

# SAFETY HOIST<sup>co.</sup>

## Operator's Manual

### LIGHT DUTY ELECTRIC MATERIAL HOISTS

For EH-250 & SPH-250  
Material Hoists



#### IMPORTANT:

Retain this manual for instruction on  
assembly and operation of hoist.

READ THIS MANUAL CAREFULLY BEFORE ATTEMPTING TO  
ASSEMBLE OR OPERATE YOUR SAFETY HOIST. FAILURE TO  
COMPLY WITH INSTRUCTIONS MAY CAUSE THE HOIST TO  
MALFUNCTION AND MAY RESULT IN PERSONAL INJURY.



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## HOIST COMPONENTS

### EH-250

1. ONE (1) - Power Unit (hoist bolted on base) (includes a storage compartment)
2. ONE (1) - Power cord with screw connection
3. ONE (1) - Pendant with screw connection
4. ONE (1) - Carriage with 1/2" bolt, washers and lock nut (bolt assembled on carriage) & flap
5. ONE (1) - Peak assembly
6. ONE (1) - 4 ft. track section with splice plates attached
7. ONE (1) - 8 ft. base track section with feet attached
8. TWO (2) - 8 ft. track sections with splice plates attached
9. TWO (2) - Carriage stops and hardware
10. ONE (1) - Hardware bag\* and operating manual

### SPH-250

1. ONE (1) - Power Unit (hoist bolted on base) (includes a storage compartment)
2. ONE (1) - Power cord with screw connection
3. ONE (1) - Pendant with screw connection
4. ONE (1) - Carriage with 1/2" bolt, washers and lock nut (bolt assembled on carriage)
5. ONE (1) - Peak assembly
6. ONE (1) - 4 ft. track section with splice plates attached
7. ONE (1) - 8 ft. base track section with feet attached
8. TWO (2) - 8 ft. track sections with splice plates attached
9. TWO (2) - Carriage stops and hardware
10. ONE (1) - Flat Panel/Solar Cradle (w/ 4x nuts & bolts & pre-installed securing straps)
10. ONE (1) - Hardware bag\* and operating manual

\*Hardware bag includes:

- FOUR (4) - 3/8" X 4/4" Carriage bolts and keep nuts
- FOUR (4) - 3 8/16" X 1" Button head and lock nut

## PARTS LIST

### EH-250 & SPH-250 ACCESSORIES

Part Number	Name	Description
CH-RAMP	Unloading Ramp	Guide pins into slots provided and rest on roof.
HS-ASSY	Hoist Standoff	Adds added stability to the hoist and prevents damage to the roof, siding, gutters, and drip edge.
TS-300	Support Brace	For use at track lengths above 30 ft. Position foot of brace against building. Extend brace to middle of hoist, or as far as can be reached. Bolt brace together. Attach support head of brace to track using clamps provided.

### EH-250 & SPH-250 MATERIAL HOIST AVAILABLE PARTS LIST

Part Number	Description	Part Number	Description
EH-A001	8 ft. base track section	CH-C35-PK	Carriage bumpers (2 per pack)
CH-A002	8 ft. track section with splice plates	NG-D-E-100-PK	Power weldment
CH-A003	4 ft. track section w/ splice plates	HD-D403-PK	Wheels
CH-A007	Splice plates (2) w/ nuts & bolts	NG-D-E106-PK	Anchor
VH-B	Peak assembly	NG-D-E-121-PK	Top bracket
VH-C	Carriage assembly complete	HD-D434-PK	Handle
VH-C032ASSY	Carriage flap w/ skate wheels	E-HOIST	Motor
CH-C11	Carriage wheel nut/bolt set (2 per pack)	SB-ASSY	Flat Panel/Solar Panel Cradle

## IMPORTANT SAFETY NOTICES

**HAZARD! - DO NOT PLACE OR USE THIS MATERIAL HOIST IN AN AREA WHERE IT COULD COME IN CONTACT WITH OVERHEAD WIRES OR ELECTRICAL WIRING CIRCUITS OR ANY OTHER HAZARDOUS OBSTRUCTION.**

**NEVER OPERATE HOIST IN WET WEATHER CONDITIONS!!!**



### A. PROPER INSTRUCTIONS

- DO NOT ALLOW ANYONE TO OPERATE THE HOIST WHO HAS NOT BEEN PROPERLY AND THOROUGHLY TRAINED IN ITS OPERATION AND USE. BEFORE OPERATING, YOU MUST WATCH THE EH-250/SPH-250 OPERATIONS TUTORIAL AT [SAFETYHOISTCOMPANY.COM/PAGES/TUTORIALS-EH250](http://SAFETYHOISTCOMPANY.COM/PAGES/TUTORIALS-EH250).

