



PWUL

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



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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.

Please check our warranty policies on our website www.prowinch.com/warranty.

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

1. SAFETY PRECAUTIONS

Prowinch® Manual winch. 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. Improperly installed, maintained, or operated winch can cause serious accidents or death. This User Manual highlights symbols and notes for caution, warning, and danger. Following these indications dramatically improves the safety of the operator and personnel in the area.

Mandatory use of:



Hard Hat



Safety Glasses



Safety Gloves



Safety Shoes

2. APLICACIÓN

PWUL Series Winch is a new kind of manual winch. Compared with other winches, it is more easy and convenient in operation. It is widely used to lift, pull and stretch in the cross-country cars, yachts and other vessels. It is also used to drag loads, lift and lower loads, and install facilities, and in other opened field. It is the necessary tools in the mine, forestry, transportation, environment protection, are protection and other field.

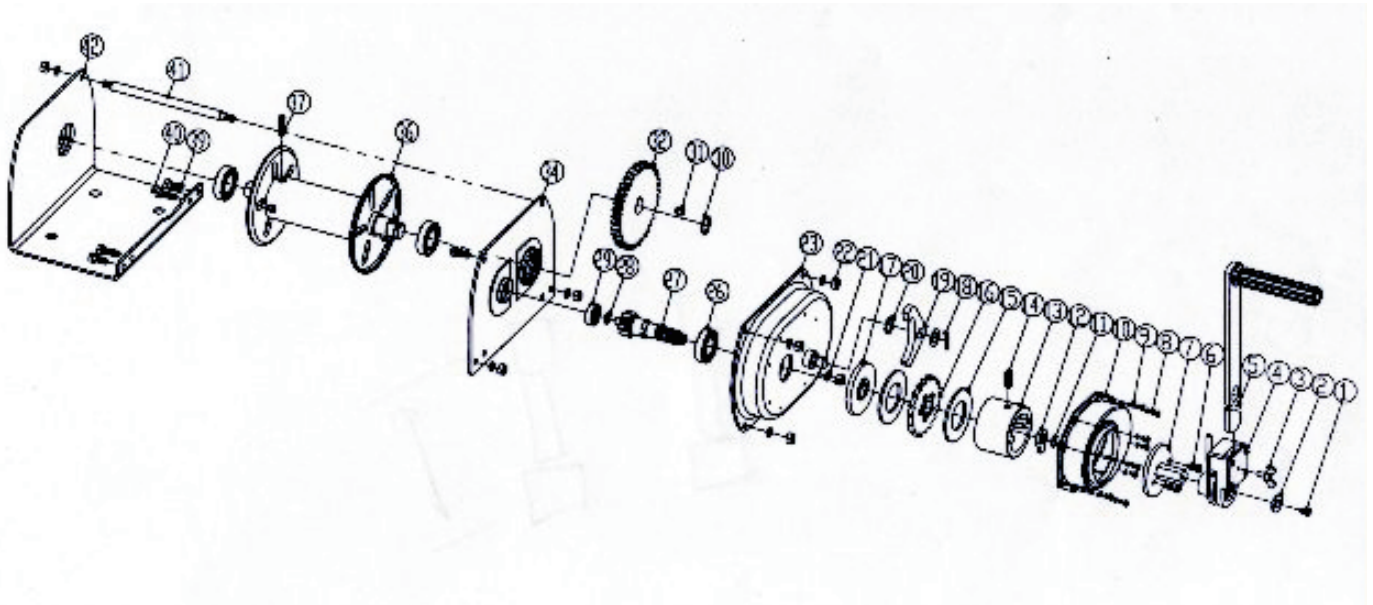
3. PRODUCT FEATURES

PWUL Series Winch has the following advantages in design and manufacturing

- The gear box is designed with close structure to avoid the foreign body entering into gear box or braking mechanism in operation, and affect normal operation. With more safe in use.
- To adopt double friction discs, new braking pawl and change over ratchet mechanism ensuring the stability of braking and saving efforts when using the handle. The winch is applied in the special condition as the friction disc is made of the raw material of environment protection.
- The connection of handle is fitted with change over ratchet. During the operation, according the working need, the winch may be turned circle by transforming the pawl and also operate the handle back and forth in any position and angle of the circle. To let turning operation change to levering operation. The winch is more advantage in the narrow space.
- The handle is adopted freely structure and may free adjust the length of handle to safe the effort when necessary.
- The large drum may contain more cable, which is more suitable for pulling, dragging, lifting and lowering the goods in the long distance.

