

# **VESTIL MANUFACTURING CORP.**

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# PDSC-350-62 POWERED STAIR-CLIMBER

**OPERATION AND MAINTENANCE MANUAL** 



#### **Receiving instructions:**

After delivery, IMMEDIATELY remove the packaging from the product in a manner that preserves the packaging and maintains the orientation of the product in the packaging; then inspect the product closely to determine whether it sustained damage during transport. If damage is discovered during the inspection, <a href="mailto:immediately">immediately</a> record a complete description of the damage on the bill of lading. If the product is undamaged, discard the packaging.

#### NOTES:

- 1) Compliance with laws, regulations, codes, and non-voluntary standards enforced in the location where the product is *used* is exclusively the responsibility of the owner/end-user.
- 2) VESTIL is **not liable** for any injury or property damage that occurs as a consequence of failing to apply either:
- a) Instructions in this manual; or b) Information provided on labels affixed to the product. Neither is Vestil responsible for *any* consequential damages sustained as a result of failing to exercise sound judgment while assembling, installing, using or maintaining this product.

#### PRODUCT INTRODUCTION



Thank you for purchasing Powered Stair Climber (PDSC-350-62) offered by Vestil Manufacturing Corporation ("Vestil"). Despite the product's relatively simple mechanics, all personnel must familiarize themselves with the safe operation instructions provided in this manual.

Specifications appear in the table below:

| Model Number | Capacity | Product Dims (LxWxH) | Wheels                   | Climbing Speed | Weight  |
|--------------|----------|----------------------|--------------------------|----------------|---------|
| PDSC-350-62  | 350 lbs  | 22x21x61"            | 10x3 Solid Poly-On Steel | 24 to 39       | 105 lbs |

Vestil Manufacturing Corp. created this manual to acquaint owners and users of our electric stair climber with safe operation and maintenance procedures. Employers are responsible for instructing employees to use the product properly. Employees and any other persons, who might foreseeably use, repair, or perform maintenance on the stair climber must read and understand every instruction BEFORE using the device. Stacker operators should have access to the manual at all times and should review the directions before each use. Contact Vestil for answers to any question you have after reading the entire manual Although Vestil diligently strives to identify foreseeable hazardous situations, this manual cannot address every conceivable danger. The end-user is ultimately responsible for exercising sound judgment at all times.

#### SAFETY PRINCIPLES

Vestil Manufacturing Corp. recognizes the critical importance of workplace safety. Each person who might participate in operation or maintenance of the product must read this manual. Read the entire manual and fully understand the directions BEFORE using or performing maintenance on the stacker. If you do not understand any instructions, contact Vestil for clarification. Failure to adhere to the directions in this manual might lead to serious personal injury or even death.

Vestil is **not liable** for any injury or property damage that occurs as a consequence of failing to apply the safe operation and maintenance procedures explained in this manual or that appear on labels affixed to the product. Furthermore, failure to exercise good judgment and common sense may result in property damage, serious personal injury, or death, and also are **not the responsibility of Vestil**.

This manual applies the hazard identification methods suggested for instruction manuals by the American National Standards Institute (ANSI). In accordance with ANSI guidelines for hazard identification language, this manual classifies personal injury risks and situations that could lead to property damage with SIGNAL WORDS. These signal words announce an associated safety message. The reader must understand that the signal word chosen indicates the seriousness of that hazard according to the following convention:



Identifies a hazardous situation which, if not avoided, <u>WILL</u> result in DEATH or SERIOUS INJURY. Use of this signal word is limited to the most extreme situations.



Identifies a hazardous situation which, if not avoided, COULD result in DEATH or SERIOUS INJURY.



Indicates a hazardous situation which, if not avoided, COULD result in MINOR or MODERATE injury.



Identifies practices not related to personal injury, such as operation that could damage the cart. No safety alert symbol (equilateral triangle enclosing an exclamation point) accompanies this signal word.

