Electric winch

TE

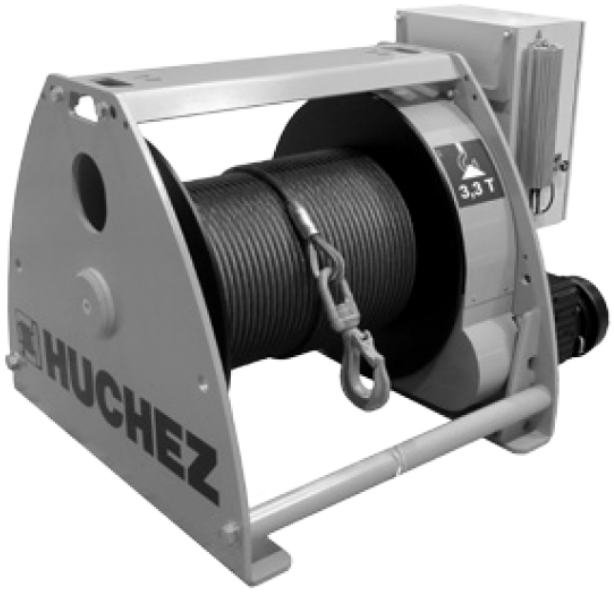
Instruction manual _____ EN

Model .....

Serial number.....

Weight of the winch.....

Customer order no. .....



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To ensure the constant improvement of its products, HUCHEZ reserves the right to change the equipment as described below and, in this case, to supply products which differ from the illustrations in this instruction manual.

Summary

1 - Contents

All users must read the set-up instructions carefully before using the product for the first time. These instructions should enable the user to familiarize themselves with the winch and use it to its full capacity. The set-up instructions contain important information about how to use the winch in a safe and correct manner. Compliance with these instructions helps to avoid danger, reduce repair costs, reduce stoppage time and improve the reliability and service life of the winch. The instruction manual must always be available in the place where the winch is being used. In addition to the set-up instructions and regulations concerning the prevention of accidents, the work safety and trade rules in force in each country must also be respected.

This equipment is governed by European regulations and more specifically Directive 2006/42/EC on machinery, EMC Directive 2004/108/EC and LVD 2006/95/EC, as well as the EN 14492/1 standard.

The winches in the TE series are designed to move loads using a suitable steel rope. They have been designed to perform lifting and pulling operations within the defined load capacity limit and with safety factor 5 (static against sudden failure).

- For use in lifting, the European regulation makes certain equipment obligatory, such as a limit switch system and, for loads of 1,000 kg or more, a load limiter.
- The operator must check the presence of this equipment (available as an option from the manufacturer) before using the product for lifting purposes.
- The capacity indicated on the winch corresponds to the maximum capacity of use (MCU); in no event should this capacity be exceeded.
- **THIS WINCH CAN IN NO CIRCUMSTANCES BE USED TO LIFT PEOPLE.**
- Do not begin moving the load until you have attached it correctly and checked that all the personnel are outside the danger zone.
- Before use, the operator must always check that the machine, rope, hook, markings and moorings are in good working order.
- The operator must check that the load is attached in such a way that the winch, the cable and the load place neither the operator nor any other person in danger.
- The winches can be used at ambient temperatures ranging from -10°C to +50°C. Please consult the manufacturer in the event of extreme conditions of use.

Important: In the event of an ambient temperature below 0°C, the brake must be tested to ensure that there are no operating faults resulting from the freezing conditions.
Use of winches requires strict compliance with the accident prevention and safety measures in force in the country.

The data concerning the resistance of the steel rope and its fastenings to heat must be available on request from the manufacturer and must be respected.

- HUCHEZ cannot accept any liability for the consequences resulting from the use or installation of equipment not provided for in the present instructions or for the consequences of disassembly, modifications or replacement of original parts or components with parts or components from other sources without the written agreement of HUCHEZ.
- For use in lifting, the disengaging system must be locked by a fixed pin.

YOU MUST ALSO RESPECT THE REGULATIONS APPLICABLE IN YOUR COUNTRY.

2 - Safety instructions

Before using the equipment, check that there are no causes of overloading such as: adhesion to the ground, suction, jamming, etc. of the load.

As the operator of the winch, you are responsible for your own safety and the safety of your colleagues in the work zone of the machine.

The operator must respect all the following safety information, without exception, concerning the handling and operation of the winch as well as the references to other sections of this instruction manual. Non-compliance with these instructions increases the level of risk.

- Only the people designated by the company are authorized to operate the winch
- Before using the winch for the first time, familiarize yourself with its conditions of use. To this end, read the present instruction manual carefully and in its entirety and perform all the operations described herein one after the other.

- Inform your departmental manager or the safety officer of any malfunction so that the fault can be repaired immediately.
- Respect the directives of the industrial accident prevention organisations such as, in France, the Caisse Régionale d'Assurance Retraite et de la Santé au Travail (C.A.R.S.A.T.) and the Health and Safety Committee (HSC) of your company, if one exists.
-
- You must scrupulously respect the information in section concerning the CONDITIONS OF USE (above) and the WORK ROPE (page 15)
- The operator(s) must have an unimpeded view of the load.
- Please ensure that the operator is qualified to operate the machine in the conditions provided for in this manual. This will ensure the safety of both people and the environment.
- Do not lift or transport loads when there are personnel inside the danger zone.
- Do not authorize the personnel to walk under a suspended load.
- Do not leave a load suspended or with the rope taut unsupervised.

In addition to the above instructions, we must warn you against all incorrect use or handling listed below. It is dangerous and prohibited to:

- unwind the drum completely (retain 2 to 3 residual windings).
- pull at an angle.
- swing the load.
- use ropes with a diameter and texture which do not correspond to the specifications in the present manual (FEM 2 m – ISO M5 for the models from 600 kg to 7,500 kg or FEM 1 bm / ISO M3 for the models of 10,000 kg).
- use damaged ropes or ropes with splices.
- grab or touch a moving cable or a rotating drum.
- use hooks without a latch, which do not correspond to the loads indicated on the winch or which are in poor condition.
- insert objects into moving parts.
- work on loaded winches or when the rope is taut.
- use the winch rope as a towing chain.
- drum on the control box (overheating of the engine and electrical equipment).
- Place hands or clothes, etc. in contact with moving parts, in particular the areas where the rope is wound in/out.

3 - Warranty

Our electric winches are guaranteed for 2 years from the date of shipment (ex-works).
The seller undertakes to repair any operating fault resulting from a fault in the design, execution, components or materials themselves.

The warranty does not cover wear and tear or damage resulting from a lack of regular or periodic maintenance. It does not cover damage resulting from a lack of supervision, incorrect handling or an incorrect use of the machines, in particular overloading, pulling at an angle, under or overvoltage or incorrect connection.

The warranty does not apply to any disassembly, modification or replacement of mechanical or electrical parts undertaken without our agreement or by a non-approved operator. The warranty only applies to the manufacturer's original spare parts. During the warranty period, the seller must replace or repair any parts recognized as faulty after inspection by the qualified and approved department, and this free of charge.

The warranty excludes all other services or compensation.

Repairs undertaken within the framework of the warranty are, in principle, performed in the seller's workshops or the workshop of their representative approved by the manufacturer. When the intervention on the equipment occurs outside their workshops, the seller must cover the labour costs related to the disassembly or reassembly of these parts if these operations are performed exclusively by their personnel or their representative approved by the manufacturer. The parts replaced become the property of the seller and must be returned to them at their cost.

In the case of components with a particular relative importance not manufactured by the seller themselves and which carry the brand of specialist manufacturers, the warranty, which may vary according to the manufacturer, is the same as that agreed by this manufacturer.

4 – Reception of the equipment

Conduct a visual inspection of the packaging to ensure that it is in good condition.
In the event of an anomaly, issue the usual reserves.
Check that the winch corresponds to your order.

5 – Obligatory regulatory checks by the user

This equipment has been designed to be tested:

- in a dynamic situation, with coefficient 1.1
- in a static situation, with coefficient 1.25

The users are required to comply with the standards in force in their country.

With regard to France:

Order of 1st March 2004 relating to the verification of lifting machines and accessories:

The modifications to the regulation relating to the use and verification of lifting machines and accessories, which came into effect on 1st April 2005, impose new obligations on all users:

- The suitability inspection which involves checking that the lifting machine is suitable for the work that the user intends to carry out as well as for the risks to which workers are exposed and that the intended operations are compatible with the conditions of use for the machine defined by the manufacturer.

- The assembly and installation inspection which involves ensuring that the lifting machine is assembled and installed in a safe way in accordance with the manufacturer's instruction manual,
- The general periodic visits which involve an inspection of the state of preservation and the operating tests.
- The set-up or renewed set-up inspections in the event of a change in the place of use, the configuration or the conditions of use on the same site; following the disassembly and subsequent reassembly of the lifting machine; after any major replacement, repair or transformation concerning the essential components of the lifting machine; following any accident caused by the failure of an essential component of the lifting machine.
- The maintenance booklet (order of 2nd March 2004 applicable from 1st April 2005) which must be used to record the maintenance operations carried out in accordance with the recommendations of the manufacturer of the machine as well as any other inspection, maintenance operation, repair, replacement or modification carried out on the machine. For each operation, it is essential to record the date of the work, the names of the people and, where appropriate, the companies which carried out the work, the nature of the operation and, if it is a periodic operation, the periodicity. If the operations involve the replacement of certain components of the machine, the references of these components are indicated. HUCHEZ winches are supplied with their maintenance booklet.

The inspections must be carried out in accordance with a protocol and are intended to ensure preventive maintenance aimed at detecting any damage or defectiveness liable to result in a danger.

6 – Presentation of the machines

6.1 - General information

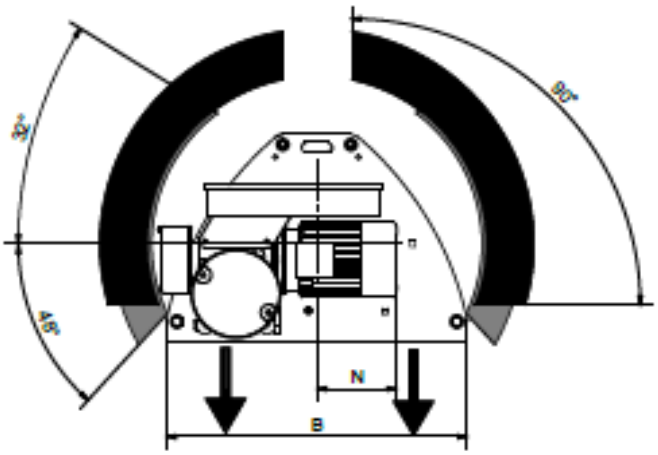
These winches are intended for pulling or lifting loads of between 600 and 10,000 kg.
They use as three-phase 230/400 V 50 Hz power supply.
The 600 to 1,600 kg models are fitted with a 600 mm-long drum as standard. They can also be fitted with a short drum (300 mm).
The 2,000 to 5,000 kg models are fitted with a 600 mm-long drum as standard. They can also be fitted with a short drum (300 mm) or a long one measuring 900 or 1,200 mm.
The 7,500 and 10,000 kg models are fitted with a 800 mm-long drum as standard. They can also be fitted with a short drum (400 mm) or a long one measuring 900 or 1,200 mm.
The motors range from 2.2 to 11 kW.
The FEM category is 2 m (ISO: M5) for all models up to 7.5 t or 1 bm (ISO: M3) for the 10 t model.
IP 54 motor protection.
24 V low-voltage electrical equipment including, as standard:

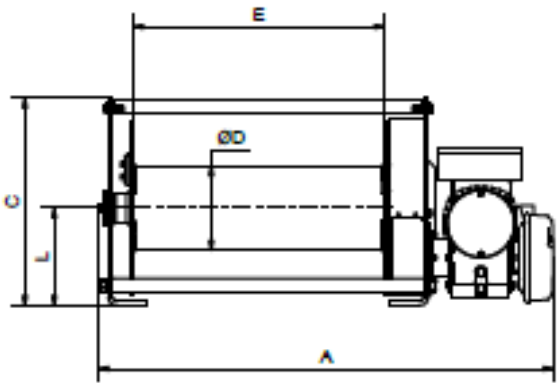
- Connector socket.
- Contactors.
- 24 V transformer.
- Thermal circuit breaker.
- Removable control box with emergency stop.

