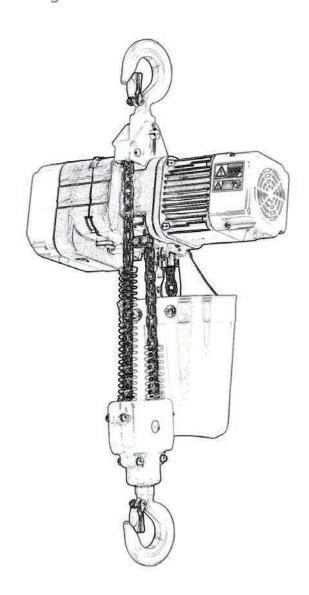


PWH Powered Electric Chain Hoist

User's Manual / Manual de usuario Safety Warnings / Advertencias de Seguridad



PWH

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PWH

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PROWINCH® DISCLAIMER

Prowinch® LLC declares that it has made all safety recommendations related to the purchased product to the customer. As a result, it does not assume any responsibility for any damages or losses that the client or third parties may suffer. These can be caused by or as a direct or indirect result of a breach or omission of instructions or safety warnings in the User Manual and Security Warnings provided with the unit purchased. Prowinch® LLC will not be liable for accidents and/or damages to persons and/or property resulting from the negligent use of the product. In no case does Prowinch® LLC assume any liability arising from using these voluntary recommendations and does not offer any guarantee concerning them. These recommendations do not take precedence over the current safety regulations of the plant. For purposes of enforcing the warranty of the product purchased, Prowinch® LLC, will only be liable for any damage when proven the user has followed each one of the warnings contained in the User Manual and Safety.

- 1. It is the sole responsibility of the Client / User to verify that the acquired equipment, products, and accessories comply with the characteristics, capacities, requirements, components, accessories, and other conditions for the use that the Client/user intends to give it.
- 2. It is also the sole responsibility of the Client / User to ensure that the equipment and products purchased are operated and maintained with adequate safety standards and by personnel properly trained in their use. The Client / User is also responsible for implementing all security measures necessary to prevent accidents or damages to people or property and for following the indications and warnings of the corresponding manual.
- 3. Any assistance provided by Prowinch® LLC in selecting the equipment, capacities, and characteristics required by the client is delivered free of charge and based on the information about the application, use, and requirements provided by the client. It is not the responsibility of Prowinch® LLC to verify the accuracy of the given information. It is the sole and exclusive responsibility of the client -or who will use the equipment and products acquired- to ensure that the specifications comply with the capabilities, characteristics, up-to-date maintenance, and everything necessary for a correct and safe operation about the intended use.
- 4. Prowinch® LLC recommends using winches with four brakes for personnel lifting. The use of winches with three brakes or less, or operating with safety standards less than required for personnel lifting is not recommended.

- 5. To guarantee the safety of the equipment's operators, it is necessary to conduct inspections and maintenance of the equipment according to the recommended frequency of its work cycle. It is mandatory to keep records and evidence, including written and photographic reports of: Maintenance, Start-up, Load Tests, Training, Certifications, Inspections, and Reports of failures and accidents.
- 6. The reports mentioned above must be emailed to registros@prowinch.com within the first seven calendar days after an event.
- 7. Compliance with timely implementation of mandatory activities described in points 6 and 7, in addition to all the activities mentioned in the corresponding guidelines, are the user's sole responsibility. Failure to comply with the preceding conditions releases Prowinch® LLC from any liability. The information contained in this manual may contain technical errors or inaccuracies. Prowinch® LLC is not responsible for errors, omissions, or incorrect information. This manual is subject to change without prior notice. Download the latest version available at www.prowinch.com. Always check www.prowinch.com for the latest information regarding this product.



PWHF1000i

1 Ton Electric Chain Hoist 20 ft G80 Chain M3/H2 220/240V

PWHF1000iW

1 Ton Electric Chain Hoist 20 ft. FEC G80 Chain M3/ H2 220/240V Wireless

PWHF1000u

1 Ton Electric Chain Hoist 20 ft G80 Chain M3/H2 110/120V

PWHF1000uW

1 Ton Electric Chain Hoist 20 ft. FEC G80 Chain M3/ H2 110/120V Wireless







PWHF500i

1/2 Ton Electric Chain Hoist 20 ft. G80 Chain M3/H2 220/240V

PWHF500u

1/2 Ton Electric Chain Hoist 20ft. G80 Chain M3/H2 110~120V

PWHF500uW

1/2 Ton Electric Chain Hoist 20 ft. **G80 Chain Wireless** 120V



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PWHC1000i

1 Ton Electric Chain Hoist Power Trolley 20 ft. G80 Chain M3/H2 220V

PWHC1000iW

1 Ton Electric Chain Hoist Power Trolley 20 ft. G80 Chain M3/ H2 220/240V Wireless

PWHC1000u

1 Ton Electric Chain Hoist Power Trolley 20 ft. G80 Chain M3/H2 110/120V

PWHC1000uW

1 Ton Electric Chain **Hoist Power Trolley** 20 ft. G80 Chain M3/H2 110/120V Wireless







PWHC500i

1/2 Ton Electric **Chain Hoist Power** Trolley 20 ft. G80 Chain M3/H2 220V

PWHC500u

1/2 Ton Electric Chain Hoist Power Trolley 20 ft. G80 Chain M3/H2 110/120V

PWHC500uW

1/2 Ton Electric Chain Hoist Power Trolley 20 ft. G80 Chain M3/H2 110/120V Wireless

6 **Safety Precautions**

> Thank you for purchasing our Prowinch® Electric Chain Hoist. This User Manual provides important information for personnel involved with installation, operation, and maintenance of this product. Read this User Manual before installing, operating, or maintaining product.

SAFETY PRECAUTIONS

Prowinch® Electric Wire Rope Hoists are designed for safe and reliable service when operated according to this User Manual. Please respect and follow all warnings for the safety of personnel and others. Improper operation may cause severe injuries to personnel or damage equipment. Read and understand this User Manual carefully before installing and operating any Prowinch equipment. Always keep this User Manual in an accessible location for quick reference.

Mandatory use of:







Safety Glasses



Safety Gloves



Safety Shoes

Safety Precautions

WARNING:



This symbol indicates a dangerous situation which if not avoided may cause minor or moderate wounds. It is also used for indicating unsafe practices



DANGER:

This symbol indicates a potentially dangerous situation which if not avoided may cause severe injuries or death

Safety Precautions







Read and understand the contents of this User Manual thoroughly before handling the product. Practicing correct and safe operating procedures and carrying out the recommended preventative maintenance will ensure a long, reliable, and safe service.

After carefully reading and understanding the User Manual, store it for future reference.



DANGER

All operators and other users who are near the steel chain or its load must wear required safety equipment: gloves, safety helmet / hard hat, safety shoes and eye protection.



WARNING

Before installing, removing, inspecting, or performing any maintenance on the hoist, the unit must be unplugged, locked out, and tagged out. Do not use this equipment in hazardous locations.

Safety Precautions 8 9 Safety Precautions

Before using equipment:

- Read and understand instructions in this User Manual and all the labels associated with the hoist before operating equipment.
- Wear appropriate clothing: Do not wear jewelry or loose-fitting clothing as they can get caught by the wire rope or hook.
- · Wear leather gloves.
- Wear non-slip safety shoes, a helmet, and eye protection.
- · Always perform a complete check of the hoist. Check for damaged parts or unusual conditions.
- Keep a safe distance: the suggested space is at least 1.5 times the hoist's wire rope length. A broken or loose wire rope may cause injuries or death.
- Check that the hoist and wire rope are appropriately lubricated.
- Secure the electric wire rope hoist to a suitable support.
- · Visually inspect all electric chain hoists before each use, in addition to regular inspections and maintenance.

During Operation:

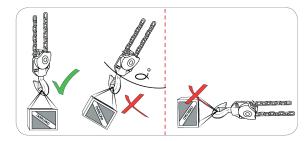
ALWAYS

- Refer to the maximum load capacity displayed on the ID plate attached to the hoist, not the capacity of the hook.
- Stop operation immediately if unauthorized personnel enter the working area.
- Check the working condition of the hoist: If the motor overheats, stop the hoist and allow time for the equipment to cool down.
- Stop, check, and secure the load if the hoist stops or loses movement during operation.
- Focus on the operation. Pay attention at all times and keep a proper balance.
- Unplug the hoist after an operation.

