597-977-E
2026-01-06

Reversing electric winch

E40rev, E46rev, E52rev, E60rev & E66rev

Manual for installation and operation

SELDÉN

Contents

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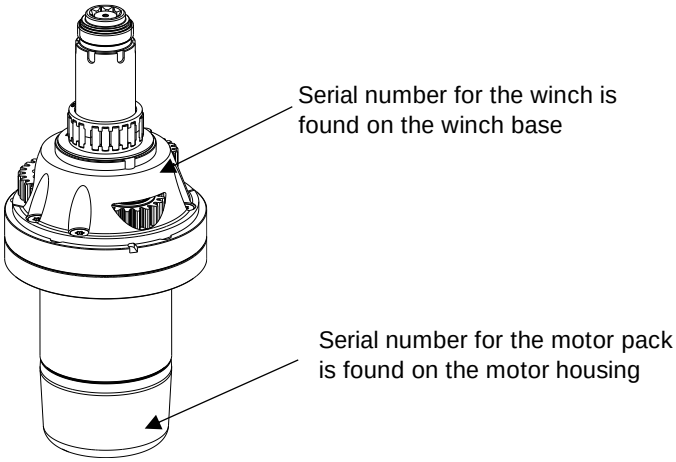
1 Introduction

Congratulations on the purchase of your new reversing electric winch.

This manual covers installation and operating instructions for the Erev-series of reversing electric winch. The winch consists of a reversing compatible winch, and a reversing motor pack.

The Erev-winches are powered by Seldén's SEL-Bus system.



Please read the entire manual before assembly/use and keep the manual available for future reference. The latest version is available at www.seldenmast.com.

Related manuals:
597-275 SEL-Bus system installation manual

Safety Precautions
Carefully pay attention to, and follow, the instructions with the following symbols:

ATTENTION

This symbol indicates a critical moment in the assembly or technical advice.

WARNING

This symbol indicates a potentially hazardous situation. If not avoided, this could result in serious personal injury or damage to property.

Choosing the correct Erev-winch for your boat:

The key to a safe and properly working installation is correct dimensioning in relation to the boat the winch shall be used on. Seldén provides dimensioning guidelines in catalogues, leaflets and on the website. If there are any questions about selecting the right winch, please consult an authorized Seldén dealer. All dealers are listed at www.seldenmast.com and divided into categories describing their competence.

The winch is designed for handling sail and rig control lines. Mooring, towing, hoisting a person or any other type of misuse may lead to winch failure and/or serious or fatal injuries.

Exceeding the stated safe working load may lead to winch failure and/or serious or fatal injuries.

Keep body parts, hair, and clothing away from moving parts while the winch is in use. It is recommended to let only one person work with the winch at any time.

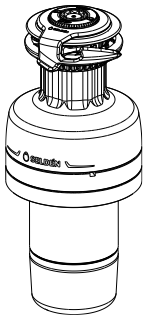
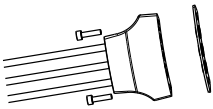
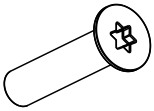
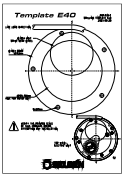
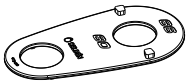
Turn off the power to the SEL-Bus system when the system in not in use, to decrease the risk of unintentional activation.

Control buttons should be placed near the winch or in such a way that the operator has complete control over the winch.

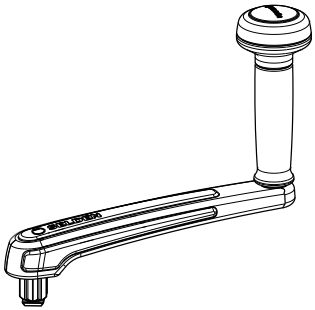
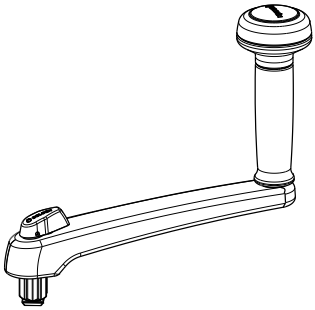
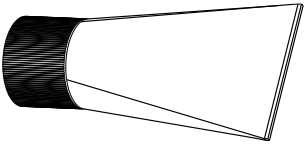
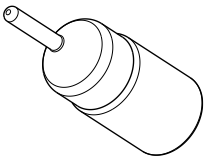
An emergency stop should be installed to turn off the power to the winch.

2 Seldén Series-Erev winches

2.1 Included parts

Description		Item No.	Illustration
Seldén Series-Erev winch			
E40rev	Winch, Aluminum drum Motor Pack	475-140-05 473-430-05	
E46rev	Winch, Aluminum drum Motor Pack	475-146-05 473-530-05	
E52rev	Winch, Aluminum drum Motor Pack	475-152-05 473-530-05	
E60rev	Winch, Aluminum drum Motor Pack	475-160-05 473-630-05	
E66rev	Winch, Aluminum drum Motor Pack	475-166-05 473-630-05	
Motor Cable kit (5m Cable)		471-275-10	
Fasteners (For mounting winch to motor pack)			
E40rev		4x 162-061	
E46rev		5x 162-061	
E52rev			
E60rev		5x 162-047	
E66rev			
Drilling template			
E40rev		597-510	
E46rev		597-511	
E52rev			
E60rev		597-512	
E66rev			
Manual for installation and operation		597-977-E	
Winch tool		473-010	

2.2 Optional parts

Description	Item No.	Illustration
10” Race GRIP winch handle	474-501-10	
8” Race GRIP winch handle	474-401-10	
10” STANDARD winch handle	474-301-10	
8” STANDARD winch handle	474-201-10	
Seldén lubrication grease (90g)	312–501	
Pawl oil (50 ml)	312-709-01	

2.3 Electrical system

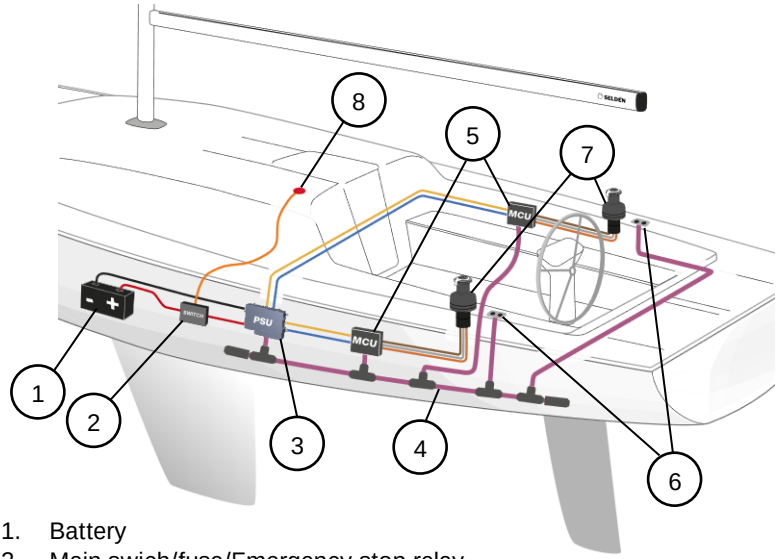
Power supply and SEL-Bus system

The Erev-winches are used together with the Seldén Power supply and SEL-Bus system. The winch is connected to a motor control unit (MCU), which enables communication with the power supply unit and push buttons. The Erev-winch is either connected to an existing SEL-Bus system (only requiring an additional MCU, push buttons and SEL-Bus converter) or to a new installation. An emergency stop should be connected to the power supply.

