SAFETY HOIST CO.

Operator's Manual

VH-300/AH-300
Material Hoist

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Version 1124

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

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

Hoist Components

VH-300

1. THREE (3) - 8 ft. track sections with splice plates attached
2. ONE (1) - VH-peak assembly
3. ONE (1) - VH carriage flap (flap assembled on carriage)
4. ONE (1) - Carriage with 1/2" bolt, washers, and lock nut (bolt assembled on carriage)
5. ONE (1) - 2.5' steel base section with winch drum, brake, cable, and drive belt
6. ONE (1) - Brake release handle with hitch pin
7. ONE (1) - Power pack (engine bolted on motor base)

AH-300

1. THREE (3) - 8' track sections with splice plates attached
2. ONE (1) - 4' track section with splice plates attached
3. ONE (1) - VH-peak assembly
4. ONE (1) - VH carriage flap (flap assembled on carriage)
5. ONE (1) - Carriage with 1/2" bolt, washers, and lock nut (bolt assembled on carriage)
6. ONE (1) - 2.5' steel base section with winch drum, brake, cable, and drive belt
7. ONE (1) - Brake release handle with hitch pin

VH-300/AH-300 CAPACITY MATERIAL HOIST & ACCESSORIES

Part Number	Name	Description
MH123C	Unloading Ramp	Guide pins into slots provided and rest on roof.
MH8GH	Gravel Hopper	Bolt the hopper with trap door facing ladder to top of carriage.
MH9SB	Support Brace	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.

VH-300/AH-300 MATERIAL HOIST AVAILABLE PARTS LIST

Part Number	Description
A002	8 ft. track section with splice plates
A003	4 ft. track section w/ splice plates
A007	Splice plates (2) w/ nuts & bolts
D6-CH-D-Weld	Steel base section only
VH-D	Steel base section assembly
D2	Feet (2 pack)
VH-C	Carriage assembly complete
VH-CO32ASSY	Carriage flap with skate wheels
VH-B	Peak assembly
MH35	Carriage bumpers (2 per pack)
CH-C11	Carriage wheel nut/bolt set (2 per pack)
CH-D18-WELD	Winch drum
MH15	100 ft. wire cable with thimble

Part Number	Description
CH-D17	Winch drum bearings with grease fitting in block
CH-D20	Brake band for 6-inch drum
CH-D114	Brake release bar
CH-D23ASSY	Brake release handle with hitch pin
CH-D34	Brake hardware Pack (Spring, Toggle Link, Eyebolt, & Nut)
MH27B (or)	Briggs and Stratton engine
MH27H (or)	Honda engine
MH27L	Lifan engine
CH-D112	Drive belt
CH-D29	Drive pulley (on engine) (not shown)
CH-D106	Brake drum
D7PP-B (or)	Power pack (motor base, engine, pulley) B & S engine
D7PP-H (or)	Power pack (motor base, engine, pulley) Honda engine
D7PP-L	Power pack (motor base, engine, pulley) Lifan engine

GENERAL RECOMMENDATIONS AND ADVICE

*Various models come with different engines manufactured by Honda, Briggs and Straton, and Lifan Power. Any reference to these engines can be used interchangeably.

These safety instructions and warnings are not substitutes for routine prevention measures which must also be observed to avoid potential risks and hazards. **Failure to obey these safety warnings may result in injury to you or others, and can cause damage to the hoist.**

Warning: Do not use or place this metal hoist in any area where it could come in contact with electrical wiring or other hazards, causing injury or death!!!

