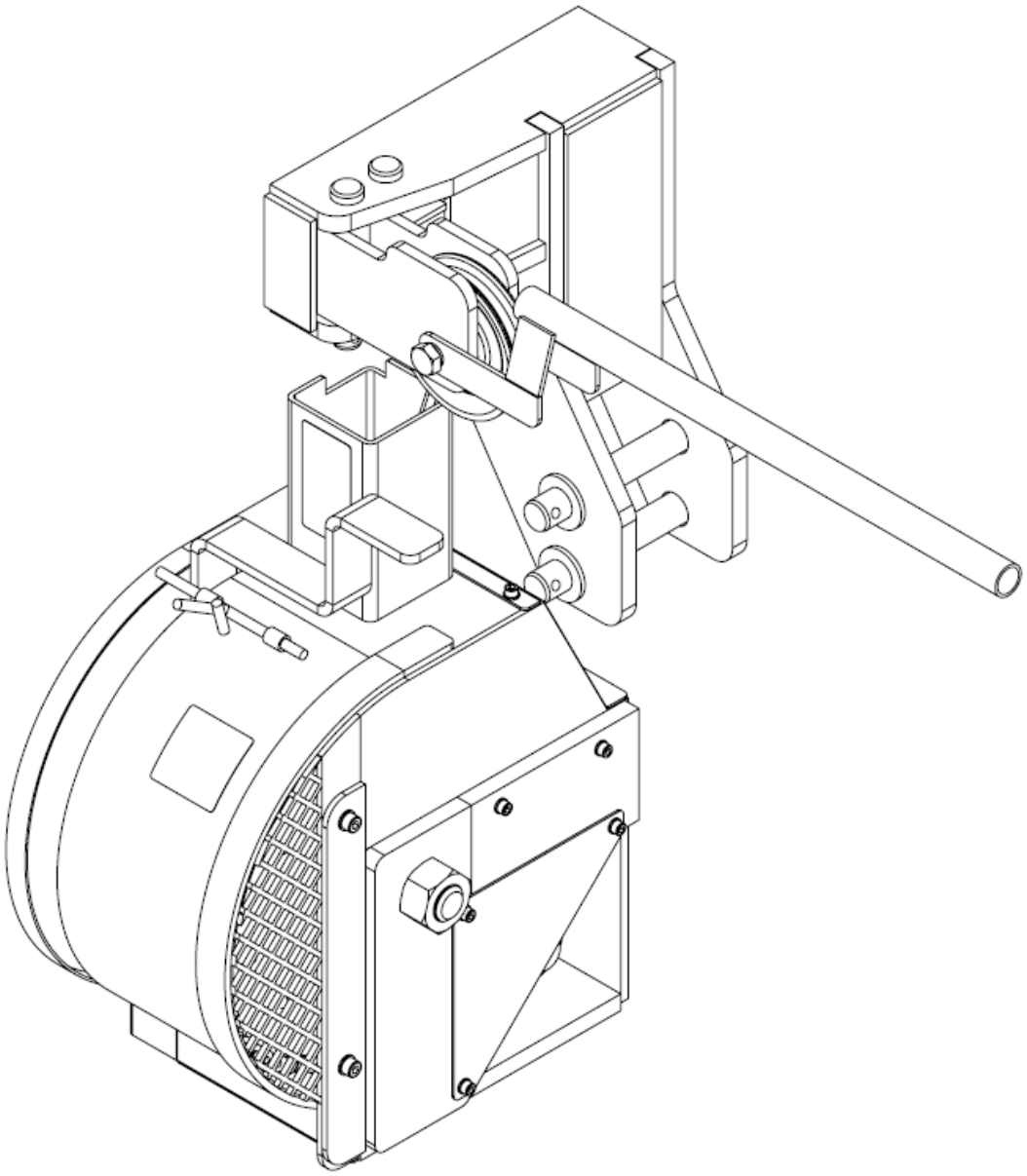

Log hoist HVO.07

Use and Maintenance Manual

Hevo Tehnika

2017

Table of contents

1. General information

This manual has been issued with the purpose of giving an overview of the working principle, parameters and maintenance of this log hoist. In addition, this manual gives other necessary information regarding this log hoist.

For questions not covered in this manual, please contact the manufacturer.

The log hoist HVO.07 can also be also called a winch, a machine or a device in this manual.

Reading and understanding this manual is an obligation for all the people who use and maintain the device.

Any person who carries out inspections, maintenance or works with the device is considered to be the operator and user of the device.

The operator of the device must be at least 18 years old and have sufficient experience and knowledge to operate such machine.

It is prohibited to use this device alone. A minimum of two people must take part in the work.

All maintenance must be performed by people with the appropriate skills.

Independent, without the written permission of the manufacturer, modification of the device structure, addition of parts or removal of parts is strictly prohibited.

This device is intended for forestry use only. The use of the device for operations that are not intended for this device is strictly prohibited.

It is forbidden to get into contact with a winch that is attached to a working tractor, raised up.

The drive shaft (Sele 1, Pos. 10) may only be activated for the duration of the hoisting operation.

The drive shaft must be turned off when the wire is being pulled to the object that is going to be hoisted.

It is prohibited to place or store objects on the device.

Compliance with this Use and Maintenance Manual is the basis of warranty. Failure to comply with this manual may result in the manufacturer refusing to provide warranty.

The manufacturer's warranty is valid for 12 months after the purchase of the product.

This winch is intended to be used only with log grapples H1500 or H1000 made by Hevotehnika Ltd.

Not following this guide can lead to serious health hazards.

It is prohibited to use the device in cases where there is a risk to human health.

