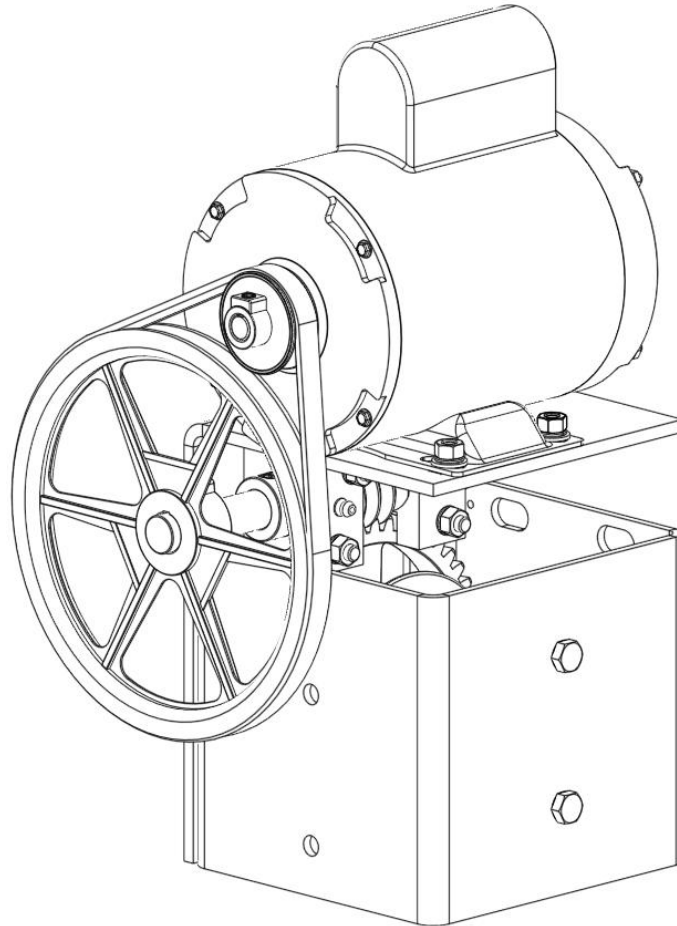


# AMS PWC HOIST

## MODELS 1250 / 1500








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### **▲WARNING**

**Read this material before using this product. Failure to do so can result in serious injury. SAVE THIS MANUAL**

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WARNING SYMBOLS AND DEFINITIONS	
	This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid injury or death
	Indicates a hazardous situation which, if not avoided, will result in death or serious injury
	Indicates 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
	Addresses practices not related to personal injury

