

# VAMA REAR BLADES

Operating manual



**Read this manual before starting to operate the machine**

**VAMA-Product Oy**  
84100 YLIVIESKA, tel +358 8 461 425  
[www.vama-product.com](http://www.vama-product.com)

## Table of contents

<b>1 SAFETY INSTRUCTIONS .....</b>	<b>2</b>
1.1 Common safety instructions.....	2
1.2 Safety instructions to maintenance .....	3
1.3 Safety instructions to the machine.....	3
1.4 Specific instructions to oils and hydraulics.....	3
<b>2 STARTING TO USE THE REAR BLADE.....</b>	<b>4</b>
2.1 Before using .....	4
2.2 Releasing the rear blade .....	4
<b>3 MAINTENANCE INSTRUCTIONS .....</b>	<b>5</b>
<b>4 ADJUSTING THE REAR BLADE.....</b>	<b>6</b>
4.1 Teränsäätö .....	6
4.2 Rungonsäätö .....	8
4.3 Ottavuudensäätö .....	10
<b>5 TECHNICAL SPECIFICATIONS .....</b>	<b>11</b>
5.1 Mekanical models.....	11
5.2 Hydraulic models.....	11
5.3 R-models .....	11
<b>6 LISTS OF PARTS .....</b>	<b>12</b>
6.1 K-models .....	12
6.2 J-models .....	14
6.3 KH1-models .....	16
6.4 JH1-models.....	18
6.5 JH2-models.....	20
6.6 R2-models .....	22
6.7 R3-models .....	24
6.8 VAMA-cylinders.....	26
<b>7 THE REAR BLADES DISUSE.....</b>	<b>27</b>

## LIITTEET

- EU-assertation warranty
- Quarantee sertificate ja quarantee conditions

**Congratulations on your practical choice of rear blade! You have purchased a VAMA rear blade, well-known for its good design and solid construction, equipped with a wide range of controls and settings. Thanks to each of these features, your blade will serve you well over a long period of time.**

## 1 SAFETY INSTRUCTIONS

**Before starting to use the machine, every operator, owner or service engineer must first familiarise themselves with the safety instructions.**

Observe good safety practices, as the responsibility rests with you. Read the warning labels on the machine, read the operating instructions and get to know the safety factors before starting to use the machine. **Failure to observe the instructions may result in serious injury or death.**

Always use agricultural machinery safely and with care. Here are some general instructions.

### 1.1 Common safety instructions

- The machine must be connected to a suitable tractor and no other machinery must be connected or attached behind it. The machinery must be connected in accordance with instructions.
- Do not wear loose clothing that might get caught in the machinery.
- It is forbidden for anyone to be on top of the machine during work or transportation.
- Long-term exposure to noise can cause hearing impairment and even deafness. Use suitable and adequate noise protection or ear plugs.
- When travelling on a public road, observe the utmost caution. **Be ready for reduced steering ability, as a result of the weight of the machine.** Observe the rules of the road.
- It is the responsibility of the owner/user of the machine to ensure that the machine is equipped with the necessary lights and reflectors for moving on public roads.
- When you are operating the hydraulics, use protective goggles and gloves. Pressurised fluid may penetrate the skin and cause infection. In the case of an accident, seek immediate medical assistance.
- Never start or use the machine in an enclosed space. Beware of carbon monoxide poisoning.
- When performing mechanical offset adjustment, ensure that the tractor and the frame of the rear blade are horizontal. Do not put your fingers or hand between the frame and the towing coupling or between the frame and the steel plate. Perform the alignment of the adjustment holes with a locking pin, not with your fingers.
- Regulate the speed of your work with safety in mind.
- Do not leave the tractor running when you leave the cabin. Always apply the handbrake and lower the machinery before leaving the cabin.
- Always have first aid equipment in the tractor. Occupational safety regulations must be observed.

## 1.2 Safety instructions to maintenance

- Never try to clean the machine unless the engine is off and the handbrake on.
- During maintenance, operational safety instructions must be observed. The tractor engine must be turned off.
- Before taking hydraulic pipes off, be sure that the rear blade is solidly on its supporting foot and there is no pressure on pipes.
- Never change the original conformation and use only tasks where it is meant to.
- Always use original spare parts.

## 1.3 Safety instructions to the machine

- In the working area, be careful with people and animals.
- When performing mechanical offset adjustment, ensure that the tractor and the frame of the rear blade are horizontal. Do not put your fingers or hand between the frame and the towing coupling or between the frame and the steel plate. Perform the alignment of the adjustment holes with a locking pin, not with your fingers.
- When performing hydraulic blade rotation or offset adjustment, ensure that there is nobody within the danger area.
- Check that there are no solid obstacles on the ground to be levelled.

