

User manual

Spare parts manual

Palax Roller



SERIAL NUMBER _____

YEAR OF MANUFACTURE _____

Palax

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1. Basic information and responsibilities

1.1. Introduction

This manual is intended for operators with the appropriate expertise. The operator is required to have the general knowledge and skills needed in normal situations. For example, a person purchasing a tractor-powered machine is expected to be able to operate the tractor's cardan shaft drive.

Study the manual thoroughly before installing the machine and beginning operation. In addition, familiarise yourself with the controls and the emergency stop mechanism before operating the machine. Additional information on our company's products is available on our website at www.palax.fi.

NOTE! **Always keep this manual in the immediate vicinity of the machine.**

1.2. EU declaration of conformity

Directive 2006/42/EC

Manufacturer: Ylistaron Terästäkomo Oy
www.palax.fi

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Finland
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Person responsible
for the technical file: Kai Koskela, kai.koskela@palax.fi

Product: Firewood cleaner and extended conveyer,
Accessory for Palax firewood processors.

Drive: Electric motor / Hydraulic motor

Model markings: Palax Roller

Machine serial number:

We hereby declare that this machine meets the requirements concerning the safety of machinery specified in Government Decree 12 June 2008/400, which was instituted to bring into force Machinery Directive 2006/42/EC, and that the following harmonised standards have been applied in the design of the machine:

SFS-EN 12100-1+A1, SFS-EN 12100-2

Ylistaron Terästäkomo Oy
10 November 2016



Pekka Himanka
Managing Director

1.3. Purpose of use

The Roller and its conveyor are accessories for Palax firewood processors. Using the machine for other purposes or attaching it to other machines is prohibited.

1.4. Warning symbols

 <p>Forklift lifting point</p>	 <p>The conveyor's danger zone extends 5 meters from the conveyor</p>	 <p>Disconnect the machine from its power source before conducting maintenance</p>
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1.5. Safety instructions

General provisions and restrictions

- ❑ The machine is intended solely for cleaning firewood fed from an attached Palax firewood processor or loaded by a loader.
- ❑ The firewood cleaner and conveyor's danger zone extends 5 meters from the sides and away from the conveyor.
- ❑ Do not remove any safety devices from the machine.

Operator

- ❑ Every machine operator must read the entire manual thoroughly.
- ❑ Always use eye protection and hearing protection.
- ❑ Always use safety footwear.
- ❑ Always use work gloves.
- ❑ Do not wear loose or hanging clothing.

Before use

- ❑ Set up the Roller and the conveyor in the operating position before turning on the machine.
- ❑ Ensure that no unauthorised persons are in the working area.
- ❑ Operate the machine on a sufficiently solid and even surface.
- ❑ Operate the machine only in adequate lighting.
- ❑ Always check that all the guards and covers are undamaged and attached.
- ❑ Always check the condition of the power cables.
- ❑ Always check that the hydraulic hoses and components are undamaged.
- ❑ Ensure that the machine is standing firmly in place before starting operation.

During operation

- ❑ Keep the working area clear of unnecessary items.
- ❑ Always stop the machine and disconnect the supply cable before conducting

maintenance.

- ❑ Danger! Stay clear of moving parts.

1.6. Operator's responsibilities

- ❑ The Roller may be used only for cleaning firewood as an accessory to a Palax firewood processor or when loaded using a loader.
- ❑ **All of the Roller's safety devices are necessary** for ensuring a sufficient level of safety.
- ❑ **The Roller's operator is responsible** for making sure that the safety devices are undamaged and that the machine has been adequately serviced before commencing operation.
- ❑ The operator is responsible for ensuring that the machine does not cause danger to others.
- ❑ Altering the Roller's structure is prohibited.
- ❑ Keep in mind that the operator is responsible for any accidents that may occur if safety devices have been removed from the machine.

1.7. Operating conditions

- ❑ Always place the machine on a level surface.
- ❑ Operate the machine only in adequate lighting.
- ❑ The optimal operating temperature range is approximately -20...+30 degrees C. There are no restrictions in regard to weather conditions.
- ❑ Make sure that there are no children or unauthorised persons in the working area.

1.8. Guarantee terms

The guarantee period is 12 months from the purchase date of the machine.

The guarantee covers

- ❑ Parts damaged in normal use due to faults in the material or workmanship.
- ❑ Reasonable repair expenses in accordance with the agreement between the seller or buyer and the manufacturer.
- ❑ Faulty parts will be replaced with new ones.

The guarantee does not cover

- ❑ Damage resulting from normal wear and tear, improper use or neglecting maintenance.
- ❑ Defects in a product to which the buyer has carried out or commissioned changes to the degree that the product can no longer be considered equivalent to the original product.
- ❑ Other potential costs or financial obligations resulting from the procedures mentioned above.
- ❑ Indirect costs and/or travel costs resulting from guarantee repairs.
- ❑ The guarantee for parts replaced during the guarantee period of the product expires at the same time as the product's guarantee.
- ❑ In guarantee matters, always contact the machine's seller.

2. Assembling the machine



Figure 1.

- Use a forklift with long forks to lift the Roller from the bottom of the frame to the desired operating height (Frame width 1,120 mm). Lock the legs into position using screws inserted through the hollow sections (1.)
- The Roller's angle (C) can be adjusted by adjusting the length of adjustment bar B. Lock the angle setting using the screws (2.)

2.1. Roller with divider

- Attach the divider to the firewood cleaner using hex screws A and B, as shown in Figure 2.
- Insert hex screws A (Figure 2.) through the same holes used to adjust the height of the legs.