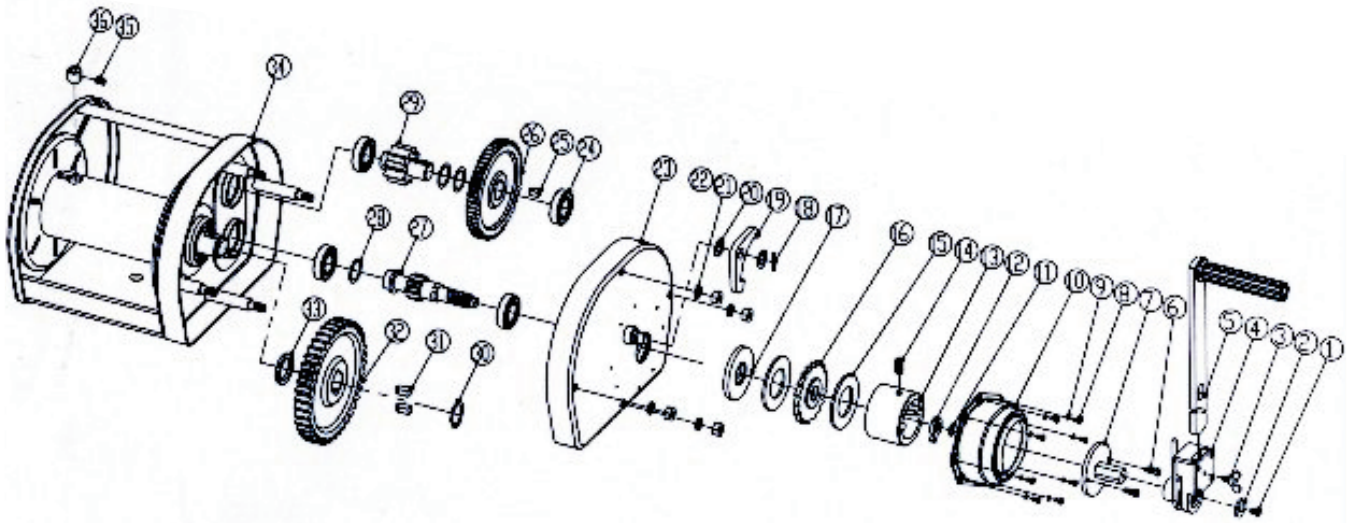
4. TECHNICAL SPECIFICATIONS

- The exploded view of spare parts:
Capacity: 0.5T/1T

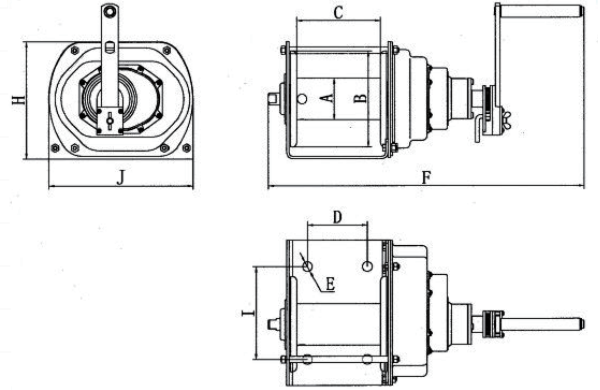


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Capacity: 0.5T/1T



Model	0.5 t	1 t	2 t	3 t	
S.W.L. KN	0.5	1	2	3	
Test Load KN	6.125	12.25	24.5	36.75	
Cable dia.(mm) X L.(m)	Ø6.3 x 40	Ø8 x 40	Ø9 x 40	Ø12.5 x 40	
Speed ratio	4.33:1	12.19:1	22.68:1	29.16:1	
The max. handle length mm	350	350	350	350	
Hang pressure load N	120	120	120	120	
Overall dimension mm	A	Ø60	Ø76	Ø90	Ø100
	B	Ø140	Ø175	Ø190	Ø230
	C	150	154	195	205
	D	100	110	155	155
	E	Ø15	Ø18	Ø18	Ø18
	F	403	443	490	549
	H	182	214	230	296
	I	130	170	170	170
J	245	266	300	365	
Net weight Kg.	14.4	19.7	25.1	44.3	



Due to the continuous improvement of our product development, its construction may be slightly different from the specification.

5. SAFE WARNING

- a) Do not use on overload.
- b) Before operation, inspect if the direction of the dragging of cable is correct per different size and do dynamic and static test with small loads. During the test, the drum should be turned at least one complete revolution. The winch may be operated after confirmation of normal working.
- c) It is the necessary to trial lift when the goods approaches to the max. load, not too high off the ground when doing the trial lifting. It may be operated after security.
- d) Do not use winch for lifting people or loads over people.
- e) Inspect the condition of installation periodically, check the winch installation to ensure that all bolts on the frame are tight.
- f) Do not hold a load on a trailer with winch cable to stretch or lift avoiding the wear or broken and permanent bending of the cable.
- g) Inspect cable frequently, a frayed cable with broken strands should be replaced immediately. Use gloves or suitable protection when handling the defective cable.
- h) Never replace cable with fabric rope of any kind or with a cable other than the type specified in this manual.