2. Symbols

DANGER! Direct danger of serious health damage.

CAUTION! Potentially dangerous situation.

3. Manufacturer

HEVOTEHNIKA OÜ

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register code 10130347

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(+372) 5153795

hevo@hot.ee

4. Hoisting of logs

Hoisting of logs is a process where logs are pulled to the winch using a log hoist.

The winch must be securely attached to an object in order to provide an adequate anchor point. For example, a separate structure, a ceiling, a tractor, a car or other stationary object may be used.

The irregular or incorrect attachment of a winch causes a serious health hazard.

Hoisting is done using the winch wire. The wire is securely fastened to the object and then the object is hoisted to the winch.

The irregular or incorrect attachment of the wire to the object to be hoisted brings with it a potentially dangerous situation.

5. Hoistable objects

This given winch is designed for hoisting round timber and other wood materials.

It is forbidden to use the device to hoist objects not intended to be hoisted with this device.

Use of the device to hoist objects other than logs and similar wooden materials leads to a potentially dangerous situation.

It is prohibited to use a winch to move the tractor in any way.

6. Lifting and transporting the device

The total weight of the device is about 100 kg.

The device must be lifted and transported in a manner that does not damage the device.

The device is only allowed to be stored upright.

The device must be stored in such a way that it does not come under direct sunlight or under rain / snow.

Manual lifting and transporting of the device is not permitted.

Lifting the device manually results in a risk of injury.

7. Attaching the device to the grapple

The given winch is intended for use only with grapples H1500 and H1000 made by Hevotehnika OÜ. More detailed information about these grapples can be found on the manufacturer's website.

It is prohibited to install the winch on tractor with a running engine.

The installation of the winch on a tractor with a running engine results in a health hazard.

It is forbidden to use the device as part of any other equipment or attach it to non Hevotehnika OÜs grapples or other objects.

The user of the logging winch must verify that the grapple to which the winch attaches to can be attached to that particular tractor. In case of doubt, the user must consult the manufacturer.

To attach a winch to the grapple, the following operations must be carried out:

1) Connect the upper part of the winch to the grapple by using the pins (Sele 1 Pos. 4 and 5). Stoppers should be placed on the pins that prevent the pins from detaching.

2) Fasten the bottom of the winch to the grapple by using three M16 bolts and corresponding nuts. Bolting holes are shown: Sele 1 Pos. 6, 7 and 8.

8. Inspection before use

Before use of the device, the user of the device (the operator) must carry out an inspection.

Inspection of device is always required before any work starts. As a general rule, one inspection per day is sufficient, but depending on the nature of the work, it may be necessary to carry out inspections more often.

Without doing the inspection it is prohibited to start working with the device.

The inspection must be carried out with the engine of the tractor being stopped (not running). Additionally, the tractor must be fitted with a working handbrake/ parking brake, which prevents the tractor from moving during the inspection.

The maintenance and inspection of a winch that is mounted to a tractor which engine is running or which has a non-operational parking brake can lead to serious health damage.

The inspection must be carried out under conditions with sufficient light. It is forbidden to carry out the inspection in dark places or places where the winch can not be accessed from all sides.

Pre-use inspection consists of the following steps:

1) Checking the attachment between the winch and the grapple. The user must make sure that the winch is firmly attached to the grapple. Also, make sure that the grapple is firmly attached to the tractor.

2) Visual inspection of the winch on each side. Make sure there are no irregularities, loose parts, loose fasteners, excessive wear and other signs that could indicate that the device is not ready for work.

3) Check the condition of the winch wire and its parts. Make sure the wire is ready for work and not damaged. The wire and its parts should not have signs of wear during the visual inspection. The wire must not have loose fibres. The wire and its parts must not be corroded or excessively dirty. The cable attachment to the winch hub must be firm.

4) Check the wire guide (Sele 1 Pos. 1) free movement. The wire guide must be freely movable from one side to the other.

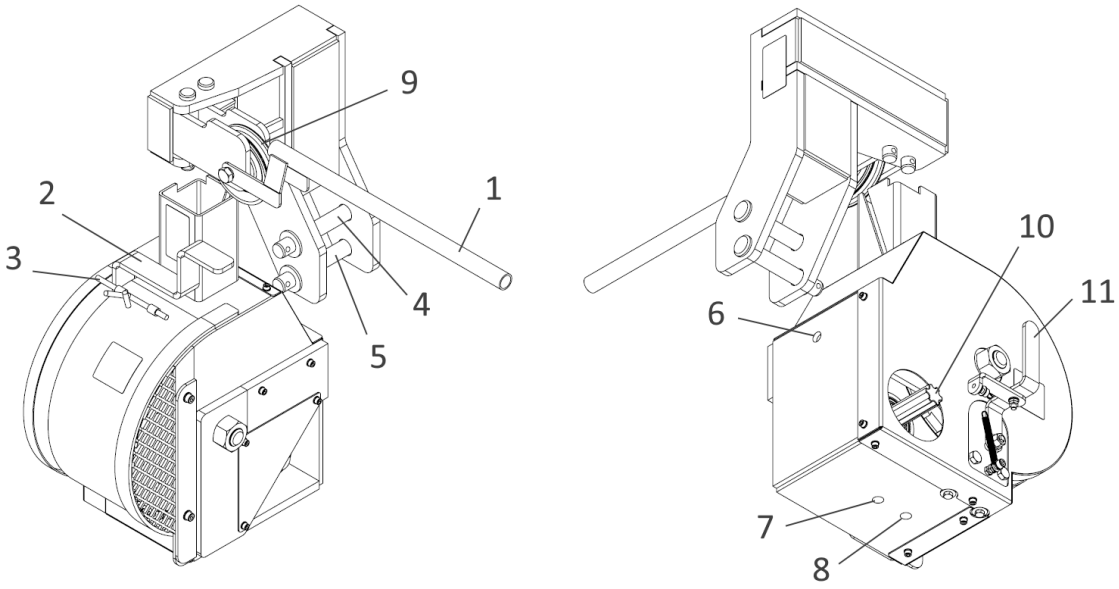
5) Check the clutch lever position. Clutch lever (Sele 1 Pos. 2) must be latched and not freely moving.