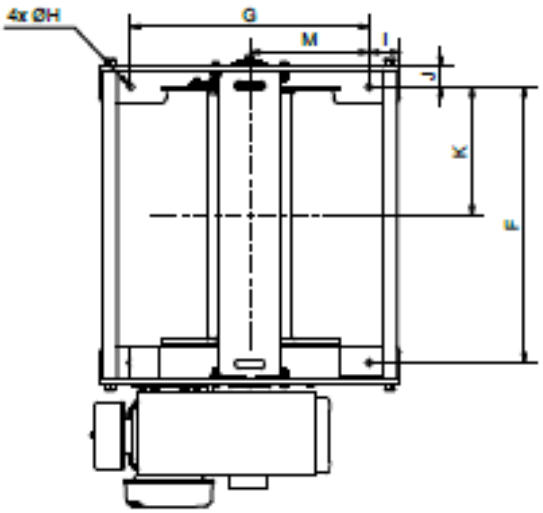
The load limiter and limit switch are optional (see paragraph 6.6 below).

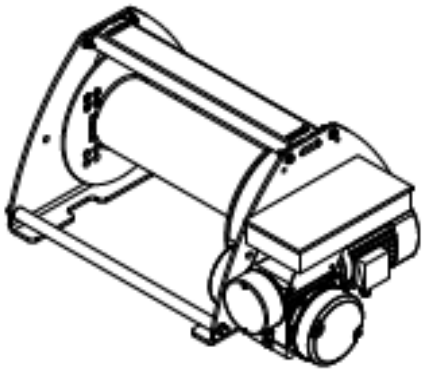
6.2 - Dimensions : 600 to 1,600 kg

	B	C	ØD	G	ØH	I	J	L	M	N	E = 600 mm			E = 300 mm		
											A	F	K	A	F	K
TE600S10	720	500	203	570	18	75	50	235	285	275.5	1088	665	310	788	365	160
TE600S16										278.5						
TE600S22										306.5						
TE1000S6										275.5						
TE1000S13										306.5						
TE1600S5										275.5						
TE1600S11										189						









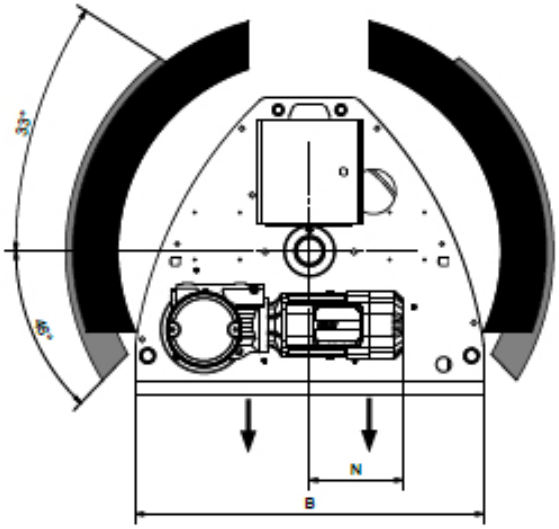
Max. amplitude of the rope – Bottom outlet

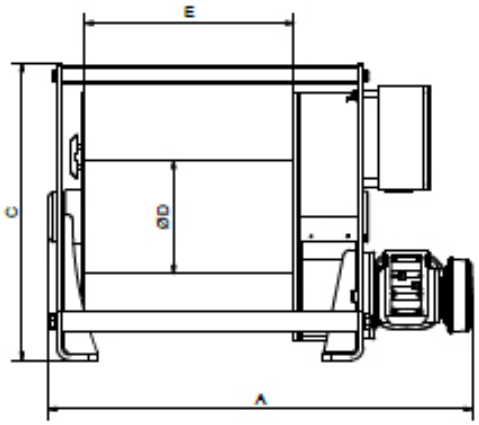
Max. amplitude of the rope – Top outlet

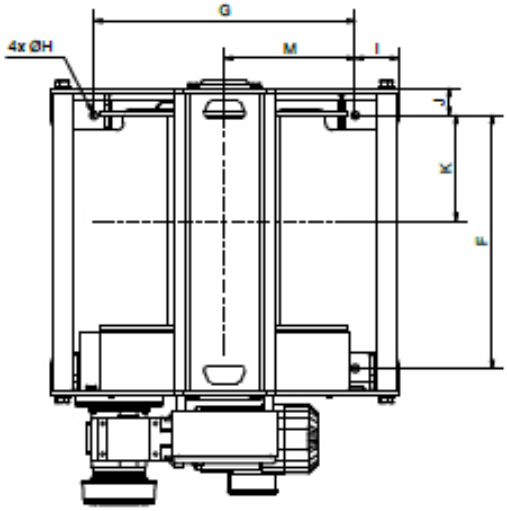
Rope outlet **impossible** (except on request)

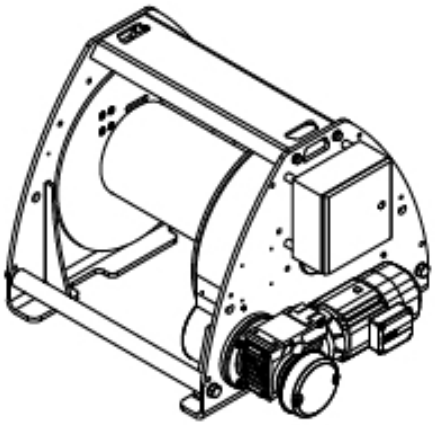
6.3- Dimensions: 2,000 to 5,000 kg

	B	C	Ø D	G	Ø H	I	J	L	M	N	E = 600			E = 300			E = 900			E = 1200		
											A	F	K	A	F	K	A	F	K	A	F	K
TE2000S5	1000	973	324	750	22	125	78	410	375	268	1217	725	303	917	425	153	1517	1025	453	1817	1325	603
TE2000S11										368												
TE3300S4										275	1230			930			1530			1830		
TE3300S7										374												
TE5000S2										291	1273			973			1573			1873		
TE5000S4										390												
TE5000S11										850	1340			1040			1640			1940		









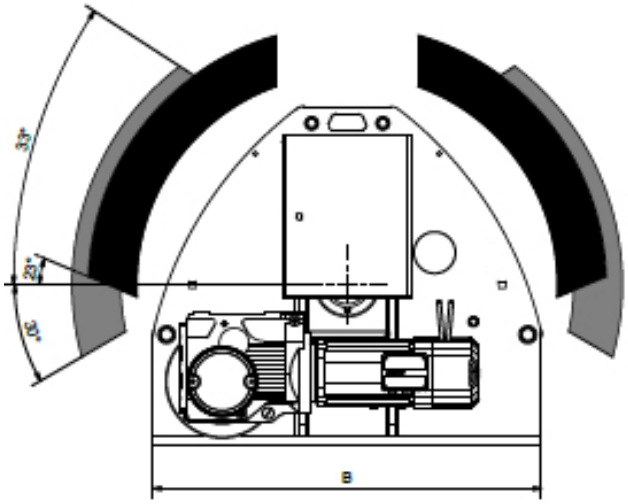
Max. amplitude of the rope – Bottom outlet

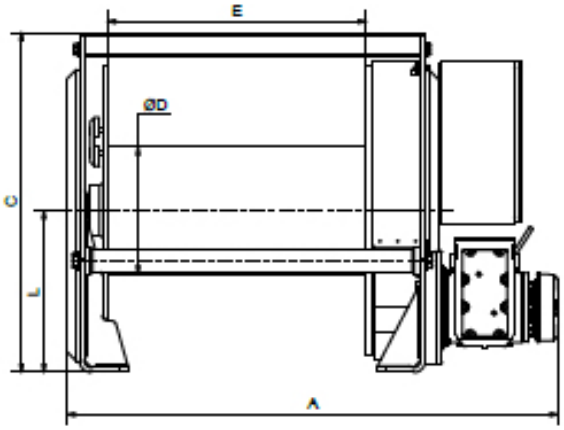
Max. amplitude of the rope – Top outlet

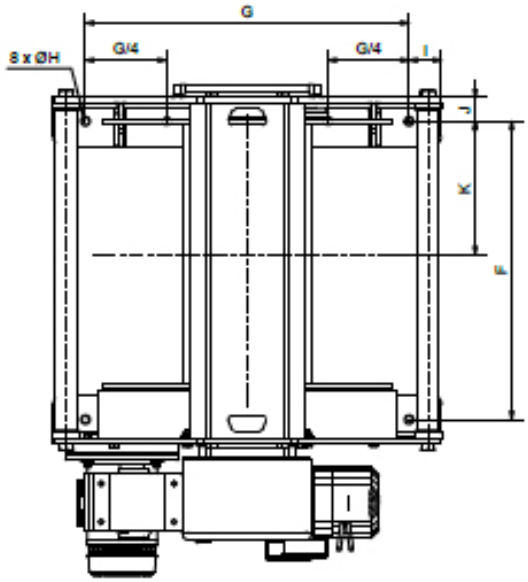
Rope outlet **impossible** (except on request)

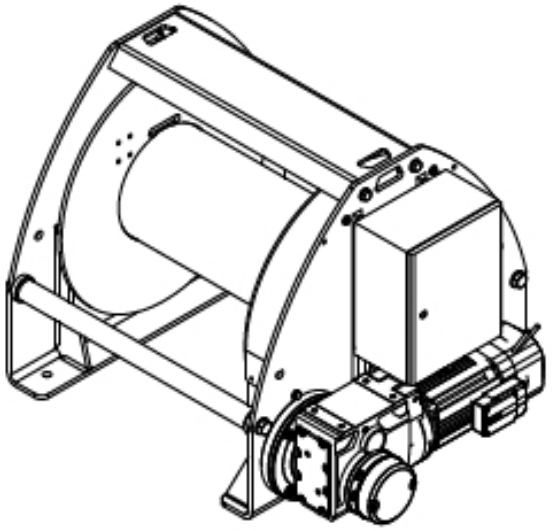
6.4 – Dimensions : 7,500 kg

	B	C	Ø D	G	Ø H	I	J	L	M	E = 800			E = 400			E = 900			E = 1200		
										A	F	K	A	F	K	A	F	K	A	F	K
TE7500S4	1200	1050	394	1000	28	100	73	500	500	1519	922	412	1119	522	212	1619	1022	462	1919	1322	612









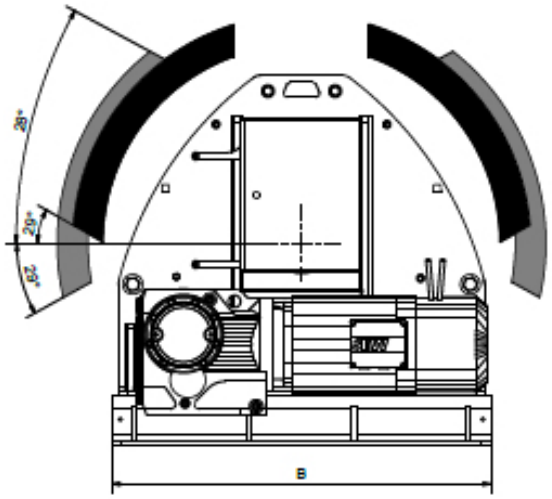
Max. amplitude of the rope – Bottom outlet

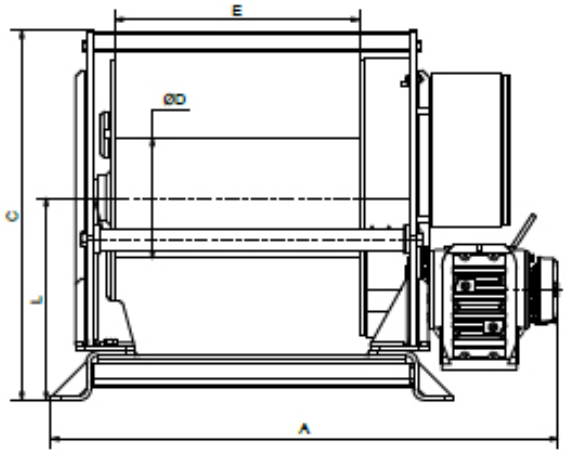
Max. amplitude of the rope – Top outlet

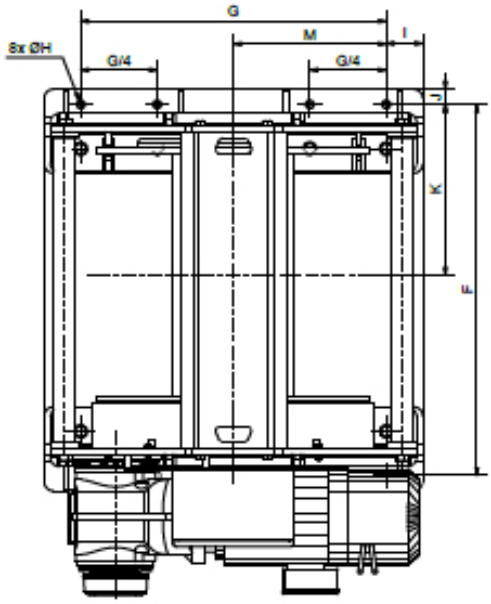
Rope outlet **impossible** (except on request)