2.2. Roller with conveyor

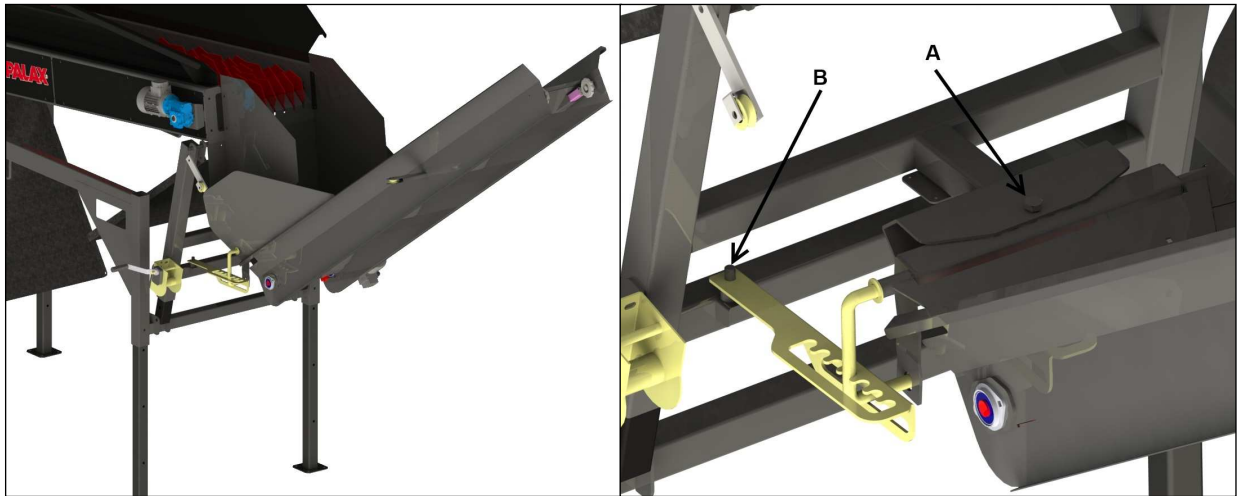


Figure 4.

- Attach the conveyor to its support through hole (Figure 4.) A
- Attach the conveyor locking lever to its support from point (Figure 4.) B

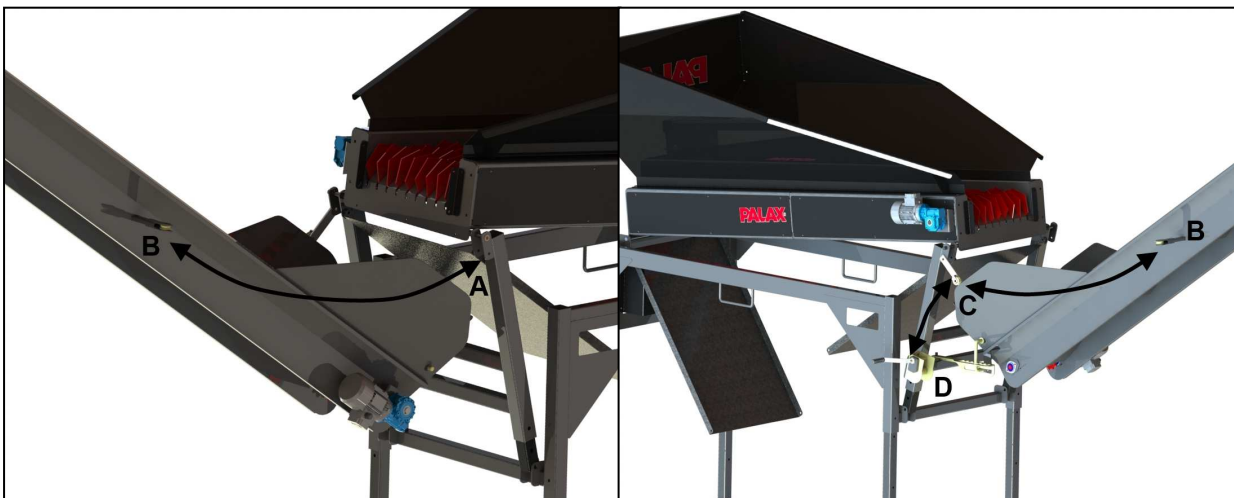


Figure 5.

- Attach the wire loop to screw A (Figure 5.).
- Thread the wire through the conveyor and behind the rollers through pipe B (Figure 5.).
- Thread the wire through roller C (Figure 5.) to winch D (Figure 5.).

2.3. Log guides

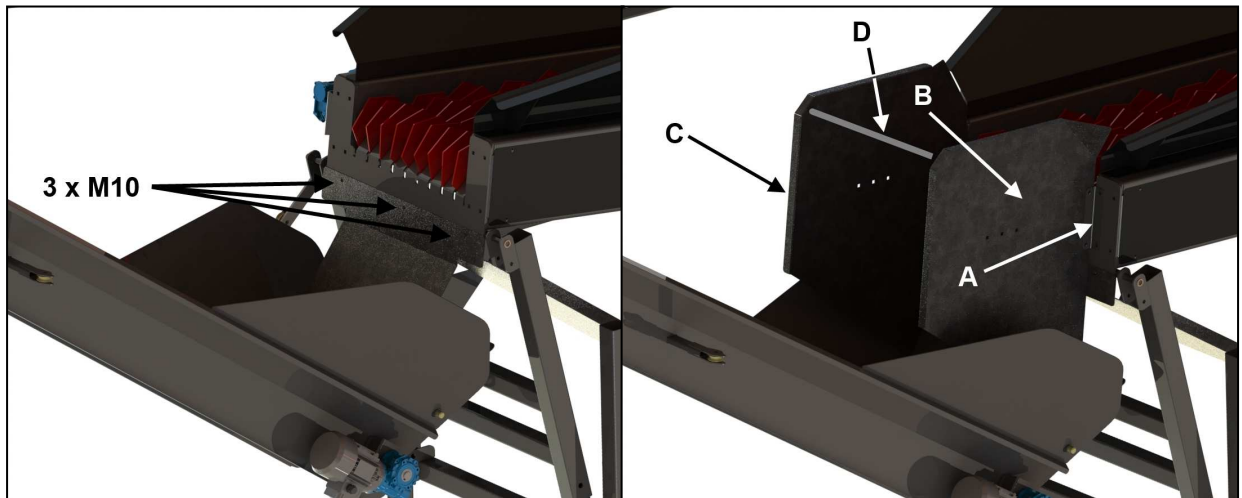


Figure 6.

