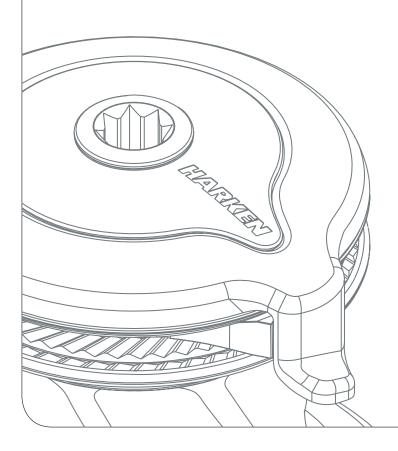
# **Installation and Maintenance Manual**

MRRW-03

# Radial® Electric Winch 46 Rewind™





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#### Introduction

This manual gives technical information on winch installation and maintenance, including disassembling and reassembling.

This information is DESTINED EXCLUSIVELY for specialised personnel or expert users. Installation, disassembling and reassembling of the winch by personnel who are not experts may cause serious damage to users and those in the vicinity of the winch.

Harken® accepts no responsibility for defective installation or reassembly of its winches. In case of doubt the Harken® Tech Service is at your disposal at techservice@harken.it This Manual is available only in English. If you do not fully understand the English language, do not carry out the operations described in this Manual.

#### **Technical characteristics**

	Power ratio	Gear ratio
1st speed	11,70 : 1	2,30 : 1
2nd speed	46,50 : 1	9,17 : 1

The theoretical power ratio does not take friction into account.

#### Performance data

#### 46 Rewind ™ Winch

	horizont	al motor	horizont	al motor
	12 V (7	700 W)	24 V (7	700 W)
	1st speed 2nd speed		1st speed	2nd speed
line speed (m/min)**	25,5	6,5	25,5	6,5
max load (Kg)	315	1300	315	1300

<sup>\*\*</sup>Line speed is measured with no load

		motor nomin	nal power (W)	current absor	
		12 V	24 V	12 V	24 V
46 Rewind™ Winch	horizontal	700	700	205	100

#### Weight

	ST A	ST C/CW	ST BBB/CCC
weight (Kg)	16	19	19,7

Versions:

A = drum in anodised aluminium

C = drum in chrome bronze

CW = chrome/white

BBB = all bronze

CCC = All-Chrome bronze

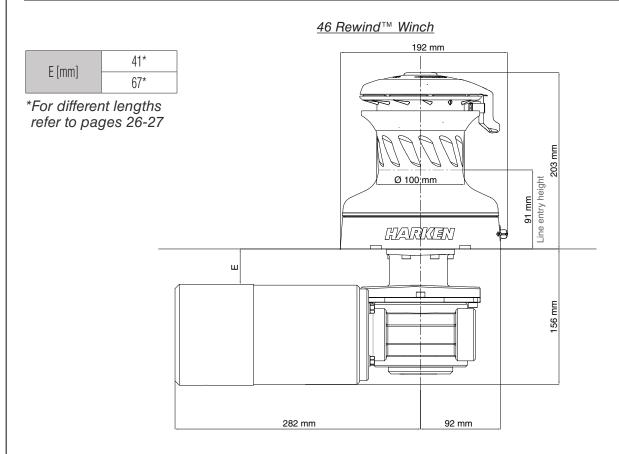
#### Maximum working load



#### WARNING!

The maximum working load (MWL) for the 46 Rewind™ Winch is 1300 Kg (2866 lb). Subjecting the winch to loads above the maximum working load can cause the winch to fail or pull off the deck suddenly and unexpectedly during high loads causing severe injury or death.

#### **Outline**



#### Installation

The winch must be installed on a flat area of the deck, reinforced if necessary to bear a load equal to at least twice the maximum working load of the winch.

It is the installer's responsibility to carry out all structural tests needed to ensure that the deck can bear the load.

Harken® does not supply the screws needed to install the winch since these may vary depending on the deck on which it is to be installed.

It is the installer's responsibility to choose the correct screws taking account of the loads they will have to bear.

Harken assumes no responsibility for incorrect installation of its winches or for an incorrect choice of mounting screws.



#### DANGER!

Incorrect installation of the winch may cause severe injury or death. Consult the yard that built the boat in the case of doubt over the correct positioning of the winch.



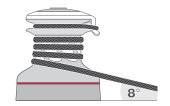
#### WARNING!

Failure to use the correct number and type of mounting fasteners or failure to ensure the correct deck strength can result in the winch pulling off the deck suddenly and unexpectedly during high loads causing severe injury or death.



#### WARNING!

Verify the entry angle of the sheet. This must be  $8^{\circ}$  with tolerance of  $\pm 2^{\circ}$ , to avoid sheet overrides and damaging the winch or making the winch inoperable leading to loss of control of the boat which can lead to severe injury or death.





#### WARNING!

Mount the winch on the deck so that the final drive gear is positioned where the sheet enters the winch drum. Incorrect position of drive gear can weaken winch leading to failure which can cause an accident leading to severe injury or death.



#### NOTICE

For winch STA, STC and STCW versions only you can find the icon ▲ on the skirt to identify the drive gear position.

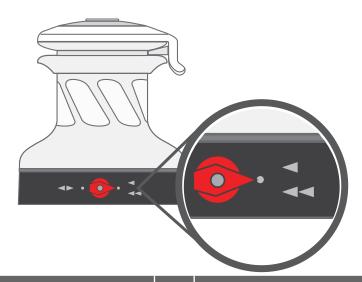


After correctly positioning the final drive gear with respect to the load, check that the motor, gearing, electrical wiring and/or hydraulic pipes can be housed below decks. To help find the optimal compromise, remember that, to make the installation of the motor easier, it can be coupled to the winch in different positions.

Once you have decided the correct mounting position for the winch on the deck and checked the space available below deck, proceed with the installation.

The winch can be installed following one of the two procedures below (Procedure1 or Procedure 2).

Before starting the Installation procedure, set the knob in the following position:



#### Procedure 1

To install the winch you must remove the drum and use bolts as described ahead.

#### Tools needed



One medium flat-bladed screwdriver

A number 6 hex key

A number 3 hex key

To identify the various parts, refer to the exploded view at the end of this Manual.