## 1.4 Specific instructions to oils and hydraulics

- Waste oil disposal and preserve those, observe law and injunctions of authority.
- **With the fire, use extinguisher! Don't use water!**
- When performing hydraulic blade rotation or offset adjustment, ensure that there is nobody within the danger area.
- When you are operating the hydraulics, use protective goggles and gloves. Pressurised fluid may penetrate the skin and cause infection. In the case of an accident, seek immediate medical assistance.
- Use the recommended temperature. Don't go over maximum pressure /minimum flexion with hydraulics.
- Don't draw by means of hydraulics!

## **2 STARTING TO USE THE REAR BLADE**

It is important that extreme caution is observed when starting to use a new machine. Faulty installation, incorrect use, etc. can result in expensive repairs and stoppages. The factory warranty is void if this manual is not followed.

### **2.1 Before using**

- Check that all installations have been correctly performed, and that the machine has not suffered damage before use. Check that the size of your VAMA rear blade corresponds to the power and weight of your tractor.
- Carefully reverse your tractor close to the rear blade, and set the tow bars so that they are at the same level as the tow hook holes on the rear blade. Reverse the tractor so that the towing pins can be mounted in position. Fit the cotters into the towing pins. If the tow bar has quick clamping heads, position the balls onto the tow hooks of the rear blade and reverse your tractor so that the balls come into contact with the quick clamping heads. Lift the tow bar until the quick clamping heads lock on. Check that the connection is locked.
- Raise the tow bar slightly and lift and lock the support foot in the upper position.
- Fit the push bar and its locking pins into position. Adjust the measurements of the push bar, so that the frame of the rear blade is horizontal.
- Check that the side limiters of the lifting arms are locked and adjust if necessary.
- In the KH, JH and R- models, connect the rear-blade hydraulic pipes onto the tractor's hydraulic outlets, and check that the pipes are correctly connected.
- Using the tow bar, lift the rear blade slightly off the ground, and check that there is nobody near the machine. Turn on the tractor's hydraulics, run the rear blade's hydraulic functions to their extreme positions a few times, and check that the machine has no fluid leaks. Repair any leaks immediately.

### **2.2 Releasing the rear blade**

- When you remove the VAMA rear blade from your tractor, check that you are doing so on flat and sufficiently firm ground.
- Lower the blade onto the ground and detach the push bar.
- Lower the supporting foot onto the ground and lock it in the lower position.
- Lower the blade to supporting foot and release pins and towing pin or release quicklocks and carefully drive away from the rear blade.
- Before releasing hydraulics, be sure that the rear blade is solidly on its supporting foot and there is no pressure on pipes.

### **3 MAINTENANCE INSTRUCTIONS**

- Before maintenance, adjustment, cleaning or the connection of equipment.
- Lower the machine onto the ground.
- Turn off the engine.
- Wait until all functions have stopped.
- If it is necessary to use the rear blade's hydraulics in maintenance work, observe extreme caution when performing movements.
- Check the tightness of the blade mounting screws and hydraulic pipe connections after the first hour of operation.
- Regularly grease the cylinder joint bearings, blade turning flange and blade turning sleeve.
- Check the condition of the hydraulic pipes and cutting edge and change if necessary.
- The cutting edge must be changed before the blade starts to wear.
- Try to pinpoint faults as accurately as possible, in order to avoid needless extra work and possible further damage.
- Always observe absolute cleanliness when servicing hydraulic components, and clean pipes and hoses internally before installing.
- After installation, check that no pipes are leaking from their connections.
- Do not allow hydraulic fluid to spill onto the ground.