- i) It is a good idea to lay a heavy blanket or jacket over the cable about 4.5 meter from the hook end when pulling in severe conditions. If a cable failure should occur, the weight of the cloth will act as damper and prevent broken cable from whipping.
- j) If used as vehicle winch, do not move your vehicle to assist the winch, the combination of the winch and the vehicle pulling together could overload the cable.
- k) To ensure correct and safe operation of your winch, please carefully read the manual and keep the labels and direction labels clear and visible. Failure to comply with all of these warnings may cause serious injury and/or damage to property.

6. OPERATION METHOD AND PRECAUTIONS

A, Installation consideration

- a) Each winch must be mounted firmly and securely and stable foundation with such bolts as specified

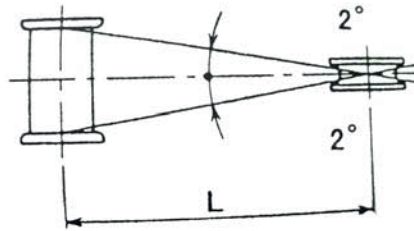
Size	Bolts	Class
0.5t	M12	8.8
1t	M16	8.8
2t	M16	8.8
3t	M16	8.8

- b) When installing, make the bolts with screw end go through the basic steel plate from the winch framework, adding washer and spring washers. After tighten, the valid length of the bolts out of nuts at least 4-6mm.
- c) All bolts installed do not affect and block the normal running of the winch.

- d) To protect cable from excessive wear or being smashed when cable is wound in confusion or overlapping on drum. Each fleeting angle must be below 2° and pulley should be in the center line of and inside drum.
- e) To dragging the loads in the short distance should meet the following requirement.(see form 2 and fig.1).

Size	Cable length
0.5t	220 cm
1t	220 cm
2t	220 cm
3t	220 cm

(form 2)



(fig. 1)



(fig. 2)

B, The winch should be located at a height which allows ergonomic use of appliance, preferable with the winch center at waist height. Installations with winch center at chest height or above will require particular assessment and possible de-rating. (see fig.2).