### SAFETY GUIDELINES

Failure to read and understand the instructions included in this manual before using or servicing the stacker constitutes misuse of the product. Study the entire manual before you use the Climber for the first time and before each subsequent use. Read the manual to refresh your understanding of the safe use and maintenance procedures. If questions remain after you finish reading the manual, contact Vestil for answers. DO NOT attempt to resolve any problem with the stacker unless you are certain that it will be safe to use afterwards.

ADANGER To decrease the risk of electrocution:

- DO NOT contact or operate the climber close to electrified wires or other sources of electricity;
- Before operating the Climber, always inspect the area where you will use it.

AWARNING Improper use might result in serious personal injuries to the operator and/or bystanders. To minimize the possibility of injury, ALL persons who might operate, perform maintenance on, or service the PDSC must read, understand and apply the following instructions:

- DO NOT operate the Climber unless and until you are:
  - 1. Trained to use the machine; AND
  - Certified as a trained operator by your employer in accordance with U.S. OSHA regulations (29 CFR §1910.178) and any standards incorporated by reference (e.g. ANSI/ITSDF B56.1-2005).
- DO NOT attempt to transport loads that exceed the rated capacity.
- Inspect the machine before each use; DO NOT use the Climber unless it is in normal condition. Normal operating condition exists if PDSC passes the inspection and functions tests.
- DO NOT use the unit until you read and understand the entire owner's manual. Review the manual before each use AND before performing maintenance on the device.
- DO NOT use the Climber if the load-supporting elements sustain any structural damage. Structural elements include, but are not limited to, the nose plate, frame, and wheels. If structural damage is present, immediately tag the unit "Out of Service" and inform maintenance personnel of the problem.
- DO NOT use the Climber if it makes unusual noises during operation.
- DO NOT attempt to climb with unevenly distributed load. Always center, evenly distribute and secure load with the frame
- Before initial operation, check the electronic functions, safety brakes and position of the clmibing wheel
- DO NOT overload the unit.
- Operator should be fully trained to operate the electric climber. Operator should be physically experienced to handle the climber and load on the stair climber while moving up & down on the stairs
- Wear non-slip footwear and must operate unit with both hands
- Practice operating PDSC without load and at low speed to start with. This will help operation to get familiar with the unit and how to operate the unit with load
- Ensure load is secrued to frame with safety belt

- DO NOT put hands under nose plate or touch rotating/moving parts
- DO NOT use Stair Climber in rain, wet condition, snow or ice.
- DO NOT use Climber if you notice any damaged parts.
- DO NOT use on escalator or moving belts
- TURN off climber immidiately if drive components bind up or stopped working
- TURN off powered climber when being transported to different locations
- Keep Battery Charger and charging cable at dry location
  - DO NOT leave PDSC unattended while it supports a load
  - DO NOT modify the Stair Climber without first receiving written authorization from Vestil.
- Unauthorized modifications may make PDSC unsafe to use.

**NOTICE** To maximize the service life of the Stair Climber and to prevent damage:

• Always store the machine in a secure, dry location where it will not interfere with traffic or other activities.

#### **AWARNING**

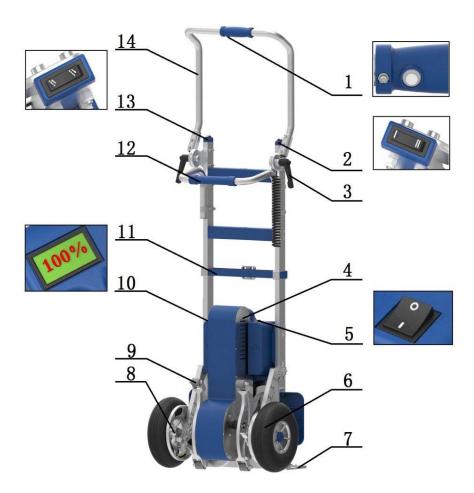
To minimize the risk of injury to yourself or other persons, perform the following steps to remove the machine from the shipping pallet:

- 1. Remove all packing material.
- 2. <u>Inform all personnel not participating in the unpacking process to clear the area.</u>
- 3. Stair Climber is light weight and can be easily removed from the pallet by one person.

