



**HARKEN<sup>®</sup>**

**Winch LokHead 500 KIT**

**INLH500, INLH500KIT, INLH500KIT.ASG, INLH500KIT.C, INLH500KIT.RP**

***Instruction Manual***



Read the manual carefully before using the Winch.



Translation of the  
Original Instructions

Rev. 05 FT  
UINLH500KIT-G 08-06-2023



<b>Introduction</b> .....	<b>5</b>
Information on the manual .....	5
Glossary and pictograms .....	5
<b>General information</b> .....	<b>6</b>
Winch identification data and plates.....	6
Model for Declaration of Conformity.....	7
Certifications .....	8
Technical information.....	8
Descent energy.....	8
<b>Safety information</b> .....	<b>9</b>
Safety information .....	9
<b>Safety information</b> .....	<b>10</b>
Intended use.....	10
Improper use.....	11
Personal protective equipment (PPE).....	11
Residual risks.....	11
<b>Description of the system</b> .....	<b>12</b>
Description of the INLH500KIT parts.....	12
<b>Description of the system</b> .....	<b>13</b>
Description of the INLH500KIT.ASG parts.....	13
Description of the INLH500KIT.C parts .....	14
Description of the INLH500KIT.RP parts .....	15
Description of the INLH500 parts.....	16
<b>Dimensions</b> .....	<b>17</b>
Dimensions INLH500KIT.....	17
<b>Dimensions</b> .....	<b>18</b>
Dimensions INLH500KIT.ASG .....	18
Dimensions INLH500KIT.C.....	19
Dimensions INLH500KIT.RP.....	20
Dimensions INLH500.....	21
<b>Technical information</b> .....	<b>22</b>
Working loads .....	22
Rope requirements .....	22
Technical Data .....	23
<b>Plate test</b> .....	<b>24</b>
Plate holes test.....	24
<b>Installation</b> .....	<b>25</b>
Installation of the Winch LokHead 500 KIT .....	25
<i>Mounting surface</i> .....	25
<i>Entry angle of the lifting rope on the Winch</i> .....	25
<i>Winch positioning</i> .....	25
<i>Table of applicability of installation procedures A, B, C, D</i> .....	26

## Table of Contents

<i>Installation procedure A</i> .....	27
<i>Installation procedure B</i> .....	29
<i>Installation procedure C</i> .....	30
<i>Installation procedure D</i> .....	33
<b>Drilling template</b> .....	<b>34</b>
<i>Drilling template - Winch LokHead 500 KIT (INLH500)</i> .....	34
<i>Drilling template - Tripod Plate (INLH500KIT, INLH500KIT.ASG, INLH500KIT.C)</i> .....	34
<i>Drilling template - Plate (INLH500KIT.RP)</i> .....	35
<b>Control lever</b> .....	<b>36</b>
Positioning the control lever (INLH500KIT, INLH500KIT.ASG, INLH500KIT.C, INLH500KIT.RP) .....	36
<b>Tellumount (INTMOUNT)</b> .....	<b>37</b>
Tellumount support plates (INTMOUNT) for versions INLH500KIT, INLH500KIT.ASG, INLH500KIT.C, INLH500KIT.RP ...	37
<i>Description of the parts</i> .....	38
<i>Dimensions</i> .....	39
<i>Installation of TelluMount plates</i> .....	40
<i>TelluMount plate anchorage</i> .....	41
<i>Anchorage with bolts</i> .....	41
<i>Anchorage with ropes</i> .....	42
<b>UD LokHead Flange Kit (INHDTOOL, INHDTOOLXL)</b> .....	<b>43</b>
INHDTOOL, INHDTOOLXL (For all versions) .....	43
<i>Installation</i> .....	43
<i>Dimensions</i> .....	45
<b>Use</b> .....	<b>46</b>
Using the Winch (All versions) - Checking the Winch before use .....	46
Rope positioning .....	47
Lifting (All versions) .....	49
Lowering loads / Lowering persons (All versions) .....	49
Useful life .....	50
Maintenance .....	50
<i>Cleaning</i> .....	51
Transport .....	51
Packaging and Storage .....	51
<b>Control sheet</b> .....	<b>52</b>
Control sheet .....	52
<b>Warranty</b> .....	<b>54</b>

## INFORMATION ON THE MANUAL

This Instruction Manual is an integral part of the Winch LokHead 500 KIT and is intended to provide all the information necessary for its correct and safe use and correct maintenance.

If you do not understand the instructions, contact Harken.

Keep the manual in a safe place for future reference.

This Manual is intended for qualified operators (refer to the Safety Information chapter for more information). Improper use of the machine or improper maintenance could cause serious damage or death.

Harken accepts no liability for damage, personal injury or death caused by the failure to comply with the safety information and instructions in the Manual.

The manufacturer shall not be held liable for damage, injury or loss resulting from installation or maintenance by unqualified personnel.

In addition, the manufacturer shall not be liable for damage, injury or loss resulting from incorrect operations or modifications of the product.

This Manual may be modified without prior notice. Consult the website <http://www.harken.com> for updated versions.



### WARNING!

The user must read and understand the instructions in this manual before using this Winch. They provide information on correct use, inspection and maintenance. Changes or improper use of this Winch or the inability to follow these instructions, may lead a fall, causing serious injuries or death.



### WARNING!

It is essential for user safety that, if the product is resold outside the original country of destination, the reseller must provide instructions for use, maintenance, periodic inspection and repair in the language of the country in which the product is to be used.

## GLOSSARY AND PICTOGRAMS

**Intended Use** - use of the Winch in accordance with the information provided in the instructions for use.

**Improper Use** - use of the Winch in a way other than that indicated in the instructions for use.

**Qualified Operator** - persons who have attended specialization courses, training, etc. and are qualified for the use of lifting/lowering devices in personal rescue operations, according to the standards in force in the country where the Winch is used for rescue.

**User** - operator who uses the Winch to raise/lower loads.

The descriptions preceded by the following symbols contain very important information/requirements, in particular with regard to safety.

Failure to comply may result in:

- risks for the safety of operators
- invalidity of the contract warranty
- denial of liability of the manufacturer



### WARNING!

this indication denotes the existence of a potential hazard



### NOTE!

this indication precedes important information regarding the machine





## General information


### WINCH IDENTIFICATION DATA AND PLATES

Each Winch is identified by an indelible CE plate bearing the related reference data. For any communication with the manufacturer or service centres, always quote these references.

**HARKEN** Italy spa **Winch LokHead 500 KIT** (INLH500, INLH500KIT.ASG, INLH500KIT, INLH500KIT.C, INLH500KIT.RP)

via Marco Biagi, 14  
Limido Comasco (CO)  
22070 - Italy  
www.harken.com  
☎ (+39) 031 3523511

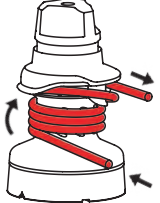
**MWL : 500kg (🧑) / 240kg (👤)**  
 EN 13157:2009  
  $\varnothing 10 \pm 12,7\text{mm}$  MBS 3500kg  
 EN 1496:2017/A  
 Max 200m  
  $\varnothing 11\text{mm}$  Teufelberger Patron EN 1891  
 EN 341:2011/2A  
 Max 200m; T> -40°C; 50±240kg  
  $\varnothing 11\text{mm}$  Teufelberger Patron EN 1891

2 ≤  ≤ 4 turns ↻

Serial No. / N. di serie

MADE IN ITALY

2023
2024
2025



1	2			
3	4		6	5
9	8	7		10

1. Name of the manufacturer.
2. Product name and model.
3. Manufacturer's identification data.
4. Indication of the maximum working load (MWL) of the winch, with specific indications for lifting/lowering loads and lifting/lowering persons.
5. Serial number in the format:
 

S    XXXXX  
 XXXXXXXXX

last two numbers of the year of production of the machine (e.g. 23= year 2023).
6. Safety instruction on the range of rope turns to use; pictogram indicating the winding direction and the route of the rope on the Winch.
7. List of applicable regulations. (MBS: minimum breaking strength)
8. CE mark.
9. Pictogram of the instruction to read the manual before using the Winch.
10. Production year.



pictogram indicating the lifting/lowering of loads;



pictogram indicating the lifting/lowering of persons;



pictogram indicating the type of rope in accordance with EN 1891 type A for lifting/lowering persons, and the Machinery Directive 2006/42/EC for lifting/lowering loads;



pictogram indicating the winding direction of the rope;

The CE plate is located on the skirt of the Winch (see image on the side).



## MODEL FOR DECLARATION OF CONFORMITY

**HARKEN®****DECLARATION OF EC COMPLIANCE****1. (All. IIA Dir. 2006/42/CE)**

The undersigned

Harken Italy S.p.A.

Via Marco Biagi, 14, 22070 Limido Comasco (CO) Italy

Telephone: +39 031/3523511, Fax: +39 031/3520031

Email: italy@harken.it, Web: www.harken.it

**hereby declares**

that the hand powered crane:

**Winch Lokhead 500 KIT**

Models

**INLH500, INLH500KIT, INLH500KIT.ASG, INLH500KIT.C, INLH500KIT.RP**

Serial Nr.



Year of Manufacture

**YYYY****complies with the essential requirements defined by the following directives:**

- ⇒ Directive 2006/42/CE of the European Parliament and Council of 17th May 2006 concerning "machines" amending directive 95/16/CE;
- ⇒ Harmonised standards reference: EN 13157:2009

**and authorises**Name and Surname: **Andrea Merello**

Address: HARKEN ITALY S.p.A. Via Marco Biagi, 14

Post code: 22070

Province: Como

City: Limido Comasco

Country: Italy

**to carry out the technical file for it**

HARKEN ITALY S.p.A.

.....  
Legal representative

## General information

### CERTIFICATIONS

The Winch LokHead 500 KIT (INLH500, INLH500KIT, INLH500KIT.ASG, INLH500KIT.C, INLH500KIT.RP) is certified in accordance with Directive 2006/42/EC according to the harmonised standard EN 13157:2009.

It also complies with standards EN 1496:2017 class A and EN 341:2011 class A type 2.

The standard EN 1496:2017 class A qualifies lifting devices for rescue, by means of which a person is lifted by a rescuer from the bottom upwards.

Standard EN 341:2011 class A type 2 qualifies:

Class A: devices in Class A with a descent energy  $W$  up to  $7.5 \times 10^6$  J;

Type 2: manually operated descent devices with a braking system requiring the intervention of a user.

### TECHNICAL INFORMATION

The Winch LokHead 500 KIT is covered by warranty, as stated in the general conditions of sale. As indicated in the warranty, if during the warranty period the Winch proves to be defective or breaks, the manufacturer, after checking the Winch, will repair or replace the faulty components. Please note that modifications made by the user without the express written authorisation of the manufacturer shall void the warranty and release the manufacturer of any and all liability for damage caused by the defective product. The same considerations apply if non-original spare parts, or those not explicitly specified by the manufacturer, are used. In view of these considerations, we advise customers to contact Harken technical support in case of need.



#### **WARNING!**

Read the instructions in this manual carefully and follow the instructions carefully before using the Winch LokHead 500 KIT.

### DESCENT ENERGY

When using the device to lower persons in rescue operations, according to the standard EN 341:2011, the descent energy is the energy measured in Joules and expressed as  $W$ , resulting from the descent load product, gravity, descent height and number of descents:

**Descent energy**       $W = m \times g \times h \times n$

where:

- $W$  is the descent energy in joules (J)
- $m$  is the descent load in kilograms (kg)
- $g$  is gravity  $9.81 \text{ m/s}^2$
- $h$  is the descent height in metres (M)
- $n$  is the number of descents

The Winch LokHead 500 KIT complies with standard EN 341:2011 class A.

Devices in Class A have a descent energy  $W$  up to  $7.5 \times 10^6$  J;

Considering this value, from the previous formula it is possible to calculate the maximum descent distance or the maximum number of descents:

**Maximum descent distance**       $h = W / (m \times g \times n)$

**Maximum number of descents**       $n = W / (m \times g \times h)$



**SAFETY INFORMATION**

The use of the Winch LokHead 500 KIT for lifting or lowering persons, in rescue situations, is intended for competent operators who have attended training and specialization courses, etc. and who are qualified for the use of rescue devices or adequately trained to follow emergency protocols, in accordance with the regulations in force in the country where the Winch is used for rescue.

The use of the Winch LokHead 500 KIT for lifting and lowering loads is permitted by the user in accordance with national regulations and guidelines /work practices.

Harken is not liable for damage caused by the Winch LokHead 500 KIT to persons, animals or property in the event of:

- use of the Winch LokHead 500 KIT by operators not qualified for lifting persons
- improper use of the Winch LokHead 500 KIT
- lack of proper maintenance, as indicated in the Maintenance chapter of this manual
- unauthorised changes or tampering
- use of non-original or non-specific spare parts
- total or partial failure to comply with the instructions
- use in contrast to specific national regulations

**WARNING!**

For rescue lifting/lowering procedures by a rescuer, there should always be direct or indirect eye contact or some other means of communication with the rescued person, throughout the rescue operation.

**WARNING!**

The Winch LokHead 500 KIT must only be used by personnel who are competent in its use or who follow clear emergency protocols.

**WARNING!**

The Winch LokHead 500 KIT must only be used by physically and mentally fit personnel. Cardiac and respiratory problems, or the intake of medication, alcohol or drugs can compromise user safety.

**WARNING!**

In rescue activities, to avoid personal injury, the Winch LokHead 500 KIT must be used with a complete body safety harness (certified EN 1497). It is also possible to use a complete body safety harness (certified EN 361) and/or a sit harnesses (certified EN 813).

Connectors (EN362-certified hooks, connectors and D-rings) must be able to support at least 22 kN (5000 lb). With the Winch LokHead 500 KIT (INLH500KIT, INLH500KIT.ASG) installed on a tripod, the tripod must be certified EN 795 type B and must have a workload of 240 kg.

**WARNING!**

The Winch LokHead 500 KIT must not be used outside its limitations or for purposes other than those intended.

**WARNING!**

Consult Harken when using this Winch in combination with components or sub-assemblies other than those described in this manual, as the safe operation of each item is affected by or interferes with the safe operation of another. Intentional modification or improper use of this Winch may cause the system to malfunction, which may cause a fall, resulting in serious injury or death.

## Safety information

---



### **WARNING!**

The Winch LokHead 500 KIT must only be used if an unimpeded lifting operation is possible and must not be used if obstacles constitute a hazard.

## INTENDED USE

---

The Winch LokHead 500 KIT is designed to be used as a manually operated winch for lifting, lowering and handling loads.

In addition, the Winch LokHead 500 KIT is designed and compliant for use in lifting and lowering persons for rescue purposes, if used by a qualified operator.



### **WARNING!**

When using the Winch LokHead 500 KIT in rescue operations for lifting or lowering persons, it must not be used for lifting or lowering loads, and vice versa.

The Winch LokHead 500 KIT must be used after being mounted on a suitable anchorage point.

All equipment and devices used in conjunction with the Winch LokHead 500 KIT for lifting and lowering a person during rescue operations must be certified for their intended use in rescue operations.

