

MT



INSTRUCTION MANUAL

MANUAL GEAR WINCH MT TYPE



ANGLAIS

PRODUCT DEVELOPED AND MANUFACTURED ACCORDING TO EUROPEAN STANDARD EN 13157 - REGISTERED DESIGN

To ensure the constant improvement of its products, VERLINDE 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.

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Contents

1 - General warning	2
2 - Presentation of the machines.....	3
3 - Handling - Storage	4
4 - Use, assembly and set up	4
5 - Servicing and maintenance	7
6 - Contraindications for use	7
7 - Precautions for use	8
8 - Compulsory regulatory checks.....	8
9 - Taking out of use.....	9
10 - FAQs.....	10
11 - Spare parts	11
12 - Example of the Declaration of Conformity	13

1 – General warning

This machine is governed by European regulations and, more specifically, machinery directive 2006/42/EC and the European standard EN 13157.

- Before using this winch, the user must read this instruction manual and comply with all the instructions in order to ensure the safe and efficient use of the equipment.
- This instruction manual must be available to all operators. The manufacturer will provide additional copies on request.
- MT winches are designed to enable lifting and hauling operations. Please ensure that the operator has read this manual and 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.
- Never use this winch with a load which exceeds the maximum load indicated (see p. 5 § 2.4).
- This machine is used to lift loads. Under no circumstances should it be used to hold a load with the rope taut, in particular if the load is likely to increase as this could cause the rope or winch to break (barges, circus tents, etc.).
- This machine may not, under any circumstances, be used to lift people.
- This machine may not, under any circumstances, be used above people unless the load is secured by some other means.
- Before use, the operator must always check that the machine, rope, hook, markings and fastenings are in good working order.
- The manufacturer shall not accept any liability for consequences resulting from the use or installation of equipment not provided for in these instructions; or for the consequences of removal, modification or replacement of original parts or components with parts or components from other sources without the written agreement of VERLINDE.
- It is strictly forbidden to motorise these machines.

