

The Formwork Experts.

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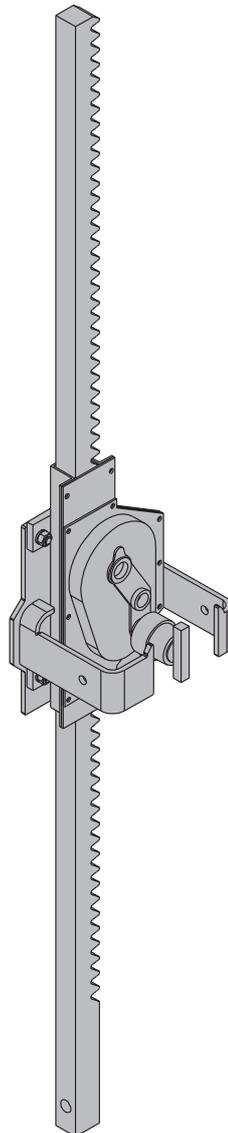
# Climbing winch 67kN (Haacon company - original)

Art.n°: 580810500 | 2016 models onward

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## Original Operating Instructions

Please retain for future reference







# OPERATING INSTRUCTIONS (Translation)

Rack and pinion jack  
Type 1624.10 - 210804



## 1. USER GROUPS

|                      | Duties                                     | Qualifications  |
|----------------------|--|---|
| Operator             | Operation, visual inspection               | Instruction by means of the operating instructions; authorised person 1 |
| Specialist personnel | Assembly, disassembly, repair, maintenance | Mechanic  |
|                      | Tests                                      | Authorised person 2 per TRBS-1203 (Technical expert)                    |

## 2. SAFETY INSTRUCTIONS

### Intended Use

Only use the rack and pinion jack according to the specifications contained in the operating instructions.

- Only use for lifting or lowering.
- Only use in a sound technical condition.
- Only to be operated by instructed personnel.
- Only use for the intended application (pulling / pushing).

### Safety-conscious working

- First read the operating instructions.
- Always be conscious of safety and hazards when working.
- Observe lifting device and load during all movements.
- Immediately report any damage or defects to the person in charge.
- Repair equipment first before continuing work!
- Do not leave the load suspended without supervision.
- Transport device protected against impacts and shocks, falling over or toppling.

### The following is prohibited:

- Overload (--> technical data, type plate, payload plate)
- Exceeding the maximum lift.
- Impacts, blows.

### Use exclusions

- Not suitable for permanent operation and vibration loads.
- Not approved for use as builders' hoist (DGUV-R 100-500-2.30).
- Not approved for use in explosive areas/environments.
- Not suitable for aggressive environments.
- Not suitable for dangerous loads

### Organisational means

- Ensuring that these operating instructions are available at all times.
- Ensuring that only instructed personnel works with the rack and pinion jack.
- Checking at regular intervals whether work is carried out in a safety- and danger-conscious manner.

### Maintenance and repair

Have maintenance and repair work carried out by skilled personnel only. Only used original spare parts for repairs. Do not carry out any modifications or conversions on safety-relevant parts. Additions must not jeopardise the safety of the winch.

### Further instructions that must be observed

The rules and regulations valid in the respective country of application in their respectively valid version have to be observed. In Germany, these are currently:

- German Industrial Health and Safety Ordinance (BetrSichV)
- Accident Prevention Regulation DGUV-V 54
- DIN 7355 Steel Winches; DIN EN 1494
- EC Directive 2006/42/EC

## 3. TECHNICAL SPECIFICATIONS see drawing.

## 4. SETUP

Modification of steel winch series type 11. Reliable spur gear made of high-quality hardened or tempered steel. Equipped with a bilaterally effective brake head. Complies with the accident prevention regulation "Winches, lifting and pulling devices" DGUV-V 54.

The brake head mounted on the winch reliably retains the load in any position. Clockwise turning raises the load, anticlockwise turning lowers the load.

Two lugs on the shaft and a drilled hole in the rack permit (the customer) to bolt it to the load to be lifted. The design on hand permits a motor drive to be mounted onto the brake head.



### CAUTION!

The operator is responsible for the safe assembly, the correct selection of mounted parts, the secure seat of the drive motor and observance of the permissible speed!

