

User Guide

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Reel drive 6

01651_Reel drive 6



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liability and warranty provisions

The liability and warranty provisions of the general T&C of Jakob Rope Systems apply. Especially T&C points 10 and 11.

Preface

With the HABEGGER reel drive 6, you have made a good choice. Unloaded ropes can be wound up by means of this reel drive. Operation and maintenance are extremely simple and ensure trouble-free and reliable operation when handled correctly.

You may already know how your newly acquired reel drive works.

However, we at the company Jakob AG recommend the following:

Prior to the first start-up of the device, please read these operating instructions carefully! It contains all the essential information you need to know about the reel drive.

This important information in the operating instructions will help you to:

- avoid hazards
- reduce repair costs and downtimes and
- increase the reliability and lifetime of your reel drive.

Always keep these operating instructions in the same place where the reel drive is used and ensure that it is read and used by anyone who works with it. It must be accessible to all operating personnel in order to avoid any incorrect handling.

In addition to the operating instructions and the applicable regulations in the country as well as at the place of use for the prevention of any accidents, the recognised technical rules for safety-conscious and professional work must also be observed.

We wish you all the best and success in working with a product of the company Jakob AG.

EC Declaration of Conformity



We,

Jakob AG
Dorfstrasse 34
CH-3555 Trubschachen

herewith declare that the

Reel drive 6

complies with the basic safety and health requirements of the EC Machinery Directive in its design and construction as well as in those versions we have placed on the market.

In the case of improper use or any alterations and modifications which have not been approved by us, this declaration loses its validity.

In addition, this Declaration of Conformity will become invalid if the provisions of the operating and maintenance instructions are disregarded or neglected.

Applicable EC-Directive:

European Machinery Directive 2006/42/EC

Harmonised standards applied to:

EN ISO 12100: 2011-01

Place:

Trubschachen

Date:

28. February 2024

Stv. Leiter Technik

Suppléant du chef technique / deputy Head of Technology
Thomas Gerber

Leiter Seil- & Hebetchnik

Chef câbles et levage / Head of Hoisting and Lifting
Urs Schneider

1 General description

The reel drive 6 is used to wind the unloaded cable onto reels with a diameter ($\varnothing$) of up to 1.2 m, which is discharged from the power-driven rope pulling machine HIT-TRAC.

The reel drive does not have a winding device. This means that the winding process must be observed and corrected, if necessary.

The reel can be raised from the floor to the reel drive by means of a lever system in order that it can rotate. Depending on the position of the operating button on the reel drive, the rotation of the reel is limited by a brake or a rotating field magnet.

1.1 Drive

The drive is powered by a rotating field magnet via gear units, chains and gear wheels. A rotating field magnet is a three-phase cage engine which is designed for the operation with rated torque at standstill.

This means that the engine acts on the reel like an infinitely long spring. If the resistance on the rope is greater than the spring force (engine), the reel and thus the engine stops without being damaged or it even turns in the other direction. Once the engine has been switched off, a holding brake prevents the reel from rotating.

1.2 Clutch

A clutch that can be engaged at standstill with the operating button connects the reel either to the drive or via a non-return device with a brake.

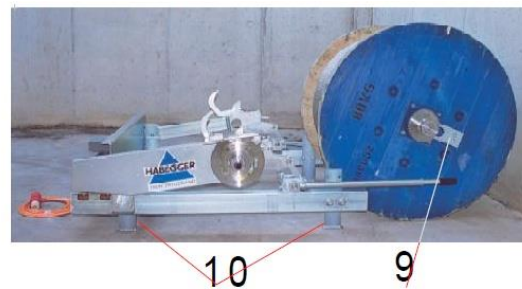
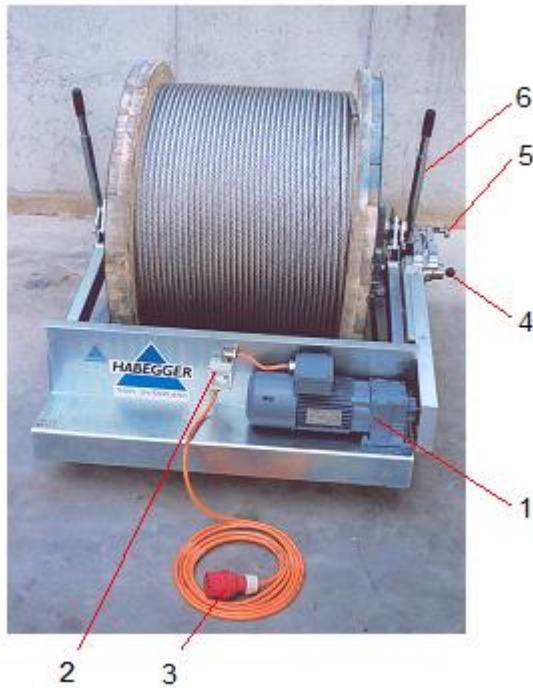
1.3 Brake

A spring-loaded brake prevents an unintentional rewinding of the reel. When pulling the rope off by hand, the reel is rotated against the brake resistor. This prevents the reel from keep running after the pull-off process has been stopped. The brake is only effective in the pull-off direction.