### B. WARNING:

- ONLY USE THIS HOIST FOR LIFTING MATERIALS. **SAFETY HOISTS SHOULD NEVER BE USED TO TRANSPORT OR LIFT A PERSON UNDER ANY CIRCUMSTANCES.**

### C. TRACK:

- **IMPORTANT: THE HOIST'S TRACK IS NOT A LADDER!** IF USED AS A LADDER, INJURY MAY OCCUR.

### D. MAXIMUM CAPACITY

- **THE MAXIMUM CAPACITY OF THE HOIST IS 250 POUNDS. DO NOT OVERLOAD!!**

### E. WARNING

- Keep hands, feet, other body parts and clothing away from the track and any moving/rotating parts of the hoist while it is in use.

### F. MOLTEN SUBSTANCES

- Do NOT use the hoist to lift buckets of hot asphalt or any other hot or liquid substance, unless contents are in a closed and sealed container.

### G. SUPERVISION

- ALWAYS unplug the electric hoist from the power supply when you leave its vicinity.

### H. CLEANING YOUR POWER UNIT

- If you need to clean your power unit, NEVER use water. Use a damp cloth and wipe unit clean.

## GENERAL SAFETY RECOMMENDATIONS

The safety instructions and warnings in this section and throughout this manual must be read carefully before assembling or operating the hoist. These safety instructions and warnings are not substitutes for routine accident prevention measures, which must also be implemented to eliminate potential risks and hazards. Failure to obey these safety warnings may result in injury to you or others, or damage to the hoist or other property.

### A. UNPACKING YOUR HOIST

- When unpacking, carefully inspect for any damage that may have occurred during transit. DO NOT ASSEMBLE OR USE THE HOIST IF ANY PART(S) ARE DAMAGED!! Return the damaged part(s) to the place of purchase for replacement. Compare received parts to the list of components on page one. If they are not all there, you should contact who you bought the hoist from, or call (610) 941-4333.

### B. SAFETY LABELS

- Observe all safety labels and instructions attached to the various parts of the hoist.

### C. PROPER PARTS

- For your safety, use only attachments and accessories approved by the manufacturer for use with the hoist. Using substitute parts will void the warranty.

### D. SAFETY CHECK

- Check assembled parts (splice plates, bolts, pulleys, hoist cable, etc.) for proper tightness and fit before using the hoist, and during frequent periods of use, be certain the equipment is in safe working condition. Before each use, recheck for bolt tightness, and also recheck every four hours of operation.

### E. TRANSPORTING

- To avoid damage, handle hoist component parts with care when transporting. Secure the hoist to the truck bed with a cord rope or a bungee cord. Damaged parts MAY make the hoist UNSAFE to operate. NOTE: Transporting an uncovered hoist in the rain may cause damage to the electric motor. Cover electrical components with a plastic sheet and inspect prior to use. See page six --> How To Assemble Your Hoist.

### F. BRACING YOUR HOIST

- Never place or operate the hoist on a slippery surface. Always make certain the base section is properly leveled and secured to prevent slippage or unexpected movement. Make sure the hoist is braced against a building or solid surface at the correct angle as described herein.

### G. HOUSEKEEPING

- Clear the area around the base of the hoist to avoid slipping, tripping, or falling against the hoist. Place the cords in a way that they will NOT be a tripping hazard.

### H. SECURING YOUR HOIST

- Secure track to the roof with a rope. Tie the rope to a rung or the peak and then secure the other end of the rope to the building. Do not tie to the rail because the rope will interfere with the travel of the carriage.

