of the hoist.

   Ensure that there is no person in close proximity to you, the tool, or the work area, who could be injured by any operation being performed, tool malfunction, or flying/falling debris.

3. Secure the hoist to a suitable support device by use of the top hook.

   Ensure that the safety latch has closed completely and is operating properly. **NOTE:** Failure to secure latch may compromise the security/safety of the load, resulting in severe damage and/or personal injury or death.

   Apply a small amount of Lubriplate or equivalent between the hook and the support device.

4. Check and correct any twist or kink in the load chain prior to making a connection.

   **NEVER WRAP LOAD CHAIN AROUND THE LOAD**

   Extend chain for easy connection of the hook. Turn side control lever to “Down” position, press thumb latch (release) on the lifting lever and pull chain as needed.

   Attach the bottom hook to the load using a sling or other acceptable device. **DO NOT TIP LOAD THE HOOK** (hook strain and failure may result)

   Ensure that the sling or device is properly seated in the saddle, and the latch has closed completely and is operating properly.
DO NOT SIDE LOAD  Operation should be performed in a straight line between hooks. Side loading may cause damage to the hoist and compromise the safety of the load.

5a. TO RAISE OR PULL THE LOAD - Turn the side control to the “UP” position.

DO NOT OVEREXTEND YOUR POSITION by overreaching or unbalancing the footing necessary to maintain physical control of your body and the tool.

DO NOT STAND BENEATH THE LOAD or endanger any other persons while raising or moving the load.

Take up slack by pulling on the free end of the chain.

5b. TO LOWER OR REMOVE LOAD - Turn the side control to the “DOWN” position.

*** NOTE: See SAFETY LOWERING at the end of this section for additional instruction.

6. Extend the lifting lever upward completely. Raise, pull or lower load by operating the lever/handle down and repeat operation.

CAUTION: DO NOT RELEASE THE LEVER WHILE UNDER LOAD
The locking pawl will engage at the end of each lever stroke. The action should be notable and audible. If stroke cannot be completed, remain in control of the lever until it returns to the stop position on the load block frame.

RAISE OR PULL LOAD ONLY until the chain is taut. Inspect rigging before continuing.

DO NOT USE A HANDLE EXTENSION, CHEATER BAR OR ADDITIONAL PERSONNEL
Additional force or leverage should not be required to operate your hoist within the rated working capacity. Check the hoist operation and load again.

Use a larger capacity hoist if needed.

7. Continue as described above to move the load as required by the operation.

DO NOT LEAVE THE HOIST UNDER LOAD unattended or for extended periods of time.
Additional precautions must be taken to ensure safety and provide protection.

Consult a qualified person for applicable safety practices related to your application.

*** SAFETY LOWERING - In lowering operations where the load counterbalances the lever an “unattended” ratcheting action may occur if the handle is released while under load.

This UNDESIRED occurrence can be prevented using the automatic safety feature.

It is recommended that this feature be employed for lowering operations. Immediately after turning the side control to the “DOWN” position return it to the “UP” position. The load can then be lowered using multiple short strokes.

NOTE: Keep the lever in the lower half of its normal operating range. Hoist action will revert to “UP” (RAISE/PULL) if lifting lever is extended fully.

OPTIONAL APPLICATIONS:

TO USE THE HOIST IN THE INVERTED POSITION. (UPSIDE DOWN)
Pull safety pin out as far as possible, and rotate lifting lever to the opposite side of the load block. The hoist will now operate on the down stroke with the hoist inverted.