## IMPROPER USE

The Winch must not be used:

- for uses other than those outlined in the “Intended Use” paragraph, for uses not mentioned in this manual or different from those mentioned
- if unauthorised modifications or interventions have been carried out
- in an explosive atmosphere
- after a fall from a height of more than 1 metre onto a hard surface. In this case, send the winch to the manufacturer or to an authorised Harken service centre
- with wire ropes
- with textile ropes with different diameter or types other than those envisaged
- with loads lower than the minimum working load of 50 kg for lifting/lowering persons in rescue operations
- with loads greater than the maximum working load (MWL) of 240 kg for lifting/lowering persons in rescue operations
- with loads greater than the maximum working load (MWL) of 500 kg for lifting/lowering loads
- for a maximum person lifting distance of 200 m
- for a maximum person lowering distance of 200 m



### WARNING!

Subjecting the Winch to loads greater than the maximum working load (MWL) can cause the Winch or mounting surface to break suddenly, with the risk of serious injury or death.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

Wear gloves when using the Winch.



## RESIDUAL RISKS

Always pay attention to the following residual risks present when using the Winch and that cannot be eliminated:



### WARNING! Risk of trapping, dragging

Always wear the appropriate PPE, always follow the instructions in the manual.

## Description of the system

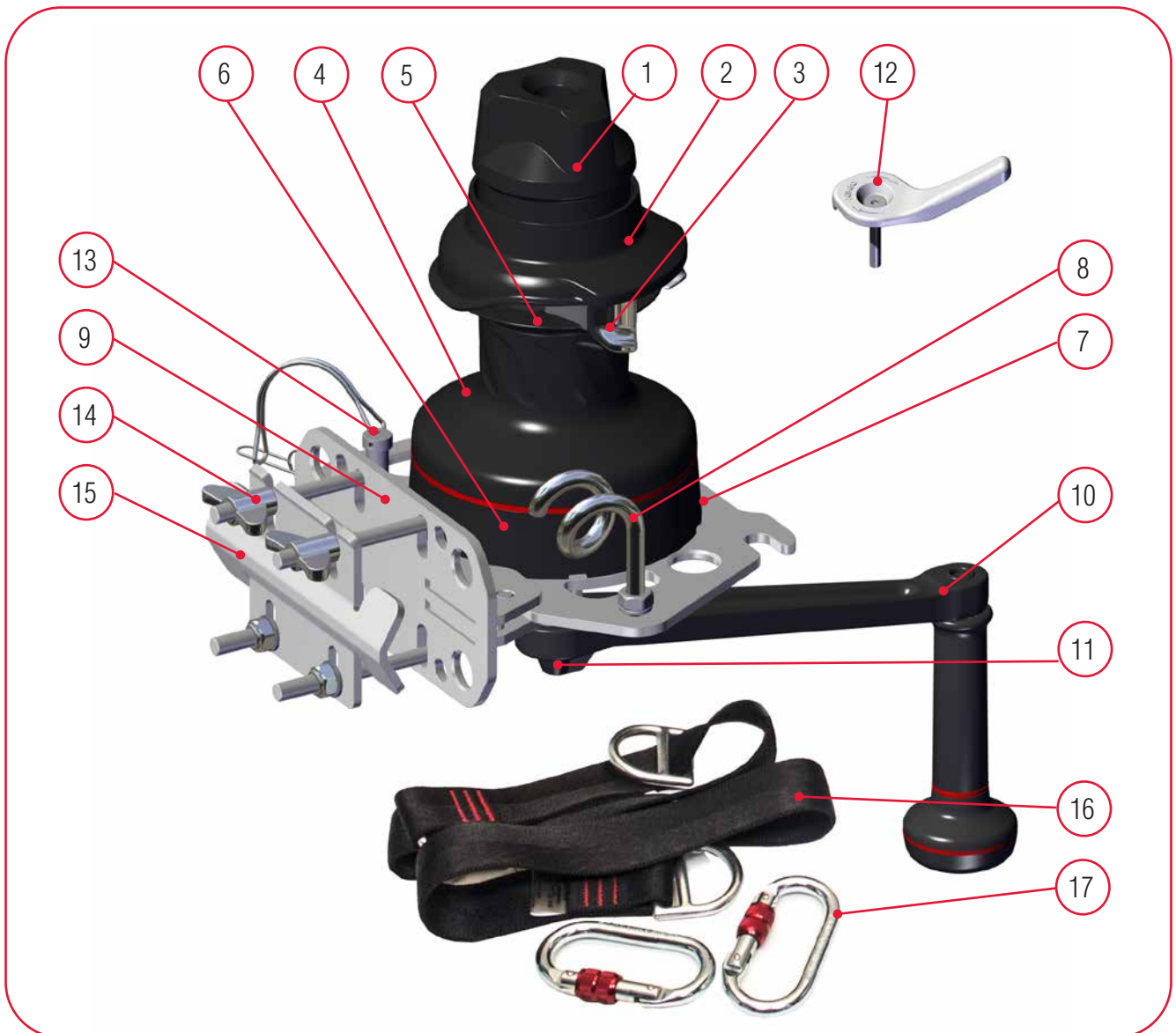
### DESCRIPTION OF THE INLH500KIT PARTS



Pos.	Description
1	Knob
2	Cover
3	Stripper arm
4	Drum
5	Pulleys
6	Removable skirt
7	Plate
8	Pigtail
9	Tripod Adapter

Pos.	Description
10	Handle
11	Handle lock
12	Control lever
13	Self-locking pin
14	U-bolts
15	Clamping plate
16	Anchor device
17	Connectors

## DESCRIPTION OF THE INLH500KIT.ASG PARTS



Pos.	Description
1	Knob
2	Cover
3	Stripper arm
4	Drum
5	Pulleys
6	Removable skirt
7	Plate
8	Pigtail
9	Tripod Adapter

Pos.	Description
10	B10ASG Handle
11	Handle lock
12	Control lever
13	Self-locking pin
14	U-bolts
15	Clamping plate
16	Anchor device
17	Connectors

## Description of the system

### DESCRIPTION OF THE INLH500KIT.C PARTS



Pos.	Description
1	Knob
2	Cover
3	Stripper arm
4	Drum
5	Pulleys
6	Removable skirt
7	Plate
8	Pigtail
9	Tripod Adapter

Pos.	Description
10	Handle
11	Handle lock
12	Control lever
13	Self-locking pin

## DESCRIPTION OF THE INLH500KIT.RP PARTS



Pos.	Description
1	Knob
2	Cover
3	Stripper arm
4	Drum
5	Pulleys
6	Removable skirt
7	Plate
8	Pigtail
9	Handle

Pos.	Description
10	Handle lock
11	Control lever

## Description of the system

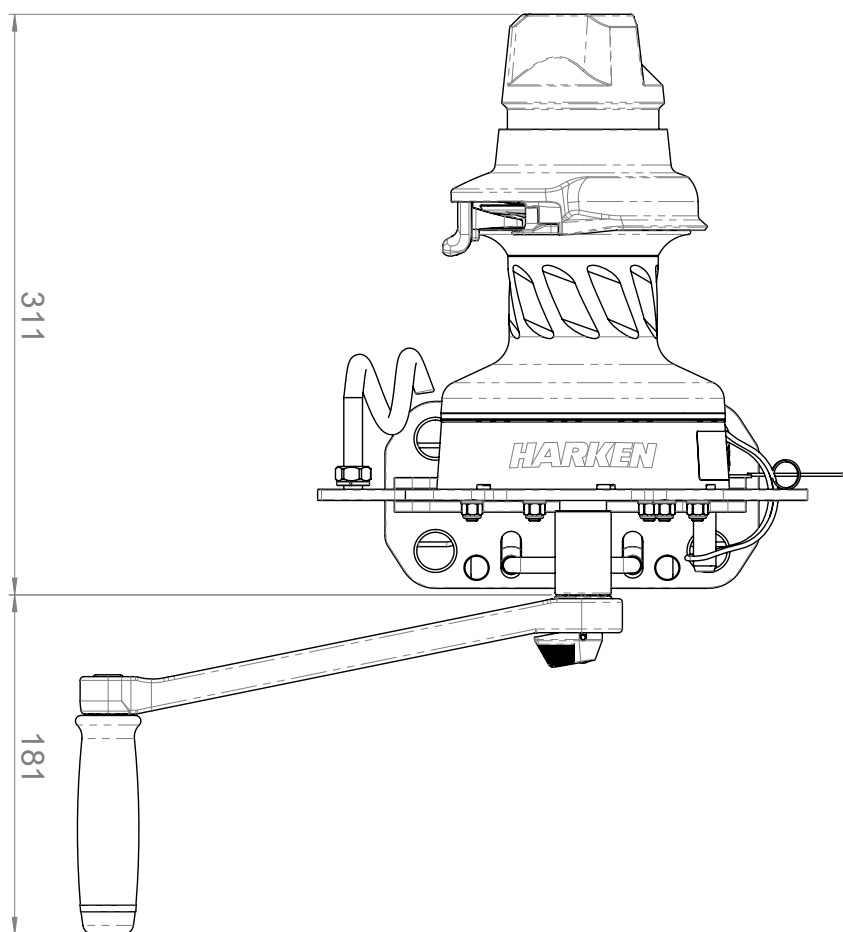
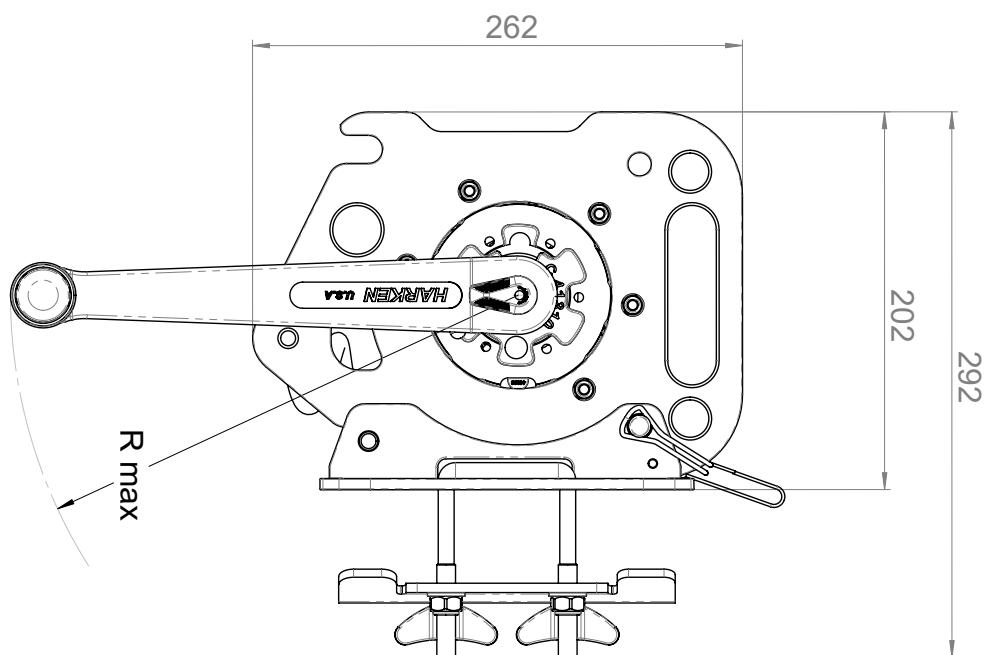
### DESCRIPTION OF THE INLH500 PARTS



Pos.	Description
1	Knob
2	Cover
3	Stripper arm
4	Drum
5	Pulleys
6	Removable skirt
7	Handle
8	Handle lock