Torque to apply when assembling

Install the winch on the deck in the position you have chosen, keeping in mind the limits described on page 4 and using socket head (SH) bolts. (See paragraph on installation)



1. Pull out the disconnect rod n°28



2. Unscrew the central screw (%2Nm/18 in-lb)



3. Slide off the assy socket n°37 and the cover n°38. Pay attention to the o-ring in the socket.



4. Unscrew the three screws n°19 (3,4Nm/35 in-lb)



5. Remove the stripper arm n°40 by rotating and lifting it.



6. Lift off the drum n°33

#### Winch STA, STC and STCW versions:

Install the winch on the deck in the position you have chosen, keeping in mind the limits described on page 4 and using socket head (SH) bolts.

#### Winch STBBB and STCCC versions:

Install the winch on the deck in the position you have chosen, keeping in mind the limits described on page 4 and using socket head (SH) bolts or hexagonal headed bolts (HH).

#### Procedure 2

To install, you must remove the winch skirt and use hexagonal headed (HH) bolts.

#### Tools needed



A number 3 hex key
One medium flat-bladed screwdriver

To identify the various parts, refer to the exploded view at the end of this Manual.



1. Unscrew the screw n°36 and slide off the knob (0,5 Nm/ 4,42 in-lb)



2. Remove the skirt n°2 with the help of the screwdriver placed as shown by the symbol



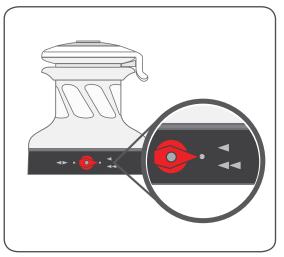
3. Position the 5 M8 hexagonal headed bolts in their holes



4. Reposition the skirt n°2 in its housing



5. Press down the skirt to position it correctly



6. Reposition the knob in the Rewind position (see figure)

#### **NOTICE**

Make sure the skirt is correctly clipped on to the base of the winch.

Install the winch on the deck in the position you have chosen, keeping in mind the limits described on page 4 and using hexagonal headed bolts.

(See paragraph on winch installation)

#### Winch installation procedure

Carry out **Procedure 1** or **Procedure 2**, then install the winch on the deck in the chosen position.

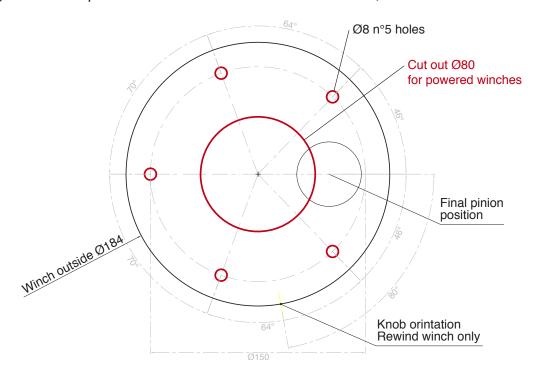
#### **NOTICE**

Before drilling the deck, check the space available below deck for the flange and the motor

**A.** Position the base of the winch on the deck and mark the position of the holes or use the drilling cut-out template at the point where you have decided to place the winch.

Below is a reduced scale diagram.

The drilling cut out template is available on the Harken® website, www.harken.com



- **B.** Remove the winch and drill the five 8.5 mm diameter holes.
- **C.** Bolt the base of the winch to the deck using five M8 bolts (not supplied by Harken®) as described at Procedure 1 or Procedure 2, correctly chosen for the thickness and type of the boat deck. Consult the yard that built the boat in case of doubt.



#### **WARNING!**

To install the winch on the deck, use only bolts in A4 stainless steel (DIN 267 part11). Bolts made of other materials may not have sufficient strength or may corrode which can result in winch pulling off deck suddenly and unexpectedly during high loads causing severe injury or death.

#### **NOTICE**

To mount winches on the deck, do not use countersunk bolts.

- **D.** Fill the mounting holes with a suitable marine sealant.
- E. Remove the excess adhesive/sealant from the holes and base drainage channels
- **F.** Reassemble the winch following the steps in **Procedure 1** or **Procedure 2** in the reverse order, and apply the products indicated in the section on maintenance.

#### Positioning the self-tailing arm

Position the self-tailing arm so that the line leaving the winch is led into the cockpit.

### Motor installation procedure

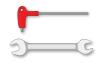


#### WARNING!

Make sure that the power is switched off before installing or carrying out maintenance on the winch.

Once you have installed the winch on the deck, proceed with motor installation. The motor can be coupled to the winch in different positions. Check the space available below deck and choose the suitable position.

#### Tools needed



A number five hex key
Two number thirteen wrenches



1. Position the flange (see Page 12)



2. Tighten six M6 precote coated screws (~8 Nm/ 71 in-lb)



3. Position the reduction gear and motor



4. Tighten the two screws ( $\N$ 8 Nm/ 71in-lb). Be sure to align the flange.

#### **NOTICE**

Before positioning the flange, check to make sure that seal is seated correctly.



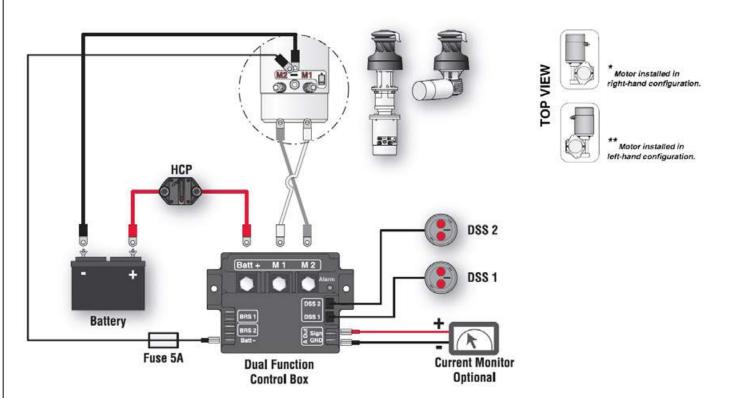
After winch is assembled and before sailing, test the powered winch functioning.

#### Electric wiring diagrams

To guarantee greater efficiency in terms of safety and long life, for every winch model is mandatory to install the Dual Function Control Box.

For more information, refer to the Dual Function Control Box manual.

Refer to the following diagrams for the electric wiring:





#### **WARNING!**

Read the Dual Function Control Box manual carefully before installing and using the device.

#### NOTICE

For other installations, refer to the Dual Function Control Box manual.