C, Before installing cable

- Insert the handle into the handle socket and tighten the thumb screw.
- Turn the handle in a clockwise direction, As you turn the handle, a noticeable clicking sound should be heard.
- Turn the handle in a counter-clockwise direction, clicking sound should stop and the handle should turn smoothly.

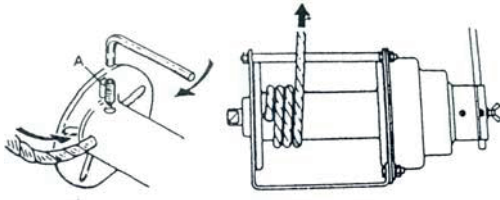
D, Precautions

- Pay particular attention to the accompanying diagrams and the orientation of the cable and the direction of load with each type.
- Prepare the cable conforming to the capacity of your type of winch.
- The cable should be long enough to be possible to keep a minimum of three turns of cable on the drum assembly, Without such three coils of cable, the load will work directly on the cable installing hole on the drum and consequently the cable may be forcibly and dangerously torn off from the drum.

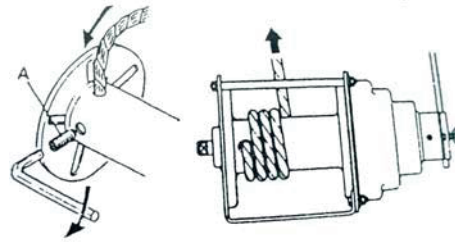
E, Cable installation

a) Cable installation for 0.5t winch(see fig.3)

Loosen retainer bolt or grub screw and insert the cable end into the drum assembly about 57mm deep until the cable end stops. Tighten retainer bolt firmly.(required torque:115 kgf-cm)



(fig. 3)



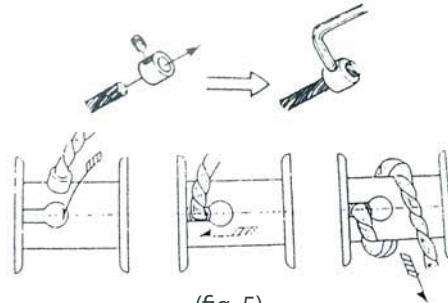
(fig. 4)

b) Cable installation for 1t winch(see fig.4)

Loosen retainer bolt or grub screw and insert the cable end into the drum assembly about 72mm deep until the cable end stops. Tighten retainer bolt firmly.(required torque:115 kgf·cm)

c) Cable installation for 2t to 3t winch(see fig.5)

Insert cable end through cable sleeve until end protrudes 10mm, tighten retaining screw firmly with hex. Insert cable sleeve into hole on cable drum and slide to hook cable sleeve on groove.

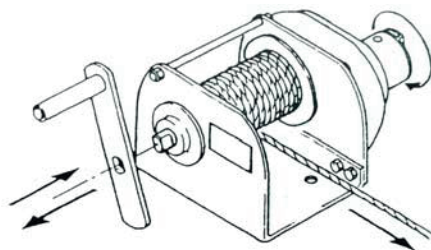


(fig. 5)

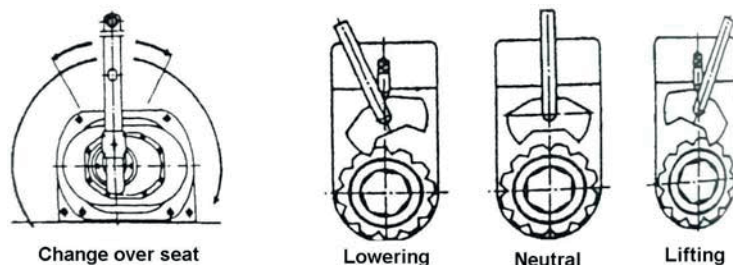
F, Operation method

- Insert the handle into the handle retainer(socket) and tighten the thumb screw. Turn the handle in a clockwise direction to take in cable. You should hear a clicking sound. This is the operation situation of lifting and dragging.
- Turn the handle in a counter-clockwise to let cable out. This is the states of unloading and unwinding cable.
- The winding direction is switched over with a change lever. When no load, the operator may wind or unwind cables quickly by choosing the handle at another end, inserted with the handle quickly winding cables in the counter-clockwise direction, and unwinding the cables in clockwise direction (see fig.6)

Note: Do not quickly turn the handle left to unload the goods as it may cause serious danger/injury.