Parts for the SEL-Bus system are sold separately and can be found in the order guide 597-283.

The SEL-Bus system is described in manual 597-275.

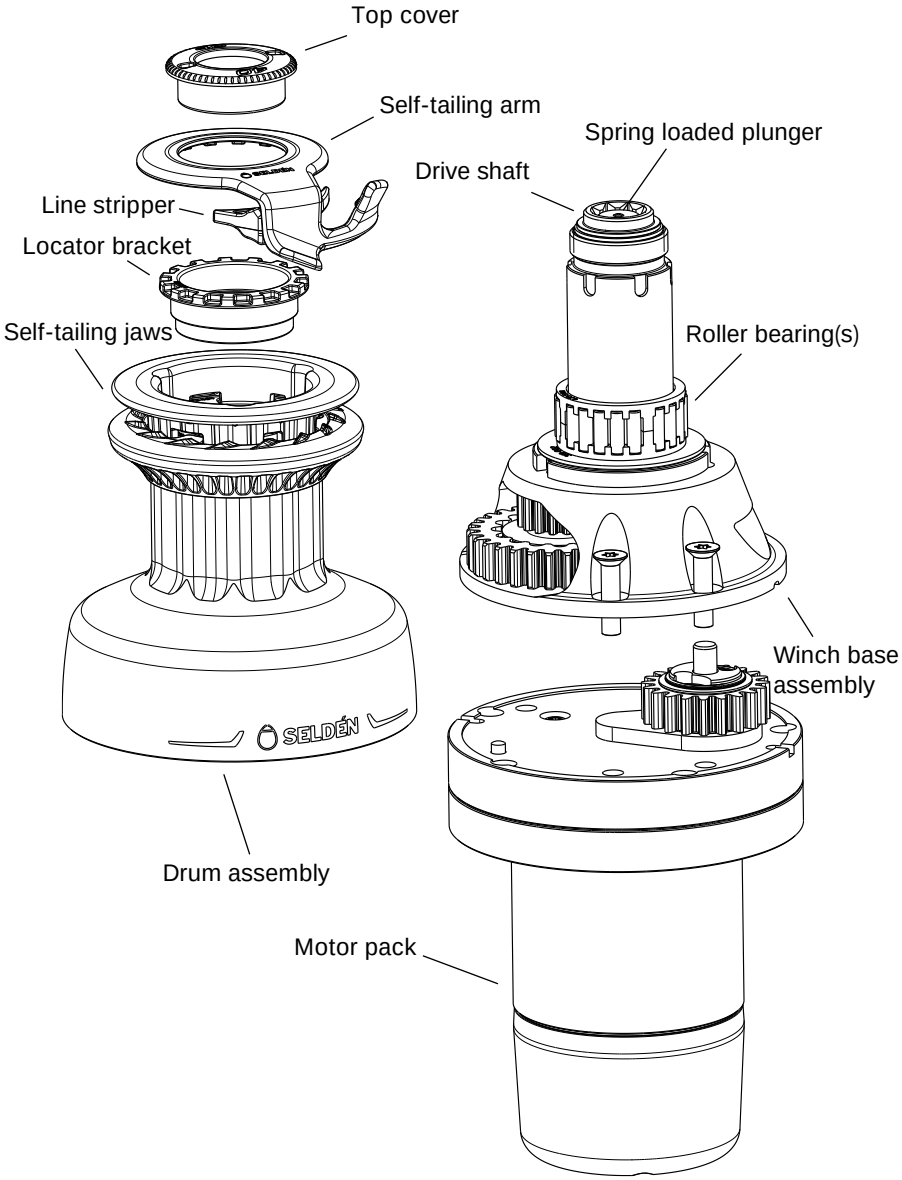
The illustration below shows an example of a typical Erev-winch electrical installation. The complete Power Supply and SEL-Bus system of each installation will vary and can include additional units and functions (e.g. Furlex Electric, CXe and Synchronized Main Furling).



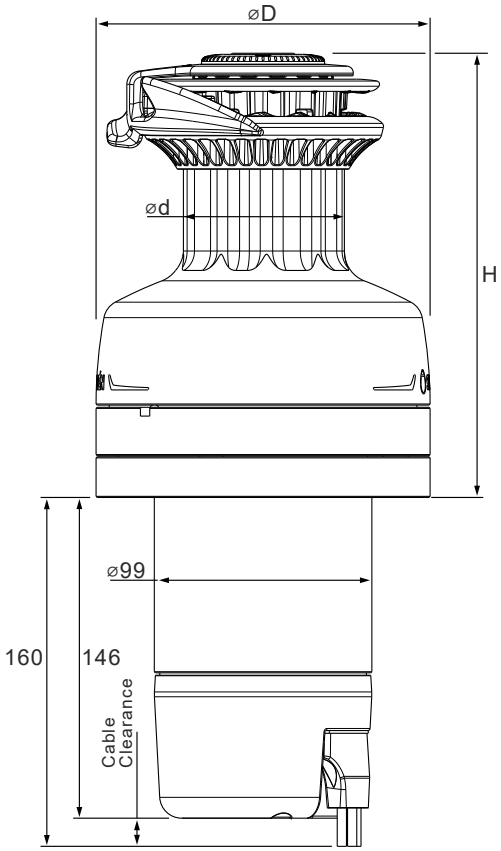
1. Battery
2. Main swich/fuse/Emergency stop relay
3. Power Supply Unit (PSU)
4. SEL-BUS backbone cables and connections
5. Motor Controll Unit (MCU) (2x)
6. Push-button for reversing winch (2x)
7. Reversing electric winch (2x)
8. Emergency stop button

2.4 Technical specification

Main components



Dimensions and technical data



Model	Hight above deck (H) (mm)	Base (ØD) (mm)	Drum (Ød) (mm)	Line size (mm)	Power ratio		Weight (kg)	Max line speed (m/min)	Safe working load (SWL) (kN)	Electric Cut-off load (ECL) (kN)
					High gear	Low gear				
E40rev	202	Ø152	Ø75	8-12	13:1	40:1	9.4	15	11.2	6.7
E46rev	226	Ø184	Ø90	10-14	13:1	46:1	12.7	11	12.9	9.7
E52rev	226	Ø184	Ø90	10-14	15:1	52:1	12.7	11	14.6	9.7
E60rev	279	Ø245	Ø120	10-14	18:1	60:1	22.8	8	16.8	14.7
E66rev	279	Ø245	Ø120	10-14	20:1	66:1	22.8	8	18.5	14.7

For best performance use a line diameter that is in the middle of the allowed size range.