Fasten the Dual Function Control Box containing solenoids to bulkhead or wall: refer to the Dual Function Control Box manual. Install remote circuit breaker between power supply and Dual Function Control Box. Locate push-buttons on deck in a convenient spot for easy winch operation: refer to the Digital System Switch manual.

Refer to the following chart for wire size:

Total distance between winch and battery

Winch	Current voltage	Under 16.4 ft AWG	Under 5 m mm²	16.4 - 32.8 ft AWG	5 m - 10 m mm²	32.8 - 49.2 ft AWG	10 m - 15 m mm²	49.2 - 65.6 ft AGW	15 m - 20 m mm²
46 Rewind™	12 V	2	32	0	50	00	70	000	95
46 Rewind™	24 V	5	16	3	25	2	35	0	50

#### **NOTICE**

To connect motor, attach cable terminals to clamps between nut and lock nut. Hold nut in contact with motor using a spanner and tighten other nut with second spanner. Take special care not to turn the central spindles. Be careful not to turn central spindles. These instructions apply when assembling and disassembling. We recommend using a torque wrench so as to obtain a torque equal to and no greater than 10 Nm (88 in-lb).



#### NOTICE

Note that correct electrical contact sequence is: Nut – Cable Terminal – Self-Locking Washer – Lock Nut



HARKEN°

#### **Maintenance**

**Maintenance** 

#### Washing

Winches must be washed frequently with fresh water, and in any case after each use.

Do not allow teak cleaning products or other cleaners containing caustic solutions to come into contact with winches and especially anodised, chrome plated or plastic parts. Do not use solvents, polishes or abrasive pastes on the logos or stickers on the winches. Make sure that the holes and drainage channels in the base of the winch are not obstructed so that water does not collect.

#### Maintenance table

Winches must be visually inspected at the beginning and end of every season of sailing or racing. In addition they must be completely overhauled, cleaned and lubricated at least every 12 months. After an inspection, replace worn or damaged components. Do not replace or modify any part of the winch with a part that is not original.



#### WARNING!

Periodic maintenance must be carried out regularly. Lack of adequate maintenance shortens the life of the winch, can cause serious injury and also invalidate the winch warranty. Installation and maintenance of winches must be carried out exclusively by specialized personnel.

In the case of doubt contact Harken® Tech Service at techservice@harken.it

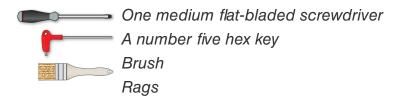


#### WARNING!

Make sure that the power is switched off before installing or carrying out maintenance on the winch.

#### Winch disassembly procedure

Tools needed



To identify the various parts refer to the exploded view at the end of this Manual.

Torque to be applied in assembly phase

Carry out **Procedure 1** as shown in the paragraph on winch installation and then do the following:



7. Unscrew the 5 hex screws n°12 (~20Nm/177 in-lb)



8. Remove the assy housing n°11



9. Slide out the gear  $n^{\circ}10$ 



10. Remove gear n°27.
Pay attention to the springs.



11. Unscrew the screw n°30 and slide out the main shaft n°21



12. Slide out the command group and pay attention to the two balls n°23







14. Remove the gear n°20

If it is necessary to replace any **jaws** of the winch, proceed as follows:



I. Unscrew the 4 screws n°18 (~4Nm/35 in-lb)



II. Remove the jaws n°39

Once the winch is completely disassembled, clean the parts: use a basin of diesel oil to soak metal components and rinse plastic parts in fresh water. Once you have done this, dry the parts with cloths that do not leave residue.

Inspect gears, bearings, pins and pawls for any signs of wear or corrosion.

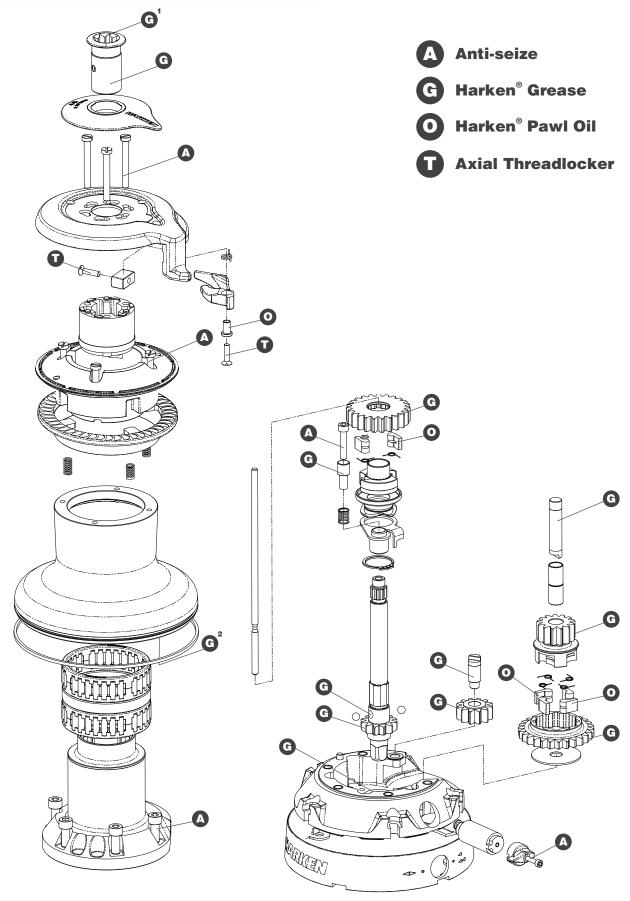
Carefully check the teeth of gears and ring gears to make sure there are no traces of wear.

Check the roller bearings and check there are no breaks in the bearing cages. Replace worn or damaged components.

Carry out maintenance on components using the products listed below. For more information on which products to use where, refer to the exploded diagram below.

Use a brush to lightly lubricate all gears, gear pins, teeth and all moving parts with grease. Lightly lubricate the pawls and springs with oil. Do not use grease on the pawls!

# Winch exploded view with maintenance products

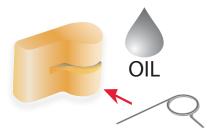


<sup>&</sup>lt;sup>1</sup>Apply Harken grease on assy socket screw <sup>2</sup>Apply Harken grease on drum gear

#### Winch assembly

Make sure that the holes and drainage channels in the base of the winch are not obstructed Assemble the winch in the reverse order of the sequence in the section on disassembly.

To tighten bolts, use the torque indicated in the disassembly procedure.