## HOIST SETUP INSTRUCTIONS

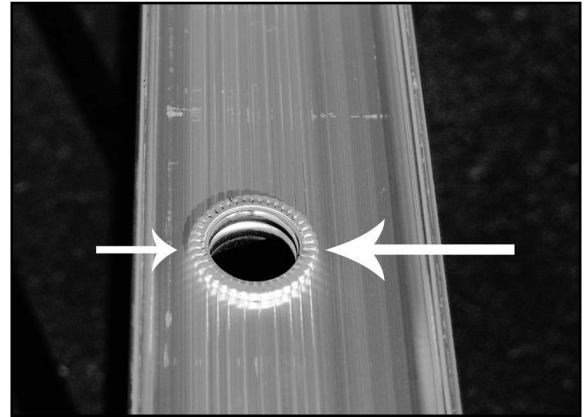
### \*\*\*IMPORTANT\*\*\*

#### EVERY TIME A SAFETY HOIST IS SET UP FOR OPERATION YOU MUST:

1. Check the condition of the electric hoist before connecting the pendant and the power cords.
2. Inspect winch drum and cable assembly for obvious damage or misalignment. Inspect winch drum to make sure that cable is wound smoothly with no crossovers. Cable should be tight on the winch drum. If there are any crossovers, use the pendant controller to run the hoist in reverse and, **with a leather gloved hand**, pull out enough cable to eliminate the crossovers. Then, **with a leather gloved hand**, carefully use the pendant controller to wind the cable back onto the winch drum neatly and tightly to prevent future cable kinking.
3. Inspect the pendant controller and power cables to make sure they are in good condition with no cuts or tears. Make sure no oil, mud, etc., has gotten onto the connector assemblies, which will cause the hoist to malfunction. If there are any tears, cuts, or damage on the pendant controller and power cables, contact Safety Hoist Company for guidance.
4. Test the brake system. Put one bundle of shingles (or about 70 to 100 lbs.) onto the platform. Only lift it two or three feet, then stop it to make sure the brake system is working properly, and then lower the load. Once you are certain the brake system will hold, raise the load you are trying to lift up a few feet. Stop raising the load and wait a minute to make sure the load does not slip. This will verify that the brake system is working properly for the full load weight.
5. If the above trial run is successful, continue on with the operating instructions. If not, **STOP** and contact Safety Hoist Company at (610) 941-4333 for further instruction.

## HOW TO ASSEMBLE YOUR HOIST

1. Unpack ALL parts of the hoist and lay them flat on the ground.
  - **See page one** for a list of included parts and materials. If any parts are missing, call (610) 941-4333.
2. Lay the base track section on the ground with the rung short-side facing down.
  - **NOTE:** That the rungs are not centered on the rail. **SEE FIGURE 1.**
3. Attach the carriage stops at this time by inserting into the 2nd rung from the bottom & fastening it with the hardware on the backside.
  - **NOTE:** There are right and left handed carriage stops.
4. Track sections are attached using the splice plates on the OUTSIDE of the track section.
  - Attach them with 3/8" x 3/4" carriage bolts and lock nuts that are attached to the splice plates. **SEE FIGURE 3.**
5. Slide the carriage onto the track section from the TOP of the track (side opposite of feet).
  - Do this with the flat surface of the carriage facing away from the base section. **SEE FIGURE 4.A and FIGURE 4.B.**



**FIGURE 1**



**FIGURE 2**



**FIGURE 3**



**A.**



**B.**

**FIGURE 4.A and FIGURE 4.B**

## HOW TO ASSEMBLE YOUR HOIST *Continued*

6. Slide the carriage along the track to the base section so that the bumpers rest on the carriage stops. Make sure the carriage slides smoothly on the track.
  - If not, remove the carriage and reinstall, making sure carriage wheels roll on track flanges.