## IMPORTANT SAFETY INFORMATION

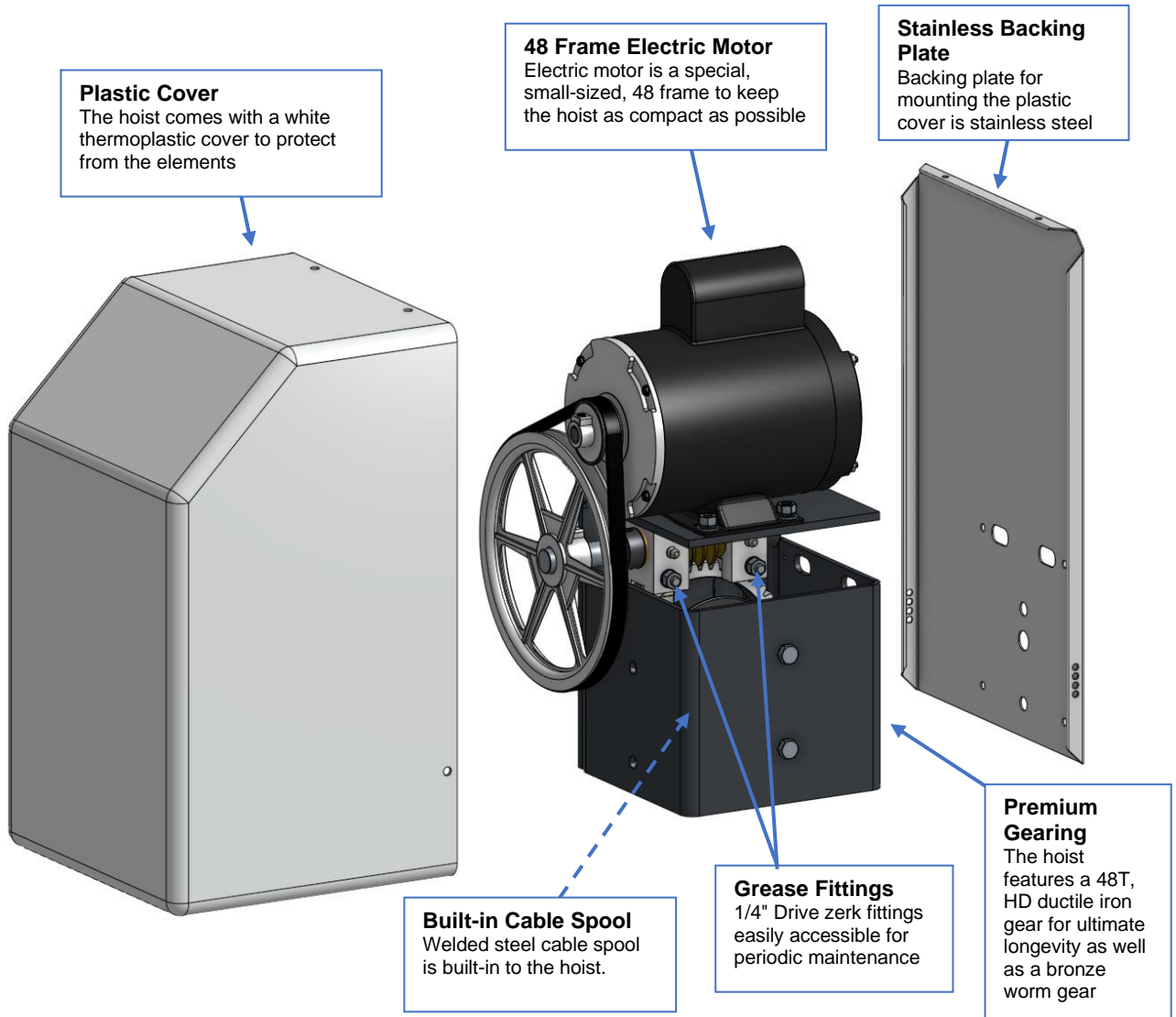
### **DANGER**

**TO PREVENT SERIOUS INJURY AND DEATH:**

### Basic Safety Information

1. **Do not lift people or lift loads near people.**  
Falling loads can injure or kill people.  
Do not use as elevator for human use.
2. **Do not operate the hoist when load is not centered in lift**
3. **Do not operate hoist with kinked or damaged lift cables**  
Inspect lift cables before every use
4. **Do not operate hoist if damaged or malfunctioned in any way**
5. **If servicing or replacing parts, ensure the load is removed and cables are slack**
6. Lift should be installed in a location that allows the operator to move and stay clear of the load
7. Keep clear of moving parts during operation
8. Electrical equipment should only be installed and maintained by a qualified electrician