Exceeding the recommended max line dimensions may damage the self-tailier and cause other damage and/or injury.

3 Installation

Installation of a Seldén winch must be carried out by a competent installer who has read and understood this installation manual, the purpose and function of the winch and has checked the loads, winch sizing and mounting requirements prior to installation.

Before installation, verify that installation can be carried out without damaging the interior of the boat. This includes that the full insertion depth of the winch can be obtained and that there is space for the electrical installation (PSU, MCU, cables, etc.).

Seldén Mast AB does not take responsibility for incorrect installation of a winch, insufficient reinforcement of the deck at the location of the winch or water ingress due to insufficient sealing.

3.1 Installation preparations

The winch should be mounted on a flat surface. If not, any uneven surface must be compensated with shims.

Winch position relative to associated components and location regarding deck reinforcement and suitability must be checked. The winch should not be mounted on any part of the deck that is laminated using a soft sandwich construction. Any reinforcement work must be carried out prior to installation.

The installer takes full responsibility to ensure these checks have been undertaken. This may require the assistance of a boat yard or marine engineers.

If the winch is mounted on a surface made from stainless steel, steel, bronze or brass, the winch base must be insulated from the mounting surface to prevent galvanic corrosion.

The electrical installation is described in the SEL-Bus manual 597-275. Make sure to read and understand this before the winch installation.

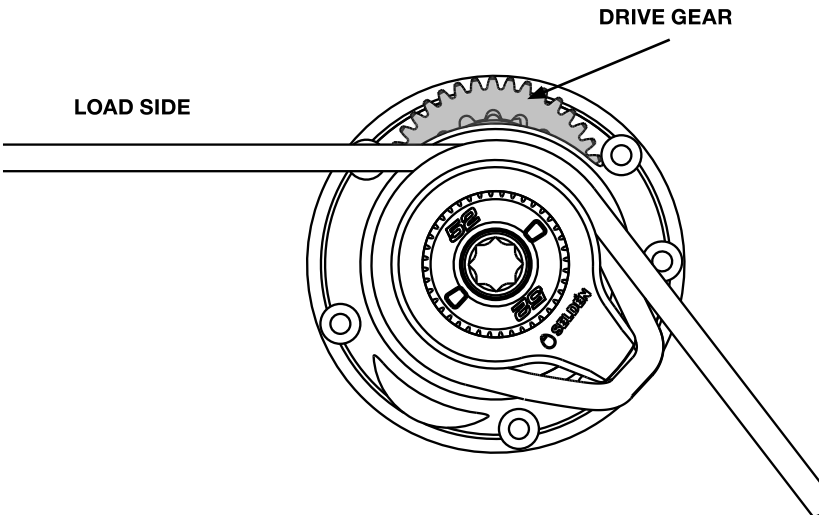
The Erev-winch must be connected to the correct MCU for that specific winch. Failing to do so may lead to damage to the boat and/or equipment and can potentially cause fatal injuries.

3.2 Winch orientation

To allow for the best performance and longevity of the, winch the mounting orientation must be correct with regards to the direction of the line. The correct orientation is shown in the figure below.

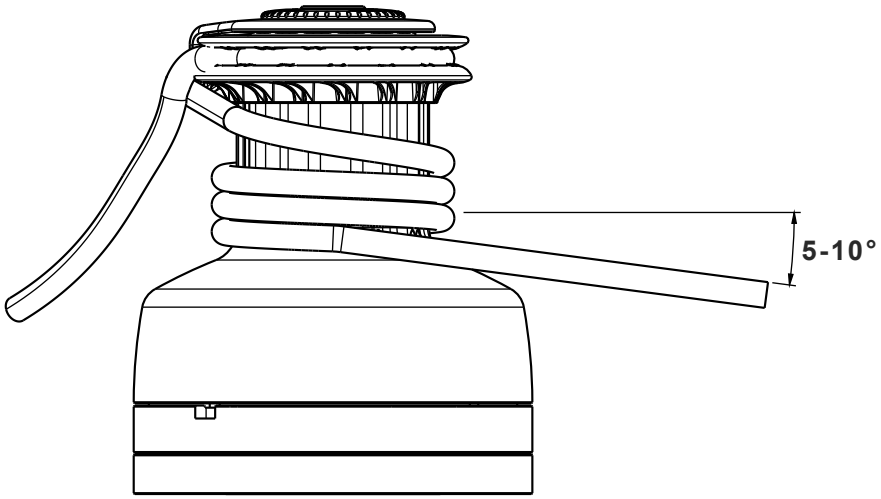
If the winch has multiple uses, such as combined halyard and spinnaker trimming, the winch should be positioned with regards to the highest load.

Both the drilling template and the which can be used to ensure the correct orientation.



3.3 Line entry angle

To minimize the risk of override, the line should enter the winch in accordance with the picture below.



3.4 Fasteners

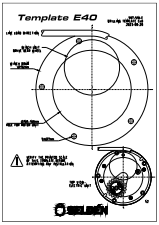
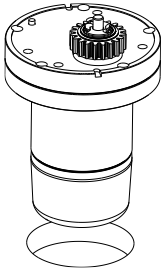
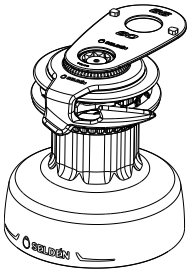
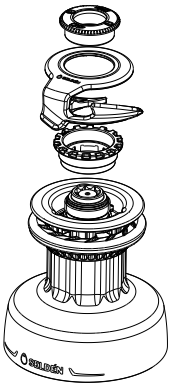
The winch could either be mounted by through deck screws with washers and nuts or, if the boat has purpose made metal plates laminated into the deck structure, be threaded into these.

