

LUG-ALL®

OPERATING INSTRUCTIONS FOR YOUR LUG-ALL® RATCHET WINCH HOIST

Large Frame



Web Strap



Cable



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WARNING

TO AVOID PERSONAL INJURY OR EQUIPMENT DAMAGE:

1. Do not operate the ratchet winch hoist before you have carefully read the instructions and recommendations in this manual. The ratchet winch hoist must be operated and maintained to avoid risk of property damage or bodily injury.
2. Do not exceed load rating.
3. Inspect your ratchet winch hoist before each use for damage, malfunction, or worn parts.
4. Do not operate if the ratchet winch hoist is damaged or malfunctioning.
5. Inspect hooks and latches for bends, enlarged openings, and other damage. Remove ratchet winch hoist from service until damaged hooks and latches are replaced.
6. Operate only when hook-to-hook pull is in a straight line.
7. Do not operate if the cable or web strap has kinks, cuts, broken strands, frays, abrasions, or any other damage. The cable or web strap must be replaced even if the damage to the cable or web strap appears minor.
8. The cable or web strap must be evenly wrapped around the drum for secure ratchet winch hoist operation.
9. Ensure that the cable or web strap is seated properly in the pulley wheel.
10. Do not use the ratchet winch hoist to lift people or animal cargo or lift loads over people.
11. Do not leave an unattended load suspended in the air.
12. Do not lengthen or make any substitution for the ratchet winch hoist handle.
13. Do not remove or obscure warning labels.
14. Do not use the ratchet winch hoist as a load binder or tow line.
15. Do not snag or pull the cable or web strap over edges because serious weakening may result.
16. Do not use the ratchet winch hoist without replacing the broken shear pin (large frame models only).
17. Ensure the latches on the hook(s) are properly closed before using.
18. Use only genuine Lug-All replacement parts.
19. Only use the ratchet winch hoist in ambient operating temperature range (-10 to 50 degrees Celsius/14 to 122 degrees Fahrenheit.)



20. Keep long hair, loose-fitting clothing, and jewelry away from working mechanisms on the ratchet winch hoist at all times.
21. Do not place fingers, hands, or any other body part near the pawl during ratchet winch hoist operation.



WARNING

WEB STRAP WARNINGS

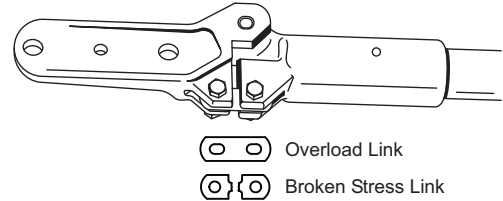
The use of the web strap ratchet winch hoist on or around energized lines may result in serious injury or death.

If provided, use the optional hot-stick rings and/or operating levers to eliminate direct contact with the ratchet winch hoist.

The web strap and fiberglass handle provide an extra measure of safety when working around energized power lines. However, Lug-All web strap ratchet winch hoists are not live-line tools. When the web strap is clean and dry, it may have dielectric properties typical of nylon or polyester fibers. However, these dielectric properties are lost when the web strap becomes wet and/or dirty.

LINK WARNINGS

Inspect assembly for broken or missing links before using hoist. Replace broken links immediately.



Use one stress link and one overload link only. The use of two overload links or two stress links will produce excessive overload and eliminate the handle's safety feature.

The stress link, located beside the overload link, snaps when the hoist is overloaded to protect the operator and hoist before injury or damage occurs.

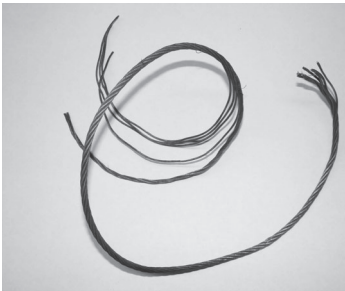
The overload link has elongated holes, which allow the stress link to snap while still holding the handle assembly together.

DAILY INSPECTIONS

Before each use, the ratchet winch hoist must be visually inspected. The hoist must be removed from service if any of the following is visible:

DAILY CABLE INSPECTIONS

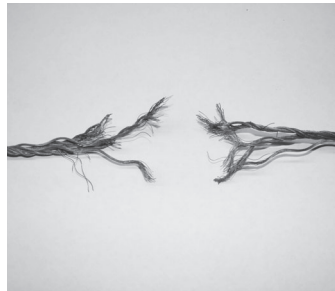
Drum Crushing Spiraling



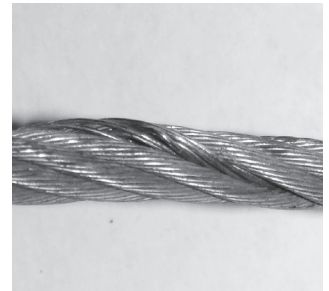
Broken Wires



Cut Cable

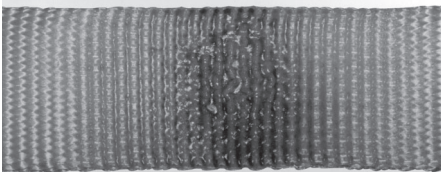


Kinks

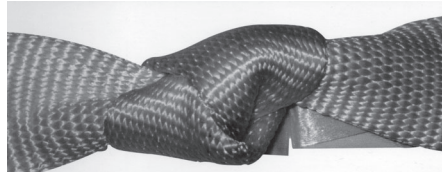


DAILY WEB STRAP INSPECTIONS

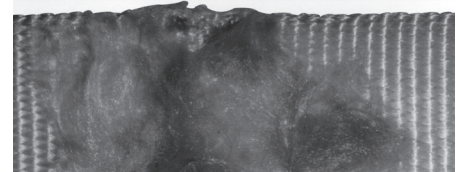
Melting, Charring, or Chemical Damage



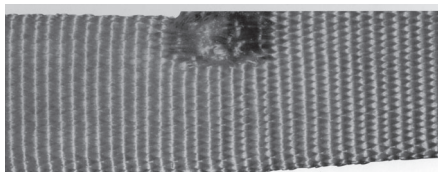
Knots in the Web Strap



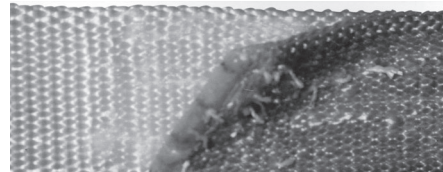
Excessive, Abrasive Wear



Cuts, Holes, or Tears Anywhere on Webbing



Broken or Worn Threads in the Stitch Pattern



LUG-ALL RATCHET WINCH HOIST PRE-OPERATIONAL INSPECTION CHECKLIST

UNIT: _____ **MODEL:** _____ **DATE:** _____

Inspection Point	Inspection Results (☐)	
	Pass	Fail
1.) Inspect hooks and latches for deformation, cracks, and wear. An elongated or bent hook is an indication that the ratchet winch hoist was overloaded.		
2.) Check operation of latches. Safety latches on the hooks should not be removed or kept permanently open.		
3.) Inspect cable or web strap for fraying, melting, charring, chemical damage, abrasive wear, cuts on the face or edges of webbing or cable, holes, tears, snags, and/or any other damage.		
4.) Inspect web stitch patterns for broken or worn threads.		
5.) Check ratchet teeth for gouges, burred edges, and/or other physical damage.		
6.) Check for bent or broken metal parts, rounded edges, and elongated holes.		
7.) Check metal parts for corrosion.		
8.) Check pawls and levers for bends, cracks, and/or other damage.		
9.) Check the integrity of the springs.		
10.) Operate the U-frame and verify that the U-frame does not rub against the main frame during operation.		
11.) Test operating functions, such as lifting, lowering, and free release of the ratchet winch hoist.		
12.) Verify that the U-frame is not missing the main frame spring.		
13.) Check the hoist for broken stress link.		

NOTE: The cable or web strap must be pulled from the drum during inspection. The ratchet winch hoist should be removed from service if any inspection points fail.

RIGGING

Before rigging, refer to the capacity plate on the outside of the main frame for single line and double-line rigging capacities. Lug-All ratchet winch hoists operate in any position as a hoist and horizontally as a winch. The lifting and pulling power of the ratchet winch hoist depends on whether it is single-line rigged or double-line rigged with the use of a pulley block.

Per **Figure 1**, rig the ratchet winch hoist with double line for full capacity. For twice the lifting distance and operating speed, rig the ratchet winch hoist with single line for one-half capacity.

Always rig the ratchet winch hoist so that it will move freely from side-to-side, which allows even wrapping of the cable or web strap on the drum. Restricting the frame's side-to-side movement stresses the frame from uneven loading.

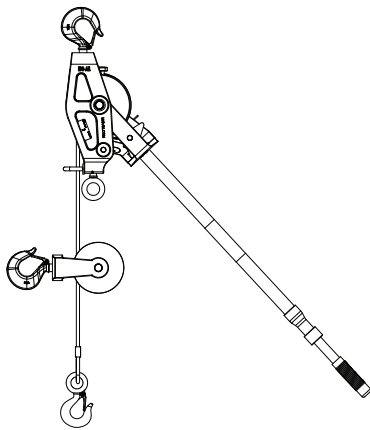
Hooks should be placed so that the point of contact is in line with the center of the shank or eye.

RAPID LOWERING MODELS ONLY

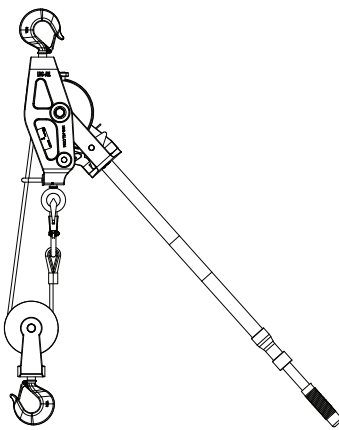
When rigging a Lug-All ratchet winch hoist that will be used in rapid lowering mode, you must rig it so that a full stroke of the handle is possible. For example, if working from a ceiling with the ratchet winch hoist right side up, it would be necessary to use a choker or extension to lower the ratchet winch hoist sufficient distance to allow the handle to travel its full arc, which carries it above the top hook. See Rapid Lowering Lug-All section on page 4.

