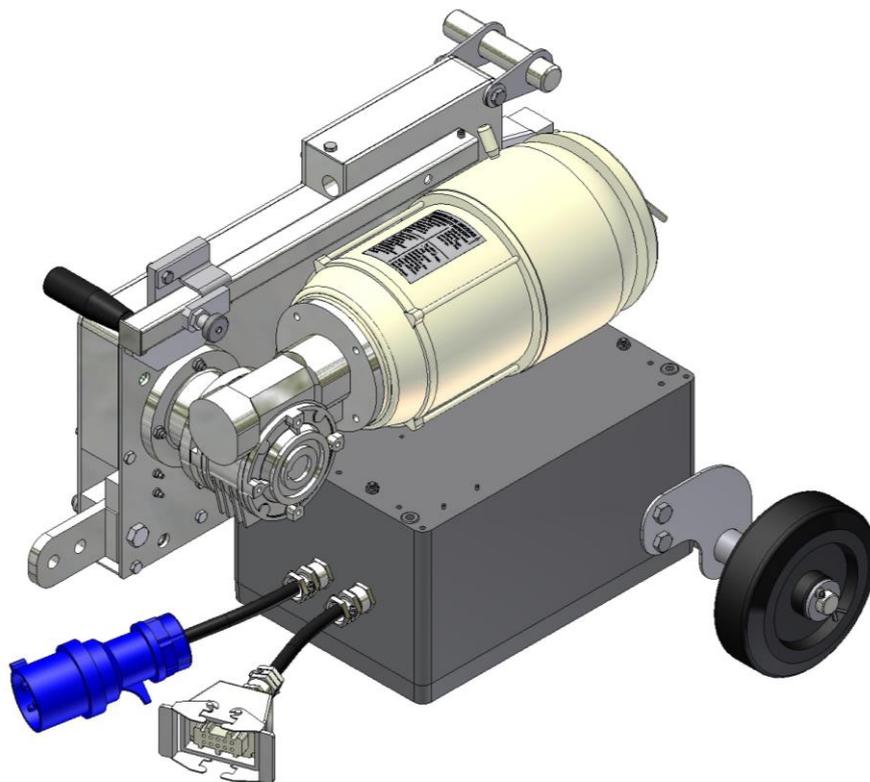


INSTRUCTIONS

LIFTHO® 500

INSTALLATION – USE - MAINTENANCE





CONTENTS

1	WARNING	3
1.1	Priority instructions.....	3
1.2	Preliminary verifications.....	3
2	GENERAL CHARACTERISTICS	4
3	ATTACHMENT OF THE HOIST	5
4	ATTACHMENT OF THE FALL-PREVENTION SYSTEM.....	5
4.1	Attachment of the fall-prevention system on the hoist	5
4.2	Attachment of the fall-prevention system independent of the hoist	6
5	COMMISSIONING.....	6
5.1	Voltage and wire sections	6
5.2	Operating the hoist.....	6
5.3	Introduction of working and safety cables.....	7
5.3.1	Preliminary recommendations regarding cables	7
5.3.2	Inserting the working cable in the hoist.....	8
5.3.3	Inserting the safety cable in SECURICHUTE (personnel lifting).....	8
6	USING THE MANUAL EMERGENCY DESCENT	9
7	DISMANTLING.....	9
7.1	Dismantling the working cable	9
7.2	Dismantling the safety cable.....	9
8	HANDLING AND STORAGE	10
8.1	Transporting the hoist	10
8.2	Storage	10
9	TROUBLESHOOTING.....	10
9.1	Special case of SECURICHUTE	10
9.2	Identifying and locating faults	10
10	MAINTENANCE	12
10.1	Regular maintenance.....	12
10.2	Greasing of the hoist's grooved pulley	12
10.3	Overload adjustment	13
10.4	Checking SECURICHUTE.....	13
10.5	Replacing the cables	13

The LIFTHO® 500 hoist is used for lifting personnel when it is combined with a **SECURICHUTE fall-prevention system and a safety cable.**

1 WARNING



CAUTION

Meaning of this symbol: failure to respect working and operating instructions may lead to serious injuries, fatal accidents, serious mechanical damage or incorrect operation.

1.1 Priority instructions

- Before using the LIFTHO® 500 hoist, it is essential for the safety of the equipment and its efficiency, to be aware of the instructions and comply with its specifications. The instructions must be provided to each operator. Two additional copies may be provided on request.
- The LIFTHO® 500 hoist is used to perform operations that require to guarantee great safety. As a result, it is recommended to ensure that anyone who is entrusted with the handling is capable of meeting safety requirements that these operations imply.
- Never use a device that is not in a seemingly good condition.