7. Slide the peak assembly (VH-B) onto the end of the track.
  - Secure it with two (2) 3/8" x 3/4" carriage bolts and lock nuts that are supplied in the hardware bag. The square holes are off-set, the side with the yellow sticker should be facing up. **SEE FIGURE 5.**

8. Turn the hoist track with the carriage assembly attached on its side.

9. Remove power cord and pendant cord from the base storage compartment and attach them to the power unit with quick connect fittings.
  - Attach strain relief hooks on cords to eyelits on hoist. **SEE FIGURE 6.**

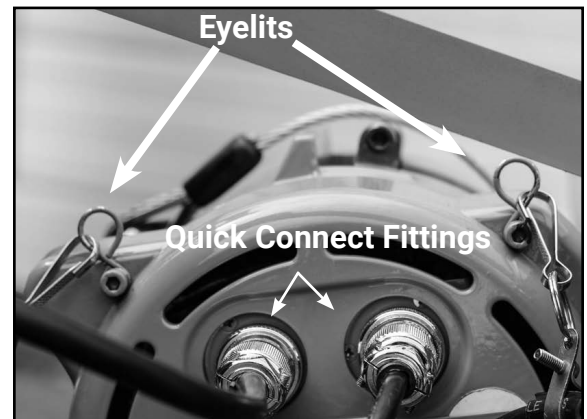
10. Plug the power unit into a 110v 15-amp Ground-fault Circuit Interrupter (GFCI) electrical supply.
  - **To ensure proper operation, do not use extension cords longer than 20', as this may impact the motor's performance.**

11. Unwind enough cable from the electric winch to go through pulley at the peak and back down the other side of the track to the carriage by pressing the down button on the pendant. **SEE FIGURE 7.**

12. Attach the thimble on the cable to the back of the carriage using the 1/2-13 x 1.5 bolt washer thimble washer nut that is attached to the carriage. **SEE FIGURE 8.**



**FIGURE 5**



**FIGURE 6**



**FIGURE 7**



**FIGURE 8**

## HOW TO ASSEMBLE YOUR HOIST *Continued*

13. You are now ready to lift the hoist into place.

- **WARNING:** When setting up your hoist please take note of all overhead obstructions and/or electrical wires. Select a location that is free of traffic and pedestrians.

14. Lay the assembled hoist alongside the wall where the hoist is to be used.

15. Place hoist against the building at the correct angle.

- **See Chart A** to determine the correct angle of incline.

16. Attach lifting handle to the power pack with hardware included in hardware bag. Once completed, wheel it over to the track section.

- **SEE FIGURE 9.**

17. Attach power pack to the 4th rung from the bottom of the track and pin it to the 3rd rung from the bottom of the track.

- **SEE FIGURE 10.**

18. Press 'UP' on the pendant controller to remove slack from the cable.

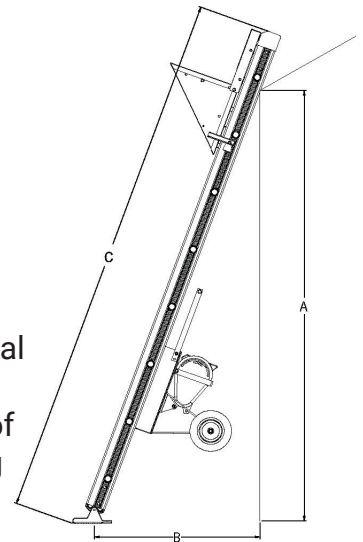
19. You are now ready to operate the hoist.

Height to Bearing Point "A"	Max. Horizontal Distance "B"	Hoist Length "C"
10 ft.	2 ft. 6 in.	12 ft.
14 ft.	3 ft. 6 in.	16 ft.
18 ft.	4 ft. 6 in.	20 ft.
22 ft.	5 ft. 6 in.	24 ft.
26 ft.	6 ft. 6 in.	28 ft.
30 ft.**	7 ft. 6 in.	32 ft.
34 ft. **	8 ft. 6 in.	36 ft.
38 ft. **	9 ft. 6 in.	40 ft.
42 ft. **	10 ft. 6 in.	44 ft.