## EC DECLARATION OF CONFORMITY ( €

PDSC-350-62 Stair Climber is in confirmity with provisions of the Machinery Directive.

### PARTS DESCRIPTION & OPERATING FEATURES



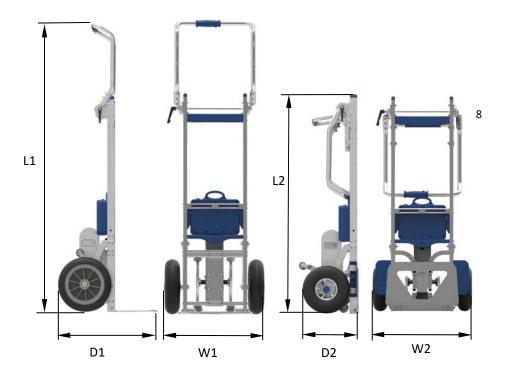
- 1. Operating button
- 2. High/Slow Speed Switch
- 3. Handle knob to tighten the handle
- 4. Gear Box cover
- 5. On/Off switch
- 6. Solid Foam wheel
- 7. Foldable Nose Plate
- 8. Brake Lever
- 9. Climber Wheel
- 10. Battery Charge Indicator
- 11. Safety Belt
- 12. Handle optional (special order)
- 13. Up/Down Switch
- 14. Fold Down Handle

# **TECHNICAL INFORMATION**

Powered Stair climber powered with electric lifting/lowering system is ideal to transport light to medium duty loads up and down stairs.

| Model Number                 | PDSC-350-62           |  |  |
|------------------------------|-----------------------|--|--|
| Unfold Size (DxWxH)          | 21¼x21½x62½           |  |  |
| Fold down Size (DxWxH)       | 12¼x21½x31"           |  |  |
| Capacity                     | 350 lbs               |  |  |
| Climbing Speed               | 20 steps/min          |  |  |
| Steps per Charge             | 900-1800 steps        |  |  |
| Wheel Size                   | Ø10" Solid Foam Wheel |  |  |
| Maximum Step Height          | 7%"                   |  |  |
| Battery Type                 | Lithium Ion           |  |  |
| Battery                      | 48V 6.6 Ah            |  |  |
| Charging Voltage             | 110-230V              |  |  |
| Motor                        | 48V/400W              |  |  |
| Noise Level                  | <70 dB                |  |  |
| Storing/Operating Temp range | 32°F to 140°F         |  |  |
| Protection Level             | IP54                  |  |  |

# **DIMENSIONS**



|              | UNFOLDED |      |      | FOLDED |      |      |
|--------------|----------|------|------|--------|------|------|
| Model Number | L1       | W1   | D1   | L2     | W2   | D2   |
| PDSC-350-62  | 62½"     | 21½" | 21¼" | 43%"   | 21½" | 12¼" |

# **USER INSTRUCTIONS (OPERATION):**

Before initial operation - Please make sure machine is operated at temperature higher than 32°F. Before initial operation, check the electronic functions, safety brakes and position of the climbing wheel Practice operating PDSC without load and at low speed to start with. This will help operation to get familiar with the unit and how to operate the unit with load

**Step 1:** Adjust the foldable handle



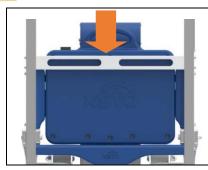
Use tightening lever on the handle to adjust the angle of handle. Adjust handle to a right angle and tighten the handle. Handrle can be folded down for convenient transport

Install battery pack downwards. After hearing the "pa" sound, the battery is installed. When the battery is put in, it will automatically connect the power without additional wiring.