#### **Storing the rear blade**

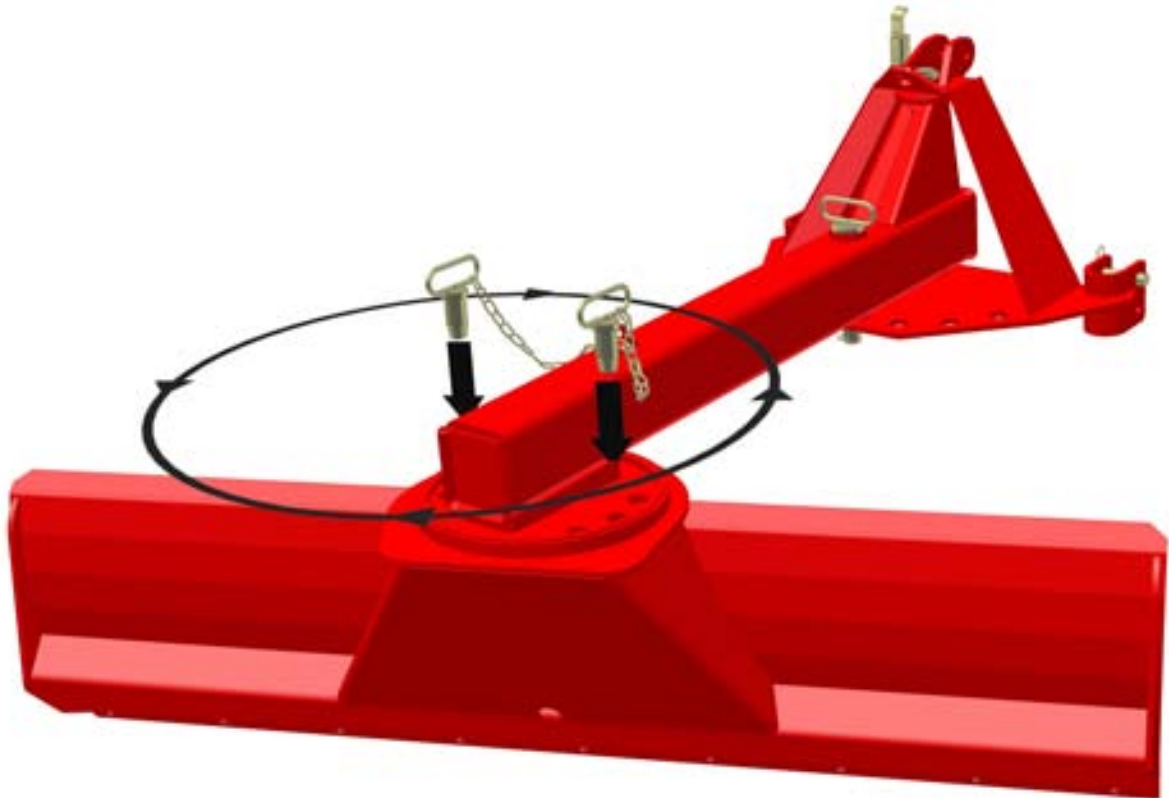
- Wash the rear blade with water and cleaning agent.
- Grease the cylinder arms and other greasing points.
- It is advisable to store the blade under cover.

## 4 ADJUSTING THE REAR BLADE

### 4.1 Blade adjustment

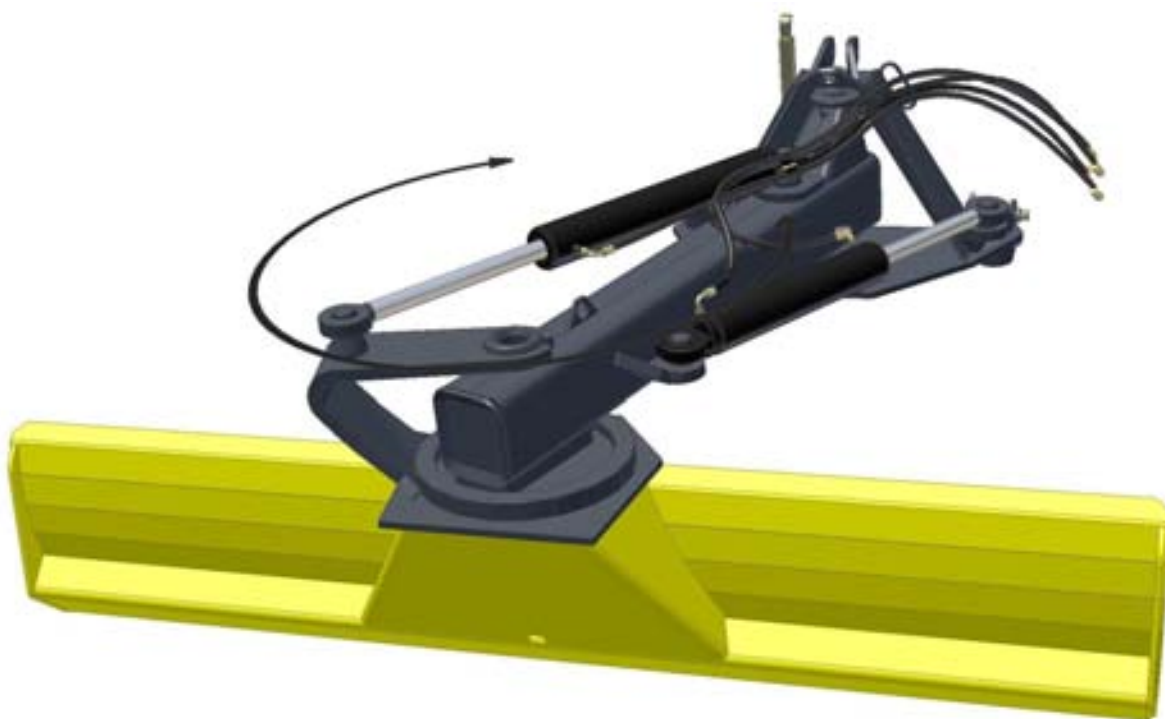
#### **Mechanical blade adjustment:**

- In J/S models 30 positions at 12° intervals through 360°
- In 210/250 K models 18 positions at 20° intervals through 360°.
- Locking with two locking pins
- Perform the alignment of the adjustment holes with a locking pin, not with your fingers.