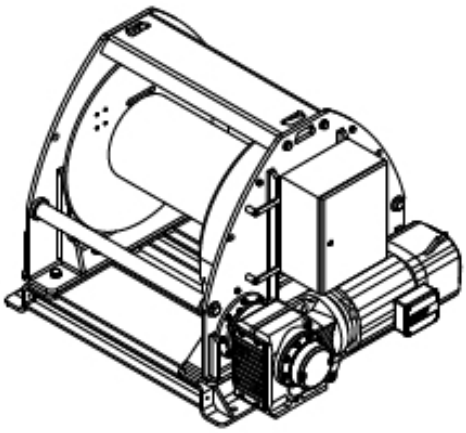
6.5 – Dimensions: 10,000 kg

	B	C	Ø D	G	Ø H	I	J	L	M	E = 800			E = 400			E = 900			E = 1200		
										A	F	K	A	F	K	A	F	K	A	F	K
TE10000S6	1240	1212	394	1000	27	120	50	662	500	1659	1216	559	1259	816	359	1759	1316	609	2059	1616	759









Max. amplitude of the rope – Bottom outlet

Max. amplitude of the rope – Top outlet

Rope outlet **impossible** (except on request)

6.6- Models available

Rope characteristics and capacities with a drum length of 600 mm (standard).

Reference	Motor (kW)	Capacity on last layer (kg)	Speed on last layer (m/min)	Max. rope capacity (m)	Rope diameter (mm)	Estimated weight without rope or hook (kg)
TE600S10BT/VV	2,2	600	10 / 1 to 10	325	7	215
TE600S16BT/VV	3	600	16 / 1.6 to 16	325	7	220
TE600S22BT/VV	4	600	22 / 2.2 to 22	325	7	220
TE1000S6BT/VV	2,2	1000	6 / 0.6 to 6	280	8	215
TE1000S13BT/VV	4	1000	13 / 1.4 to 14	280	8	220
TE1600S5BT	2,2	1600	5	160	11,5	215
TE1600S11BT/VV	5,5	1600	11 / 1.2 to 12	160	11,5	220
TE2000S5BT	2,2	2000	5	235	11,5	670
TE2000S11BT/VV	4	2000	11 / 1.2 to 12	235	11,5	700
TE3300S4BT/VV	2,2	3300	4 / 0.4 to 4	180	15,8	680
TE3300S7BT/VV	4	3300	7 / 0.7 to 7	180	15,8	700
TE5000S2BT/VV	2,2	5000	2 / 0.2 to 2	160	18	710
TE5000S4BT/VV	4	5000	4 / 0.4 to 4	160	18	730
TE5000S11BT/VV	11	5000	10 / 1 to 10	160	18	815

Rope characteristics and capacities with a drum length of 800 mm (standard).

Reference	Motor (kW)	Capacity on last layer (kg)	Speed on last layer (m/min)	Max. rope capacity (m)	Rope diameter (mm)	Estimated weight without rope or hook (kg)
TE7500S4BT/VV	5,5	7500	4/0.4 to4	215	22	1250
TE10000S6BT/VV	11	10000	6/0.6 to 6	265	24	1950

Rope capacities with a drum of a different length.

Reference	Max. rope capacity (m)			
	Length 300 mm	Length 400 mm	Length 900 mm	Length 1200 mm
TE600S10BT/VV	160	-	-	-
TE600S16BT/VV	160	-	-	-
TE600S22BT/VV	160	-	-	-
TE1000S6BT/6VV	140	-	-	-
TE1000S13BT/VV	140	-	-	-
TE1600S5BT	80	-	-	-
TE1600S11BT/VV	80	-	-	-
TE2000S5BT	115	-	360	480
TE2000S11BT/VV	115	-	360	480
TE3300S4BT/VV	85	-	270	365
TE3300S7BT/VV	85	-	270	365
TE5000S2BT/VV	80	-	245	325
TE5000S4BT/VV	80	-	245	325
TE5000S11BT/VV	80	-	245	325
TE7500S4BT/VV	-	105	244	325
TE10000S6BT/VV	-	130	325	400

Important: the diameter of the rope indicated above corresponds to the rope recommended in the FEM 2m / ISO M5 classification (for the models from 600 kg to 7,500 kg) or in the FEM 1 bm / ISO M3 (for the models of 10,000 kg). It also corresponds to the capacity on the last layer.

Important: it is obligatory to check that the rope resistance coefficient complies with the load lifted (FEM 2m / ISO M5 for the models from 600 kg to 7,500 kg or FEM 1bm / ISO M3 for the models of 10,000 kg).

6.7. Variable speed drive

6.7.1. General

WARNING

- The electronic speed control equipment of the electric motors are connected to potentially dangerous voltages. When connecting, performing servicing or dismantling these appliances, the greatest of precautions must be taken to prevent electric discharges.
- This appliance contains capacitors which accumulate energy. When the appliance is switched off, these capacitors retain a dangerous voltage for a few minutes subsequent to switching off. Wait at least 5 minutes before opening or touching live parts of the appliance.
- The earth connection of the appliance must be connected to a suitable earth connector of the electrical installation.
- This appliance must be installed, adjusted and serviced by a qualified electrician. This person must be familiar with the construction and commissioning of this appliance.
- The variable speed controls fitted with a CEM filter and faradised motor rope may have significant leakage currents to the earth, especially when the appliance is switched on. Differential switches could therefore be tripped accidentally. Furthermore, the diode rectifying bridge in the input circuit could generate a direct current in the phases of the network. You are advised to use differential switches which are not sensitive to these transient currents and of a high tripping level. The other equipment must be protected by one or more separate differential switches.
- A differential switch upstream to a variable speed control is not adequate protection.

6.7.2. Wiring

DANGER

- Make sure that the appliance is connected to a sound earth.
- The wiring must be performed by a qualified electrician adhering to the safety standards of the country of installation.
- Do not perform or modify the wiring before you are personally sure that the voltage of the network is no longer present on the appliance and that any residual voltage of the appliance has disappeared.
- Check that the voltage of the network corresponds to the voltage of the variable speed.
- Do not connect the phases of the network to the output terminals for the connection of the motor (U, V, W).
- Tighten the screws to the suitable tightening torque. Check, before switching on, that all the connections are securely tightened.

6.8 - Options

The TE series winches can be supplied with the following options:

1 -Rotary limit switch □
Easy to adjust, this system guarantees safety by preventing upper and lower overruns.

2 - IP 65 limit switch □

3 - Electronic load limiter □
Display measure which stops the winch in the event of overloading without breaking the kinematic chain.

4. Grooved drum □
Facilitates correct winding of the rope on the first layer.

5. Rope press roller □
Essential complement for the grooved drum if the rope is not permanently taut.

6. Manual release for automatic return brake □

7. Manual control □
Control crank or wheel linked to the brake release.

8. Rope slack switch □
Detects lack of tension in the work rope

9. 2nd rope fastener □
Facilitates a two-way system or 2-point load lifting.

10 . Timer □
Calculates total time of use for the winch and facilitates use of the maintenance booklet.

11. Site chassis □
Protects the winch against impacts.

12. Central flange drum □
Allows several layers to be wound with 2 ropes.

13.Class-3 radio control □
Long-range lifting and pulling: 230 m. Active emergency stop in a separate circuit.

14.Class-B radio control for pulling only □
Range of 50 m. Active emergency stop.

15. Phase detector □
Ensures that you do not reverse the up / down direction when connecting the winch.
Avoids reversal between the up and down directions when connecting the winch.
This option is standard with the work site option.

16.Additional rope length for the control box (per metre) □

17. Additional electrical cable length (per metre) □

18. Other control power voltages and frequencies on request □

6.9 - FEM classification

There are eight groups of mechanisms:

FEM	1 Dm	1 Cm	1 Bm	1 Am	2m	3m	4m	5m
ISO	M 1	M 2	M 3	M 4	M 5	M 6	M 7	M 8

To determine the group for a lifting machine, winch or hoist, three essential parameters must be considered:

The maximum load to be lifted
Including the weight of the rope and any lifting accessories present (hook etc.), except if they have a total weight less than or equal to 5% of the load to be lifted.

The usage rate
Indicates the extent to which the lifting machine is used at maximum load or with a reduced load. There are four different usage rates:

Light	Lifting machines rarely subject to maximum load and regularly used for very light loads.	$k \leq 0.5$
Medium	Lifting machines quite often subject to maximum load and regularly used for light loads.	$0.5 < k \leq 0.63$
Heavy	Lifting machines often subject to maximum load and regularly used for medium loads.	$0.63 < k \leq 0.8$
Very heavy	Lifting machines regularly subject to loads close to the maximum load.	$0.8 < k \leq 1$

For an exact classification, it is preferable to calculate the average cubic value using the following formula:

$$k = \sqrt[3]{(\beta_1 + \gamma)^3 \cdot t_1 + (\beta_2 + \gamma)^3 \cdot t_2 + ... + \gamma^3 \cdot t_\Delta}$$

where:

β = payload or partial load / rated capacity	t = operating time with payload or partial load + dead load / total operating time
Y = dead load / maximum capacity	t_Δ = operating time with dead load only / total operating time

FEM classification

Usage rate	Average operating time per day in hours.						
	30 min	1 h	2 h	4 h	8 h	16 h	Over 16 h
Light	1 Dm	1 Cm	1 Bm	1 Am	2m	3m	4m
Medium	1 Cm	1 Bm	1 Am	2m	3m	4m	5m
Heavy	1 Bm	1 Am	2m	3m	4m	5m	
Very heavy	1 Am	2m	3m	4m	5m		

6.10 - Technical description

TE series winches are fitted with:

6.10.1 – Primary reduction by wheel and worm for the 600 to 1600 TE range, entirely waterproof, and taper couple gears for the 2000 to 10000 TE range.
Secondary reducer by wheel/greased pinion under cover.

6.10.2 - Three-phase 230/400 V 50 Hz motor, IP 54 protection.
Operating limits from -10°C to +50°C (without declassification).

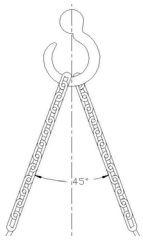
6.10.3 – Electrical equipment: 24 V very low voltage control including:
- Contactors
- Connector socket.
- Thermal circuit breaker.
- Disconnecting control box (2 buttons + emergency stop), 3 m of cable.

Speed variator electrical equipment including:
- Hitachi variator
- Braking resistance
- Connector socket
- Non-disconnecting control box (2 buttons + potentiometer + emergency stop), 3 m of cable.

7 – Handling - Storage

When handling the winch, use suitable slings to be placed in the sling points provided on the winch.

Important: the angle formed between the hook and the two sling points must not exceed 45°.
Lift and place the winch carefully without dropping it.



Do not forget that the centre of gravity of the winch is off-centre.

For more information concerning the weight of the winch, please consult the Technical specifications chapter.

When stored, these winches must be protected from bad weather in a clean and dry place at a temperature between -10°C and +50°C.

8 - Installation and set-up

8.1- Installation

The service life of a winch depends on its installation and set-up.
It is essential that you read this manual carefully before installing, using and servicing your machine.
Any use which contravenes our instructions may create risks. In this case, the manufacturer cannot accept any liability.

- Do not use this machine before having read and understood the instruction manual in its entirety
- Always keep the manual close to the machine, available to the operator and the maintenance officer
- Comply and ensure compliance with the safety rules

Connect to the power supply (see 8.3 Power supply)
Check the rope and hook
While ready to press the emergency stop button at all times and with no load attached, check that the movement of the hook corresponds to the direction of the arrows indicated on the control unit.
Check that the brake works: with a nominal load attached, lift the load and lower it again or, in the case of pulling, pull this load.
Check that the limit switch works.
The winch has been subjected to the dynamic and static tests in the factory (cf. Test record).