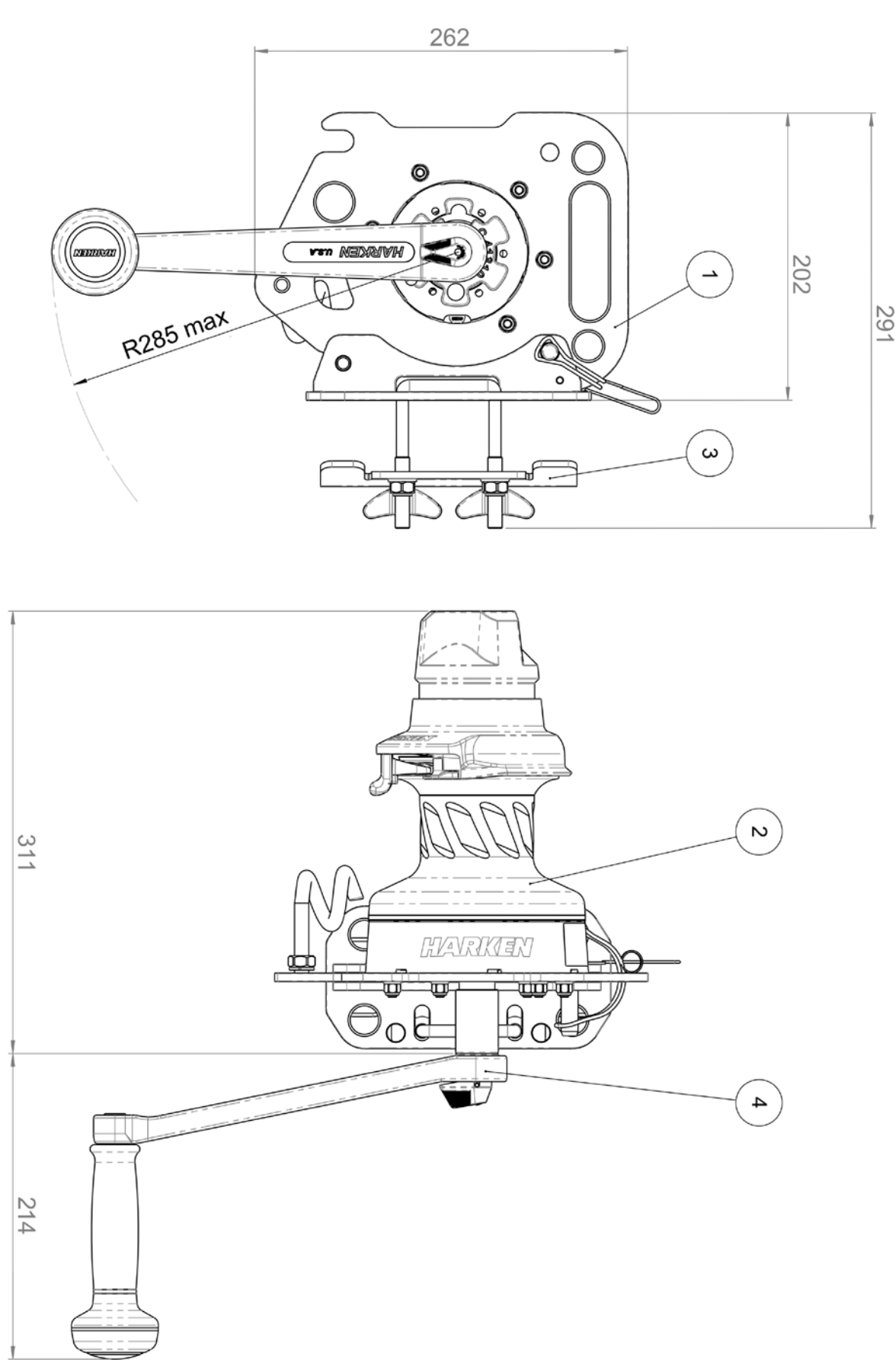
**DIMENSIONS INLH500KIT**



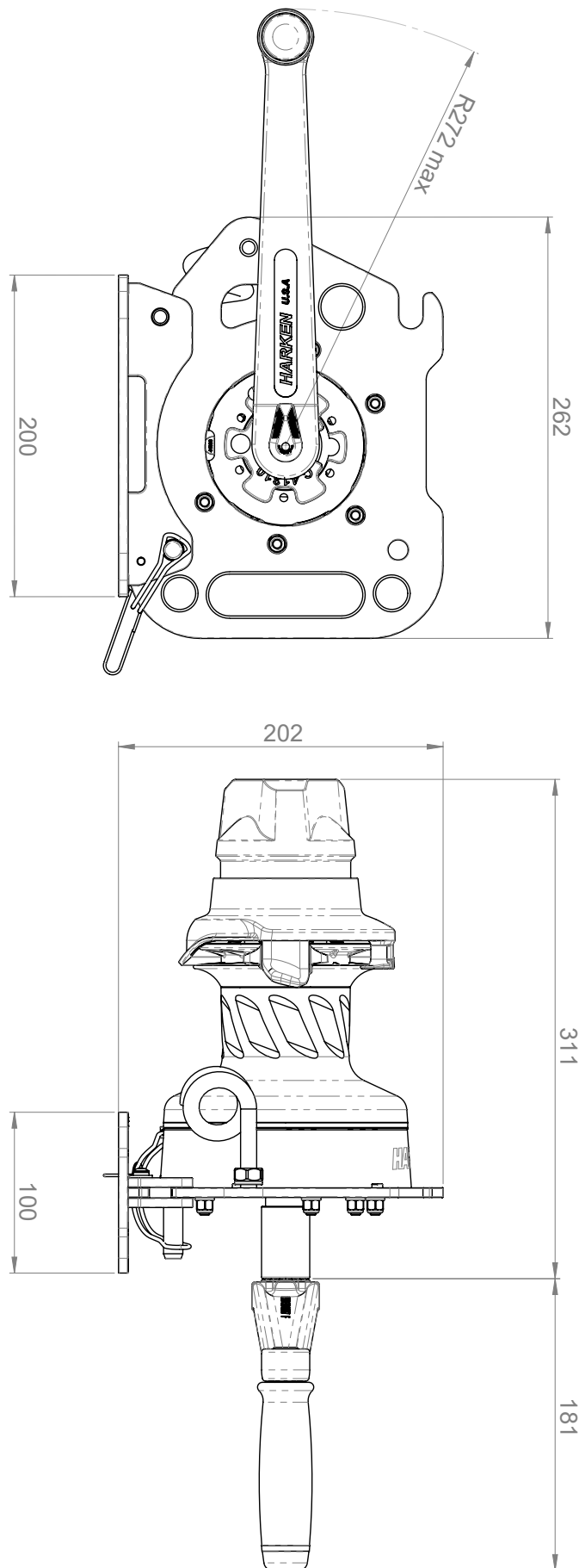
Note: all dimensions are in mm.

## Dimensions

### DIMENSIONS INLH500KIT.ASG



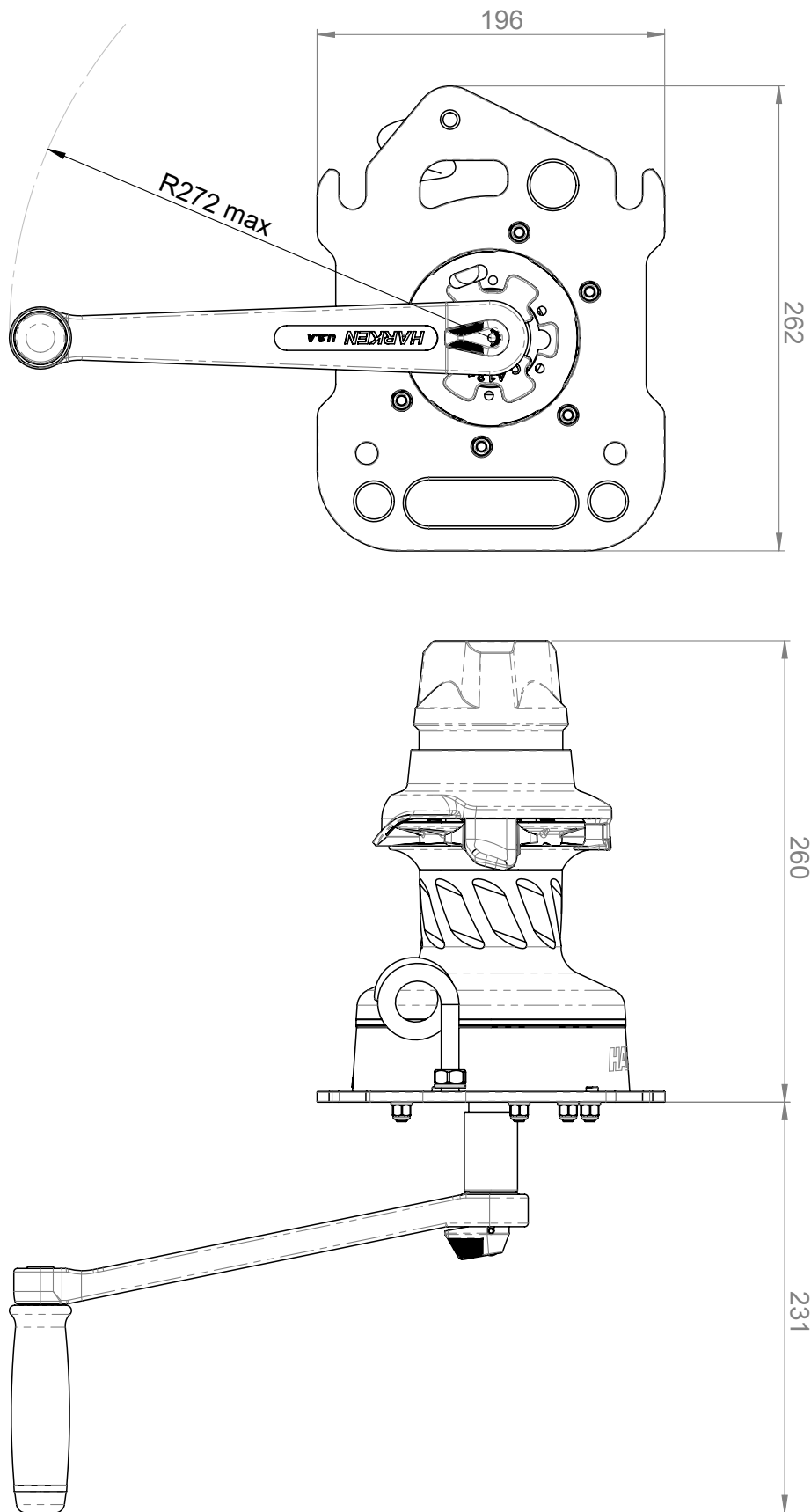
Note: all dimensions are in mm.



Note: all dimensions are in mm.

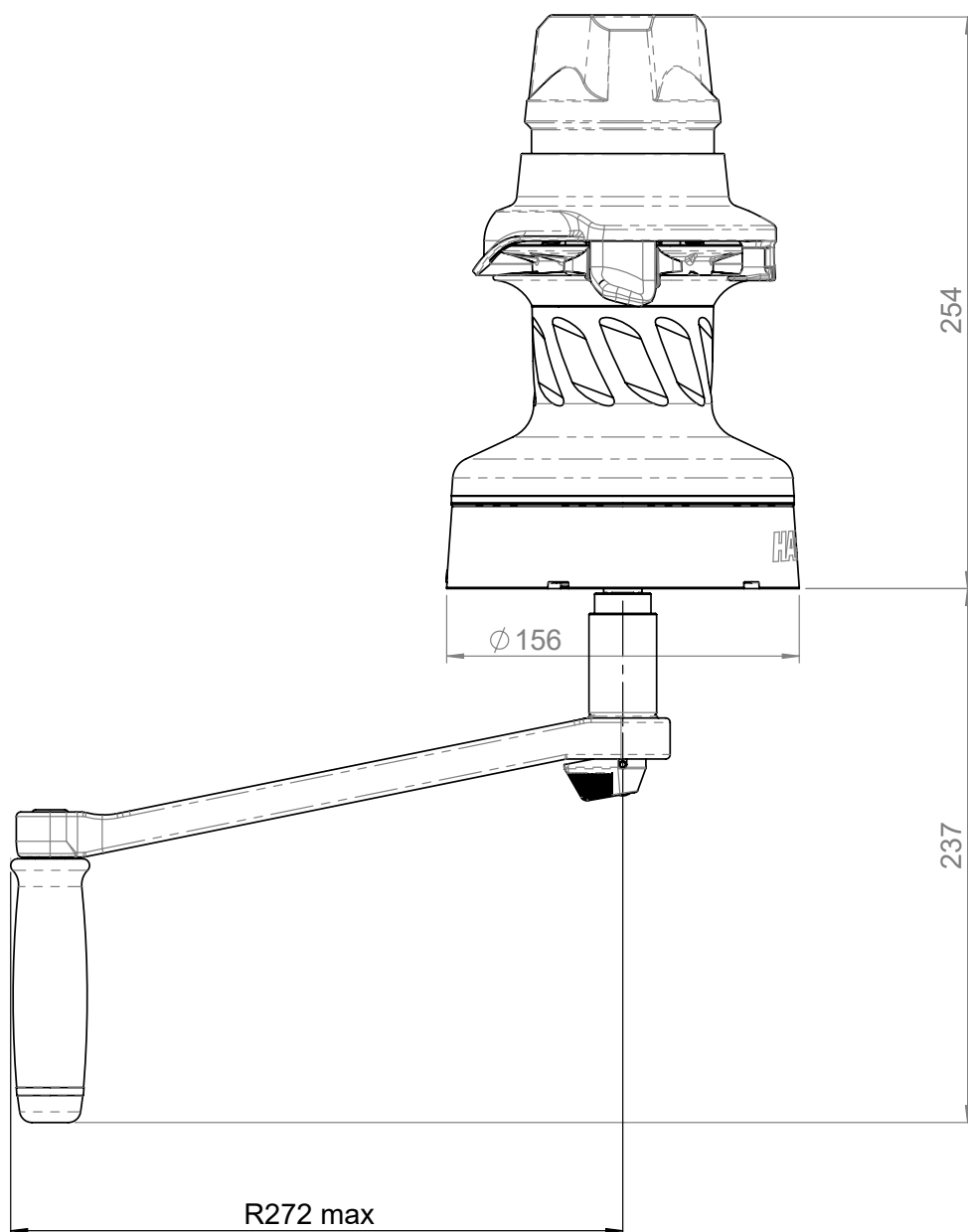
## Dimensions

### DIMENSIONS INLH500KIT.RP



Note: all dimensions are in mm.

## DIMENSIONS INLH500



Note: all dimensions are in mm.

## Technical information

### WORKING LOADS

The maximum working load (MWL) of the LokHead 500 Winch is:

- 500 kg (1102.31 lbs) for lifting/lowering loads
- 240 kg (529.11 lbs) for lifting/lowering persons in rescue operations

**WARNING!**

Do not apply loads greater than the maximum working load (MWL) to the Winch LokHead 500 KIT.

The minimum working load of the LokHead 500 Winch, for lowering persons in rescue operations is 50 kg.

**WARNING!**

Do not apply a load to the Winch LOKHEAD 500 KIT lower than the minimum rated load.

### ROPE REQUIREMENTS

**WARNING!**

Use only ropes in good condition.

**WARNING!**

For the correct maintenance of the ropes, refer to the ropes User Manual.

**WARNING!**

Do not use with wire ropes.

When using the Winch LokHead 500 KIT for lifting/lowering persons in rescue operations:

**WARNING!**

Only use EN1891 type A certified ropes consisting of a core covered with an anti-abrasion sheath. The Winch LokHead500 KIT has been certified with 11 mm Teufelberger Patron rope.

When using the Winch LokHead 500 KIT for lifting/lowering loads:

**WARNING!**

Use only fibre ropes compliant with the Machinery Directive 2006/42/EC with diameter between 10 and 12.7 mm with a usage coefficient of at least 7.

**WARNING!**

Textile ropes used must not have any splicing other than that at their ends.

**WARNING!**

Regardless of the route of the textile rope used, the machine must always have 2 rope turns wrapped around the drum and the section of rope in the pulleys. The user must mark this section of rope. For instructions on how to mark the rope, refer to the instructions provided by the rope manufacturer.



**WARNING!**

To prevent the load from falling, suitable hooks or lifting accessories must be used. The hooks and lifting accessories used must comply with any applicable standards and directives (including, for example, compliance with point 5.5.8 of UNI 13157:2009).



**WARNING!**

The textile rope and the hooks or lifting accessories used must be marked and the identification plate must bear the information required in paragraphs 4.3.1 and 4.3.2 of Annex I of the Machinery Directive 2006/42/EC.

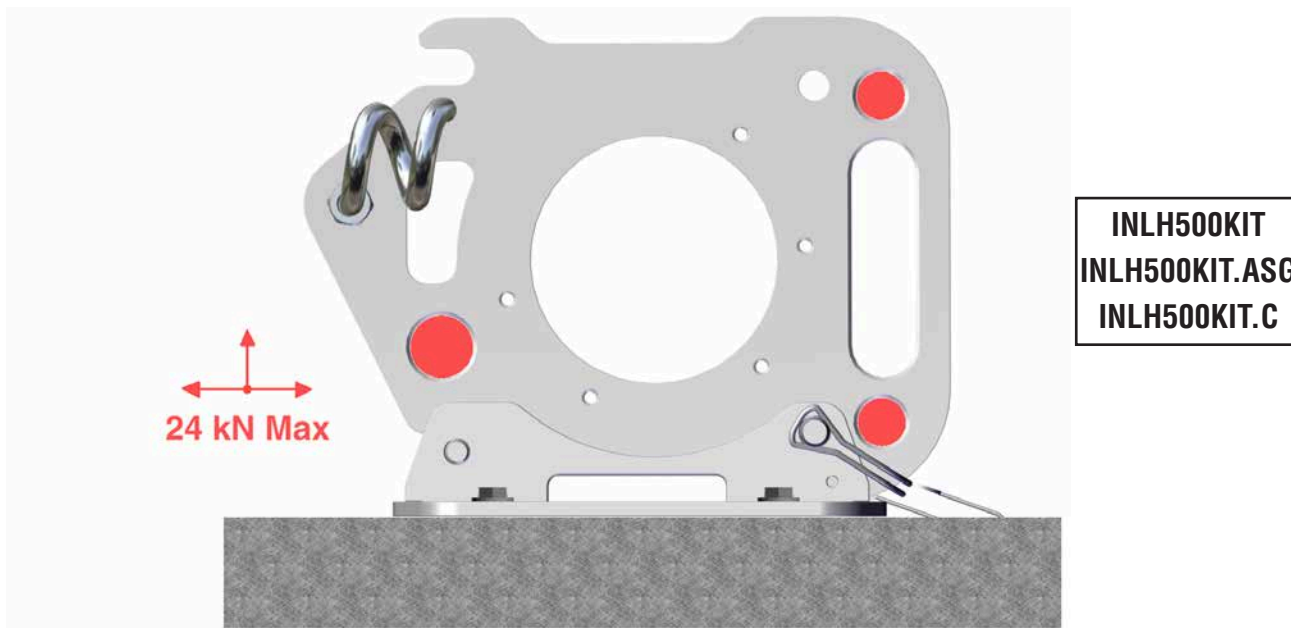
**TECHNICAL DATA**

Rope	Semi-static 11 mm EN1891 type A Teufelberger Patron rope for lifting/lowering persons in rescue operations. 10-12.7 mm rope for lifting/lowering loads
Maximum working load (MWL)	500 kg (1102.31 lbs) - lifting/lowering loads 240 kg (529.11 lbs) - lifting/lowering persons in rescue operations
Minimum working load for lowering persons	50 kg
Maximum distance for lifting persons	200 m
Maximum distance for lowering persons	200 m
Power ratio	13.50:1 - 1 <sup>st</sup> speed / 39.90:1 - 2 <sup>nd</sup> speed
Gear ratio	2.13:1 - 1 <sup>st</sup> speed / 6.28:1 - 2 <sup>nd</sup> speed
Winch weight	4.2 kg (9.25 lb)
Handle Weight	0.5 kg (1.10 lb)
Plate + Plate Adapter Weight	2.8 kg (6.17 lb)
Tripod Adapter Weight	2.2 kg (4.85 lb)
Winch dimensions	311 x Ø157 mm (12.24" x Ø6.18")
Recommended working temperature range	-40°C +50°C