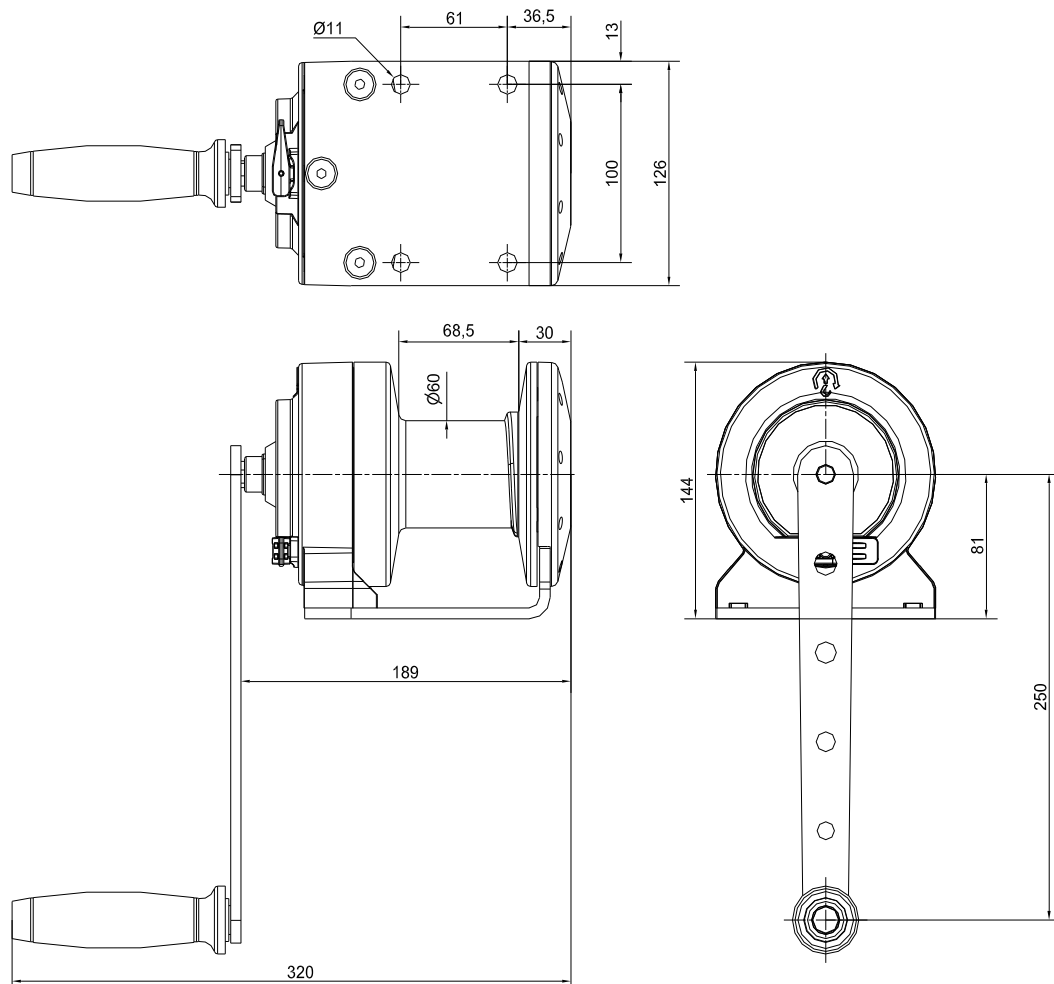
2 - Presentation of the machines

The MT is a manual lifting and hauling winch that meets all current regulations and requisites.

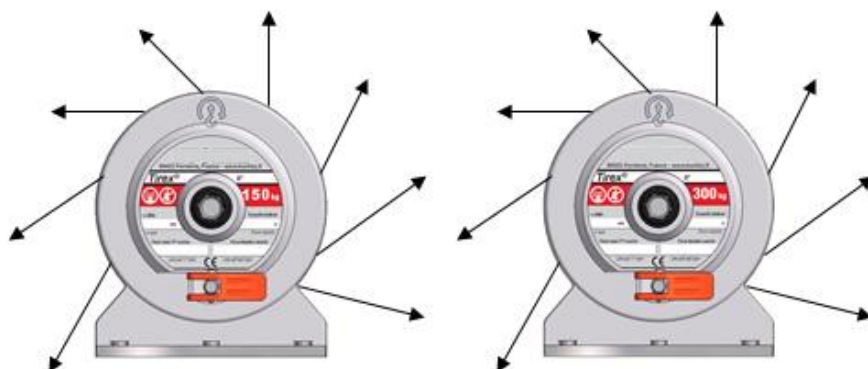
2.1. Construction

- Frame with an aluminium structure and thick steel sheet (or stainless steel depending on the option).
- Polymer drum.
- Entirely protected reduction system.
- Drum disengaging system (no disengaging when loaded).
- Automatic brake
- Ergonomic handle unit with rotating handle. The handle clips on and off to prevent it from being used by unauthorised people.
- Natural rustproof protection (aluminium/polymer) or treatment (for steel parts).

2.2. Dimensions



Possible rope release:



2.3. Technical specifications

Model	Capacity on 1st layer Kg	Capacity on the last layer Kg	Number of layers	Rope		Max. handle force Kg	Minimum lift per turn of the handle mm	Weight (ropeless winch) Kg
				Ø mm	Capacity (m)			
MT 150	250	150	6	4	24	8	40	3.7
MT 300	400	300	3	5	8.5	14	41	3.7

The rope diameter indicated above corresponds to the load on the top layer.

Important: it is obligatory to check that the rope resistance coefficient complies with the lifted load (coefficient 5).

2.4. Maximum loads depending on the layer used (for Ø 4mm rope (MT 150) or 5 mm (MT300)).

Models	1st layer	2nd layer	3rd layer	4th layer	5th layer	6th layer
MT 150	250 Kg	220 Kg	200 Kg	180 Kg	160 Kg	150 Kg
MT 300	400 Kg	340 Kg	300 Kg			

2.5. Accessories

The MT may be delivered complete with ropes and accessories. The pulleys and pulley blocks used with these winches must comply with standard EN 13157.

2.6. Operation

When using the winch, the load is raised or lowered depending on the direction in which the handle is turned. When the handle is released, the brake comes on and holds the load in place.