8.2- Place of installation

TE series winches must be installed and bolted to a flat, solid and secure surface capable of bearing the loads to which it will be subjected. An unsuitable installation site may lead to serious accidents.
To assess the suitability of the place of installation and its resistance to loads, you must take into account any possible overloading, the weight of the winch itself and the weight of the options and/or accessories fitted to it, including all dynamic forces. The winch user is responsible for determining the place of installation. If in doubt with regard to the suitability of a place of installation, contact a civil engineer or a statics specialist.

Tighten the fastening bolts correctly (cf. tables 6.2, 6.3 and 6.4)

Bolt / nut	Grade 8.8 bolt / nut tightening torque Nm
M16	210
M20	410
M24	710

8.3 – Power supply

Before undertaking any operation on the electrical unit, check that the power supply to the machine is off.
A disconnecting switch must be placed no more than 10 meters from the place of use.

Very important: the winch will only provide full power if the motor is supplied by means of a perfectly adapted cable section.
Provide protection for individuals in front of the electrical unit.

8.3.1 – Electrical connections

The power supply cable, the protective fuses and the main disconnecting switch (see wiring diagram) must be provided by the customer.
Check that the supply network complies with the machine.
Check the type of current; there must not be more than about 5% deviation from the rated voltage
Neutralize electrical sources
Check that the main power supply switch on the winch is in the off position.
Do not connect the power supply cable to the machine using connection terminals (split fittings etc.)
Do not use a cable with a smaller section to supply power to the machine.
Never "shunt" the disconnecting switches, electrical switches, prevention or limitation equipment.
Never block, adjust or remove switches or end stops in order to go beyond the levels that they allow.

8.3.2 – Connection

Connect the power supply using the female three-phase European socket provided
Check that the socket connector is correctly tightened
Match phases L1 – L2 – L3 and the PE earth wire
Check that the winch works (direction of rotation)

- Do not change the direction labels in the control unit or in the winch's internal wiring.

8.4 - Work rope

Important: the direction of rotation of the drum depends on the way in which the machine is connected (order of the three-phase current phases)
Reminder: check the maximum capacity of the winch (see the models available § 6.5).

Very important :

The safety regulations require that 2 to 3 loops of rope always be left on the drum.
To comply with the legislation, the rope diameter must not exceed the recommended diameter.
If the rope and the hook used were not supplied by the manufacturer with the machine, check that they guarantee a level of safety corresponding to table § 6.5.

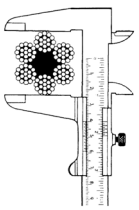
When the winch is supplied with the rope wound on, it has not been tautened during assembly.
The user must tauten the rope using a minimum force of 1% of the operating load of the winch.

The service life of the steel ropes used on the winch depends on a number of factors, including the form of the work cycles (lifting height, lifting speed, number and type of deviations, etc.) and the operating mode (number of coil layers, distribution of the work cycles over the length of the steel rope, etc.).
The service life of steel ropes is therefore subject to considerable variation depending on these factors.

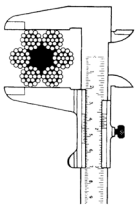
Please remember that rope replacement must be done using equipment with the same specifications as the original rope.
This replacement must be recorded in the maintenance booklet.

IMPORTANT: even if the rope was supplied with the winch, it was not tautened during assembly. The user must tauten it using a minimum force of 1% of its breaking load.

Measuring the rope diameter using sleeve callipers:



Correct measurement



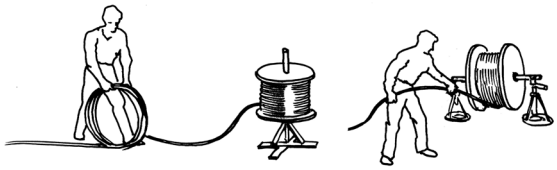
Incorrect measurement

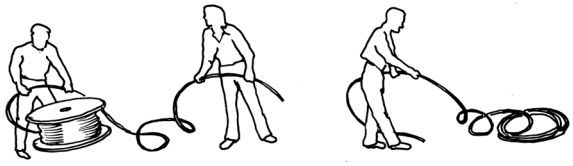
Handling steel ropes

- Always use suitable protective gloves when handling steel ropes
- Never use a rope with faults such as:
  - ✓ An unacceptable number of broken strands
  - ✓ Basket distortions
  - ✓ Broken bird-caging
  - ✓ Flattening
  - ✓ Constrictions
  - ✓ Strand extrusions
  - ✓ Broken rope cores
  - ✓ Slack strands
  - ✓ Bends or loops
- Always check the level of wear of the rope before use
- Never use steel ropes as loops
- Never expose steel ropes to angular or sharp edges

Unwinding the rope from its reel:

CORRECT:





INCORRECT

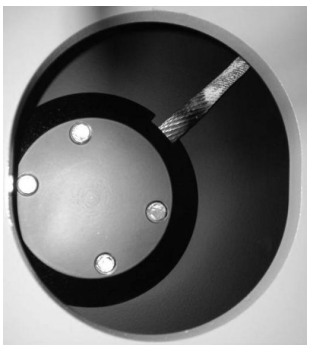
Fastening the rope

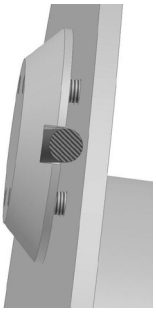
The winches are supplied, as standard, with a rope clamp adapted to the recommended rope and installed in accordance with a standard rope outlet.

Align the rope clamp with the hole drilled in the winch for this purpose.

Fit the rope into the groove of the flange and place it between the flange and the rope clamp, taking care to position it in the groove of the rope clamp.
Position the rope slightly proud of the external diameter of the flange.
Once the 4 screws have been tightened, the rope is installed correctly.

The rope should never form a loop.





Winding the rope on the drum

To do this, tauten the rope and wind it with joined strands onto the drum.

Start to wind the rope forming a spiral to the right. In order to facilitate this operation, some drums are provided with a heel attached to one of the flanges, which "fills" the space between the first turn and the flange.

The first layer must be wound in a compact manner and under tension. Take a mallet or a block of wood and knock the turns against one another; not too hard to prevent the strands from overlapping one another, but tightly enough to prevent the rope from moving on the drum. If the first layer is wound too loose, the next layer will form a space in the first layer that will result in an open area. If the first layer is too tight, the subsequent layers will not have enough space between turns.

In any case, the first layer and all the other layers must be wound onto the drum with enough pre-tension (5-10 % of the MWL of the rope). If the rope is wound without any tension, it will suffer from crushing and premature flattening caused by the loaded upper layers.

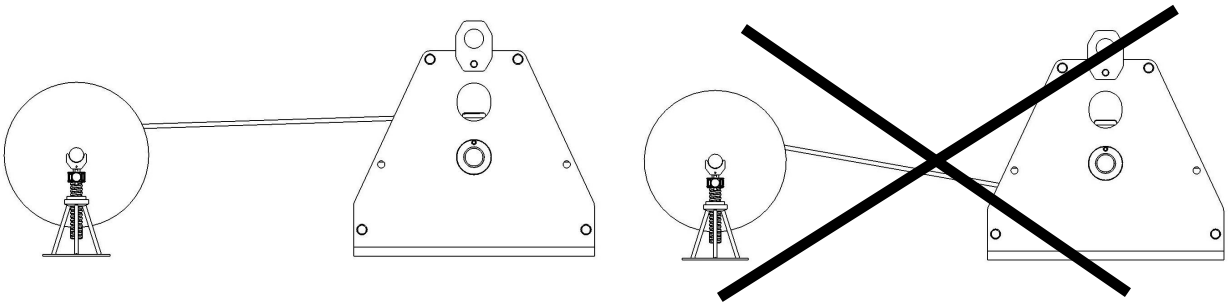
Even if the first layer is wound correctly during installation, it will expand a little while in service. When the first layer expands (loss of pre-tension) the initial procedure MUST be performed at regular intervals.

Otherwise, the "hard" turns will severely crush the base layers.

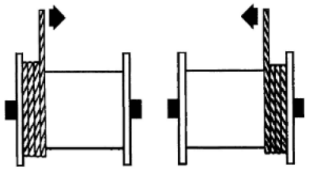
Whatever you do, DO NOT pass the rope through a clamping mechanism. For example, two blocks of wood screwed together. **THIS WILL CAUSE IRREPARABLE DAMAGE TO THE ROPE!**

It is important to respect the indication below; if the rope start on the winch is at the bottom, respect the same principle. Not respecting this precaution will damage your rope irretrievably and it will become extremely dangerous.

Check the direction of cable winding according to the motor connection.

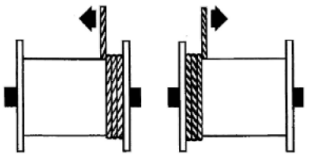


Rope crossed to the right
Winding from left
to right



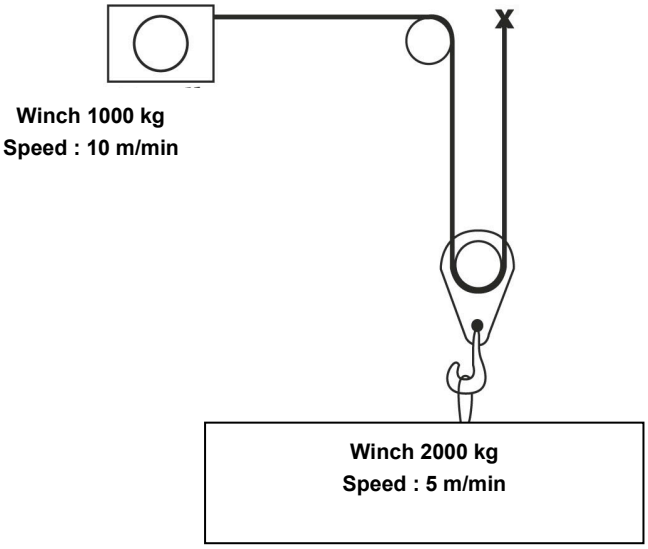
Rope crossed to the left
Winding from right
to left

Rope crossed to the right
Winding from right
to left

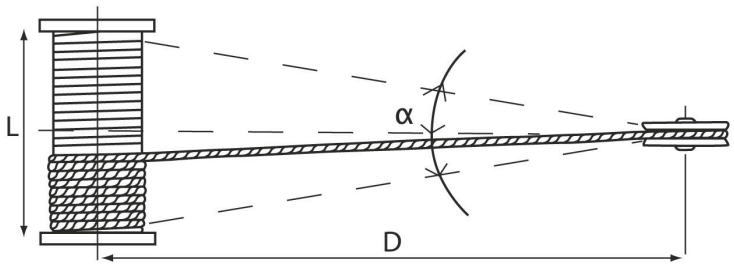


Rope crossed to the left
Winding from left
to right

Reeving diagrams :



Bending angle :



Smooth drum: α = max. 1.5°
Slotted drum: α = max. 2°
D = 20 times L

9 – Servicing and maintenance

Winches
Respect the following instructions, in particular if your winch is used in a large number of different locations or in a particularly dirty and damp environment:

- Remove most of the dirt from the winch.
- Always store the winch in a dry, clean place.

9.1 -Before switching on

Check:

- The level of oil in the reduction gear.
- The rope is correctly fastened to the drum.
- The exterior appearance of the winch.

9.2 - First set-up

At the start of the installation process, it is recommended that you respect a running-in period of thirty hours at ¾ of the load. The nominal capacity will be obtained after this running-in period.

9.3 - Periodic servicing

See also chapter 5: Obligatory regulatory checks by the user

Every 100 hours, check the level of oil in the reducer. Check that the pinion and ring gears are correctly lubricated.
Every 500 hours, change the oil in the reducer. Cleaning and changing the pinion/crown grease.

Pinion/crown grease : MOBILUX EP2.

The reducer is lubricated using Esso Glycolub Range 220 mineral oil (or equivalent):

Model	Quantity (litres)	Type of oil or equivalent
TE 600 à 1 600 kg	1	GLYGOYLE 30
TE 2 000 et 3300 kg	2,7	GLYCOLUB RANGE 220
TE 5 000 kg	4,6	
TE 7 500 kg	8,8	
TE 10 000 kg	7	

Very important:
In the event of a change in the type of oil, please contact our after-sales service.

Ropes
The ropes must be cleaned and greased regularly using a special grease which penetrates to the rope core.
Only use appropriate and harmless cleaning products for all the components of the rope, including the core.
If lubrication is impossible for reasons linked to use, the service life of the rope will be reduced considerably and increased monitoring of the rope will therefore be necessary.
The ropes must be checked visually every day.