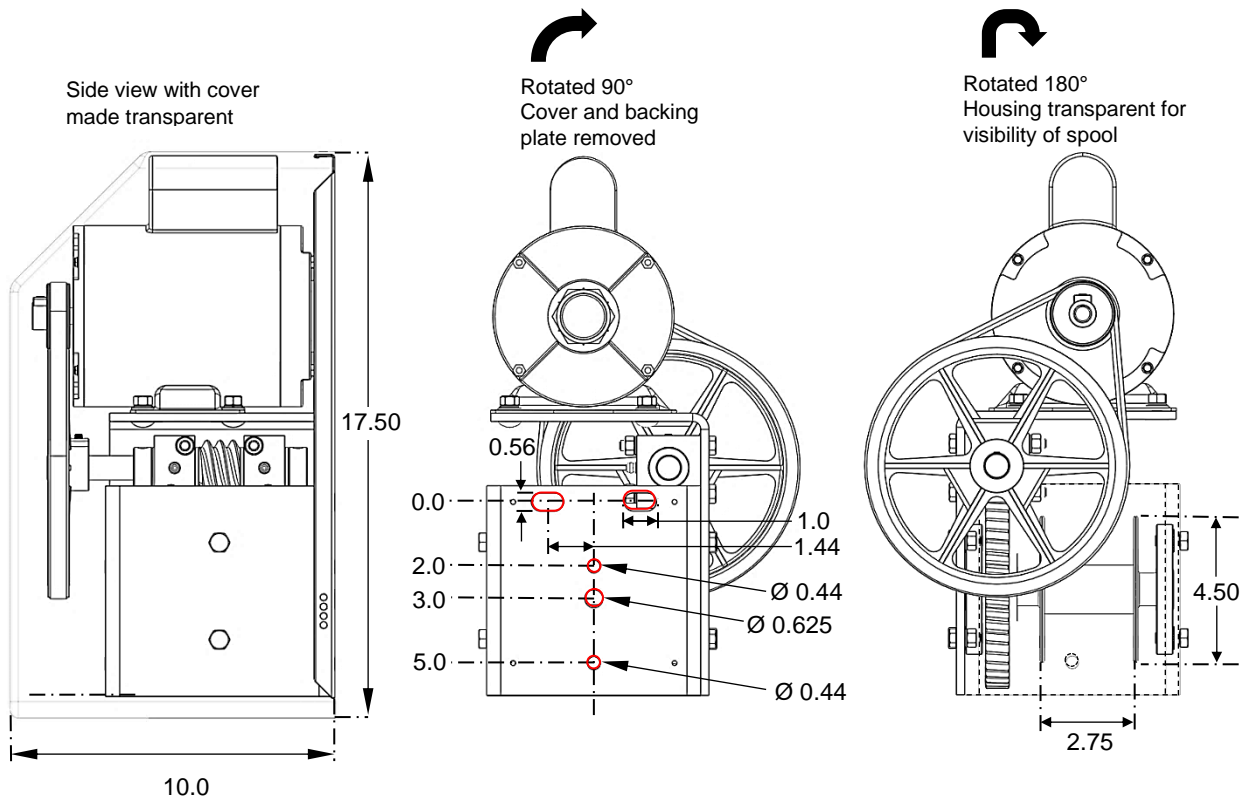
**Overview & Features**



**General Description**

The AMS PWC Hoist, also referred to as the “Jet Ski”, is an electric-powered, open-gear mechanical hoist intended for use primarily in boat lifts, but also cargo lifts and other specialized applications. The gearing is intentionally designed to be inefficient to hold the rated load without the need for other equipment such as a brake motor. The first reduction stage is achieved with a pulley and belt similar to the Flat Plate. This hoist is used mainly on PWC lifts by a wide variety of lift manufacturers. The PWC Hoist has been manufactured by AMS for over 30 years.

## Mounting Dimensions



## Technical Information

**Models:** The AMS PWC Hoist is available in 3 main models: the 1000, 1250, and the 1500. All models are identical except for the size of the drive pulley (and belt).

*Considering Aqua Marine Supply/Hefty Hoist does not create the entire lift, these model numbers only refer to the maximum weight that can be lifted with a straight-pulled cable. The lift manufacturer who utilizes our hoist and sells the lift as a package is the only party that can determine the final weight capacity.*

### Standard PWC Hoist Configurations

Model	Gear Ratio	Motor HP	Drive Pulley	Belt
1000	144:1	3/4	6"	AX22
1250	168:1	3/4	7"	AX24
1500	192:1	3/4	8"	AX26

## Installation Information

### NOTICE CAUTION

**Orientation:** The PWC Hoist can be mounted vertically with the motor on the top or at varying angles when installed on davits.

**Mounting Holes:** The PWC HOIST should be fastened to the lift piling, beam, davit, or structural joist to prevent the hoist from moving under operation. A symmetric array of holes and slots is provided on the back of the hoist for mounting (see pattern in red above).