Automatic brake activation

A load of at least 10 kg for the MT 150 or 15 kg for the MT 300 is required for the brake to activate automatically.

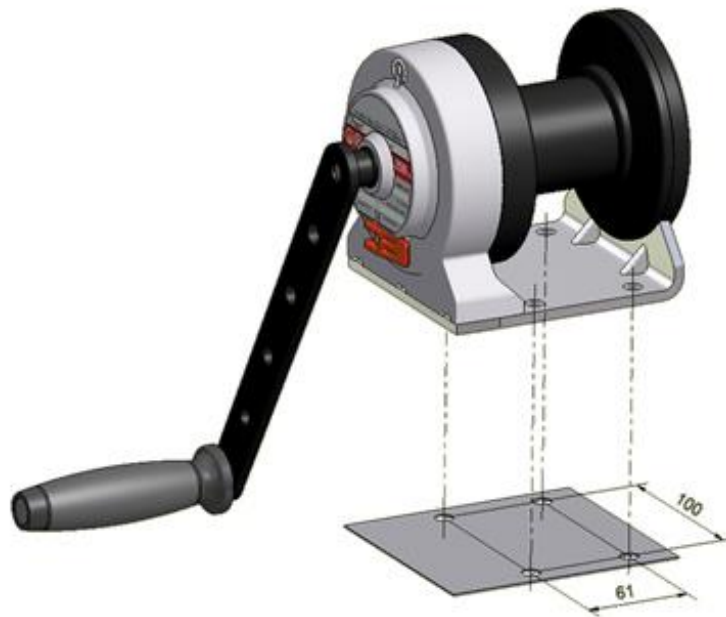
3 – Handling – Storage

This light machine can be carried and needs no fixing means. It is advisable to store the equipment in weatherproof conditions.

4 – Use, assembly and set up

The following precautions should be respected.

4.1. Fastening



Fixing with four Ø 10 mm screws

Use at least type 8.8 screws.

4.2. Rope

Make sure the rope used is right for the application.

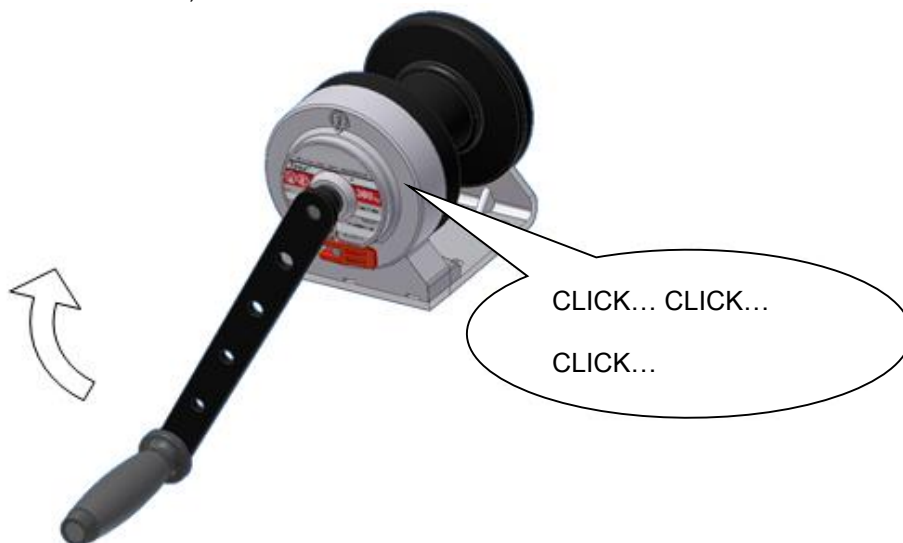
By default, the winch is prepared for work with Ø 4 mm rope (MT 150) or 5 mm (MT 300).

Reminder: the safety coefficient of steel rope must be 5 in lifting and 3 in hauling.