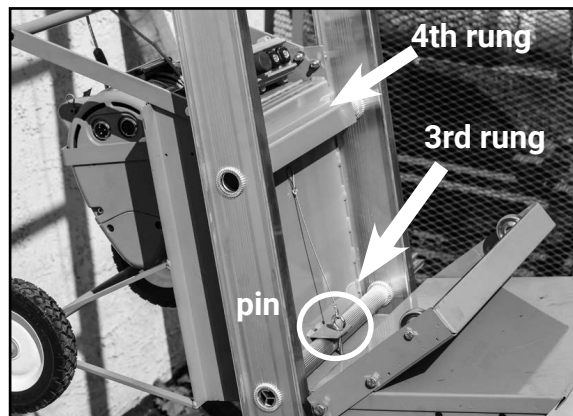
**Chart A**

\*\* Any hoist using greater than 28 ft. of track **must use a support brace attachment.**

Distance "B", the maximum horizontal distance, must not be more than 1/4 of the Hoist's working length "A."



**FIGURE 9**



**FIGURE 10**

## HOW TO OPERATE YOUR HOIST

THE OPERATOR OF THE HOIST MUST WEAR ALL THE NECESSARY PERSONAL PROTECTIVE EQUIPMENT (PPE) WHICH SHOULD INCLUDE FOOT, HAND, EYE, AND HEAD PROTECTION. KEEP HANDS AWAY FROM ALL MOVING PARTS AT ALL TIMES. **SEE PAGE 3 FOR IMPORTANT SAFETY NOTICES.**

1. The operator should run a TRIAL RUN at this time by pressing the 'UP' button on the pendant controller to raise the carriage. To bring carriage back down, press the 'DOWN' button.

- Test should be done while the carriage assembly is loaded with 70 to 100 lbs. and should be run in accordance with these instructions to check for proper operation. **SEE FIGURES 11 & 12.**

2. During the TRIAL RUN, be sure to inspect the winch drum assembly.

- The cable on the winch drum must be smooth and in neat coils with no cable crossings. It should also be tight on the winch drum. If cable has crossovers or is loose, use the pendant controller to run the winch in reverse and pull off enough cable to fix crossovers or tighten loose cable. Rewind cable on winch drum neatly and tightly, with coils laying side-by-side.

3. Run one last TRIAL with a full load. Make sure the cable is tight and is properly attached to the carriage. Press the 'UP' button on the pendant controller. Do this two or three times.

4. If at any time the brake does **NOT** hold the carriage in place, call (610) 941-4333.

5. **DO NOT EXCEED THE HOIST WEIGHT LIMIT! THE WEIGHT CAPACITY OF THIS HOIST IS 250 LBS!!!**

6. Press the 'UP' button on the pendant controller to start the winch and launch carriage into its upwards travel.

- The button must be pressed the entire time it takes to reach the unload position at the peak. When the carriage unloading flap rotates into the unloading position, release the 'UP' button to stop the winch. **SEE FIGURE 13.**

7. To bring carriage back down, simply press the 'DOWN' button on the pendant continuously until the carriage reaches the bottom.

8. If you choose to use the hoist to lower material to the ground, load material onto the carriage & hold the 'DOWN' button continuously until the carriage reaches the bottom.

- Make sure material is secure before descent.

9. After job is complete, disconnect the pendant controller and the power cords and store them in the storage compartment provided on the power unit.

- This is also a convenient place to store your manual. **SEE FIGURE 14.**



**FIGURE 11**



**FIGURE 12**



**FIGURE 13**



**FIGURE 14**

## INSTALLING THE SOLAR PANEL CRADLE (SPH-250)

1. Remove the flat panel cradle and hardware bag from the box.
2. Lift the solar panel cradle into place on the carriage [make sure the straps are facing the track and the pitch is facing you]. You will know this is correct when the holes on the Flat Panel Cradle line up with the holes on the carriage.
  - SEE FIGURE 15.



Make sure the Flat Panel Cradle's holes are aligned to the carriage's holes.

