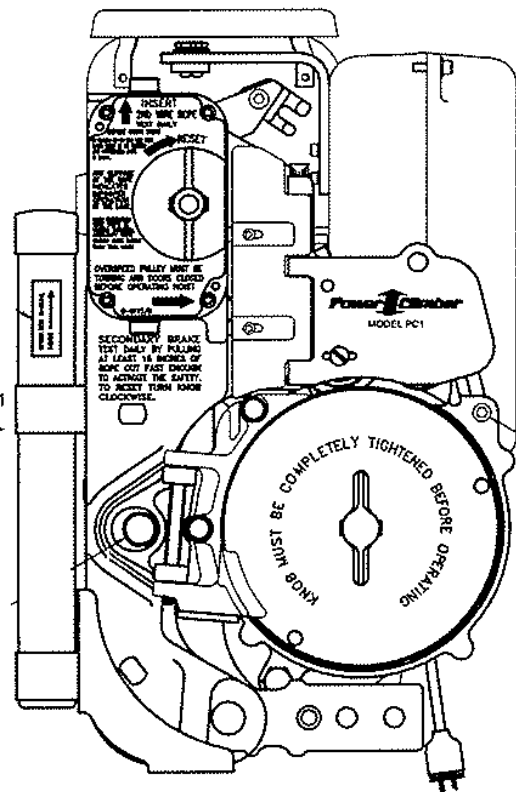




INNOVATING SINCE 1972



P/N M-804

Pocket Climber Operating Instructions

**PC1 Series Hoists
October 2009**

Keep this manual with the hoist at all times

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INTRODUCTION

The Pocket Climber is used to raise and lower stages, work cages and bosun's chairs along the sides of buildings and structures. If used for any other purpose, you must take all necessary precautions to be sure that both design and operation are hazard free.

Before using the Pocket Climber, become familiar with the procedures described in this manual. Any operation in violation of these instructions may result in bodily injury or death.

The owner of the Pocket Climber and/or the person responsible for its use must ensure that a copy of this instruction manual is given to the operator of each hoist.

Power Climber reserves the right to make changes or modifications to its hoist. Users of this equipment should request current operating information prior to using this equipment. Call your local Power Climber dealer.

This manual is included with each Pocket Climber. Additional copies are available from your Dealer. Keep this manual with the hoist at all times.

SAFETY SUMMARY

Every year, workers on swing stages are injured, become disabled, or are killed because of carelessness or because they didn't understand how to properly operate the equipment. Don't become one of them. Know how to use this equipment and prevent accidents.

Don't operate equipment that you don't understand. You might cause accidents, resulting in injury or death to you or people around you.

This instruction manual is not all-inclusive. It is impossible to anticipate every possible way this equipment may be used, and all possible hazardous situations. It is very important that anyone using this equipment must determine for themselves whether the equipment is safe. You must understand the operating characteristics of this hoist. You must understand how the hoist will operate in your application. You must be certain not to put yourself or others in danger or cause damage to the surroundings or the equipment. Call your local supplier if in doubt.

1. Read and understand this manual **before** using this equipment.
2. Use the troubleshooting guide in this manual to solve problems that may develop with the hoist. Repairs must only be made by people trained and authorized to do so. **Never** maintain or repair the equipment while the unit is suspended (above ground level).
3. Be careful when operating the hoist in freezing temperatures, where water or moisture can enter the hoist's overspeed brake or traction assembly. See Cold Weather Operating instructions in this manual.
4. Do not remove any parts from the hoist without replacing them. Do not change or substitute any approved hoist parts for parts that are not approved. Do not modify this hoist without prior approval from Power Climber. Modifications can put you in danger if not done correctly.

5. Use only recommended wire rope, Crosby® type fist grips™, thimbles, and other hardware recommended for this equipment.
6. Tighten and re-tighten wire rope fist grips™ after initial loading and before suspending the live load at the start of each work shift. Manufacturer recommended torque: 30 ft-lbs for 5/16-in. wire rope. Refer to the instructions of the manufacturer of the specific rope clip that you are using.
7. When using support equipment that requires counterweights to be used, use only solid counterweights designed for the equipment being used. Never use sandbags, liquid filled containers, or any other free-flowing material as a counterweight.
8. When you intend to use support equipment that attaches to or rests on parts of the structure make sure that the structure and the equipment can be safely used together. Do not attach to a weak or questionable structure. If in doubt, consult a qualified engineer who is familiar with this type of equipment.
9. Do not overload the hoist, platforms, or rigging. Do not exceed the rated capacity of any component. Always use the rigging tiebacks. Make sure roof rigging tiebacks are as strong as the hoisting ropes, are installed without slack and at right angles to the face of the building, and are secured to a structural member of the building.
10. **WARNING!** Do not use single-point or two-point suspended scaffold unless:
 - a. You are wearing a properly attached fall arrest system.
 - b. You have personally made sure that (1) the roof support system is complete, properly assembled, counterweighted (or otherwise anchored), tied off, and not overloaded; and (2) hoists and platforms are not overloaded.
 - c. The wire rope is the size and type specified for your hoist.
 - d. Guardrails are properly installed. Work from the deck of the work cage or platform only. Do not stand on the hoist, stirrups, guardrails, toe boards, or other objects on the platform. Do not use ladders or boxes to get to higher elevations. Do not lean over the hoist or railings. Do not stand outside the hoist at the end of the platform unless end rails are in place.
 - e. The main suspension wire rope is vertical.
11. Never operate a work cage or platform without guard rails, mid-rails, and toe boards in place. Use all personal protection equipment.
12. Setup and use must comply with Power Climber instructions, OSHA, and other applicable codes. Copies are available from your local Power Climber dealer.
13. Do not reset the secondary overspeed brake if it actuates automatically while the work platform is off the ground. Thoroughly check first to determine the reason for brake operation. The secondary overspeed brake may be the only thing holding you up.
14. Only factory trained and authorized personnel are to make repairs to these hoists.
15. Do not use visibly worn, kinked, bird caged, undersized, or damaged wire rope. Protect wire rope from sharp or abrasive edges of the building. Do not use wire rope that has been exposed to fire, excessive wear, corrosive atmosphere, chemicals, passage of electric current, or temperatures above 200 degrees F.