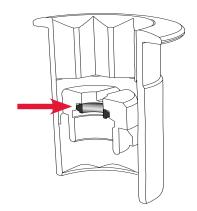


#### To assemble the pawls:

correctly position the spring in its housing as shown at left. Hold the spring closed and slide the pawl into its housing. Once in position, check that the pawls can be easily opened and closed with a finger.

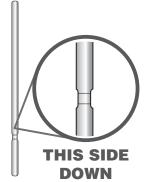
**NOTICE!** Before closing the winch, make sure the holes and drainage channels in the base of the winch are not obstructed.

**NOTICE!** Before screw the central screw, check the correct position of the o-ring in the assy socket and apply Harken® grease.



**NOTICE!** Insert the disconnect rod in the winch, with the groove in the lower part of the rod.





In case of doubt concerning the assembly procedure contact Harken® Tech Service: techservice@harken.it

# Harken<sup>®</sup> limited worldwide warranty

Refer to the Harken® Limited Worldwide Warranty in the Harken® Catalogue and on the website www.harken.com

#### Ordering spare parts

Spare parts can be requested from Harken® as described in the Harken® Limited Worldwide Warranty, indicating the part number in the Parts List and including the serial number of the winch for which the parts are required.

The serial number of the winch is printed on a plate on the drum support of the winch.



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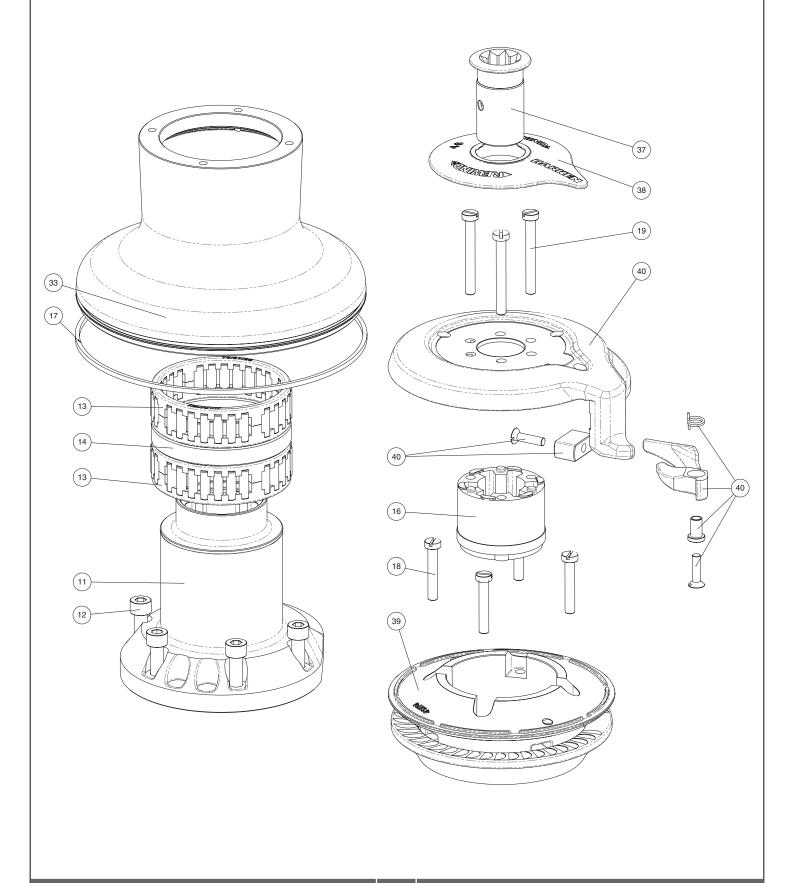
Customer Service