6) Check the roller (Sele 1 Pos. 9) and make sure it is moving without problems.

7) Check the integrity of the device. Before starting work, make sure the device is complete. The device must be fitted with all components provided by the manufacturer (including: cover sheets, all fasteners, safety stickers).

8) Check that the winch wire can not roll off the hub by itself.

9) Check that the wire rollback protection (Sele 1 Pos.11) is working properly. In addition, check that the rollback protection is in position 1 (Sele 3, Pos. 1).



Sele 1 – Different parts of the winch (1 – Wire guide, 2 – Clutch lever, 3 – Safety latch, 4 – Fastening pin, 5 – Fastening pin, 6 – Bolting hole, 7 – Bolting hole, 8 – Bolting hole, 9 – Roller, 10 – Drive shaft, 11 – Rollback protection)

Should the operator notice any conflicts with the points / explanations given in this manual during the pre-use inspection, or other irregularities that might pose a hazard, working with the device should not be started. Contact the manufacturer if necessary.

Working with a device that is not technically in order and / or has not inspected will result in serious health hazard.

If the operator is unsure whether the device is technically in order or not, the manufacturer should be contacted.

9. Stopping the work in case of an emergency

In case the operator notices a potential danger to himself / herself or to other people or animals, work must be immediately stopped.

The first operation by the user, after discovering a possible dangerous situation, should be releasing the clutch lever (Sele 1 Pos. 2) to stop the hoisting operation. After releasing the lever and the lever reaching the upper position (the lever is under spring tension), the safety latch (Sele 1 Pos. 3) must be applied.

After applying the safety latch, the drive shaft must be turned off.

If necessary, call rescue services and / or an emergency services.

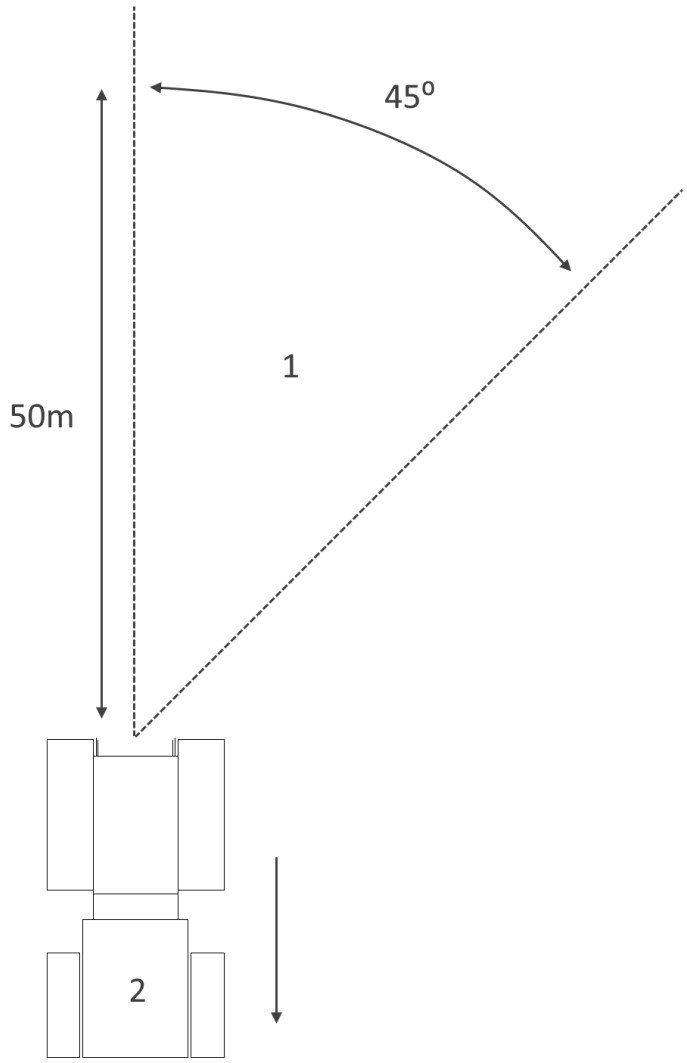
10. Working with the hoist

Before starting working with the machine, make sure there is enough space around the machine to allow the operator to move freely around the machine.

The operator (and other persons) is forbidden to put limbs and other objects between the moving parts of the winch. The only contact between the operator and the winch may, during hoisting, be through the clutch control lever and the safety latch.

Placing a limb or other part of the body between the moving parts of a winch can lead to serious health damage.

Only objects located in area shown in Sele 2 Pos. 1 can be hoisted.



Sele 2 – Winch work area (1 – Winch work area, 2 – Tractor)

If before or during the hoisting any objects, animals or people should come between the hoist and the object being hoisted, then the work should be stopped immediately.

Hoisting in the situation where objects, animals or people are between the hoist and the object being hoisted, brings with itself a serious health hazard.

Before starting work, the operator must have performed a pre-use inspection (Chapter 7).