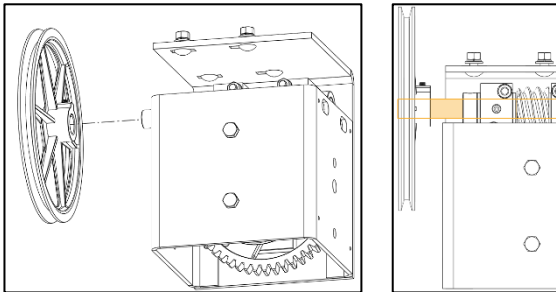
**Cable Spool:** The built-in spool can safely hold about 25 FT of 1/4 inch cable. The cable is held to the side of the spool flange with a provided cable clamp.

## Mounting the Electric Motor

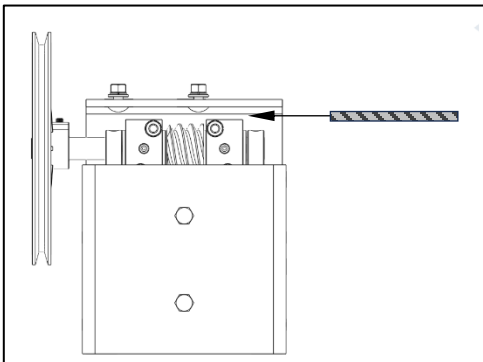
### **⚠ WARNING**

**TO PREVENT SERIOUS INJURY, ENSURE THE ELECTRICAL CIRCUIT IS SWITCHED OFF BEFORE PROCEEDING**

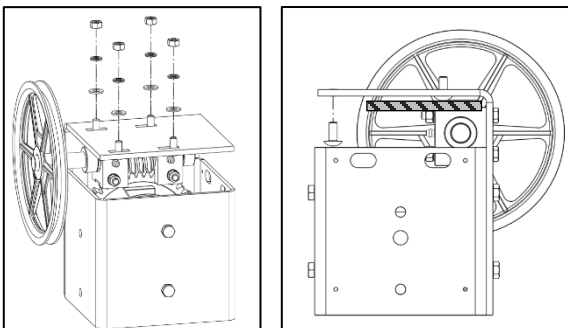
1. Ensure that the motor electrical connections have already been made as once the motor is in position on the lift, access to the wiring compartment is not possible due to proximity of the cover backing plate.
2. Install the Drive Pulley onto the shaft of the hoist with the hub facing inward and the outer edge flush to the end of the shaft. Ensure the key is in place in the keyway.



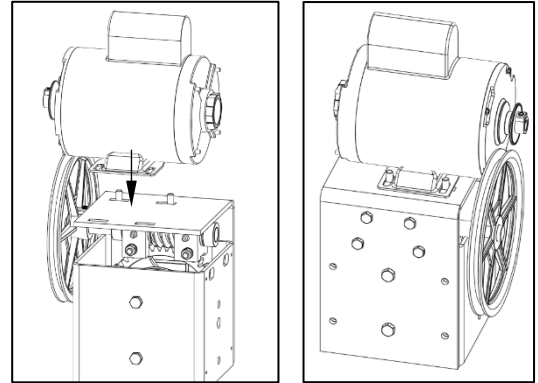
3. Once in position, tighten the set screw with a 5/32" hex key.
4. Slide a piece of cardboard between the worm gear and the back two carriage bolt heads to keep them in place during the next steps.



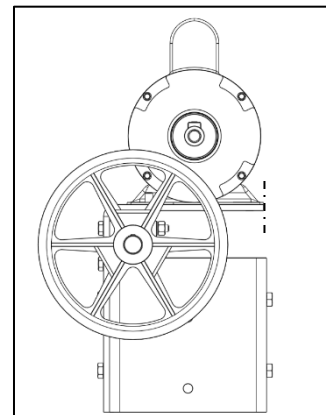
5. Remove the 5/16" nuts and washers from the carriage bolts using a 1/2" wrench. NOTE: The back two carriage bolts should be held in place by the cardboard but the front carriage bolts will need to be held as you remove their nuts/washers.