NEVER

- Never exceed the maximum load capacity of the hoist.
- Never operate a damaged or malfunctioning hoist.
- Never operate the hoist if it shows abnormal behavior.
- Never lift, support, or transport people or loads over people.
- Never walk or step on the chain.
- Never operate the electric chain hoist with twisted, kinked, damaged, or worn load wire rope.
- Never use the chain as a sling around the load.
- Never operate a hoist if the ID plate or safety labels are missing or illegible.
- Never operate an electric hoist if exposed to rain or water.
- Never use if the operator is sick or not wholly attentive.

- Never leave the hoist unattended while energized or loaded.
- Never operate the hoist with a non-centered load.
- Never operate beyond the limits of the load chain or extend chain
- Never use the load chain or hook as an electrical or welding ground.
- Never remove the labels placed on the electric chain hoist.
- Never use the hoist to lift loads at an angle or pull or drag load



Inspection, Maintenance and Repairs:

- Only trained and authorized personnel may make repairs to equipment.
- Use only original Prowinch® parts. The use of any other part immediately voids warranty.
- Failure to use only original Prowinch® parts may endanger operator.

ALWAYS

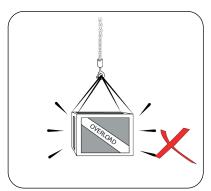
- Check that electrical connections remain in good condition
- Check the chain and keep it lubricated.
- Prevent others from stepping under a lifted load.
- Inspect and maintain the hoist regularly.
- Verify the correct installation of the hoist before using it.
- Avoid contact with explosive gases or materials.

NEVER

- Never overload the hoist.
- Never transport people or animals with the hoist.
- Never stand under a suspended load.
- Never use the hoist if exposed to rain, snow, or electrical storm.
- Never leave loads suspended for an extended period of time. This may cause damage to components and potential accidents.
- Never exceed the allowable operating temperatures stated in this User Manual (which will differ depending on the model).
- Never expose the hoist to water, sand, or corrosive environment



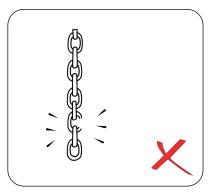
10 **Safety Precautions Safety Precautions**



1. Do not overload



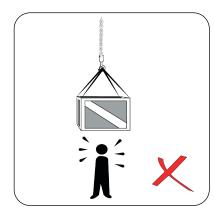
2. Check the quality of the electrical



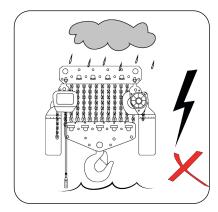
3. Periodically check the chain and keep it lubricated.



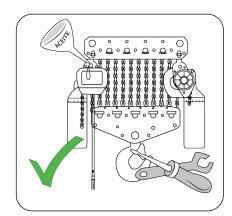
4. Do not transport people or animals.



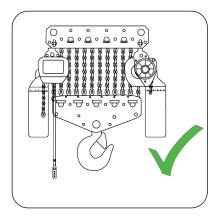
5. Do not place under load and prevent others from doing so.



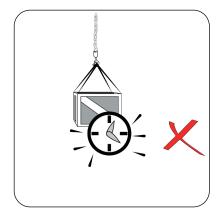
6. Do not use hoist if exposed to rain, snow or lightning.



7. Regularly inspect and maintain your hoist.



8. Always check correct hoist installation before use.



9. Do not leave the load suspended for long periods of time. It may cause deformation of the component or cause an accident.

GENERAL ENVIRONMENTAL PRECAUTIONS

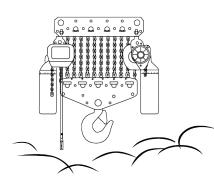
Do not exceed the operating temperatures for which the hoist is designed. This is stated in this manual and may vary depending on the model.





Avoid contact with gases or explosive materials.

When exposed to water, sand, corrosive environment and / or Other potentially harmful substances may damage the equipment.





WARNINGS



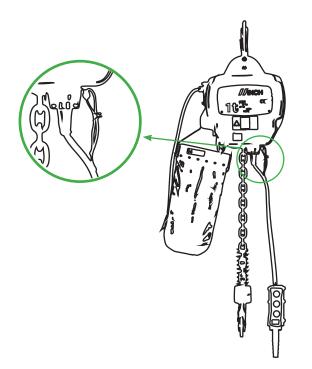


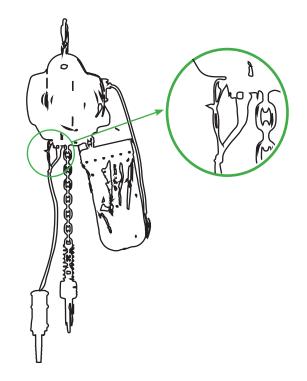


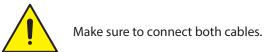


Safety Precautions Safety Precautions

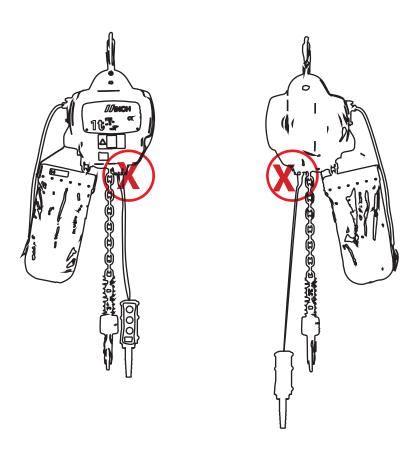
Hanging Pendant Control







Hanging Pendant Control





DANGER:

Do not install the pendant control cable without the strain relief cable (steel cord).

4



1. Electric Trolley

The range of flange width is adjustable. The motor includes disc-type brakes. Side guides are to promote the trolley motion smooth and minimize the wear of the wheel and beam.



2.Upper and lower limit switch

The limit switch will cut off the motor circuit and prevent damage to the hoist structure and load chain when over-lifting or over-lowering happens.





6. Reverse Phase Protector

It's the special electrical installation of controlling the circuit not work in case of wirring error in the power supply.



7. Safe Brake System

The electric brake is designed for easy access and simple adjustment. It allows instant braking as soon as the electric power is cut off. This allows braking safety while loading is guaranteed.



3. Chain Wheel

Increasing the number of load sheave pockets helps relieve vibrations produced by revolving polygonal sheave on the hoist's body and load chain.



8

8. Heavy Dutty Stator

The light aluminum alloy shell is lightweight but rugged. The cooling fin is specially designed to ensure quick heat dissipation with a rate up to 40% and continuous service.



4. Chain Bag

Canvas chain containers are a standard fitting. Operation fabricated steel containers are available for long-lift applications.



5. Control System

The length of the control is 4 feet less than the lifting height, which allows it to be operated easily from ground level. An optional wireless remote control is available for extra convenience.



9.Load Chain

Canvas chain containers are standard fitting. Operation fabricated steel containers are available for long lift applications.

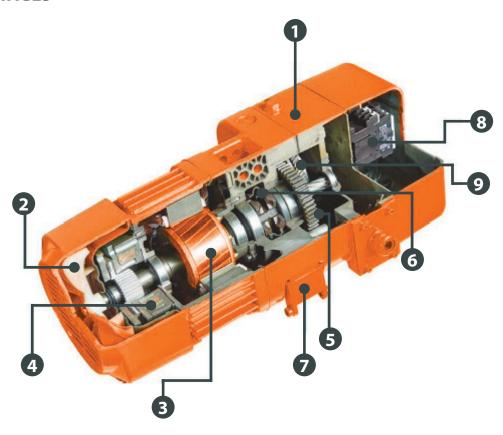


10. Hooks

Load hook is forged carbon steel hook with a heavy-duty hook latch. Thrust bearing in hook allows 360

16 Specifications **Specifications**

ADVANTAGES



- 1. All aluminum die-cast bodies make the hoist considerably lighter
- 2. Cooling fan for motor, extend the longevity of hoist
- **3.** Motor overheating protector
- 4. 4. Brake system: Electronic, magnetic brake
- **5.** 5. Safety clutch for overload protection
- **6.** 6. Unique guide structure
- 7. Limit switch for upper and lower: 20° lifting angle allowance
- **8.** 8. Self-lock contactor
- 9. 9. Safety clutch

MAIN SPECIFICATIONS

Specification Chart (For all models of Prowinch® Electric chain hoists).

ITEM#		SPECS				
Operating temperature range (°C)	-20 to + 40					
Operating humidity range (%)	85 Or Below					
Protection class	Hoist	IP5	5			
Protection class	Button Switch	Button Switch IP55				
Power	•	3 phases, 200 - 600V, 50/60Hz				
Noise level (dB)	Single speed hoist					
Chain specs	Double speed hoist	81				
	Working load limit	Diameter (mm)	Chain pitch (mm)			
	0,3T, 0,5T	6,3	10			
Chain specs	1T, 2T, 3T	7,1	21			
	1,5T, 2T	10	30			
	2,5T, 3T, 5T, 7,5T, 10T, 15T, 25T	11,2	34			

Observations

Do not use Prowinch® Electric Chain Hoists when temperature and humidity exceed range of Specification Chart.