1. Avoid damage to hoist operating parts by securing hoist to truck bed with cord rope or bungee cord. **Damaged parts may make the hoist unsafe to operate**. Note: Transporting the hoist in rainy conditions may cause road oils to be deposited on the brake band and/or brake pulley. Cover brake area with a plastic sheet and inspect prior to use.
2. When unpacking a new hoist, the inspect parts carefully for any damage that may have occurred during transport. **DO NOT ASSEMBLE OR USE THE HOIST IF ANY PARTS ARE DAMAGED!!** If parts are damaged, please email customer service (info@safetyhoistcompany.com) or call (610) 941-4333.
3. Observe all labels and instructions attached to various parts of the hoist.
4. For safe operation use only parts, attachments and accessories supplied by the manufacturer for use with this hoist. Using substitute parts will void the warranty.
5. Check assembled parts (splice plates, bolts, engine mounting bolts, belts, pulleys, hoist cable, etc.) for proper tightness and fit before using the hoist. During frequent periods of use, be certain the equipment is in safe working condition. Recheck for bolt tightness after every 4 hours of operation.
6. Never place the hoist on a slippery, uneven, or unstable surface. Make sure the hoist is properly braced against a building or solid abutment at the correct angle as described herein. The hoist's base should be one (1) foot away from the building for every (4) four feet of building height. The top of hoist must be tied off for safety operation. Tie off to rungs, not side rails.
7. Keep the area around the base of the hoist clear of debris to avoid slipping, tripping, or falling against the hoist.
8. Handle fuel with care. It is extremely flammable and highly explosive under certain conditions.
   a. Do not fill the fuel tank near open flames or sparks.Use an approved fuel container.
   b. NEVER smoke near the fuel tank.
   c. Use an approved fuel container.
   d. Never add fuel to a hot or running engine.
   e. Replace fuel caps of the supply container and the engine fuel tank and wipe up any spilled fuel before starting the engine.

HOIST SETUP INSTRUCTIONS

IMPORTANT

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

1. Check oil in engine and gear box before starting the engine. Remember to change the oil in the engine at least every 50-100 hours, maximum.
2. Inspect winch drum and brake assembly for obvious damage or misalignment. Inspect winch drum to make sure that the cable is wound smoothly with no crossovers. If there are any crossovers, release the brake and pull off enough cable to eliminate the crossovers. Then, **with a leather glove**, carefully wind the cable back onto the drum to prevent cable kinking.
3. Inspect the brake band or multisegment brake to make sure it's in good condition with no cuts or tears. Make sure no oil or mud is on the brake assembly. This will cause the brake to slip.
4. Test the brake system by putting one bundle of shingles (or about 70-100 lbs.) on the platform. Lift it 2-3 ft. to make sure the brake is clean and working properly, and lower the load slowly. Do this at least 6 times before trying to lift a load heavier than the test load. Once you are certain the brake will hold, raise the load a few feet, stop, and wait a minute to make sure it doesn't slip. This will verify that the brake is working properly for the full load weight.

HOW TO ASSEMBLE YOUR HOIST

1. Unpack ALL parts of the hoist and lay them flat on the ground.
   - **NOTE:** Engine is shipped **without** gas or oil. Oil needs to be added in the engine's crank case and the gear reduction box. Please refer to the engine's instruction manual for oil type and quantity.
2. Prepare hoist assembly by standing base section on its side with brake drum **UP** and brake spring away from assembler.
3. Slide an 8 ft. track section onto the base section with rung short side facing towards assembler and secure each leg with two 3/8" carriage bolts and lock nuts.
   - **SEE FIGURE 1.**
4. Continue adding additional sections to reach the desired length of the hoist (See Chart Page 7). The track sections are attached using the splice plates as noted below with 3/8" x 3/4" carriage bolts and lock nuts. The splice plates must be installed on the outside of the track section.
   - **SEE FIGURE 2.**
5. Lay the hoist down on the ground with the brake spring towards the ground.
6. Slide the carriage onto the track section from the **TOP** of hoist, with the flat surface of the carriage facing away from the base section.
   - **SEE FIGURE 3.**
7. Slide the carriage along the track to base section so that the bumpers rest on the base section. Make sure carriage slides smoothly on the track.