- ❑ Attach the lower log guide on top of the conveyor using three M10 hex screws (Figure 6.).
- ❑ Attach angle plates A to the frame using M10 hex screws.
- ❑ Attach side guides B and C to the angle plates. Make sure that the folded parts are facing outwards.
- ❑ Attach fastening plate D to the top edges of the side guides.

3. Operating the Roller

3.1. Hydraulic drive

- ❑ Connect the hydraulic hoses so that the hydraulic flow direction is correct.
- ❑ Adjust the rotating speed using the hydraulics' speed adjustment valve.

3.2. Electrical drive



- ❑ Make sure that the rotation direction of the screen and the output conveyor are correct.
- ❑ If necessary, reverse the rotation direction by inverting the phase from the phase inverter located in the plug.
- ❑ Switch on the output conveyor and the screen before loading any wood into the Roller.
- ❑ Switch on the screen by turning the starter switch to the right and press the start button.
- ❑ When Roller is stopped by pressing emergency stop or reversed it will start again by pressing start button.
- ❑ If the screen stops due to a jammed piece of firewood, etc., you can reverse it by turning the switch to the left. The switch cannot be locked in the reverse position.
- ❑ If the screen remains jammed for an extended period of time, the starter's thermal relay may trip. If this happens, turn the switch to the 0 position and reset the thermal relay by pressing the R button.
- ❑ When loading with a front loader, it is crucial that the Roller is only loaded with small amounts of firewood at a time. Loading the Roller with a large amount of firewood at once will reduce screening efficiency and may clog up the output conveyor.

3.3. Adjusting firewood throughput rate

- ❑ The throughput rate of the firewood can be adjusted by adjusting the Roller's angle. (Figure 1.)
- ❑ In a hydraulic machine, the rotation speed of the screen and the output conveyor can be adjusted by adjusting the speed adjustment valves next to the hydraulic motor. There are separate valves for adjusting the screen and the conveyor.
- ❑ When loading with a front loader, it is crucial that the Roller is only loaded with small amounts of firewood at a time. Loading the Roller with a large amount of firewood at

once will reduce screening efficiency and may clog up the output conveyor.

4. Maintenance procedures



Figure 6.

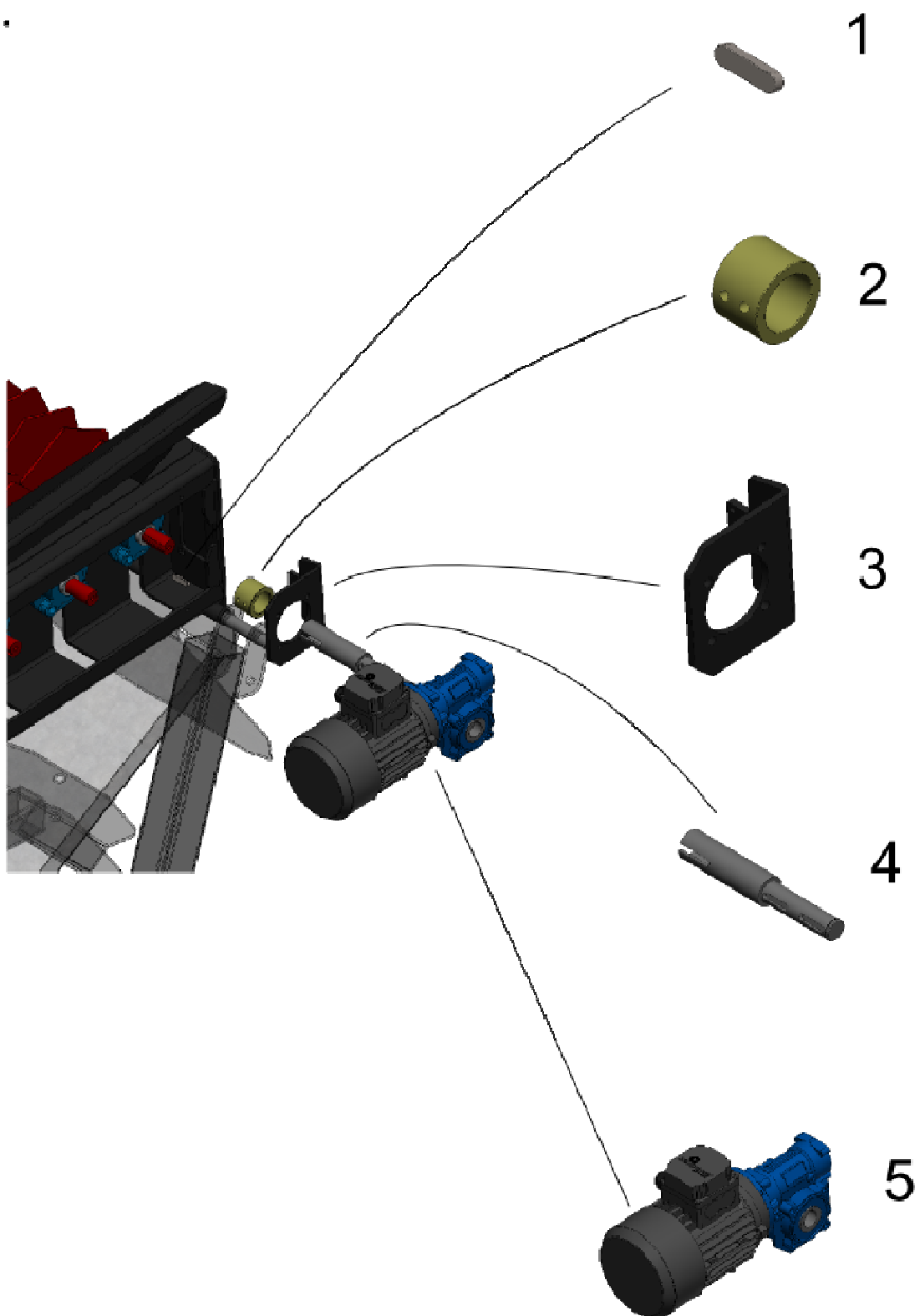
- ❑ Lubricate the collar step bearings of the roller shafts (1) approximately every 100 operating hours.
- ❑ Lubricate the roller chains (2) approximately every 100 operating hours.