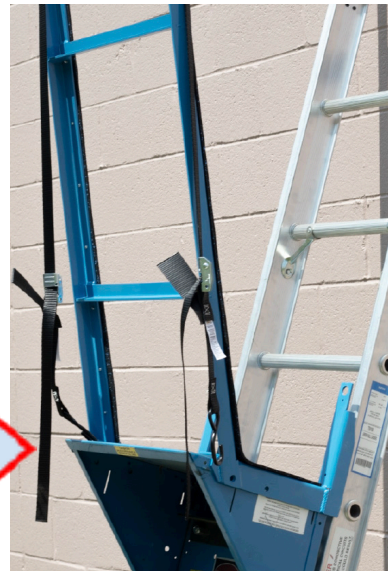


FIGURE 15

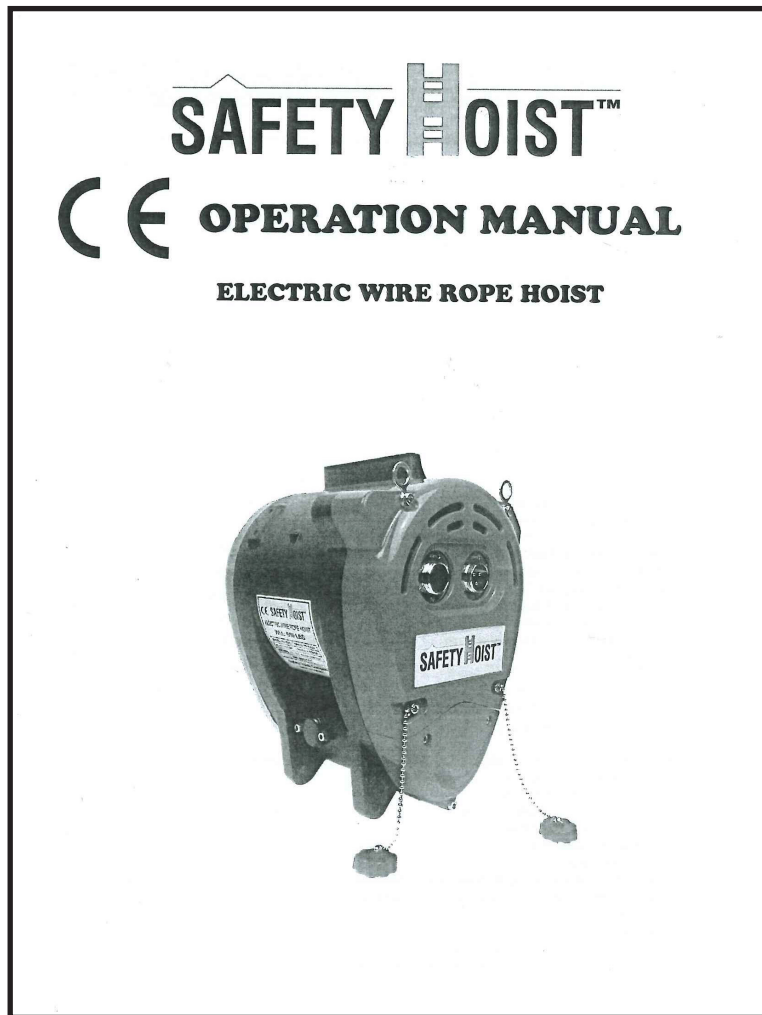
3. Secure each hole using the nut and bolt from the provided Solar Panel Cradle hardware bag. Tighten the hardware using a wrench.
  - SEE FIGURE 16.



FIGURE 16

## MOTOR RECOMMENDATIONS

**SEE SEPARATE OPERATION MANUAL  
- *ELECTRIC WIRE ROPE HOIST* -  
ACCOMPANYING THIS MANUAL.**



## DISASSEMBLY, STORAGE AND TRANSPORTING HOIST AFTER A JOB

1. Unwind the cable **with a gloved hand**, providing enough slack to remove the power pack. Then place it on the ground.
2. Move the hoist away from the building. Remember to look out for--and avoid--any overhead wires of any kind, especially power lines.
3. Once the track is lowered, remove the cable from the carriage by unbolting it. Make sure to reattach the carriage hardware.
4. Unstring the cable from the peak and walk it back down to the power pack.
5. Using a gloved hand, begin winding the cable back onto the drum using the 'UP' button while watching for tangles or crossovers. Make sure it is wound tightly and orderly so you avoid said crossover. Best practice is to unwind the cable completely and then rewind it.
6. Once the cable is properly wound around the drum, you may now unplug your power unit and store all ports in the storage compartment.
7. Depending on where you intend to store your track, you may be able to leave some sections attached. If you need to disassemble your sections, remove all hardware with the wing nuts attached.
8. You can choose to leave the carriage on the track or remove it by sliding it off the track.
9. Use a bungee cord or rope to tie your hoist and track to your truck.
10. The aluminum track sections can be damaged by rough handling and/or during transportation on ladder racks. Handle with care when loading and unloading. Damage to the track can cause failure of the hoist. When storing it in your vehicle, hang the track sections from a side wall to prevent damage.
11. ***Note: You should always store your hoist indoors until the next time it is used. Never leave your power unit in the rain.***