The tractor must be on a level surface where all wheels are in contact with the ground. It is prohibited to hoist on a sloping ground.

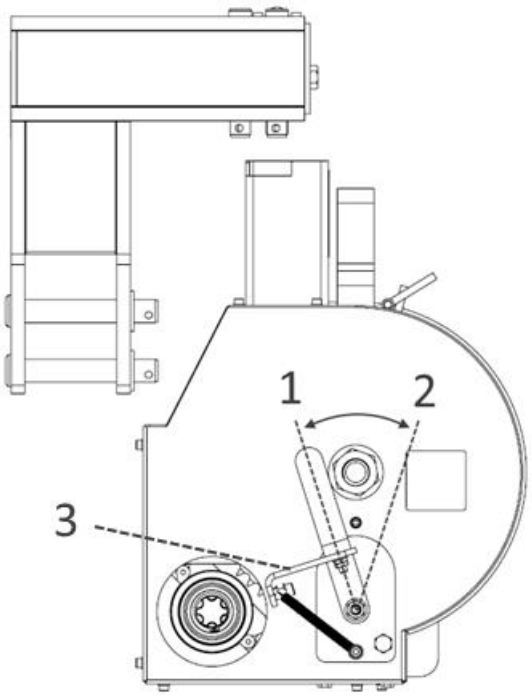
Hoisting on a sloping ground brings with itself a serious health hazard.

The tractor must be fitted with a working parking brake, which prevents the tractor from moving during the hoisting.

The objects that are being hoisted may not be behind other objects or entangled behind other objects that could overload the winch over its maximum pulling force.

The maximum pulling force of the hoist is 30 kN. Overloading the hoist is not allowed.

The use of the hoist in situations where the maximum pulling force is exceeded results in a risk of breakage of the device and a risk of serious health hazard.



Sele 3 – Rollback protection (1 – Position 1; 2 – Position 2, 3 – Spring fixator)

The purpose of the rollback protection (Sele 3) is:

1) To stop the hoist hub to move freely.
2) To ensure that the object being hoisted does not move backwards in any situation.
3) To ensure that the wire does not roll off the hub during transport.

The rollback protection has two positions:

1) Position 1 – Must be applied at all times, except at times where it is necessary to apply position 2.
2) Position 2 – It is necessary to apply if the operator wishes to pull out the wire from the winch.

When changing the position of the rollback protection the spring fixator position must also be changed.

The operator can pull the wire with his/ her own hand to the object that is going to be hoisted. It is recommended to use gloves that are suitable for handling a wire.

Handling the wire without protective gloves can lead to potential health hazard.

It is prohibited to use intermediate support points during hoisting. This means that, during the hoisting, the winch wire must be straight between the winch and the object.

Using intermediate support points during the hoisting can lead to serious health hazards.

It is strictly forbidden to be in any way in contact with a moving wire or wire that may move.

Becoming into contact with moving wire or with a wire that may start moving may lead to serious health hazard.

It is prohibited to use the wire guide (Sele 1 Pos. 1) to direct the rope.

The fixing of the object that is going to be hoisted to the wire must be carried out in such a way that the cable does not release from the object during hoisting.

The wire coming loose from the object that is being hoisted might lead to serious health hazard.

If the operator is convinced that the fixing of the wire is performed correctly, the operator opens the clutch lever safety latch.

During hoisting, the operator must visually monitor the object that is being hoisted.

Not visually monitoring the object that is being hoisted may lead to health hazard.

To start the hoisting operation, the operator must move the clutch lever towards the lower position. During the movement of the lever in the lower position, the transfer of power between the clutch and the hub is happening.

If the operator notices that, regardless of the lower position of the clutch lever, the wire does not move, then the lever must be released immediately. In this case, the hoistable object may be stuck.

Hoisting of objects that are stuck may lead to serious health hazard.

When the object starts to move after lowering the clutch lever in the lower position, the operator must adjust with the clutch lever position the location where the hoistable object will end up.

If the object is judged by the operator to be in the correct position, then immediately the clutch lever should be released, and the safety latch should be applied. After applying the safety latch, the operator can start removing the wire from the object.

The irregular use of the safety latch or its non-use will result in a potentially dangerous situation.

Before starting the unfixing of the wire from the object, the operator must make sure that the winch wire is not under tension and that the hoisted object is not in danger of falling over, and that there is no danger to the operator or the people, animals or objects in the vicinity.

Starting to unfix the wire from the object in a situation where the winch wire is under tension or if there is a risk of falling of the object can lead to a potential health damage.

It is prohibited to unfix the wire from the object in such a way that the wire is released from the object but not completely removed from the object.

Removing the wire from the object using the hoists pulling force is strictly prohibited and may cause a serious health hazard.

After proper unfixing, the operator can pull the wire to the hoist or start a new hoisting operation.

If the operator notices wear or improper operation of the hoist or parts of the hoist that may be dangerous, the work must be stopped immediately. If necessary, the inspection described in chapter 7 must be carried out.

Working with a machine that is not technically in order can cause serious injury.

After completing the work, the operator must hoist the wire back to the hub and ensure that the wire can not roll itself off the hoist hub.