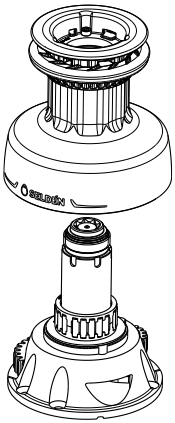
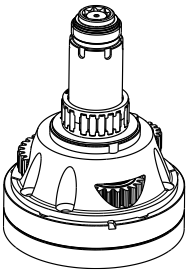
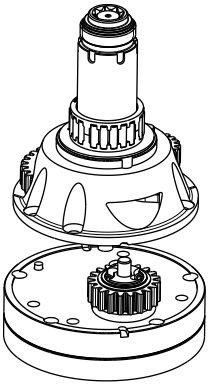
If through deck screws are used, make sure that it's possible to fit washers and nuts below deck.

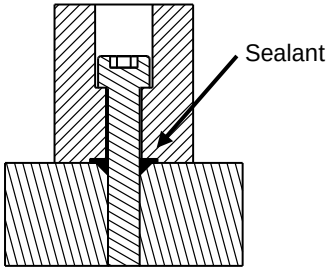
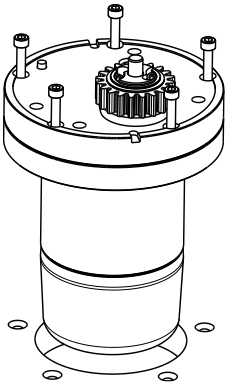
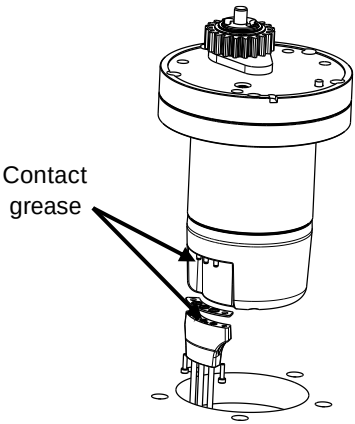
The fasteners for mounting the winch to the deck are not supplied with the winch. The installer is responsible for sourcing fasteners and ensuring they are rated for the expected loads from the winch. Any fastener should be made from marine grade stainless steel.

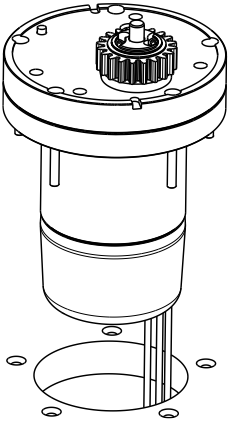
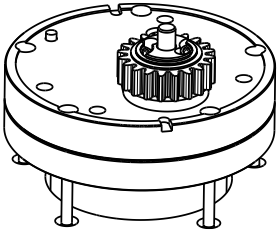
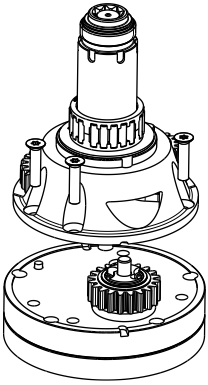
Model	Qty of fasteners	Fastener type	Through deck drill size (mm)	Drill size for M-thread (mm)
E40rev	5 pcs	Socket head, M6	Ø7.0	Ø5.0
E46rev	5 pcs	Socket head, M8	Ø9.0	Ø6.8
E52rev	5 pcs	Socket head, M8	Ø9.0	Ø6.8
E60rev	5 pcs	Socket head, M10	Ø11.0	Ø8,5
E66rev	5 pcs	Socket head, M10	Ø11.0	Ø8,5

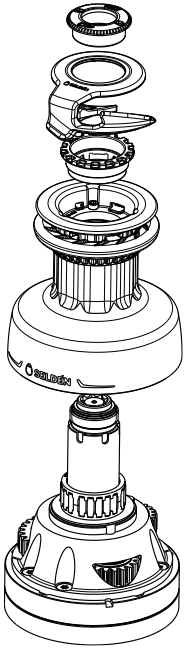
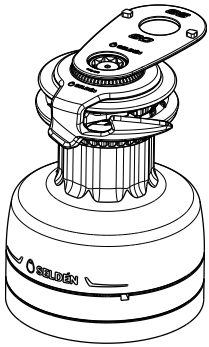
3.5 Mounting the winch

1. Use the supplied drilling template to mark the center of the large hole. Make the large hole, Seldén recommends using a ø 102-105 mm hole saw.	
2. Fit the motor pack in the hole	
3. Unscrew the top cover of the winch using the winch tool that was supplied with the winch.	
4. Remove the top cover, the self-tailing arm and the locator bracket.	

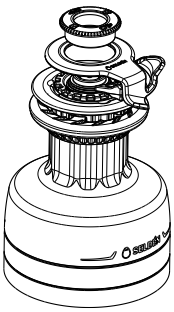
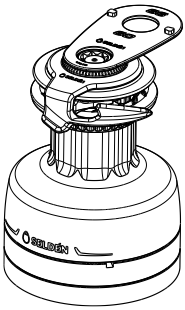
5. Remove the drum. Make sure the roller bearings remain on the winch base.	
6. Place the winch base on top of the motor pack. Make sure the winch is correctly located with regards to the gears haft and small locating pin. Orientate the winch assembly according to section 3.2 *Winch orientation*.	
7. Remove the winch base without changing the orientation of the motor pack.	

8. Mark the fastening holes. Remove the motor pack and drill the holes through deck according to the intended fastening method. See table in section 3.4 *Fasteners*, for drill size recommendations. Countersink the top of the holes. This creates a better seal around the fastener. Thread the holes if this is the chosen fastening method.	
9. Check with the motor pack and fasteners that the holes and/or threads are correctly located.	
10. Feed the cables through the hole. Apply contact grease (included) inside the connector and to the motor pack connector pins. Fit the connector seal and connector to the motor pack using the two screws.	

11. Fit the fasteners to the motor pack. Seal around the fasteners and around the bottom of the motor pack surface that is in contact with the deck. Seldén recommends to not use glue as sealant. A sealing compound that does not solidify, e.g. Butyl compound, will simplify any removal of the motor pack in the future.	
12. Fit the motor pack to the boat. Tighten all fasteners.	
13. Fasten the winch base to the motor pack with the supplied fasteners.	

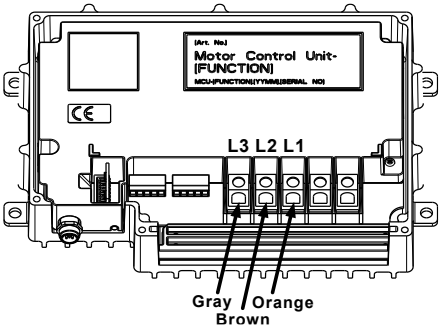
14. Refit the drum, locator bracket and the self-tailing arm.	
15. Adjust the self-tailing arm to have the line exiting the self-tailing jaws in the desired direction. Attach and tighten the top cover using the supplied winch tool.	