MANDATORY: for your safety, use only FIXATOR cables.

- Remove any damaged cable. Always monitor the condition of the device, its lifting and safety cables. The good condition of cables used for the device is essential to the operating safety of the device. Also monitor the good condition of electrical conductors.



MANDATORY: before opening the electrical control box or the hoist, disconnect the power plug.

- Whether it is the mechanical or electrical part, FIXATOR disclaims all responsibility for consequences of changes to the characteristics or modifications carried out without prior written approval.
- In case the customer desires a modification, he/she must ask for the manufacturer's opinion. Use only original parts for safety and to benefit from the manufacturer's complete guarantee.
- Never apply a load or stress to the device greater than the maximum operating load.
- Check, before electrically connecting the device, that the installation of the connection is designed and protected according to the current safety regulations.
- The LIFTHO® 500 hoists must not be used in an explosive atmosphere.
- Any installation of LIFTHO® 500 according to a system not described in these instructions, transfers the responsibility of consequences that this may be likely to cause to the user and fitter.



IMPORTANT: the user of LIFTHO® 500 must keep himself/herself informed, before commissioning the device, about the safety regulations applicable to the use of personnel lifting devices. It is prohibited to deactivate the safety devices (overload, limit switch, etc.) and move loads above the personnel.

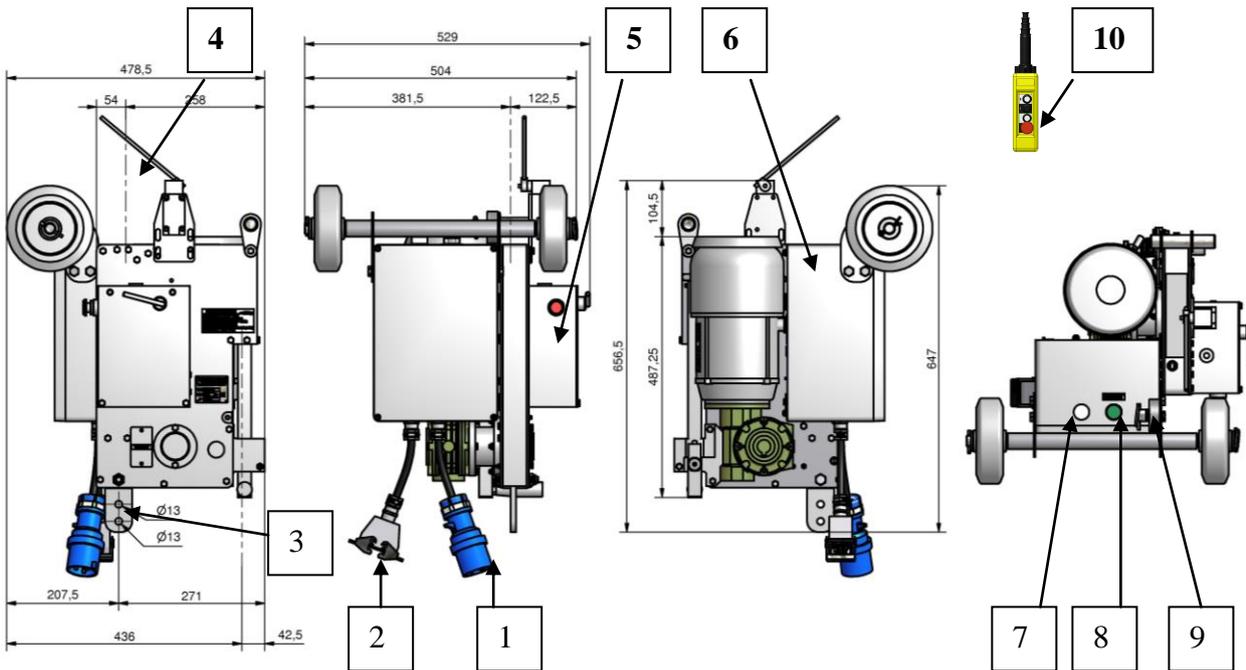


CAUTION: in some countries, periodic inspections and commissioning tests are mandatory.