11. Maintenance

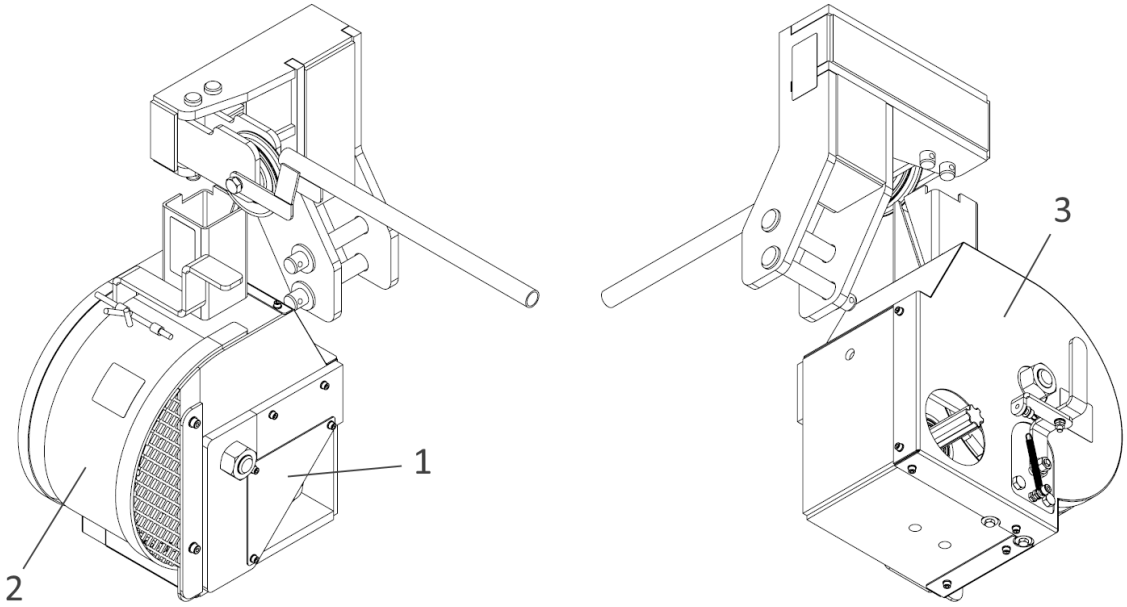
Regular maintenance of the device is needed for the correct and long-term operation of the device.

Regular maintenance of the device is the basis for the device warranty.

Regular maintenance of the device is mandatory.

The maintenance work must be carried out in designated rooms, for example in a garage or workshop.

The maintenance of the device requires removal of the cover sheets (Sele 5 Pos. 1, Pos. 2, Pos. 3).



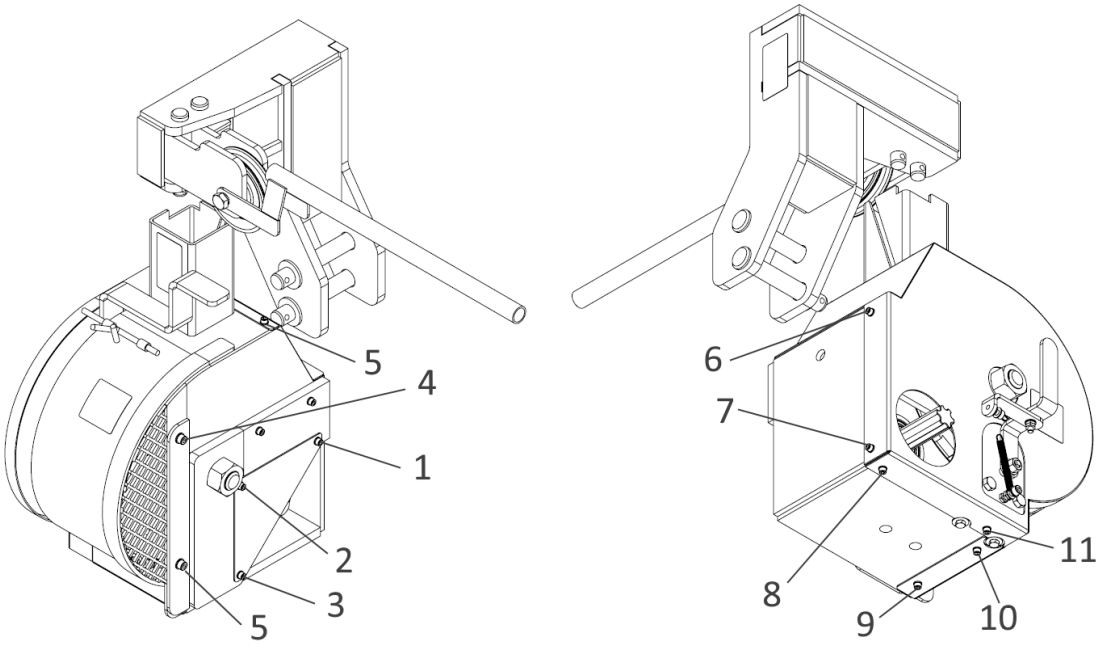
Sele 5 – Cover sheets

To remove the cover sheets (Sele 5), first remove the fixing bolts for the cover sheets:

Cover 1: Sele 6 Pos. 1; Pos. 2; Pos. 3.

Cover 2: Sele 6 Pos. 9; Pos. 10; Pos 5 x 2 (second bolt next to Pos. 5)

Cover 3: Sele 6 Pos. 11; Pos. 8; Pos. 7; Pos. 6; Pos. 5 x 2 (second bolt next to Pos. 5)



Sele 6 – Cover plate fixing bolts

The maintenance of the device can only be carried out by people with expertise and experience for those jobs.

Only the parts and components specified in this manual can be used for maintenance.

In case of questions regarding the maintenance of the device, contact the manufacturer.

Regular maintenance is carried out after every 24 working hours.

The maintenance includes the following operations:

1) Cleaning the device from inside and outside.

2) Lubricating the parts. Bearings, chains and sprockets are considered as parts to be lubricated.