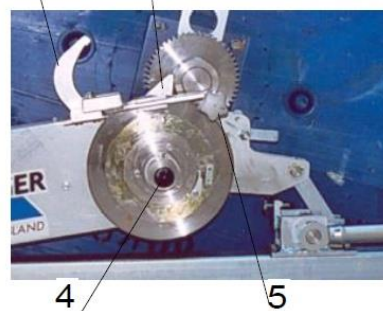
2 Design and function

- 1 Gear motor
- 2 Switch
- 3 Plug
- 4 Operating button
- 5 Star grip

- 6 Lever tube
- 7 Shaft end stop
- 8 Securing bracket
- 9 Tappet
- 10 Feet



+ 8 7



3 Safety information



The HABEGGER reel drive 6 corresponds to the current state of the art. Functionally, this is executed in an open design.

In order to prevent any accidents, it is equipped with effective safety devices in accordance with recognised safety standards, guidelines and laws.

However, laws, regulations and safety devices do not provide any protection against negligence and carelessness!

Only use the reel drive in faultless condition, while observing the operating instructions.

Before you are working with the reel drive, you must carefully read and observe the following safety instructions.

It's all about your safety!

3.1 Intended use

The reel drive is intended for winding of ropes.

3.2 Safety information in this operating instructions

The following symbols and descriptions are used for hazards, notes and important information:



- Notes are particularly important information which you have to observe for the intended use of the described technique.



- Caution! Note if the machine, machine parts and the environment are endangered.



- Danger! Warning in the case of danger to health and life of the operator and other individuals.

3.3 General safety instructions

Location

- Ensure a solid and secure location at all times while working.
- Always remain outside the hazardous area.
- You need sufficient freedom of movement. Therefore, a sufficiently large stand space must be ensured.
- Do not use any ladders as stand space.
- In the case of an unsuitable location: Insert a deflection roller and select a better location.



When installing the machine, it must be ensured that there are no external hazards to the reel drive, the pulling rope, the load and the operating personnel during operation (e.g., falling objects, passing vehicles, electrical overhead lines, etc.).

Operation

The reel rotates only slowly and with limited force. Nevertheless, it must be ensured that nothing gets into the open spokes.



- Danger! Do not stay in the hazardous area of loads, deflection rollers and ropes!
- Do not reach into rotating parts. Risk of injury!



- Caution! As soon as there are only three coils left on the reel, stop the machine.

3.4 Authorised operating personnel

The reel drive 6 may only be operated by a specialist and authorised individual. As operator of the reel drive, make sure that the operating instructions are made available to the operator and ensure that he/she has read and understood them.

3.5 Warranty and liability

Warranty and liability claims for personal injury and property damage are excluded if they are due to an infringement of the provided operating instructions.

3.6 Behaviour in an emergency situation

Before you start the work, please always inform yourself whether and where there is a signal reception for a mobile phone or if a telephone is available. In addition, the availability of a first aid kit must be checked.

4 Technical data

For reel drives	Outer diameter: up to 1.2 m Width: up to 0.75 m Bore: 65 mm
Pulling force: Winding diameter 0.4 m Winding diameter 0.8 m	approx. 25 kg approx. 15 kg
Winding speed Winding diameter 0.4 m Winding diameter 0.8 m	0 - 20 m/min approx. 12 m/min approx. 20m/min
Tare weight	166 kg
Drive motor 3x400V: Gear oil Power plug	Three-phase current geared motor SEW R17 DRM71M12BE05 0.53 A, 50 Hz, 3x400V, IP 54 0.25L, CLP 220 CEE 16 16A (3xL+N+PE)

5 Operation

5.1 Preparation

Reel drive

Screw the feet on the reel drive corresponding to the diameter of the reel.