16. Inspect the wire rope before rigging. Handle, inspect, and maintain wire rope carefully during and after each job. Lubricate the wire rope according to the manufacturer's recommendations.
17. Provide proper electrical grounding for this hoist.
18. When welding from a suspended scaffold: (Within the US reference OSHA CFR 29-1926.451(f)(17)
 - a. Assure platform is grounded to the structure.
 - b. Insulate wire rope above and below the platform.
 - c. Insulate wire rope at suspension point and assure that the wire rope cannot contact the structure along its entire length.
 - d. Cover the hoist with a material that can act as an insulator.
19. Always check the soundness of all rigging before using this equipment.
20. Never operate an electric hoist in an explosive atmosphere such as a refinery, chemical plant, grain elevator, distilleries, ship or silo interiors, and a coal mine or around coal handling equipment, or around explosive organic vapors or dust.
21. Never use hoists and aluminum platforms around caustic materials, acids, or acid fumes. Use approved corrosion-resistant platforms and hoist covers when corrosive materials are present.
22. Maintain clearances and make sure no obstructions interfere with vertical travel.
23. Avoid power lines. Make sure the platform or hand tools cannot swing or be blown within 10 ft. of a power line. Never, under any circumstances, rig a platform above electrical power lines.
24. Push the operating switch by hand only. Do not block or lock the operating switch in a running position.
25. When not in use, store hoist and stage beyond reach. Protect from unauthorized use. Cover the hoist if possible. Always unplug power cord when not in use and equipment is not attended.
26. Do not allow anyone under suspended equipment. If necessary, provide protection below the suspended equipment to prevent injury to people from falling objects. Use lanyards to secure tools and materials from falling on personnel below.
27. Use approved personnel harnesses, lanyards, rope grabs, and independent lifelines at all times. Attach the lifelines to a structural member of the building, never to part of the rigging unless specifically designed for this purpose.
28. Always operate the platform in a level position.
29. Never work alone on a suspended platform.
30. Hard hats must be worn at all times when servicing, erecting, disassembling, or using this equipment when a falling object hazard is noted or when prescribed by code or when site rules determine this need.
31. Comply with all local, state and federal safety codes and equipment
32. Only authorized, properly trained, and physically fit personnel shall operate this hoist. Operator must not be subject to seizures or loss of control, and must not be under the influence of alcohol or drugs.
33. If you hear any strange noises or if the hoist does not appear to work normally, stop immediately. Do not continue to use the equipment until it is repaired.

HAZARD SUMMARY

WARNING

If the hoist is suspended in the air and the motor runs but the wire rope does not move through the hoist, STOP the hoist immediately! Damaged wire rope may be jammed inside the hoist. Any attempt to move the hoist up or down could damage the equipment or cause injury or death.

There are many hazards in the workplace, especially when working on a suspended scaffold. The following are common hazards. The list is not intended to be comprehensive; it is provided to increase safety awareness on the job site.

MECHANICAL HAZARDS

- **Crushing** between the roof trolley and the building, or between the platform and the roof rig.
- **Cutting or severing** between moving machine parts.
- **Smashing** the platform against building face.
- **Loss of rigging stability** because of one or more of the following:
 - Insufficient counterweights or counterweights not properly fixed.
 - Inadequate mechanical strength
 - Increase in vertical load on suspension wire because the platform encounters an obstacle, the platform overloads, or the suspension wire rope ruptures.
 - Platform catches on overhang when lowering.
- **Falling** when rigging, installing the hoist wire ropes, from the platform when working, by using a wire rope that is too short, if the platform isn't strong enough for the weight and breaks, or if wire rope or platform interconnections fail.
- **Rigging failure** can cause platform incline, slipping and falling.
- **Slipping** due to loss of traction. Wire rope jams by using incorrect diameter wire rope.
- **Slip, trip and fall hazards.** Pay attention to:
 - Decking, sides, guard rails and toe boards on the platform.
 - Control of platform level.
 - Safe access to the platform.
 - Safe access to the wire rope anchorage points.
- **Objects falling** from the platform. Pay attention to:
 - Decking and toe board spacing and orientation.
 - Special requirements for operating a platform around the general public.

ELECTRICAL HAZARDS

- Failure of the electrical supply may result in being trapped on the platform.
- Unwanted movement and/or failure of the control system.

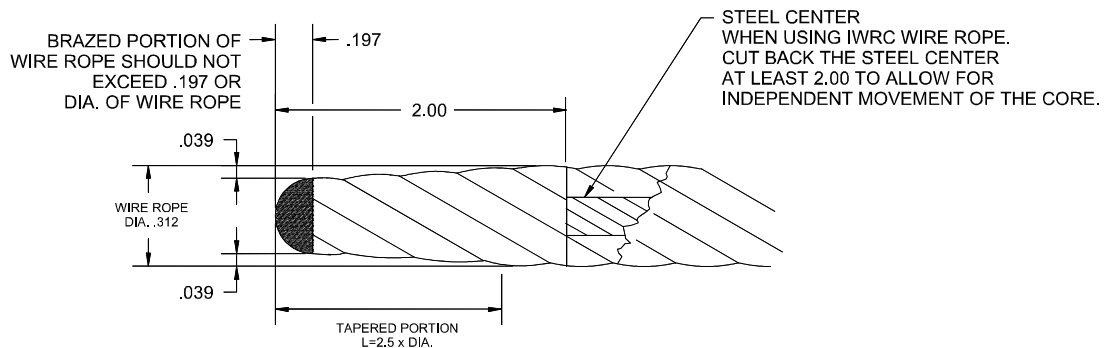
- Improper power supply (voltage or frequency) may cause the hoist to operate in a dangerous manner, and may damage the hoist.
- All electrical connections must be locked and supported by strain relief devices. The hoist power inlet plug must not carry the weight of electrical extensions. If strain relief devices are not included with your supply lines, contact your Dealer to obtain them.
- Make sure the electrical cord and wire rope is long enough to allow full travel of the suspended equipment. Use electrical cable restraining devices (Kellum™ Grips) to protect connections from tension.