5. Spare parts

Ordering instructions

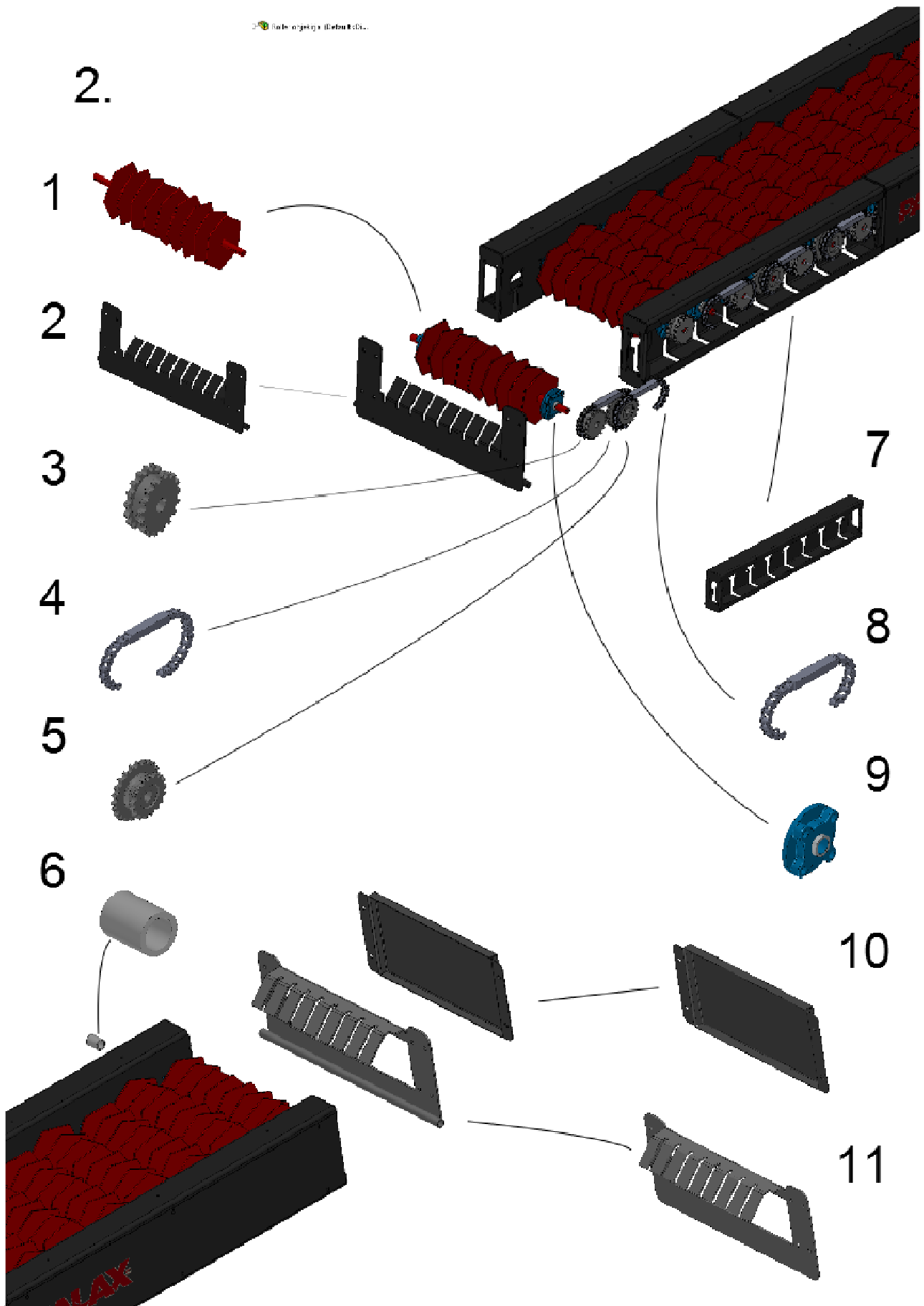
1. Find the figure that includes the part you need.
2. Check the part number from the figure.
3. Use the figure number and part number to find the order number in the parts list.
4. All orders must include the order number and the name of the part as well as the serial number and year of manufacture of the machine.

1.