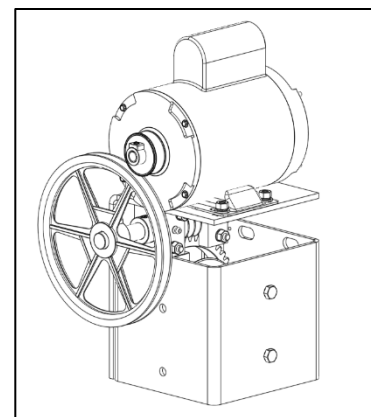
6. Position the electric motor onto the top of the PWC Hoist so that the motor pulley aligns with the drive pulley and the mounting foot slots line up with the carriage bolts.



7. Slide the motor so that the edge of the mounting foot is flush to the edge of the top of the hoist.



8. Reinstall the front carriage bolts and all flat washers, lock washers and nuts with a 1/2" wrench. Remove the cardboard inserted in Step 4.



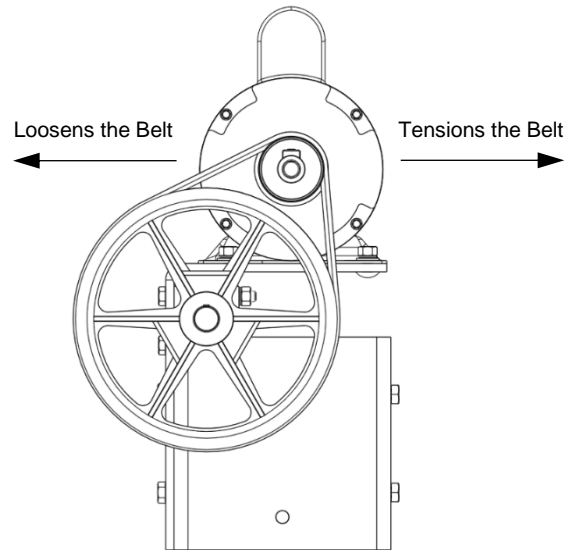
## Installing the Drive Belt

### **⚠ WARNING**

**TO PREVENT SERIOUS INJURY, ENSURE THE ELECTRICAL CIRCUIT IS SWITCHED OFF BEFORE PROCEEDING**

1. Install the Drive Belt around the Motor Pulley and begin to install around the Drive Pulley.
2. Rotate the Drive Pulley by hand until the Drive Belt fully seats into the groove.

If it seems too tight to install or not tensioned enough, loosen the motor mounting nuts and slide the motor according to the figure right. Tighten the nuts and try again after repositioning.



## Electric Motor Connections

The provided electric motor from Aqua Marine Supply/Hefty Hoist, Inc is a **115V ONLY**, single phase, reversible motor that should only be installed by a qualified electrician. The electrical circuit should be GFCI protected and should contain the proper size wiring to ensure full voltage to the motor on the hoist. Failure to supply the correct and full electrical voltage to the motor or failing to make the proper connections will permanently damage the motor and is not covered by warranty.

For electric motors that were not wired to controls from factory, wiring schematics can be found at [www.HeftyHoist.com/wiring-diagrams](http://www.HeftyHoist.com/wiring-diagrams). Please do not contact us with questions about compatibility with non-AMS equipment as we will not be able to assist.

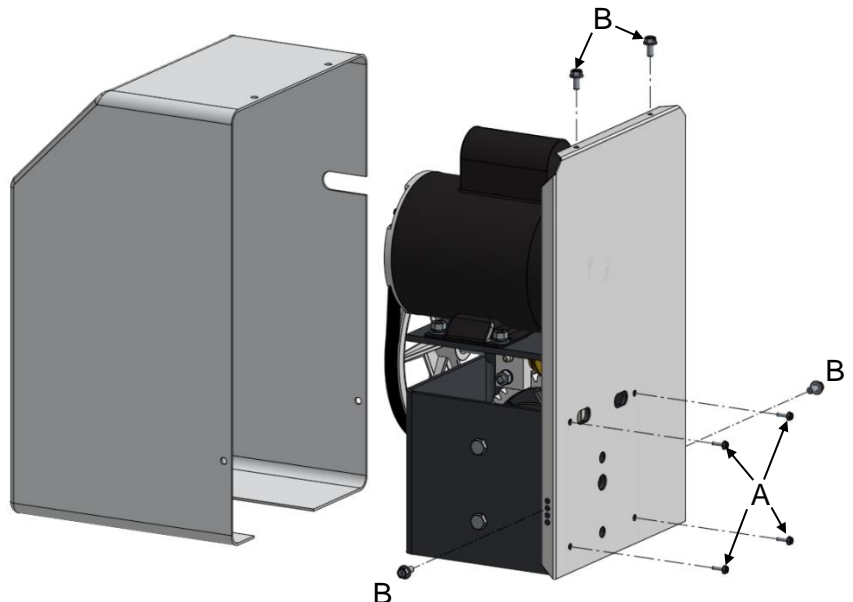
## Installing Cable to Spool (not provided by AMS)