**Step 2:** Installing Battery Pack



Keep battery & Charger at dry place.



Slide battery pack downwards on the track. Push it down until you hear a clicking sound. Battery will automatically connect to the stair climber

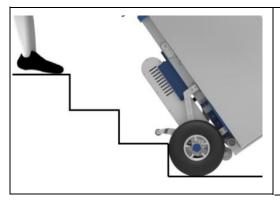
**Step 3:** Turning Stair Climber ON



Turn ON the unit by pressing ON/OFF switch on the battery pack. Press "I" to turn ON the unit and "O" to turn off the unit.

Battery Charge indicator is on left side of the battery pack.

**Step 4:** Climbing Upstairs



Adjust climebr to right operation angle. Adjust the stair climbing wheels. Climber wheels should be off of ground. Make sure climbing wheel is than then step surface as shown in the picture. Practice up and down without load to get familiar with the unit before moving load upstairs or downstairs.

**Step 5:** Adjusting Fast/Slow Speed



"I" means Slow climbing mode
"II" means Fast climbing mode
Start operation with Slow mode.
This will help you to handle the unit better until you are fully trained.

Step 6: Up/Down Mode



Please check sign with arrow for up-down mode. Arrow up means upstairs and arrow down means downstair

### **Step 7:** Battery Charge Indicator



1) 100% fully charged battery 2) 20% battery is low and needs to be charged immidiately or replaced with another fully charged battery 3) 10% charge will support maximum of 40 - 50 steps before unit turns off.

### **MOVING LOAD UPSTAIRS**



Warning: Only trained people should operate stair climber.



Warning: Practice up-down stairs without load before using the unit with load.



Warning: Please operate with two hands.

#### **OPERTAION**



Warning: Only trained people should operate stair climber.

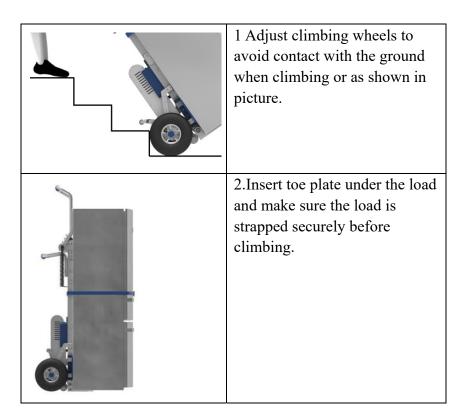


Warning: Practice up-down stairs without load before using the unit with load.

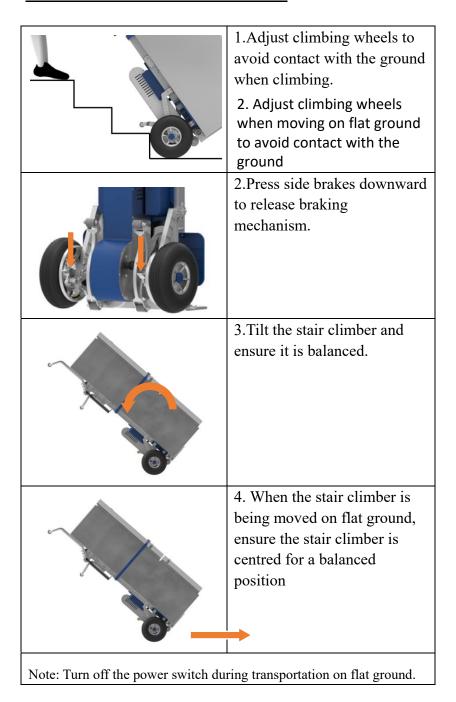


Warning: Please operate with two hands.