4.3. Rope assembly

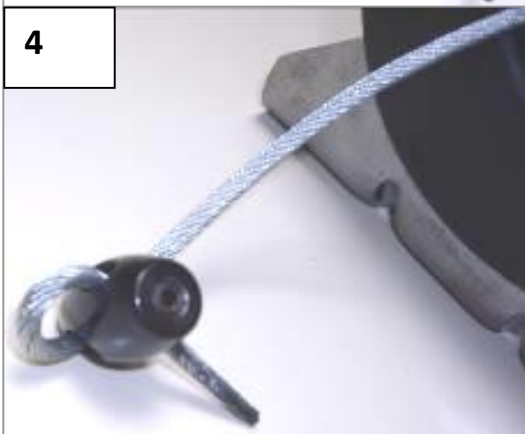
The winding direction of the rope must be strictly observed. To lift the load, turn the handle clockwise: a clicking sound is heard. To lower the load, turn the handle anti-clockwise.

Rise

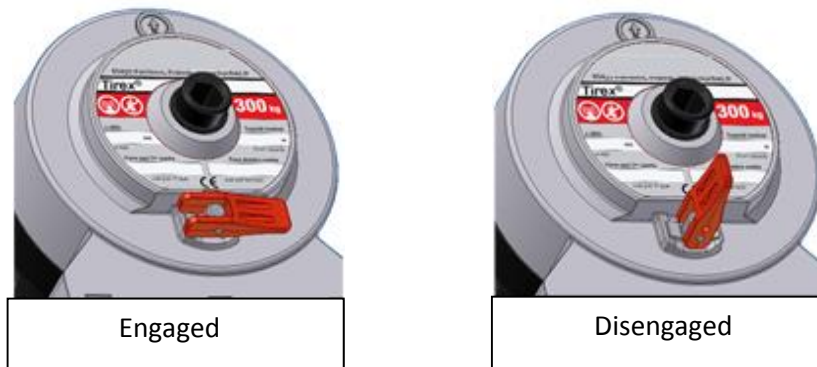


Rope assembly:

- 1) Pass the rope through the drum until it protrudes at the rear of the winch.
- 2) Pass the rope through the first hole of the rope clamp.
- 3) Pass the rope through the second hole of the rope clamp until 2 cm of rope protrudes and tighten the screw (using a BTR no. 3 spanner).
- 4) Pull on the rope to tighten it against the clamp.
- 5) Fit the rope clamp back inside the drum.



4.4. Disengaging



- Never disengage when the winch is loaded. In the event of mishandling, a device blocks the disengaging lever when a load is applied to the winch.
- The winch is also provided with a security device that prevents the rope from being wound in the wrong direction. In such a case, the winch disengages automatically.

5 – Servicing and maintenance

The delivered winches are ready to be used (after installing the rope if not supplied by the manufacturer).

A maintenance check is required at least once a year and must be carried out by a skilled person or body:

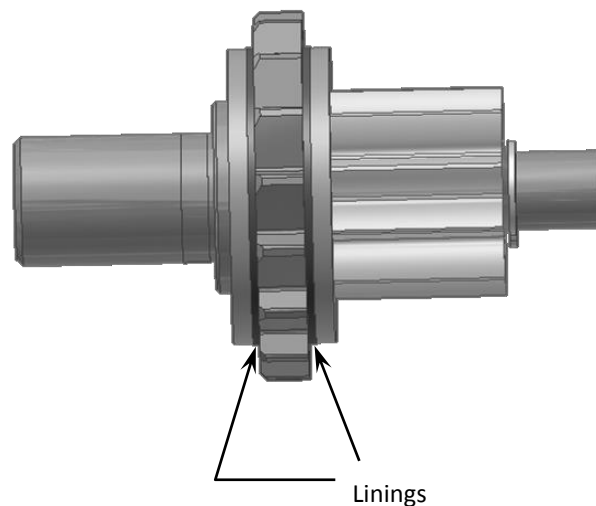
Regularly grease the gears with **EP.2 grade grease for open gearing**.

Regularly and before every use: check the condition of the rope, hook and safety latch.

If the rope and hook are not supplied by the manufacturer along with the machine, check that the rope and hook used guarantee a level of safety according to breaking factor 5 (Machinery directive 2006/42/EC).

Regularly check the state of the brake (static tests: nominal load + 50%).

