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ARADO



Installation and
user's manual



VERTICAL WINDLASS

Rev.01

INTRODUCTION

Read this manual thoroughly before installation and using the windlass. Failure to adhere to the correct procedures, recommendations and guidelines described in this Owner's Manual may invalidate the warranty.

Be mindful that the correct selection of windlass for each application, together with correct installation, normal care in use and maintenance, are essential for long life and reliable performance.

Inspect your windlass carefully when unpacked. Any damage or lack of components should be reported immediately to your MZ Electronic distributor.

The windlass is supplied with chainwheel, as specified on purchase order. Make sure it is the appropriate one for the chain being used on board. Correct fit of the chain to chainwheel is essential for reliable and safe operation of the windlass. This can be guaranteed only when calibrated chain to a recognised international standard is used and the chain is correctly identified to MZ Electronic, or if a chain sample is provided to MZ Electronic to develop a custom chainwheel.

The windlass is designed for use in conjunction with chain stopper and tensioner of the appropriate size. Their use is an important safety feature.

For side pocket anchors, a chain roller should be installed above the hawse pipe to ensure smooth and quiet travel of the chain from deck to hawse pipe. The roller requires a central groove to align chain and flat faces (for stud length chains) to support and avoid bending the chain links.

The connection of the power lines and control circuitry to the windlass must be done by skilled technicians, to ensure reliable and safe operation of the windlass.

SPECIFICATIONS

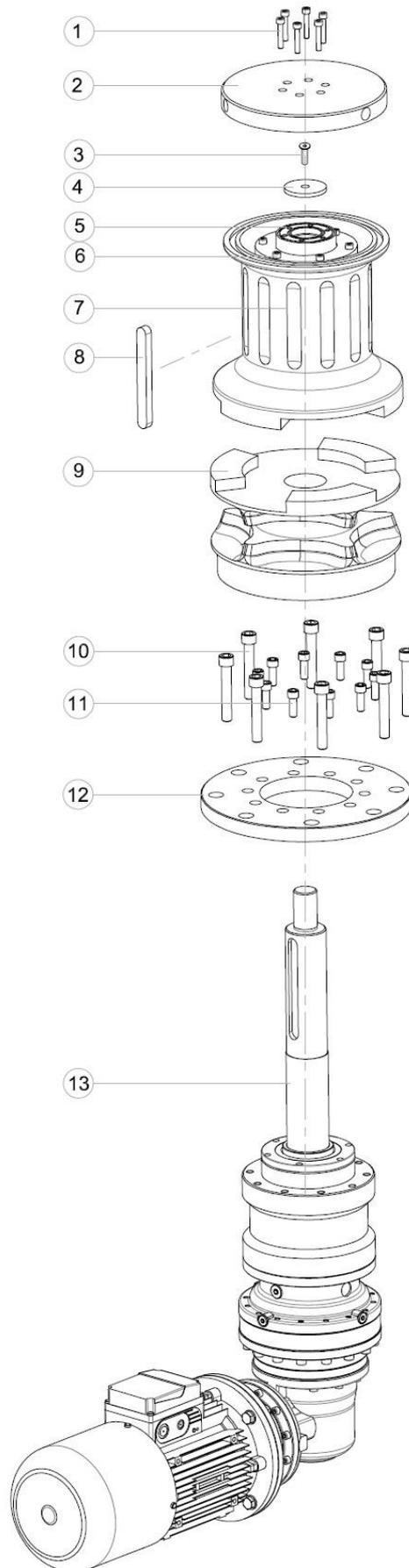
19 mm studlink			
Power	5,5 kW	7.5 kW	HYD
Motor Supply voltage	230/400	230/400	-
Maximum lift load	4500 kg	5000 kg	-
Lift working load	2700 kg	3700 kg	5000
Line speed	11,5 m/min		
Weight	280 kg		250 kg

20,5 mm studlink			
Power	5,5 kW	7.5 kW	HYD
Motor Supply voltage	230/400	230/400	-
Maximum lift load	4500 kg	5000 kg	-
Lift working load	2500 kg	3400 kg	5000 kg
Line speed	12 m/min		
Weight	295 kg		265 kg

22 mm studlink			
Power	7,5 kW	9,2 kW	HYD
Motor Supply voltage	230/400	230/400	-
Maximum lift load	6000 kg	7000 kg	-
Lift working load	3600 kg	4400 kg	6000 kg
Line speed	11,5 m/min		
Weight	350 kg		320 kg

INSTALLING THE WINDLASS

Refer to picture for help with identifying components and installing them correctly.



Extra care should be exercised when handling polished parts to avoid any damage to polished surfaces.

Apply an anti-seize compound generously over thread of all screws, before fastening them.

Follow the steps below to disassemble the windlass ready for installation:

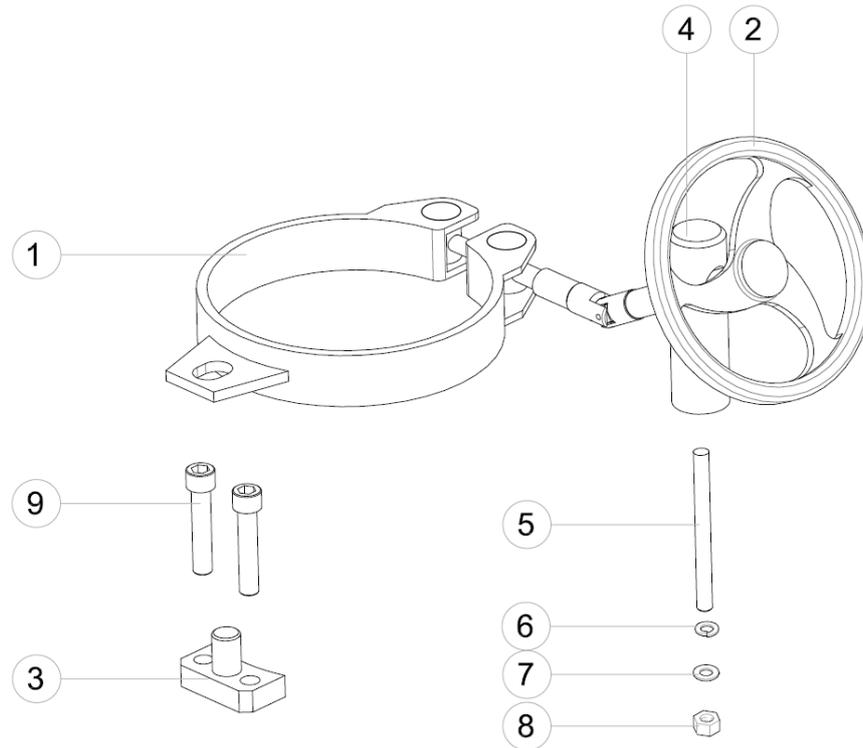
1. Unscrew the top cover (2) by turning counterclockwise until it stops. Use the handle supplied.
2. Remove the n.6 M8 capscrews (1) from the top cover (2) and remove it.
3. Unscrew the M8 screw (3) and remove the stop washer (4).
4. Unscrew completely the brass bush (5) until all its thread is out from the main shaft. Two of the M8 screws (1) will be helpful to do this operation.
5. Do not remove the other screws (6)
6. Lift the capstan (7) using the two M12 lifting eyes
7. Lift the chainwheel (9) using the two M12 lifting eyes
8. Remove the key (8).
9. Unscrew the n.10 M12 capscrews (11) securing the drive and mainshaft (13) to the deckplate (12).
10. Carefully slide the drive and mainshaft (13) from the deckplate (12)

To install in the vessel:

1. Cut the hole in the deck as per the deckplate template. All holes must be drilled.
 2. Bolt the deckplate in place using an appropriate bedding/sealing compound. Tighten the n.8 M16 capscrews (10) to 150Nm.
 3. Fit the drive and mainshaft (13) from below Carefully slide the drive and mainshaft (13) into the deckplate (12). The lifting eye (M12) can be installed in the end of the shaft to lift from above.
 4. Install the n.10 M12 capscrews (10) securing the drive and mainshaft (13) to the deckplate (12). Tighten to 60Nm.
- NB: Confirm the drive and gearbox are clear of the chain and able to be connected to power.
6. Apply grease to the mainshaft (13) and fit the chainwheel (9).
 7. Fit band brake assembly (see dedicated section)
 8. Grease keyway on main shaft (13) and fit key (8).
 9. Slide the capstan (7) onto the main shaft (13).
 10. Screw completely the brass bush (5) until all its thread is completely screwed on the main shaft. Two of the M8 screws (1) will be helpful to do this operation.
 11. Fix the stop washer (4) by the M8 screw (3)
 12. Fix the top cover (2) by the n.6 M8 capscrews (1). Take care that all the seal are in the right position and apply grease on all the seal and on the top of shaft.

To install band brake:

Refer to the band brake drawing for identification of components.



1. Open the band brake (1) by turning counterclockwise the handwheel (2).
2. Fit the band brake (1) on the chainwheel.

Note that all the brake assembly can be positioned on either the port or starboard side of the windlass by turning over the band brake.

3. Slip the heel block (3) into the band brake and position the band brake to the desired location.
4. Make sure the band sits on the shoulder at the lower end of the chainwheel and tighten the band brake. Line up both parts of the handle shaft in one vertical plane and make sure the bottom surface of the shaft guide sits firmly on the deck
5. Mark up the position of the shaft guide (4), remove the guide and drill 17 mm clearance hole for the M16 Stud (5).
6. Apply the same bedding/sealing compound as used under the deckplate, replace the shaft guide and retain it from underneath, using the M16 Stud (5), washers (6.7) and nut (8).
7. Mount the heel block (3) by drilling 2 holes to suit M20 x 70 S/S cap screws (9).

WARRANTY CONDITIONS

MZ Electronic S.r.l. guarantees that in a normal use and by meeting the maintenance programmes, the anchor windlass is covered by a warranty for a period of 2 years from the date of purchase by the ultimate user.

MZ Electronic S.r.l. liability will be limited to the repair or replacement of all parts of the product that show material or processing defects.

MZ Electronic S.r.l. will not be liable in any whatsoever manner for failures, or any consequent damage deriving from:

- use of the anchor windlass in an application for which it was not designed or envisaged;
- corrosion, degradation by UV rays and wear;
- non-observance of the maintenance plan;
- wrong or unsuitable installation of the product;
- any modification or alteration of the product;
- conditions of use beyond the specifications and the performances of the product:
- Except for different directives given directly by MZ Electronic S.r.l., any product subject to a warranty request must be returned to MZ Electronic S.r.l., which will analyse the problem.
- The warranty does not cover the accessory costs met for interventions, removal, transport, and installation of the product;
- Maintenance carried out by persons not authorised by MZ Electronic S.r.l. will invalidate this warranty.

PRODUCT IDENTIFICATION

Copy in this box the serial number written on the base of the winch as the most powerful and safe traceability.

MZ Electronic S.r.l. declines any liability for possible inaccuracies due to print errors in this manual and reserves the right to introduce any changes deemed appropriate.

For this reason, MZ Electronic S.r.l. does not guarantee the accuracy of the manual after the date of issue and declines all liability for possible errors and omissions.

PRODUCT COMPLIANT WITH EC REGULATIONS

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