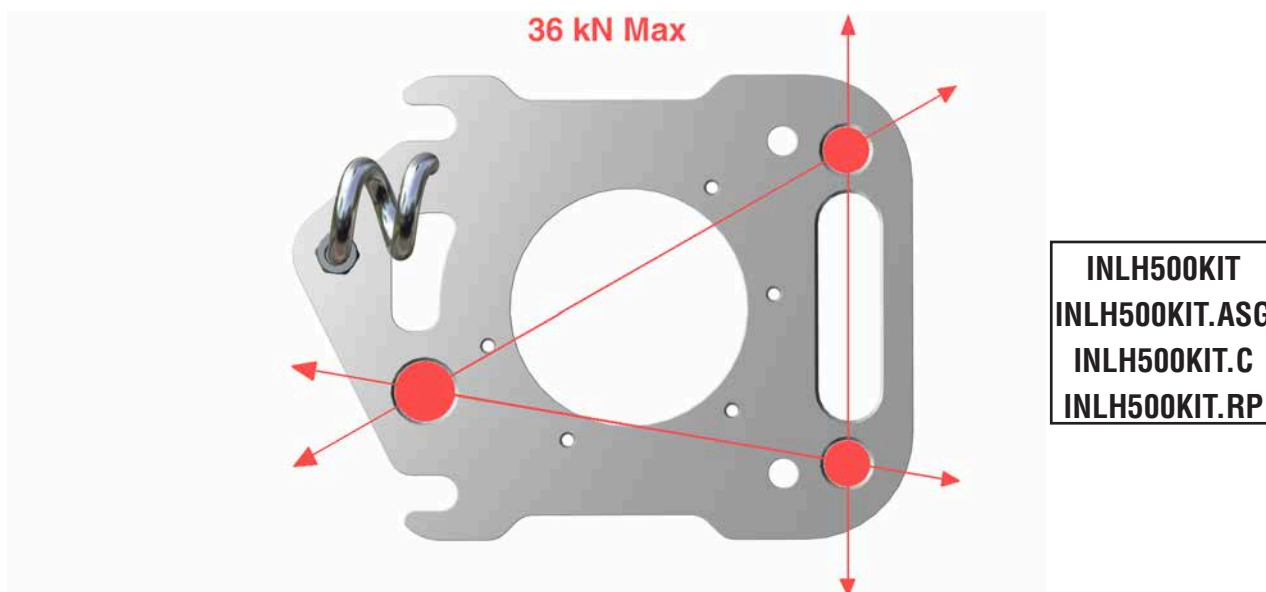
## Plate test

### PLATE HOLES TEST

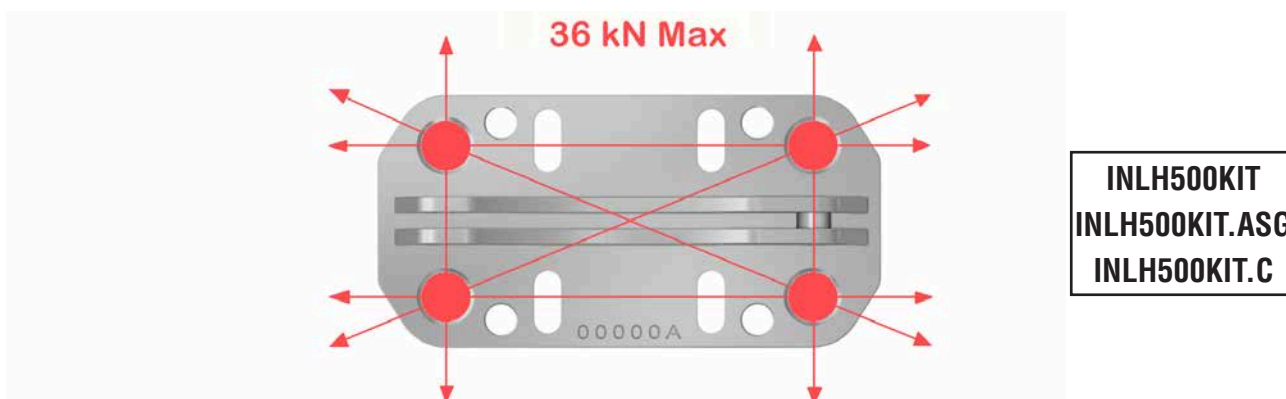
The Winch LokHead 500 KIT plate holes in versions INLH500KIT, INLH500KIT.ASG, INLH500KIT.C, INLH500KIT.RP were tested in both horizontal and vertical directions (upwards) at a **total load of max. 24 kN**.



In addition, each pair of Winch plate holes was tested at a **total load of max. 36 kN**, as shown in the figure below.



Each pair of holes of the anchorage tripod plate was tested at a **total load of max. 36 kN**, as shown in the figure below.





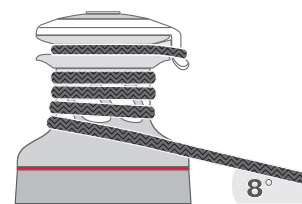
## INSTALLATION OF THE WINCH LOKHEAD 500 KIT

### Mounting surface

The Winch must be installed on a flat surface able to withstand a load of 2400 kg.

### Entry angle of the lifting rope on the Winch

The winch entry angle of the rope must be  $8^\circ$  with a tolerance of  $\pm 2^\circ$  to avoid rope override.

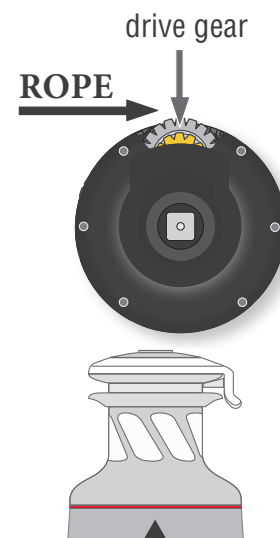


#### WARNING!

Check the entry angle of the rope. To avoid rope override, damage to the Winch or rendering the Winch unusable, leading to loss of control, with the risk of serious injury or death, the angle must be  $8^\circ$  with a tolerance of  $\pm 2^\circ$ .

Install the Winch so that the drive gear is positioned where the rope enters the Winch drum.

Note: The symbol ▲ on the Winch skirt identifies the position of the drive gear.



#### WARNING!

Install the Winch so that the drive gear is positioned where the rope enters the Winch drum. Incorrect positioning of the drive gear can weaken the Winch causing failures, with the risk of serious injury or death.

### Winch positioning

The Winch must be installed in a position that allows sufficient space around the Winch, so as not to hinder the operation of the handle and the descent.

The Winch can be positioned horizontally, vertically or at an angle, according to the installation needs.

The Winch must be installed in a position that ensures the visibility of the lifting trajectory by the operator at all times.

Harken® shall not be liable in the event of a defective installation.



#### WARNING!

Incorrect installation of the Winch can cause serious injury or death. In the event of any doubts about the correct positioning of the Winch, contact the Winch supplier.

Winches installed in a work station or left in place between one inspection and the next should be adequately protected from ambient conditions.

## Installation

**Table of applicability of installation procedures A, B, C, D**

	Procedure A	Procedure B	Procedure C	Procedure D
INLH500	x			
INLH500KIT		x	x	x
INLH500KIT.ASG		x	x	x
INLH500KIT.C		x		x
INLH500KIT.RP				x

Winch versions INLH500KIT, INLH500KIT.ASG and INLH500KIT.C can be adapted to different installation types, removing the tripod adapter plates and/or clamping plate if necessary, see Applicability table.

To adapt the Winch INLH500KIT, INLH500KIT.ASG to the installation procedure "B", remove the Tripod Adapter plate, while to adapt to the procedure "D" remove both the Tripod Adapter plate and the clamping plate.

To adapt the Winch INLH500KIT.C to the "D" installation procedure, remove the Tripod Adapter plate.

**Installation procedure A**

Install the Winch, separately purchasing five (5) M6 hex head (HH) bolts (galvanized, 10.9 UNI EN ISO 4014:2003). Harken® does not supply the necessary bolts to install the Winch as the length may vary depending on the installation surface. The final installer is responsible for choosing the appropriate screws, taking into account the loads they will have to bear. Harken shall not be liable in the event of improper installation of the winch or plate or in the event of improper use of the fixing screws.

Harken® shall not be liable in the event of a defective installation or tampering with the winches.

For further information, please contact the Harken® Tech Service - [techservice@harken.it](mailto:techservice@harken.it)




**WARNING!**

The use of an incorrect number or type of fixing elements or the incorrect resistance of the mounting surface may result in a sudden and unexpected failure of the Winch in the event of high loads, with consequent serious injury or death.

Tools needed: a medium flat blade screwdriver 



1. Remove the skirt using a screwdriver, positioning it as shown 



2. Remove the skirt and place the 5 M6 hex-head screws in their holes



**Note:** 1/4" hex-head screws are not suitable for this procedure.



3. Replace the skirt on the base, pushing it into the correct position.

**Note:** Make sure the skirt is properly hooked onto the Winch base.

## Installation

Install the handle coupling as shown:



4. Position the handle coupling on the shaft.



5. Lock the screw on the handle coupling.

Proceed to install the Winch according to the following procedure:

1. Install the Winch on a flat surface in the chosen position.

2. Place the Winch base in the chosen area and mark the holes or use the drilling template.

The drilling template is available on the Harken® website, [www.harken.com](http://www.harken.com). Download, print and compare the template to the Winch to check that the template size and the position/size of the holes are correct. See small template on the following page.



### NOTE!

When downloading the Winch drilling template make sure that you use the correct paper size and that the printer prints at 100%. Before drilling, check that the template is correct in every detail. Harken is not liable for incorrect drilling caused by a defective template

3. Remove the Winch and drill the five (5) 6.2 mm diameter holes. For drilling and tapping refer to the sector standards for the size of the drill/tap. **Important:** do not flare the holes.

4. Screw the Winch base onto the support plate. Use screws of the correct length for the thickness and the type of support surface. In the event of any doubts, contact the manufacturer. Use five (5) M6 hex head (HH) screws, washers and nuts.



### NOTE!

1/4" hex-head screws are not suitable for holes and cannot be used to install the Winch.

5. To ensure the correct maximum working load (MWL) all the five screws, nuts and washers must be correctly tightened (Torque 10 Nm).



### WARNING!

The use of an incorrect number or length of the fixing elements and/or the incorrect tightening may result in a sudden and unexpected failure of the Winch in the event of high loads, with consequent serious injury or death.

**Installation procedure B**

Install the Winch LokHead 500 KIT tripod adapter plate, fixing it with 4 M12 screws, washers and nuts on a flat surface withstanding a load of 2400 kg.

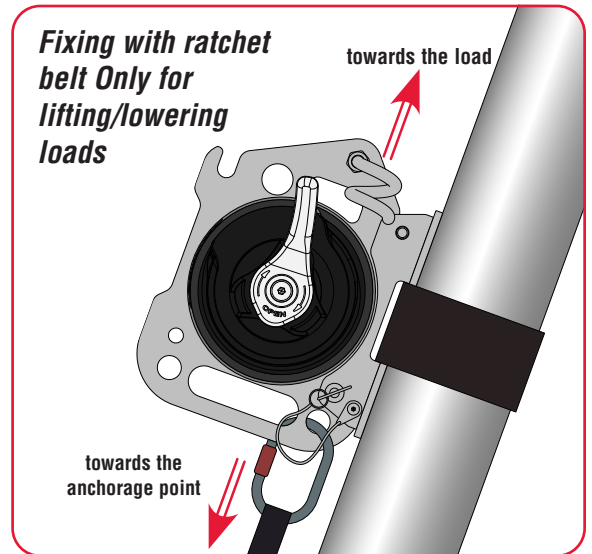
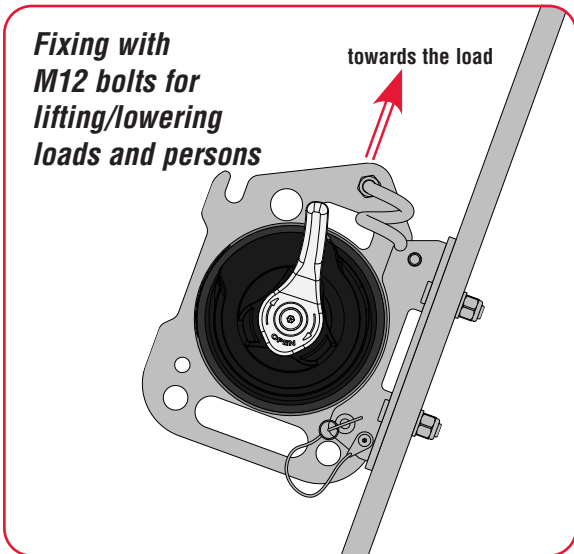
The installer is responsible for choosing the appropriate screws, taking into account the loads they will have to bear.

Harken shall not be liable in the event of improper installation of the winch or tripod adapter plate or in the event of improper use of the fixing screws.



**WARNING!**

The use of an incorrect number or type of fixing elements or the incorrect resistance of the mounting surface may result in a sudden and unexpected failure of the Winch in the event of high loads, with consequent serious injury or death.



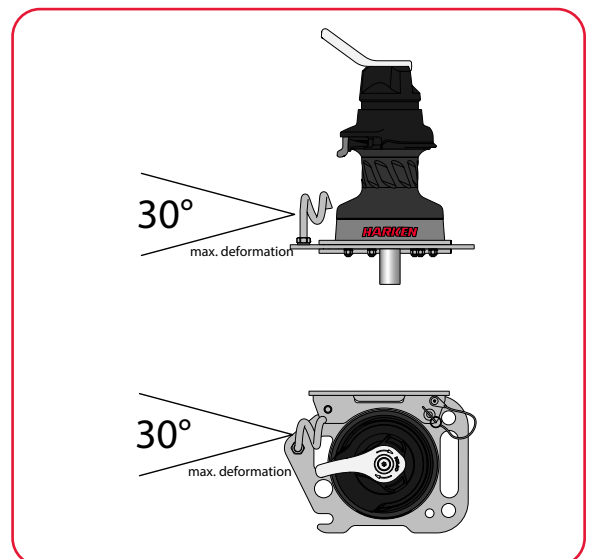
Only for lifting/lowering loads:

- it is possible to fix the tripod adapter plate with ratchet straps, connectors, anchoring devices
- the installer is responsible for carrying out all the structural tests necessary to guarantee that the mounting surface can withstand the load.

Ensure that the tripod adapter plate is securely attached to the mounting surface, so that it can operate under load without significant movement. The Winch tripod adapter plate must be installed so that the lifting rope can reach the Winch drum through the pigtail, with a deflection angle on any plane not exceeding 30°. If necessary, the installation should use idle pulleys to ensure a correct load on the Winch. The pigtail should not have any angular load.

The Winch tripod adapter plate must be installed in a position that allows sufficient working space around the Winch, so as not to hinder the operation of the handle.

The Winch tripod adapter plate must be installed in a position that ensures the visibility of the lifting trajectory by the operator at all times.