Regularly monitor the wear of brake linings. When they are no longer visible, they must be replaced:



Automatic brake application:

The brake will apply automatically when a winch is placed under a minimum load of :

- . 10 kg for the MT 150
- . 15 Kg for the MT 300.

6 – Contraindications for use

Before using the equipment, check for potential causes of overloading such as: adhesion to the ground, suction, jamming, etc. All forbidden and incorrect uses or operations are presented below:

It is forbidden to:

- lift loads in excess of the nominal load indicated on the machine plate;
- unwind the drum completely (keep two or three residual winds);
- pull at an angle;
- swing the load;
- use the winch to lift staff;
- walk under a load;
- use ropes with a different diameter and texture from the specifications in this instruction manual (breaking factor 5);
- use damaged ropes or spliced ropes;
- use hooks without a latch, which do not correspond to the loads indicated on the machine or which are in poor condition;
- insert objects into moving parts;
- perform operations on a machine while it is loaded;
- disengage the drum while loaded;
- let the load free fall;
- motorise the machines;
- use the machine rope as a chain;
- use handles other than the original ones;
- use the machine for operations other than those for which it is intended;
- use the winch as an anti-fall device, regardless of the height of the drop and the load applied;
- use parts or components other than the original ones provided by the manufacturer;
- tow by positioning a fixed point on the winch.

There must not be any obstacle in the load moving area either; any obstacles might cause sharp changes in the rope tension and break it.

7 – Precautions for use

- Long descents are liable to overheat and damage the braking system. It is strongly advisable to wait a few minutes half way (around 12 meters for the MT 150 and around 4 metres for the MT 300) through descent phases.
- The operating temperature should be between -10°C and $+50^{\circ}\text{C}$.
- These winches are manufactured for use in a normal environment. If they are used in an aggressive environment (saline, chemical atmosphere, etc.), special care should be taken or advice should be sought from the manufacturer.
- The winches should be used on a regular basis, even with no load, in particular when used in a harsh environment. Prolonged inactivity entails the risk of damaging the braking system (brake sticking).
- It is highly recommended not to handle the rope unless protected by gloves.

8 - Compulsory regulatory checks

This equipment has been designed to be tested:

- In a dynamic situation, with coefficient 1.1
- In a static situation, with coefficient 1.5.

A periodic maintenance check is required at least once a year:

In accordance with regulations, the user must keep an inspection booklet recording all the inspections and operations carried out on the machine (Rule FEM 9755).

In France, since 1 April 2005, the owner of a lifting machine must:

1. Pursuant to the provisions of the order of 2 March 2004, keep a maintenance log in which the following must be recorded:

- Maintenance operations performed in accordance with the recommendations of the manufacturer.
- All other operations (inspection, maintenance, repairs, replacement or changes to the machine).

The following must be recorded for each of these operations: 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 regular operation, the frequency. If the operations involve the replacement of certain machine components, the references of these components must be indicated.

2. By virtue of the order of 1 March 2004, article R 232.12 of the Labour Code:

Checks during set-up (section 3 of the order - articles 12 to 17):

- Suitability test (article 5-1): suitable equipment and compliant installation. It must be provided, in writing, by the user (article 3d).
- Assembly and installation test (article 5-11): equipment installed according to the instruction manual.
- Operating test (article 6c or 14-II): loaded with safety tests.
- Static test (art. 10)
- Dynamic test (art. 11)

Regular general checks (section 5 of the order - articles 22 to 24):

- Inspection of the state of preservation (art. 9): equipment kept in good condition, with nothing missing or added, compliant.
- Operating test (art. 6b and c).

Checks when resuming service (section 4 of the order - articles 18 to 21):

- Suitability test (art. 5-I).
- Assembly and installation test (art. 5-II).
- Inspection of the state of preservation (art. 9).
- Operating test (art. 19-II).
- Static test (art. 10)
- Dynamic test (art. 11)

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.

VERLINDE provides an upkeep / maintenance manual for each piece of equipment. It is very important to make sure that the individuals using the hoist are familiar with the equipment and its correct operation.

VERLINDE agencies are available and may, upon request or by contract, intervene and maintain the winch if necessary.