ENVIRONMENTAL HAZARDS

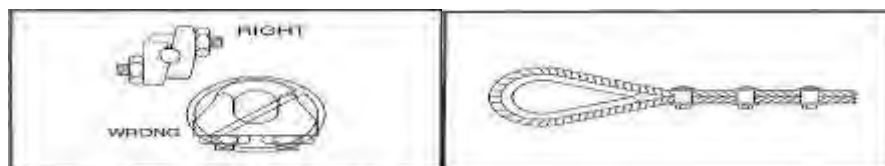
- Consider and prepare for the effects of climate. (Heat/Cold/Ice/Wind)
- Sandblasting and acid wash procedures may introduce special concerns and will need to be addressed with special personal protective equipment. They may affect the immediate health of an operator and may pose serious risks to the hoist and other equipment being used.

WIRE ROPE

1. Use only 5/16-in., 8 or 8.4 mm diameter, 6 x 19, 6 x 31, or 5 x 26 compacted, Seale, right regular lay, improved plow steel, pre-formed wire rope with bright or galvanized finish. Wire rope requires lubrication – under normal conditions, lightly lubricate it with a wire rope lubricant specified by the wire rope manufacturer monthly, more often if necessary. Stainless steel wire rope can be used in corrosive environments with better resistance to corrosion than bright or galvanized wire ropes.



2. To prepare the end of IWRC wire rope for insertion, cut back the steel center at least 2 in. to allow for independent movement of the core. Braze and rough shape the end of the wire rope to form a smooth, tapered, bullet shape no more than ½-in. long. DO NOT cool the end of the hot wire rope in water or oil. This makes the end brittle and may cause it to break off. Oil the bullet after it cools to prevent rusting.
3. Always uncoil and carefully examine the wire rope before use. Worn, kinked, bird-caged, or damaged wire rope cannot be repaired – it must be replaced.
4. Use only proper diameter Crosby® wire rope fist grips. Do not use “U” type wire rope clamps-these crush the wires and damage the rope. Tighten 5/16-in. fist grips to 30 ft-lbs or per the manufacturer of the clip that you are using.

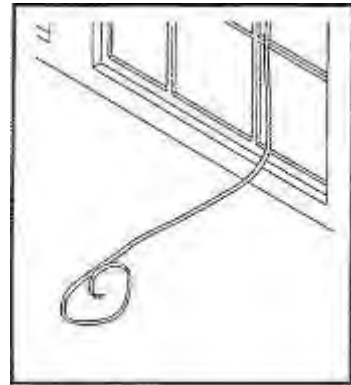


5. There are several different methods for attaching a thimble eye to a main suspension line (wire rope). Use a heavy-duty thimble and follow the manufacturer's requirements for termination of the equipment that you are using.

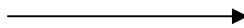
WARNING

Because wire rope stretches when loaded, the diameter is reduced and the fist grips® or similar devices may loosen. Therefore, always re-tighten the wire rope clamps once a load has been applied. This is especially important at the start of each work shift.

6. Be sure there is enough wire rope to have three feet extra on the lowest possible point to which the platform can travel. Three feet of extra wire rope length on the ground may be ideal, but longer lengths can contribute to certain forms of wire rope damage. Be careful to keep this length to a minimum.
7. If hoist travel is originated from above (near the suspension points such as from a bridge or over a manhole) and it is not possible to lower the platform to the ground, secure the tail line to prevent the platform from running off the suspension ropes. This is done creating a closed loop of some type that cannot enter into the hoist while traveling in the down direction. This creates a barrier to running off the end of the wire rope. Before rigging in such an area, consult a safety professional. Additional protective equipment may be required.



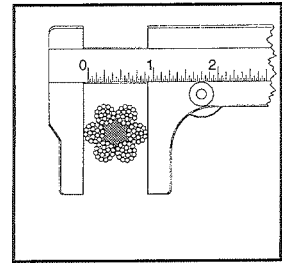
*Tail line with loop with termination



8. Wire rope begins to wear the moment it is used. Therefore, it must be regularly inspected to be sure it is in good condition. **Wire rope must be removed from service when diameter loss or wire breakage occurs as listed within ANSI A10.4. Below is the quick listing of criteria that requires the removal of wire rope from service.**
 - 6 broken wires in one rope lay or 1 broken wire in a valley. (Running Ropes)
 - 3 broken wires in one strand. (Running Ropes)
 - 2 broken wires in one rope lay or 1 broken wire in a valley. (Standing Ropes)
 - 2 broken wires at an end connection. (Standing Rope)

AND / OR (Continued criteria from ANSI A10.4)

- Other broken wires may not be visible.
- Kinked, crushed, bird caged wire rope, or any damage resulting in distortion of the rope structure.
- Evidence of exposure to temperatures above 200 degrees F.
- Rusting, corrosion, or pitting.
- Evidence of core failure (lengthening of a rope lay and a reduction in diameter). More than two broken wires in the vicinity of end attachments.
- Reduction of wire rope diameter to 0.290 in. for a 5/16-in. diameter rope. Measure the diameter across the outer limits of the strands, not the valleys, when the rope is under load.



NOTE: Do not expose the wire rope to fire, temperatures about 200 degrees F., passage of electrical current, or corrosive atmospheres and chemicals. This exposure will make the rope unsafe.

Acids will corrode and reduce the strength of both the inner and outer strands. When using corrosive chemicals, use stainless steel wire rope and discard after completing the project, or sooner if any damage is evident. Do not save wire rope that has been in contact with corrosives. When in doubt, replace the wire rope.

HOIST DESCRIPTION

The Pocket Climber PC1 is a scaffold hoist with self-reeving capability. It uses a single wrap traction sheave and traction rollers to lift the load. The amount of traction is load dependent-the heavier the load, the more traction you have.

Power is supplied to the traction sheave by an electric induction motor through a double reduction gear drive. In the event of power disruption, controlled descent is provided by manually operating the no-power emergency descent lever.

The hoist comes equipped with several risk reduction features:

- **Emergency Power Cut-off** disconnects the power pack from the supply voltage.
- **Secondary Overspeed brake** senses the hoist speed as it passes over the main suspension wire rope. The brake operates when hazardous speeds (in excess of about 50ft/min) are detected. A speed-sensitive governor trigger activates a spring loaded cam. The cam locks the hoist to the rope. This brake can also be manually operated.
- **Slack Rope Brake** locks the hoist to a second wire rope. This brake is activated whenever the main suspension wire rope is slack.

NOTE: Using a second wire rope is optional, unless required by law.