Figure 1

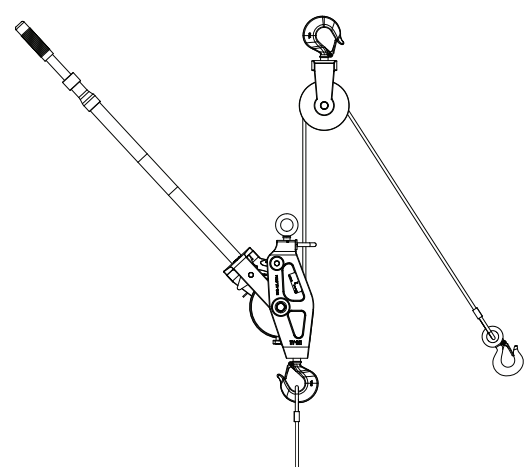
Single Rigged (1/2 Capacity)



Double Rigged (Full Capacity)



Alternate Rigged (1/2 Capacity)



OPERATING YOUR LUG-ALL

Our standard ratchet winch hoists have three operation modes: lifting or tensioning, lowering or backing off, and free release. Lifting or tensioning and lowering or backing off operations require the ratchet winch hoist to be under load (at least 15 pounds). The position of the reverse lever (to either hold the U-frame pawl against or away from the ratchet teeth under spring tension) determines the operation mode. Free release mode quickly unwinds the cable or web strap from the drum and will not operate under load.

LIFTING OR TENSIONING (MUST BE UNDER LOAD OF AT LEAST 15 POUNDS)

1. Per **Figure 2**, rotate the reverse lever toward the drum to engage the U-frame pawl against the ratchet teeth.
2. Operate the handle as required to lift the load or apply the required tension.

LOWERING OR BACKING OFF (MUST BE UNDER LOAD OF AT LEAST 15 POUNDS)

1. Per **Figure 3**, rotate the reverse lever away from the drum to move the U-frame pawl away from the ratchet teeth.
2. Per **Figure 3**, move the handle until the U-frame pawl engages the main frame pawl spring. Additional handle pressure in the same direction will release the main frame pawl.
3. Per **Figure 3**, ease off the handle pressure and the load will lower one ratchet tooth.

FREE RELEASE (WILL NOT OPERATE UNDER LOAD)

1. Per **Figure 3**, rotate the reverse lever away from the drum to move the U-frame pawl away from the ratchet teeth.
2. Per **Figure 3**, press the trigger to hold the main frame pawl away from the ratchet teeth.
NOTE: The trigger is the end of the main frame pawl that does not engage the ratchet teeth.
3. Pull out the cable or web strap the required distance.

Figure 2

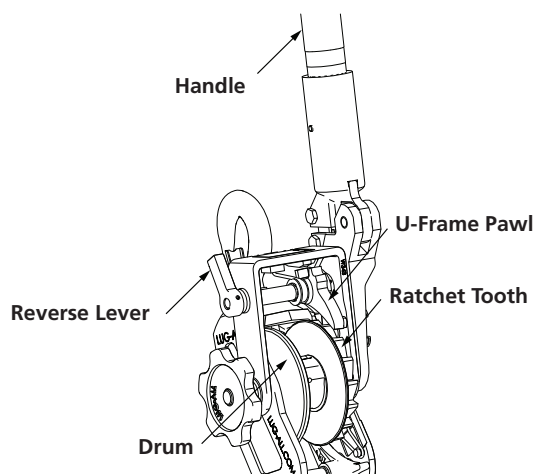
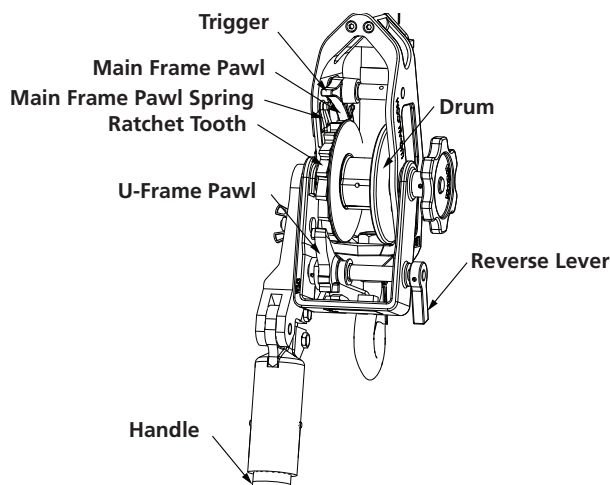


Figure 3



WINDING CABLE OR WEB STRAP

When rewinding the cable or web strap on the drum, apply light tension (10 pounds). Light tension assures even wrapping and will prevent the cable or web strap from “wedging” the next time it is used under heavy load.