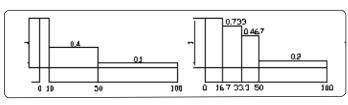
Our hoists are designed to lift up and down under common atmospheric and working conditions.

Load Level And Service Life

Extending the life of Prowinch® Electric Chain Hoists depends on proper installation, maintenance, and operation. Our electric chain hoists are designed to meet 1Bm, 1Am and 2M Load levels in FEM standards FEM 9.51, depending on the model. The working class of your chain hoist is rated on the ID plate of equipment.

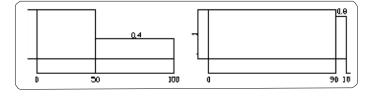
18 19 **Specifications** _Specifications

LOAD LEVEL	DEFINITION	CUBIC VALUE		AVERAG	E DAILY OF	PERATION	HOURS	
1 (light)	Mechanism and parts are frequently under light load, and there is no maximum load unless exceptional conditions	K ≤ 0.50	≤ 2	2~4	4~8	8 ~ 16	≤ 16	> 16
2 (medium)	Mechanism and parts are frequently under light load, but also under max. load with low frequency	0.50 < K ≤ 0.63	≤1	1~2	2 ~4	4~8	8 ~ 16	≤ 16
3 (heavy)	Mechanism and parts are frequently under medium and heavy load.	0.63 < K ≤ 0.80	≤ 0.5	0.5 ~ 1	1 ~2	2~4	4~8	8 ~ 16
4 (overweight)	Mechanism and parts are frequently under max. or almost reach max. load.	0.80 < K ≤ 1	≤ 0.25	0.25 ~ 0.5	0.5 ~1	1 ~ 2	2~4	4~8
			1 BM	1:00 AM	2M	3M	4M	5M



% Operation hours Load level 1

% Operation hours Load level 2



% Operation hours Load level 3

% Operation hours Load level 4

Selection of engines for lifting equipment

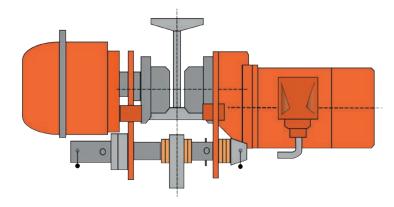
Grou	Inte	ermittent Servi	Short-Term Service		
F.E.M.	ISO	Cycles/h	Starts/h	(ED%)	Operation period min
1 DM	M1	15	90	15	7.5
1CM	M2	20	120	20	7.5
1 BM	M3	25	250	25	15
1:00 AM	M4	30	180	30	15
2 MW	M5	40	240	40	30
3M	M6	50	300	50	30
4M	M7	60	360	60	60
5M	M8	60	360	60	>60

Capacity (ton)	A	В	D	R	т	Speed (50HZ) m/min	Motor (Kw)	Min. Radius of turn	Beam Range
0.5	248	196	25	146	159	12.2	0.12	0.8	100

Capacity (ton)	A	В	D	R	т	Speed (50HZ) m/min	Motor (Kw)	Min. Radius of turn	Beam Range
1	315	212	31	142	231	nov-21	0.4	0.8	52 - 145
2	325	220	36	142	231	nov-21	0.4	0.9	82 - 185
3	340	250	43	142	231	nov-21	0.75	1.0	100 - 185
5	400	291	54	142	231	nov-21	0.75	1.5	100 - 220
7.5	400	291	54	142	231	nov-21	0.75	1.8	100 - 225
10	500	370	70	142	231	nov-21	0.75	2.0	150 - 255

Specifications 20 Specifications

Capacity (ton)	A	В	D	E	R	т	Speed (50HZ) m/min	Motor (Kw)	Min. Radius of turn	Beam Range
1	325	230	31	32	142	231	nov-21	0.4	0.8	52 - 145
2	375	245	31	44	142	231	nov-21	0.4	0.9	82 - 185
3	400	250	36	44	142	231	nov-21	0.75	1.0	100 - 185
5	420	290	43	44	142	231	nov-21	0.75	1.5	100 - 220



Oil & Lubricant Recommendations

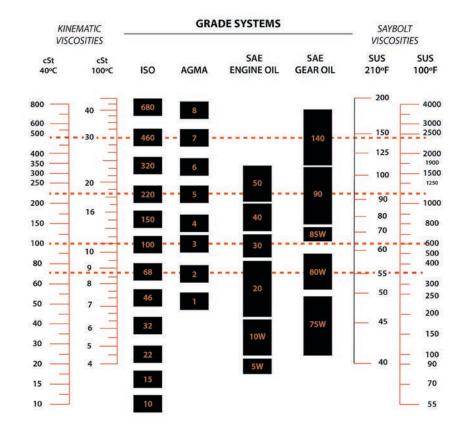
Load Chain

Do not allow chain to run dry.

Lubricant greatly increases life of load chain. Weekly lubrication and cleaning is satisfactory, but under hot, dirty, and extreme conditions it may be necessary to clean chain at least once a day and lubricate it several times between cleaning.

Apply sufficient lubricant to obtain natural runoff and full coverage, especially in interlink area.

Apply Lubriplate® Bar and Chain Oil 10-R or equal lubricant. Machine or gear oil (grade ISO VG 46 or 68 oil or equivalent) may be used as an alternative lubricant but must be applied more frequently.



For dusty environments, it is acceptable to substitute a dry lubricant.

- Apply lubricant to areas of load chain (shaded areas in figure below) that contact load sheave.
- Hooks and Suspension Components
- Hooks and bearings should be cleaned and lubricated at least once per year for normal usage.
- Clean and lubricate more frequently
- for heavier usage or severe conditions.
- Suspension pins should be lubricated at least twice per year for normal usage; more frequently for heavier usage or severe conditions.

INSPECTIONS & MAINTENANCE

Periodic Inspection
Daily Inspection Of Electric Chain Hoists

Specifications 22 Specifications Specifications

ITEMS	INSPECTION METHODS	STANDARDS	Resolutions to Deviations
Marks such as name- plates, labels etc.	Visual check	No peeling and clear marks	Proceed with cleaning, repairing and replacing. Record serial number for replacing
Deformation or damage of body parts		No remarkable deformation, damage, or defect	Replace parts which are deformed, damaged, and defective
Bolts, nuts, and cutters loose or falling off	Visual and tool check	 Correct installation A loose bolt will cause equipment failure Ensure proper installation to avoid death or serious injury 	Precise installation
Extent of pitch	Check by chain measurement tool	OK NO	

Attrition of chain diameters	Check by chain measurement tool	OK NO	
Deformation, damage, wind	Confirm chain is not stuck to welding spatters by visual inspec-tion	 No deep cut No deformation No welding spatters No wind No chap 	Replace load chains
Rust and corrosion	Visual check	No remarkable rust and corrosion	Replace load chains
Distortion	Visual check	No distortion due to bottom block rollover of double chain models	Correct distortion
Oil supply	Visual check	Adequate supply of oil	Oiling

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Specifications 24 Specifications

Limit switch	Check by pushing button	Operate until upper and lower limit cause automatic motor shutdown Replace limit switch, disassemble and clean limit lever
Movement confirmation	Check by pushing button	 Load chain can roll up easily Motor shutdown immediately when operation stops All movements shutdown when E-stop button pushed Other buttons cannot cause movement when pushing the E-stop button All movements return to normal operation when E-STOP button relieved
Brake	Check by pushing button	Brake quickly activates and operation of bottom hook immediately stops (amount of movement of the load chain is within 2 to 3 rings)
Chain spring	Visual inspection and measure dimensions	CHAIN Length Of Spring Standard Replace chain spring Ø6.3 145 140 Ø7.1 145 140 Ø10.0 135 129 Ø11.2 160 152