GENERAL SPECIFICATIONS

The hoist comes in the following configurations

	PC1-1000E	PC-1000A	PC1-1000E3	PC1-1000 EDV
Capacity (lbs.)	1000	1000	1000	1000
Speed	35 fpm	Up to 35 fpm	35 fpm	35 fpm
Weight (lbs.)	102	88	102	104
Voltage	220 VAC ⁺	90-120 PSI	208/240 VAC*	220/110 VAC ⁺
Current	7 A	40-70 CFM	6 A	7/14
Circuit Breaker	20/30 A	N/A	20/30 A	20/30 A
Dimension (H x W x D)	20x13x12	18.5x14x12	20x13x12	20x13x12

+single phase, * three phase

COMPONENT PARTS

The major components of the PCI Pocket Climber are listed below, and most are identified on the photographs that follow. Refer to these photographs when reading the operating instructions.

1	Main Suspension Wire Rope	
2	Second Wire Rope	
3	Slack Rope Lever and Inlet Guide	
4	Secondary Overspeed Brake Reset Knob	
5	Overspeed Sensor Wheel	
6	Access door with overspeed wheel inspection port	
7	Frame	
8	Traction Roller Assembly	
9	Diverter Cover	
10	Sheave Guard	
11	Traction Sheave (under Sheave Guard)	
12	Tail line guide	
13	Stirrup Bar	
14	Load Lock	
15	Manual Secondary Overspeed Brake Button	
16	“No Power” Emergency Descent Lever	
17	Carrying Handle (Operator Manual Location)	
18	Transmission	
19	Pilot Light	
20	Emergency Power Cut-off Button	
21	Up/Down Controls	
22	Remote Ready Connection port	
23	Electric motor with brake	
24	Electric Control Box	
25	Electric Supply Plug	

Installing to a Platform

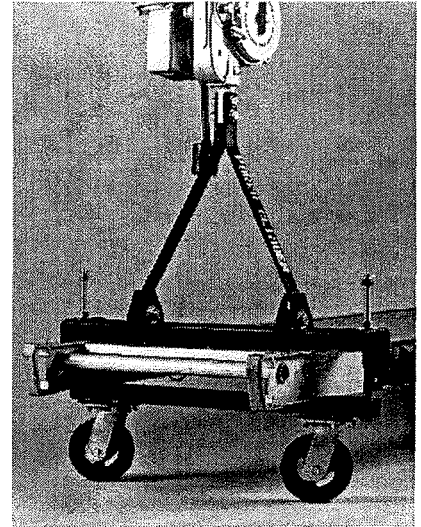
WARNING

All bolts and fasteners must be SAE Grade 5.

1. Follow the manufacturer's instructions for platform assembly. Attach the traction hoist stirrup bar to the stirrup of the platform. The hoist can be lifted into position by hand or by reeving the main suspension wire rope and powering the hoist into the stirrup.
2. Connect the hoist to the power supply. All electric hoists have a twist lock plug. The pilot light (19) will illuminate when the hoist is receiving power. The electric supply must have sufficient capacity and the circuit breakers must be properly rated.

The minimum circuit breaker ratings and electric motor voltage requirements (at the hoist) are listed in "General Specifications."

Each 100 feet of 10/3 electrical cable will drop the voltage by approximately 2 volts with one hoist and 4 volts with two hoists. If start-up is sluggish, determine if the voltage at the motor(s) (when running UP) is 198-242 VAC. You can increase the voltage at the hoist by using larger or separate supply cords and a booster transformer at the power supply source. Do not start both hoists at the same time when running two motors on one electrical cable.



LAYING DOWN THE PC1 HOIST

When the platform is not in use and resting on a safe landing surface, it is important to lay the hoist down inside of the platform. If the platform has to be moved, and the hoist will remain attached during the move, it is important to lay the PC1 hoist down inside of the platform.

Laying the hoist down inside of the platform lowers the center of gravity to make the platform more stable to move. Doing this helps avoid injuries to users who move a platform with an attached hoist. There are two general methods to lay down the hoist prior to a move of the equipment.

1. While the platform is on a safe landing surface, disconnect the hoist from its stirrup mount. Whether the hoist is in an "A-Frame" stirrup, walk-through or some other version stirrup, it is important to either remove the hoist from the stirrup or lay the entire hoist-stirrup assembly down. This lowers the center of gravity of the platform and makes it more stable to move.
2. Hoists mounted to "A-Frame" stirrups can be laid down inside of the platform by following the steps below:
 - To start the lay down procedure, the operators lower the platform onto a safe landing surface and make sure that the hoist is seated, into the locking position of the stirrup bar on the hoist.

Un- Locked Stirrup Bar Position



Locked Stirrup Bar Position

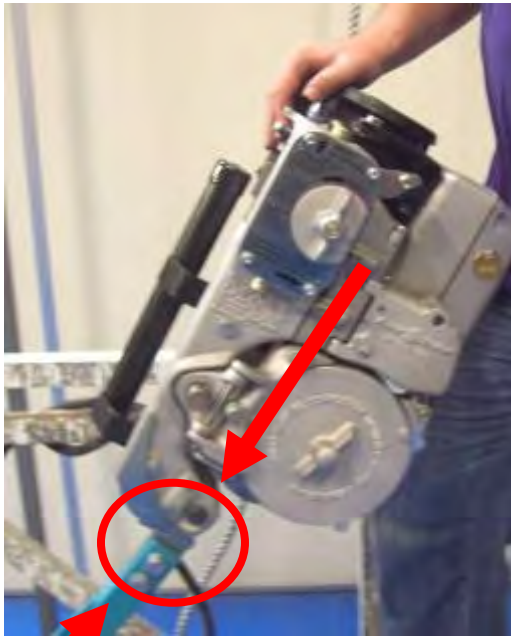


WARNING

If the platform is moved with a hoist in the Un-Locked Stirrup Bar Position, it is possible that the hoist may fall over and may result in injury.

Locked Stirrup Bar Position can be identified from the included pictures and is proven by the fact that the hoist WILL NOT PIVOT at the connection point to the stirrup.

Un-Locked Stirrup Bar Position can be identified from the included pictures and is proven by the fact that the hoist WILL PIVOT at the connection point to the stirrup.



As the hoist is laid down inside of the platform it is important to make sure that the stirrup and the hoist are pushed together to maintain the Locked Stirrup Bar position.

- Keep the hoist and A-frame stirrup pushed together as above until the hoist can be laid safely on the deck of the platform.