Follow the instructions provided by the lift manufacturer for installing cable to the spool drum. AMS does not supply lift cable

## Installing the Cover & Backing Plate

Use the provided (4) #8 Sheet Metal screws (A) to attach the backing plate to the Hoist.

Once the Hoist is installed on the lift, attach the white plastic cover using the (4) 1/4 – 20 x 1/2" screws (B)



## Before Operating Hoist

1. Familiarize yourself with all operating controls of the hoist and with the operation(s) of the manufacturer's lift. Also familiarize yourself with the instructions, including the warning(s) on the hoist and lift and with the safety information within this manual. Read all information provided by the lift manufacturer regarding your specific lift.
2. **TO PREVENT SERIOUS INJURY FROM LIFT FAILURE:**  
**Do not use damaged equipment. If repairs are necessary or any defect known, have the issues corrected before use.**
3. Inspect the PWC HOIST and other lift components thoroughly before use.

## Operating the PWC HOIST

### For AMS Reversing Switch installations:

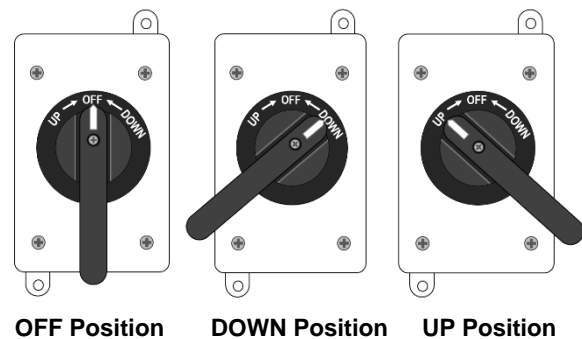
Rotate the switch handle to the desired lifting direction (UP or DOWN). See Figure 6a

**NOTE:** A **Momentary** style switch will require the user to hold the handle in the desired operating position and if released, the handle should return to the OFF position automatically. A **Maintaining** style switch will allow the switch handle to maintain the position selected throughout operation and the handle needs to be rotated back by the user to the OFF position when finished.

### For Remote Control installations:

Follow directions provided by the Remote Control manufacturer for proper operation.

Figure 6a



## Lubrication Information

There are grease fittings on the PWC Hoist that require periodic lubrication. See the diagram on **Page 3** for locations. The amount of time between adding grease to the hoist heavily depends on the frequency of use and the environment in which it is installed. Under typical residential use in a Jet Ski Lift application, we recommend the PWC Hoist be inspected for grease at least once during the boating season. It is highly advisable to inspect at the beginning and end of the season as well. Failure to maintain adequate grease will void the warranty.

### Grease Type

The AMS PWC Hoist hoist requires a high-temp moly grease. The hoists are factory-lubricated with *Mobil Centaur Moly II*.