Tel: (262) 691-3320

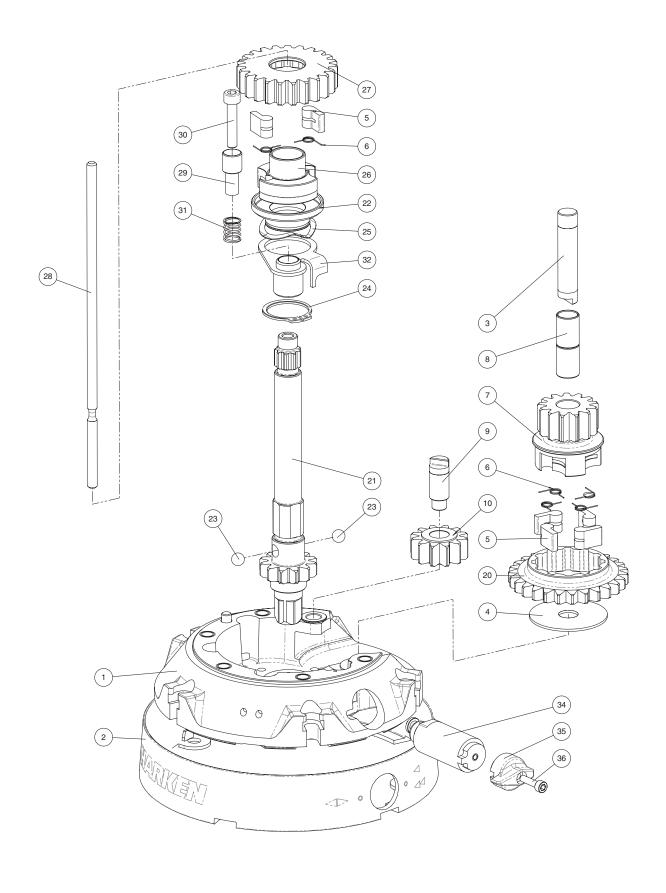
Email: customerservice@harken.com

# **Exploded view**

46 Rewind STA, STC, STCW, STBBB, STCCC EL Winch



# 46 Rewind STA, STC, STCW, STBBB, STCCC EL Winch



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# **Parts list**

# **Parts List**

# 46 Rewind™ STA EL Winch

A = drum in anodised aluminium

Pos.	Q.ty	Code	Description	Pos.	Q.ty	Code	Description
1	1	A94164101	W46 RW Base Assembly	22	1	S416260041	Disconnect flange
			W46 RW Base Heli-coil M8x10	23	2	M0614103	Ball 5-16" inox
	1	S413350080 S414890080	Roller Ø6x19 Bushing Ø9xØ11x7	24	1	M0616603	Seeger Ring UNI 7435:1975 - Ø28 mat. 17-7 Ph
	1	S413330085	Bushing Ø12xØ14x11	25	1	M0630802	SMALLEY RING SSR0137-S17
	1	S4130900A7	Bushing Ø22xØ25x8.5	26	1	S416250004	Pawls carrier Ø8xN2
0	1	M6009463	Spring loaded ball plunger Ø6	27	1	S416240041	Gear Z23
2	1	A94164200	Assy Skirt Winch 46 Rewind  Skirt W46 Rewind	28	1	S416300002	Disconnect rod 46 Rewind
			Winch Product Sticker**	29	1	S416530004	Pin for switch W46 Rewind
3	1	S413300004	Pin Ø12x60	30	1	M0624203	Screw M6x30
4 5	1	S278170002	Washer Ø12.5xØ48x1.5 Pawl Ø8*	31	1	S418590001	Spring Ø10.67x12.7 rif.SPEC C0420- 035-0500S
6	6	S000080003	Pawl Spring Ø8*	32	1	A74165000	Command x W46 Rewind
7	6	S000380001	Pinion Z13	33	1	S416480053	Drum W46 Rewind
8	1	S413250041	Bushing PSM-1214-20	34	1	A94191800	Assy knob W46 Rewind
9	2	M6017694	Pin Ø9xØ12x32.5				Knob W46 Rewind
10	1	S413070004			1	S419190004	Heli-coil M4x8 Pin for knob
10	1	A94133400	Assy Gear Z12 Gear Z12			S41920004	Bushing Ø6.5xØ4x3
	2	S414900080	Bushing Ø12xØ14x8	35	1	S497400080	Knob W46 rewind
11	1	A96756700	W46 RW Housing Assembly	36	1	M0624103	Screw M4x16 UNI5931
40	1 1 1	S414900080 S413330085 S4133200B3	W46 RW Housing Heli-coil M6x9 Bushing Ø12xØ14x8 Bushing Ø12xØ14x11 Bushing for support	37	1 1 1 1	A94165200 S414940085 S414930003 M0679797	Assy socket W46 Rewind Socket Handle W46 Rewind Washer Ø25xØ15x4 Nut Screw for Disconnect Rod O ring RC 2025 series
12	5	M0606303	Screw M8x25 UNI 5931	38	1	S6511900A5	Cover W46 rewind
13	2	A74133700	Bearing Ø75xØ87x26	39	1	A94192100	Assy jaws Winch 46 Rewind
14	1	S413390080	Spacer				Lower Jaw W46 Rewind
15			Winch Serial Number Sticker		4	S385970001	Upper Jaw W46 SPRING
16	1	S4129400A0	Stripper arm support	40	1	A74165500	Stripper arm Winch 46 Rewind C
17	1	S281690097	Red line		'	711 T100000	Stripper arm W46 Rewind C
18	4	M0601803	Screw UNI EN ISO 1207:1996 - M6x35 - A4		1	S4165600F0 S416570001	Peeler W46 Rewind C Spring stripper arm W46 Rewind
19	3	M6007103	Screw M6x50 UNI6107		1	S416580041	Bushing
20	1	S416540004	Gear Z27		1	S419170080	Slider Corou M5v20 UNI 6100
21	1	S416280004	Main shaft W46 Rewind		2	M0619003	Screw M5x20 UNI 6109

<sup>\*</sup>Available with service kit; see website www.harken.com

<sup>\*\*</sup>Winch product sticker



# 46 Rewind™ STC EL Winch

#### C = drum in chrome bronze

Pos.	Q.ty	Code	Description	Pos.	Q.ty	Code	Description
1	1	A94164101	W46 RW Base Assembly	22	1	S416260041	Disconnect flange
			W46 RW Base Heli-coil M8x10	23	2	M0614103	Ball 5-16" inox
	1	S413350080 S414890080	Roller Ø6x19 Bushing Ø9xØ11x7	24	1	M0616603	Seeger Ring UNI 7435:1975 - Ø28 mat. 17-7 Ph
	1	S413330085	Bushing Ø12xØ14x11	25	1	M0630802	SMALLEY RING SSR0137-S17
	1	S4130900A7	Bushing Ø22xØ25x8.5	26	1	S416250004	Pawls carrier Ø8xN2
0	1	M6009463	Spring loaded ball plunger Ø6	27	1	S416240041	Gear Z23
2	1	A94164200	Assy Skirt Winch 46 Rewind  Skirt W46 Rewind	28	1	S416300002	Disconnect rod 46 Rewind
			Winch Product Sticker**	29	1	S416530004	Pin for switch W46 Rewind
3	1	S413300004	Pin Ø12x60	30	1	M0624203	Screw M6x30
4	1	S278170002	Washer Ø12.5xØ48x1.5	31	1	S418590001	Spring Ø10.67x12.7 rif.SPEC C0420- 035-0500S
5	6	S000080003	Pawl Ø8*	32	1	A74165000	Command x W46 Rewind
6	6	S000380001	Pawl Spring Ø8*	33	1	S653520043	Drum 46 C rewind
7	1	S413250041	Pinion Z13	34	1	A94191800	Assy knob W46 Rewind
8	2	M6017694	Bushing PSM-1214-20	34		A94191000	Knob W46 Rewind
9	1	S413070004	Pin Ø9xØ12x32.5				Heli-coil M4x8
10	1	A94133400	Assy Gear Z12 Gear Z12		1 1	S419190004 S419200041	Pin for knob Bushing Ø6.5xØ4x3
	2	S414900080	Bushing Ø12xØ14x8	35	1	S497400080	Knob W46 rewind
11	1	A96756700	W46 RW Housing Assembly	36	1	M0624103	Screw M4x16 UNI5931
40	1 1 1	S414900080 S413330085 S4133200B3	W46 RW Housing Heli-coil M6x9 Bushing Ø12xØ14x8 Bushing Ø12xØ14x11 Bushing for support	37	1 1 1 1	A94165200 S414940085 S414930003 M0679797	Assy socket W46 Rewind Socket Handle W46 Rewind Washer Ø25xØ15x4 Nut Screw for Disconnect Rod O ring RC 2025 series
12	5	M0606303	Screw M8x25 UNI 5931	38	1	S6511900A5	Cover W46 rewind
13	2	A74133700	Bearing Ø75xØ87x26	39	1	A94192100	Assy jaws Winch 46 Rewind
14	1	S413390080	Spacer				Lower Jaw W46 Rewind
15			Winch Serial Number Sticker		4	S385970001	Upper Jaw W46 SPRING
16	1	S4129400A0	Stripper arm support	40	1 1	A74165500	Stripper arm Winch 46 Rewind C
17	1	S281690097	Red line	70		A74100000	Stripper arm W46 Rewind C
18	4	M0601803	Screw UNI EN ISO 1207:1996 - M6x35 - A4		1	S4165600F0 S416570001	Peeler W46 Rewind C Spring stripper arm W46 Rewind
19	3	M6007103	Screw M6x50 UNI6107		1	S416580041	Bushing
20	1	S416540004	Gear Z27		1	S419170080	Slider
21	1	S416280004	Main shaft W46 Rewind		2	M0619003	Screw M5x20 UNI 6109