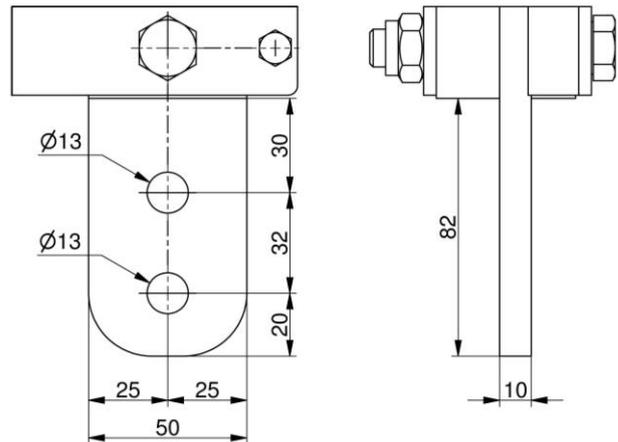
1.2 Preliminary verifications

- Only cables specified by FIXATOR must be used. It is recommended that they be replaced if any one of the defects indicated is observed. (see chapter 5.3.1).
- Check the proper operation of hoists, brakes, overload, emergency stop, etc.
- In case of humidity or heavy rain, before starting work, carry out a few Raising/Lowering operations in order to remove humidity from the hoist.
- The operators must wear a helmet and safety footwear if the site conditions require them.
- The equipment is intended to be used in areas that are illuminated, either naturally or artificially. In case of artificial lighting, the operator must have sufficient light.
- Make sure that the ambient temperature is between -10°C and +55°C.

2 GENERAL CHARACTERISTICS



- 1- Power plug
- 2- Button box connecting socket
- 3- Hoist retaining lug
- 4- Upper limit switch
- 5- Overspeed fall-prevention: SECURICHUTE (mandatory in personnel lifting configuration)
- 6- Switch box
- 7- Power on indicator lamp
- 8- "Shunt" button
- 9- Hand wheel
- 10- Button box



Specifications of the hoist		
	500 M	
Voltage	110 V Single phase	230 V Single phase
Frequency	50 Hz	
Motor power	0.75 kW	0.75 kW
Current load	14 A	7 A
Starting peak	42 A	21 A
Hoist weight	51 kg	
Capacity in kg	500	
Climbing speed	9 m/min	
Emergency descent	4.5 m/min	
Cable characteristics	Polypropylene core	
Cable diameter	Ø 8.3 mm	
Fracture load in kg	5100	
Design factor	9.6	
Hoist version	CE	

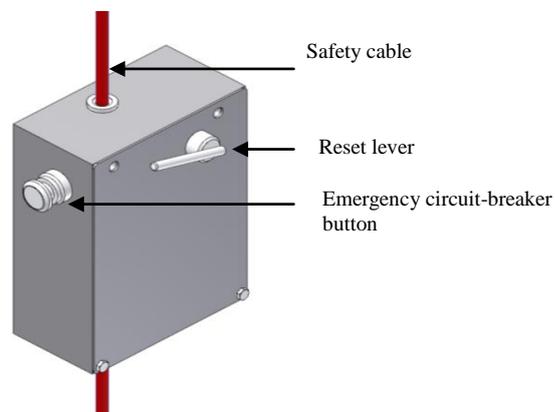
LIFTHO® 500 is a single-phase portable electric hoist, with automatic cable passage enabling unlimited travel of the hoisting cable.

Standard equipment:

- Load limiter
- Controlled manual descent in case of power failure
- Service brake without power
- Motor protected by temperature sensor
- Upper limit switch
- End of working cable safety
- Detachable button box control
- Travel wheels
- Carrying handles.

LIFTHO® 500 can be used in “personnel lifting” mode provided that it is combined with a SECURICHUTE fall-prevention system of FIXATOR brand and a safety cable.

Specifications of SECURICHUTE	
Capacity	500 kg
Weight	6 kg
Cable diameter	8.3 mm
Fracture load	5,100 kg



The SECURICHUTE overspeed fall-prevention system is automatically activated in case of excessive acceleration of the cable run speed.

In normal operation, the safety cable passes freely in the jaws.

In case of slow sliding of the hoist (humidity or worn part), the operator can stop the movement by pressing the “emergency circuit-breaker” button of SECURICHUTE.

3 ATTACHMENT OF THE HOIST



The hoist has a retaining lug, with 2 attachment points.

The attachment is done using \varnothing 12 mm screws and locknut.

The screws must be perfectly tightened so that the hoist cannot move at all.

Retaining lug

4 ATTACHMENT OF THE FALL-PREVENTION SYSTEM

4.1 Attachment of the fall-prevention system on the hoist

Remove the cover of SECURICHUTE to attach it to the hoist using 2 screws mark (C).