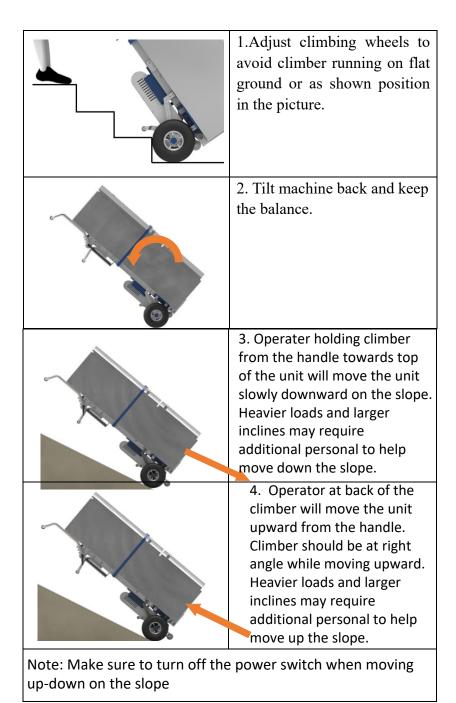
### **MOVING LOAD UPSTAIRS**



### **MOVING LOAD ON FLAT GROUND**



#### **OPERATING ON SLOPE**



#### **CLIMBING STAIRS**

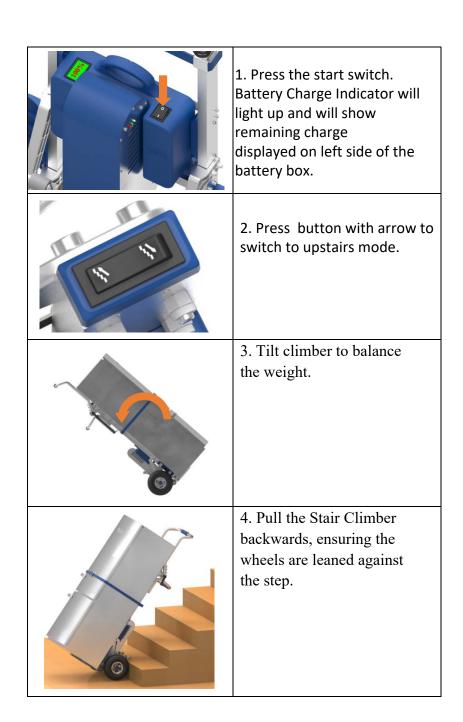
Warning: when the Stair Climber starts climbing, the operator will feel an initial force. Adjust the operating angle of the stair climber to keep the balance of gravity to counteract the force.



Warning: Always keep the machine balanced

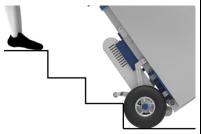


Warning: Do not allow people to obstruct the the machine

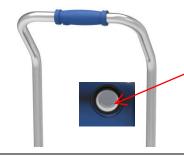




5. Operator must stand behind he stair climber when moving upstairs. Operator should be 1-2 steps from the wheels while moving upstairs.



6. Adjust climbing wheels so they don't touch the ground. 10" solid foam wheels will be resting on the steps as shown in the picture. Climbing wheels shouldn't touch the steps in this initial start up position.



7. Adjust operating angle of the stair climber and then hold down the <u>electric switch button</u> to start climbing upsatirs.



8. Climibing wheels will lift the stair climber to achieve its stair climbing motion.



9. Pull the stair climber to next step, then repeat the upstairs action to finish moving the load upstairs. Operator should hold the climber handle during this process.

### **DESCENDING STAIRS**

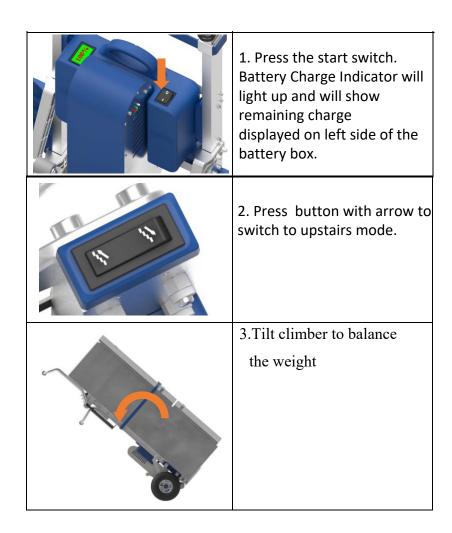
Warning- when the stair climber is turned ON and you descend on the stairs, the weight of the load may push back, ensure the bottom of the climber is fully secure and supported.