Hooks
Check the hook and its safety latch
If the rope and hook are not supplied by the manufacturer, check that the parts used guarantee a level of safety corresponding to table §4.4.
Check the fastening points of the reeving on a regular basis.

Servicing and maintenance operations on the winch and rope must be carried out without any load on the winch.

10 – Taking out of use

If the equipment is in a state of disrepair likely to give rise to risks, the user is obliged to ensure that this equipment is eliminated, i.e.: prevented from operating and possibly disassembly.

11 – Spare parts

If, during maintenance operations, you notice that certain parts of your winch need to be replaced, use HUCHEZ original parts only.

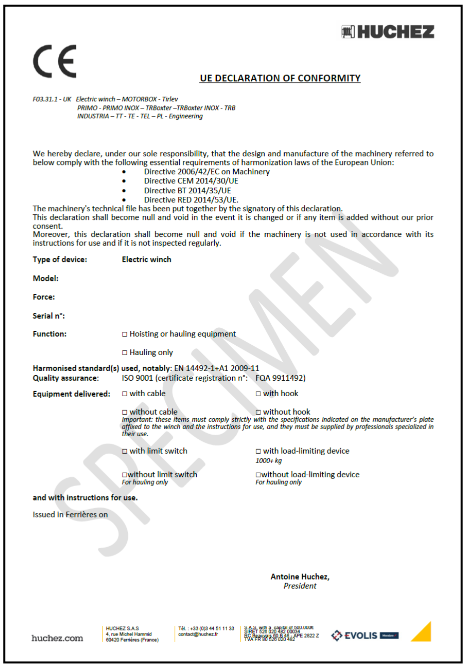
For all spare parts orders, please indicate the following specifications on your order :

- The type and capacity of the winch (indicated on the nameplate).
- The serial number and year of manufacture (indicated on the nameplate).
    - The number or designation of the desired parts (exploded view).

12 – Operating faults

Fault	Possible cause	Solution
Motor does not start.	Power supply cut.	Check and correct the problem Check the emergency stop.
	Brake not released	See "brake fault"
	The contactor does not respond, Control fault.	Check the contactor control and eliminate the fault.
	Limit switch engaged.	Check the limit switch.
Motor does not start. or starts with difficulty.	The voltage or frequency varies considerably compared to the setting when starting.	Improve the mains conditions. Check the cable sections.
Motor revs and absorbs a great deal of power.	Brake not released.	See "brake fault"
	Faulty winding.	Take the motor to an approved workshop for repair.
	One supply phase missing.	Check the power supply.
Circuit breaker activated immediately.	Short circuit in the power supply cables.	Eliminate the short circuit.
	Short circuit in the motor.	Have the fault corrected in an approved workshop.
	Power supply cables incorrectly connected.	Correct the connection.
	Motor earth fault.	Have the fault corrected in an approved workshop.
Speed greatly reduced when loaded.	Voltage drop.	Increase the power supply cable section.
Motor too hot (temperature measure)	Insufficient ventilation.	Clear the ventilation lanes.
	Ambient temperature too high.	Respect the authorised temperature range.
	Bad contact in the power supply cable (operates temporarily on 2 phases)	Eliminate the bad contact.
	Circuit breaker activated.	Bad contact in the relays.
	Service factor exceeded (S1 to S10, DIN 57530), e.g. because start speed is too high.	Adapt the service factor to the prescribed conditions; if necessary, call a specialist to determine the type of motor.
Drive system too noisy	Rotating parts vibrate.	Check the balances, eliminate the cause of the vibrations.
	Foreign bodies in the ventilation lanes.	Clean the ventilation lanes.
Brake not released.	Incorrect voltage in the brake reducer.	Apply the voltage indicated on the nameplate.
	Faulty brake control.	Replace the brake control, check the brake coil (internal resistance and insulation) and the relays.
	Max. air gap exceeded due to worn lagging.	Measure and if necessary adjust the air gap.
	Voltage drop > 10% for power supply.	Check correct power supply; check the cable section.
	Short circuit for earth or between the windings.	Have the entire brake and rectifier replaced in an approved workshop; check the relays.
	Faulty rectifier.	Replace the rectifier and brake coil.
Motor does not brake.	Incorrect air gap.	Measure and if necessary adjust the air gap.
	Brake lagging totally worn.	Replace the entire lagging retainer.

13 – Declaration of EC conformity



HUCHEZ

CE

UE DECLARATION OF CONFORMITY

F03.31.1 - UK Electric winch – MOTORBOX - Tirlev
PRIMO - PRIMO INOX – TRBoxter –TRBoxter INOX - TRB
INDUSTRIA – TT - TE - TEL – PL - Engineering

We hereby declare, under our sole responsibility, that the design and manufacture of the machinery referred to below comply with the following essential requirements of harmonization laws of the European Union:

- Directive 2006/42/EC on Machinery
- Directive CEM 2014/30/UE
- Directive BT 2014/35/UE
- Directive RED 2014/53/UE.

The machinery's technical file has been put together by the signatory of this declaration.
This declaration shall become null and void in the event it is changed or if any item is added without our prior consent.
Moreover, this declaration shall become null and void if the machinery is not used in accordance with its instructions for use and if it is not inspected regularly.

Type of device: **Electric winch**

Model:

Force:

Serial n°:

Function: ☐ Hoisting or hauling equipment

☐ Hauling only

Harmonised standard(s) used, notably: EN 14492-1+A1 2009-11
Quality assurance: ISO 9001 (certificate registration n°: FQA 9911492)

Equipment delivered: ☐ with cable ☐ with hook

☐ without cable ☐ without hook

Important: these items must comply strictly with the specifications indicated on the manufacturer's plate affixed to the winch and the instructions for use, and they must be supplied by professionals specialized in their use.

☐ with limit switch ☐ with load-limiting device *1000+ kg*

☐without limit switch *For hauling only* ☐without load-limiting device *For hauling only*

and with instructions for use.

Issued in Ferrières on

Antoine Huchez,
President

huchez.com | HUCHEZ S.A.S 4, rue Michel Hammid 60420 Ferrières (France) | Tél. : +33 (0)3 44 51 11 33 contact@huchez.fr | S.A.S. with a capital of 500.000€ SIRET 526 020 482 00034 RC Beauvais 60 B 48 - APE 2822 Z TVA FR 80 526 020 482 | EVOLIS