3) Turn the bearings (Annex 1 Pos.2, Pos. 4) and evaluate their situation, if necessary, replace them.

4) Assessment of the situation of the chain (Annex 1, Pos. 46), if necessary replace the chain.

5) Assessment of the rollback protection (Sele 3), if necessary, replace parts.

6) Check the sprockets (Annex 1 Pos. 1; Pos. 41); if necessary, replace them.

7) Inspect the hub (Annex 1 Pos. 36) and the cable and hub connection, if necessary, tighten or replace the connection.

8) Evaluation of the situation of the hub slide bearings (Annex 1 Pos. 49), if necessary replace them.

9) Assessment of the situation of the clutch (Annex 1 Pos. 41), if necessary, replace.

10) Assessment of the situation of the roller (Annex 2 Pos. 11), if necessary replace.

Replacing different parts of the device is necessary if the operator observes clear signs of wear or circumstances that could prevent correct operation of the device.

After the maintenance is completed, all removed parts must be re-fixed. Make sure that during the maintenance no objects and/ or dirt has entered the device that could prevent the device from operating in the correct way, or cause unnecessary wear or risk.

After the maintenance is completed, the machine must be cleaned of dirt.

After the maintenance is completed, the operator must make sure that the machine is working in correct way.

Maintenance book must be filled after every maintenance. The filling of the maintenance book is mandatory and necessary for the warranty.

The maintenance book must contain, for each maintenance, the following information:

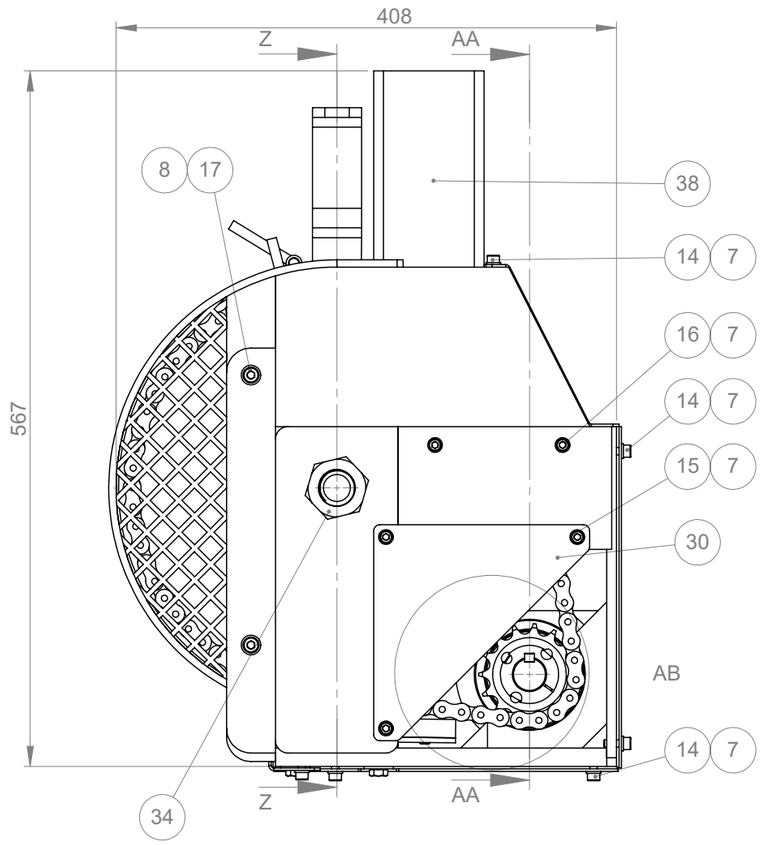
1) Date of the maintenance

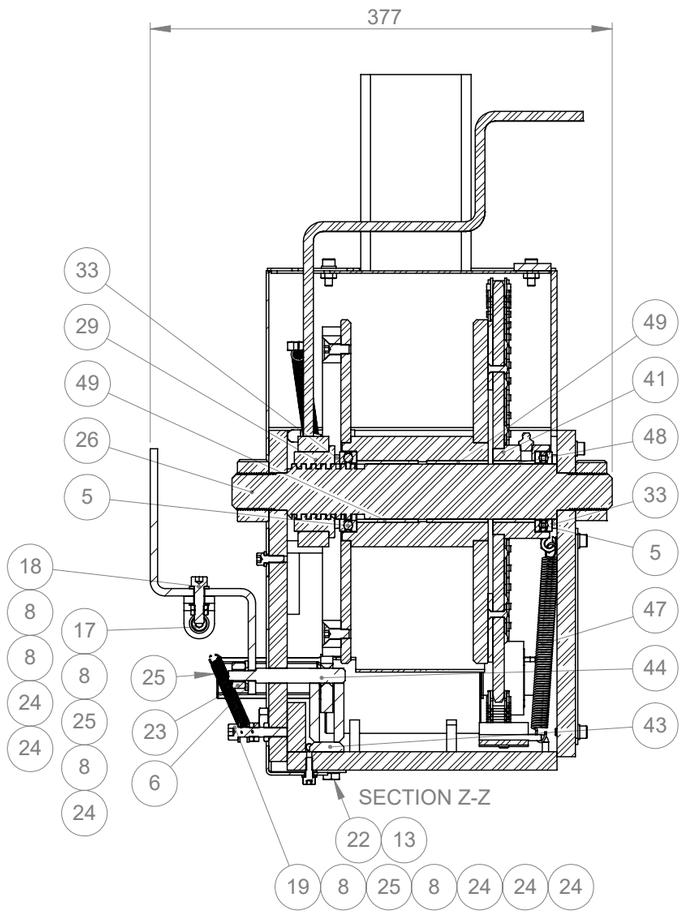
2) The name of the person who carried out the maintenance