3.6 Adjusting the self-tailing arm

1. The self-tailing arm can be adjusted to feed the line into the cockpit. To do this, unscrew the top cover and lift the self-tailing arm. The self-tailing arm can now be rotated to allow the line to feed properly.	
2. Refit the self-tailing arm, make sure it is properly alight with the groves in the locator bracket. Tighten the top cover using the supplied winch tool.	

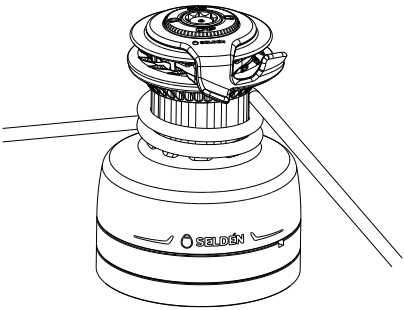
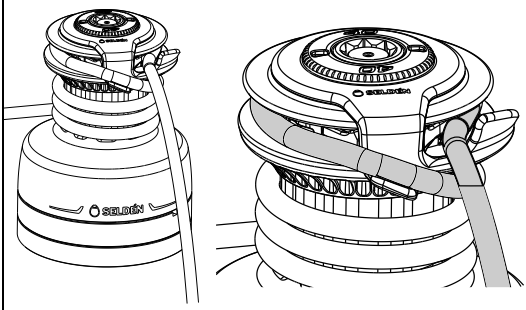
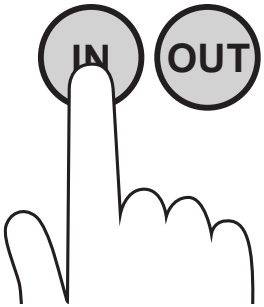
3.7 Electric installation

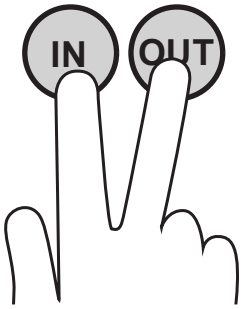
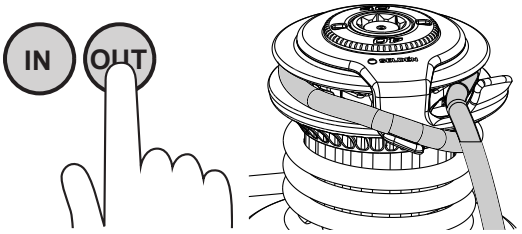
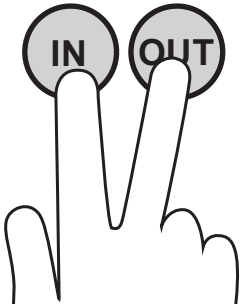
This section shows the connection of the winch to the MCU. For the complete electrical & SEL-Bus installation, see manual 597-275 Power supply and SEL-Bus system.

Connect the three cables from the motor pack to the winch MCU. Make sure the different coloured cables are connected to the correct terminal as shown on the MCU. If needed, the cables can be cut to length before connecting.	

4 Operation

4.1 Electric operation

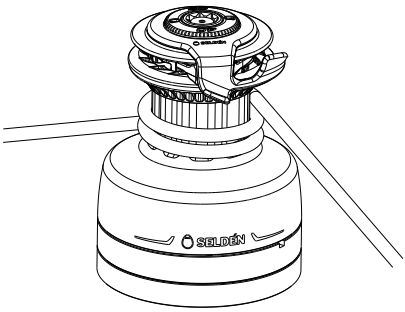
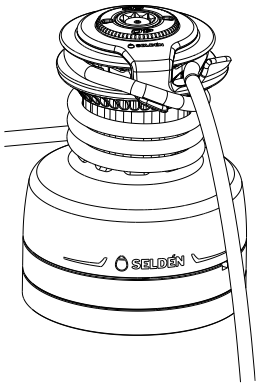
1. Apply 2-3 turns on the winch drum and pull any slack in the line. Fewer or more turns may be required depending on the conditions. More turns on the winch drum increases the risk of override, when pulling the slack.	
2. Add more turns if required. Feed the line over the self-tailing arm through the self-tailing jaws and in to the “hook” on the self-tailing arm.	
3a. Press button “IN” to winch the rope in with the low-speed setting.	

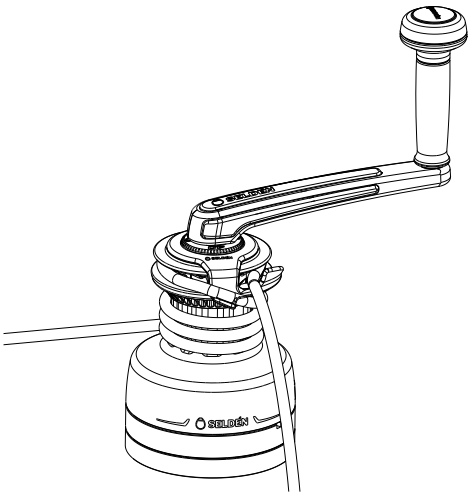
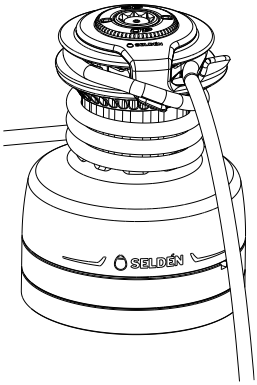
3b. While holding down the “IN” button, press the “OUT” button to winch the rope in with the high-speed setting.	
4a. Press button “OUT” to reverse the rope out with the low-speed setting. Make sure thet the rope is properly fittet in the self-tailer when revesing the winch	
4b. While holding down the “OUT” button, press the “IN” button to reverse the rope out with the high-speed setting.	

4.2 Manual operation

The reversing winch may be operated manually at any time. The manually operated winch will perform with full 2-speed manual function equivalent to the corresponding S-winch. The winch will not reverse when a winch handle is fitted in the winch.

A locking winch handle is required for manual operation of the reversing winch.

1. Apply 2-3 turns on the winch drum and pull any slack in the line. Fewer or more turns may be required depending on the conditions. More turns on the winch drum increases the risk of override, when pulling the slack.	
2. Add more turns if required and then feed the line over the self-tailing arm and lock it in the self-tailing jaws. Pull any remaining slack in the line.	

3. Fit the locking winch handle into the winch. Rotate the winch handle slowly to allow the manual gearing to engage. Check that the winch handle has locked before realising it. If not locked the handle will be ejected from the winch by the spring loaded plunger. Rotating the winch handle anticlockwise will engage the high speed. If more power is needed, rotating the winch handle clockwise will engage the low speed.	
4. To switch back to electric mode remove the winch handle from the winch. If the winch is under load it is required to run the winch in under electric power (press the “IN” button) before the winch can reverse.	