14 – Annexes

A - Parts numbers

B - Options

. Clock type limit switch

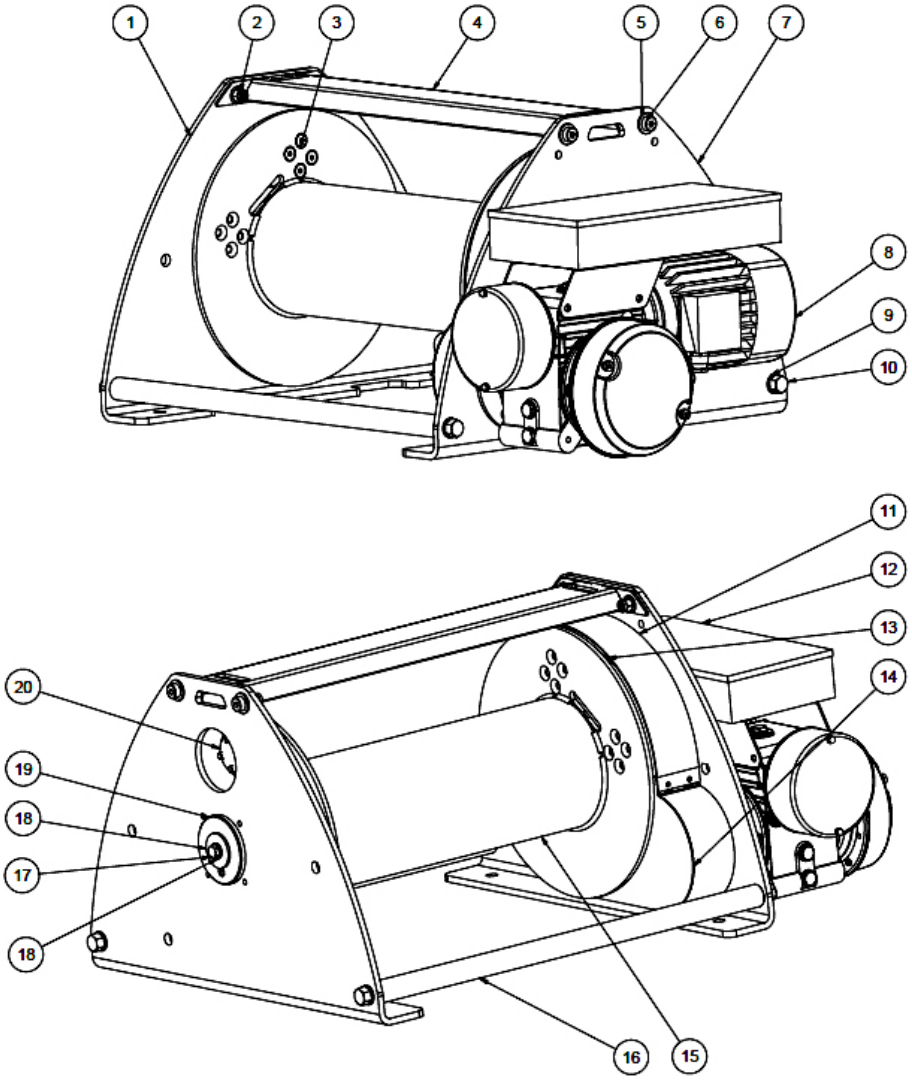
. Load limiter

. Rope slack switch

. Rope press roll

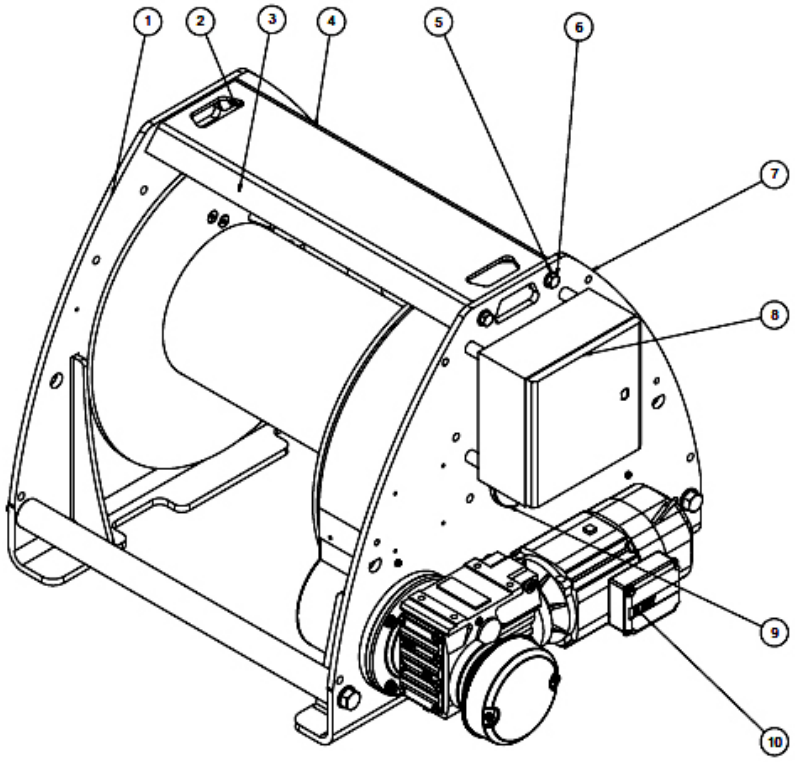
C – Maintenance booklet

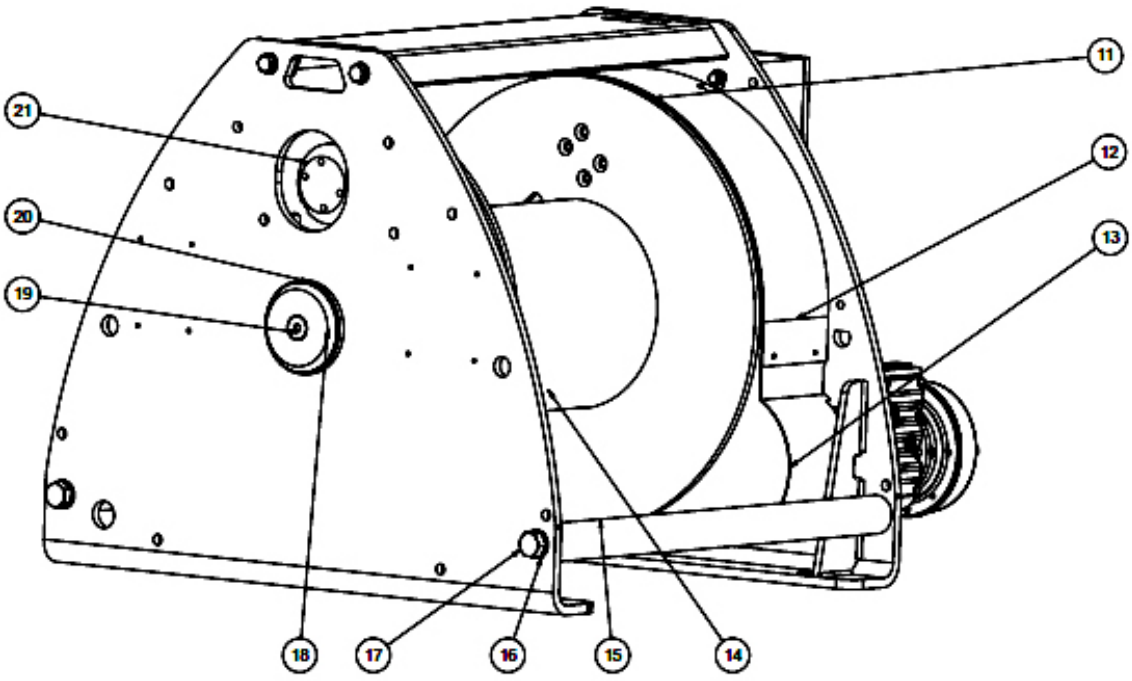
TE series winches 600 kg to 1,600 kg



				Winch reference						
				TE600S10	**TE600S16**	**TE600S22**	**TE1000S6**	**TE1000S13**	**TE1600S5**	**TE1600S11**
Key	**Qty**	**Designation**		**Part number**						
1	1	Exterior mounting		25205	25205	25205	25205	25205	25205	25205
2	4	Nut H FR M12		13433-K	13433-K	13433-K	13433-K	13433-K	13433-K	13433-K
3	4	Bolt F HC M10x30		13580	13580	13580	13580	13580	13580	13580
4	1	Lifting plate	Length 600	25482	25482	25482	25482	25482	25482	25482
			Length 300	25482C	25482C	25482C	25482C	25482C	25482C	25482C
5	4	Washer M16		13214-K	13214-K	13214-K	13214-K	13214-K	13214-K	13214-K
6	4	Shoulder screw M12		25484	25484	25484	25484	25484	25484	25484
7	1	Welding Reduction gear mounting		25214	25214	25214	25214	25214	25214	25214
8	1	Geared motor sub-unit		115121	115120	115122	115116	115115	115110	115111
9	4	Washer M16		13214	13214	13214	13214	13214	13214	13214
10	4	Tie bolt		23120	23120	23120	23120	23120	23120	23120
11	1	Upper cover		22171	22171	22171	22171	22171	22171	22171
12	1	Electrical equipment		155000	155050	155100	154750	154800	154550	154600
13	1	Wheel 80 teeth M5		23129	23129	23129	23129	23129	23129	23129
14	1	Welding Lower cover		23154	23154	23154	23154	23154	23154	23154
15	1	Drum sub-unit	Length 600	25481	25481	25481	25481	25481	25481	25481
			Length 300	25485	25485	25485	25485	25485	25485	25485
16	2	Tie	Length 600	23050	23050	23050	23050	23050	23050	**23050**
			Length 300	23124	23124	23124	23124	23124	23124	**23124**
17	1	Bolt H M12x35		13084-K	13084-K	13084-K	13084-K	13084-K	13084-K	13084-K
18	1	Washer		**22166**	**22166**	**22166**	**22166**	**22166**	**22166**	**22166**
19	1	Bearing		25480	25480	25480	25480	25480	25480	25480
20	1	Rope clamp		**23430**	**23430**	**23430**	**23430**	**23430**	**23430**	**23430**

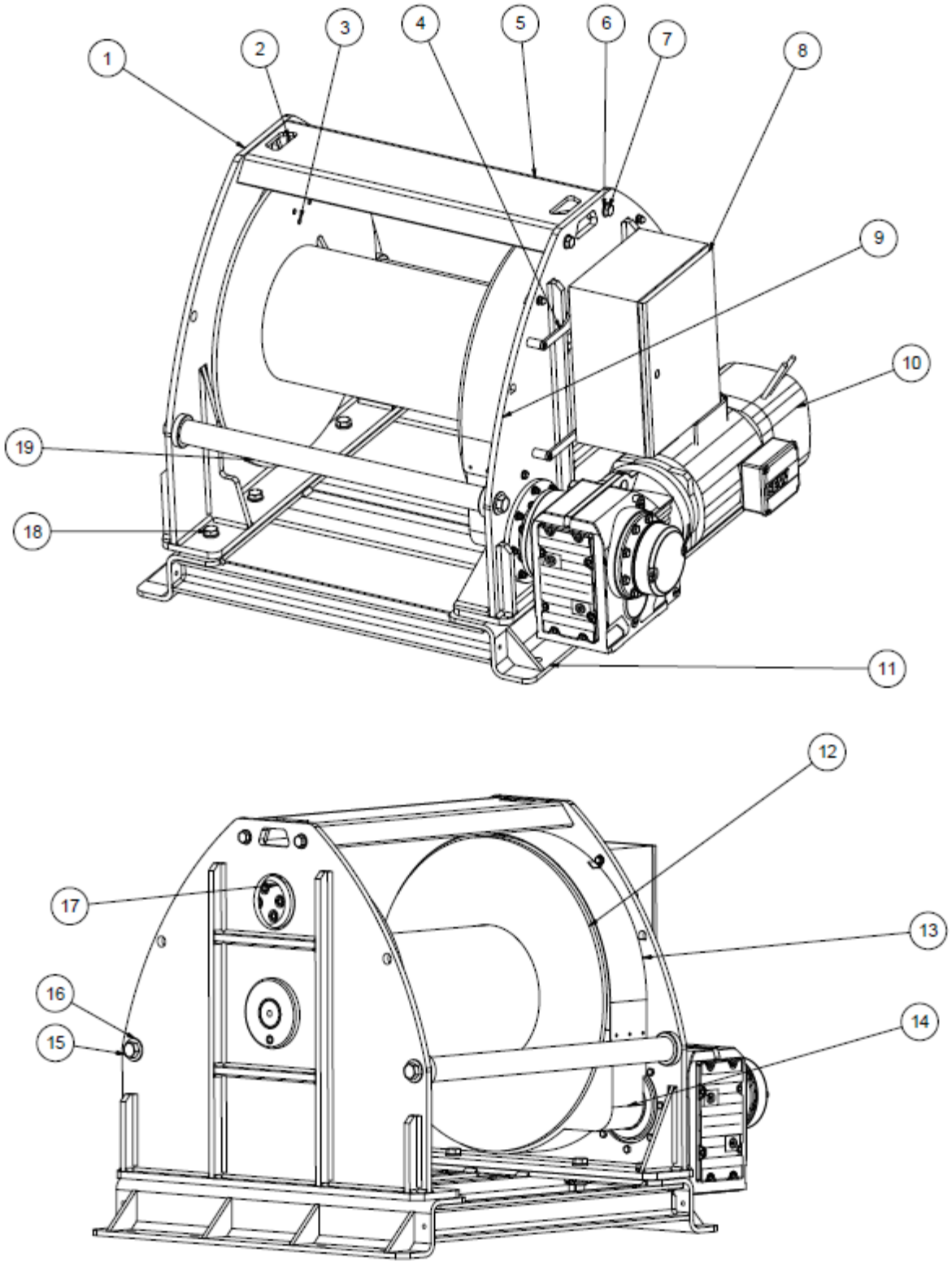
TE series winches 2,000 kg to 5,000 kg





				Winch reference						
				TE2000S5	TE2000S11	TE3300S4	TE3300S7	TE5000S2	TE5000S4	TE5000S10
Key	Quantity	Designation		Part number						
1	1	Welding exterior mounting		25401	25401	25401	25401	25401	25401	25401
2	4	Nut H FR M16		13485	13485	13485	13485	13485	13485	13485
3	4	Bolt F HC M12x40		13368	13368	13368	13368	13368	13368	13368
4	1	Upper tie sub-unit	Length 600	25405	25405	25405	25405	25405	25405	25405
			Length 300	25405C	25405C	25405C	25405C	25405C	25405C	25405C
			Length 900	25405L	25405L	25405L	25405L	25405L	25405L	25405L
			Length 1200	25405XL	25405XL	25405XL	25405XL	25405XL	25405XL	25405XL
5	8	Washer M16		13214	13214	13214	13214	13214	13214	13214
6	4	Bolt H M16x55		13584	13584	13584	13584	13584	13584	13584
7	1	Welding Reduction gear mounting KA57-67		25403	25403	25403	25403	25403	25403	25403
8	1	Electrical equipment TE 3-4 kW 3Ph 3 buttons		151005	151005	151005	151005	151005	151005	151005
9	1	Welding Drum shaft	Length 600	23014	23014	23014	23014	23014	23014	23014
			Length 300	23086	23086	23086	23086	23086	23086	23086
			Length 900	23088	23088	23088	23088	23088	23088	23088
			Length 1200	23090	23090	23090	23090	23090	23090	23090
10	1	Geared motor sub-unit		115105	115106	115103	115104	115100	115101	115102
11	1	Wheel		23020	23020	23020	23020	23020	23020	23020
12	1	Welding Upper cover		23029	23029	23029	23029	23029	23029	23029
13	1	Welding Lower cover		23032	23032	23032	23032	23032	23032	23032
14	1	Drum sub-unit	Length 600	23046	23046	23046	23046	23046	23046	23046
			Length 300	23092	23092	23092	23092	23092	23092	23092
			Length 900	23097	23097	23097	23097	23097	23097	23097
			Length 1200	23099	23099	23099	23099	23099	23099	23099
15	2	Tie	Length 600	23016	23016	23016	23016	23016	23016	23016
			Length 300	23094	23094	23094	23094	23094	23094	23094
			Length 900	23095	23095	23095	23095	23095	23095	23095
			Length 1200	23096	23096	23096	23096	23096	23096	23096
16	4	Washer M24		13217	13217	13217	13217	13217	13217	13217
17	4	Tie bolt		22115	22115	22115	22115	22115	22115	22115
18	1	Clamping Washer		23039	23039	23039	23039	23039	23039	23039
19	1	Screw F HC M20x40		13615	13615	13615	13615	13615	13615	13615
20	1	Welding Bearing		23011	23011	23011	23011	23011	23011	23011
21	1	Rope clamp		22676	22676	22676	22676	22676	22676	22676

TE series winches 7,500 kg and 10,000 kg



				Winch reference	
				TE7500S4	TE10000S6
Key	Quantity	Designation		Part number	
1	1	Exterior flange sub-unit		25495	25495
2	4	Nut H FR M20		13597-k	13597-k
3	4	Cable clip stud		22228	22228
4	1	Cabinet mounting		23831	23831
5	1	Upper tie sub-unit	Length 800	25494	25494
			Length 400	25494C	25494C
			Length 900	25494L	25494L
			Length 1200	25494XL	25494XL
6	8	Washer M20		13216-k	13216-k
7	4	Bolt H M20x70		13411	13411
8	1	Electrical equipment		2804	2804
9	1	Motor flange sub-unit		25496	25496
10	1	Geared motor sub-unit		22366	23843
11	1	Chassis	Length 800	23820	23820
			Length 400	-	23869
			Length 900	-	23695
			Length 1200	-	23719
12	1	Drum sub-unit	Length 800	23832	23832
			Length 400	23220	23565
			Length 900	23223	23717
			Length 1200	23226	23468
13	1	Welding Upper cover sub-unit		23842	23842
14	1	Lower cover sub-unit		23844	23844
15	4	Tie bolt		22117	22117
16	4	Rondelle LU27		13358	13358
17	1	Rope clamp		23825	23825
18	8	Screw H M24x80		13697	13697
19	2	Tie	Length 800	22237N	23821
			Length 400	23478	23590
			Length 900	23225	23704
			Length 1200	23479	23520