<sup>\*\*</sup>Winch product sticker



<sup>\*</sup>Available with service kit; see website www.harken.com

# 46 Rewind™ STCW EL Winch

#### CW = chrome/white

Pos.	Q.ty	Code	Description	Pos.	Q.ty	Code	Description
1	1	A94164101	W46 RW Base Assembly	22	1	S416260041	Disconnect flange
			W46 RW Base Heli-coil M8x10	23	2	M0614103	Ball 5-16" inox
	1	S413350080 S414890080	Roller Ø6x19 Bushing Ø9xØ11x7	24	1	M0616603	Seeger Ring UNI 7435:1975 - Ø28 mat. 17-7 Ph
	1	S413330085	Bushing Ø12xØ14x11	25	1	M0630802	SMALLEY RING SSR0137-S17
	1	S4130900A7	Bushing Ø22xØ25x8.5	26	1	S416250004	Pawls carrier Ø8xN2
0	1	M6009463	Spring loaded ball plunger Ø6	27	1	S416240041	Gear Z23
2	1	A94164200W	Assy Skirt Winch 46 Rewind RAL9003  Skirt W46 Rewind RAL 9003	28	1	S416300002	Disconnect rod 46 Rewind
			Winch Product Sticker**	29	1	S416530004	Pin for switch W46 Rewind
3	1	S413300004	Pin Ø12x60	30	1	M0624203	Screw M6x30
4 5	1 6	S278170002 S000080003	Washer Ø12.5xØ48x1.5 Pawl Ø8*	31	1	S418590001	Spring Ø10.67x12.7 rif.SPEC C0420- 035-0500S
6	6	S000080003 S000380001	Pawl Spring Ø8*	32	1	A74165000	Command x W46 Rewind
7	1	S413250041	Pinion Z13	33	1	S653520043	Drum 46 C rewind
8	2	M6017694	Bushing PSM-1214-20	34	1	A94191800	Assy knob W46 Rewind
9	1	S413070004	Pin Ø9xØ12x32.5				Knob W46 Rewind Heli-coil M4x8
10	1	A94133400	Assy Gear Z12		1	S419190004	Pin for knob
		0.44.4000000	Gear Z12		1	S419200041	Bushing Ø6.5xØ4x3
44	2	S414900080	Bushing Ø12xØ14x8	35	1	S497400080	Knob W46 rewind
11	1	A96756700	W46 RW Housing Assembly W46 RW Housing	36	1	M0624103	Screw M4x16 UNI5931
	1	S414900080	Heli-coil M6x9 Bushing Ø12xØ14x8	37	1	A94165200 S414940085	Assy socket W46 Rewind Socket Handle W46 Rewind Washer Ø25xØ15x4
	1	S413330085	Bushing Ø12xØ14x11 Bushing for support		1	S414930003	Nut Screw for Disconnect Rod
12	1	S4133200B3	Screw M8x25 UNI 5931		1	M0679797	O ring RC 2025 series
13	5	M0606303 A74133700	Bearing Ø75xØ87x26	38	1	S6511900A5W	Cover 2 Speed W46 RW RAL 9003
14	1	S413390080	Spacer	39	1	A94192100W	Assy jaws Winch 46 STCW Rewind
15		3413330000	Winch Serial Number Sticker				Upper Jaw W46 RAL 9003 Lower Jaw W46 Rewind
16	1	S4129400A0	Stripper arm support		4	S385970001	SPRING
17	1	S281690097	Red line	40	1	A74165500	Stripper arm Winch 46 Rewind C
18	4	M0601803	Screw UNI EN ISO 1207:1996 - M6x35		1	S4165600F0	Stripper arm W46 Rewind C Peeler W46 Rewind C
			- A4		1	S416570001	Spring stripper arm W46 Rewind
19	3	M6007103	Screw M6x50 UNI6107		1	S416580041	Bushing
20	1	S416540004	Gear Z27		1 2	S419170080 M0619003	Slider Screw M5x20 UNI 6109
21	1	S416280004	Main shaft W46 Rewind		4	100013003	GOLOM MONZO OLALO 100