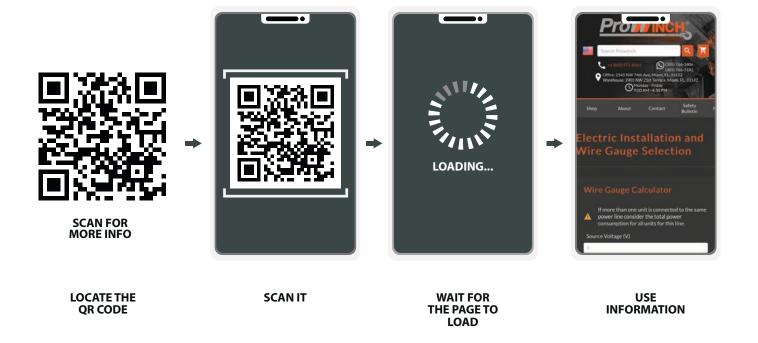
	Check by visual and	No rer	narka	ble o					
	vernier caliper	LOAD	А	В	С	D	E	G	
		0.3 -0.5	27	18	25	17	35	28	
Attrition and opening of the hook		1	34	24	30	24	42	32	Replace hook safety
		2	46	29	39	30	49	40	block
		3	56	35	49	34	59	48	
		5	67	43	67	44	60	48	
		7.5 -10	82 110	55 78	80 120	48 80	85 120	90	
		20-25	142	95	155	98	150	115	
		20 23		,,,	.55	,,,	150		
Deformation, damage and corrosion	Visual check	No remarkable deformation, harmful damage and corrosion				Replace hook			
Hook safety block	Visual inspection, fold and unfold actions	-Can exactly fold inside the hook -No deformation Dangerous -Do not use hook if safety block is loosening Improper use will lead to death or serious injury							
Hook movements (rotate)	Visual inspection and	No resupportingequaleasy to	g and	l top ght ar	nd left		ween	bottom	Replace hook

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26 **Installation** Installation

Installation Process:

- Electric chain hoists must be grounded properly.
- Lock-out and tag-out the main disconnect switch in ed-energized position before performing any service on hoist.
- Customer must provide power supply cable, fuses, and main disconnect switch.
- Check supply voltage is same as nameplate voltage on hoist.
- Check voltage does not vary by more than ±10% from nominal value.
- Do not use conductors smaller than those listed in this User Manual to supply power to hoist.
- Never bypass limit switches, remove limit switch stops, or alter limit switch devices.
- Check the electric installation and wire gauge selection at www.prowinch.com and follow these simple steps)

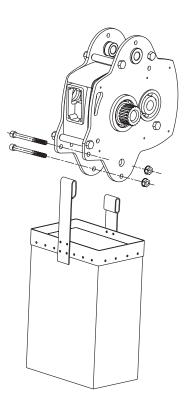


Check and document hoist characteristics:

- Model number
- Rated capacity (tonnage)
- Lifting length of load chain (meter)
- Power supply
- Push button pendant assembly (2 button, 4 button or 6 button)
- Specially ordered optional items
- Beam width for trolley installation

Chain Bag Assembly

Switch on power supply to hoist and have professional operate push button.



28 Installation

Unpacking

You should carefully inspect hoist upon delivery for any damage which may have occurred during shipment or handling. Check hoist frame for: dents or cracks, external cords for damaged or cut insulation, control station for cut or damaged enclosure, and load chain for nicks and gouges.

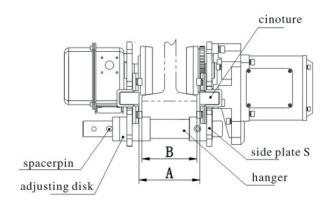
1 Chain Bag (Box	1Pcs
2 Control Wire Rope	1m
3 Button Switch	1 Pcs

Trolley Installation (models with trolley)

- 1. Insert suspension pins into lateral plate G and lock it with suspension pin bolts and nuts.
- 2. Install suspension pin with adjusting disk.
- 3. Install suspension pin into hanger T. The nameplates of hoist and trolley should be in the same direction.
- 4. Install additional gaskets into suspension pin before inserting it into lateral plate S.
- 5. Install outside adjusting disk and spacer pin into suspension pin. Insert cotter pin into spacer pin.
- **6.** Cotter pin should be seen at the left side from front of trolley switch box.

Adjust Trolley Width (models with trolley)

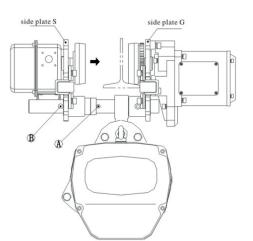
- Adjust width of trolley according to drawing (below) for appropriate clearance.
- Size A is the dimension of two side plates that stretch outside completely.
- Size A must be approximate B (the width of rail flange) + 4mm.
- Adjust size A by increasing or decreasing adjusting disk. Insert cotter pin into spacer pin and bend two branches of cotter pin until size A is correct.



Nut must be tight, insert cotter pin and bend it completely.

Install Trolley Into Beam (models with trolley)

- 1. Install trolley at end side of beam and slip trolley which has already been connected with hoist to the appropriate place. This is the preferred method.
- **2.** If first method is unavailable:
- Unload brake stopper from hole A on suspension pin, and insert it into hole Insert cotter pin again and bend it completely.
- Pull side plate S and G outside, then lift trolley until orbit wheel and orbit surface are in same horizontal position. Put orbit wheel of side plate G onto surface of orbit.
- Hold side plate G and stop it from dropping from orbit. Firmly push side plate S and put its orbit wheel onto surface of beam.
- Unload brake stopper from hole B and insert into hole A. Do not forget to bend cotter pin.



OPERATION

Qualified Operator

Safe and efficient operation of this hoist requires an operator who displays caution and careful judgment. The operator must be fully alert, focused, and aware of his/her surroundings.

The operation of this equipment must be closely carried out under the good practices defined by international and national safety standards, such as ANSI, OSHAS and ASME.

Training must be provided to the operator to ensure proper operation of equipment in compliance with the instructions provided by this equipment manufacturer and the provisions of ASME B30.

This hoist must not be operated by someone who:

- Cannot read, understand or speak language of security labels, ID Plate and User Manual of equipment.
- Does not meet legal age requirements.
- Has visual or hearing impairments
- Experiences mental, heart, or other health issues that could interfere with safe operation of equipment.
- Has not been fully trained on the use of hoist.
- Has not received and read User Manual for exact equipment.
- Has not demonstrated qualifications through a practical operation of hoist.

Installation

30 31 Installation

Handling Precautions

ALWAYS:

- Keep hoist in good condition and make sure chain is lubricated and free to operate.
- Make sure electrical connection is grounded.
- Make smooth movements; avoid sudden changes of directions.
- Check functions of hoist and trolley without any load before operation.
- De-energize equipment after using it to avoid unintentional operation.
- Keep everyone a distance of at least 1.5 times the length of chain. If load falls it can cause serious injuries and death.
- Make sure no one is beneath load.

NEVER:

- Use pulleys or other accessories that are not specifically approved for relevant hoist model.
- Hoist load with tip of hook.
- Hoist load which is not vertical to hook.
- Use hoist to pull or drag load.
- Exceed maximum capacity of hoist.

Recommended Operation

- 1. Press button lowering unloaded hook down until limit spring touches limit switch. Be sure hoist stops automatically before totally compressing spring.
- 2. Press button hoisting unloaded hook up until limit spring touches limit switch. Be sure hoist stops automatically before totally compressing spring.
- 3. Test correct function of emergency stop button. When pressing button \spadesuit , ψ press emergency stop button. Ensure hoist stops immediately after pressing emergency stop switch. Hoist should not start again if any other movement button is activated.
- 4. Rotate emergency stop switch clockwise to original position. When it bounces back, hoist can be started again. If any of the above tests fail, unit must remain out of service, lockout/tagout power and request maintenance authorized personnel to check circuit layout for automatic locking emergency stop switch.
- 5. Check lubricating condition of load chain (load chain has been lubricated before delivery, but could be dried in transportation). Apply lubricant into chain bag to protect load chain.
- 6. 6. Check direction of chain eyes. All welding points should be same direction. Hoist cannot be operated properly unless all welding chain eyes are in same line.

Installation

- Position hoist in vertical position to load. Before moving trolley, make sure path of hook is free from any obstacle.
- Lower hook near master link to hoist load and make final adjustments to secure a 90° vertical lift operation without any lateral deviation. Improper life angle may cause swinging of load.
- Attach hook to load link and make sure there are no people in working area. Check that no loose items can fall from load.
- Begin by hoisting load two inches and stop. Check brakes are fully operational and load doesn't lower while stopped. Also check load is balanced and secured. Load may have changed shape or center of gravity when suspended.
- To reach a desired position, movements must be smooth and continuous. Repeatedly pressing buttons may heat up motor and damage equipment.
- Avoid sudden directions changes. These movements may damage equipment, prematurely wear down brakes and cause accidents.



WARNING:

If hoist model has double dual/speed capabilities, always start with slower speed to avoid sudden accelerations. Decelerate before completing a stop.