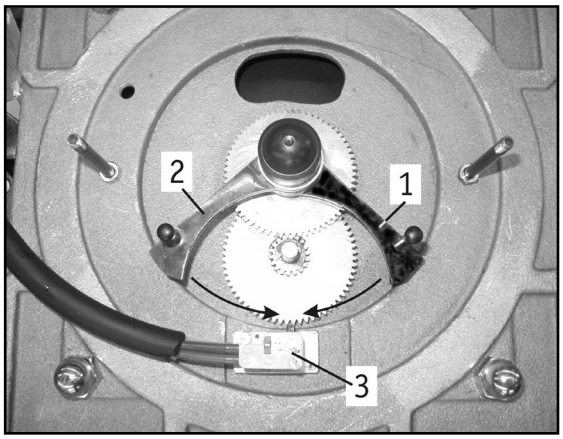
B - OPTIONS : CLOCK TYPE LIMIT SWITCH

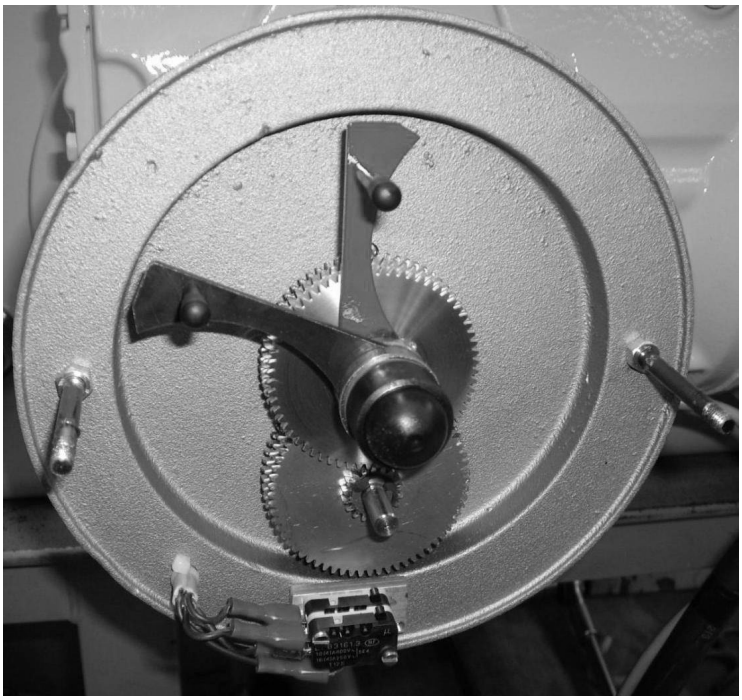
A-Adjusting the limit switch : clock type

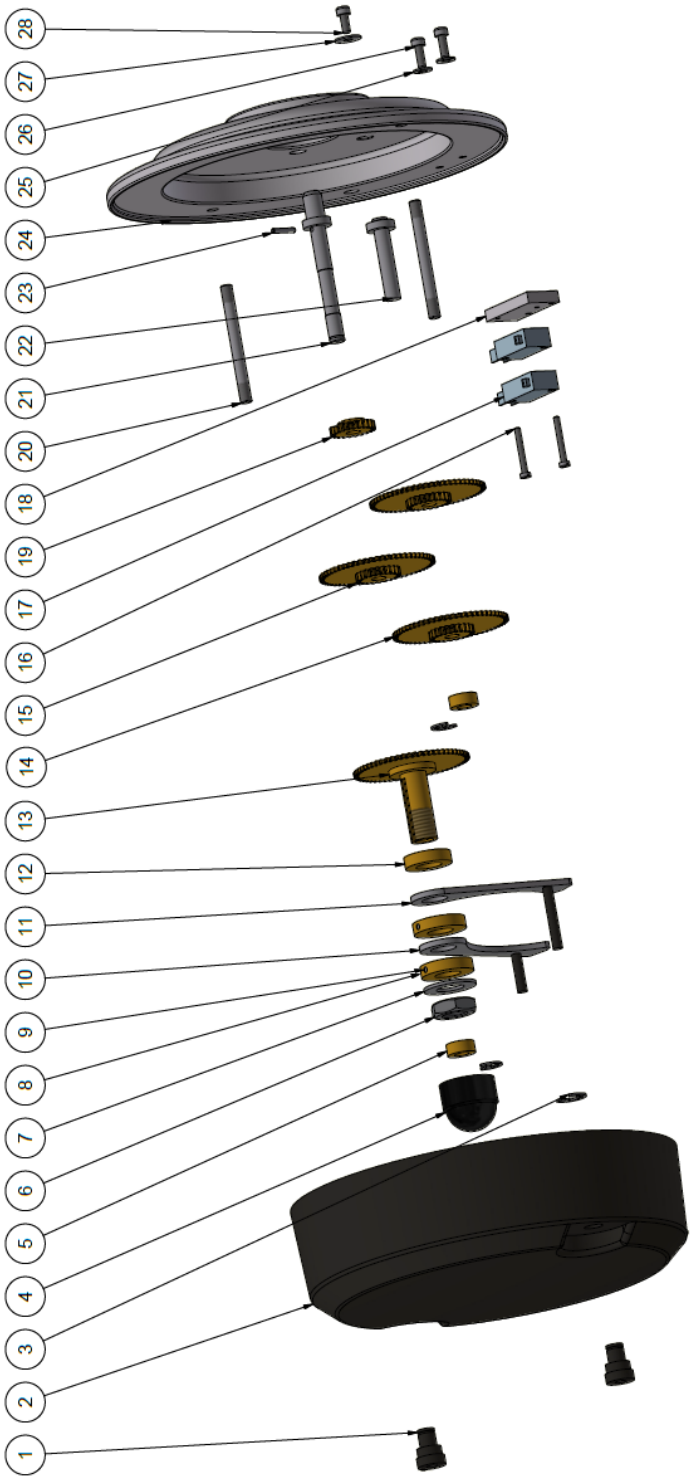
Remove the protective cover (inside the cover you will find the following diagram); the levers, which are now accessible, can be moved manually by rotation.

Setting the winding stop point (upper limit switch):
Wind the rope to the desired maximum winding point. Stop the winch.
While maintaining this position, move the lever (2) manually to the lowest position on the rotation ring where this activates the contact (3)

Setting the unwinding stop point (lower limit switch):
Unwind the rope to the desired maximum unwinding point. Stop the winch.
While maintaining this position, move the other lever (1) manually to the lowest position on the rotation ring where this activates the contact (3)







106000	Limit switch 1/380
106001	Limit switch 1/845
106002	Limit switch 1/1100
106003	Limit switch 1/1280
106004	Limit switch 1/1440

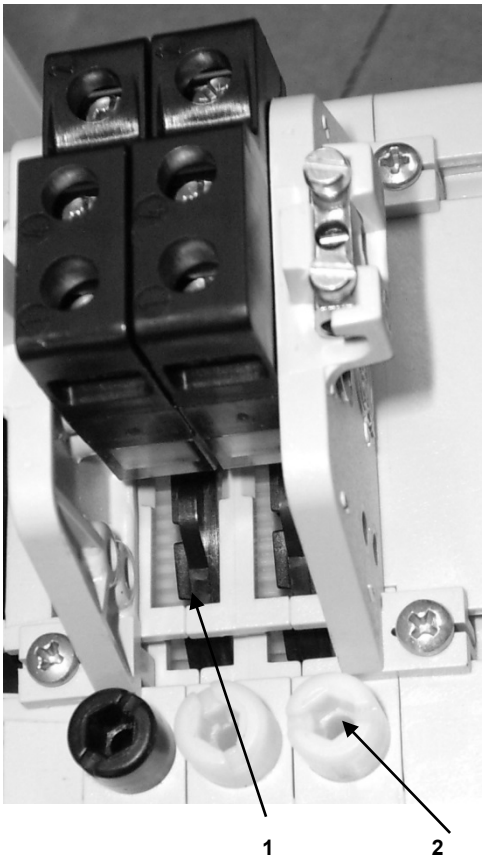
106005	Limit switch 1/1880
106006	Limit switch 1/2530
106007	Limit switch 1/3405
106008	Limit switch 1/3950
106009	Limit switch 1/4580

106010	Limit switch 1/6.5
106011	Limit switch 1/50
106012	Limit switch 1/270
106013	Limit switch 1/200
106014	Limit switch 1/150

To find out the limit switch ratio of your winch, contact us with your serial number.

B-Adjusting the limit switch : Type with IP 65 cam

Remove the protective cover of the device, the cams (1) which are now accessible can be positioned with the help of a worm (2) using a screwdriver.



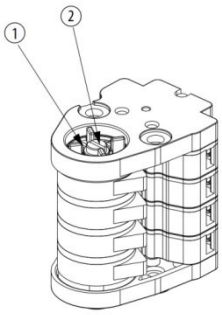
Each adjustment screw (2) corresponds to a TOP or BOTTOM limit position.

Adjustment of the top winding stop point:
Wind the rope to the maximum desired winding point. Stop the winch.
Still in this position, with the help of a suitable screwdriver, turn the adjustment screw (2) until a click is heard in the contactor.

Adjustment of the bottom unwinding stop point:
Unwind the rope until the bottom point, always leaving 3 safety turns on the drum. Stop the winch.
Still in this position, with the help of a suitable screwdriver, turn the adjustment screw (2) until a click is heard in the contactor.

This range of limit switches also includes a model with 4 positions. If you need more positions, do not hesitate to consult us.

C-Adjusting the limit switch : Rotating cam limit switch IP66-67



Before doing anything, turn off the main power supply to the winch.

To set the cams properly, loosen the central screw ② of the group of cams. Then set the trigger point for each cam using their adjustment screws①. The screws are numbered to indicate the cams in increasing order from the bottom of the group to the top. Retighten the central screw.

B - OPTIONS LOAD LIMITER

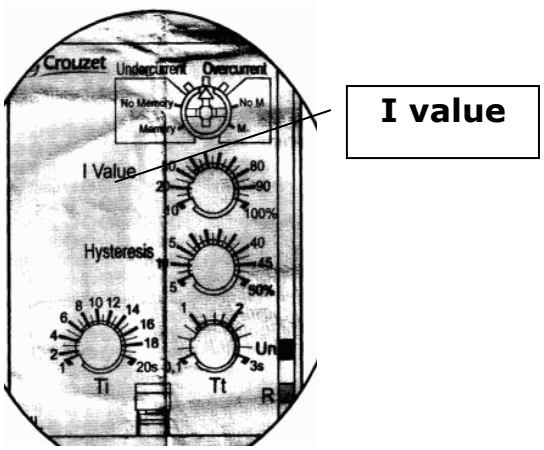
a) With CROUZET load limiter

The winch is adjusted in the factory with the electrical voltage indicated on the test report enclosed with this instruction manual. If this voltage is different in the place of use, the setting must be readjusted.

In the event of overloading of the winch, a load limitation by motor current measurement cuts the lift control.
Once you have identified and eliminated the cause of the load limiter activation, use the key-activated turning button on the right of the unit to reset the load limiter and use the winch again.

Adjust the sensitivity of the load limiter by adjusting the "I value" on the limiter using a small slotted screwdriver:

The load limiter is adjusted in the factory to the value of about 110% of its MCU.



IMPORTANT!
Setting the threshold too high may lead to major risks both for the equipment and the operators.

DANGER: RISK OF ELECTROCUTION, EXPLOSION OR ELECTRIC ARC.

Switch the power off before installing, wiring or performing a maintenance operation.
Check that the power supply voltage of the product, with its tolerances, is compatible with that of the network.

Non compliance with this instruction will cause death or serious injury.