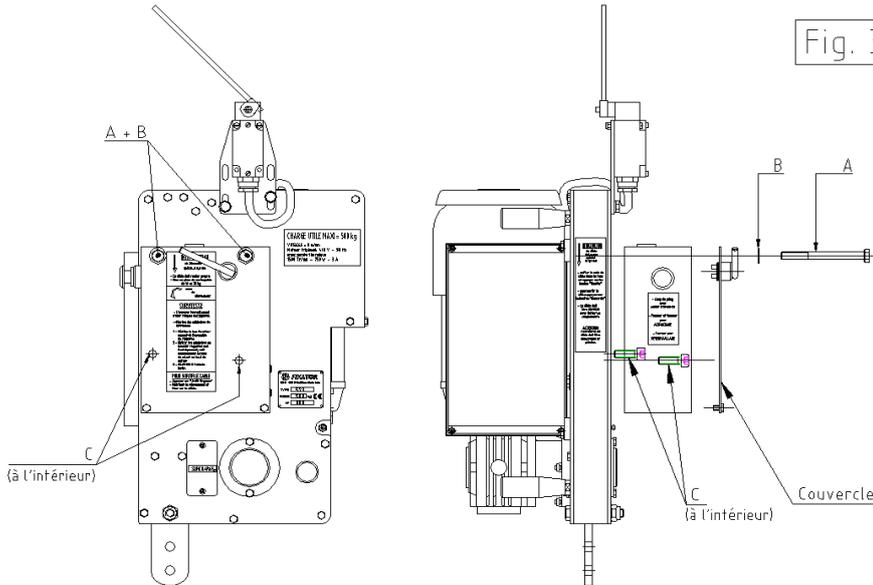
Put the cover back and finish attaching SECURICHUTE with the 2 screws mark (A) and washers mark (B).

Nuts and bolts:

A = 2 Screws HM10 x 110

B = 2 Washers Z10 (\varnothing 10,25x20x2)

C = 2 Screws CHc M10 x 30



4.2 Attachment of the fall-prevention system independent of the hoist

The **SECURICHUTE type 526 (600kg)** fall-prevention system can be fixed independently of the hoist on a plate. Read specific manual 1813000128.

5 COMMISSIONING

5.1 Voltage and wire sections

Make sure that the voltage of the switch box is compatible with the mains power. The power supply is of the following type: Single-phase 110 V. – 50 Hz. or Single-phase 220/230 V. – 50 Hz.

		EXTENSION CABLE SECTIONS	
		1 hoist	
		50 m	100 m
Liftho® 500 M	Single phase 110 V	10 mm ²	16 mm ²
Liftho® 500 M	Single phase	4 mm ²	6 mm ²

The power supply must be protected upstream by an earth leakage circuit breaker 30 mA.

The supply cable must be a flexible cable of at least Class 5.

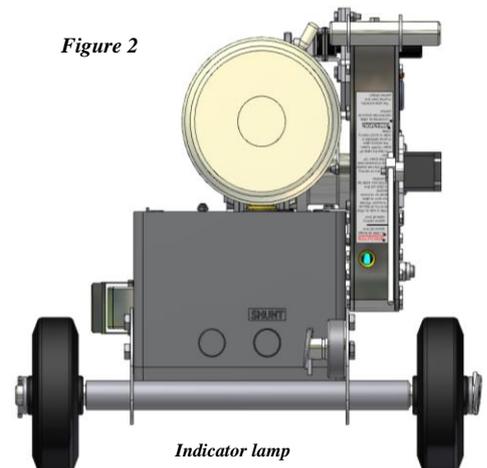
5.2 Operating the hoist

- Connect the button box to the connecting socket of the switch box – Figure 1
- Connect the power plug of the hoist to the mains (the white indicator lamp comes on) – Figure 2
- Release the emergency circuit-breaker (rotate the button to unlock it) – Figure 3



Figure 1

Figure 2



Indicator lamp

- Press the "On" button. The general contactor is activated – Figure 3.