## 5. OPERATION

### Use with motor

Before it is used, securely fasten the winch in the drilled holes intended for that purpose. Push on the drive such that the winch drive shaft only has to absorb the torque and no other forces. It must be ensured by on-site means that the drive is reliably switched off before it reaches its final position.

### CAUTION!



Observe permissible input speed!

Prevent overload using suitable measures.

This applies along the lifting path and on reaching the end of lift.

No permanent operation! Keep the declared load cycle.

## 6. TESTING

The equipment must be checked in accordance with the conditions of use and the operating conditions at least once per year by an authorised person 2 per TRBS 1203 (Technical expert) (testing per BetrSichV, §10, sect. 2 represents implementation of the EC guidelines 89/391/EEC and 95/63/EC or the annual occupational safety inspection per DGUV-V 54, §23, sect. 2 and DGUV-G 309-007). These checks must be documented:

- Before commissioning.
- After significant alterations before recommissioning.
- At least once per year.
- In the event of unusual occurrences arising that could have detrimental effects on the safety of the winch (extraordinary tests, e.g. after a long period of inactivity, accidents, natural events).
- After repair works that could have an influence on the safety of the winch.

Technical experts (AP2) are persons, who have sufficient knowledge based on their education and experience, in the areas of winches, lift and pull systems and the relevant official occupational health and safety rules, accident prevention regulations, guidelines and generally accepted engineering rules (e.g EN standards), to evaluate the operational safety of winches, lift and pull systems. Technical experts (AP2) are to be nominated by the operator of the equipment. The implementation of the annual occupational safety inspection as well as the training to obtain the aforementioned knowledge and skills can be provided by haacon hebetchnik.

## 7. MAINTENANCE RECOMMENDATIONS

The operator determines the intervals themselves based on frequency of use and the operating conditions.

- Regular cleaning, no steam jets!
- Carry out visual check on inaccessible brakes / locks every 5 years at the latest, replace brake pads as required.
- General overhaul by the manufacturer after 10 years at the latest.



### ATTENTION!

Inspection, maintenance and repair works only on an unloaded hoist. Work on brakes and locks only by qualified specialist personnel.

### Gears (toothed, pinion)

| Intervals                  | Maintenance and inspection work   |
|----------------------------|---|
| Daily, or before every use | Visual inspection and functional testing  |
| After every field works    | Clean the rack jack, check for wear and regrease works  |
| Every six months           | Regrease<br>Check the fixation points.  |
| Annually                   | Open the gearbox, check the rack jack and the gear parts for severely worn parts, replace them if necessary and regrease with lubricating grease.<br>Check type plate for legibility<br>Professional inspection |

**Lubricant:** lithium soap-based grease (acc. to DIN 51502, identification K3 K-20, by Rhenus.

## Brake head

The brake head is a safety component and particular attention must therefore be paid to it. The brake head may not be modified or intervened with. Do not exceed braking and speed torque!

### CAUTION!

Only dismantle the brake head in an unloaded state.

Only to be checked and serviced by Technical experts (AP2)

| Service intervals                                 | Maintenance and service work   |
|---|--|
| Before initial use, if required (atypical noises) | Regrease   |
| Daily or before every use                         | Visual inspection<br>Functional testing  |
| After every field works                           | Remove winch.<br>Check braking torque (-> following description)<br>Check the installation, relubricate or replace the brake head.       |
| Annually  | Check all parts of the brake head for wear and if necessary replace defective parts.<br>Have a technical expert carry out an inspection. |

### Recommended lubricants:

DIVINOL grease Fibrous 2 acc. to DIN 51502 KP2K-20

### Replacement of break head (-> Spare part drawing)

- Relieve the tension on the winch (secure any loads to be lifted in an appropriate manner) or disassemble the winch and lay it down horizontally.
- Knock out the clamping sleeve (106012).
- Detach the receptacle (132423).
- Loosen the nut (120176) (SW 24).
- Dismount the break head (128325).