FIGURE 1

FIGURE 2

FIGURE 3

HOW TO ASSEMBLE YOUR HOIST Continued

8. Slide the peak assembly (CH-B) onto the end of the track and secure it with two (2) 3/8" x 3/4" carriage bolts and lock nuts.
   - **SEE FIGURE 4.**
9. Slide the brake release handle over the brake bar and secure it with the hitch pin.
   - **SEE FIGURE 5.**
10. Turn the hoist up on its side with the brake drum up.
11. Push forward on the brake handle to release the brake.
    - **Note:** You will only need to have it rotate 10-15 degrees, 1-2", to release the brake.
12. While the brake is released, pull out cable from the winch drum. Draw out enough cable to run up the back side of the track thru the peak pulley and back down to the carriage on the front side (The carriage side).
    - **SEE FIGURE 6.**
13. Attach the thimble on the cable to the back of carriage using the 1/2" bolt, nut, and washers. Put the two (2) 1/2" washers between thimble and carriage and one (1) 1/2" washer on other side of thimble. Pass the bolt thru the washers, thimble and bolt so it passes thru the nut, but not so tight as to stop the thimble from rotating on the bolt.
    - **SEE FIGURE 7.**
14. 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.

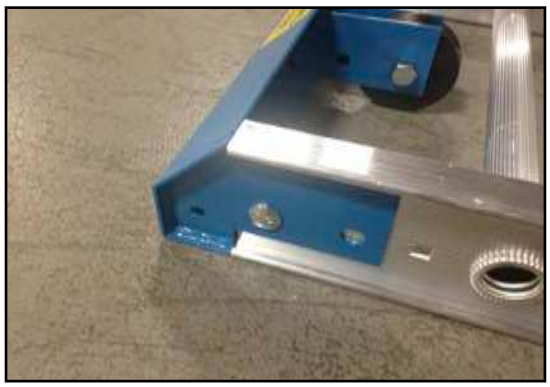

FIGURE 4

FIGURE 5

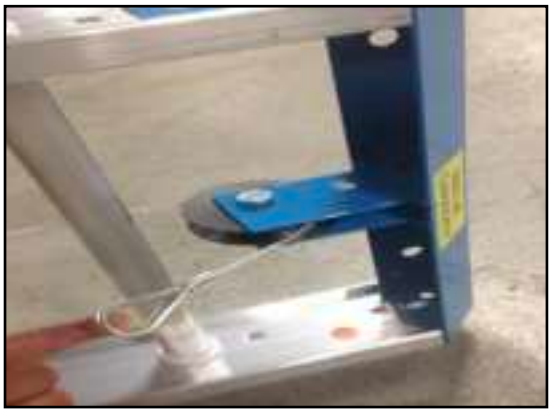

FIGURE 6

FIGURE 7

HOW TO ASSEMBLE YOUR HOIST *Continued*

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

16. Drop end of rope from the roof to the ground. Tie the end of the top rung of the last section and use the rope to lift the top of the hoist to the roof. While the hoist is being lifted, one or two people on the ground should brace the feet of the hoist and walk the hoist up until it is vertical.

17. Once the hoist is vertical, lean it up against the building.

18. Place hoist against the building at the proper safe angle. Use **Chart A** as a guide to determine the angle of incline of the hoist for the length of the hoist to be assembled. Secure track to thr roof with a rope to prevent the hoist from sliding along the roof. Tie rope to a rung or the peak, **NOT** to side rails of the track. **Tying to side rails will stop carriage from going up and down.**

19. Attach power pack to hoist by hooking unit over cross shaft located above brake release shaft. Once in position check power pack unit for free backward movement so that drive belt can fully engage the winch drum assembly.
SEE FIGURE 8.

20. Attach the V-Belt by pushing it over belt guide bar, between the belt guard opening and then looping it over the engine drive pulley.

Height to Bearing Point "A"	Max. Horizontal Distance "B"	Approx. Hoist Length "C"
13 ft.	3 ft. 4 in.	15 ft. (Base + 8' +4')
21 ft.	5 ft. 4 in.	23 ft. (Base + (2)- 8'+4')
25 ft.	6 ft. 3 in.	27 ft. (Base + (3)- 8')
29 ft. **	7 ft. 3 in.	31 ft. (Base + (3)- 8'+4')
32 ft. **	8 ft.	35 ft. (Base + (4)- 8')
36 ft. **	9 ft.	39 ft. (Base + (4)- 8'+4')
40 ft. **	10 ft.	43 ft. (Base + (5)- 8')

Chart A
** Any hoist with height greater than 27 ft. must use a support brace.