- Stop pulling when the sleeve-type cable clamp or web end assembly reaches the cable guide or web strap guide. Continued pulling will damage parts.
- Use a steady, straight pull to operate the ratchet winch hoist.
- When operating the ratchet winch hoist under load, do not allow the handle to “fly” because it can damage the U-frame.

CARING FOR THE LUG-ALL RATCHET WINCH HOIST

- The web strap is made of synthetic fibers, and like all fibers, whether synthetic or natural, it may deteriorate from various causes, including chemicals, weather, and sunlight.
- Most of the damage described above can cause catastrophic failure of the web strap. Not all of the damage will be obvious or extreme, but it still requires removal from use.
- The web strap should be load tested periodically and replaced when the safety factor for its maximum possible load is considered to be insufficient by the user. The testing time frame is based on usage, which is determined by the end user.
- The web strap should be replaced on a yearly basis once opened from its original packaging.
- Strip the cable or web strap completely from the drum to thoroughly inspect and clean all components..

RAPID LOWERING LUG-ALL

Rapid lowering ratchet winch hoists operate on the same basic principles as the standard ratchet winch hoists with one additional action—rapid lowering, meaning the hoist will lower four teeth at a time.

NOTE: Rapid lowering mode requires a minimum load of 15 pounds.

When using rapid lowering mode, operators must control the handle torque through the full travel of the arc, which is four times longer than the arc of standard ratchet winch hoists.

When engaging rapid lowering mode, the first handle stroke may lower between one and four ratchet teeth depending on the cam position. Following handle strokes will lower four ratchet teeth.

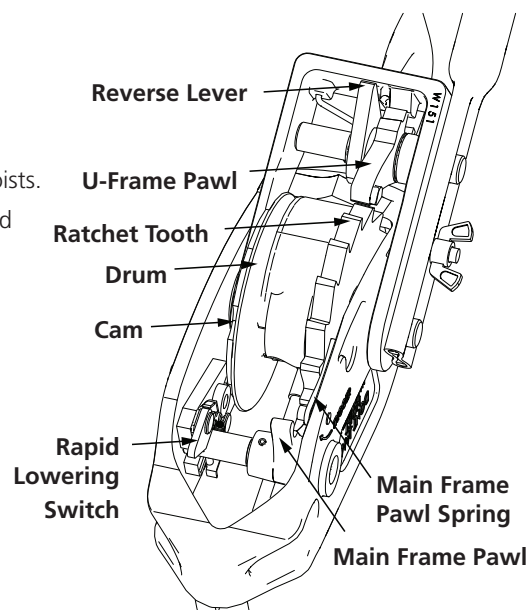
Follow the steps below to use rapid lowering mode:

1. Per **Figure 4**, rotate the reverse lever away from the drum.
2. Per **Figure 4**, move the U-frame pawl away from the ratchet teeth.

NOTE: Do not operate the ratchet winch hoist in lifting/tensioning mode with the rapid lowering switch in the “on” position.

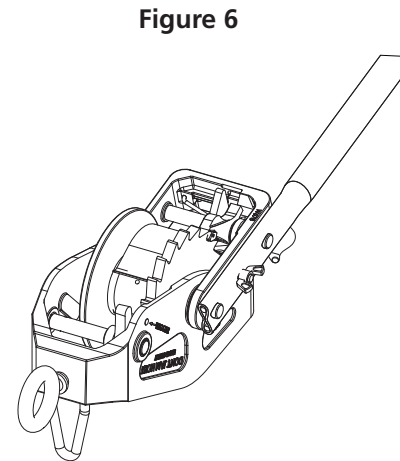
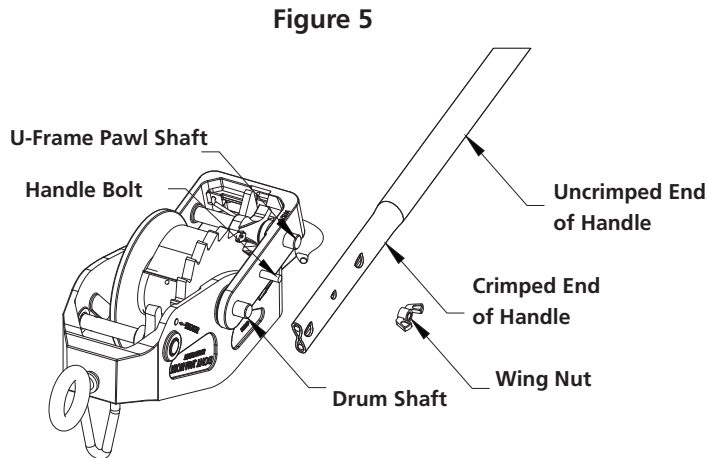
3. Per **Figure 4**, place the rapid lowering switch up toward the drum in the “on” position.
4. Per **Figure 4**, move the handle until the U-frame pawl engages the main frame pawl spring. Additional handle pressure will release the main frame pawl.
5. Ease off the handle pressure slowly, and the load will lower one to four teeth initially depending on the cam position, then four teeth with each additional handle stroke.