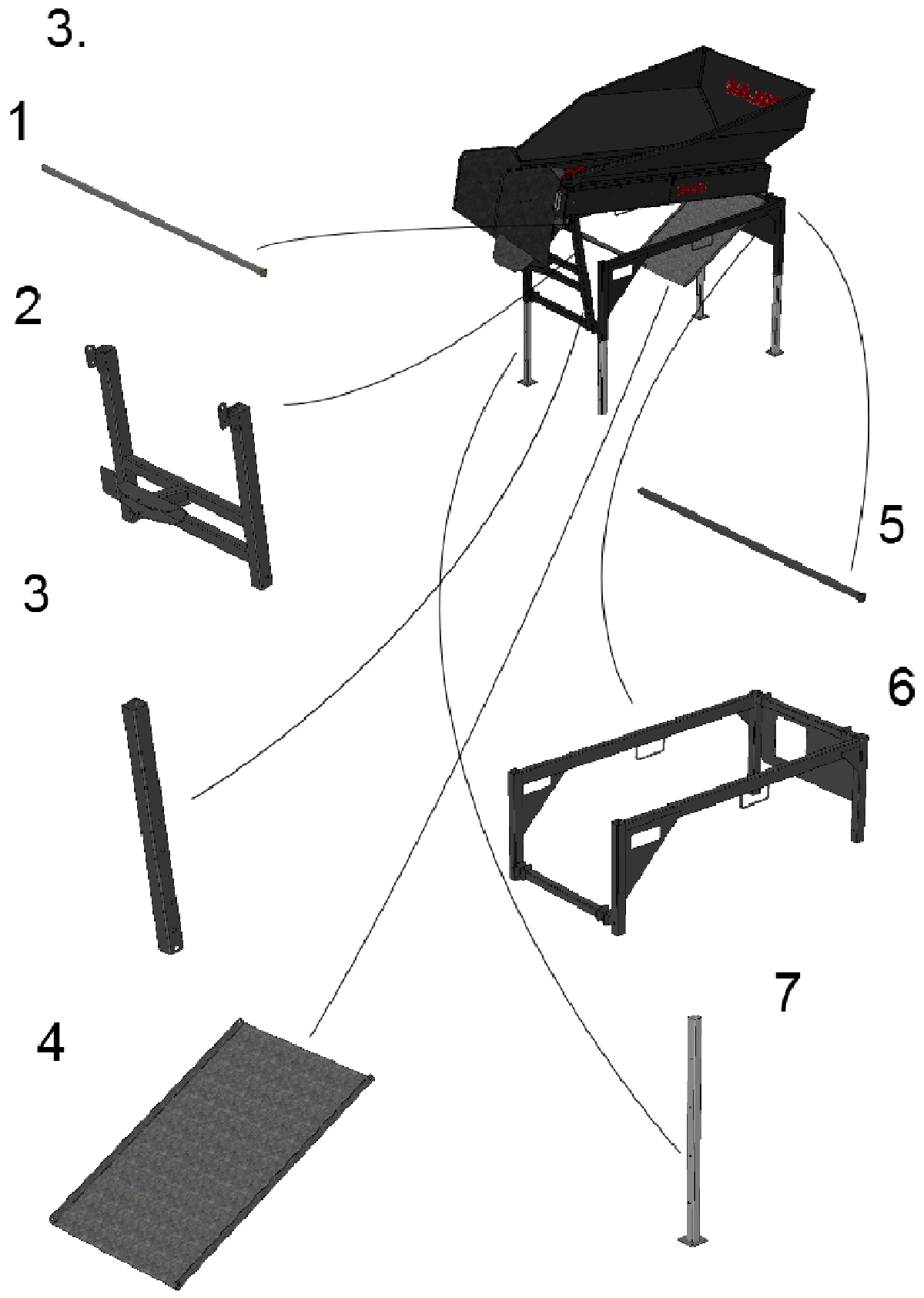


Osa/ Part	Item No:	Order No:	Nimitys	Description	Kpl/ Qty
1			Tasakiila	Parallel key	1
2	K2604030		Holkki	Bushing	1
3	L2601271		Vaihteen alusta	Motor mount plate	1
4	K8722010		Väliakseli	Adapter shaft	1
5			Vaihde moottori	Gear motor	1