5 Trouble shooting

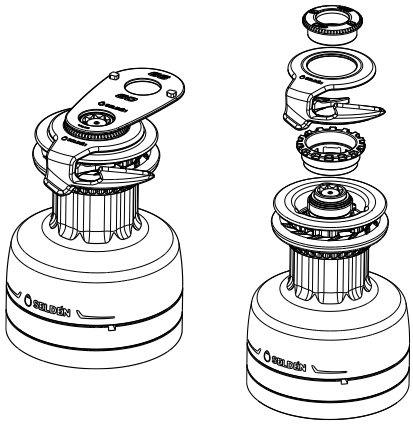
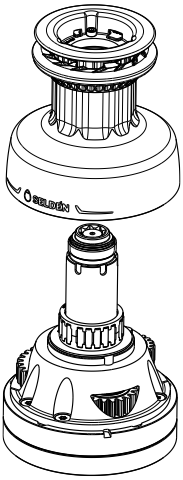
Problem	Problem cause	Action
Loss of self-tailing function.	1. Line not properly seated in self-tailing jaws.	1. Check line seating in self-tailing jaws.
	2. Too few turns on winch drum.	1. Add turns until self-tailing function is resumed.
	3. Incorrect line size. See table in section 2.4.	1. Change to correct line size.
The winch is not ratcheting.	1. Faulty reassembly of rachet gears.	1. Flip ratchet gears to match pawl engagement.
	2. The winch needs maintenance.	1. Perform maintenance.
Winch is not reversing.	1. Winch handle is installed.	1. Remove the winch handle.
	2. Drive shaft gear is engaged, the spring loaded plunger is at the bottom of the drive shaft socket.	1. Run the winch in using electric power (press the “IN” button) for a short time.
		2. Perform maintenance.
Winch is not engaging when operated via pushbuttons.	Power is not switched on.	1. Swich on power.
	Faulty electric installation.	1. Check cable connections.
		2. Re-configure buttons in accordance with the SEL-Bus manual.
		3. Check for error- or fault code on the SEL-Bus devices. For further help in diagnosing and trouble-shooting the issue, please refer to SEL-Bus manual.

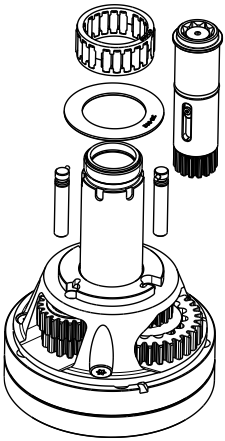
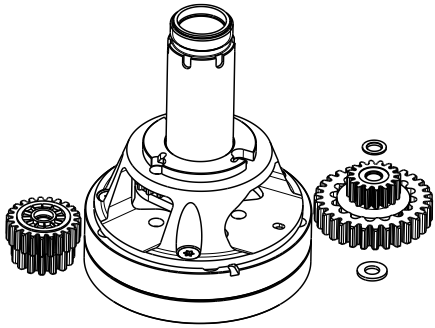
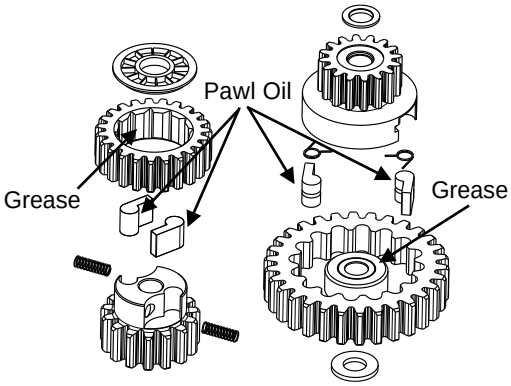
6 Service and maintenance

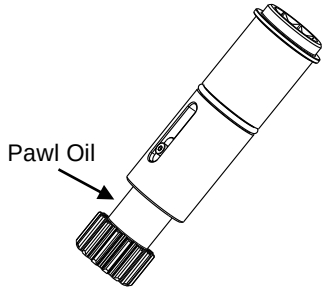
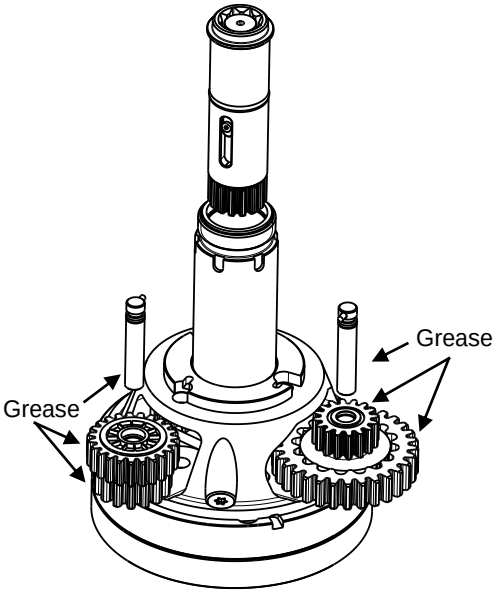
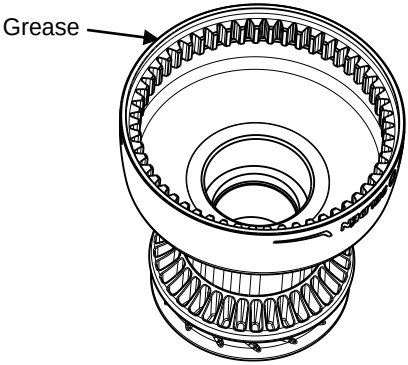
To maintain top performance and assure longevity for all parts of your winch, it is recommended to frequently rinse the winch with freshwater.

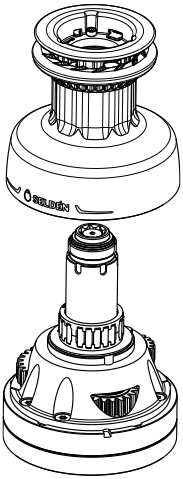
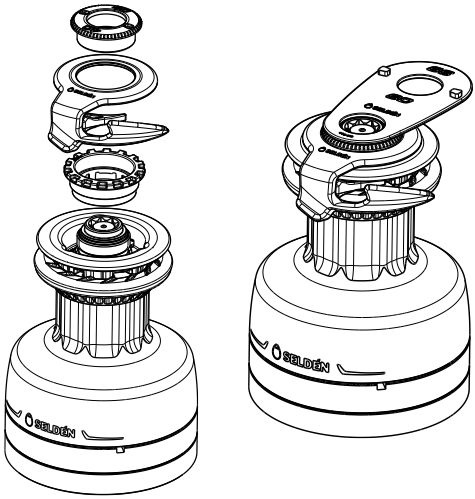
6.1 Yearly winch maintenance

The maintenance described below should be performed at least once every year. For heavily used winches (racing boats, charter boat, etc.) more frequent maintenance than once a year is recommended.