If any replacement parts are needed, please specify the following information so that we may supply the appropriate parts:

- the complete name of the winch
- the complete name of the hoisting motor if necessary
- the serial number of the winch

The 3 items above are listed on the ID plates attached to the winch, motors and on the inspection certificates.

For further information, please contact the winch manufacturer or the distributor.

Manufactured by :

Manufactured by: VERLINDE
VERNOUILLET- FRANCE
2, Boulevard de l'industrie
B.P. 59 28501 VERNOUILLET CEDEX
Phone: +33 (0)2.37.38.95.95 - Fax: +33 (0)2.37.38.95.99

9 – 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.: that it is taken out of service, and possibly: disassembled.

10 – FAQs

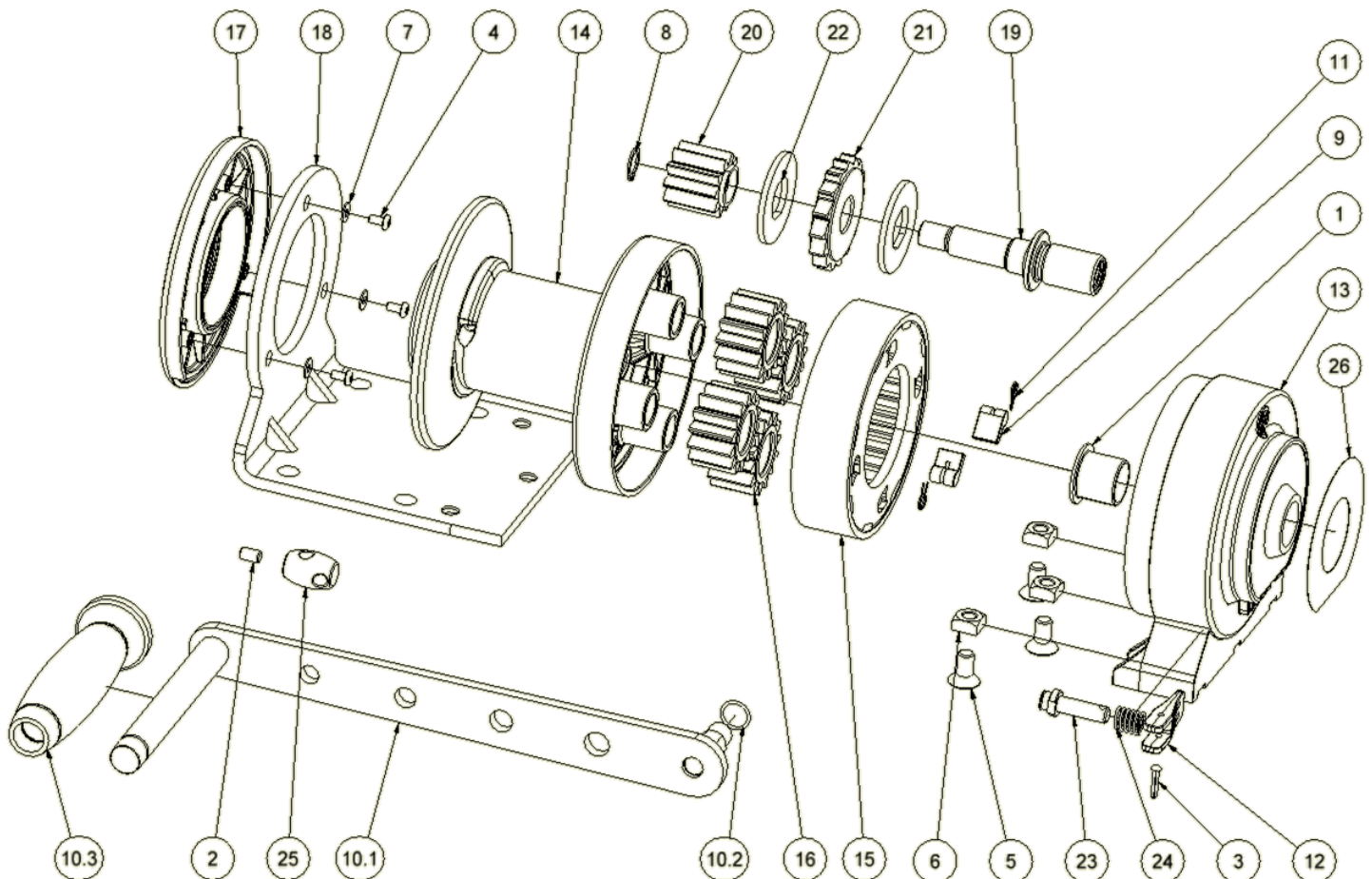
Question	Cause	Solution
The drum fails to turn when the handle is turned	The winch is disengaged.	Make sure the disengaging lever is firmly in position. See § 4.4.
	The rope is fitted in the wrong direction and the security device is triggered.	Make sure the rope is fitted in the right direction. See § 4.3.
The disengaging lever is too stiff to use	The winch is still loaded or the rope is simply taut.	Make sure there is no load on the winch and that the rope is not taut. See § 4.4.
Great force is required to move the handle	Excessive load to be lifted or hauled.	Carefully settle the load and check the real weight to be lifted or hauled. The load must not exceed the winch capacity. See § 2.4.
The winch vibrates or screams	Brake overheating. This only happens when unwinding the rope. See § 7.	Allow to cool for at least 5 minutes.
	The brake linings are worn. See § 8.	The winch needs a service.
	The gears are no longer greased.	Grease the gears. See § 5.