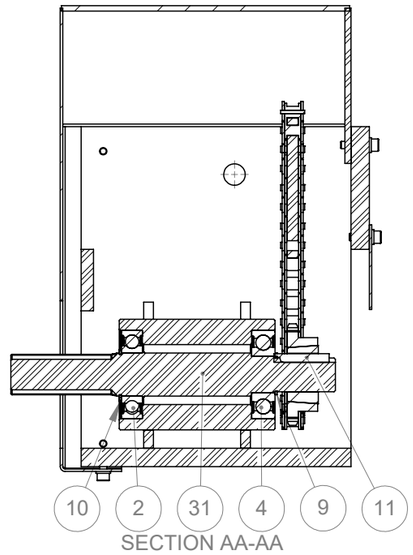
3) List of replaced parts

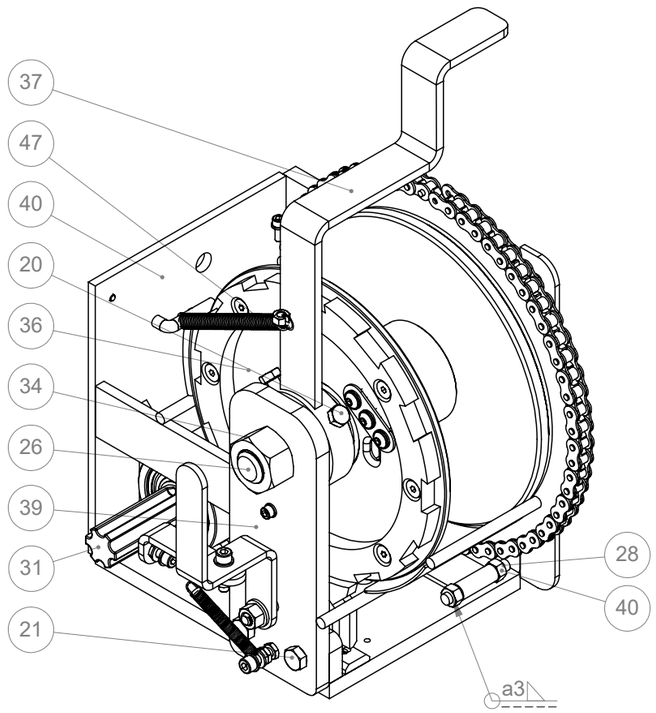
4) List of completed jobs during the maintenance

Pos.	Tähis	Kogus
1	10678115 Maedler	1
2	6207-2RS1	1
3	62250328 Maedler	1
4	6306-2RS1	1
5	8109-K	2
6	DIN 125 - A 13	1
7	DIN 125 - A6.4	15
8	DIN 125 - A8.4	8
9	DIN 471 - 28 x 1.5	1
10	DIN 471 - 35 x 1.5	1
11	DIN 6885-A - 8 x 7 x 45	1
12	DIN 7991 - M8 x 16	1
13	DIN 9021 - M8	2
14	DIN 912 - M6 x 16	10
15	DIN 912 - M6 x 20	3
16	DIN 912 - M6 x 25	2
17	DIN 912 - M8 x 20	3
18	DIN 912 - M8 x 30	1
19	DIN 912 - M8 x 40	1
20	DIN 933 - M10 x 20	2
21	DIN 933 - M12 x 30	2
22	DIN 933 - M8 x 25	2
23	DIN 934 - M12	1
24	DIN 936 - M8	6
25	ES-S 1,2X10X90 Lesjofors	1
26	HVO.07.01.01	1
27	HVO.07.01.02	1
28	HVO.07.01.03	1
29	HVO.07.01.04	1
30	HVO.07.01.05	1
31	HVO.07.01.06	1
32	HVO.07.01.07	1
33	HVO.07.01.08	2
34	HVO.07.01.09	2
35	HVO.07.01.10	1
36	HVO.07.02.00	1
37	HVO.07.04.00	1
38	HVO.07.05.00	1
39	HVO.07.06.00	1
40	HVO.07.07.00	1
41	HVO.07.08.00	1
42	HVO.07.09.00	1
43	HVO.07.10.00	1
44	HVO.07.11.00	1
45	HVO.07.12.00	1
46	Kett 10B-1	1
47	Tõmbevedru	2
48	pronkspuks 45x2,5 L35	1
49	pronkspuks 45x2,5 L50	2









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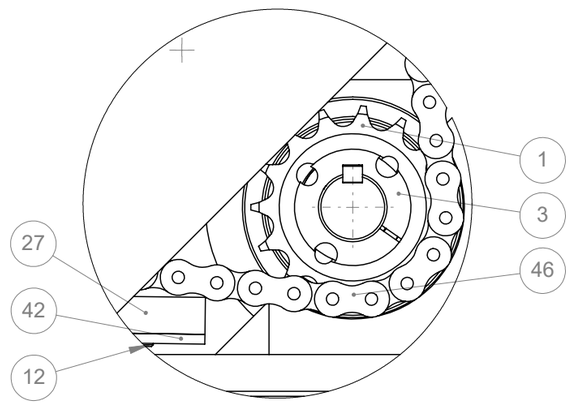
HVO.07.12.00 on peidetud)



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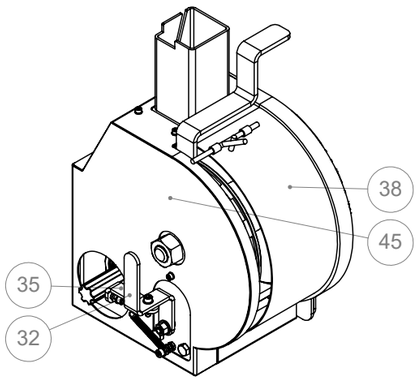