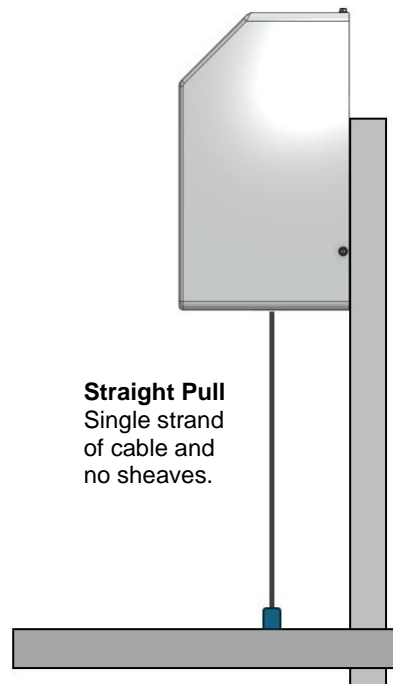
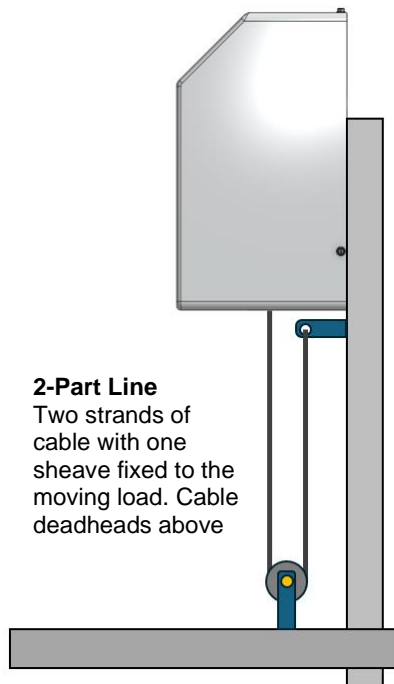
## Specifications

Model	1000	1250	1500
Motor HP	3/4	3/4	3/4
Motor Amps (115V ONLY)	10.6	10.6	10.6
Standard Hoist Ratio	144:1	168:1	192:1
Standard Output RPM	11.98	10.27	8.98
Drive Pulley Diameter	6 Inch	7 Inch	8 Inch
Standard Belt Size	AX22	AX24	AX26
Rated Motor RPM	1725	1725	1725
Straight-pull maximum load (see Page 8)	1,000 lb	1,250 lb	1,500 lb

**Max Load & Lift Speed Chart**

The following chart can be used to determine the maximum load a PWC hoist can lift based on the cable configuration. The chart only accommodates for lifts with one hoist; if multiple hoists are used on the same lift, then multiply the Max Load value in the chart by the number of PWC HOIST units on the lift.

Lift Cable Compounding	PWC 1000		PWC 1250		PWC 1500	
	Max Load per Hoist (Lb)	Vertical Speed (in/min)	Max Load per Hoist (Lb)	Vertical Speed (in/min)	Max Load per Hoist (Lb)	Vertical Speed (in/min)
Straight Pull	1,000	56.5	1,250	48.4	1,500	42.3
2 Part Line	1,895	28.2	2,369	24.2	2,842	21.2





## **PLEASE READ THE FOLLOWING CAREFULLY**

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THE INFORMATION IN THIS MANUAL ARE A REFERENCE TOOL ONLY. WE DO NOT MAKE ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT THEY ARE QUALIFIED TO MAKE ANY REPAIRS OR REPLACE ANY PARTS OF THE PRODUCT. IN FACT, AQUA MARINE SUPPLY/HEFTY HOIST, INC EXPRESSLY STATES THAT ALL REPAIRS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

### Warranty

The following warranty applies to the components of the models of hoists manufactured by Hefty Hoist, Inc dba Aqua Marine Supply©. This warranty applies to manufacturing defects and/or failures due to design or fabrication. Replacement parts or a new product will be supplied at no charge at the option of Aqua Marine Supply. This does NOT include labor or freight.

- Electrical Components including electric motor, wire, switch, GFCI power cords, etc (1 Year)
- PWC Hoist (2 Years)

This warranty is void if product is improperly installed, maintained or greased. Any changes or alterations to the original design will also void the warranty. The warranty does not cover acts of nature or criminal activity. The warranty is predicated on proof of annual inspection by a qualified technician and a record of inspection must be presented for any warranty claim. The warranty applies only to the original owner and is void if transfer of ownership.