<sup>\*</sup>Available with service kit; see website www.harken.com

<sup>\*\*</sup>Winch product sticker



# <u>46 Rewind™ STBBB EL Winch</u>

#### BBB = all bronze

Pos.	Q.ty	Code	Description	Pos.	Q.ty	Code	Description
1	1	A94164101	W46 RW Base Assembly	22	1	S416260041	Disconnect flange
			W46 RW Base Heli-coil M8x10	23	2	M0614103	Ball 5-16" inox
	1	S413350080 S414890080	Roller Ø6x19 Bushing Ø9xØ11x7	24	1	M0616603	Seeger Ring UNI 7435:1975 - Ø28 mat. 17-7 Ph
	1	S413330085	Bushing Ø12xØ14x11	25	1	M0630802	SMALLEY RING SSR0137-S17
	1	S4130900A7	Bushing Ø22xØ25x8.5	26	1	S416250004	Pawls carrier Ø8xN2
0	1	M6009463	Spring loaded ball plunger Ø6	27	1	S416240041	Gear Z23
2	1	A96938300	Assy Skirt Winch 46 BBB Rewind Skirt W46.2 RW BBB	28	1	S416300002	Disconnect rod 46 Rewind
			Winch Product Sticker**	29	1	S416530004	Pin for switch W46 Rewind
3	1	S413300004	Pin Ø12x60	30	1	M0624203	Screw M6x30
4 5	1	S278170002	Washer Ø12.5xØ48x1.5 Pawl Ø8*	31	1	S418590001	Spring Ø10.67x12.7 rif.SPEC C0420- 035-0500S
6	6	S000080003	Pawl Spring Ø8*	32	1	A74165000	Command x W46 Rewind
7	6	S000380001	Pinion Z13	33	1	S693840043	Drum W46 BBB Rewind
8	1	S413250041 M6017694	Bushing PSM-1214-20	34	1	A94191800	Assy knob W46 Rewind
9	2		Pin Ø9xØ12x32.5				Knob W46 Rewind
10	1	S413070004	Assy Gear Z12		1	S419190004	Heli-coil M4x8 Pin for knob
10	1	A94133400	Gear Z12		1	S419200041	Bushing Ø6.5xØ4x3
	2	S414900080	Bushing Ø12xØ14x8	35	1	S497400080	Knob W46 rewind
11	1	A96756700	W46 RW Housing Assembly	36	1	M0624103	Screw M4x16 UNI5931
10	1 1 1	S414900080 S413330085 S4133200B3	W46 RW Housing Heli-coil M6x9 Bushing Ø12xØ14x8 Bushing Ø12xØ14x11 Bushing for support	37	1 1 1 1	A94165200 S414940085 S414930003 M0679797	Assy socket W46 Rewind Socket Handle W46 Rewind Washer Ø25xØ15x4 Nut Screw for Disconnect Rod O ring RC 2025 series
12	5	M0606303	Screw M8x25 UNI 5931	38	1	A76938800	Cover W46 BBB Rewind
13	2	A74133700	Bearing Ø75xØ87x26	39	1	A96938500	Assy jaws Winch 46 BBB Rewind
14	1	S413390080	Spacer Control November Official				Lower Jaw W46 BBB Rewind Upper Jaw W46
15		0.4400.400.40	Winch Serial Number Sticker		4	S385970001	SPRING
16	1	S4129400A0	Stripper arm support	40	1	A76938600	Stripper arm Winch 46 BBB Rewind
17	1	S281690097	Red line				Stripper arm W46 BBB Rewind
18	4	M0601803	Screw UNI EN ISO 1207:1996 - M6x35 - A4		1 1	S6938700F0 S416570001	Peeler W46 BBB Rewind Spring stripper arm W46 Rewind
19	3	M6007103	Screw M6x50 UNI6107		i	S416580041	Bushing
20	1	S416540004	Gear Z27		1	S419170080	Slider
21	1	S416280004	Main shaft W46 Rewind		2	M0619003	Screw M5x20 UNI 6109

<sup>\*</sup>Available with service kit; see website www.harken.com

<sup>\*\*</sup>Winch product sticker



# 46 Rewind™ STCCC EL Winch

#### CCC = All-Chrome bronze

Pos.	Q.ty	Code	Description	Pos.	Q.ty	Code	Description
1	1	A94164101	W46 RW Base Assembly	22	1	S416260041	Disconnect flange
			W46 RW Base Heli-coil M8x10	23	2	M0614103	Ball 5-16" inox
	1	S413350080 S414890080	Roller Ø6x19 Bushing Ø9xØ11x7	24	1	M0616603	Seeger Ring UNI 7435:1975 - Ø28 mat. 17-7 Ph
	1	S413330085	Bushing Ø12xØ14x11	25	1	M0630802	SMALLEY RING SSR0137-S17
	1	S4130900A7	Bushing Ø22xØ25x8.5	26	1	S416250004	Pawls carrier Ø8xN2
	1	M6009463	Spring loaded ball plunger Ø6	27	1	S416240041	Gear Z23
2	1	A96938000	Assy Skirt Winch 46 CCC Rewind Skirt W46.2 RW CCC	28	1	S416300002	Disconnect rod 46 Rewind
			Winch Product Sticker**	29	1	S416530004	Pin for switch W46 Rewind
3	1	S413300004	Pin Ø12x60	30	1	M0624203	Screw M6x30
4	1	S278170002	Washer Ø12.5xØ48x1.5	31	1	S418590001	Spring Ø10.67x12.7 rif.SPEC C0420- 035-0500S
5	6	S000080003	Pawl Ø8*	32	1	A74165000	Command x W46 Rewind
6	6	S000380001	Pawl Spring Ø8*	33	1	S653520043	Drum 46 C rewind
7	1	S413250041	Pinion Z13	34	1	A94191800	Assy knob W46 Rewind
8	2	M6017694	Bushing PSM-1214-20				Knob W46 Rewind
9	1	S413070004	Pin Ø9xØ12x32.5		1	S419190004	Heli-coil M4x8 Pin for knob
10	1	A94133400	Assy Gear Z12 Gear Z12			S419190004 S419200041	Bushing Ø6.5xØ4x3
	2	S414900080	Bushing Ø12xØ14x8	35	1	S497400080	Knob W46 rewind
11	1	A96756700	W46 RW Housing Assembly	36	1	M0624103	Screw M4x16 UNI5931
40	1 1 1	S414900080 S413330085 S4133200B3	W46 RW Housing Heli-coil M6x9 Bushing Ø12xØ14x8 Bushing Ø12xØ14x11 Bushing for support	37	1 1 1	A94165200 S414940085 S414930003 M0679797	Assy socket W46 Rewind Socket Handle W46 Rewind Washer Ø25xØ15x4 Nut Screw for Disconnect Rod O ring RC 2025 series
12	5	M0606303	Screw M8x25 UNI 5931	38	1	A76938200	Cover W46 CCC Rewind
13	2	A74133700	Bearing Ø75xØ87x26	39	1	A96938100	Assy jaws Winch 46 CCC Rewind
14	1	S413390080	Spacer				Lower Jaw W46 Rewind CCC
15		-	Winch Serial Number Sticker		4	S385970001	Upper Jaw W46 RAL 9003 SPRING
16	1	S4129400A0	Stripper arm support	40	1	A74165500	Stripper arm Winch 46 Rewind C
17	1	S281690097	Red line		'	711-1100000	Stripper arm W46 Rewind C
18	4	M0601803	Screw UNI EN ISO 1207:1996 - M6x35 - A4		1 1	S4165600F0 S416570001	Peeler W46 Rewind C Spring stripper arm W46 Rewind
19	3	M6007103	Screw M6x50 UNI6107		1	S416580041	Bushing
20	1	S416540004	Gear Z27		1	S419170080	Slider
21	1	S416280004	Main shaft W46 Rewind		2	M0619003	Screw M5x20 UNI 6109

<sup>\*</sup>Available with service kit; see website www.harken.com

<sup>\*\*</sup>Winch product sticker



#### Horizontal electric motor 12V/24V

**TOP VIEW** 



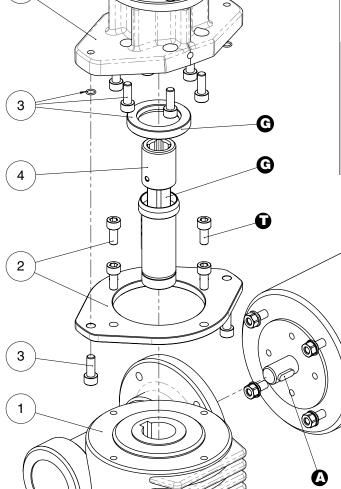
Motor installed in right-hand configuration.