**WARNING!**

Incorrect installation of the Winch tripod adapter plate can cause serious injury or death. In the event of any doubts about the correct positioning of the Winch, contact the Winch supplier.



**NOTE!**

For the loads and directions on the anchorage points of the tripod adapter plate, refer to the chapter "Plate test".

## Installation

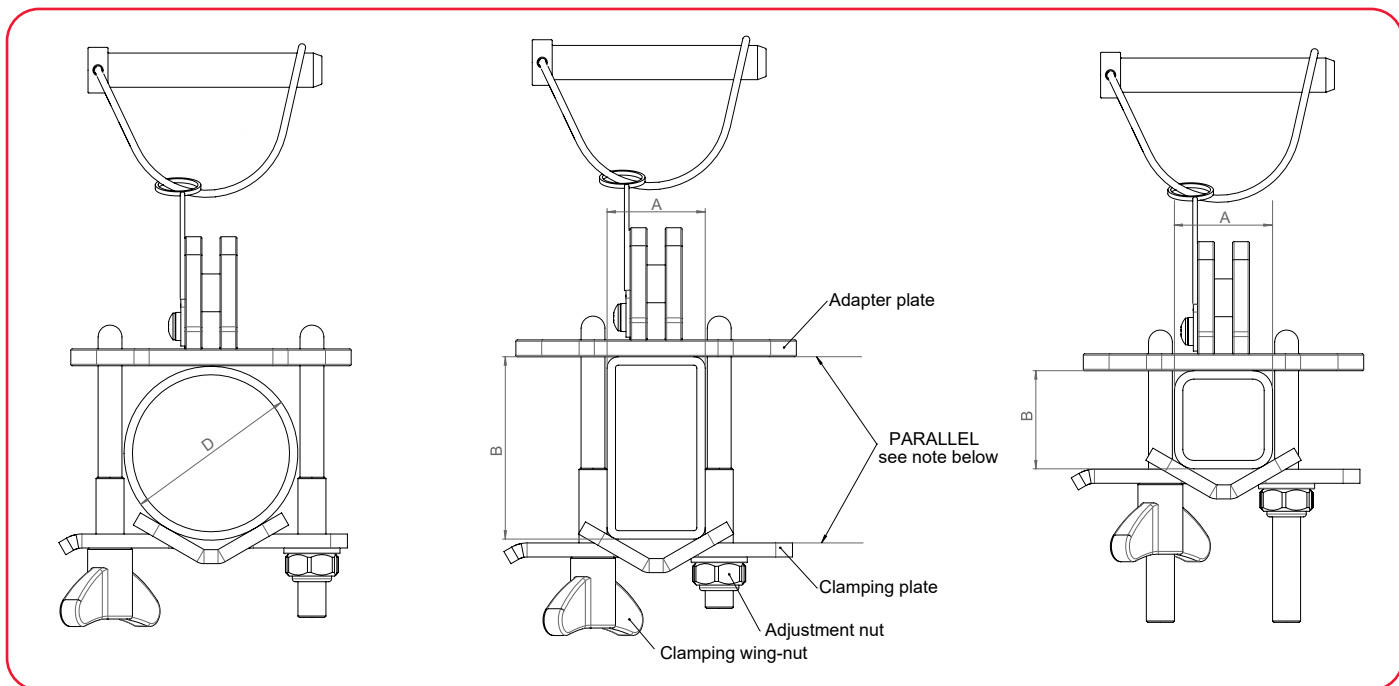
### Installation procedure C

The Winch LokHead 500 KIT can be installed on different tripods, using the tripod adapter plate and the clamping plate, refer to the following table for the compatibility list.



#### WARNING!

Before installing the plate on the tripod leg, check its dimensional compatibility.



Range of compatible diameters D: Ø40-Ø65 mm

**NOTE:** Set the adjusting nut according to size "B" so that the plates are parallel once the U-bolts are tightened (U-bolt nut tightening).

A	B						
35	35	40	45	50	55	60	65
40	40	45	50	55	60	65	
45	45	50	55	60	65		
50	50	55	60				
55	55	60					
60	60						

Note: all dimensions are in mm.



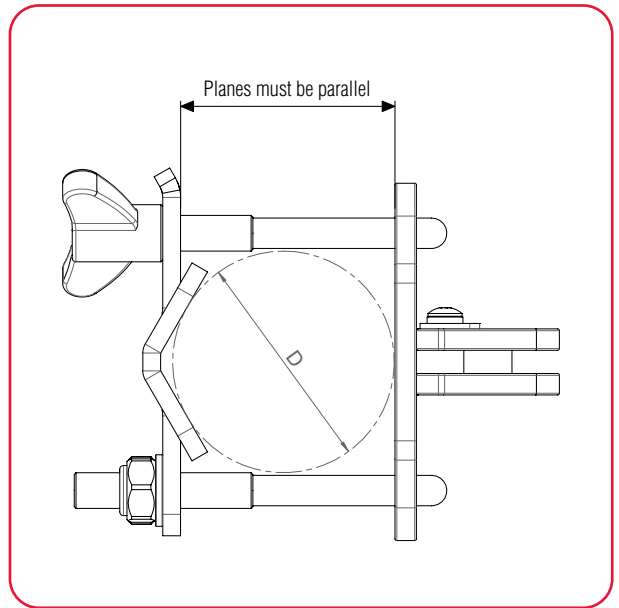
1. Place the adapter plate and the tripod clamping plate on the tripod



2. Tighten the two nuts with a wrench (30 Nm)



3. Tighten the two U-bolts



**WARNING!**

Ensure that the adapter plate and the tripod clamping plate are locked and parallel as shown above.

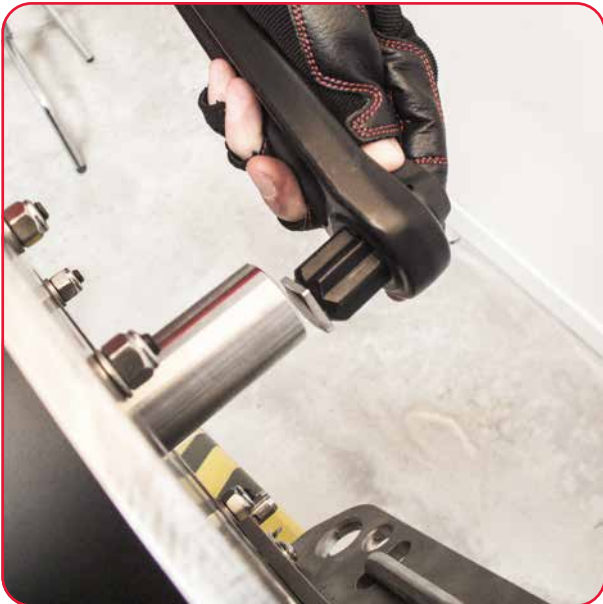
## Installation



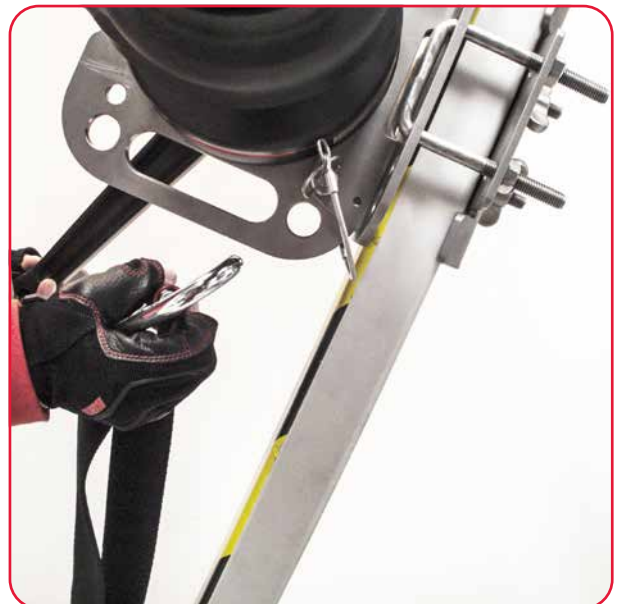
4. Place the plate on which the Winch is installed on the tripod adapter plate.



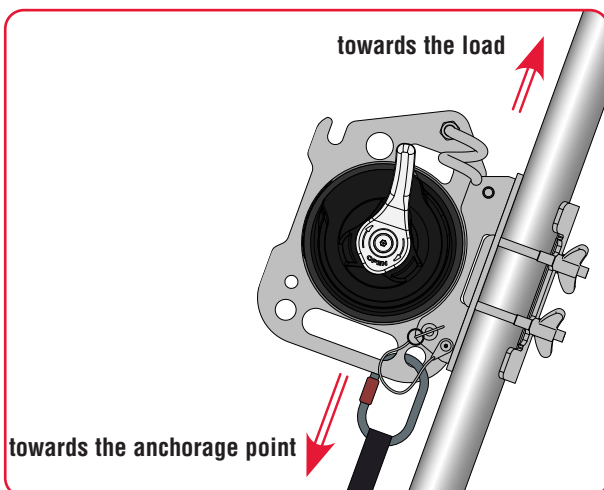
5. Secure the plate on which the winch is installed with the self-locking nut.



6. Insert the handle in the handle coupling.



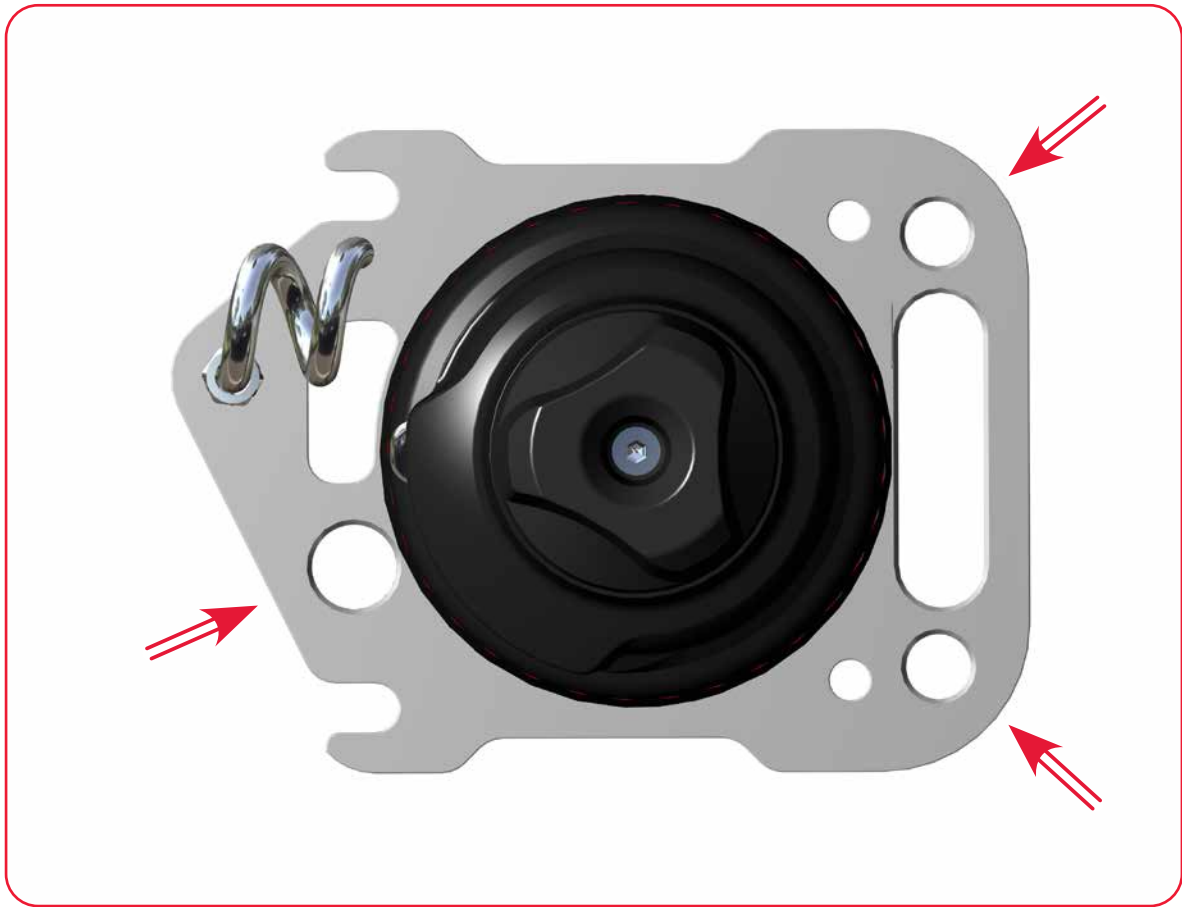
7. Attach an anchorage strap connector to the plate on the Winch side, and the second anchorage strap connector to a secure anchorage point on the opposite side.





**Installation procedure D**

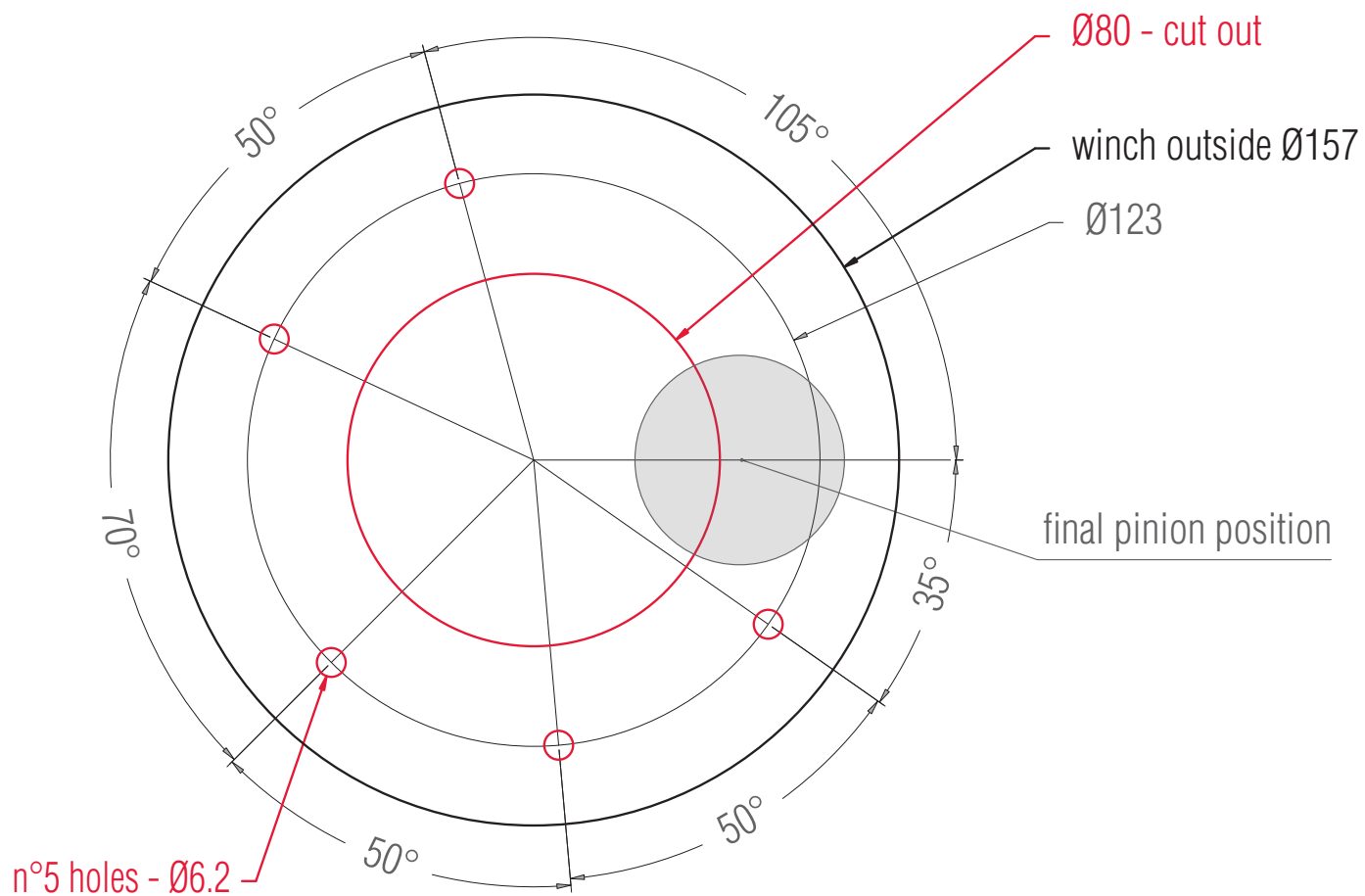
The Winch LokHead 500 KIT (INLH500KIT.RP) must be installed through the three holes in the plate on which it is installed.