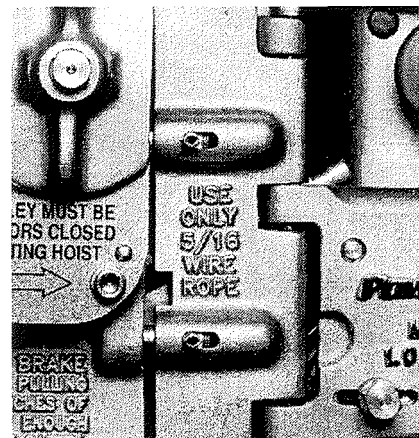
REEVING THE WIRE ROPE

Installing the Main Suspension Wire Rope

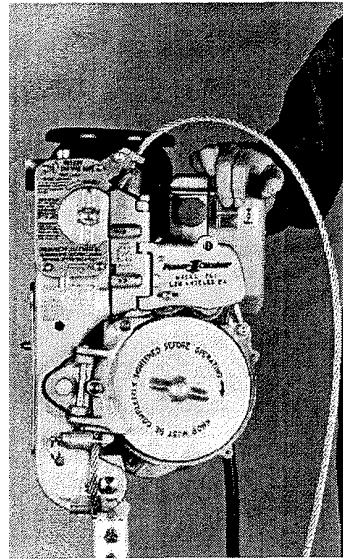
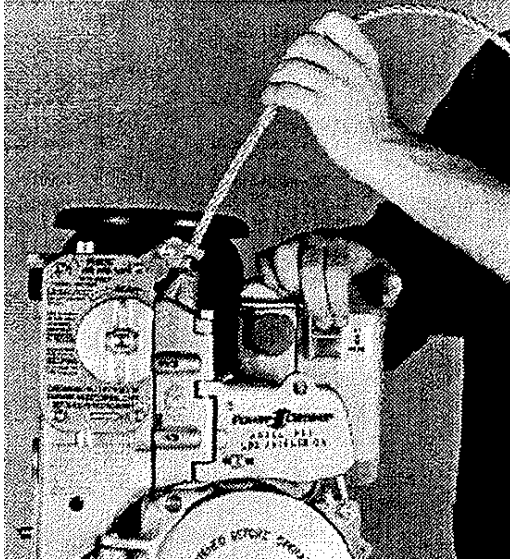
Self-Reeving

Make sure the access door (6) and the diverter cover (9) are fully closed and fastened. The traction sheave (11) must be fully in board.

Lift the slack rope lever to a vertical position



1. Push the main suspension wire rope (1) bullet through the slack rope lever inlet guide (3) approximately 15 inches. **NOTE:** Operate the hoist in the UP direction while pushing the rope into the hoist.
2. Make sure the rope runs freely through the tail line guide (12)

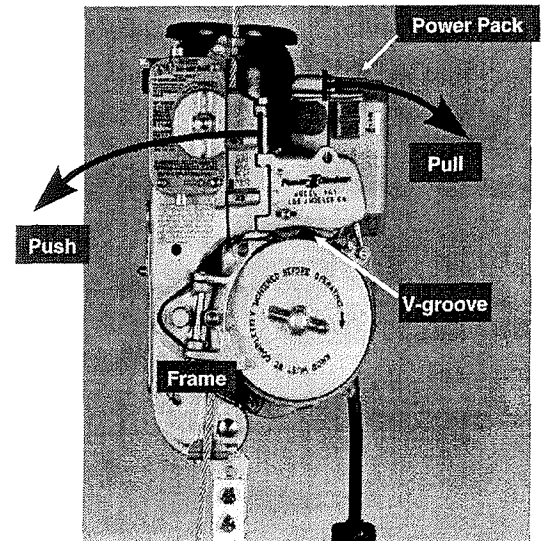


Breech Loading

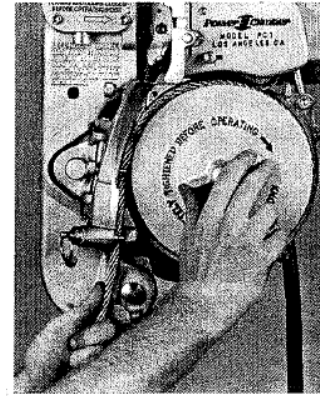
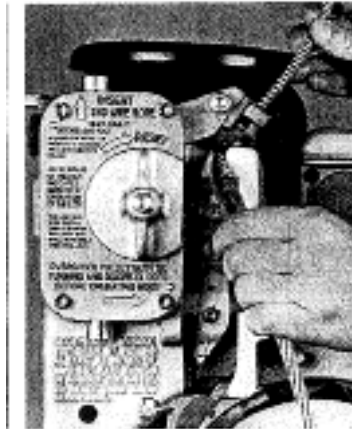
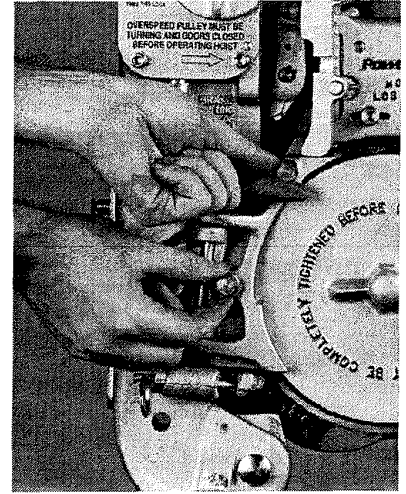
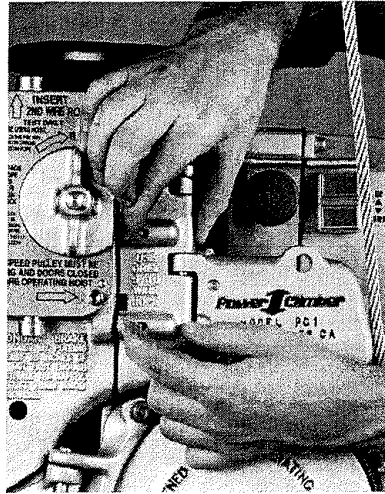
1. Open the access door by sliding the spring loaded pins from left to right at the same time.
2. Open the diverter cover by loosening the two knurled thumb screws. Swing the cover open.

Note: The next two steps require that the hoist is standing upright in a stirrup mount.