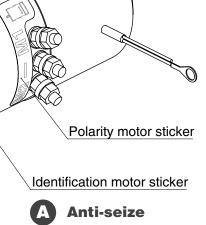
3

Motor installed in left-hand configuration.





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- Harken® Grease
- **Axial Threadlocker**

5

# Horizontal electric motor 24V H82

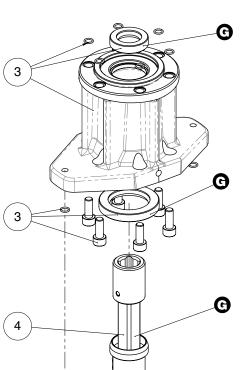
# **TOP VIEW**



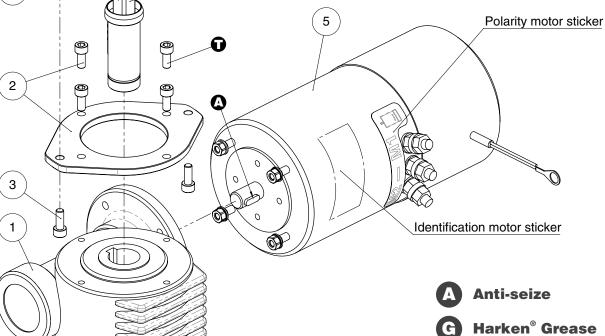
Motor installed in right-hand configuration.



Motor installed in left-hand configuration.



Pos.         Q.ty         Code         Description           1         1         A93127900 A94194900         KIT Gear Reduction 1/24 KIT LM Gear Reduction 1/24           2         1         A94149200 A94149200L         KIT Assy Electric Motor Flange KIT Assy Electric Motor Flange Left Electric Motor Flange Screw M6x14 UNI 5931           3         1         A94966500         KIT EL HO Motor Flange (H82) Horizontal Motorgear Flange Screw M6x16 UNI EN ISO 5931:2003 precote coating           8         M6015697 1         Crew M6x16 UNI EN ISO 5931:2003 precote coating           9         O-Ring Seal ORM 0055-10 (Ø5,5xØ1) Lip seal Ø17xØ30x7 Sealer Ø30xØ47x7           4         1         A94952400           KIT EL HO Motor Clutch Shaft Motorgear HO Shaft GearMotor HO Hub GearMotor           1         M0601402 M0601402         Dowel UNI EN ISO 8752:2000- Ø4x24				
1       A94194900       KIT LM Gear Reduction 1/24         2       1       A94149200 L       KIT Assy Electric Motor Flange KIT Assy Electric Motor Flange Left Electric Motor Flange Left Electric Motor Flange Screw M6x14 UNI 5931         3       1       A94966500       KIT EL HO Motor Flange (H82) Horizontal Motorgear Flange Screw M6x16 UNI EN ISO 5931:2003 precote coating         8       S415360003       Screw M6x16 UNI EN ISO 5931:2003 precote coating O-Ring Seal ORM 0055-10 (Ø5,5xØ1) Lip seal Ø17xØ30x7 Sealer Ø30xØ47x7         1       M6007297 Lip seal Ø17xØ30x7 Sealer Ø30xØ47x7         4       1       A94952400       KIT EL HO Motor Clutch Shaft Motorgear HO Shaft GearMotor HO Hub GearMotor HO Hub GearMotor Dowel UNI EN ISO 8752:2000- Ø4x24	Pos.	Q.ty	Code	Description
2       1       A94149200	1			
A94149200L   KIT Assy Electric Motor Flange Left   Electric Motor Flange   Left   Electric Motor Flange   Screw M6x14 UNI 5931		1	A94194900	KIT LM Gear Reduction 1/24
Selectric Motor Flange   Screw M6x14 UNI 5931	2			
3       1       A94966500       KIT EL HO Motor Flange (H82)		1	A94149200L	
Note		4	M0606803	Screw M6x14 UNI 5931
8 S415360003	3	1	A94966500	
8		8	S415360003	Screw M6x16 UNI EN ISO 5931:2003
1       M6007297       Lip seal Ø17xØ30x7         1       M0612097       Sealer Ø30xØ47x7         4       1       A94952400       KIT EL HO Motor Clutch Shaft Motorgear HO Shaft GearMotor HO Hub GearMotor Dowel UNI EN ISO 8752:2000- Ø4x24		8	M6015697	
4 1 A94952400 KIT EL HO Motor Clutch Shaft Motorgear HO Shaft GearMotor HO Hub GearMotor 1 M0601402 Dowel UNI EN ISO 8752:2000- Ø4x24				
Shaft Motorgear HO Shaft GearMotor HO Hub GearMotor  1 M0601402 Dowel UNI EN ISO 8752:2000- Ø4x24		1	M0612097	Sealer Ø30xØ47x7
	4	1	A94952400	Shaft Motorgear HO Shaft GearMotor HO
1 0440000004   5: , ;				Dowel UNI EN ISO 8752:2000- Ø4x24
, , ,		1	S418620001	Disconnect spring
1 S414050080 Flange GearMotor Shaft HO		1		
1 M6010303 Key 8x5x40 UNI 7511 1 M6020097 O-rina Ø19.1x1.6				1 2
J. J	E			
5 1 A96033800 KIT EL Motor 24V 0.7kW with brake Motor 24 V 0.7 kW with brake Polarity motor sticker Screw stud M6x26 Washer Ø6 Nut M6 UNI5588	5	1		Motor 24 V 0.7 kW with brake Polarity motor sticker Screw stud M6x26 Washer Ø6
1 M6014206 Key DIN 6885 5x5x15		1	M6014206	Key DIN 6885 5x5x15



**Axial Threadlocker**