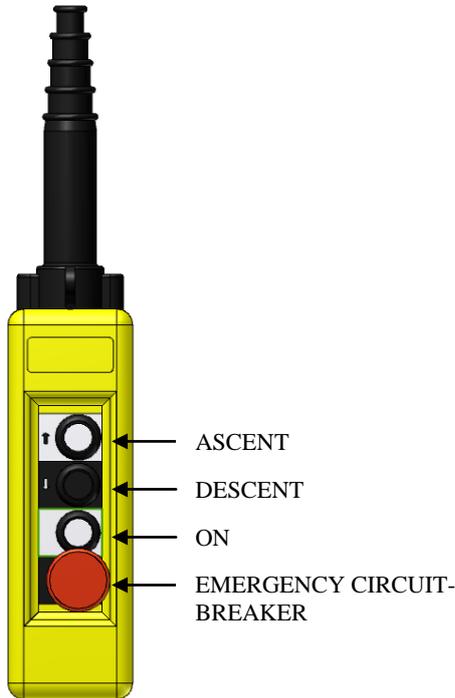


Figure 3

CAUTION: the button box must be held with the power supply lead upwards, as shown in the figure opposite.



EMERGENCY STOP: to activate the emergency stop and turn off the mains power of the LIFTHO® 500 hoist, press the red "emergency circuit-breaker" on the button box.

⚠ DANGER: before intervening on the hoist, disconnect the power plug.

In case of a control error, wait till the movement has stopped completely before executing another control. The control buttons are of the maintained action type. Avoid intensive tapping.

5.3 Introduction of working and safety cables

5.3.1 Preliminary recommendations regarding cables

- **⚠** : use protective gloves when handling the steel cables.
- Check the condition of the cable and its length.
- Avoid the formation of loops when uncoiling the cable – Figure 1.
- The end of the cable must be clean and pointed – Figure 2.

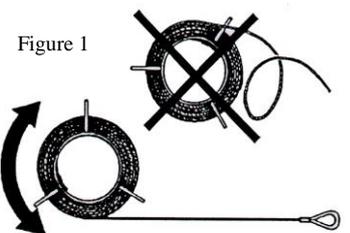


Figure 1



Figure 2

- **MANDATORY:** for your safety, use only **FIXATOR** cables. Only those cables recommended by **FIXATOR** ensure safe operation of the hoists.

⚠ The cables must be replaced in the following cases:

- Minimum diameter of about 7.4 mm. (For the cable Ø 8.3 mm)- Figure 3.

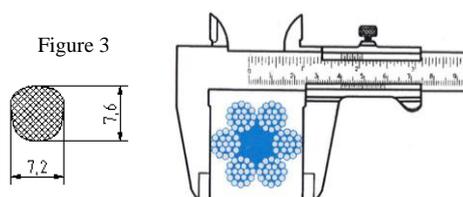


Figure 3

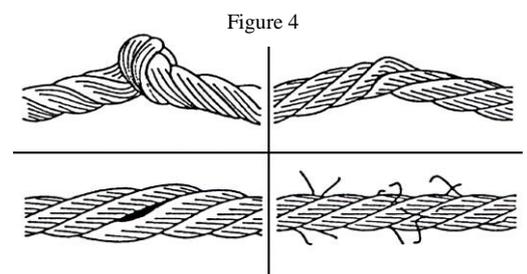


Figure 4

- Rupture of more than 10 wires over a length of 25 cm for the Ø8.3 mm cable.
- Bird caging or rupture of one of the cable strands – Figure 4.
- Crushed cable, strands removed.
- Strong oxidation.

5.3.2 Inserting the working cable in the hoist

- Before inserting the working cable in the hoist, fix the cable to a solid anchoring, which can meet the weight constraints of your installation.
- Power on the hoist.
- Insert the tip of the cable in the hoist until it is stopped
- Take the button box and unlock the emergency stop (red emergency circuit-breaker) by rotating it.
- Press the ON button of the button box
- Press the ASCENT button of the button box and push the steel cable by hand until it projects from the hoist. Continue to press the ASCENT button until the working cable is slightly stretched.
-  : **Caution, make sure that nothing impedes the cable passage at the input and output of the hoist.**

5.3.3 Inserting the safety cable in SECURICHUTE (personnel lifting)

The installation method is identical for SECURICHUTE fixed directly on the hoist or on an independent plate.

REMINDER: the use of SECURICHUTE fall-prevention system is mandatory when the LIFTHO® 500 hoist is used in “personnel lifting” mode.

Before inserting the safety cable in SECURICHUTE, fix the cable to a solid anchoring, which can meet the weight constraints of your installation.

Before engaging the safety cable, check that it is not entangled around the working cable.

- Unlock the “emergency circuit-breaker” button of SECURICHUTE by rotating it.
- Press back the reset lever fully to reset the jaws.
- Engage the cable by hand through SECURICHUTE and stretch it slightly.
- Place a counterweight at the end of the cable so that it remains stretched -Figure 1.
- Install the grip-cable clamp and the counterweight a few centimetres from the ground.
- Wind the length of cable not used.