Figure 4



HANDLE INSTALLATION

1. Remove the handle from the cardboard shield inside the product box.
2. Per **Figure 5**, remove the wing nut from the side of the U-frame.
NOTE: A wing nut is not used on large frame models.
3. Per **Figure 6**, position the handle so that the three holes on the crimped end line up with the U-frame shafts and bolt.
NOTE: The handle may be inserted onto the U-frame and drum shafts in either direction to facilitate use in confined areas or to allow the operator to pull against the load under unusual circumstances.
4. Per **Figure 6**, securely hand tighten the wing nut back onto the U-frame bolt. Do not use a wrench.

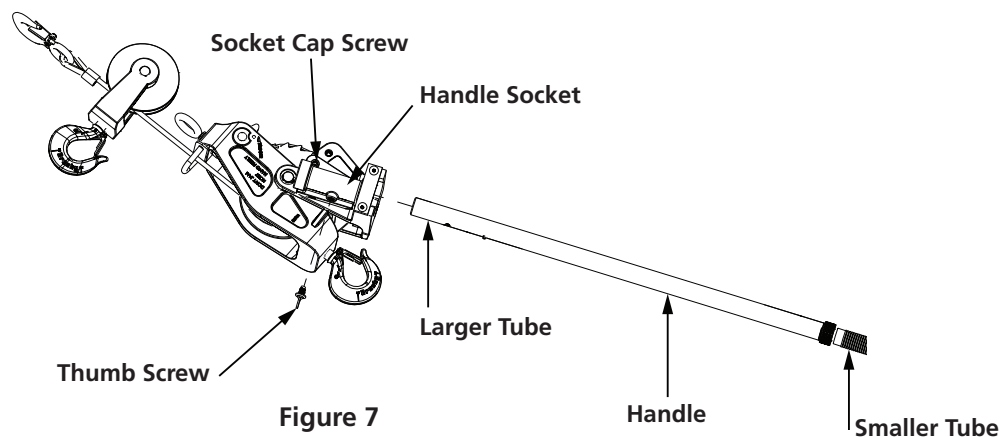


HANDLE INFORMATION (LARGE FRAME MODELS ONLY)

The handle can be moved to either of two positions: lifting or pulling. Many lowering or backing off operations can be easily accomplished with the handle socket in the standard position, which is parallel to the edge of the U-frame. To lower or back off heavy loads, you may want to have the handle socket in the secondary position. This secondary position provides better leverage and makes lowering or backing off a load easier.

HANDLE INSTALLATION (LARGE FRAME MODELS ONLY)

1. Remove the handle from the cardboard shield inside the product box.
2. Per **Figure 7**, remove the thumb screw from the handle socket.
3. Per **Figure 7**, slide the end of the handle into the handle socket.
4. Per **Figure 7**, align the hole in the inserted end of the handle with the hole in the handle socket.
5. Per **Figure 7**, the reversible handle is aligned in the handle socket by a pin 5-1/2 inches from its end and is fastened in place by tightening the thumb screw on the socket.
NOTE: The handle socket may face in either direction to facilitate use in confined areas or to allow the operator to pull against the load under unusual circumstances. To invert the handle socket, follow the steps below:
 - Per **Figure 7**, remove the socket cap screw with a 5/16-inch hex key.
 - Per **Figure 7**, slide the handle socket to the proper position.
 - Per **Figure 7**, reinstall the socket cap screw with a 5/16-inch hex key.



TELESCOPING HANDLE

(MODEL 6000-15 ONLY)

To telescope the handle:

1. Per **Figure 8**, loosen the handle locking nut (right-hand thread).
2. Per **Figure 8**, slide the smaller tube to the desired position.
3. Per **Figure 8**, securely re-tighten the handle locking nut by hand. Do not use a wrench.

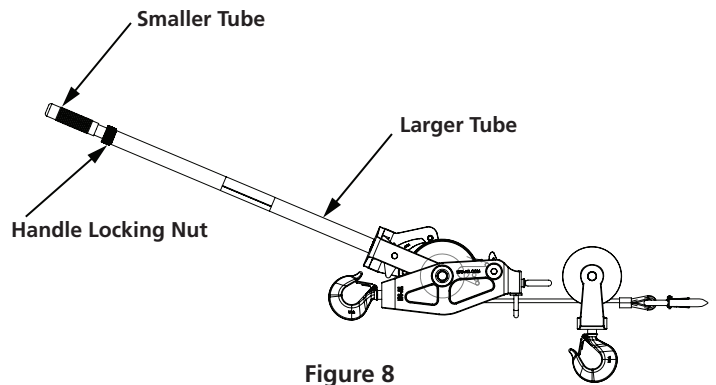


Figure 8

REPLACING THE STRESS LINK OR OVERLOAD LINK

1. Per **Figure 9**, remove the wing nut.
2. Per **Figure 9**, remove the handle from the U-frame.
3. Per **Figure 9**, remove the link pin nuts and threaded link pins.
4. Per **Figure 9**, remove and discard broken or old stress link or overload link. You must use one stress link and one overload link.