11 – Spare parts

MT 150 kg

No.	Part no.	Description
1	2763	GFM-2023-21 bearing ring
2	13162	10 x Hc M6 headless screw
3	13659	18 x aluminium 3.2 rivet
4	13681	8 x M4 HC roundhead screw
5	13682	16 x M8 HC stainless steel slotted head screw
6	13683	M8 stainless steel square nut
7	13685	MU 4 stainless steel washer
8	21045	12 x 1 exterior circlip
9	21894	Ratchet
10	21895	Assembled handle
10.1	21896	Handle
10.2	2864	Trim
10.3	23216	Grip
11	21901	Ratchet spring
12	22929	Disengaging lever

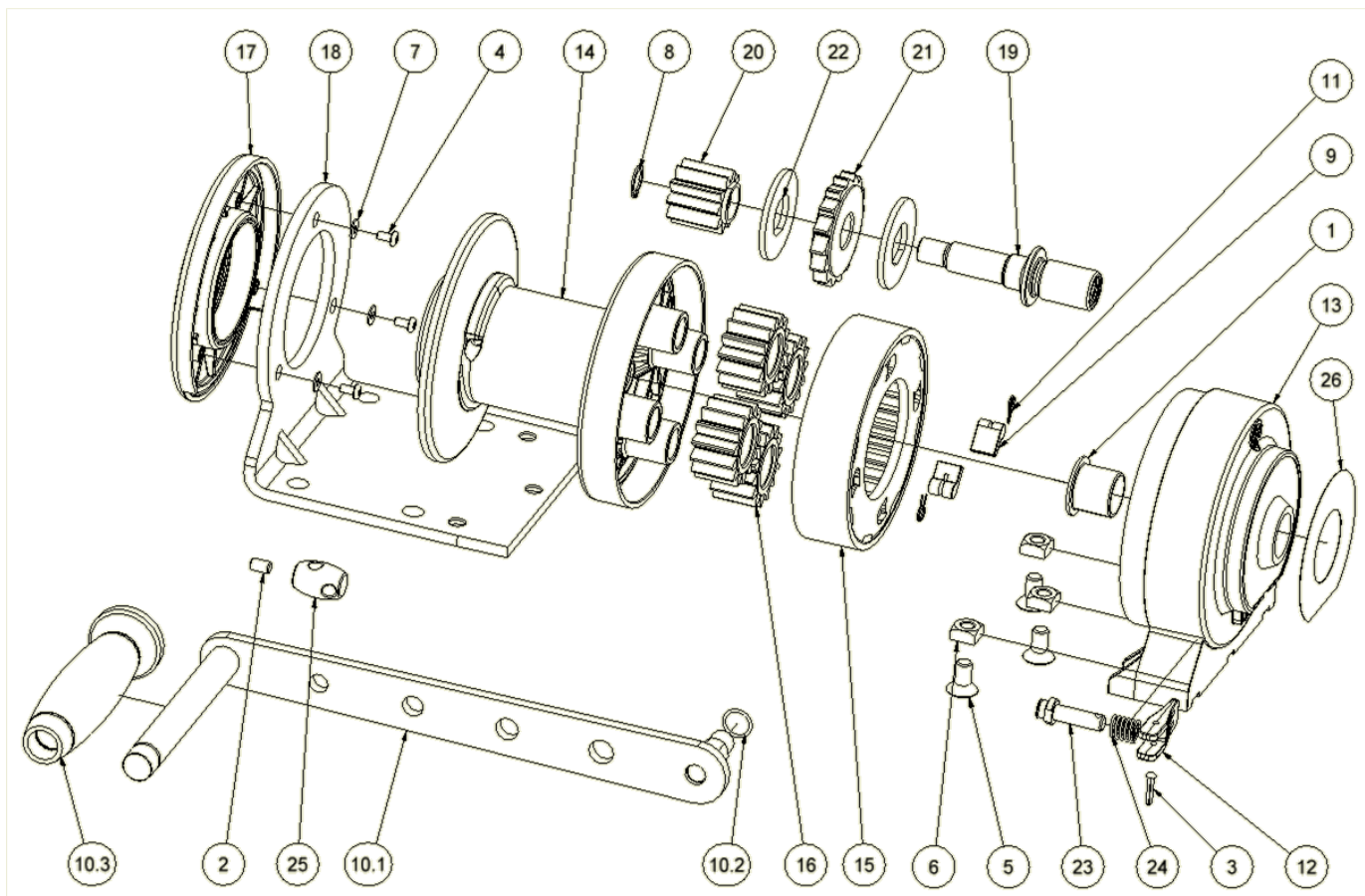
No.	Part no.	Description
13	23451	Structure
14	23452	Drum
15	23453	Disengageable crown
16	23454	Planet wheel
17	23455	Bearing
18	23456	Bracket
19	23457	Shaft
20	23458	Sprocket wheel
21	23459	Ratchet wheel
22	23460	Support washer
23	23461	Disengaging axle
24	23463	Disengaging spring
25	23464	Rope clamp
26	60417	Label




MT 300 kg


No.	Part no.	Description
1	2763	GFM-2023-21 bearing ring
2	13162	10 x Hc M6 headless screw
3	13659	18 x aluminium 3.2 rivet
4	13681	8 x M4 HC roundhead screw
5	13682	16 x M8 HC stainless steel slotted head screw
6	13683	M8 stainless steel square nut
7	13685	MU 4 stainless steel washer
8	21045	12 x 1 exterior circlip
9	21894	Ratchet
10	21895	Assembled handle