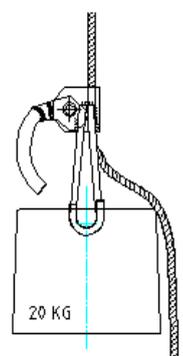
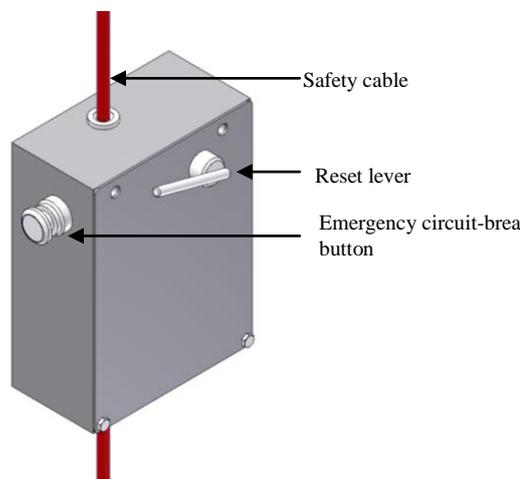
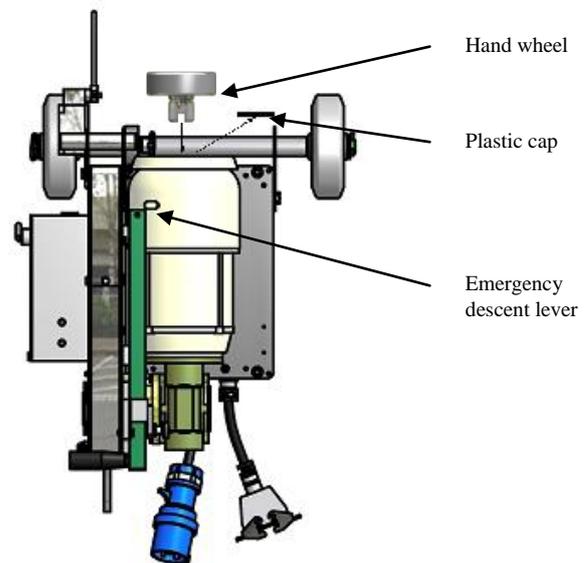


Figure 1

6 USING THE MANUAL EMERGENCY DESCENT

The LIFTHO® 500 hoist is equipped with a manual emergency descent system to be used in case of a power failure.

- Disconnect the hoist's power plug.
- Raise without forcing the emergency descent lever located behind the hoist (opening the service brake).
- In case the assembly does not descend on its own:
 - Remove the plastic cap from the motor shaft.
 - Unfasten the hand wheel (located near the wheels).
 - Place it on the motor shaft
 - Give it an initial impetus by rotating it.
- The assembly descends by its own weight.
- The descent speed is limited and automatically controlled (4.5 m/min)
- The descent stops as soon as you stop operating the emergency descent lever.



Raising in case of power failure:

 In case the safety gear system is blocked, raise the emergency descent lever and raise slightly the assembly using the hand wheel by rotating it until the load is borne by the hoisting cable (the cable must be stretched). The stress can be large.

7 DISMANTLING

Before starting any dismantling operation, ensure that the load is placed on the ground.

7.1 Dismantling the working cable

The end of cable is a safety device that is used to stop the operation of the hoist as soon as the end of the working cable enters into the hoist.

To remove the working cable from the hoist:

- Press simultaneously on the DESCENT buttons of the button box and on the SHUNT button of the hoist's electrical control box.
- Keep them pressed until the cable comes out of the hoist on its own.

7.2 Dismantling the safety cable

To remove the safety cable of the SECURICHUTE fall-prevention system:

- Remove the grip's cable clamp and the 20 kg counterweight.
- Keep the reset lever down.
- Slowly pull the safety cable upwards.

8 HANDLING AND STORAGE

The LIFTHO® 500 hoist must be handled by carrying handles provided (one is rotary, the other one is telescopic).

8.1 Transporting the hoist



8.2 Storage

After use, the lifting device must be stored in an area away from bad weather and significant climatic variations (humidity, cold, heat).

9 TROUBLESHOOTING

9.1 Special case of SECURICHUTE

The following may be cases of blocking on the safety cable:

- Rupture of the working cable: a special emergency operation must be carried out.
- Any problem with the hoist causing an acceleration of the cable run speed: special emergency operation must be carried out.
- An impact / The “emergency circuit-breaker” button locked / Jaws not reset: reset SECURICHUTE.