3. Push by hand downward on the electrical box until the rollers clear the traction sheave v-groove.
4. Turn the sheave guard counterclockwise until the v-groove is exposed.
5. Rotate the main suspension wire rope into the slack rope inlet guide.
6. Retract the overspeed tension assembly and push the wire rope between the overspeed sensor wheel and the overspeed tension assembly. Reeve the main suspension wire rope under and around the traction sheave, into the v-groove.

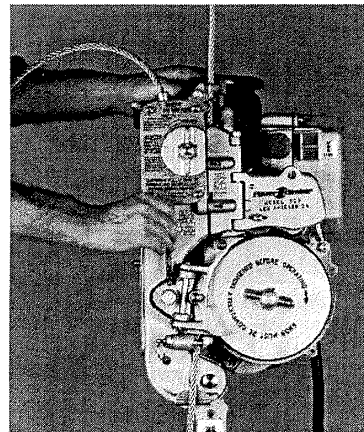
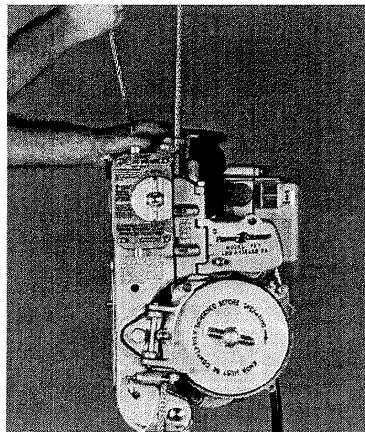


7. Insert the main suspension wire rope into the tail line wire plate.
8. After the wire rope has been completely breech loaded into the hoist turn the sheave guard clockwise until the sheave stops. The wire rope should be directly under the two traction rollers.
9. Close the diverter cover and screw in the knurled thumb screws to retain the door in a closed position.
10. Close the access door in step 1 and the hoist will be breech loaded.
11. Breech unloading can be done when no load is on the hoist by reversing these instructions.

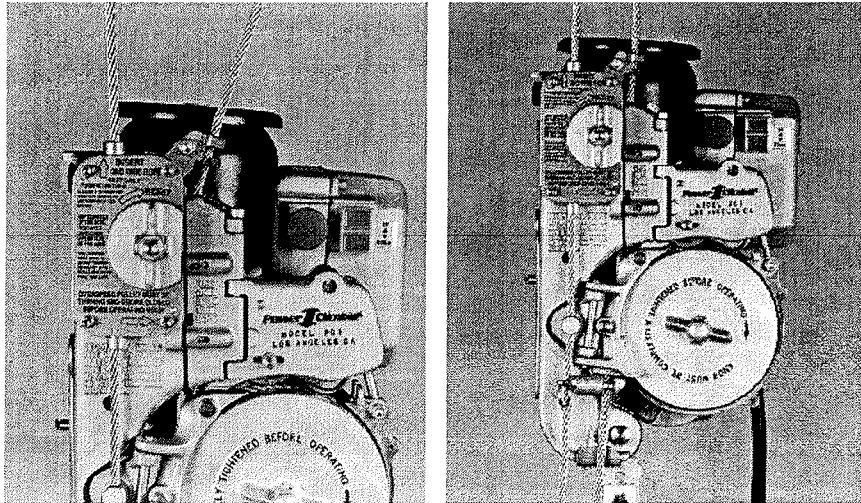


INSTALLING THE SECOND WIRE ROPE

1. With a load on the main suspension wire rope (or while manually lifting the slack rope lever) insert the second wire rope into the inlet guide of the auxiliary slack rope brake (2).
2. Pushing the slack rope lever to the vertical position releases the auxiliary slack rope brake jaws. This allows the second wire rope to pass through the brake housing.



3. Pull the rope through and hang a 25 lb weight from the end to keep tension on the rope
4. Pushing the slack rope lever to the vertical position releases the auxiliary slack rope brake jaws. This allows the second wire rope to pass through the brake housing.



DAILY TEST REQUIREMENTS

The following tests must be performed at the start of each work shift. If the hoist fails any test, DO NOT use it until it is repaired. Refer to the photos on page 11 to identify components.

WARNING

Perform all daily tests to ensure correct operation! Do not use the hoists for lifting until you have successfully completed the daily tests.

TESTING THE SECONDARY OVERSPEED BRAKE

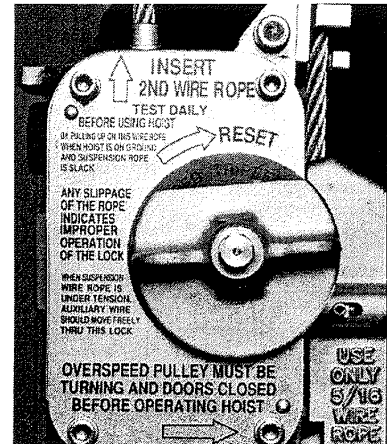
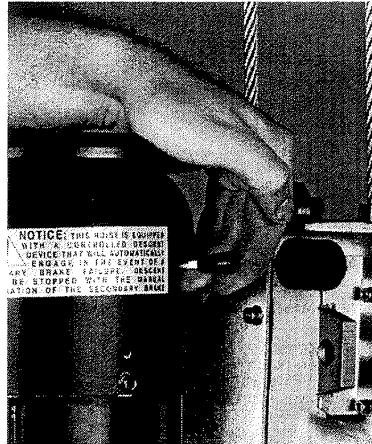
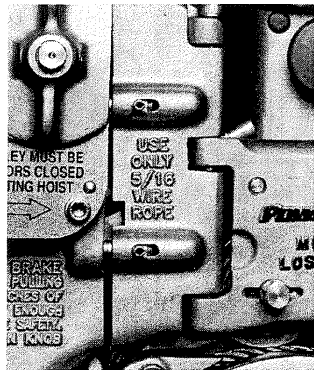
While powering the hoist up and down approximately 3 feet, look through the notched window in the access door. Make sure the overspeed roller (with the red stripe) is turning as the wire rope goes through the hoist.

1. Dereeve the wire rope.
2. Reinsert the rope about 12 in. into the hoist.

3. Holding the wire rope firmly, pull it out quickly. If the brake is working correctly it will grab and hold the wire rope in less than 4 inches.
4. Repeat this test at least 3 times. If the brake does not work correctly, return the hoist to your Power Climber dealer. **DO NOT USE THE HOIST.**
5. Reset the overspeed brake.