- 7. Avoid any obstacle when hoisting or traveling load.
- 8. Start movement of trolley and check there is no swinging of load and no obstacles in path. Stop movement and make necessary adjustments if one of these conditions is present.
- 9. Once desired position is reached, slowly stop trolley. Position load completely vertical to desired spot where load will be lowered.
- 10. Gradually lower load until it is secured on resting surface. Avoid hitting surface at high speed. If necessary, stop movement before reaching surface and gradually lower to land load.



NEVER leave load suspended without attention of the hoist operator!

ELECTRICAL AND VOLTAGE SELECTION

Available voltages 3 phase 220V 60HZ, 380V 50HZ and 440V 60HZ Before switching voltage!



Installation 32 Installation





Troubleshooting

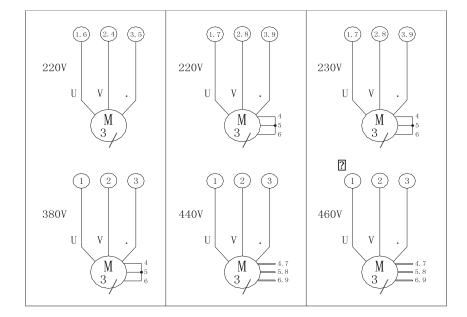
After unpacking, please careful check over the appearance of the cable, gear box and motor shell. Check the quantity of the bellowing items as well. Every set of our hoist should including the bellowing standard spare parts:

- 1. 2 directions wiring diagram for single speed
- 2. 4 directions wiring diagram for single speed
- 3. 6 directions wiring diagram for single speed
- **4.** 2 directions wiring diagram for double speeds
- 5. 4 directions wiring diagram for double speeds
- 6. 6 directions wiring diagram for double speeds
- 7. Wiring diagram for single phase motor

The above mentioned wiring diagrams above are only for reference, user should take the one inside the electric box as the proper one.

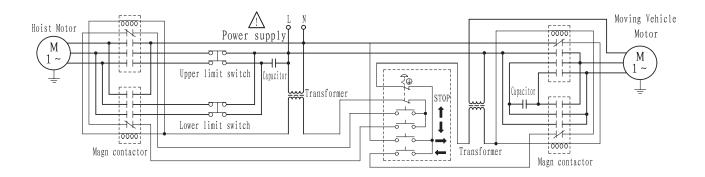
The electric specifications can be made according to the follows:

- 3 Phase
- Frequency
- Single or double voltage

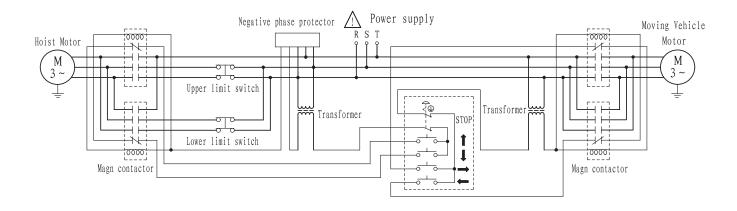


Installation _____ Installation

PWH Single Phase Series Electric Chain Hoist Wiring Diagram



PWH Three Phase Series Electric Chain Hoist Wiring Diagram



PROWINCH® WARRANTY

LIMITED WARRANTY COVERAGE

PROWINCH products are warrantied to the original purchaser for three (3) years after the date of purchase to be free from defects in material and workmanship when subjected to normal, proper, and intended use. Within the 3 years, and after examination, PROWINCH will only repair or replace free of charge any part on a product PROWINCH determines to be defective and not caused by other factors or circumstances beyond PROWINCH's control. That includes (but is not limited to) faulty installation, improper maintenance or repair, product modification or alteration, any neglect, misuse or excessive use, mishandling, product exposure to extreme or unsuitable conditions, normal wear and tear or failure to follow manufacturer's instructions. This warranty does not apply to damage PROWINCH determines to be from repairs made or attempted by anyone other than PROWINCH authorized personnel. Return of the product with a copy of proof of purchase to PROWINCH, freight prepaid, and insured, is required for this warranty to be effective. For this warranty to be effective after one year, the purchaser must provide proof of periodic and regular maintenance by an authorized service provider. PROWINCH does not cover freight or labor charges associated with the inspection and testing of products which PROWINCH finds not to be a valid warranty claim.

DISCLAIMER

In no event shall PROWINCH be liable for any labor, removal and installation expenses, loss of time, manufacturing costs, transportation, materials, loss of profits, incidental, special, consequential, or punitive damages, or for any costs, attorney fees, expenses, losses or delays, direct or indirect, alleged to be as a consequence of any damage to, failure of, or defect in any product including, but not limited to, any claims for loss of profits. PROWINCH disclaims any implied warranties, including, without limitation, any implied warranty of merchantability or fitness for a particular use or purpose. Acceptance of the exclusive repair and replacement remedies described herein is a condition of the contract for purchasing every PROWINCH product. You should not purchase the product if you do not agree to this condition.

<u>37</u> **36** Troubleshoooting _____

Faults, Cause, and Correction

	Faults		Major Cause	Check Items	Remarks
			Excessive voltage	Power	
				Power supply	
				Internal wiring	
		Contactor is inau- dible	operating circuit break on,	Contactor	
		0.1010	electric parts overheating	Transformer	
Does not	Brake inaudible			Up/Down limit switch	
operate in non-load	maudible			Button switch	
state				Motor	
		Contactor is	Power circuit break-off,	Brake	
		audible	overheating motor, brake	Internal wiring	
				Contactor (junction fusing)	
				Gear	
	Brake audible		Drive overheating, broken bearing	Bearing	
				Power	
		·····	Default phase (single phase opera-	Feed power	
Operates in non-load state	Unable to I	ift (motor roar)	tion)	Motor	
				Contactor(junction fusing)	
	Slov	w lifting	Low voltage	Feed power	
			Anti-phase wiring	Feed power	
	Inverse react	tion from button	Incorrect wiring	Internal wiring	
			Incorrect wiring	Button switch	
			Circuit wire break	Internal wiring	
			Circuit wire break	Button switch	
				Contactor	
				Up/Down limit switch	
				Contactor	
Unintended reaction from	No reaction after	er pressing button		Brake	
button		F 3	Electric installation parts	Feed power	
			·	Internal wiring	
				Load chain	
				Load pulley, bare pulley	
				Gear	
				Bearing	
	Noise of brake	Running (grating)	Drag	Brake	
		Stop	Wear of friction plate	Brake	
	Abnormal noise (grating)	e oi raii curve	Obstruction of orbit/wheel	Operation of trolley	

__Troubleshoooting

Faults, Cause, and Correction

	Faults	Major Cause	Check Items	Remarks
		Rail declining	Trolley movement	
_	Electric trolley /manual trolley	Inclined pull (wheel is lifting)	Trolley movement	
Does not move horizontally	Electric trolley /manual trolley	Gear occlusion problem	Trolley movement	
,	Electric trolley /manual trolley	Brake fastening	Trolley movement	
	Electric trolley	Electric faults	Trolley movement	
		Rail & wheel interference		
		Side wheel lacks oil		
Irregular	El	Uneven wheel wear		
movement and	Electric trolley / manual trolley	Wheel deformation	Trolley movement	
noise	,	Rail deformation, wear		
		Bearing wear		
		Brake wear		
Hook		Deformation	Hook	
Load chain		Wear, extension, deformation	Load chain	
Load chain		Equipment not properly grounded	Proper electric connection	
		Supply Power	Supply power voltage	
			Cables	
			Internal wiring	
		Operating circuit break-off, electric parts overheating	Transformer	
	Brake inaudible		Electrical relay	
			Limit switch	
Does not operate			Push Button Switch	
in nonload state		Braking interval too large or small.	Motor	
State			Calibrate brake	
		Tripping as motor overheats	Thermal Protector	
	Brake audible	Bearing burning out, driving	Replace brake bearing	
		component wear	Bearing	
	Slow load operation	Voltage drop	Feed cable	
	Low and high speed status not	Low voltage	Supply power	
	operating or working slow	Voltage drop	Feed cable	
Movement does not	Movement did not correspond	Motor wires connected	Motor	
correspond with	with switch button	Connection error	Internal wiring	
switch button	Switch button did not work	Operating circuit break-off	Push button switch	
	Switch button did not work	Electrical installation error	Internal wiring	

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Faults, Cause, and Correction