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

FIGURE 8

FIGURE 9

SAFE OPERATION PROCEDURE

1. DO NOT ALLOW ANYONE TO OPERATE THE HOIST WHO HAS NOT BEEN PROPERLY AND THOROUGHLY TRAINED IN ITS OPERATION AND USE IN ACCORDANCE WITH THIS HOIST'S INSTRUCTION MANUAL.
2. NEVER OPERATE THE ENGINE INDOORS. EXHAUST FUMES CAN BE HAZARDOUS IN ENCLOSED AREAS.
3. ONLY USE THE HOIST TO LIFT MATERIALS!!!! THE HOIST SHOULD **NEVER** BE USED TO TRANSPORT A PERSON FROM ONE ELEVATION TO ANOTHER!!!! DO NOT USE HOIST FOR LOWERING ANYTHING.
4. Always observe the maximum capacity of the hoist. Use the following chart as you guide:

Hoist Series	Number of Passes of Cable	Capacity
MH-123 Series	2	200 lbs.
CH-200 Series	2	200 lbs.
AH/VH-300 Series	2	300 lbs.
AH/HD-400 Series	4	400 lbs.

5. **KEEP HANDS, FEET, OTHER BODY PARTS, AND CLOTHING AWAY FROM THE TRACK AND MOVING OR ROTATING PARTS OF THE HOIST WHEN STARTING THE ENGINE OR OPERATING THE HOIST.**
6. Do not allow anyone to work next to, or walk around or underneath, the hoist when in operation.
7. 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.
8. Always turn off the engine when you leave the vicinity of the hoist.

HOW TO OPERATE YOUR HOIST

THE OPERATOR OF THE HOIST MUST WEAR ALL THE NECESSARY PROTECTIVE GEAR WHICH SHOULD INCLUDE FOOT, HAND, EYE AND HEAD PROTECTION.
KEEP HANDS AWAY FROM ALL MOVING PARTS AT ALL TIMES.
SEE PAGE 2 FOR GENERAL SAFETY INSTRUCTIONS.

1. Before starting the engine:
   A. Refer to engine "operating instructions" for starting oil and gasoline specifications. Check engine & gear box oil level **BEFORE STARTING.**
   B. **Caution:** Make certain the drive belt is not so tight that it engages with the winch drum assembly and the engine pulley. It must be loose enough to slip around both pulleys. If it's too tight, the carriage will move as soon as engine is started. If belt is too loose use other holes in Motor Base mounting hole pattern. There are four settings. This will tighten or loosen drive belt. Reinstall engine and tighten all four mounting bolts. Make sure pulley, drive belt, and winch drum pulley are alligned. Adjust motor base weldment left or right as needed.
2. Start the engine and adjust throttle and choke so that the engine runs at idle speed. The Operator should then make a trial test run with the Hoist. **Use the Set Up Instructions in Section A.** The test should be done while the carriage assembly is not loaded with material and should be ran in accordance with these instructions to check for proper operation.
3. TRIAL RUN: **IMPORTANT**
   A. Set hoist against the building. Assemble per instructions in this manual.
   B. Inspect brake to make sure there is no damage, cuts, tears, or oily material on brake material. If any of the above is found, contact Safety Hoist Company for guidance.
   C. Inspect Winch Drum Assembly and Brake Assembly. Cable on winch drum must be smooth and in neat coils with no cable crossing over other cable. Cable should be tight on the Winch Drum. If cable has crossover or is loose, release brake with Brake Release Handle and pull out enough cable to fix crossovers or tighten loose cable. Rewind cable on Winch Drum neat and tight, coils laying side-by-side.
   D. With engine running at idle speed, press foot on treadle to tighten drive belt on winch drum and engine pulley. Carriage will begin to rise. Let carriage move two or three feet and take foot off of treadle. Don't touch Brake Release Handle. The carriage should stop where it is. If carriage holds its position, **GENTLY** push up Brake Release Handle to bring the carriage back down to the starting position. Repeat this procedure two additional times.
   E. If the Trial Run is successful, continue on with the operating instructions. If brake does not hold carriage in place, **STOP**. Refer to trouble shooting guide on page 10 for additional help. For further instruction, call Safety Hoist Company at (610) 941-4333.