To take advantage of this warranty, the product must be returned to us for evaluation with transportation charges prepaid (unless otherwise directed). Proof of purchase date and an explanation of the complaint must accompany the product otherwise no warranty will be given and the product will only be returned at the cost of the sender.



## Troubleshooting

Problem	Possible Causes	Probable Solutions
Drive belt slipping	<ol style="list-style-type: none"> <li>1. Belt needs tensioned more</li> <li>2. Grease or debris on belt or in pulley groove</li> <li>3. Mechanical binding in lift adding additional stress</li> <li>4. Hoist is overloaded</li> </ol>	<ol style="list-style-type: none"> <li>1. Follow steps on Page 6 to further tension the belt. Also ensure belt size is correct</li> <li>2. Clean belt and pulley grooves or replace if necessary</li> <li>3. Check lift components according to lift manufacturers instructions for binding including lubricating sheaves and guides.</li> <li>4. Make sure your boat or load is within the rated capacity of the lift/hoist</li> </ol>
Drive belt flipping	<ol style="list-style-type: none"> <li>1. Pulleys misaligned</li> <li>2. Defective/damaged drive belt</li> </ol>	<ol style="list-style-type: none"> <li>1. Check pulley alignment and ensure the electric motor is mounted straight across the top of the Hoist.</li> <li>2. Replace belt</li> </ol>
Electric motor getting hot  <i>Note: Limit use as much as possible when this occurs. Permanent, irreversible damage could be done to the electric motor</i>	<ol style="list-style-type: none"> <li>1. Low voltage due to insufficient wire size (most common)</li> <li>2. Improper wiring connections</li> <li>3. Mechanical binding in lift adding additional stress</li> </ol>	<ol style="list-style-type: none"> <li>1. Have the voltage checked under load at the motor by a qualified electrical professional. If voltage drop present, check wire size from main panel and ensure sufficient size for the length of the run based on the amp draw of the motor(s) on the hoist(s).</li> <li>2. Ensure the electrical connections are correctly made at the electric motor as well as the control. See HeftyHoist.com for wiring schematics</li> <li>3. Check lift components according to lift manufacturers instructions for binding including lubricating sheaves and guides.</li> </ol>
Electric motor humming in one or both directions	For new installations: <ol style="list-style-type: none"> <li>1. Improper connections</li> <li>2. Defective motor or control</li> </ol> For existing installations: <ol style="list-style-type: none"> <li>1. Corrosion</li> <li>2. Damaged wiring</li> </ol>	For new installations: <ol style="list-style-type: none"> <li>1. Ensure the electrical connections are correctly made at the electric motor as well as the control (switch or remote control panel). See HeftyHoist.com for wiring schematics</li> <li>2. Have electrician try to isolate issue is either at the electric motor or control and replace as necessary.</li> </ol> For existing installations: <ol style="list-style-type: none"> <li>1. Have electrician check connections at motor and control for corrosion not allowing full power through. Issue may be internal and faulty item may need replaced.</li> <li>2. Inspect wiring circuit from control to electric motor for possible damage and repair/replace as necessary.</li> </ol>
Electric motor does nothing	<ol style="list-style-type: none"> <li>1. GFCI has tripped</li> <li>2. Circuit breaker has tripped</li> <li>3. Open circuit</li> </ol>	<ol style="list-style-type: none"> <li>1. Check all GFCI including the one provided by AMS on the power cord if applicable and reset.</li> <li>2. Check the circuit breaker belonging to the lift and reset if turned off. If breaker continues to trip:           <ol style="list-style-type: none"> <li>a. Check if breaker defective</li> <li>b. If breaker working properly, there is a dead short somewhere in the circuit from the breaker to the electric motor. DO NOT use hoist and consult an electrician right away</li> </ol> </li> <li>3. Electrical circuit is open at some point from the breaker to the electric motor. Consult an electrician to isolate the issue</li> </ol>



**ALL TROUBLESHOOTING, MAINTENANCE, AND REPAIR SHOULD BE COMPLETED ONLY BY A LICENSED PROFESSIONAL AND/OR ELECTRICIAN. FOLLOW ALL WARNING LABELS ON THE HOIST OR SERIOUS INJURY COULD OCCUR**