	Faults	Major Cause	Check Items	Remarks
		Rail declining	Trolley movement	
	Electric trolley /manual trolley	Inclined pull (wheel is lifting)	Trolley movement	
Does not move horizontally	Electric trolley /manual trolley	Gear occlusion problem	Trolley movement	
Horizontally	Electric trolley /manual trolley	Brake fastening	Trolley movement	
	Electric trolley	Electric faults	Trolley movement	
		Rail & wheel interference		
		Side wheel lacks oil		
		Uneven wheel wear		
Irregular move- ment and noise	Electric trolley /manual trolley	Wheel deformation	Trolley movement	
ment and noise		Rail deformation, wear		
		Bearing wear		
		Brake wear		
Hook		Deformation	Hook	
Load chain		Wear, extension, deformation	Load chain	
		Supply power	Supply power voltage	
			Cables	
			Internal wiring	
		Operating circuit break-off, electric parts overheating	Transformer	
			Electrical relay	
			Push button switch	
Does not operate in nonload			Motor	
state		Braking interval too large or small.	Calibrate brake	
		Tripping as motor overheats	Thermal protector	
	Brake audible	Bearing burning out, driving com-	-Replace brake bearing	
	blake audible	ponent wear	Bearing	
	Slow load operation	Voltage drop	Feed cable	
	Low and high speed status not	Low voltage	Supply power	
	operating or working slow	Voltage drop	Feed cable	
	Mayamant did not carrachand	Motor wires connected	Motor	
Movement does	Movement did not correspond with switch button	Connection error	Internal wiring	
not correspond with			Push button switch	
switch	Switch button did not work	Operating circuit break-off	Internal wiring	
button			Push button switch	
		Electrical installation error	Limit switch	

Issues & Measures

Power supply

Condition	Reason	Action	Cause	Correction
No operation	Abnormal supply voltage	Power supply	Improper power supply	Check power supply regularly

Power Cable

Condition	Reason	Action	Cause	Correction
			Strong force exerted	Firmly fix on cable support or other equipment
	Wire break	Repair or change cable if broken	2 or more	Use anti-vibration cable in movable part.
No operation		Cable II broken	Twisted, knotted	Straighten twists and knots
No operation			Interference with other equipment	Use fixed cable and avoid outside interference
	Overheating	Check cables, exchange	Temperature rise due to off-capacity	Adopt the proper cable
		if overheating	Binding cable used	Do not use binding cable
Starting slow or no operation	Off-capacity	Check cable diameter, replace cable if diameter is too small	Voltage drop	Adopt proper cable
Operation only in free load (single phase)	1 wire break or overheating	Refer to above break or over	heating item	
Movement did not correspond with switch button (opposite)	Power line connection error	Replace wires	Wiring assembly error	Connect wire as per wiring diagram

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Troubleshoooting ______Troubleshoooting

Motor

Condition	Reason	Action	Cause	Correction
			Excessive current caused by high or low voltage	Operate under rated voltage
	Coil burning	Measure phase resistance	Excessive current caused by overload	Operate under rated voltage
	(above 2 phase)	value; change motor if value is infinite.	Beyond short-term rating and intermittent cycle rating	Short-term rating, intermittent cycle rating, operate under rated voltage
No operation				Avoid over-operation
			Excessive current caused by brake	Refer to brake
	Lead wire break value; change motor if valu is infinite.	·	Lead wire broken in assembly	Change motor coil
			Vibration, drop	Avoid excessive bumping in usage
Operation only in free load (single phase state)	Coil burning (1 phase only)	Measure phase resistance value; change motor if value is infinite	Poor electric isolation	Ensure foreign matter does not enter motor
	Leading wire break (1	Measure phase resistance	Leading wire break in assembly	Change motor coil
	value; change motor if value phase only) is infinite		Vibration, drop	Avoid excessive bumping

Brake

Condition	Reason	Action	Cause	Correction
			Excessive current caused by high or low voltage	Operate under rated voltage
		Measure brake		Avoid over-operation
	Braking coil burning	phase resistance value; change brake if value is infinite.	Excessive current caused by overload	Operate under rated voltage
				Confirm short-term rating, intermittent cycle rating, operate under rated voltage
			Excessive current caused by operation in singe phase state	Stop immediately if unable to lift load in single phase
No operation	Friction plate beyond brake magnetism scope	Measure brake clearance, replace if space is over usage limit		Avoid over-operation
	Broken brake wire	Ensure wire is connected, replace if disconnected	Lead wire damaged during assembly	l Replace coil brake
	Improper connection of brake wire terminal	Replace insert termina when loose	l Assembly error	Proper connection in assembly
	Rust	Replace brake if rust present	Exposure to water in storage	Ensure dry storage
	Friction plate wear	Measure brake clearance replace if space is over use limit	•	Monitor usage environments
				Avoid over-operation

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Inside Wiring

Condition	Reason	Action	Cause	Correction
	Break	Check cable, repair if wire break	Vibration, drop	Avoid excessive bumping in usage
No operation			Leading wire damaged in assembly	Change motor coil
		Check connector, repair if wire break	Connector not properly set	Press by appropriate tool
	Wiring error	Refer to wiring diagram, ensure properly connected	Wiring error	Refer to wiring diagram, ensure properly connected
	Connector screws loose (overheating)	Fastening	Improper fastening	Ensure effective fastening
			Vibration, drop	Avoid excessive bumping in usage
	Connector, insert terminal improper combination	Proper combination	Bad combination during assembly	Ensure combination is effective

Transformer

Condition	Reason	Action	Cause	Correction
		Measure coil resis- tance value; Change transformer if value infinite	Excessive voltage	Operate under rated voltage
				Avoid over-operation
No operation	Coil burning, break		Excessive current caused by contactor	Refer to contactor items
(Contractor)			Vibration, drop	Avoid excessive bumping in usage
	Wire break	Check leading wire, repair or change trans- former if wire	Vibration, drop	Avoid excessive bumping in usage

Contactor & Electric Reply

Condition	Reason	Action	Cause	Correction
		Change contactor if		Do not over-operate
Non-stop	Junction welding	continuous welding or burn out. For electric reply, visual	Excessive voltage (Excessive current)	Operate under rated voltage
activation	inspection	Excessive current due to overload	Operation under rated voltage	
				Avoid over-operation
		Measure coil resistance value.	Excessive voltage	Operate under rated voltage
No operation	_	Change coil if value infinite.	Vibration due to low voltage (Starting current added continuous)	Operate under rated voltage
		Replace contactor if action is not smooth. For electric reply, visual inspection for part breakage	Vibration, drop	Avoid excessive bumping in usage

Limit Switch

Condition	Reason	Action	Cause	Correction
	Contact fused	Operate limit switch. Check continuity of contactor, replace if result is negative	Limit switch overuse	Avoid overuse of switch
No operation (Contactor)	Wire break	Inspect cable, change if wire breakage or replace limit switch	Vibration, drop	Avoid excessive bumping in usage
	Movable parts rusting	Check movable parts such as the limit lever. Remove if rusty or replace if corroded	Set in Up/Down limit for long time	Do not set in Up/Down limit

Troubleshoooting ______Troubleshoooting

	Contact fused	Operate limit switch. Check continuity of contactor, replace if can not stop	Limit switch used fre-	Avoid overuse of limit switch
Motor did not stop upon reaching upper and	Rusting of moveable parts	Check movable parts such as the limit lever. Remove if rusty or replace if corroded	Infrequent usage; use in moist environments.	Regular inspection
upper and lower limit	Wiring error	Reference wiring diagram. If limit switch cable is properly connected, it is inversely connected. Swap 2 wire power cords	Wiring error	Properly connect wire power cords as per wiring diagram

Push button switch

Condition	Reason	Action	Cause	Correction
	Emergency button is pressed	Turn button right to recover	Emergency button not reset	Read User Manual before usage
	Switch gear fault	Conduction contacts, replace switch if off	Vibration, drop	Avoid excessive bumping in usage
No operation (Contactor	Wiring break	Check if button cable is correctly connected to switch device. Repair if broken	Vibration, drop	Avoid excessive bumping in usage
	Terminal screw loose	Tighten screw	Vibration, drop	Avoid excessive bumping in usage
	Button cable wire break	Replace cable or button cable when wire break	Cable coating damaged	Avoid contact with other equipment during operation
			Faulty installation	Install protection line firmly
Action does not correspond with display	Wiring error	Reference wiring diagram. If limit switch cable is properly connected, it is inversely connected. Swap 2 wire power cords	Wiring error	Properly connect wire power cords as per wiring diagram
Operation continues upon button release	Faulty switch gear part	Replace switch if not smooth.	Vibration, drop	Avoid excessive bumping in usage