(fig. 6)



(fig. 7)

G, The unique and operation method of change over seat

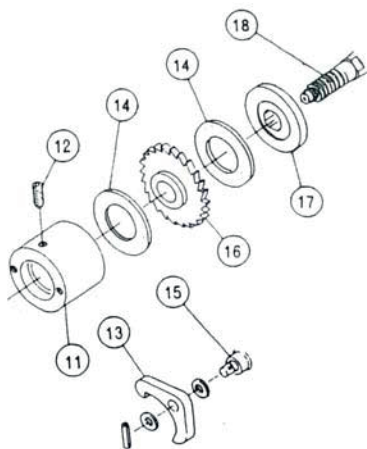
- Change over seat is as a accessory of winch. Its main performance is make the process of dragging, lifting and pulling with the operation of handle being turned-around by the transforming the change ratchet and pawl. Change to other device that it may be operated back and forth in any angle.
- The device has more advantages in the narrow space. Operation more convenient and more save efforts.
- See the figure of change over seat (fig.7)
- Lowering with the change lever turn left.
- Neutral position with the change lever in the middle position.
- Lifting with the change lever turn right.

7. MAINTENANCE

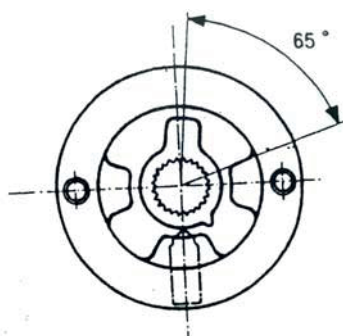
A, After operated for a long time, the winch is found to be slipped or its braking performance being reduced, the winch should be repaired in time.

B, When the thickness of brake discs (No.14) were worn from 3.5mm to 2.6mm, they need to be replaced. (see fig. 8)

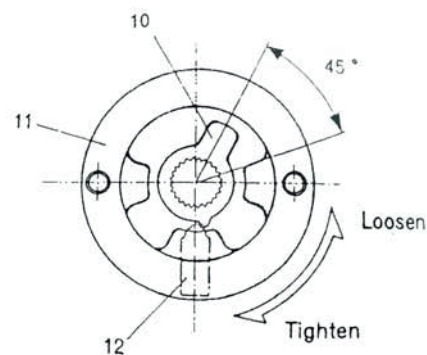
When assembling, pay attention to the touch surface between the discs and its neighbor rubbing parts. There is no any water and grease. Keep the braking area are clean and dry. Keep the threaded parts of the ratchet (No.11) and the pinion (No.18) clean with a brush. The threaded area may be lubricated with a light machine oil to keep the running freely and to ensure the rapid change of the braking performance. When assembling, keep the rubbing surface of ratchet (No. 11), ratchet disc (No.16) and disc hub (No.17) clean and dry. Without any grease and water. If they show excessive wear, they must be replaced. When assembling, pawl pin and pawl should have no any rusty and other situations affecting quick swing .The parts may be lubricated with a light machine oil.



(fig. 8)



(fig. 9)



(fig. 10)

C, The installation of the ratchet stopper and the ratchet

Locking the ratchet to make the installing position reach 65° , which located in the position of ratchet stopper (No.10) dragged, adjust the reasonable gap between spherical screw and ratchet stopper (No.10), allowing it sliding and not to jump out. (see fig.9) **D**, During re-assembly of the winch, pay carefully attention to the angle of the ratchet stopper. After the ratchet has been tightened fully, place the ratchet stopper on the shaft at 45° angle. **E**, If lock-up occurs, tap the handle stem with a rubber mallet. The winch is disassembled per the exploded view.

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