# **BUCKINGHAM MFG.**

# P/N 5100 Series

# **Battery / Power Supply Hoist Instructions**

## Instructions for use:

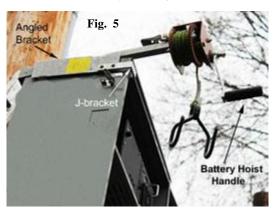
## Winch:

- 1. Wind the rope on the winch reel by turning the handle in a clock- wise direction. This should produce a loud, sharp clicking sound. The load will remain in position when the handle is released.
- 2. Wind the rope off the winch reel by turning the handle counterclockwise (no sound will be heard). The load will remain in position when the handle is released, but for extra security it is recommended that the handle be turned clockwise until at least two clicks are heard. This will add extra tightness to the brake system.
- 3. Always satisfy yourself that the winch is holding the load before releasing the handle.
- Note: Sufficient load must be applied to the rope to overcome internal resistance and operate the brake properly, otherwise turning the handle counterclockwise will only remove the handle from the shaft (the reel will not turn). The minimum operating load requirement is 50 lbs.

# Mounting the Battery Hoist System:

- 1. Remove all components from the storage bag (Fig.1).
- 2. If using a ladder, position it directly beneath the battery box, and stabilize it with the supplied Ladder Stabilizing Strap system per the 355B (P/N 230179) instructions (Fig. 2).
- 3. Using appropriate PPE, climb the ladder (or position bucket) and open the cover to the battery box. It may be necessary to remove the cover if it inhibits the proper function of the hoist.
- 4. Using a hand line, raise the Battery Hoist to the battery box.
- 5. Place the Battery Hoist on top of the battery box (Fig. 3). Align the Battery Hoist with the angled bracket on the top, left side of the battery box, with the winch pointing forward, and ensure the J-bracket is under the inside lip of the battery box (Fig. 4 & 5).
- 6. Connect the S hook at the free end of the Battery Hoist Rope Ratchet through one of the holes in the L bracket located on the top of the Battery Hoist. Wrap the ratcheting device around the pole and connect the S hook attached to the ratcheting device through the other hole in the L bracket (Fig. 6). Pull the tail end of the rope until the Battery Hoist Rope Ratchet is securely tightened around the pole.
- 7. It may be necessary to re-position the ladder to the left side of the box when attaching the Secondary Ratchet Strap and to create clearance for hoisting (Fig. 7).
- 8. Cinch the looped end of the Secondary Ratchet Strap around the pole and above the battery box. Place the free end through the winding slot of the Secondary Ratchet and remove slack. Rotate the ratchet handle to securely tighten the strap and to add extra support to the hoist arm and battery box (Fig. 8).





Storage Bag Battery Hoist Battery Carrier Battery Battery Hoist Rope Ratchet Battery Battery Hoist Rope Ratchet

Fig. 1







#### **Battery Removal / Replacement**

- 1. Open the door of the Battery Box and secure it so it cannot accidentally swing or close while changing the battery. A bungee cord or an additional ratchet strap can be used to secure the door.
- 2. Place the battery inside of the Battery Carrier by slightly tilting up one end of the battery and sliding the plastic sheeting of the Battery Carrier under the battery. Slide the battery inward until it is completely inside of the Battery Carrier.
- 3. Secure the battery in the carrier by connecting the Quick Lock Buckle attached to the containment strap (Fig. 9).
- Rotate the Battery Hoist Handle counterclockwise to lower the Dual Hook to the location the battery is to be hoisted, either from the Battery Box or from the ground.
- 5. Place the Battery Carrier Handle onto the prongs of the Dual Hook and center the handle between the prongs.
- If removing the battery from a battery box: (Note: always maintain control of the battery through use of the Battery Hoist Handle).



- Rotate the Battery Hoist Handle clockwise to raise the battery off the shelf.
- Swing the battery outward so it clears the battery box when being lowered to the ground.
- Ensure the area below is clear and rotate the Battery Hoist Handle counterclockwise to slowly lower the battery to the ground.
- Disconnect the Dual Hook and remove the battery from the carrier.
- 7. If raising the battery from the ground:

(Note: always maintain control of the battery through use of the Battery Hoist Handle).