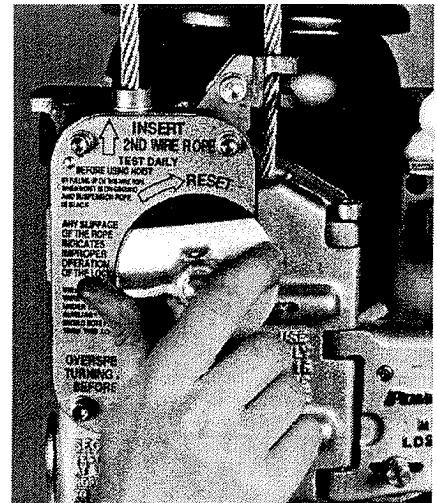
Manually Testing the Secondary Overspeed Brake

1. Push the UP control button (21) and raise the platform approximately 3 feet.
2. While powering down, push the manual Secondary Overspeed brake button (15). The hoist should stop quickly.
3. Release the no-power emergency descent lever (16) to make sure the secondary overspeed brake has locked onto the suspension rope.



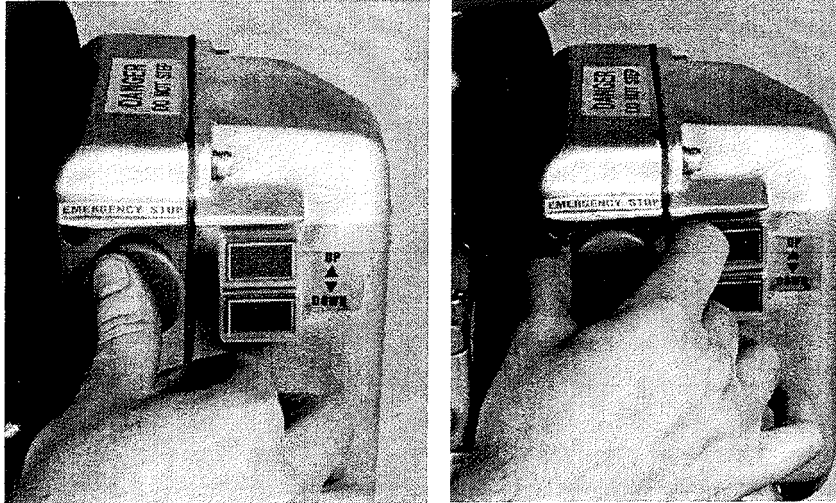
RESETTING THE SECONDARY OVERSPEED BRAKE

Power up a few inches, at the same time turning the Secondary Overspeed Brake Reset Knob (4) clockwise until the reset lever engages. If there is not enough traction to raise the hoist, pull downward on the tail line to increase traction.



TESTING THE EMERGENCY POWER CUT-OFF BUTTON

While running the hoist in either direction, press the red emergency power cut-off button (20). The hoist should not run in either direction. To reset, pull the knob out.



TESTING THE SECOND WIRE ROPE BRAKE

- Lower the platform to ground level.
- Slacken the main suspension wire rope.
- Pull on the second wire rope to ensure that grab jaws are locked onto it.
- Jaws should release when the hoist is raised and the main suspension wire rope becomes tight.

CAUTION

Never attempt any maintenance or repair while the scaffold is suspended in the air.

TESTING THE NO-POWER EMERGENCY DESCENT

1. Raise the hoist approximately 3 ft.
2. Disconnect the power supply. During this test, or when you are actually using the emergency descent, CAREFULLY pull the no-power emergency descent lever (16); making sure the hoist does not overspeed. The hoist should descend at a slow, controlled speed.

If the hoist travels faster than 35 ft/min, the emergency descent system is not working properly and should not be used.

DAILY INSPECTION

Inspect the wire rope, power supply, rigging, platform, and hoist to make sure they are in proper working order and are not damaged. Bolts, nuts, and clamps must be tight and well secured.

Make sure the hoist is secured to the stirrup with SAE Grade 5 hardware and lock nuts are properly installed.

NOTE: When using the hoist in a dirty environment that contains epoxy, paint, cement, sand blast residue, or corrosive material, inspect the operation of the secondary overspeed brake several times a day. Protective hoist covers are recommended in these environments. Contact your local supplier.

OPERATING THE HOIST

WARNING

BEFORE operating this hoist you must understand and follow the instructions in this manual. You must be properly trained, physically fit, and authorized to operate the hoist. Failure to comply with these instructions could result in serious injury or death.

SAFETY NOTES

- DO NOT operate hoist if you hear any unusual noises.
- DO NOT operate hoist if adjustments or repairs seem necessary.
- DO NOT operate hoist if any warning, operating, or capacity instructions are unclear, missing, illegible or damaged.
- Report any Problems to your supervisor and also notify the next operator when changing shifts.
- NEVER operate an electric hoist or any electrical equipment in an explosive atmosphere. Explosive atmospheres exist around refineries, chemical plants, and grain elevators, distilleries, inside of silos, coal mines or around coal handling equipment. This is not a comprehensive list. Consult an expert if you are in doubt about the safety of your immediate surroundings.

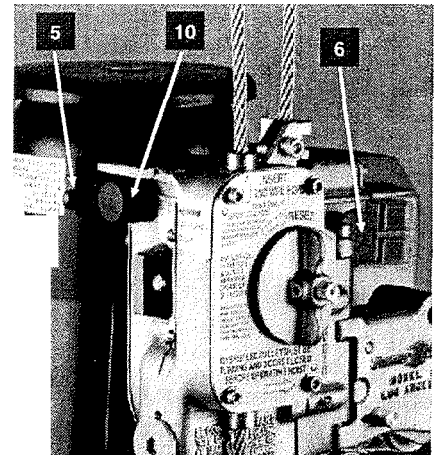
NORMAL OPERATION

For routine up or down movement of the electric powered hoist, push the up or down control button (6 or 21 from table). The buttons are spring loaded and should return to the off position and apply the brake when released. If the hoist does not stop right away press the emergency power cut-off button (6 or 20 from table) and the manual Secondary Overspeed brake button (10 or 15 from table) and unplug the electric supply plug from the power source.

EMERGENCY NO-POWER DESCENT

Carefully release the primary brake by pulling the no-power emergency descent lever (16) slowly toward the top end of the motor. The hoist should descend at a controlled speed.