PV-2 haaratsile

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Kuupäev:	06/10/2017			
Hevo Tehnika OÜ www.hevo.ee			Leht: 1/1	Formaat: A3

Pos.	Tähis	Kogus
1	DIN 125 - M24	2
2	DIN 931 - M14 x 90	1
3	DIN 934 - M14	1
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7	HVO.07.13.04	2
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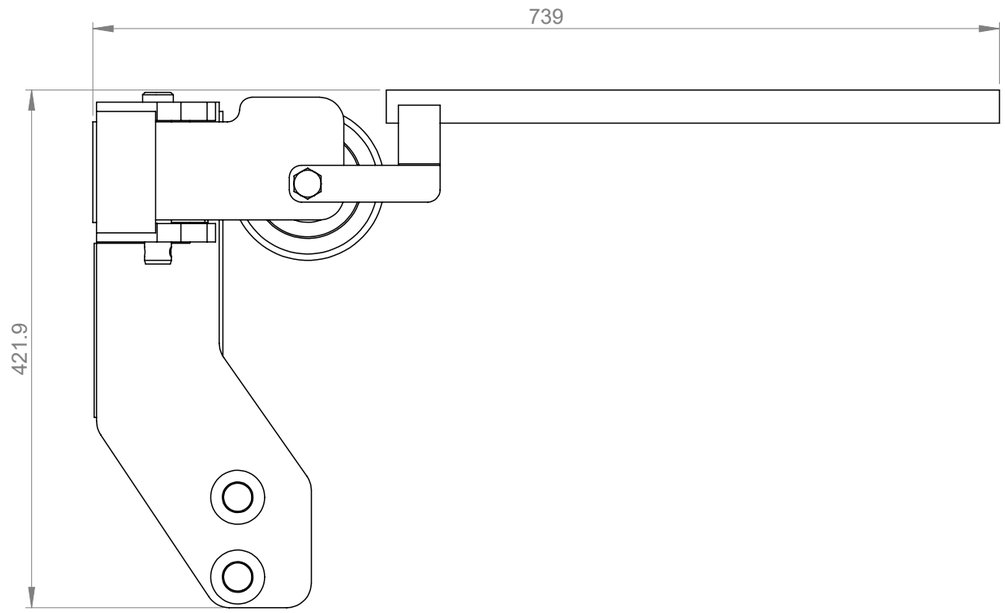

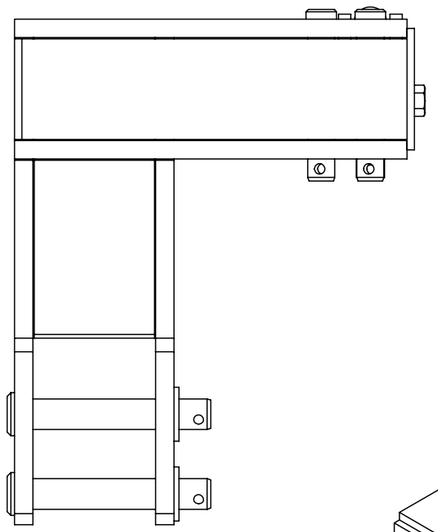

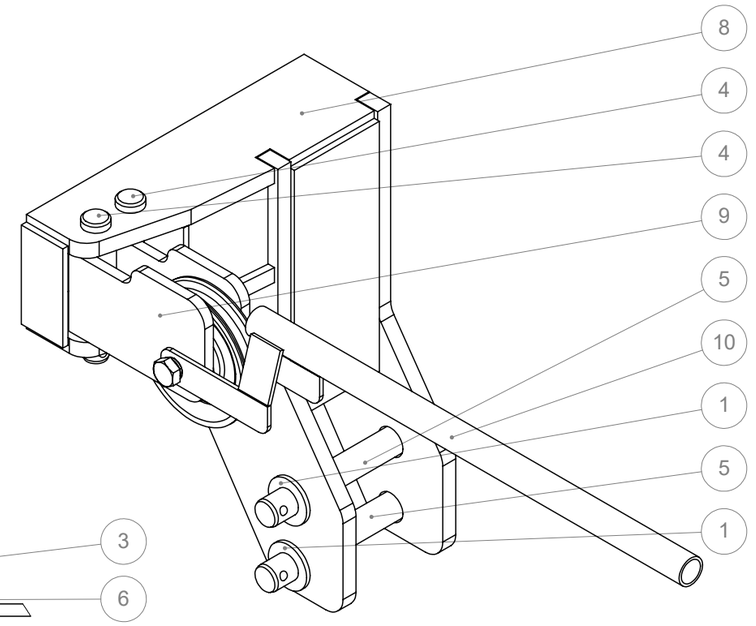

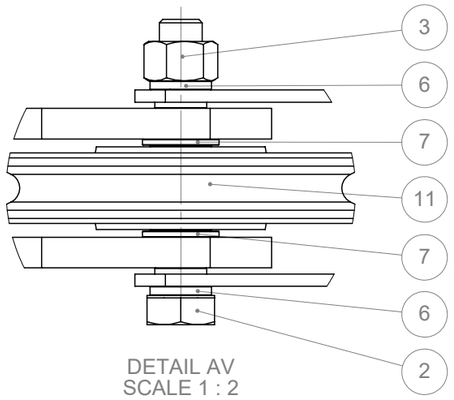

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