**NOTE!**

For the loads and directions on the plate anchorage points, refer to the chapter "Plate test".

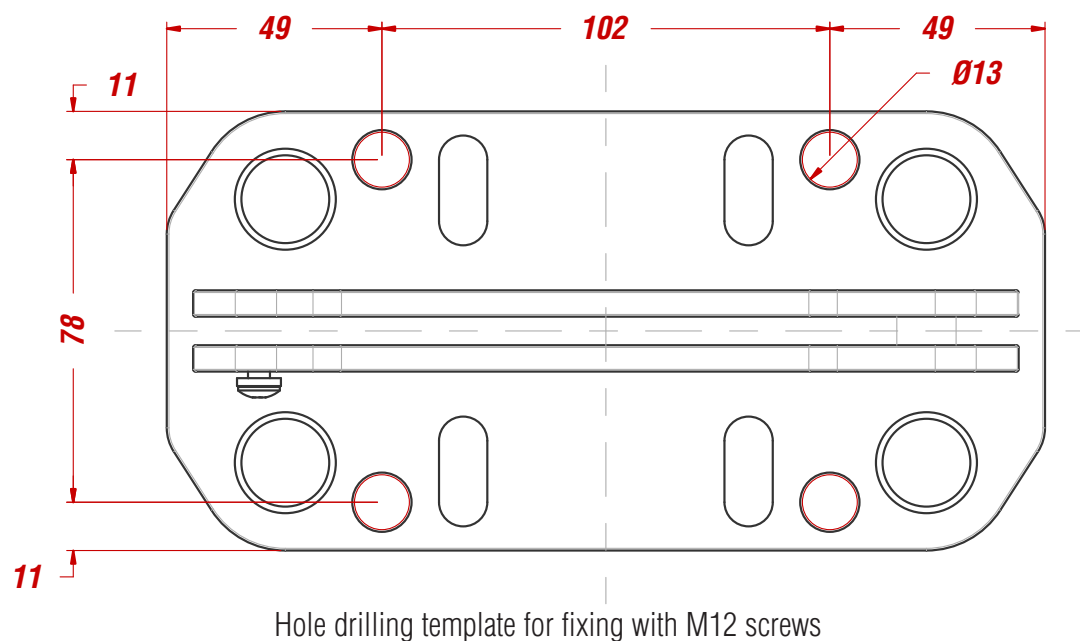
## Drilling template

### Drilling template - Winch LokHead 500 KIT (INLH500)

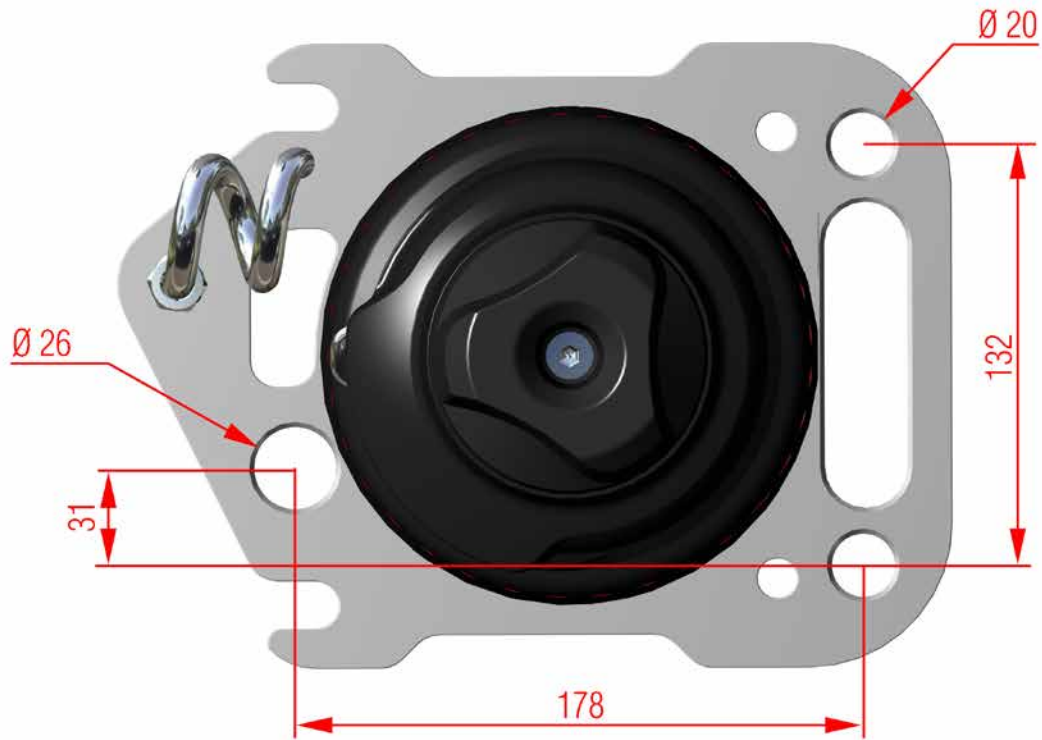


Note: all dimensions are in mm.

### Drilling template - Tripod Plate (INLH500KIT, INLH500KIT.ASG, INLH500KIT.C)



Note: all dimensions are in mm.

*Drilling template - Plate (INLH500KIT.RP)*

Note: all dimensions are in mm.

## Control lever

### POSITIONING THE CONTROL LEVER (INLH500KIT, INLH500KIT.ASG, INLH500KIT.C, INLH500KIT.RP)



1. Loosen the knob screw.



2. Position the control lever using the screw supplied with the transformation kit.



3. Tighten the control lever screw.



Securely fix the Winch plate to the tripod adapter plate using self-locking nuts.

**TELLUMOUNT SUPPORT PLATES (INTMOUNT) FOR VERSIONS INLH500KIT, INLH500KIT.ASG, INLH500KIT.C, INLH500KIT.RP**

In addition to the fixing method described above, it is possible to use a different anchorage system with TelluMount support plates, a product available on request.

This accessory consists of two support plates that connect to the Winch LokHead 500 KIT plate by means of pins and wing nuts that facilitate assembly.

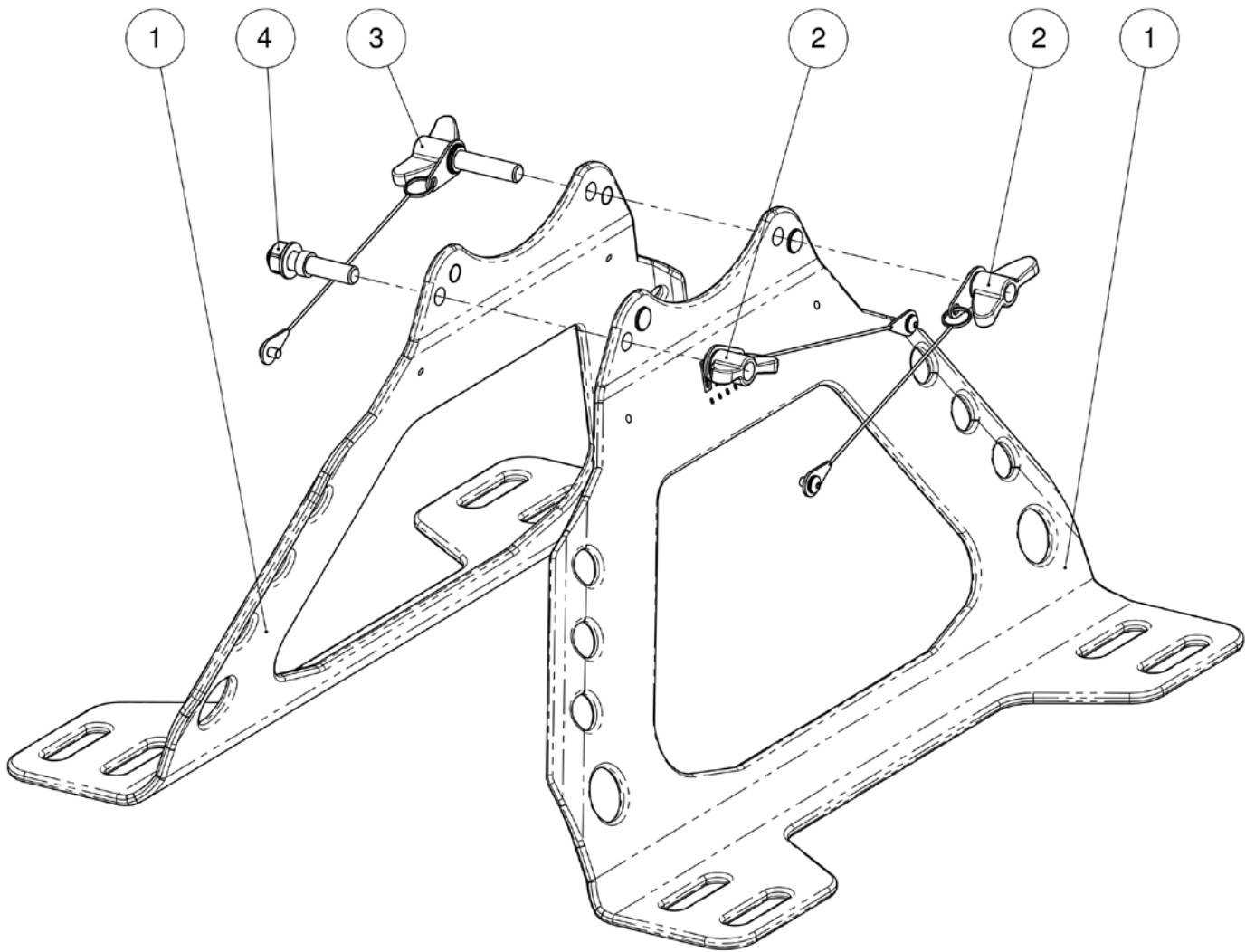
The support plates must be properly fixed to the ground, on a flat surface or to a wall (these surfaces must have sufficient resistance to withstand the load for which the Winch is certified), using 4 M12 grade 12.9 bolts or 4 expansion anchors (with minimum shear strength of 18 kN and minimum extraction resistance of 14 kN per anchor) through the 4 internal slots or the 4 external slots in the base of the plates.

If using expansion anchors, carefully evaluate the type of anchor and the support where they will be fixed in order to guarantee the anchoring hold with a maximum load of 2400 kg.

If it is not possible to anchor the plates to the ground, the Winch plate and the TelluMount support plates can be fixed to a fixed point; for this operation use connectors, anchorage straps or ropes (appropriately certified for this operation).

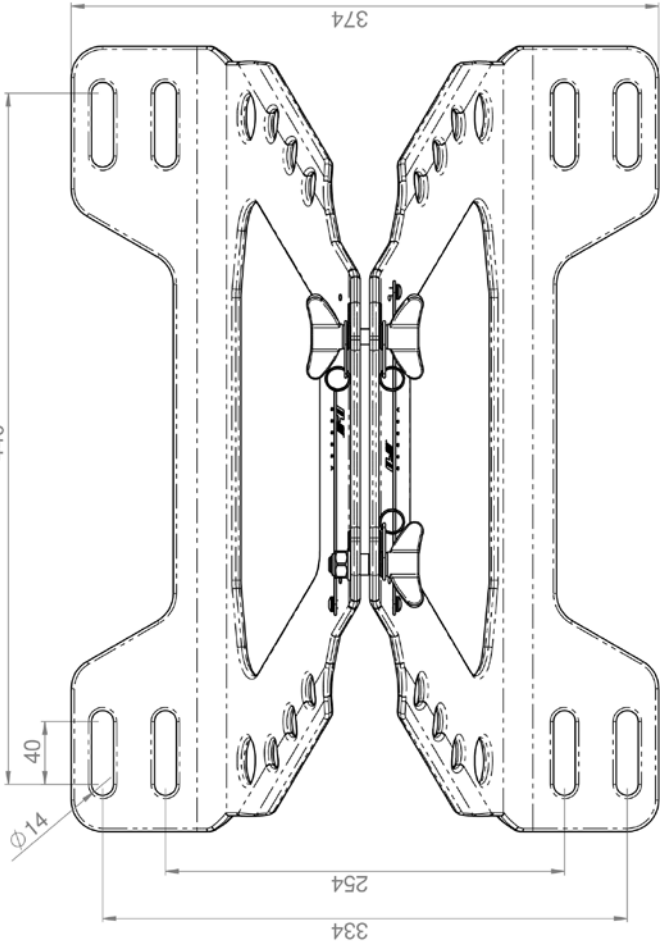
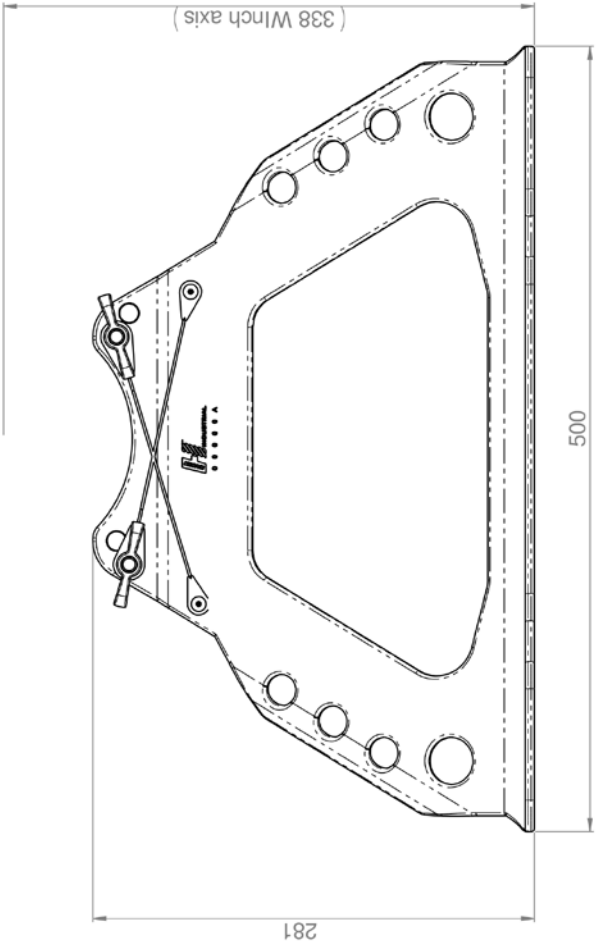
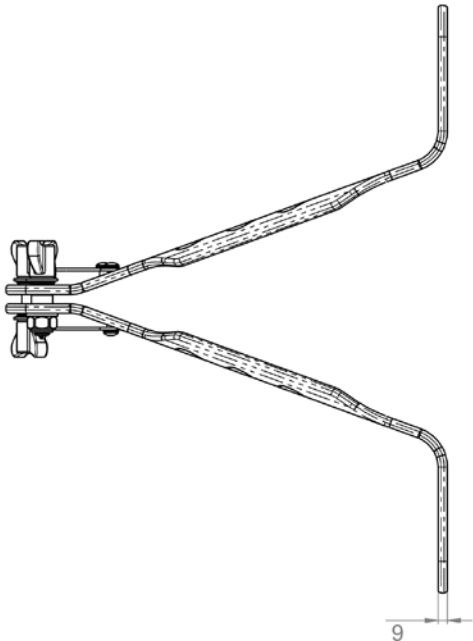
## Tellumount (INTMOUNT)