To stop the hoist, release the no-power emergency descent lever. Using the no-power emergency descent for long drops causes wear on the brake. **USE ONLY IN CASE OF EMERGENCY**



WARNING

**Always allow the hoist to come to a complete stop before changing direction.
Failure to come to a complete stop may prevent the hoist from traveling in the opposite direction and could result in serious injury or death.**

COLD WEATHER OPERATION

When operating in cold weather, test the secondary overspeed brake frequently to make sure it is not frozen. If the brake does not stop the unit, **DO NOT USE** the unit until the brake has been thawed, dried, and is in proper working condition. Thaw out the brake by blowing ducted dry heat (200 degrees F max) on the brake area or by pouring alcohol on the brake mechanism. Do not use open flame on the unit. If the unit will not operate properly after thawing, **DO NOT USE**. Return the hoist to you Power Climber dealer.

WARNING

Be extremely careful when using the hoist in freezing temperatures where water or moisture can enter the secondary overspeed brake or traction assemblies. The secondary overspeed brake must be checked frequently when operating in these conditions.

DEREEVING

Removing the Second Wire Rope

To remove the second wire rope, the auxiliary slack rope brake jaws must be held open. Remove the 25-lb weight from the end of the rope. Pull the rope up through the auxiliary slack rope brake housing. It is easiest to remove the second wire rope while the hoist is suspended just above the ground (before dereeving the main suspension wire rope.) The jaws can also be held open by manually pushing the slack rope lever to the upright position.

Removing the Main Suspension Wire Rope

Make sure the stage is properly supported on a stable surface before putting slack on the main suspension wire rope to prevent the stage and hoist from tipping over and causing injury.

Self Dereeving

While on the ground the main suspension wire rope will normally wind out of the hoist when the down switch is pushed, as long as the slack rope lever is held in the upright position. You need to help remove the last 15 inches of wire rope. Grab the wire rope above the slack rope inlet guide, hold the secondary overspeed brake reset knob in the reset position, and slowly pull the main suspension wire rope out of the hoist. If the hoist does not reeve or dereeve, push the motor upright to increase traction.

Periodic Maintenance

The hoist should be returned to a factory authorized service center for periodic maintenance at least once a year from date of purchase. More frequent service may be required if the hoist is subjected to extreme or poor environmental conditions.

TROUBLESHOOTING AT THE JOB SITE		
Problem	Likely Cause & Solution	
1. No power to the platform (hoist power indicator light is not on)	1. Power at the junction box is off.	
	2. Circuit breakers in the building have tripped.	
	3. Plug and receptacle connectors are not intact. (check hoist, yoke or power cord)	
	4. Damaged electrical cord.	
	5. Power indicator light is burned out.	
2. Hoist does not run. (hoist power indicator light is on)	If electric motor is hot, the thermal overload switch may have tripped. This can be caused by voltage that is too low or too high. It can also be caused by long, continuous running periods with frequent stops/starts, high outside temperature, or if the primary brake is dragging.	The electric motor must be allowed to cool down before the thermal overload switch will automatically reset. This could take thirty minutes or more.
3. Wire rope will not reeve through the hoist.	Increase hand pressure, or lift the motor, while pushing the UP button.	
	Take the wire rope out, turn it, and put it back into the hoist while pushing the UP button.	
	Poor bullet on the end of the wire rope.	Prepare a new end.
	End of the wire rope is bent or kinked.	Straighten or replace.
	Dirt or other material is in the hoist.	Clean out the drive mechanism by blowing out with air or flushing with water.
4. Hoist motor runs freely but hoist will not lift.	Make sure that the tail line is free to move out of the hoist.	
	Check the wire rope for damage or wear.	Replace if necessary.
	Wire rope may be jammed in the drive mechanism. This can be caused by kinked or damaged wire rope.	If a rope jam has occurred, do not operate the hoist. Call your local Power Climber dealer for assistance.
5. Hoist hums, starts slowly, or is sluggish	Check for proper voltage at the hoist while it is running. If the voltage is too low, do one of the following.	<ol style="list-style-type: none"> 1. Run separate electrical cords to each hoist. 2. Use a shorter electrical power cord if possible. 3. Use a power cord with larger conductor wires. 4. Add a booster transformer at the building electrical plug to increase the supply voltage.

TROUBLESHOOTING AT THE JOB SITE		
Problem	Likely Cause & Solution	
6. Overspeed flywheel is not turning	If the hoist is suspended:	Push the manual operation button for the secondary overspeed brake and the emergency power cut-off button. Wait to be rescued. Do not use the hoist until this situation is corrected.
	If the hoist is on the ground, one of the following may have occurred:	Obstructions such as dirt or other materials may be in the secondary overspeed brake area. First disconnect electric power from the hoist, try to blow the debris out with air or flush with water.
		Main Suspension wire rope may be worn smooth. Replace the wire rope
		Hoist parts may be worn. Contact your Power Climber dealer for service.
7. Can't reset the secondary overspeed brake knob	If the wire rope is reeved through the hoist, you must first move the hoist upward (taking the load off of the cam and grab block). Then reset the secondary overspeed brake knob.	
8. Auxiliary slack rope brake is not operating properly on second wire rope.	<ol style="list-style-type: none"> 1. Check slack rope lever and inlet for freedom of movement. 2. Make sure that wire rope is not oversized. 	<ol style="list-style-type: none"> 1. Contact your Power Climber dealer for service. 2. Replace the wire rope if necessary.
9. Hoist does not stop immediately when the DOWN button is released.	Brakes may need repair. If the hoist is suspended in the air and it is safe to do so, travel down to a safe level and have the brake repaired by your Power Climber dealer.	
10. You hear unusual noises coming from the hoist.	If the hoist is suspended: WARNING: You may have a rope jam. Any attempt to operate the hoist could cut the rope and kill you!	Push the manual button for the secondary overspeed brake and the emergency power cut-off button. Wait to be rescued.
	If the hoist is on the ground:	<ol style="list-style-type: none"> 1. Check for damaged wire rope inside of the hoist. Replace the wire rope. 2. Check for dirt on the wire rope; clean and lubricate as necessary. 3. Check the motor fan for cracks or broken blades. 4. The gearbox or other internal parts may need lubrication. Contact your Power Climber dealer for assistance.