



Portable Winch Model 30.040

Manual

KC Denmark A/S

Research Equipment
Limnology • Oceanography • Hydrobiology

Portable Winch Model 30.040



Use of the winch may under certain circumstances, constitute a potential risk of injury. Take serious precautions to avoid any accidents.

KC Denmark A/S is not, and cannot be held, responsible for any damage(s) made to equipment or to operators who ignore safety precautions or because of misuse, any modifications or wrong operation.




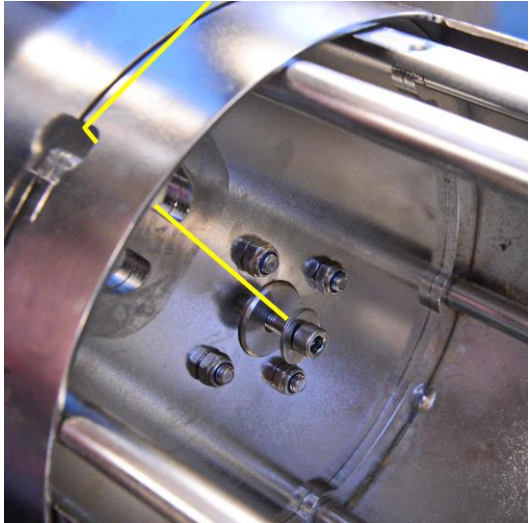
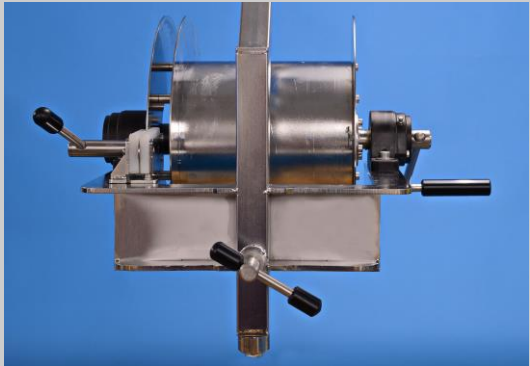
Preparation

1

Secure the winch properly using a suitable bracket. More options are available; the photo shows a rail-mounted, lockable model. See item 2 for another model.

To avoid any damage or injury, you must ensure free space for the wire in all positions.



<p>2</p>	<p>This model offers several options for adjustment, so it will fit for almost any mounting.</p>	
<p>3</p>	<p>Remove the plate on the drum. Insert the wire as shown and fasten it to the bolt using an appropriate eye at end of the wire. You may secure the bolt by adding Loctite or similar to the thread.</p> <p>Mount the plate and you are now ready for spooling the wire onto the drum.</p>	
<p>4</p>	<p>Loosen the brake at the left side and spool the wire taking precaution as per item 5.</p>	

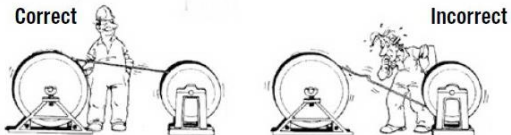


5

Winding from reel to drum:

During installation, when the steel wire rope is running directly from the reel to the drum, you must ensure that the reel is running in the same direction as the drum. If this is done incorrectly, the steel wire rope is subjected to tension.

In order to achieve problem-free winding in multi-layer winding, it is extremely important that the steel wire rope is under tension when applied to the drum. If the layers are too loose, the upper layers can damage or cut into the layers below when tension is applied, resulting in damage to the steel wire rope. The rope must be wound onto the drum at a tension corresponding to at least 2% of the tensile strength of the rope. Text and illustration by Fyns Kran, Denmark.



Operating the winch



6

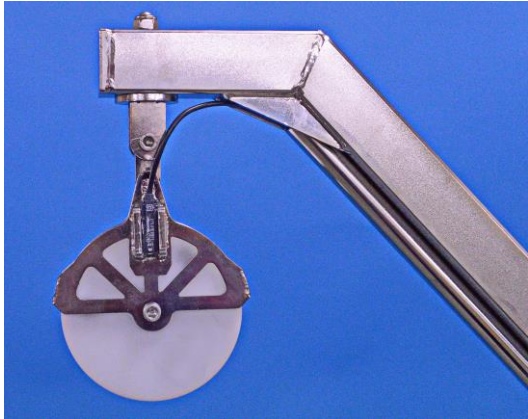

Attach your equipment and lower it to the sea. A maximum weight of 25 kg is highly recommended as a higher load makes the handling more inconvenient. Turning the brake handle in clockwise position will lock the winch.

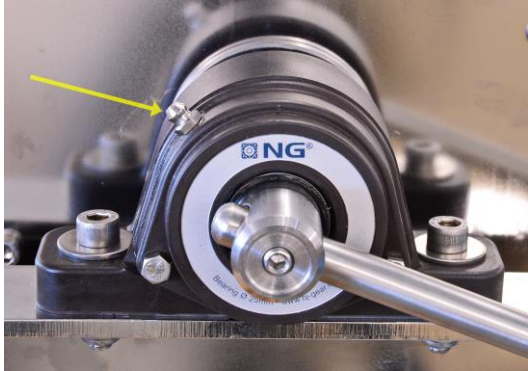
Before loosing the brake for resuming the operation hold the handle in a firm position so you don't get hit by the handle.