### Description of the parts



Pos.	Description
1	LokHead support plates
2	Wing nut assembly
3	Wing nut/pin assembly
4	Self-locking nut/pin assembly

Dimensions



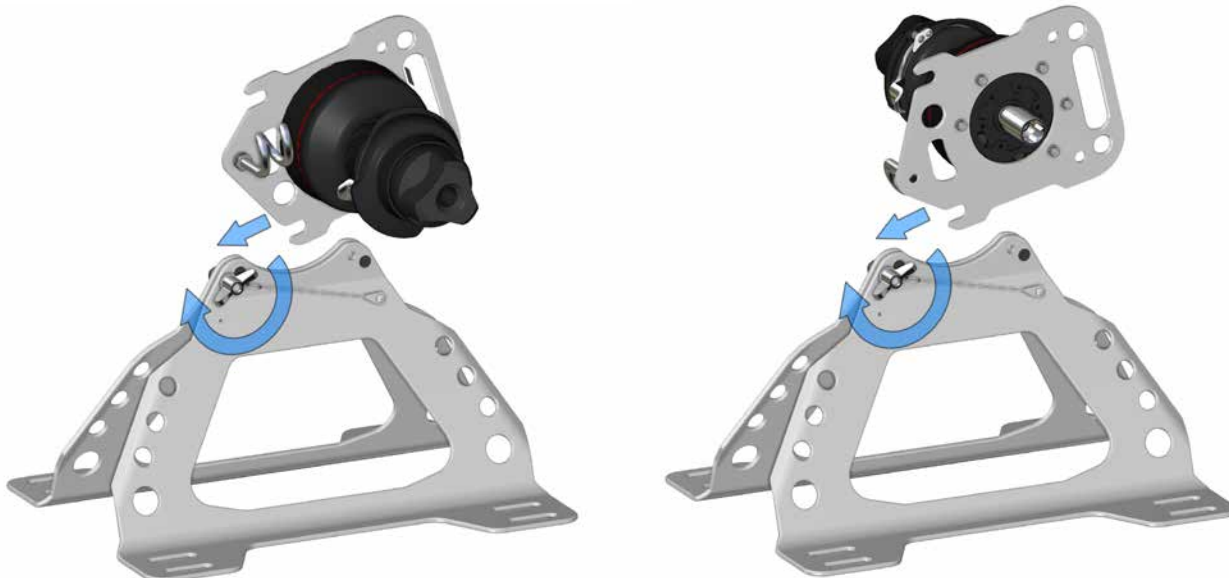
Note: all dimensions are in mm.

## Tellumount (INTMOUNT)

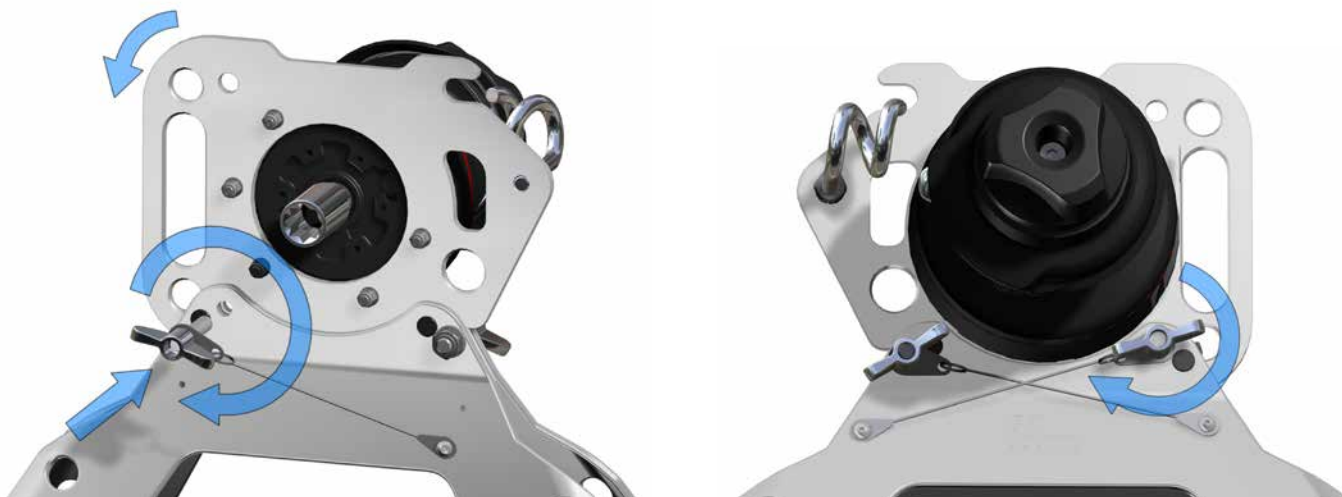
### Installation of TelluMount plates

To install the Winch LokHead 500 KIT on the TelluMount support plates, proceed as follows:

1. Insert the Winch LokHead 500 KIT plate between the two TelluMount support plates, hooking it to the pin on the assembly pos. 4 (see chapter "Description of the parts"); both types of installation shown are valid; tighten the wing nut.



2. Align the hole of the Winch LokHead 500 KIT plate with the holes of the TelluMount support plates so that the pin of the assembly pos.3 can be inserted (see chapter "Description of the parts"), then tighten the wing nuts.





**TelluMount plate anchorage**

**Anchorage with bolts**

Secure the TelluMount support plates to the support surface using 4 M12 grade 12.9 bolts through the 4 external slots (figure A) or the 4 internal slots (figure B);

Figure A  
(top view)

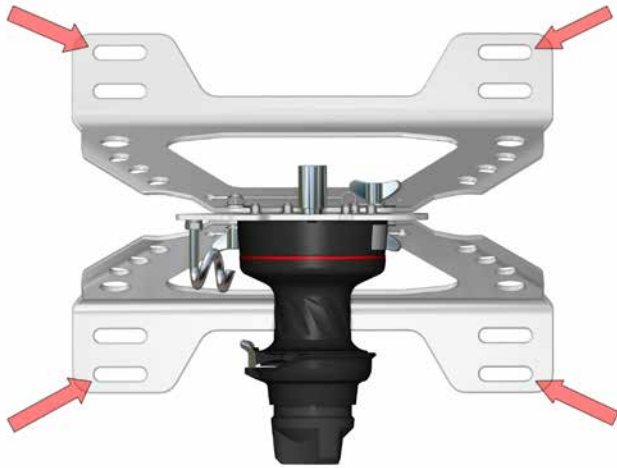
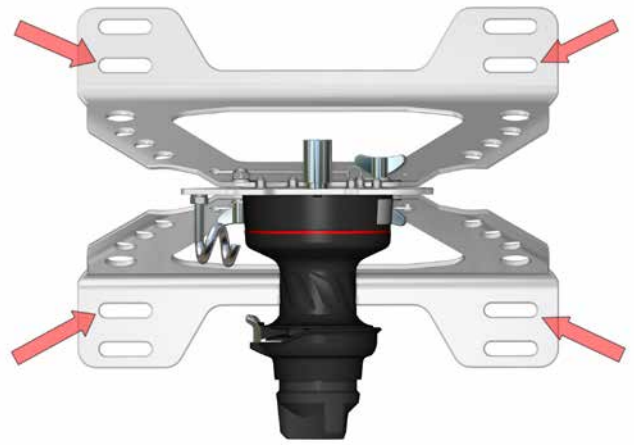


Figure B  
(top view)

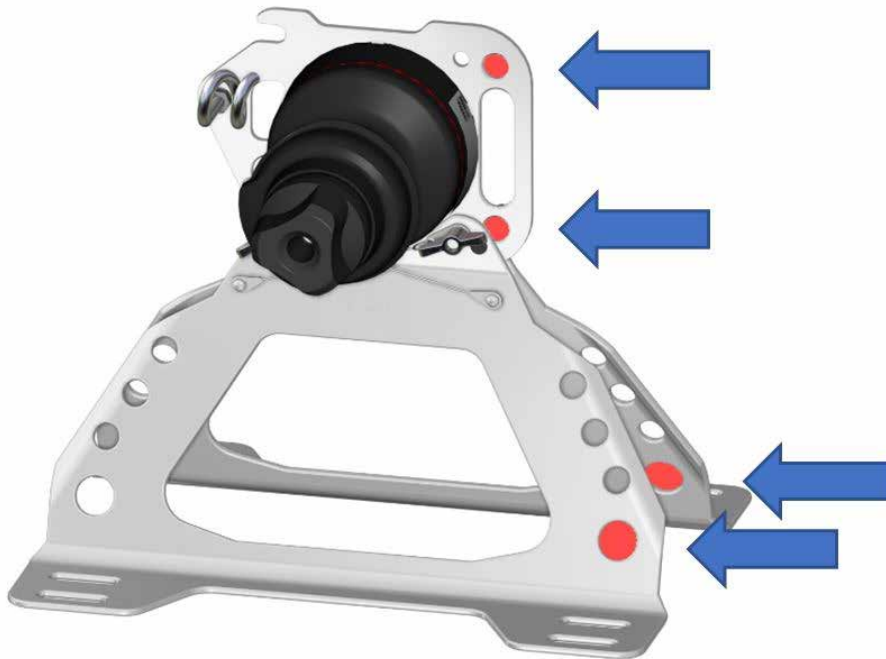


Example of anchorage by means of bolts in internal slots

## Tellumount (INTMOUNT)

### Anchorage with ropes

If it is not possible to anchor the Winch to a plane by means of plugs or bolts, it is recommended to fix the Winch LokHead 500 KIT plate and the TelluMount plates to a fixed point, using connectors, anchorage straps or ropes (appropriately certified for this operation), using the holes indicated below.

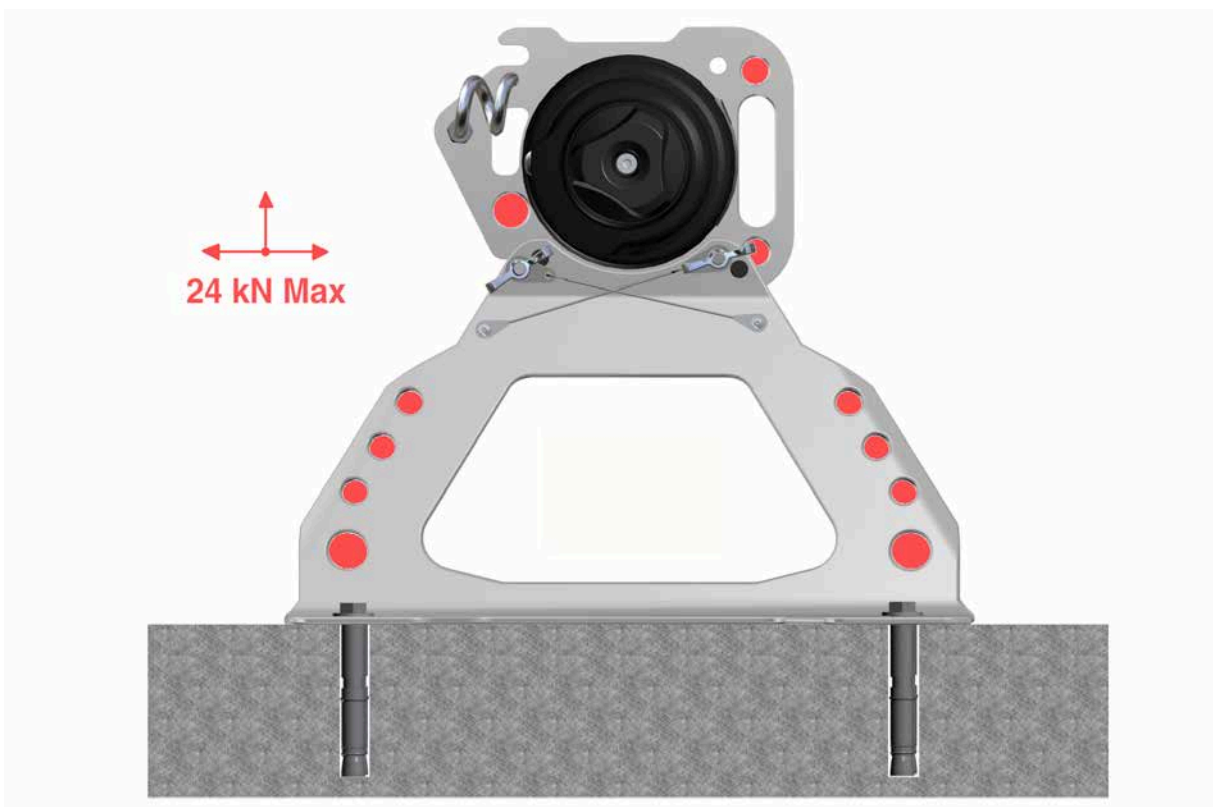


Example of anchorage by ropes using the plate holes



#### **WARNING!**

All holes in the TelluMount Support Plates and Winch LokHead 500 KIT plate, are tested for horizontal (in both directions) and vertical (upwards) load **total of max. 24 kN.**



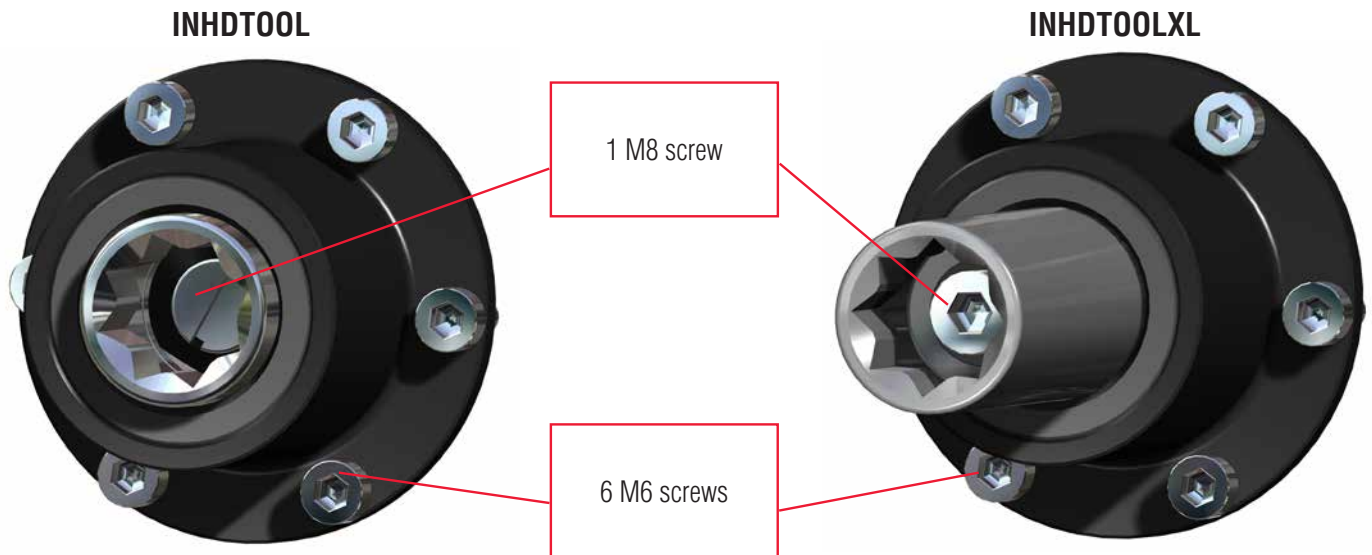
**INHDTOOL, INHDTOOLXL (FOR ALL VERSIONS)**

In case of need, to extend the position of the Winch Crank or for heavy-duty or intensive applications, it is possible to use the UD LokHead Flange extension kits, available on request.