NOTE: A spare overload link is not supplied with the ratchet winch hoist. However, a spare stress link is provided.

5. Per **Figure 9**, insert the new stress link or overload link.
6. Reinstall threaded link pins and nuts.
7. Reinstall the handle by aligning the three holes in the handle with the U-frame shafts and bolt.
8. Securely hand tighten the wing nut back onto the U-frame bolt. Do not use a wrench.

NOTE: Use one stress link and one overload link only. The use of two overload links or two stress links will produce excessive overload and eliminate the handle's safety feature.

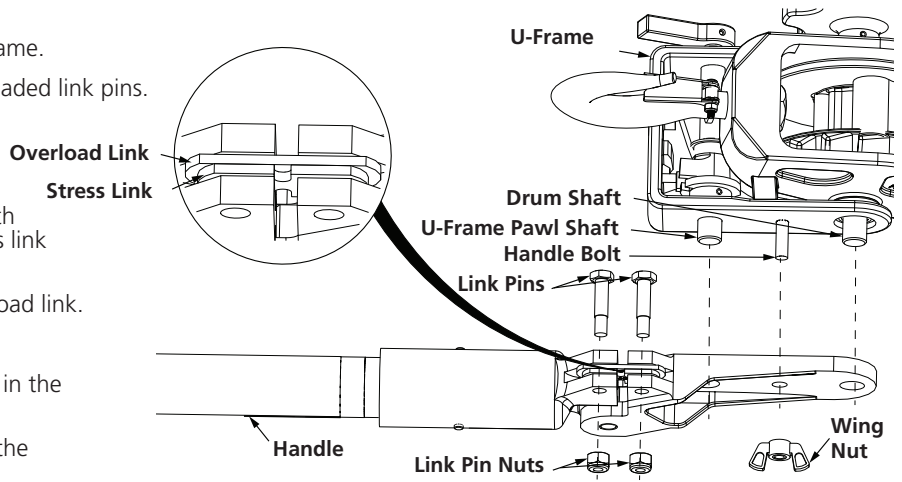
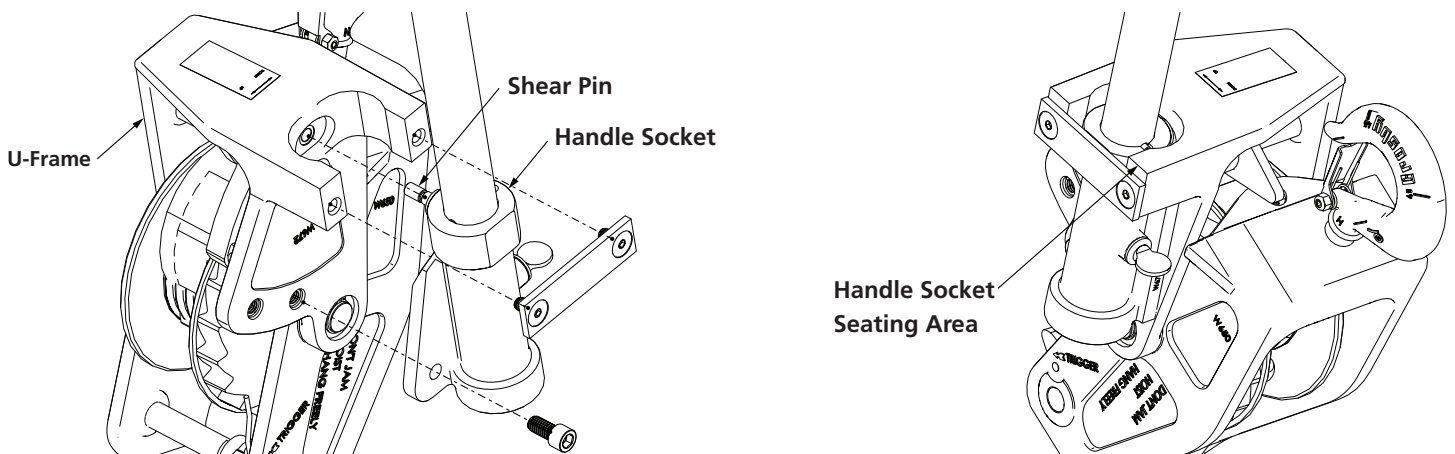


Figure 9

SHEAR PIN INFORMATION (LARGE FRAME MODELS ONLY)

Refer to **Figure 10**. The shear pin between the handle socket and the U-frame is designed to break if the ratchet winch hoist is severely overloaded. You will know when the shear pin breaks because of the noise and loose handle socket. Although the ratchet winch hoist does not become inoperative when the shear pin is broken, an overload condition exists, and **the ratchet winch hoist should not be used until the load is reduced and the shear pin is replaced**. If it is not possible to reduce the load and the overload condition is minor, the handle socket seating area will allow you to operate the ratchet winch hoist to reduce the load.