For a fast deployment you can loose the brake and the winch runs in free-wheeling mode. Beware of the rotating handle which can cause serious injury. Never attempt catching the handle to stop the winch, you must only use the brake handle.

For a wire speed exceeding 3 m/sec. approx, the counter may have an incorrect read-out of length.

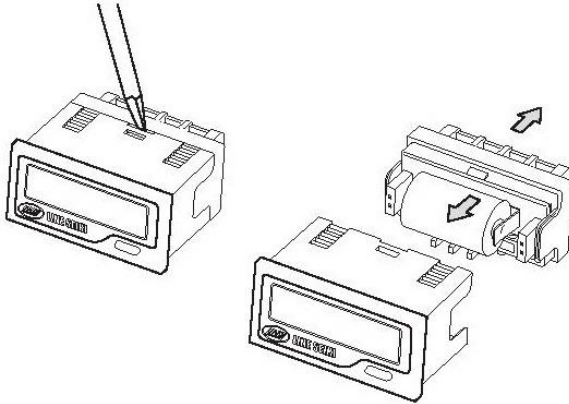


The counter system		
7	The counter wheel has three inductive sensors.	
8	<p>Each revolution of the counter wheel is equal to 33 cm of wire length. For measuring the length in m, the read-out must be multiplied with 0,1. An example: Read-out of 144 indicates a length of 14,4 m.</p> <p>The counter does not have a reverse counting function so the count increases regardless of the wire's direction.</p> <p>Push the small button to reset the counter to 0.</p> <p>The counter has an internal Lithium battery with 7 years battery life.</p>	

Maintenance		
9	<p>A bearing housing is located on left and right side of the winch.</p> <p>Grease at the least every 6 months or as required.</p>	

Battery Replacement

10



⚠ ATTENTION!!!

Precautions when replacing the battery:

- Disconnect the wiring before changing the battery. Do not touch areas subject to high voltages as this could result to an electric shock.
- Make sure that your body is free from static electricity before changing the battery.
- Make sure to follow the procedures carefully as described below.

- 1) Use a flat screwdriver or any appropriate tool to lift the groove in order to unfasten rear case from front case.
- 2) Pull out the rear case from the main body.
- 3) Replace with a new battery. Make sure that the positive and negative terminals of the battery are positioned correctly.
- 4) Replace the rear case to the main body. Make sure that the case hooks click properly in place.

* Use only 3.6V 1/2AA Lithium Battery for this device.



WARNING!



- This device uses Lithium battery. Properly dispose the battery after use. Do not short the positive and negative terminals, recharge, disassemble, deform, or dispose the battery to fire as this may seriously damage it or may cause explosion.
- Do not attempt to disassemble or modify this device.
- Mount to the front panel when using this device. (Indoor use)
- Do not use organic solvents such as thinners etc. to clean the front panel.
- Internal circuit may be destroyed if a voltage outside the rated voltage is applied.

Technical Specifications - Winch

KC portable winch operated by hand	SWL: 25 kg (max. 250 Nm, first layer)
Mechanical	
Material:	All parts are made of AISI 316 stainless steel
Main rack:	35 x 35 x 2 mm profiled tube
Finish:	Electropolishing
Drum:	Inner diameter: Ø200 mm Outer diameter: Ø320 mm Width: 210 mm
Drum and disc brake:	4 mm AISI 316 stainless steel
Mechanical brake:	Ø320 mm disc brake
Ball bearing:	AISI 316 stainless steel flange ball bearing, 1 pc Ø25 mm.
Shaft required for mounting on bulwark:	Ø20 AISI 316 stainless steel
Weight and dimensions	
L x W(depth) x H:	58 x 76 x 95 cm
Weight, exclusive wire	Approx.: 20 kg

Technical Specifications - Counter	
Display:	7 digits, height 8 mm.
Max. count:	9999999
Max. count speed:	30 Hz ~ wire speed of max. 3 m/sec. approx.
Ambient temperature:	-10~55°C (Non-freezing)
Ambient humidity operating:	25~85% RH (Non-condensing)
Vibration/shock resistance:	Operation: Single amplitude 0,3 mm. Frequency 10~55 Hz X.Y.Z. Axis 100 mm/s ²
Protection of front panel:	IP54
Power source:	3,6 V - 1/2 AA Lithium Battery (replaceable), 7 years min. with continuous input at 25° C. The battery life is not a guaranteed value.
Noise immunity:	Electrostatic discharge IEC-61000-4-2 8 kV Radiated electromagnetic field IEC-61000-4-3 10 V/m EFT/B.I/O leads IEC-61000-4-4 1,0 kV
EMC standard:	EMI: EN50081-2 EMS: EN50082-2
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