**Installation**

The INHDTOOL kit or INHDTOOLXL kit at Winch LokHead is installed using a CH5 Allen key and a medium flat screwdriver (for the INHDTOOL kit) or a CH6 Allen key (for the INHDTOOLXL kit).

The installation procedure is identical on all models of Winch LokHead 500 (INLH500, INLH500KIT, INLH500KIT.ASG, INLH500KIT.C, INLH500KIT.RP).



To install the INHDTOOL kit or INHDTOOLXL kit proceed as follows:

1. Place the Winch LokHead on a suitable work surface and loosen the M8 screw fastening the hub coupling.



## UD LokHead Flange Kit (INHDTOOL, INHDTOOLXL)

2. Remove the hub coupling.



3. Place the INHDTOOL kit or the INHDTOOLXL kit against the base, coupling it to the Winch LokHead square coupling shaft. Tighten the central M8 screw and the six M6 Allen screws at the base to the torque indicated below.

Torque 5 Nm



*Dimensions*



Note: all dimensions are in mm.

**USING THE WINCH (ALL VERSIONS) - CHECKING THE WINCH BEFORE USE**

Before and after each use, visually inspect the Winch LokHead 500 KIT and the plate for signs of wear, damage or breakage. If there are any signs, do not use the machine. If the worn or defective parts are not promptly replaced, the manufacturer shall not be liable for any accidental damage that may result.



Check the mobility of the semi-pulley cover.



Check the correct operation of the semi-pulley control lever by turning and releasing it.



**WARNING!**

For safety purposes, the use of the Winch must be suspended immediately in case of:

- Any doubts on its safe use;  
and must not be used again until written confirmation by a competent person that its use is acceptable is obtained.



**WARNING!**

Before each use, visually inspect the Winch LokHead 500 KIT for signs of wear, damage or breakage. If there are any signs, do not use the machine. If the worn or defective parts are not promptly replaced, the manufacturer shall not be liable for any accidental damage that may result.



**WARNING!**

Before each use, inspect the Winch and the semi-pulleys for signs of wear, damage or breakage that could compromise the strength and operation of the locking system. Check the lifting/lowering rope to make sure it is not worn. In case of doubt, replace with a sufficiently strong rope.



**WARNING!**

Before each use, check that the Winch base is firmly attached to the plate. The use of an incorrect number or length of the fixing devices and/or the incorrect tightening may result in a sudden and unexpected failure of the Winch in the event of high loads, which could cause the load to fall, with consequent serious injury or death.



**WARNING!**

Before each use, check that the Winch drum cannot be manually rotated counter-clockwise. When operating the Winch drum, it must only rotate clockwise.



**WARNING!**

In lifting/lowering systems, check that there are no sharp edges, which could cut, drag, fray or wind the rope.

## ROPE POSITIONING



### WARNING!

Keep fingers, loose clothing, hair, etc. away from the Winch. The area around the Winch handle must be kept free from persons and objects at all times.



1. Pass the rope inside the pigtail. Starting from the base, wind the rope on the drum clockwise.



2. Ensure that the rope does not override on the Winch.



### WARNING!

Wind the rope at least twice clockwise around the Winch drum, and if the rope slips once under load, increase the number of windings up to a maximum of 4, taking care not to cross the rope over.



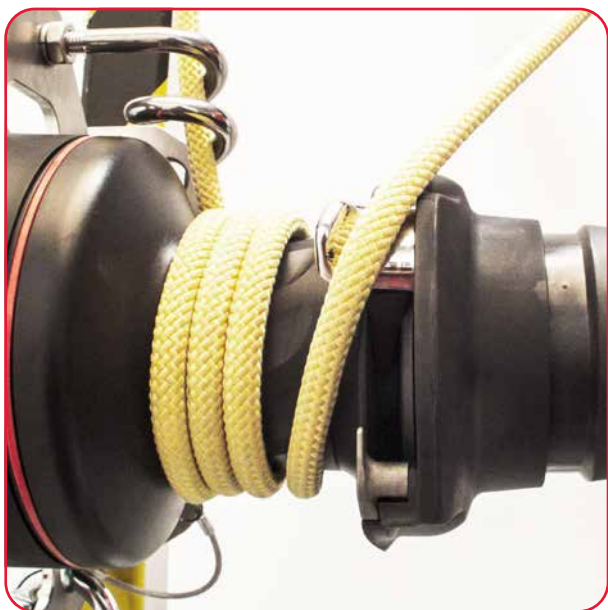
### NOTE!

The number of windings required around the Winch drum depends on the load and condition of the rope. Before using, check the descent capacity in the work configuration. In case of difficulty, unwind the rope, and reduce the number of windings to a minimum of 2, in order to obtain the optimal configuration.



### WARNING!

Never allow the rope to override on the Winch drum. This can cause the rope to jam and prevent the load from being lifted/lowered. To eliminate override, reduce the tension of the load on the rope. This procedure has a risk of serious injury or death if the load falls or becomes uncontrollable.



3. Pull the rope until any slack on the Winch drum is eliminated, then pass the rope over the stripper arm, winding it clockwise and keeping the tension to engage it in the semi-pulleys.



4. Pass the rope between the two semi-pulleys. To facilitate the operation, lift the cover. Place the rope inside the retainer.



**CORRECT**



**INCORRECT**



**WARNING!**

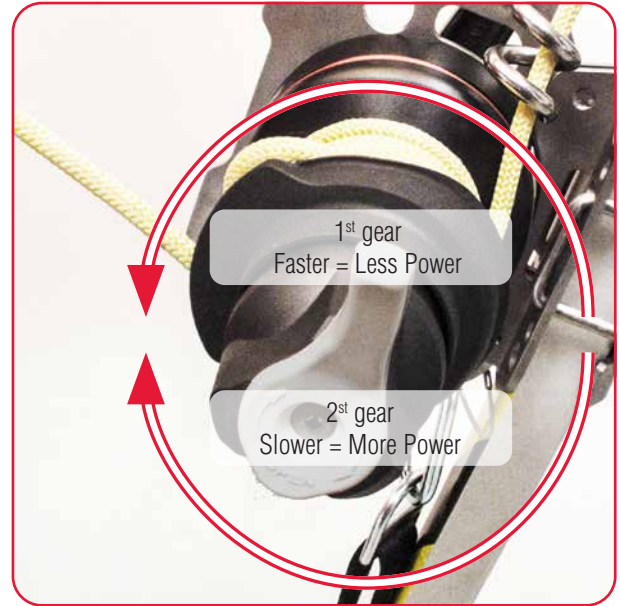
Make sure that the rope is correctly positioned on the stripper arm and inside the spring pre-loaded self-locking semi-pulleys.



## LIFTING (ALL VERSIONS)



1. Start by turning the handle counter-clockwise. The gears are engaged automatically according to the direction of rotation.  
1<sup>st</sup> gear: turn the handle counter-clockwise. 2<sup>nd</sup> gear: turn the handle clockwise.



2. When the handle becomes difficult to turn in 1<sup>st</sup> gear, invert the direction of rotation to engage the 2<sup>nd</sup>. A higher power ratio makes it easier to lift a heavier load with the same effort.



### NOTE!

The maximum input speed of the Winch LOKHEAD 500 KIT is 60 rpm.

## LOWERING LOADS / LOWERING PERSONS (ALL VERSIONS)

To lower the load or the person, hold the rope with one hand.

With the other hand, turn the knob (or control lever, if installed) clockwise to allow the rope to slide over the Winch drum and ensure a controlled descent of the load or person. To adjust the descent speed, manually check the sliding speed of the rope on the Winch, moving the arm that holds the rope away from the Winch drum.

To stop the load or person being lowered, release the knob (or the control lever, if installed).

When lowering the load or person, avoid loosening the rope between the anchorage point and the person or load.



### WARNING!

In case of difficulty lowering the load or person, unwind the rope, and reduce the number of windings to a minimum of 2, in order to obtain the optimal configuration. Do not fully unwind the rope from the Winch until the tension on the rope has been completely eliminated.



### NOTE!

If the control lever is used, do not apply excessive force to avoid deforming it. Remember that the descent speed is not proportional to the force applied to the lever.

## Useful life, maintenance



### WARNING!

During lowering operations it is vital to check the free end of the rope, to reduce the risk of serious injury or death. Tie a knot in the free end of the rope to prevent it from coming out of the Winch.



### WARNING!

It is vital that the load or person being lowered is always under control as loss of control can be difficult to recover.



### WARNING!

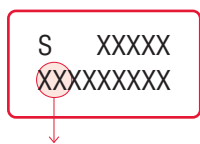
Be careful during or after prolonged lowering of the loads, as the Winch may overheat and damage the rope.

## USEFUL LIFE

The Winch LokHead 500 KIT and its accessories have a useful life of 30 years from the date of construction, provided there are no causes that may determine their withdrawal and provided that all the required periodic inspections and any necessary maintenance are carried out, with the results recorded in the Inspections/ Repairs log.

The date of construction is indicated in the serial number (present on the Winch plate), on the Winch plate and on the declaration of conformity.

Winch serial number:



last two numbers of the year of production of the machine (e.g. 23 = year 2023).

## MAINTENANCE



### NOTE!

The frequency of periodic inspections depends on the legislation, the type of equipment, the frequency of use and the environmental conditions. Have the Winch and its accessories formally inspected by qualified personnel, no later than 12 months from the first date of use. Schedule a subsequent inspection within 12 months of the first. The inspector may postpone complete servicing if the inspection is positive, up to a maximum of 36 months from the date of purchase.

At their discretion, after the inspection the Inspector may make the following decisions:

- The Lokhead is still functional, so it can be used and a positive inspection report is issued; This inspector may do this for up to a maximum of 36 months from the date of purchase of the Lokhead.
- The Lokhead is not usable and requires servicing. In this case, the device is not suitable for use and, prior to being back into use, it must pass the servicing test.

However, whenever the descent energy limit of  $7.5 \times 10^6$  J is reached during use, the Winch must be inspected by qualified personnel.

Do not use the Winch without having carried out the mandatory periodic inspection. The inspection carried out by an authorised Harken Inspector must be recorded in the equipment control sheet present in this Manual and the Inspection report signed by the Inspector must be kept by the Winch owner.



**WARNING!**

Regular periodic inspections are necessary for the safety of users, which depends on the continuous efficiency and durability of the equipment.



**WARNING!**

It is not possible to make alterations or additions to the equipment without the prior written consent of the manufacturer.



**NOTE!**

Check the legibility of the Winch marking.



**NOTE!**

Do not replace or modify the Winch with a component that is not designed for this purpose.



**WARNING!**

Periodic maintenance must be carried out regularly. Lack of proper maintenance reduces the life of the Winch and its accessories, can cause serious injury and invalidate the Winch warranty. The Winch and its accessories must only be serviced by the manufacturer or by qualified personnel authorised by the manufacturer, in strict compliance with the manufacturer's periodic inspection procedures.



**WARNING!**

When the Winch LokHead 500 KIT gets wet, due to use or cleaning, it must be allowed to dry naturally and kept away from direct heat.

**Cleaning**

Wash the Winch and its accessories frequently with fresh water and allow them to dry naturally and away from direct heat. Do not allow cleaning products or other cleaning substances containing caustic solutions to come into contact with the Winch and its accessories, especially with anodised, chrome or plastic parts. Do not use solvents, polishes and abrasive pastes on the logos and stickers on the Winch.

**TRANSPORT**

Keep away from extreme temperatures: below -40°C or above +50°C  
 Excessive heat can deform some components.  
 Extreme cold can damage any fragile materials and cause the lubricating products to freeze.  
 Use the original packaging for transport.

**PACKAGING AND STORAGE**

Each Winch is supplied by Harken in its original packaging in order to prevent dust and dirt and potential damage. Check the integrity of the packaging and if it is damaged, before using the Winch, carry out a thorough inspection. Store the Winch in a dry, ventilated place, with low humidity and not in a saline environment to avoid corrosion and protect the product from impacts, chemical reagents or possible damage that could reduce the useful life or affect the performance of the Winch.

Use the original packaging for storage.

## Control sheet

### CONTROL SHEET

Keep a control sheet for each Winch with the following details (see the example control sheet below).

It is the responsibility of the user organisation to provide the control sheet and to enter the required details in the control sheet and to file the Winch Inspection Report signed by a Winch Inspector authorised by Harken after the mandatory inspection.

EQUIPMENT CONTROL SHEET		
PRODUCT / MODEL / TYPE	DESCRIPTION	SERIAL NUMBER
MANUFACTURER <b>HARKEN ITALY S.P.A.</b>	ADDRESS <b>VIA MARCO BIAGI 14, 22070 LIMIDO COMASCO (CO), ITALY</b>	TEL / FAX / EMAIL / WEBSITE <b>+39.031.3523511 +39.031.3520031 INFO@HARKEN.IT WWW.HARKEN.IT</b>
PRODUCTION YEAR	PURCHASE DATE	DATE OF FIRST USE
OTHER RELEVANT INFORMATION (I.E. DOCUMENT NUMBER):		

INSPECTION/ REPAIR LOG				
Date	Reason for entry (periodic inspection or repair)	Defects noted, repairs made and other relevant information	Name and signature of the competent person	Date planned for the next periodic inspection

**INSPECTION/ REPAIR LOG**

Date	Reason for entry (periodic inspection or repair)	Defects noted, repairs made and other relevant information	Name and signature of the competent person	Date planned for the next periodic inspection

## INSPECTION/ REPAIR LOG

<b>Date</b>	<b>Reason for entry (periodic inspection or repair)</b>	<b>Defects noted, repairs made and other relevant information</b>	<b>Name and signature of the competent person</b>	<b>Date planned for the next periodic inspection</b>

<b>INSPECTION/ REPAIR LOG</b>				
<b>Date</b>	<b>Reason for entry (periodic inspection or repair)</b>	<b>Defects noted, repairs made and other relevant information</b>	<b>Name and signature of the competent person</b>	<b>Date planned for the next periodic inspection</b>

**HARKEN®**

***Manufacturer***

**Harken Italy S.p.A.**

Via Marco Biagi 14, 22070 Limido Comasco (CO), Italy

Tel 031.3523511; Fax 031.3520031

Web: [www.harken.it](http://www.harken.it)

Email: [info@harken.it](mailto:info@harken.it)

---

## **Warranty**

For the Warranty, refer to the Harken Worldwide Limited Warranty on the website at:

***<http://www.harken.com/>***

The product is accepted under Warranty only if it has been maintained as indicated in this Manual by authorised Harken personnel and is accompanied by the correctly completed Maintenance Sheet