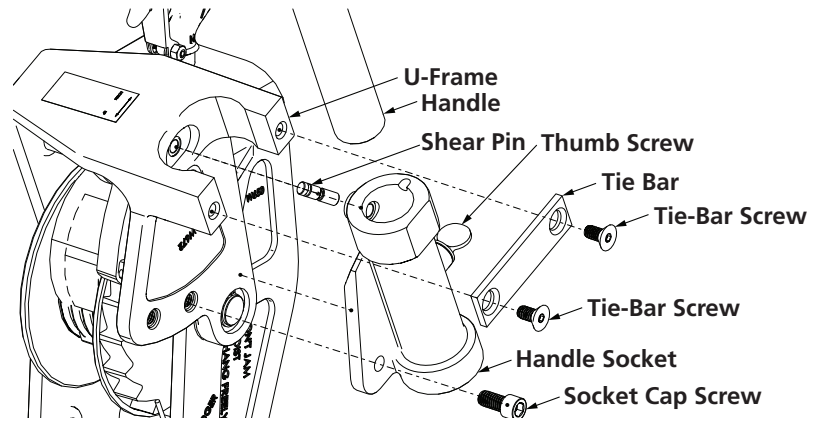
Figure 10



REPLACING THE SHEAR PIN (LARGE FRAME MODELS ONLY)

1. Per **Figure 11**, loosen the thumb screw.
2. Per **Figure 11**, remove the handle from the handle socket.
3. Per **Figure 11**, remove the two tie-bar screws and tie bar holding the handle socket using a 3/16-inch hex key.
4. Per **Figure 11**, remove the socket cap screw using a 5/16-inch hex key from the handle socket.
5. Per **Figure 11**, remove the handle socket from the U-frame.
6. Per **Figure 11**, remove the broken shear pin from the U-frame using a small shaft, such as a small hex wrench or nail.
7. Push the O-ring side of the replacement shear pin into the U-frame with your fingers. Ensure that the shear pin is completely seated in the U-frame.
8. Align the holes in the handle socket with the holes for the shear pin and socket cap screw.
9. Using a 5/16-inch hex key, securely tighten the socket cap screw to the handle socket.
10. Using a 3/16-inch hex key, securely tighten the tie-bar screws and tie bar to the handle socket.
11. Reinsert the handle into the handle socket.
12. Securely hand tighten the thumb screw. Do not use a wrench.

Figure 11



LOAD CHARTS

The following load charts display single and double-line capacities for Lug-All ratchet winch hoists. Metric capacities shown are the exact equivalents of the U.S. domestic ratings.

CABLE RATCHET WINCH HOIST LOADINGS

WEB AND CABLE EYE BOLT HOIST LOADINGS

WIRE-ROPE RATCHET WINCH HOIST RATINGS		
Model	Single-Line Capacity (Pounds/Kilograms)	Double-Line Capacity (Pounds/Kilograms)
1000-15	1,000/454	N/A
115-R	1,000/454	N/A
1000-25	1,000/454	N/A
1500-25	750/340	1,500/680
125-R	750/340	1,500/680
2250-15	1,125/510	2,250/1,021
215-R	1,125/510	2,250/1,021
2250-20	1,125/510	2,250/1,021
3000-10	1,500/680	3,000/1,361
310-R	1,500/680	3,000/1,361
2250-38	1,125/510	2,250/1,021
238-R	1,125/510	2,250/1,021
3000-30	1,500/680	3,000/1,361
330-R	1,500/680	3,000/1,361
4000-20	2,000/907	4,000/1,814
420-R	2,000/907	4,000/1,814
4000-40	2,000/907	4,000/1,814
6000-15	3,000/1,361	6,000/2,722

EYE BOLT MAIN FRAME HOIST RATINGS		
Model	Single-Line Capacity (Pounds/Kilograms)	Double-Line Capacity (Pounds/Kilograms)
500-I	500/227	N/A
25-iA	1,500/680	3,000/1,361
25-iB	1,500/680	3,000/1,361
25-iU	1,500/680	3,000/1,361
25-iUB	1,500/680	3,000/1,361
25-iHB	1,500/680	3,000/1,361
3000-10i	1,500/680	3,000/1,361

NOTE: The 500-i and all 25-i models are web strap ratchet winch hoists. Model 3000-10i is a cable ratchet winch hoist.