---

**Table:**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>PART #</th>
<th>QTY</th>
<th>DESCRIPTION</th>
<th>NOTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>32</td>
<td>R-000232</td>
<td>2/3</td>
<td>CONNECTING LINK ASSY</td>
<td>(2) 18000H, (3) 22000H &amp; 26000H, (4) 30000H</td>
</tr>
<tr>
<td>33</td>
<td>R-000233</td>
<td>1</td>
<td>LOCKING PAWL SPRING</td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>R-000234</td>
<td>1</td>
<td>CHAIN</td>
<td>(18000H 33') (22000H 38') (26000H 43') (30000H 50')</td>
</tr>
<tr>
<td>36</td>
<td>R-000636</td>
<td>6</td>
<td>CAP SCREW</td>
<td>BB02</td>
</tr>
<tr>
<td>37</td>
<td>R-000637</td>
<td>2</td>
<td>SPACER, SUPER FRAME</td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>R-000138</td>
<td>1</td>
<td>ROLL PIN</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>R-000240</td>
<td>1</td>
<td>REVERSE LEVER SPRING</td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>R-000642</td>
<td>8</td>
<td>LOCK WASHER</td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>R-000343</td>
<td>2</td>
<td>IDLER PIN</td>
<td></td>
</tr>
<tr>
<td>46</td>
<td>R-000646</td>
<td>1</td>
<td>LEVER BUSHING</td>
<td></td>
</tr>
<tr>
<td>48</td>
<td>R-000648</td>
<td>2</td>
<td>SAFETY LATCH ASSY. (INCL. WITH HOOK)</td>
<td></td>
</tr>
<tr>
<td>49</td>
<td>R-000249</td>
<td>1</td>
<td>BUSHING, LOAD SHEAVE</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>R-000350</td>
<td>5</td>
<td>ROLL PIN</td>
<td></td>
</tr>
<tr>
<td>51</td>
<td>R-000251</td>
<td>1</td>
<td>CHAIN BUSHING</td>
<td></td>
</tr>
<tr>
<td>53</td>
<td>R-000653</td>
<td>1</td>
<td>CAP SCREW</td>
<td></td>
</tr>
<tr>
<td>54</td>
<td>R-000654</td>
<td>3</td>
<td>NUT</td>
<td></td>
</tr>
<tr>
<td>55</td>
<td>R-000655</td>
<td>3</td>
<td>LOCK WASHER</td>
<td></td>
</tr>
<tr>
<td>59</td>
<td>R-000659</td>
<td>8</td>
<td>NUT</td>
<td></td>
</tr>
<tr>
<td>61</td>
<td>R-000661</td>
<td>2</td>
<td>CAP SCREW</td>
<td></td>
</tr>
<tr>
<td>63</td>
<td>R-000663</td>
<td>3</td>
<td>SPROCKET, CHAIN</td>
<td></td>
</tr>
<tr>
<td>65</td>
<td>R-000212A</td>
<td>1</td>
<td>LEVER PAWL ASSEMBLY (PAWL, SPRING, RIVET)</td>
<td></td>
</tr>
<tr>
<td>68</td>
<td>R-000668</td>
<td>1</td>
<td>BRACKET, LIFTING SADDLE ASSEMBLY</td>
<td></td>
</tr>
<tr>
<td>69</td>
<td>R-000669</td>
<td>2</td>
<td>CAP SCREW</td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>R-000670</td>
<td>1</td>
<td>SHACKEL, SLING SAVER</td>
<td></td>
</tr>
<tr>
<td>73</td>
<td>R-000673</td>
<td>1</td>
<td>CLEVIS PIN</td>
<td></td>
</tr>
<tr>
<td>74</td>
<td>R-000674</td>
<td>1</td>
<td>ROLLER LINK</td>
<td>18000H, 26000H</td>
</tr>
<tr>
<td>75</td>
<td>R-000675</td>
<td>1</td>
<td>MASTER LINK</td>
<td>18000H, 26000H</td>
</tr>
<tr>
<td>ITEM</td>
<td>PART #</td>
<td>QTY</td>
<td>DESCRIPTION</td>
<td>NOTE</td>
</tr>
<tr>
<td>------</td>
<td>---------</td>
<td>-----</td>
<td>------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>1</td>
<td>R-000201</td>
<td>1</td>
<td>SPROCKET SHAFT</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>R-000202</td>
<td>1</td>
<td>REVERSING RING ASSY</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>R-000204</td>
<td>1</td>
<td>RETAINING RING</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>R-000605</td>
<td>1</td>
<td>SAFETY PIN ASSEMBLY</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>R-000606</td>
<td>1</td>
<td>DEAD END 18000H, 26000H</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>R-000207</td>
<td>1</td>
<td>LEVER PAWL PIN</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>R-000209</td>
<td>1</td>
<td>REVERSING LEVER</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>R-000610</td>
<td>2</td>
<td>SUPER FRAME 210</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>R-000211</td>
<td>1</td>
<td>LOCKING PAWL</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>R-000214</td>
<td>2/3/4</td>
<td>SUPER SPROCKET ASSY</td>
<td>(2) 18000H, (3) 22000H &amp; 26000H, (4) 30000H</td>
</tr>
<tr>
<td>15</td>
<td>R-000115</td>
<td>1</td>
<td>THUMB LATCH 215</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>R-000216</td>
<td>1</td>
<td>LEVER PAWL COVER</td>
<td>216</td>
</tr>
<tr>
<td>17</td>
<td>R-000617</td>
<td>1</td>
<td>LEVER</td>
<td>217</td>
</tr>
<tr>
<td>18</td>
<td>R-000618</td>
<td>1</td>
<td>RIGHT FRAME 218</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>R-000619</td>
<td>1</td>
<td>LEFT FRAME 219</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>R-000120</td>
<td>1</td>
<td>SAFETY PIN KNOB</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>R-000221</td>
<td>1</td>
<td>LOCKING PAWL RELEASE PIN</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>R-000222</td>
<td>1</td>
<td>LEVER WASHER</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>R-000223</td>
<td>1</td>
<td>TRIP ROD</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>R-000124</td>
<td>3</td>
<td>STATIONARY PIN</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>R-000226</td>
<td>2</td>
<td>REVERSE RING SPRING</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>R-000127</td>
<td>1</td>
<td>LOCKING PAWL SPRING</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>R-000128</td>
<td>1</td>
<td>SAFETY PIN SPRING</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>R-000229</td>
<td>1</td>
<td>LEVER PAWL SPRING</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>R-000630</td>
<td>2</td>
<td>HOOK (HK W/ LATCH)</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>R-000231</td>
<td>1</td>
<td>LEVER CAP SCREW</td>
<td></td>
</tr>
</tbody>
</table>

**H Series Chain Configuration**

<table>
<thead>
<tr>
<th>REL-18000H</th>
<th>REL-22000H</th>
<th>REL-26000H</th>
<th>REL-30000H</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 TON</td>
<td>11 TON</td>
<td>13 TON</td>
<td>15 TON</td>
</tr>
</tbody>
</table>

Continued
The Accessory Lifting Saddle provides a stable & balanced point for raising of the hoist. Swivel hook remains free for connection at support point.

NOT INTENDED FOR USE UNDER LOAD