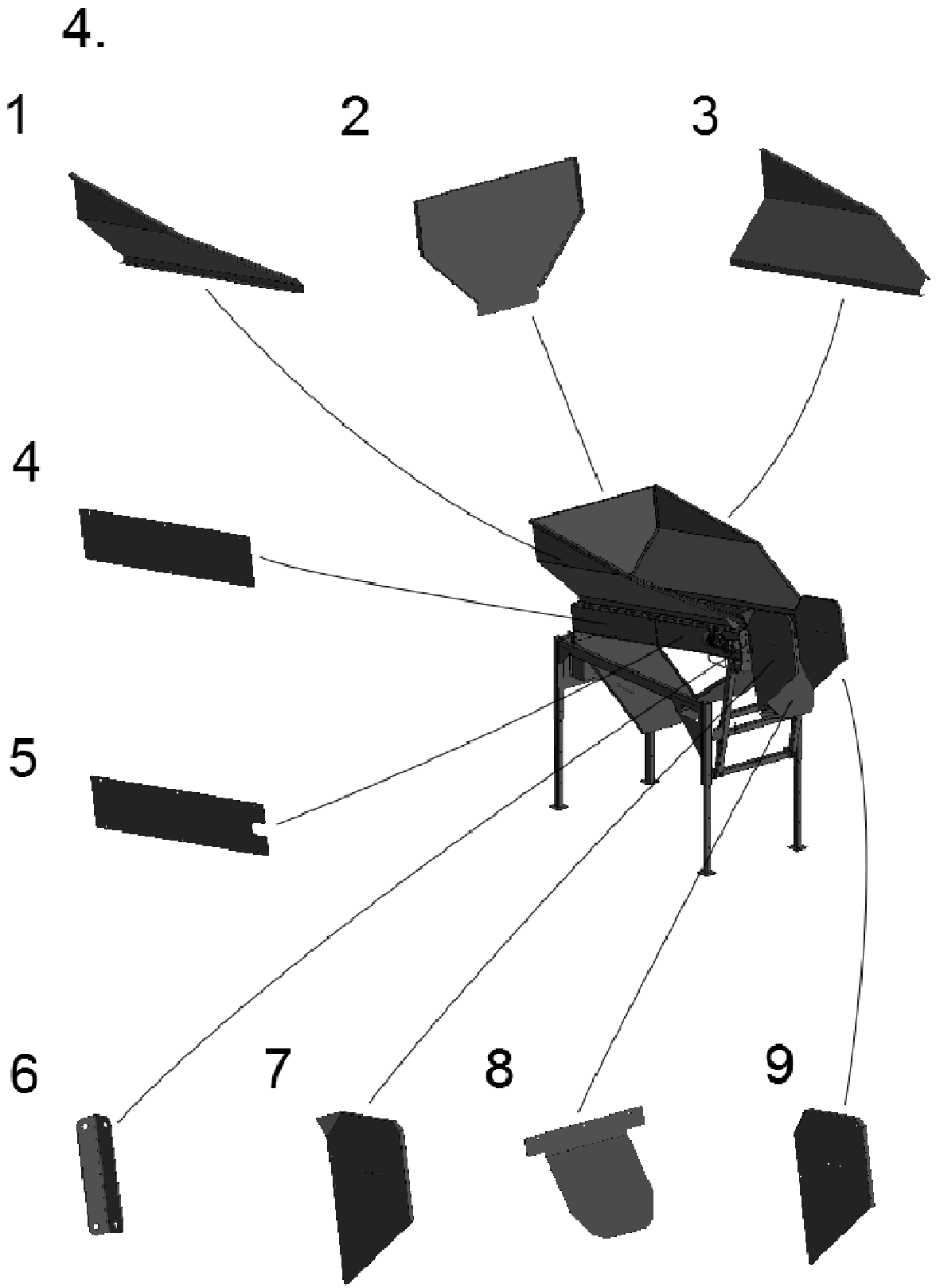
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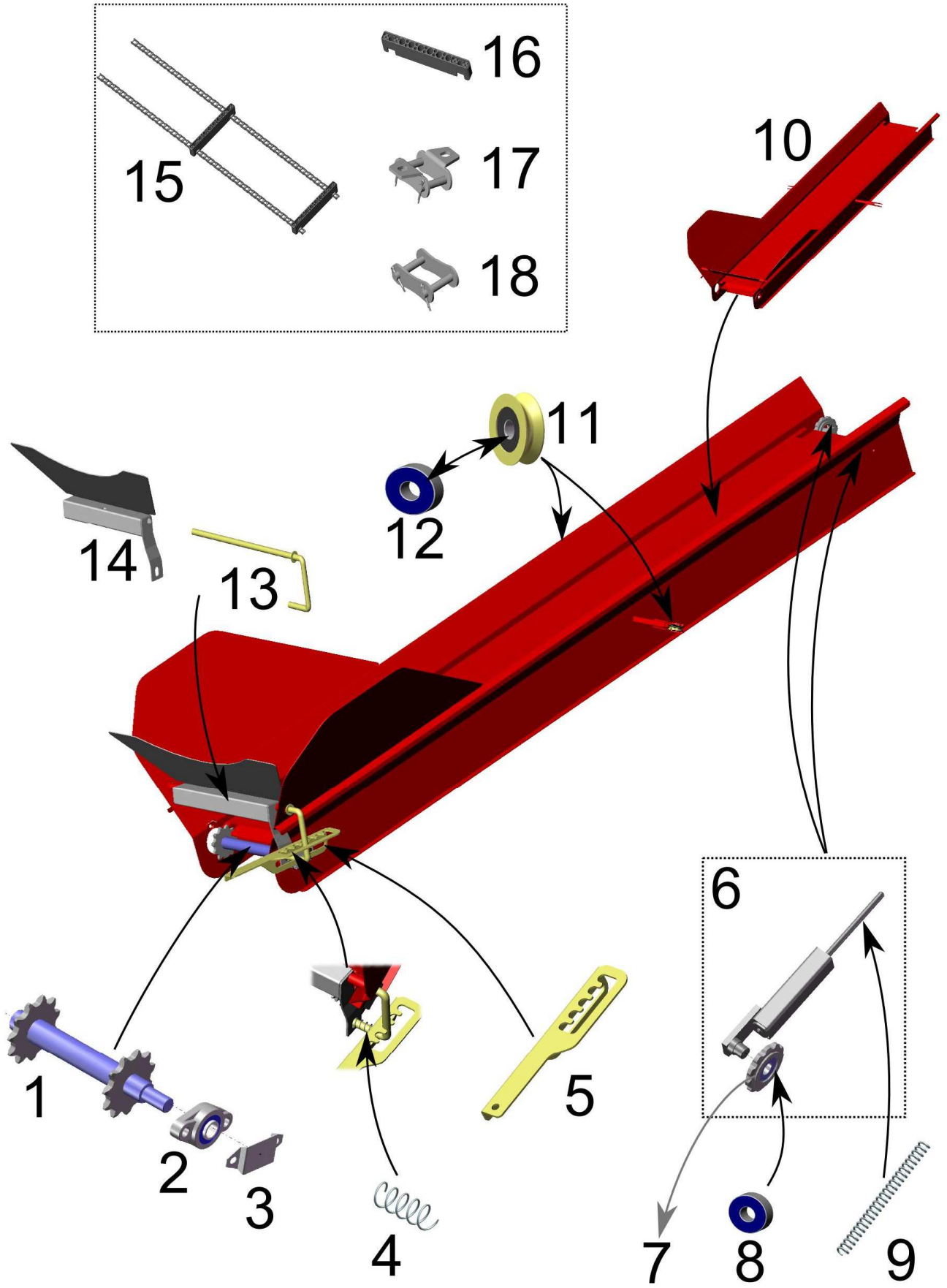
Osa/ Part	Item No:	Order No:	Nimitys	Description	Kpl/ Qty
1	8711000		Rulla	Roller	15
2	8713000		Pääty	Gable	1
3	K8710060		Ketjupyöri	Sprocket	8
4			Rullaketju	Chain	8
5	8714000		Ketjupyöri	Sprocket	
6	K8713030		Holkki	Bushing	1
7	8712000		Kylki	Side of the frame	4
8			Rullaketju	Chain	8
9	UCFC207		Laippalaakeri	Bearing unit	30
10	L8710040		Suoja	Cover Plate	1
11	L8713011		Päätylevy	Gable	1