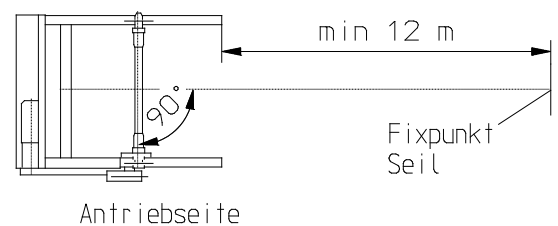
Reel diameter	Location of the feet
1.2 m	Screws at the upper bores
1 m	Screws at the lower bores

Pull the operating button to the outer locking position.

Location

Move the reel drive as far away as possible (at least 12 m) from the fixed point of the rope at right angles to it.

If the distance to the fixed point cannot be maintained, the rope is only wound at one spot on the reel. This means that a uniform distribution of the rope on the reel must be effected by additional measures, for instance, by moving the rope with a piece of wood.



Inserting the reel

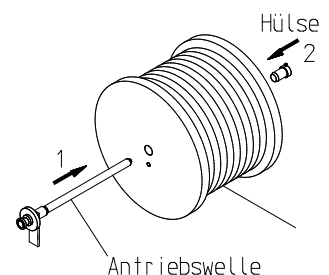
Place the reel to the reel drive in such a way that the rope departure points down to the fixed point.

Remove the shaft from the reel drive, pull off the sleeve after loosening the clamping screw and push the shaft into the reel in order to ensure that the gearwheel is on the drive side. Push the sleeve completely in at the opposite side and secure it with a screw. Roll the reel all the way to the reel drive (until the end stop has been reached).

Raise the reel by means of the lever tube on the swivelling lever.

Swivel in the securing bracket on both sides.

Swivel in the gear protection.



5.2 Operation

As long as the engine is turned on, a torque acts on the reel in order to wind up the rope. In case that there is a greater resistance on the rope, the reel comes to a stop.

If there is a greater pulling force on the rope, the rope is unwound.

Once the engine is off, a holding brake prevents the reel from rotating when the operating button is pushed into the inner locking position.

Manual operation

If the operating knob on the side of the reel drive is in the outer position, the rope can be manually pulled against the resistance of the brake or reeled up freely. The braking force can be adjusted by turning the star grip.

Engine operation

For engine operation, the operating button must be pushed into the inner locking position.

Connect the plug to a 3 x 400V outlet and turn on the switch of the engine (next to the engine). As soon as the engine is switched on, the reel drive rewinds the rope until the resistance on the rope becomes greater than the pulling force on the reel. This pulling force depends on the wound up rope capacity. It decreases in case of any larger rope lengths, i.e. at a larger diameter of the reel.

If the direction of rotation is not correct, please contact an electrician to check the phases and correct them, if necessary, (possibly check the extension cable, if there is one in use).

The engine can remain switched on permanently. In this way, the rope is pulled off or wound up depending on the force effect on the rope.

Observe the winding process and correct, if necessary.

When pulling off the rope, attention must be paid to the end of the rope!

5.3 Removing the reel

Wind up the rope completely, switch off the engine and fasten the rope end.

Swivel back the gear protection and secure the safety bar.

Swivel the swivelling lever down with the lever tube.



- Caution! The reel can roll forwards.

6 Troubleshooting

Malfunctions	Possible cause	Measures
The reel does not turn when the engine is switched on and the rope is not tightened.	No power. Wrong rotation direction. The drive is not connected. The rope is jammed.	Check supply line and fuse. Swap phases (possibly on the extension cable). Press the control button inwards. Loosen the rope.
Pulling off the rope by hand is not possible.	The drive is engaged.	Disengage the drive (The operating button must be pulled to the outer rest position).
Pulling off the rope by hand is too difficult.	The brake is adjusted too tight.	Untighten the brake on the star grip.
The reel continues to turn when stopping if the rope is pulled off by hand.	The brake is adjusted not tight enough. The handle is disengaged.	Adjust the brake on the star grip brake. Snap the handle into place.

7 Maintenance work

The following inspections and maintenance work has to be carried out:

Type of work	Before starting work	If required	Remarks
General visual inspection:	X		
Lubricate bearing points		X	
Change transmission oil			every 3 years

8 Spare parts

The spare parts are compiled on a separate list and can be requested from the company Jakob AG.

9 Disposal

Please observe the local disposal regulations.

Oil must be emptied completely from the gearbox.

Dispose even the smallest amounts of oil in a professional manner or bring them to the appropriate authorities.

When disassembling, separate everything as far as possible in terms of the type of material in order to enable recycling:

Separate metal and plastic parts or reuse them for recycling.

Remember that we all benefit from protecting the environment and recycling materials.