Resetting SECURICHUTE

- Take the button box and press the RAISE button.
- Raise the hoist by a few centimetres.
- Operate the SECURICHUTE reset lever
- Continue the descent motion.

⚠ : The blocking of SECURICHUTE does not prevent the ascent motion, but prohibits descent.

9.2 Identifying and locating faults

Faults observed	Potential causes of the fault	Remedies
The motor does not	<ul style="list-style-type: none"> ▪ The brake without power is disconnected or out of order 	<ul style="list-style-type: none"> ▪ Reconnect the brake or change it

rotate	<ul style="list-style-type: none"> ▪ The temperature sensor is activated ▪ The overload is activated ▪ The motor has a mechanical fault ▪ The coil of the contactor in the hoist is out of order or disconnected ▪ The coil in the general contactor of the cabinet is out of order or disconnected ▪ Fault in the control circuit ▪ Fault in the power circuit ▪ Power supply fault 	<ul style="list-style-type: none"> ▪ Wait for a drop in temperature ▪ Reduce the load ▪ Check the motor ▪ Reconnect the coil or change it ▪ Reconnect the coil or change it ▪ Have a competent person check it
The hoist does not rise	<ul style="list-style-type: none"> ▪ The grooved pulley is worn or dirty ▪ The starting condenser and the centrifugal coupler are disconnected or out of order ▪ The temperature sensor is activated ▪ The overload is activated ▪ The motor is blocked ▪ The coil of the contactor in the hoist is out of order or disconnected ▪ Fault in the control circuit ▪ Fault in the power circuit 	<ul style="list-style-type: none"> ▪ Verification ▪ Verification ▪ Wait for a drop in temperature ▪ Reduce the load ▪ Verification (maintenance) ▪ Reconnect the coil or change it ▪ Have a competent person check it
The hoist does not descend	<ul style="list-style-type: none"> ▪ The temperature sensor is activated ▪ The overload is activated ▪ The motor is blocked ▪ The coil of the contactor in the hoist is out of order or disconnected ▪ Fault in the control circuit ▪ Fault in the power circuit ▪ SECURICHUTE engaged 	<ul style="list-style-type: none"> ▪ Wait for a drop in temperature ▪ Reduce the load ▪ Check the motor ▪ Reconnect the coil or change it ▪ Have a competent person check it ▪ Reset SECURICHUTE.
The motor is powered but stalls (chugging)	<ul style="list-style-type: none"> ▪ The brake without power is disconnected or out of order ▪ The starting condenser and the centrifugal coupler are disconnected or out of order ▪ The motor is blocked ▪ Fault or one phase missing in the power circuit ▪ Supply lead section too small 	<ul style="list-style-type: none"> ▪ Reconnect the brake or change it ▪ Verification ▪ Verification (maintenance) ▪ Check the power supply ▪ Replace the power cable
The hoist does not lift the load	<ul style="list-style-type: none"> ▪ The grooved pulley is worn or dirty ▪ The permanent condenser is out of order ▪ The starting condenser and the centrifugal coupler are disconnected or out of order ▪ The temperature sensor is activated ▪ The overload is activated 	<ul style="list-style-type: none"> ▪ Verification ▪ Verification ▪ Verification ▪ Wait for a drop in temperature ▪ Reduce the load

	<ul style="list-style-type: none"> ▪ Fault or one phase missing in the power circuit ▪ Supply lead section too small 	<ul style="list-style-type: none"> ▪ Check the power supply ▪ Replace the supply lead
Current too high	<ul style="list-style-type: none"> ▪ The brake without power is disconnected or out of order ▪ The permanent condenser is disconnected or out of order ▪ The motor is blocked 	<ul style="list-style-type: none"> ▪ Reconnect the brake or change it ▪ Reconnect the condenser or change it ▪ Verifications (maintenance)
Slow sliding	<ul style="list-style-type: none"> ▪ The grooved pulley is worn or dirty ▪ The brake without power is worn ▪ The adherence system is worn or dirty 	<ul style="list-style-type: none"> ▪ Verification ▪ Replace the brake ▪ Verification
Uncontrolled manual descent	<ul style="list-style-type: none"> ▪ The manual lowering condenser is worn 	<ul style="list-style-type: none"> ▪ Replace the condenser
Manual descent not possible	<ul style="list-style-type: none"> ▪ The brake without power is jammed 	<ul style="list-style-type: none"> ▪ Verification

10 MAINTENANCE

10.1 Regular maintenance

The repairs and maintenance records must be entered in a register.
The cable certificates must be retained.