### Checking the braking torque

- Relieve the tension on the winch (secure any loads to be lifted in an appropriate manner) or disassemble the winch and lay it down horizontally.
- Knock out the clamping sleeve (106012).
- Detach the receptacle (132423).
- Loosen the nut (120176) (SW 24).
- Dismount the break head (128325).
- Attach the brake head with the underside facing up. The cast iron housing must not turn.

 All moving parts of the brake head must still be able to move after it is attached.

- Measure the torque on the square output square drive with a torque gauge.  
Perform one clockwise measurement and one anticlockwise measurement.
- The torque of a new brake head is > 90 Nm.

 Do not exceed a braking torque of 75 Nm.  
Replace the brake head!

### Assemble the brake head in the reverse sequence. When doing so, pay attention to the following:

- The bolt must dip in the break heads' slot hole (Torque support).
- Tighten hex nut (120176) with 90 Nm.

### 8. MALFUNCTIONS AND THEIR CAUSES

| Malfunction   | Cause  | Remedy                           |
|---|--|----------------------------------|
| Load is not retained.   | Rotary motion between drive hub and drive square is impeded. | Check installation, Clear fault. |
| Load is no longer retained; it is no longer possible to turn the crank in the opposite direction. | Brake ring or spring worn.<br>Brake spring broken.           | Replace brake head.              |

### 9. SPARE PARTS

The following must be specified when ordering spare parts:

- Type and serial number of rack and pinion jack and part number.

### 10. DISASSEMBLY, DISPOSAL

- Make sure to observe the safety instructions.
- Dispose of the equipment and the substances within it in an environmentally responsible manner.

# E.C. Declaration of Conformity

to 2006/42/EC IIA

haacon hebetchnik gmbh  
Josef-Haamann-Straße 6  
D-97896 Freudenberg/Main



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Telefon: +49 (0) 9375 / 84-0  
Telefax: +49 (0) 9375 / 8466

We hereby declare that the product

Designation: Rack and pinion jack

Type: 1624 – 210804

Capacities: – 67 kN

as delivered corresponds to the following

**relevant directives.**

2006/42/EC EC-machinery directive

**Harmonised standards:**

DIN EN ISO 12100-1/-2 Safety of machines

DIN EN 1494 Mobile or movable jacks and associated lifting equipment

**National standards and technical specifications:**

DGUV-V 1 Unfallverhütungsvorschriften (Grundsätze der Prävention)

DGUV-V 54 Unfallverhütungsvorschriften (Winden, Hub-Zuggeräte)

DIN 7355 Stahlwinden

If the product is changed significantly, it will lose this conformity declared by the manufacturer.

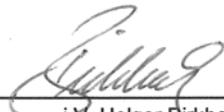
The manufacturer agrees to submit the specific documentation pertaining to this product to individual state institutions electronically, if so requested.

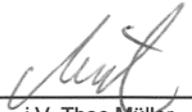
The specific technical documentation as outlined in Appendix VII Part B were compiled.

**Responsible for the documentation:** haacon hebettechnik gmbh, Construction  
Josef-Haamann-Straße 6, D-97896 Freudenberg / Main

**Signed:**

Freudenberg, 18.10.2016

  
i.V. Holger Birkholz  
(Head of Construction)