1. Unscrew the top cover using the winch tool supplied with the winch. Remove top cover, self-tailing arm and locator bracket.	
2. Remove the drum assembly. Make sure the roller bearings remain on the winch base.	

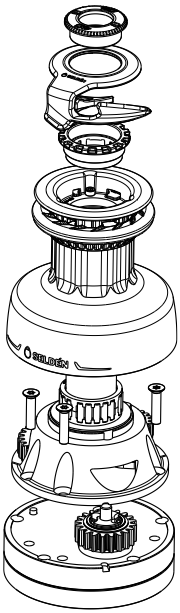
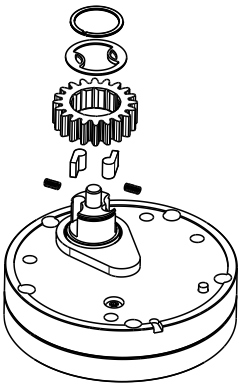
3. Remove the roller bearing(s), drum washer and the drive shaft. The drive shaft has a friction lock which means that some force may be needed to pull it out. Use a winch handle if necessary. Remove the two gear shafts by inserting a small flatheaded screwdriver into the slot on the shaft and lift.	
4. Remove the two gear assemblies. Pay attention to the washers.	
5. Disassemble the gears and clean all parts thoroughly using white spirits. Inspect pawls and springs and replace if worn or damaged. When clean, apply pawl oil on the pawls and apply grease on the inside of the small ratchet gear and on the raised surface inside of the large ratchet gear. Re-assemble the gears. Do not grease the pawls.	

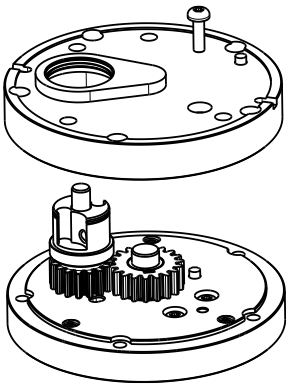
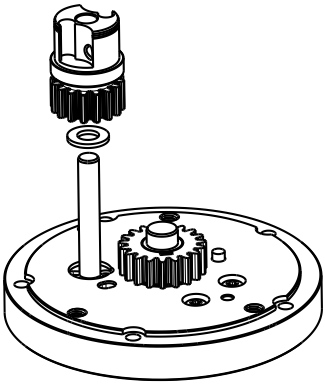
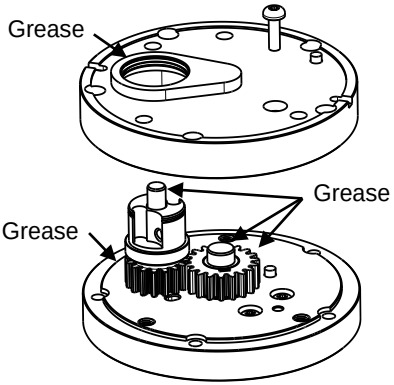
6. Clean the drive shaft using white spirit. Apply pawl oil to the sliding surfaces of the drive shaft.	
7. Grease the small shafts. Refit the gears and shafts in the winch base. Refit the drive shaft in the winch. Apply grease to all the gears in the winch, rotate the gears so that all gear teeth are covered.	
8. Clean the gear on the inside of the drum using white spirit. Apply grease to the drum gear.	

9. Refit the drum washer, roller bearings and drum. Do not grease the roller bearing(s)!	
10. Fit the locator bracket and the self-tailing arm. Attach and tighten the top cover using the supplied winch tool.	

6.2 Yearly motor pack maintenance

The maintenance described below should be performed at least once every year. For heavily used winches (racing boats, charter boat, etc.) more frequent maintenance than once a year is recommended.

1. Disassemble the winch according to section 6.1, steps 1-2. Remove the winch from the electric motor pack by removing the screws holding the winch base.	
2. Remove the retaining ring, washer, and gear, followed by pawls and springs.	

3. Remove the fastener holding the top plate. Remove the top plate carefully. A soft prying tool can be used to assist the removal.	
4. Remove ratchet hub (and washer on the E40rev). Clean all parts. Do not use any degreaser on the parts that are still attached to the base plate as this may cause damage to internal parts.	
5. Grease the shaft. Refit the ratchet hub and grease the gears generously. Grease the output shaft and the seal in the top plate Refit the top plate. Make sure that the top plate sits correctly and tighten the locking screw.	

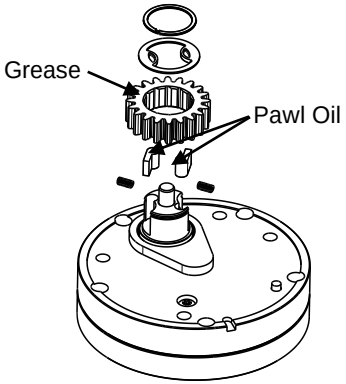
6.

Apply a thin layer of grease to the inside of the ratchet gear. Apply pawl oil on the pawls and refit the pawls, springs, gear, washer and retaining ring.

Apply grease to the gear teeth.

Do not grease the pawls.

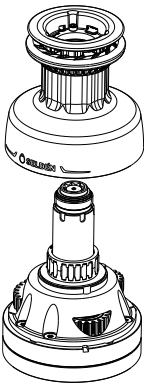
If the locking ring was deformed at disassembly, it must be replaced.



7.

Refit the winch base, tighten the screws.

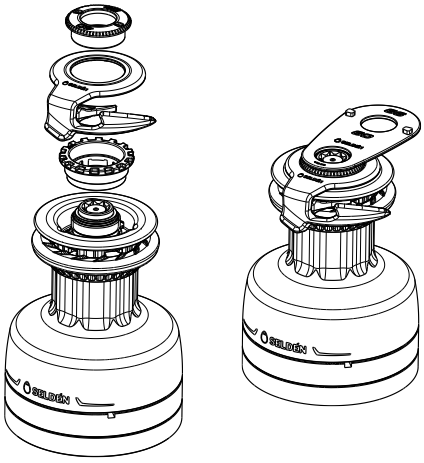
Refit the drum.



8.

Fit the locator bracket and the self-tailing arm.

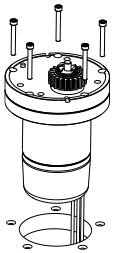
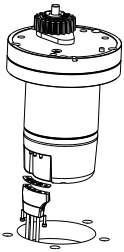
Attach and tighten the top cover using the supplied winch tool.