Electric Shock

Condition	Reason	Action	Cause	Correction
Electric shock upon touching machinery or control switch	Equipment not properly grounded	Measure earth resistance. If below 100Ω assemble ground wire	Improper ground wire connection	Firmly connect ground wire
			Ground wire bad con- nection	Assemble carefully to prevent loose screw
			Cable break	Do not apply excessive force on cable
	Dampness/ water	Clean, use once dry	Wet hands	Do not operate with wet hands

Hook

Condition	Reason	Action	Cause	Correction
		Replace hook if deformation is beyond permitted range. Hand rotation; maintain or replace if experiencing difficulty	Overload	Operate under rated voltage
			Lifting (hook connected with grounded object)	Do not lift grounded objects.
Hook mouth open	Hook deformation		Load hanging on hook head; hook pull horizontal	Lifting load properly with hook
	поок аегоппаноп		Hanger suspension errors	Lifting angle must be controlled within 120°
			Load size exceeds rated hook	Using proper hook
Hook twist			Chain wrapped around load	Do not wrap chain
Head hook im-	Bearing rust, corrosion		Inadequate grease Iubricant; corrosion	Apply grease lubricant regularly; prevent hook contamination of chemical agents
proper rotating	Bearing damage		Dust	Prevent foreign matter from entering head

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Load Chain

Condition	Reason	Action	Cause	Correction
	Bottom hook upturned	Reset hook	Bottom hook rotation during usage	Check hook state before operation
Chain twist	Chain twist in machinery body	Reassemble chain guide and load chain	Improper assembly	Ensure proper assembly
Limit switch suddenly acti- vated in decline	Chain twist or knot in chain bag	Confirm chain bag capacity (chain bag nameplate) replace with larger one if capacity insufficient	Chain bag inadequate capacity	Confirm lifting height and chain bag capacity
Crackling sound	Chain damage	Measure wear of chain link diameter. Replace if reaching wear limit	Long-term operation with insufficient lubrication	Apply grease lubricant regularly
			Excessive operation	Avoid excessive operation
	Wear of link part		Overload	Use under rated load
Irregular sound from springs			Incline pull	Ensure proper pull direction
(cracking sound)			Wear of load pulley and empty pulley	Refer to load pulley and empty pulley
	Extension of pitch	Measure pitch and replace when exceeding limit	Overload	Use under rated load
		Replace when obvious	Use under transition situation	Use under models with multiple chain
Irregular			Chain used improperly	Ensure proper assembly
sound		occur	Damaged by other equipment	Monitor surrounding envi- ronment throughout usage to avoid collisions
			Lubricant exhausted	Apply lubricating oil regularly
Discoloration		Apply lubricants and replace when obvious rust	Exposure to water	Use in dry places
Discoloration		and corrosion occurs	Influenced by seawater or chemical agent	Inform us if used in special circumstances to safeguard range
Load chain fractured	Reaching service life	Check chain, replace if differing from benchmark specifications	Mechanical life	Operate correctly and manage properly including inspection before usage and regular check-ups

Chain Wheel

Condition	Reason	Action	Cause	Correction
Improper noise	Wear of chain wheel	chain wheel slot and	Long-term operation with insufficient lubrication	Apply lubricating oil regularly
			Excessive operation	Avoid excessive operation
			Overload	Use under rated load
			Incline pull	Avoid incline pull

Load pulley and empty pulley

Condition	Reason	Action	Cause	Correction
from springs Wear of pulley cha		Long-term operation with insufficient lubrication	Apply lubricating oil regularly	
	Wear of pulley	chain, replace if badly worn	Excessive operation	Avoid excessive operation
			Overload	Use under rated load
			Incline pull	Avoid incline pull

Chain Guide

Condition	Reason	Action	Cause	Correction
ncreased shaking	Wear of chain guide and guide pulley	Measure benchmark size and load chain, replace if badly worn and limit size exceeded	Incline pull	Avoid incline pull

Chain Wheel, Junction Part

Condition	Reason	Action	Cause	Correction
				Apply lubricating oil and inspect annually
Unable to lift loads		Replace when obvious wear or breakage occur	insufficient lubrication (joint	Apply lubricating oil and inspect annually
Irregular operation	Wear, breakage			Avoid excessive use of limit switch

Bearing

Condition	Reason	Action	Cause	Correction
Unable to lift loads	Breakage	Replace bearing	High temperature or	Avoid use at high temperatures
Abnormal sound	Aging	Replace bearing	high frequency	or high frequency

Trolley

Condition	Reason	Action	Cause	Correction	
No drive due to wheel skid	Rail tilt	Confirm rail slope is within 1 °	Improper rail settings	Set up orbit correctly	
No drive due to wheel skid	Apply oil above orbit wheel tread.	Ensure wheel is clean and unobstructed	Use in environment	Clean orbit regularly	
Audible friction when traveling on curve track	Friction resistance between wheel and rail	Apply lubricating oil on track tread	does not interfere with		
No drive on curve track	Interference of curve track and trolley	Confirm that orbit curve's radius is minimal bending radius	Curve track exceeding limit value	Avoid use on curve track exceeding limit value	
Wheel raised and unable to be driven	Inclined pull wheel raised		Operation method	Correct use	
Wheels stopped revolving	Faulty gear connection	Ensure clean space between wheel and gear	Interference from outside material	Check regularly	
	Improper adjustment circle	Confirm adjustment circle number and insert position	Insufficient confirmation	Install correctly	
	Wear of wheel	Confirm wear degrees	Traveling surface has bump	Confirm regularly	
Abnormal sound	Deformation of wheel	Check wheel bending and surface damage	Excessive collision, traveling surface deformed		
	Aging of wheel bearings	Confirm irregular sound exists when wheel rotates	Reaching service life	Replace	
	Deformation and wear of track	Confirm rail wear and defor- mation	Overload or reaching service life	Replace and use correctly	

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Electric Trolley

Condition	Reason	Action	Cause	Correction
Wheels stopped revolving	Brake gelling	Open motor cover remove rust and dirt	Usage environment	Inspect regularly
	Electric fault	Refer to items of electric ch		
	Wear of edge guide wheel	Confirm wear degrees	Reaching service life	Confirm regularly
Abnormal sound	Wear of friction slices	Confirm wear degrees of friction slices	Reaching service life	Confirm regularly

Manual Trolley

Condition	Reason	Action	Cause	Correction
Unable to move	between hand wheel and	chain on		Replace worn or deformed components

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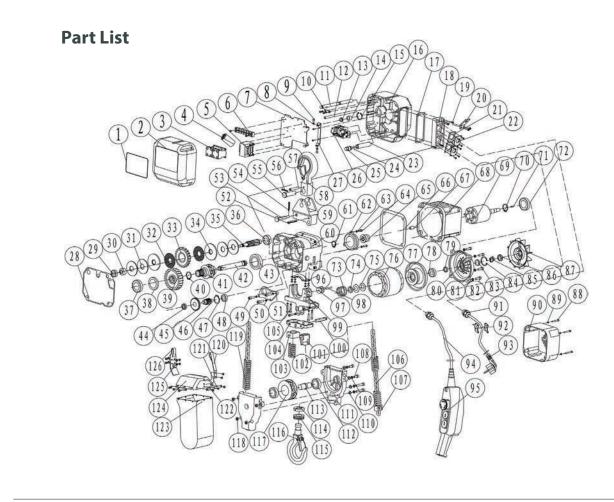
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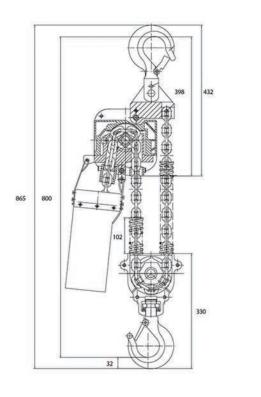


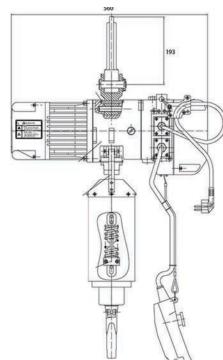
SINGLE SPEED

	Code		PWHC1000i	PWHC1000iW	PWHC1000u	PWHC1000uW	
	Capacity	Lb	2200	2200	2200	2200	
	Lifting Height	Ft	20 ft / 6m	20 ft / 6m	20 ft / 6m	20 ft / 6m	
	Motor Power	kW		0.6	55 kW		
	Voltage	V		220~240V 50/60Hz 1 Phase			
H	Motor Speed	RPM	4	4	8	8	
HOIST	Insulation Grade	Grade		F			
Ĭ	Chain Type	Grade	G80				
	Chain Dimensions	mm	8x24 mm 8x24 mm 8x24 mm			4 mm	
	Chain Falls	U		2			
Z	Chain Length	Ft		40 ft	:/12 m		
CHAIN	Operation Temperature	F°		-4 - 104 °	F -20 - 40° C		
O	Operating Humidity	%		<	85%		
	Noise Level	dB		7	P dB		
	Control Voltage	V			24		
AL	Weight	Lb	282	282	291	291	
IER	Duty Class	FEM/ISO	H2/M3/1Bm/Class B				
GENERA	Standards		ASME HST-1 , ASME B30.16 , EN14492-2 , EN60204-32				
9							