HOW TO OPERATE YOUR HOIST *Continued*

4. After completing the trial run, return the carriage assembly to the base position and load the hoisting carriage with material. Material should be placed flat and evenly at the center of the carriage platform.
   - **CAUTION: DO NOT EXCEED THE HOIST WEIGHT LIMIT. REFER TO CHART IN SAFE OPERATING PROCEDURE Section II, Paragraph B.4. TO DETERMINE MAXIMUM CAPACITY FOR YOUR HOIST.**
5. Manually increase engine speed to full throttle.
6. With engine at full throttle, apply foot pressure on treadle. This will engage winch and start carriage in its upward travel. Foot pressure on the motor base assembly treadle must be maintained throughout the upward travel of the carriage assembly. THE FIRST TIME YOU USE THE HOIST EACH DAY, STOP THE LOADED CARRIAGE AFTER IT MOVES TWO FEET TO MAKE SURE THE BRAKE IS WORKING PROPERLY.
7. As the carriage begins its upward travel, don't stop it until it reaches the peak. Once there, release foot pressure and you will be able to unload the materials. Always release foot pressure when (a.)the Hoist reaches the peak and (b.) before unloading. NOTE: Should carriage stop in mid-climb, brake will hold load. **Do not return loaded carriage to ground. Hoist is not designed to lower a loaded carriage.** If necessary restart engine and/or reapply foot pressure on treadle and complete hoisting. Only if engine **CANNOT** be restarted, use Brake Release Handle to lower carriage **VERY SLOWLY.**
8. Once load is unloaded onto roof:
   A. Brake is always on. Therefore, by lifting up on Brake Release Handle, brake will release. Carriage will then lower.
   B. **CAUTION:** Upon releasing brake, carriage will free fall. Allow the carriage to lower about 12 inches at a time as it descends by pushing on the Brake Release Handle slowly at steady intervals. LET GO OF THE HANDLE to stop the carriage.

GENERAL CAUTIONS

Do not use brake release handle while raising material. The brake will not be engaged and will not hold the load when your foot is removed from the treadle.

Only use brake release handle when lowering the carriage. Allow carriage to lower about 12 inches at a time, as it descends. Let go of brake release handle if carriage starts to move too fast.

You only have to move brake release handle forward approximately one (1) inch to release the brake. **Operator must practice this procedure prior to using the hoist with a heavy load.**

ENGINE RECOMMENDATIONS

All operational and maintenance recommendations, including oil weights, location of oil fills for engine and gear box, spark plug number, air filter locations as well as troubleshooting and wiring diagrams are found in the engine manufacturer's engine manual. This is packed with every hoist sold by Safety Hoist Company.

Note: Engines are shipped without oil in the engine or gear reduction box. Oil must be added to both locations or serious damage will occur.

Please note, engine warranty is serviced by authorized engine dealers. All engine questions or problems must be directed to your local dealer. Dealer locations can be found on the engine manufacturer's website.