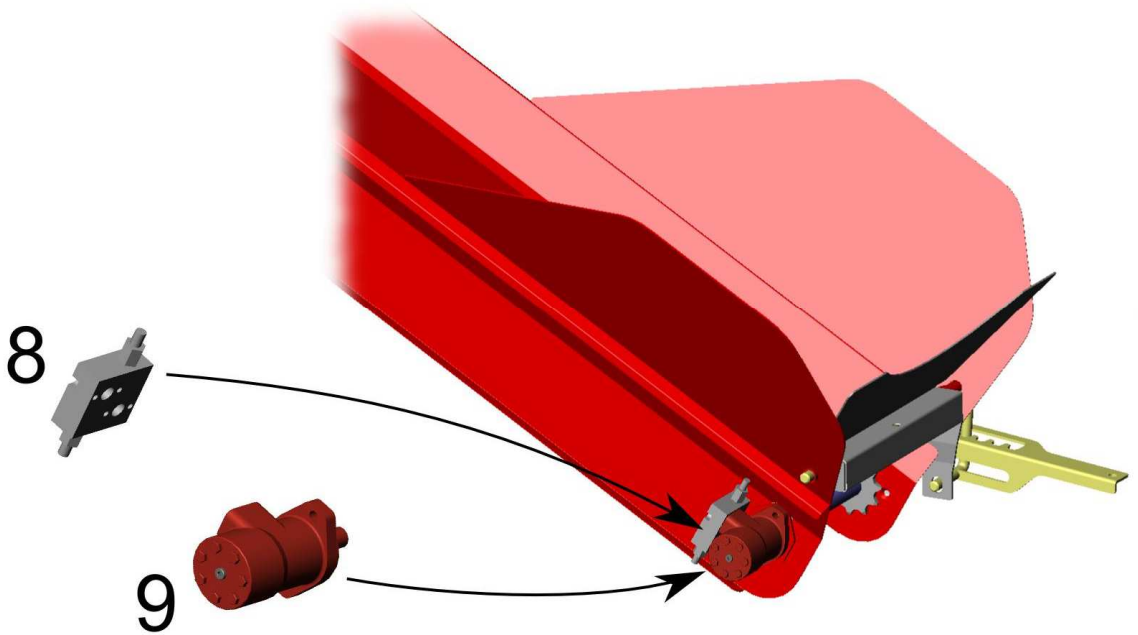
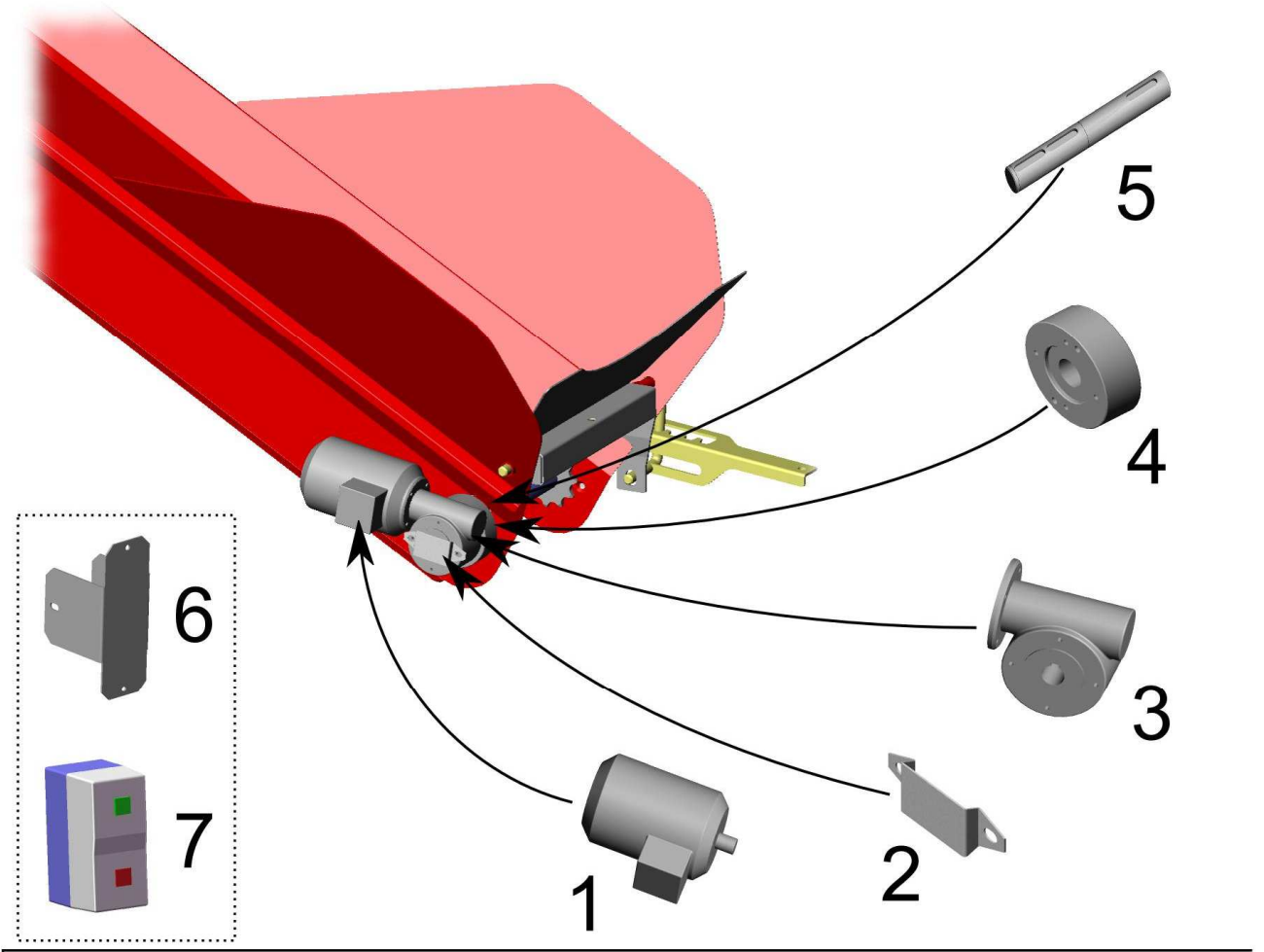
Osa/ Part	Item No:	Order No:	Nimitys	Description	Kpl/ Qty
1	8717000		Akseli	Shaft	1
2	8716000		Nostokehikko	Adjustment frame	1
3	K8710030		Putkipalkki	Square tube	2
4	L8710020		Roskapeltti	chip guide	2
5	8718000		Akseli	Shaft	1
6	8715000		Runko	Frame	1
7	8719000		Jalka	Leg	4