6.3 Motor pack, Extended maintenance

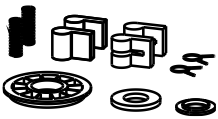
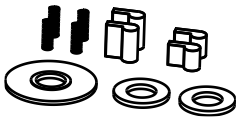
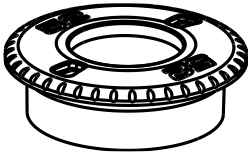
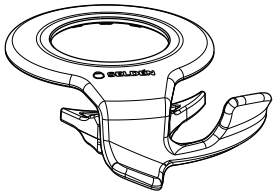
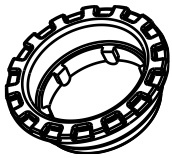
Seldén recommends that extended maintenance is performed every five years. The extended maintenance should only be carried out by a knowledgeable technician and is explained in the manual 597-981 *Reversing winch extended maintenance*.

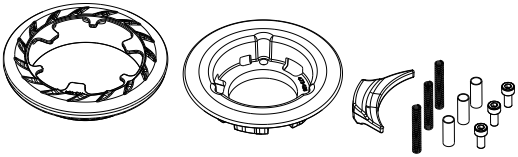
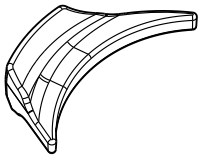
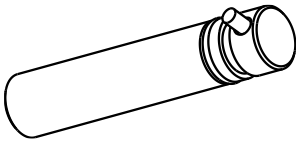
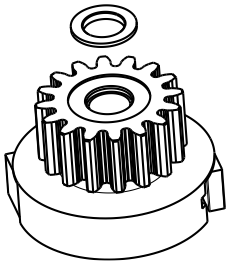
Remove and refit the motor pack

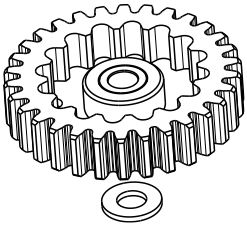
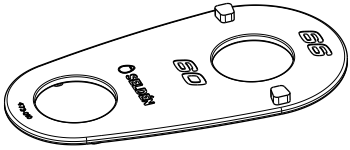
1. Disassemble the winch according to section 6.1, steps 1-2. Remove the winch from the motor pack by removing the screws holding the winch base.	
2. Remove the electric power pack from the boat.	
3. Make sure all power to the SEL-Bus system has been disabled. Remove the two connector screws and disconnect the cables from the motor pack.	
4. When the extended maintenance is done, the winch can be reinstalled. See section 3.5 *Mounting the winch,* steps 10-15.	

7 Spare parts

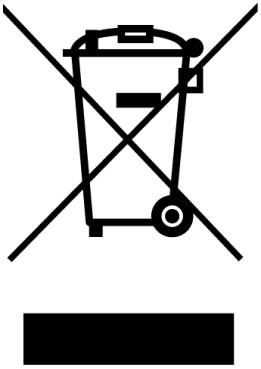
The following parts can be purchased as spare parts for your Seldén winch:

Description	Art. No.	Illustration
Fastener kit (For fitting winch to motor pack)		
E40	162-061-10R	4x M8x35
E46/52rev	162-061-11R	5x M8x35
E60/66rev	162-047-10R	5x M10x40
Pawl and washer kit (for motor pack)		
E40rev	583-193-10R	
E46/52rev	583-193-11R	
E60/66rev	583-193-12R	
Gear Service kit		 470-029-11R, -12R
S30/40	470-029-11R	
S46/52	470-029-12R	
S60/66	472-005-11R	 470-005-11R
Top Cover		
S30	473-314-01R	
S40	473-414-01R	
S46	473-524-01R	
S52	473-514-01R	
S60	473-624-01R	
S66	473-614-01R	
Self-Tailing Arm		
E40rev	473-495R	
E46/52rev	473-595R	
E60/66rev	473-695R	
Locator Bracket		
S30/40	473-412R	
S46/52	473-512R	
S60/66	473-612R	

Description	Art. No.	Illustration
Bearing kit		 470-005-11R  470-005-11R  470-005-11R
S30/40	473-548-10R	
S46/52	473-547-10R	
S60/66	473-549-10R	
Self-Tailing Jaw kit		
E40rev	473-494-10R	
E46/52rev	473-594-10R	
E60/66rev	473-694-10R	
Line stripper		
E40rev	473-496R	
E46/52rev	473-596R	
E60/66rev	473-696R	
Gear Shaft		
S30	473-315-01R	
S40	473-415-01R	
S46/52	473-516-01R	
S60/66	473-615-01R	
2-Speed Gear		
S30	473-321-10R	
S40	473-421-10R	
S46	473-522-10R	
S52	473-521-10R	
S60	473-622-10R	
S66	473-621-10R	

Description	Art. No.	Illustration
Drive Gear		
S30	320-089-10R	
S40	320-075-10R	
S46/52	320-076-10R	
S60/66	320-077-10R	
Winch Tool		
S30/40	473-010R	
S46/52		
S60/66		

8 Disposal



For proper treatment, recovery and recycling, please take this product(s) to designated collection points where it will be accepted free of charge. Alternatively, in some countries, you may be able to return your products to your local retailer upon purchase of an equivalent new product.

Disposing of this product correctly will help save valuable resources and prevent any potential negative effects on human health and the environment, which could otherwise arise from inappropriate waste handling.

Please contact your local authority for further details of your nearest designated collection point.

9 Warranty

Seldén Mast AB guarantees the Seldén Series-Erev winch for 2 years. The guarantee covers faults arising from defective design, materials, or workmanship.

The guarantee is only valid if the product is assembled, operated, and maintained in accordance with this manual and is not subjected to loads more than those specified in brochures, manuals and on the Seldén website.

Complete shipment and warranty conditions are to be found on Seldéns website www.seldenmast.com. See Resources/Partners information/General information/General conditions of sale (595-546-E).

If the winch is repaired or modified by anyone other than Seldén Mast AB or one of our authorized dealers, the guarantee ceases to be valid.

Seldén Mast AB reserves the right to alter the content and design without prior warning

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Dealer:

The Seldén Group is the world's leading manufacturer of masts and rigging systems in carbon and aluminium for dinghies, keelboats and yachts.

The Group consists of Seldén Mast AB in Sweden, Seldén Mast A/S in Denmark, Seldén Mast Ltd in the UK, Seldén Mid Europe B.V. in the Netherlands, Seldén Mast Inc in the USA and Seldén Mast in France.

Our well known brands are Seldén and Furlex. The worldwide success of Furlex has enabled us to build a network of over 750 authorised dealers covering the world's marine markets. So wherever you sail, you can be sure of fast access to our service, spare parts and know-how.

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