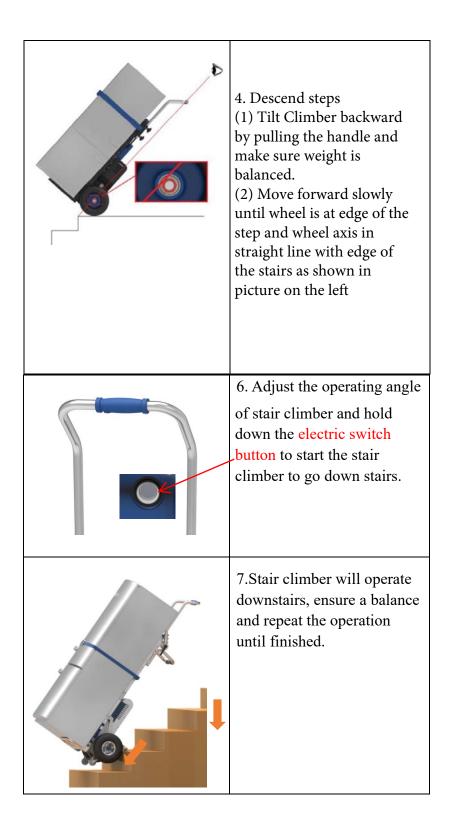


Warning- Always keep stair climber balanced



Warning- Do not allow other personal to obstruct descend operation





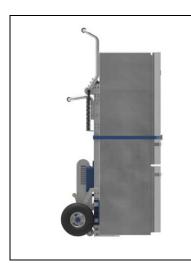


Stair climber can be tilted backwards and lay down comfortably on the stairs. Safety brakes will prevent the stair climber from sliding down the stairs.

### **PARKING**



Caution -Be sure to turn off the power after each use.



When parked, ensure that the stair climber is vertically placed and switched off between each use.

### **TRANSPORT**

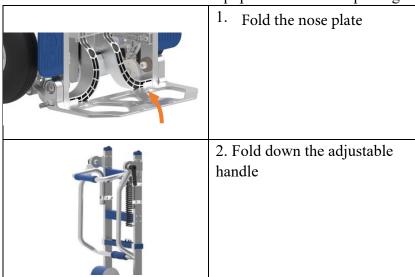


Warning-Please note the weight specifications

Warning- When using transportation to transport a stair climber, please comply with the relevant laws and regulations to ensure transport safety.



Be careful-Please turn off the equipment when transporting



## **MAINTENANCE**

#### **BATTERY PACK**



Be careful-Please do not use wet hands when operating the equipment



Notice- Store stair climbers in dry storage



Notice- Please remember to charge after each use.



Notice - Please protect the charger and the charging wires from oil, grease, detergent, thinner or any potentially damaging liquids.



Notice-Please follow the operating instructions to charge.



Notice-Always keep sockets dry

NOTICE: The new battery will reach its optimum state after several charging and discharging.



### REPLACING THE FUSE

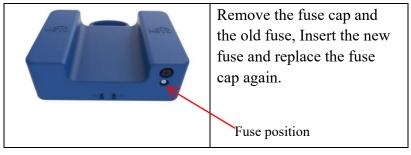
Be careful-Before removing the fuse, remove the power cord from the power outlet or the car socket first



Notice-Do not repair or connect a damaged fuse



Notice-Please use the fuse specified by my supplier



## Check the brake pad and the climbing wheel

Notice - check the wear of the climbing casters regularly. If they are found to be damaged or worn seriously, please contact the authorized professional or manufacturer.