Osa/ Part	Item No:	Order No:	Nimitys	Description	Kpl/ Qty
1	L8720010		Laita	Sideboard	1
2	L8710050		Takalaita	Tailboard	1
3	L8721010		Laita	Sideboard	1
4	L8722030		Suoja	Cover plate	3
5	L8722040		Suoja	Cover plate	1
6	L8710060		Kiinnike	Mount piece	2
7	L8710082		Sivupelti	Side plate	1
8	L8710071		Takalevy	Back plate	1
9	L8710081		Sivupelti 2	Side plate 2	1



5



Parts list

Figure	Part	Order No.	Name	Pcs	Note!
1	1	31918	Tightening plate	1	
1	2	31919	Debris hopper	2	Accessory
1	3	31920	Leg	4	
1	4	31921	Wheel axle	5	
1	5	31692	Solid rubber tyre 160/40	5	
1	6	31922	Extension	1	Accessory
1	7	31923	Screen	1	
1	8	31697	V-belt B112	2	
1	9	31924	Slope	1	
1	10	31925	Cleaner frame	1	
2	1	31698	Belt pulley, taperlock 132	1	
2	2	31700	Gear VSF P 050 FB 1/18 C71-B14A	1	EM
2	3	31926	Drive shaft	1	EM
2	4	31701	Gear A foot VSF P 050	2	EM
2	5	31927	Electric motor 0.55 kW 1500B14A	1	EM
2	6	32147	Starter 0.55kw	1	EM
2	7	31929	Starter base	1	EM
2	8	31930	Hydraulic motor mount	1	Hydr.
2	9	11779	Hydraulic motor WP80 (155)	1	Hydr.
2	10	10988	Flow controller DO6KRF050G12MM002	1	Hydr.
3	1	31931	Support	1	Divider accessory
3	2	31932	Slope	1	Divider accessory
3	3	31933	Handle	1	Divider accessory
3	4	31934	Lug	1	Divider accessory
3	5	31935	Roller cage	1	Conveyor accessory
3	6	14392	Roller wheel (inc. bearing)	1	Conveyor accessory
3	7	10060	Bearing 6201 2RS	1	Conveyor accessory
3	8	31936	Conveyor support	1	Conveyor accessory
3	9	11197	Winch Goliath 6AF	1	Conveyor accessory
3	10	10482	Wire	1	Conveyor accessory
4	1	13676	Drive shaft	1	Conveyor
4	2	10997	Bearing UCFL205	1	Conveyor
4	3	15301	Bearing cover	1	Conveyor
4	4	11375	Pressure spring 1.5x25x65	1	Conveyor
4	5	31937	Locking lever	1	Conveyor
4	6	11003	Idler sheave holder	2	Conveyor
4	7	11200	Idler	2	Conveyor
4	8	10596	Bearing 6205 2RS	2	Conveyor
4	9	11004	Spring 5.5x30x340	2	Conveyor
4	10	31938	Conveyor	1	Conveyor

4	11	14392	Roller wheel (inc. bearing)	2	Conveyor
4	12	10060	Bearing 6201 2RS	2	Conveyor
4	13	31939	Mounting clip	1	Conveyor
4	14	31940	Swivel beam	1	Conveyor
4	15	32387	Conveyor chain	2	Conveyor
4	16	11655	Cleat	7	Conveyor
4	17	11376	Cleat fastening	14	Conveyor
4	18	11199	Locking piece	2	Conveyor
5	1	31927	Electric motor 0.55 kW 1500B14A	1	Conveyor EM
5	2	15301	Bearing cover	1	Conveyor EM
5	3	32161	Gear VSF P 050 FB 1/10 C80-B14A	1	Conveyor EM
5	4	31941	Gear mounting	1	Conveyor EM
5	5	31926	Drive shaft	1	Conveyor EM
5	6	32147	Starter 0.55kw	1	Conveyor EM
5	7	31929	Starter base	1	Conveyor EM
5	8	11779	Hydraulic motor	1	Conveyor Hydr.
5	9	14989	Pressure relief valve, motor	1	Conveyor Hydr.