WARNING: UNEXPECTED OPERATION OF THE EQUIPMENT

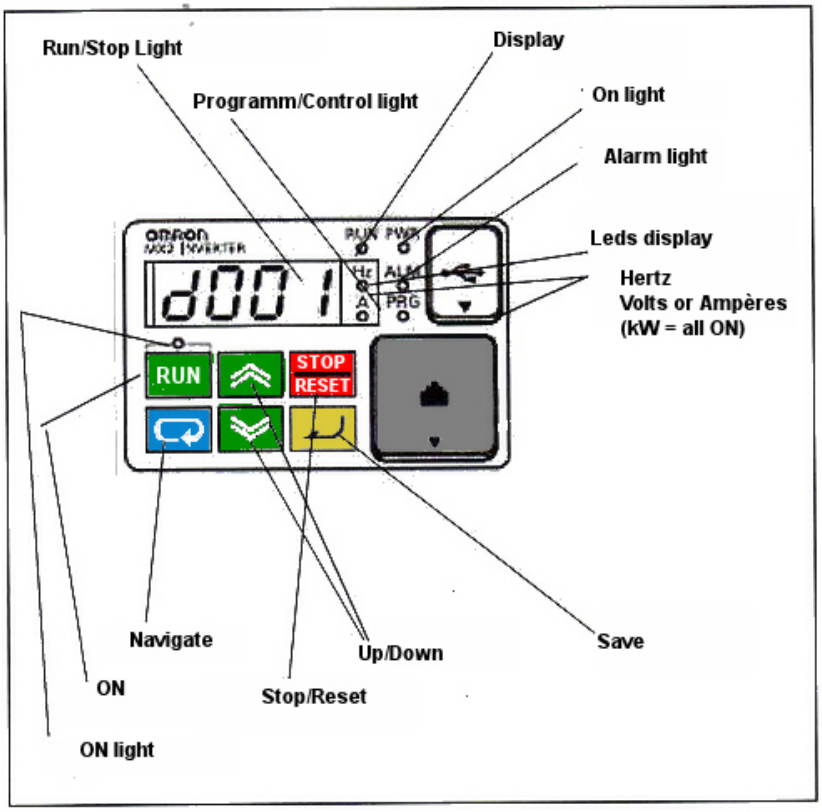
This product must not be used in the capacity of the critical functions of a safety machine.
Wherever there is a risk to the personnel and/or equipment, use the appropriate hard-wired safety lugs.
Please do not disassemble, repair or modify the product.
Respect the installation and operating conditions of the product described in this document.

Non compliance with this directive may cause death, serious bodily injury or material damage.

Electrical equipment must be installed, operated and serviced by qualified personnel.

b) With speed inverter (model TE VV)

Use of the integrated keyboard



Setting of the limit (current) by the inverter:

1/ Winch turned on display 0000, key **save** .

2/ Key **navigate** multiple pulses to display **C001**.

3/ Key **Up** until **C041**.

4/ Key **Save** .

5/ A value in Amps is displayed: increase a maximum with the key **up** , Then the key **save** .

6/ Key **navigate** to display **D001**.

7/ Key **up** until **D002** (reading of the current in Amps).

8/ Key **save** . **0000** is displayed. (Load the winch to the desired cutoff value).

9/ Operate the rise (online reading of the Amps). Example 5A at XX kg cutoff desired.

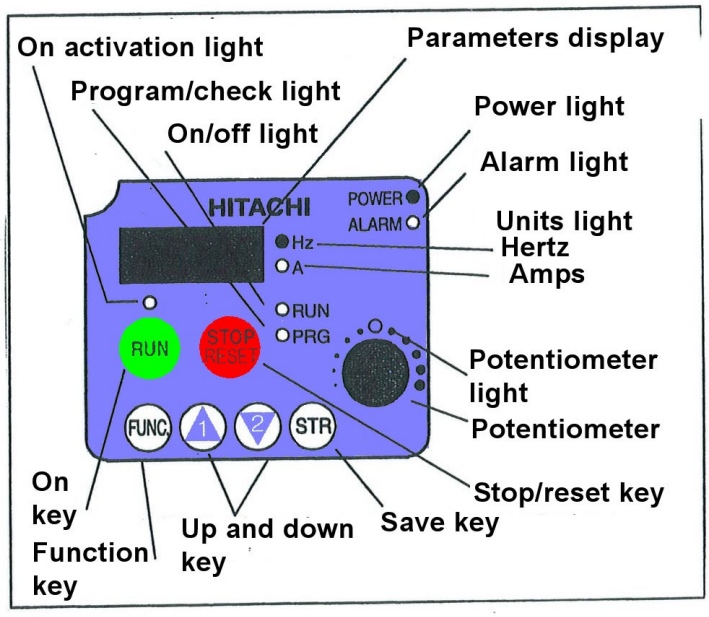
10/ back in **C041** with the key **save** then **navigate** , **save** and then **up** . Setting at 5A (example) with the key **up** or **down** and **save** .

11/ Key **navigate** **D001** then **save** and use.

The default reset E12 is made by the stop reset key STOP RESET or the key switch on the electrical cabinet.

c) With SJ200 variator

Use of the integrated keyboard



Setting of the curent limitation via the speed inverter SJ200 :

1/ Winch turned on display **0000**, key FUNC. display **D001**.
2/ Arrow **2** = **H - - -** .
3/ Arrow **2** = **C - - -** .
4/ Key FUNC. **= C001** the arrow **1** until **C041**.
5/ Key FUNC. display the value in Amps, key 1 until maximum value. Then key STR to validate.
6/ Key STR back in **C041**, 3 successive press on key FUNC. for **C - - - .**
7/ 1 for **D002** then key FUNC. display **0000** live reading of the Amps.

8/ Load the winch to the required value, then test and read the Amps (ex 5.00A).

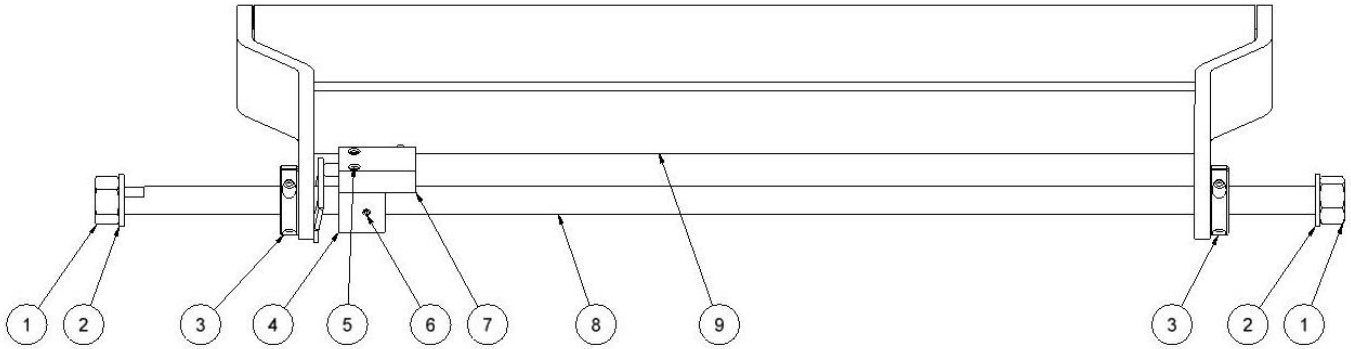
9/ Back in **C041** to set the defined value in **D002** : key FUNC. +3 times on key 2, key FUNC. + tkey 1 until **C041** setting of the value (ex 5.00A or inferior for cut off below the reading) in Amps then key STR to validate.
10/ Key FUNC. for **C - - -** then arrow **1** until **D001** then key FUNC. and key STR to read the frequency.

B - OPTIONS ROPE SLACK SYSTEM

There are different positions according to the desired rope outlet. The rope outlet must therefore be defined for the order.
The following concerns standard cable slack for a horizontal rope outlet. If this does not correspond to your order, ask our services for the corresponding diagram and index of terms.

This option allows you to detect a lack of tautness in the rope, for example due to a load placed on the ground. It stops the movement but allows reverse movement.
The weight of the system is on the rope and thus detects a loss of tautness in the rope by pivoting around shaft 8, activating contactor 7 by means of the washer welded onto the arm.
The equipment is adjusted in the factory but this should be repeated once you have installed the machine.

To adjust, slacken screw 6; contactor 7 should turn and translate on shaft 8.
Tighten the rope; contactor 7 should not engage. If it engages, simply turn it so that this is no longer the case.
Slacken the rope slightly according to your precision needs; place contactor 7 in contact with the washer and tighten screw 6.
Perform operating tests and readjust if necessary.



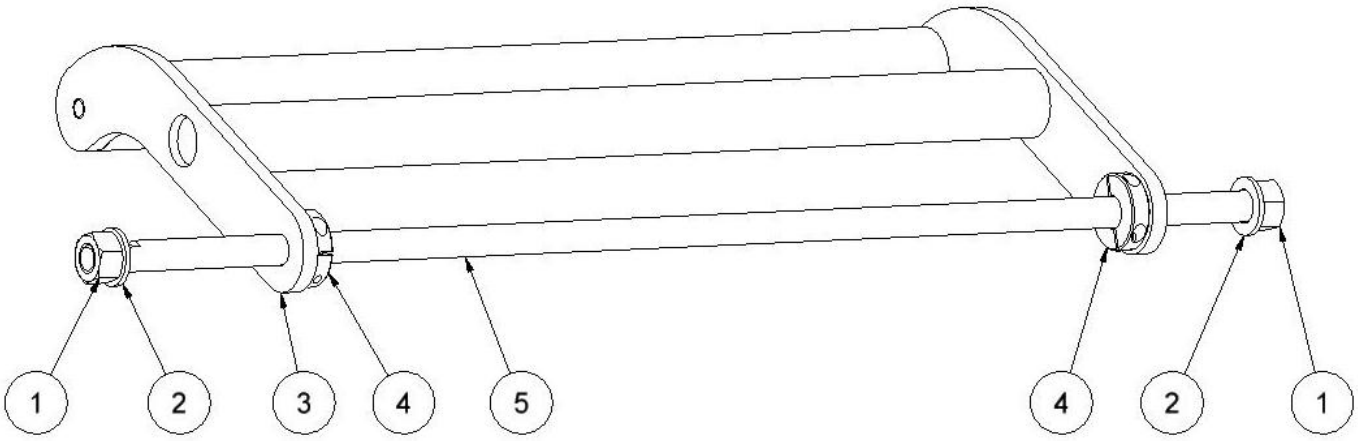
Standard rope slack for a horizontal rope outlet

Article	Reference													
	600 to 1600TE range		2000 to 5000TE range				7500 TE				10000 TE			
	Length 300	Length 600	Length 300	Length 600	Length 900	Length 1,200	Length 400	Length 800	Length 900	Length 1,200	Length 400	Length 800	Length 900	Length 1,200
1	13361	13361	13291	13291	13291	13291	13291	13291	13291	13291	13291	13291	13291	13291
2	13307	13307	13300	13300	13300	13300	13300	13300	13300	13300	13300	13300	13300	13300
3	13376	13376	2962	2962	2962	2962	2962	2962	2962	2962	2962	2962	2962	2962
4	20739	20739	23066	23066	23066	23066	23066	23066	23066	23066	23066	23066	23066	23066
5	13175	13175	13175	13175	13175	13175	13175	13175	13175	13175	13175	13175	13175	13175
6	13162	13162	13162	13162	13162	13162	13162	13162	13162	13162	13162	13162	13162	13162
7	3249	3249	3249	3249	3249	3249	3249	3249	3249	3249	3249	3249	3249	3249
8	23163	23152	23103	23060	23109	23115	24313	22104	24317	22102	24313	22104	24317	22102
9	23162	23159	23101	23057	23107	23113	24312	22625	24316	22627	24312	22625	24316	22627

B - OPTIONS ROPE PRESS SYSTEM

This option allows you to hold the rope in the drum groove when there is no load on it.
The following concerns cable slack for a horizontal rope outlet. If this does not correspond to your order, ask our services for the corresponding diagram and index of terms.

There are different positions according to the desired rope outlet. The rope outlet must therefore be defined for the order.



Standard rope slack for a horizontal rope outlet

Article	Reference													
	600 to 1600TE		2000 to 5000TE				7500TE				10000TE			
	Length 300	Length 600	Length 300	Length 600	Length 900	Length 1,200	Length 400	Length 800	Length 900	Length 1,200	Length 400	Length 800	Length 900	Length 1,200
1	13361	13361	13291	13291	13291	13291	13291	13291	13291	13291	13291	13291	13291	13291
2	13307	13307	13300	13300	13300	13300	13300	13300	13300	13300	13300	13300	13300	13300
3	23161	23155	23102	23058	23108	23114	24320	22626	24323	22634	24320	22626	24323	22634
4	13376	13376	2962	2962	2962	2962	2962	2962	2962	2962	2962	2962	2962	2962
5	23163	23152	23103	23060	23109	23115	24313	22104	24317	22102	24313	22104	24317	22102

The English version of the maintenance booklet for our lifting winches can be downloaded from our website www.huchez.fr/uk **under the heading "After sales services".**

Date	Person In charge Company	Person In charge Name	Nature of the operation	References of replaced parts	Frequency if appropriate	Signature

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