## **SAFETY HOIST COMPANY - LIMITED WARRANTY**

REPLACES ALL DATED OR UNDATED LIMITED WARRANTIES DATED BEFORE JUNE 25, 2017.

**Safety Hoist Company will, at its option, repair or replace any part or parts of the Safety Hoist material hoist that are defective in material or workmanship, with the exclusion of the motor/engine, which maintain a separate warranty provided by the manufacturer of the motor/engine. The terms of the warranty of the motor/engine are provided on the previous page.**

The limited warranty on all parts except the motor/engine is in effect for 1 year from the date of purchase.

Safety Hoist Company reserves the right to inspect the equipment for misuse, abuse, or failure to maintain the equipment properly.

Safety Hoist Company will make reasonable efforts to repair or replace defective equipment in a timely manner, but assumes no liability or expenses incurred for the time lost as a result of the repair or replacement.

The defective unit or parts should be returned to the dealer where the unit was purchased, or contact Safety Hoist Company at 610-941-4333.

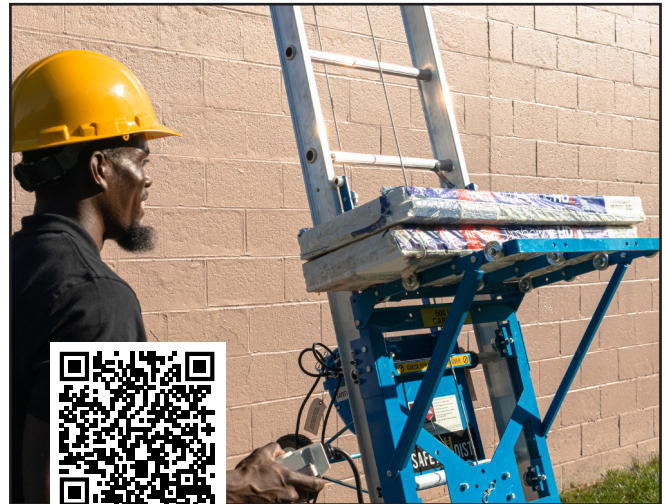
There is no other express warranty implied. Warranties including those of merchantability and fitness for a particular purpose are limited to one year from purpose or to the extent permitted by law. Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you. This is the exclusive remedy and liability for incidental and consequential damages under any and all warranties are excluded to the extent permitted by law. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

Safety Hoist Company shall be relieved of its performance of the duties under this warranty if any damage has been caused to the product as a result of misuse, abuse, failure to maintain the equipment or Act of God.

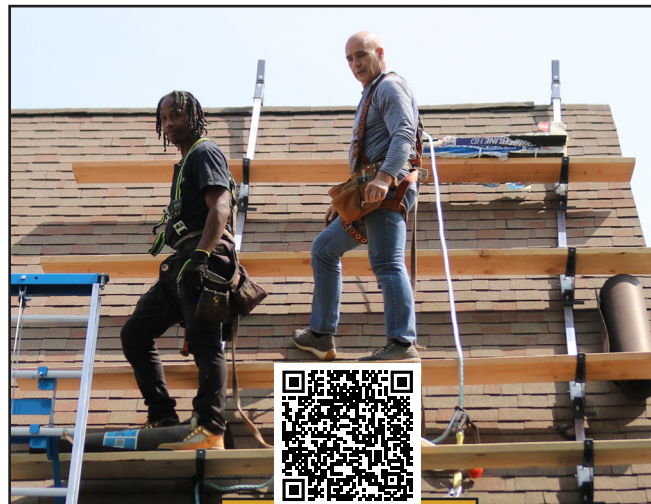
# More From SAFETY HOIST<sup>CO.</sup>



Gas Material Hoists



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SteepSlope Scaffold

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