10.1	21896	Handle
10.2	2864	Trim
10.3	23216	Grip
11	21901	Ratchet spring
12	22929	Disengaging lever

No.	Part no.	Description
13	23451	Structure
14	23452	Drum
15	23453	Disengageable crown
16	23454	Planet wheel
17	23455	Bearing
18	23456	Bracket
19	23457	Shaft
20	23458	Sprocket wheel
21	23459	Ratchet wheel
22	23460	Support washer
23	23461	Disengaging axle
24	23463	Disengaging spring
25	23464	Rope clamp
26	60416	Label



12 – Example of the Declaration of Conformity





DECLARATION OF CONFORMITY

*F03.30.1 - UK Hand winch
MANISTOR- TIREX*

We hereby declare that the design and manufacture of the machinery referred to below comply with the relevant requirements of Directive 2006/42/CE on Machinery.
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: Hand winch

Model:

Force :

Serial n°:

Function: Hoisting equipment

Harmonised standard(s) used, notably: EN 13157

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 specialised in their use.

and with instructions for use.

Issued in Vernouillet, on

Jean-Paul GATEL,
CEO

VERLINDE S.A. - SIRET 456501519 - APE 2822 Z - TVA : FR 78456501519
2 boulevard de l'Industrie - BP 20059 - 28509 VERNUILLET Cedex - Tél. 02 37 38 95 95 - Fax 02 37 38 95 99