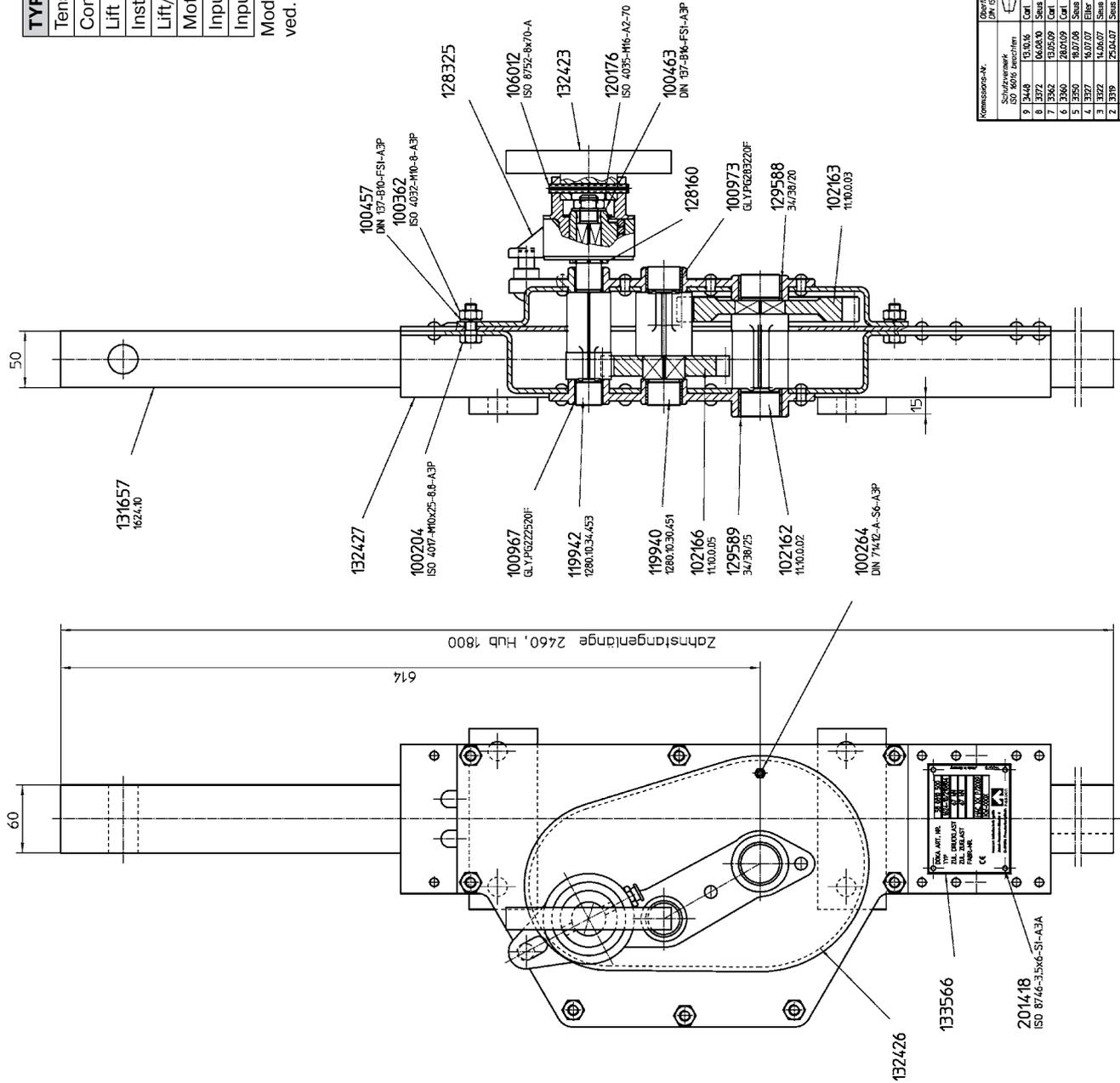
  
i.V. Theo Müller  
(Head of Quality Management)

gb issue 5; 10/16

090065 dated 18.10.2016

|                       |                         |
|-----------------------|-------------------------|
| <b>TYPE</b>           | <b>1624.10 - 210804</b> |
| Tensile load          | 67 kN                   |
| Compressive load      | 67 kN                   |
| Lift                  | 1800 mm                 |
| Installation height   | 2460 mm                 |
| Lift/crank revolution | 4 mm                    |
| Motor operation       |                         |
| Input speed           | < 60 rpm                |
| Input torque          | max. 52 Nm              |

Modifications of the design and execution reserved.



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in Dinital eintauchen  
**RAL 5010**

|                 |                   |          |         |            |       |                    |            |             |            |
|-----------------|-------------------|----------|---------|------------|-------|--------------------|------------|-------------|------------|
| Komponenten-Nr. | Bezeichnung       | Material | Maßstab | ISO 2768-C | 1:2,5 | FEHRTUNGSZEICHNUNG | Hersteller | Bezeichnung | Hersteller |
| 1               | Schutzverkleidung | Stahl    | 1:1     |            |       |                    |            |             |            |
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| 13              | 102166            | 102166   | 1:1     |            |       |                    |            |             |            |
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| 21              | 132423            | 132423   | 1:1     |            |       |                    |            |             |            |
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