- The hoisting cable must be regularly greased or oiled. Use IGOL SHP 50 grease.
- The LIFTHO® 500 hoist must be serviced **every 100 hours of operation or at least once a year.**
- When the LIFTHO® 500 hoist is used in harsh environments (sandblasting, marine environment, etc.) contact the retailer or the manufacturer to know special measures to be taken.
- **The servicing of the LIFTHO® 500 hoist must be carried out by the manufacturer or a competent and trained person.**

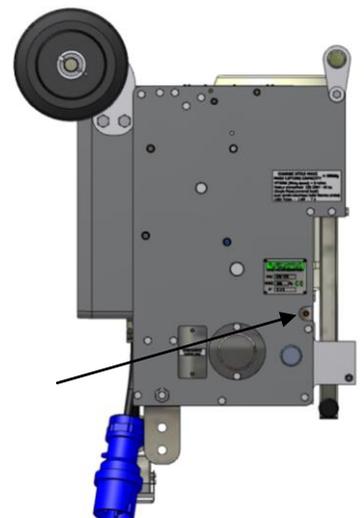
⚠ CAUTION: in some countries, periodic inspections and commissioning tests are mandatory.

10.2 Greasing of the hoist's grooved pulley

Insert grease in the casing from the oil hole (red screw)

Cleaning the assembly:

Oil hole



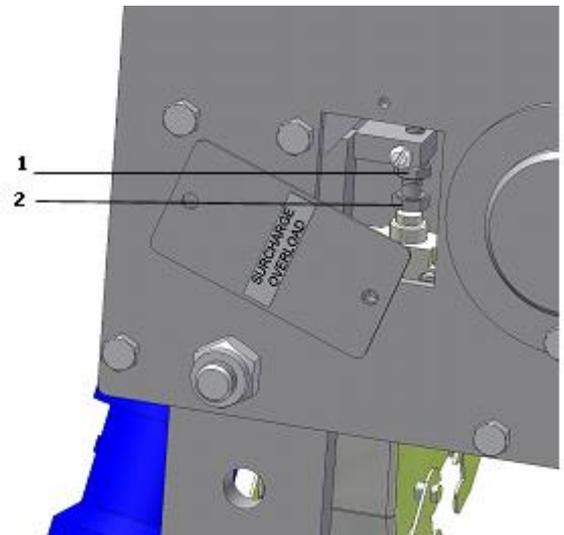
- Open all the safety devices (if present)
- Clean the dirt
- Check the condition of cable guides, limit switch, adherence system and the fall-prevention system if present.

10.3 Overload adjustment

- The load limiter was adjusted at the factory.
- Max load: 500 kg.
- The load limiter can be adjusted on request depending on the load to be moved. (only to reduce the load)

Adjustment:

- Loosen the nylon screw (1).
- Rotate the screw (2) by ¼ turn to carry out the adjustment (Loosen to reduce the load).
- Once the adjustment is obtained, retighten the nylon screw (1).



NOTE:

One screw rotation = 1 mm

1 mm. = environ 130 kg de réglage

1 mm. = approximately 130 kg adjustment

 **Never touch the locknut!**

10.4 Checking SECURICHUTE

Check that SECURICHUTE properly engages on the safety cable.

- Press on the emergency circuit-breaker button of SECURICHUTE.
- The jaws must close automatically and it must not be possible to pull the cable by hand upwards.
- Reset SECURICHUTE by operating the lever.
- The safety cable must be able to run freely in SECURICHUTE.
- Pull the safety cable at one go upwards.
- The SECURICHUTE must immediately engage on the cable.
- Reset SECURICHUTE by operating the lever.

10.5 Replacing the cables

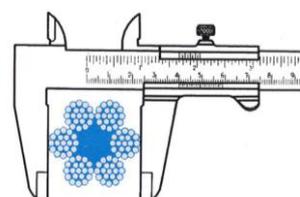
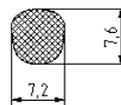
Only those cables recommended by FIXATOR ensure safe operation of the hoists.

Minimum diameter of about 7.4 mm.

(For the cable Ø 8.3 mm)

The cables must be replaced in the following cases:

- Rupture of more than 10 wires over a length of 25 cm for the Ø8.3 mm cable.





FIXATOR

Descendez en coûts, montez en confort.