DISASSEMBLY, STORAGE AND TRANSPORTING HOIST AFTER A JOB

1. Let the engine cool down. Then disconnect all safety tie downs.
2. Move hoist away from the building. **Remember to look out for any overhead wires of any kind, especially power lines.**
3. Place hoist on ground. Disassemble peak from top section of hoist. Remember, you don't have to disconnect cable from either the carriage or the winch drum. See "How to Assemble Hoist" on page 5.
4. After you disassemble the peak from the hoist, you can disassemble the number of sections you need to for safe transport on your truck.
5. Slide peak back onto the last section still remaining attached to the base and take up slack in cable by turning winch manually. You may need to use the Brake Release Handle to turn the Winch Drum.
6. Bring carriage close to the winch drum. Tie carriage to base with rope.
7. Use bungee cord or rope to tie hoist and track to your truck.
8. Cover brake area with a tarp to keep brake clean of dirt and road oils.
   - For Longer Storage
     A. Disconnect spark plug wire from spark plug.
     B. Today's fuels tend to gum up more quickly than fuels used in the past. Use fuel stabilizer if you won't be using your hoist for even 2 or 3 weeks.
9. The aluminum track section can be damaged by rough handling or during transportation on ladder racks. Take care when loading or unloading. Damage to track can cause failure of hoist. When storing, hang the track sections from a side wall to prevent damage.

Troubleshooting Guide

*IMPORTANT: Your hoist and hoist parts are brand new. Your hoist has commercial grade parts including the drive belt and brake band. **You must follow the instructions in your hoist's manual (and listed below) to operate your hoist.***

1 Attach the V-belt to the power pack.

- Do this by pushing it over the belt guide bar between the belt guard opening, and then looping it over the engine drive pulley. Ensure that both the winch drum's pulley and the motor's pulley are aligned. *NOTE: The drive belt should have slack on it.

SEE FIGURE 1.

2 Start and run the engine per the engine's instruction manual.

- All engines are shipped without oil. Before use, SAE 10w30 oil needs to be added in the crank case and the gear reduction box. See the engine's manual for more instructions.

3 Manually increase engine speed to full throttle. Adjust the choke as necessary.

4 Operate your hoist BEFORE loading it to ensure it is working properly.

- Check that the cable is winding neatly and that it is free of defects, fraying, etc.

- **To raise:** Facing the hoist, place one foot on the motor base and press down. You will need to feel the motor base swing back until the drive belt tightens. Raise it 3 ft., then remove your foot. The brake will hold the carriage in place.
SEE FIGURE 2.

- **To lower:** Stand to the side where the brake release handle is attached. Push towards the wall, or forward 2-3 inches, on the handle to release the brake. Let go of the handle to stop the descending carriage. Allow the carriage to lower at a controlled rate, decelerating as the carriage reaches the base section. Do NOT allow carriage to stop suddenly or cause impact on the base section.
SEE FIGURE 3.

IMPORTANT!

If carriage does not descend while empty (without material) when the brake release handle is pushed forward, it may be caused by a new brake band or the first few uses of a new hoist. To wear in new brake band and drive belt, lift two bundles up to roofline, keep one bundle on the carriage, and bring it back down. Operate the hoist in this manner until the brake and belt are thoroughly broken in. This may take several trips before worn in.

USE WEIGHT OF BUNDLE.
DO NOT EXCEED WEIGHT LIMIT OF HOIST. LEAVE ONE BUNDLE OF SHINGLES ON CARRIAGE AND LOWER CARRIAGE SLOWLY. DO THIS REPEATEDLY UNTIL YOU CAN RAISE AND LOWER CARRIAGE WITH NO WEIGHT ON IT.

5 Apply foot pressure on treadle w/ engine at full throttle.

- Apply foot pressure on the motor base assembly until carriage reaches desired height.

- Do not stop this motion until the carriage reaches the peak.

- Always release foot pressure when hoist reaches top and before unloading. ***NOTE:*** Should the carriage stop mid-climb, brake will hold. **Do not return a loaded carriage to ground in normal operation.** Hoist is **NOT** designed to lower a loaded carriage during normal, everyday operation. If necessary, restart the engine and/or reapply foot pressure on treadle and complete hoisting.

6 Once material is unloaded onto roof:

- Remember that the brake is always on. Therefore, by pushing forward on the brake release handle, the brake will release. The carriage will then lower. **CAUTION:** Upon releasing brake, carriage will free-fall. Allow the carriage to lower about 12 inches at a time as it descends by pushing on the brake release handle slowly at steady intervals. **LET GO OF THE HANDLE** to stop the carriage every 12 inches.

FIGURE 1

FIGURE 2

FIGURE 3

** Forward releases brake.*

** Brake is always engaged unless released.*

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.