WEB STRAP RATCHET WINCH HOIST LOADINGS

WEB STRAP RATCHET WINCH HOIST RATINGS		
Model	Single-Line Capacity (Pounds/Kilograms)	Double-Line Capacity (Pounds/Kilograms)
500-A	500/227	N/A
500-A-FH	500/227	N/A
1000-A	1,000/454	N/A
1500-A	1,500/680	N/A
2-A	1,000/454	2,000/907
2-B	1,000/454	2,000/907
2-U	1,000/454	2,000/907
2-UB	1,000/454	2,000/907
2-HB	1,000/454	2,000/907
25-A	1,500/680	3,000/1,361
25-B	1,500/680	3,000/1,361
25-U	1,500/680	3,000/1,361
25-UB	1,500/680	3,000/1,361
25-HB	1,500/680	3,000/1,361
3-A	1,500/680	3,000/1,361
3-B	1,500/680	3,000/1,361
3-U	1,500/680	3,000/1,361
3-UB	1,500/680	3,000/1,361
3-HB	1,500/680	3,000/1,361
4-A	2,000/907	4,000/1,814
4-B	2,000/907	4,000/1,814
4-U	2,000/907	4,000/1,814
4-UB	2,000/907	4,000/1,814
4-HB	2,000/907	4,000/1,814
35-A	1,500/680	3,000/1,361
35-B	1,500/680	3,000/1,361
35-U	1,500/680	3,000/1,361
35-UB	1,500/680	3,000/1,361
35-HB	1,500/680	3,000/1,361
40-A	2,000/907	4,000/1,814
40-B	2,000/907	4,000/1,814
40-U	2,000/907	4,000/1,814
40-UB	2,000/907	4,000/1,814
40-HB	2,000/907	4,000/1,814

CONVERTIBLE WEB STRAP HOIST RATINGS		
Model	Single-Line Capacity (Pounds/Kilograms)	Double-Line Capacity (Pounds/Kilograms)
2-CA	1,500/680	3,000/1,361
2-CB	1,500/680	3,000/1,361
2-CU	1,500/680	3,000/1,361
2-CUB	1,500/680	3,000/1,361
2-CHB	1,500/680	3,000/1,361
3-CA	1,500/680	3,000/1,361
3-CB	1,500/680	3,000/1,361
3-CU	1,500/680	3,000/1,361
3-CUB	1,500/680	3,000/1,361
3-CHB	1,500/680	3,000/1,361
4-CA	2,000/907	4,000/1,814
4-CB	2,000/907	4,000/1,814
4-CU	2,000/907	4,000/1,814
4-CUB	2,000/907	4,000/1,814
4-CHB	2,000/907	4,000/1,814
35-CA	1,500/680	3,000/1,361
35-CB	1,500/680	3,000/1,361
35-CU	1,500/680	3,000/1,361
35-CUB	1,500/680	3,000/1,361
35-CHB	1,500/680	3,000/1,361
40-CA	2,000/907	4,000/1,814
40-CB	2,000/907	4,000/1,814
40-CU	2,000/907	4,000/1,814
40-CUB	2,000/907	4,000/1,814
40-CHB	2,000/907	4,000/1,814



LIMITED WARRANTY

The seller warrants that the Lug-All Ratchet Winch Hoist be free from defects in material and workmanship for a term of one year from the date of purchase by the original consumer. In the event of a defect, malfunction, or other failure of the Lug-All product not caused by unreasonable use, failure to provide reasonable and necessary maintenance, or damage to the product while in the possession of the consumer, the seller will remedy the defect or failure within 30 days of return to seller. The remedy will consist solely of repair or replacement of the product at the seller's option. If after a reasonable number of attempts by the seller to remedy the defect, malfunction, or other failure, the remedy fails in its essential purpose, the consumer is entitled to elect either a refund or a replacement, without charge.

This warranty does not apply to defects caused by modification, alteration, repair, or service of the Lug-All by anyone other than Lug-All. This warranty extends to only the original purchaser of the Lug-All.

In order to obtain performance under the warranty, the consumer must deliver the Lug-All and all ancillary parts to the Lug-All Corporation, along with a written explanation of the defect or failure. Delivery expenses and insurance for warranty service to and from Lug-All are the responsibility of the buyer. Proof of purchase—such as a sales receipt or other documentation—is required when requesting warranty service.

This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

In no event shall the seller (including its affiliates, contractors, directors, employees, and/or agents) be liable for any consequential, incidental, economic, direct, indirect, general, or special damages of any kind, including lost business, lost savings, lost data and lost profits, regardless of the cause and whether arising in contract (including fundamental breach), tort, (including negligence), or otherwise, even if the seller has been advised of the possibility of such damages. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the exclusion or limitation in the paragraph may not apply to you.

The buyer shall notify the seller promptly within thirty (30) days of becoming aware of any accident or malfunction involving the seller's products that arise out of or relate to any personal injury or damage to property and shall cooperate fully with the seller in investigating and determining the cause of such accident and malfunction. To the extent that a buyer fails to give such notice to the seller and provide such cooperation, the buyer shall be liable to the seller for the consequences of such failure.