3 Years Warranty







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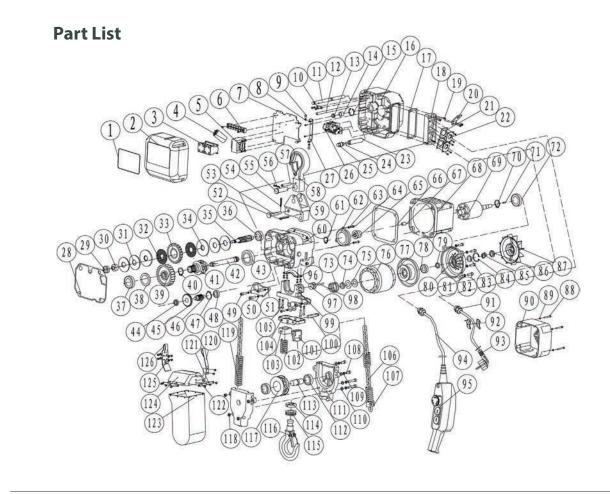
PWHCi /W

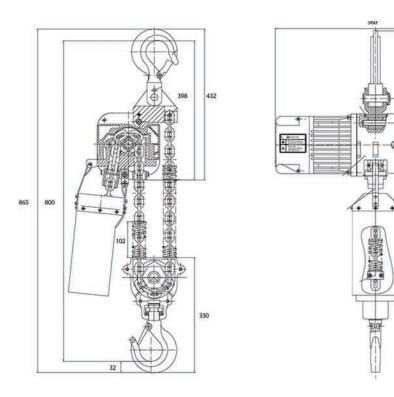


SINGLE SPEED

	Code		PWHC500i	PWHC500u	PWHC500uW	
	Capacity	Lb	1100	1100	1100	
GENERAL CHAIN HOIST	Lifting Height	Ft	20 ft / 6 m	20 ft / 6 m	20 ft / 6 m	
	Motor Power	kW	0.65 kW	0.65 kW	0.65 kW	
	Voltage	V	24V			
	Motor Speed	RPM	4	4	8	
	Insulation Grade	Grade	F			
	Chain Type	Grade	G80			
	Chain Dimensions	mm	8x24 mm	8x24 mm	8x24 mm	
	Chain Falls	U		2		
	Chain Length	Ft	40 ft / 12 m			
	Operation Temperature	F°				
	Operating Humidity	%	<85%			
	Noise Level	dB	7P dB			
	Control Voltage	V	24			
	Weight	Lb	234	277	269	
	Duty Class	FEM/ISO	H2/M3/1Bm/Class B			
Standards ASME HST-1, ASME B30.16, EN14				ME B30.16 , EN144	92-2 , EN60204-32	

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PWHFi / iW

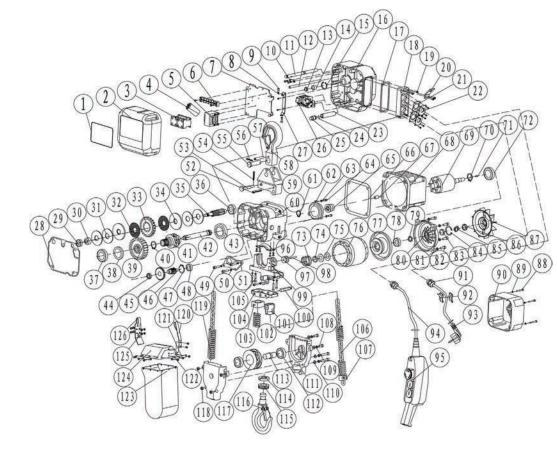


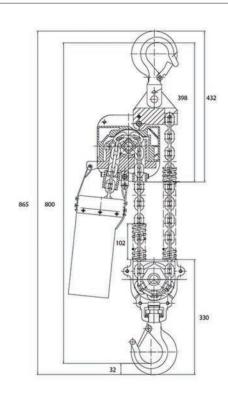
SINGLE SPEED

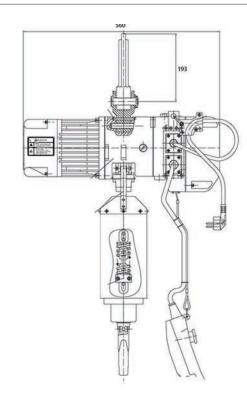
	Code		PWHF1000i	PWHF1000iW	PWHF1000u	PWHF1000uW	
	Capacity	Lb	2200	2200	2200	2200	
HOIST	Lifting Speed	Ft/Min	8 ft / 2.5 m	8 ft / 2.5 m	8 ft / 2.5 m	8 ft / 2.5 m	
	Lifting Height	Ft	20 ft / 6 m	20 ft / 6 m	20 ft / 6 m	20 ft / 6 m	
	Motor Power	kW	0.65 kW	0.65 kW	0.65 kW	0.65 kW	
	Voltage	V	220~240V 50/60Hz 1 Phase				
	Motor Speed	RPM	4	4	8	8	
	Insulation Grade	Grade	F				
CHAIN	Chain Type	Grade	G80				
	Chain Dimensions	mm	8x24 mm 8x24 mm 8x24 mm				
	Chain Falls	U	2				
	Chain Length	Ft	40 ft / 12 m				
O	Operation Temperature	F°					
•	Operating Humidity	%	<85%				
GENERAL	Noise Level	dB	7P dB				
	Control Voltage	V	24				
	Weight	Lb	150	160	171	154	
	Duty Class	FEM/ISO	H2/M3/1Bm/Class B				
Standards ASME HST-1 , ASME B30.16 , EN14492-2				.16 , EN14492-2 , E	N60204-32		

3 Years Warranty

Part List



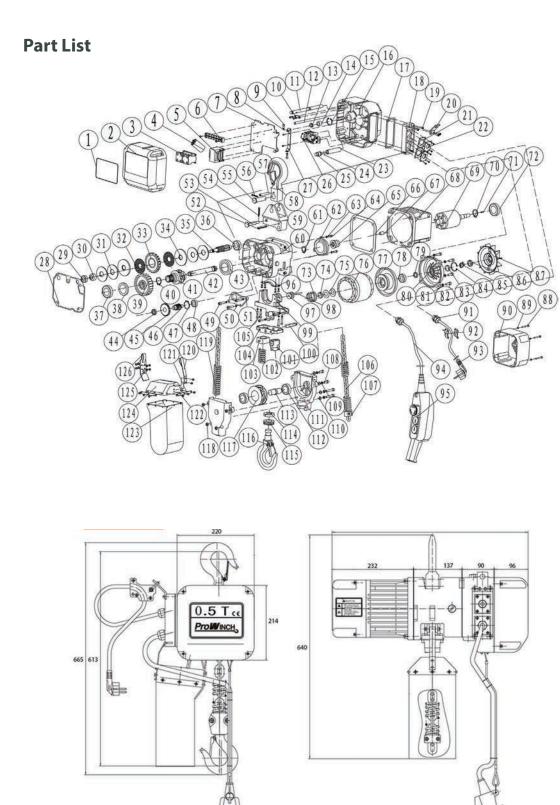




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	Code		PWHF500i	PWHF500u	PWHF500uW		
HOIST	Capacity	Lb	1100	1100	2200		
	Lifting Speed	Ft/Min	16,4	16,4	16,4		
	Lifting Height	Ft	20 ft / 6 m	20 ft / 6 m			
	Motor Power	ft	0.65 kW				
	Voltage	V	110 / 60 hz				
	Motor Speed	RPM	4	4	8		
	Insulation Grade	Grade	F				
CHAIN	Chain Type	Grade	G80				
	Chain Dimensions	mm	Ø 8 x 24				
	Chain Falls	U	1				
	Chain Length	Ft	20				
	Operation Temperature	F°					
•	Operating Humidity	%	<85%				
GENERAL	Noise Level	dB	70 dB				
	Control Voltage	V	24				
	Weight	Lb	103	260	260		
	Duty Class	FEM/ISO	H2/M3/1Bm/Class B				
Standards ASME HST-1 , ASME B30.16 , B30.17 , EN1449					4492-2 , EN60204-32		



Dimensions in mm

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