1. Check climbing wheels regularly and pay attention to worn wheels.

# 6. Fault and troubleshooting

| Fault  | Detection and solution  |
|--|---|
| The climbing machine can't start or can't go up or down the stairs | check whether the battery display is normal. If it shows low power (<20%), please charge.  If the battery is in power, it will still be unable to start. Please contact the supplier.   |
| The battery can't be recharged                                     | Please contact the supplier.  |
| Failure of high and low speed switching control                    | Check whether the power supply is connected and normal.  If the power is normal, the switch can be removed to check whether the connection is normal. If the connection is normal, it may be a high low speed switch. It can be replaced by yourself. If the problem remains after the replacement, please contact your supplier. |
| Only upstairs, can not downstairs                                  | Check whether the power supply is connected and normal.  If the power is normal, it can be removed from the upper and lower floors to check whether the   |
|  | connection is normal, if the connection is normal, then the switch fault of the upper and lower floors can be switched on its own. If the replacement problem is still existing, please contact your supplier.  |

#### LIMITED WARRANTY

Vestil Manufacturing Corporation (Vestil) warrants model PDSC-350-62 Stair Climber to be free of defects in material and workmanship during the warranty period. *Our warranty obligation is to provide a replacement for a defective original part (a part used to make the product as shipped to the warrantee) after we receive a proper request for warranty service.* "Proper request" means that we must receive: 1) a photocopy of your Customer Invoice that displays the shipping date; AND 2) a written request for warranty service that includes your name and phone number. Send requests by any of the following methods:

 Vestil Manufacturing Corporation
 Fax
 Email

 3000 North Wayne Street DO Box 507
 Rhone

2999 North Wayne Street, PO Box 507 Phone
Angola, IN 46703 (260) 665-7586

In the written request, list the parts you believe are defective and include the address where replacements should be delivered. After Vestil receives your request, an authorized representative will contact you to determine whether your claim is covered by the warranty (also see "If a defective part is covered..." below). Before providing warranty service, Vestil may require you to send the entire product or the defective part or parts to its facility in Angola, Indiana.

#### Who may request service?

Only the warrantee may request service. You are a warrantee if you purchased the product from Vestil or from an authorized distributor AND Vestil has been fully paid.

#### What is covered under the warranty?

The warranty covers the following *original* drive and lift components: drive motors and lift motors, hydraulic pumps, electronic controllers, switches and cylinders. It also covers *original* parts that wear under normal usage conditions ("wearing parts"): bearings, hoses, wheels, seals, brushes, batteries, and the battery charger. The warranty period for drive and lift components is 1 year. For wearing parts, the warranty period is 90 days. Both warranty periods begin on the date when Vestil ships the product to the warrantee. If you purchased the product from an authorized distributor, the periods begin when the distributor ships the product, which extends the warranty by up to an additional 30 days.

#### If a defective part is covered by the warranty, what will Vestil do to correct the problem?

Vestil will provide an appropriate replacement for any *covered* part. An authorized representative of Vestil will contact you to discuss your claim.

#### What is not covered by the warranty?

- 1. Labor costs or Freight;
- 2. Any of the following automatically void the warranty:
  - Product misuse;
  - Negligent operation or repair;
  - · Corrosion or use in corrosive conditions;
  - Inadequate or improper maintenance;
  - Failure to exercise good judgment;
  - Damage sustained during shipping;
  - Accidents involving the product;
  - <u>Unauthorized modifications</u>: Do NOT modify the product IN ANY WAY without first receiving written authorization from Vestil. Modifications may render the pallet truck or stacker unsafe to use or might cause excessive and/or abnormal wear.

#### Do any other warranties apply to the product?

Vestil Manufacturing Corp. makes no other express warranties. Any warranty implied-by-law is limited in duration to the warranty period.