- Rotate the Battery Hoist Handle clockwise to raise the battery from the ground to a level slightly above the shelf of the Battery Box.
- Swing the battery inward so it will land on the desired location of the shelf when being lowered.
- Rotate the Battery Hoist Handle counterclockwise to lower the battery onto the shelf.
- Disconnect the Dual Hook and remove the battery from the carrier.
- 8. Repeat steps 8 through 12 for each battery to be removed/replaced.

9.Remove the Battery Hoist system and its components in the reverse order/direction as above.

#### Inspection:

- Inspect the Battery Hoist for any sign of loose fasteners, excessive wear, damage, cracks, corrosion, or malfunction of equipment.
- Inspect entire length of Battery Hoist rope for cuts, nicks, kinks, abrasion burns, broken fibers, chemical or physical exposures, excessive wear, discoloration, swelling, or herniation (core popping through cover).
- Inspect the Battery Hoist rope stitched/spliced eye connected to the dual hook for excessive wear, abrasions, cut/broke/missing/unraveling thread, that the heat shrunk plastic cover is intact, not nicked or cut.
- Inspect the Battery Carrier, it's base and Quick Lock Buckle for excessive wear or damage, abrasions, cut/broke/missing/unraveling thread, that the heat shrunk plastic handle cover is intact, not nicked or cut.

If any evidence of wear or deterioration as outlined above is observed, immediately cease use, destroy the product, and replace it with new equipment. Should any unusual conditions not outlined above be observed, or you have reasonable doubt about a particular condition, remove the equipment from service and notify your Supervisor, Safety Director, or contact Buckingham Mfg. Co. for clarification. Failure to carefully and completely inspect your equipment could result in serious injury or death.

Inspect the Ladder Stabilizing Strap system per instructions (P/N 230179, 355B Instructions).

# Warnings:

- Completely read, understand, and follow all instructions, warnings, and guidelines pertaining to this and all associated equipment before use. Failure to do so could result in your serious injury or death.
- Never work without independent fall-arrest protection if there is danger of a fall.
- This product is for equipment hoisting only. <u>NOT</u> for human support / hoisting.
- Use this equipment only for the specific purpose for which it is designed and intended.
- Always inspect this equipment and check winch for proper operation prior to use.
- Never exceed rated capacity. Excess loads may cause premature failure. This winch is rated on the first layer of rope on the reel. Using more layers of rope increases the load on the winch.
- Never apply a load on the winch with the cable fully extended. Keep at least three full turns of rope on the reel.
- Secure the load properly. When winching operation is complete, do not depend on the winch to support the load.
- Operate the winch with hand power only. This winch should not be operated with a motor of any kind. If the winch cannot be cranked easily with one hand, it is probably over-loaded.
- Avoid any contact with live electrical wires or components.
- Never stand, or allow anyone, under the Battery Hoist when in operation.
- Ensure that the battery/power box is securely mounted to pole (or structure) and is capable of supporting this hoist and associated loads.
- Ensure that the battery/power box door cannot swing or close while working near the battery box.
- When raising, or lowering tools/materials, place yourself in a position where the movement of the load can be observed to its destination.
- Destroy any and all equipment subjected to impact loading.
- Do not exceed the hoist maximum load rating of 100 lbs.
- Never tie knots in the Battery Hoist Rope. Knots can reduce the strength of the rope up to 50%.
- Only Buckingham Mfg. Co. or those authorized in writing by Buckingham Mfg. Co. may make repairs / modifications to this equipment.
- Keep fingers and loose clothing away from pinch points of the winch.

## Maintenance, Storage and Cleaning:

- Proper maintenance and storage of your equipment will prolong its useful life and contribute toward its performance. Webbing and rope should be cleaned with water and mild soap (a dish washing soap that removes grease (i.e. Dawn)) and be allowed to dry thoroughly without using excessive heat.
- Store in a cool, dry area and away from moisture, corrosion, physical or electrical damage.
- A small amount of grease may be applied to the winch gears, reel shaft and handle threads.
- An occasional drop of oil on the drive shaft bearings is also recommended.
- DO NOT oil or grease the brake mechanism items (pressure plate or ratchet wheel) that lie between the two small sprockets of the winch (Fig. 11).
- If the winch will be used in freezing temperatures, or icy conditions, the ratchet pawl (Fig.12) and spacer items (flat washer, pawl, spacer and spring) may require a silicone spray to assist in its usage.



NOTE: Ensure proper fit / size of product before use. This product <u>cannot</u> be returned unless it is in new / unused condition.

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