**Hydraulic blade adjustment:**

- Turn the blade from its towing position to its blow-off position, so that before reaching the dead centre of the cylinder, press the gas, and, when the cylinder is at dead centre, change the operating direction of the hydraulic valve, so that the blade quickly rotates past dead centre.
- Do not overload the blade when the cylinder is near dead centre.
- In KH1, JH1- and JH2-models stepless blade rotation adjustment over 290°
- In R2- and R3-models stepless blade rotation adjustment over 270°.

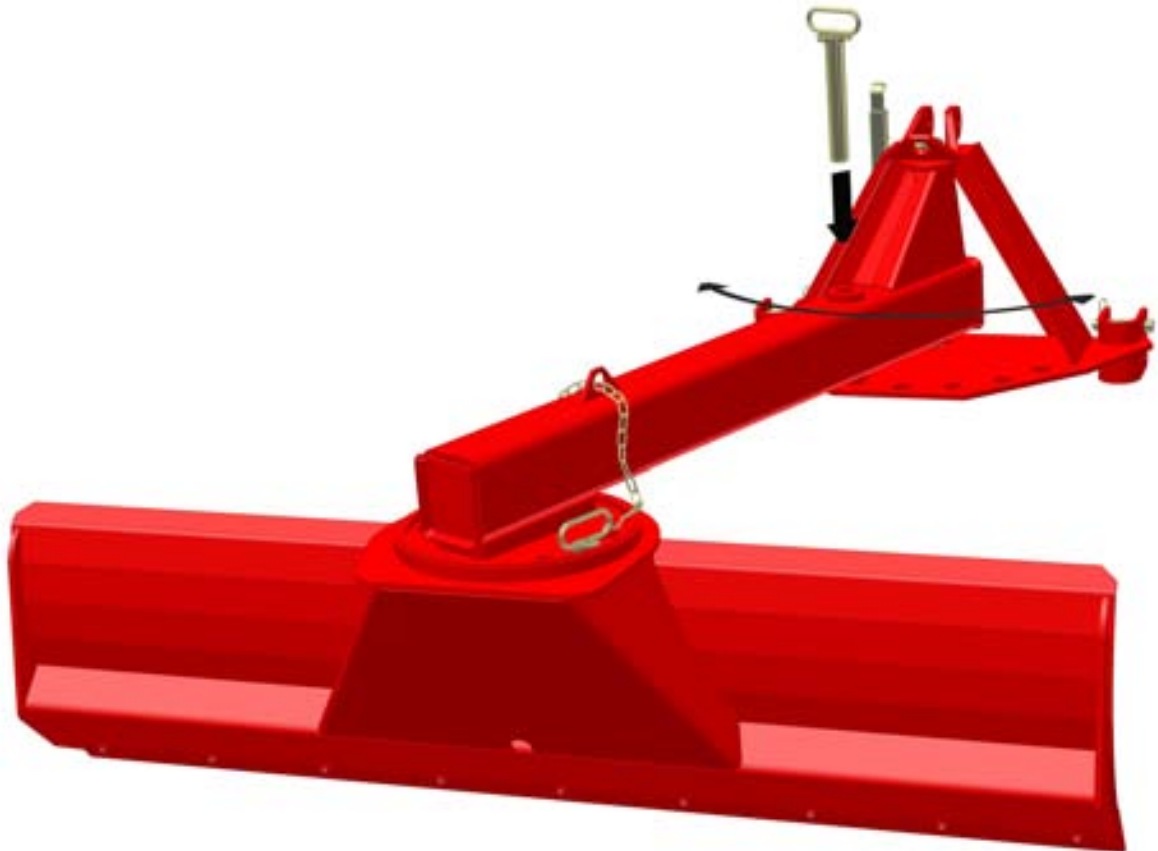




## 4.2 Offset adjustment

### **Mechanical offset adjustment:**

- In K- and KH1-models 7 positions, 120°.
- In J- and JH1-models 7 positions, 100°.
- Perform the alignment of the adjustment holes with a locking pin, not with your fingers.

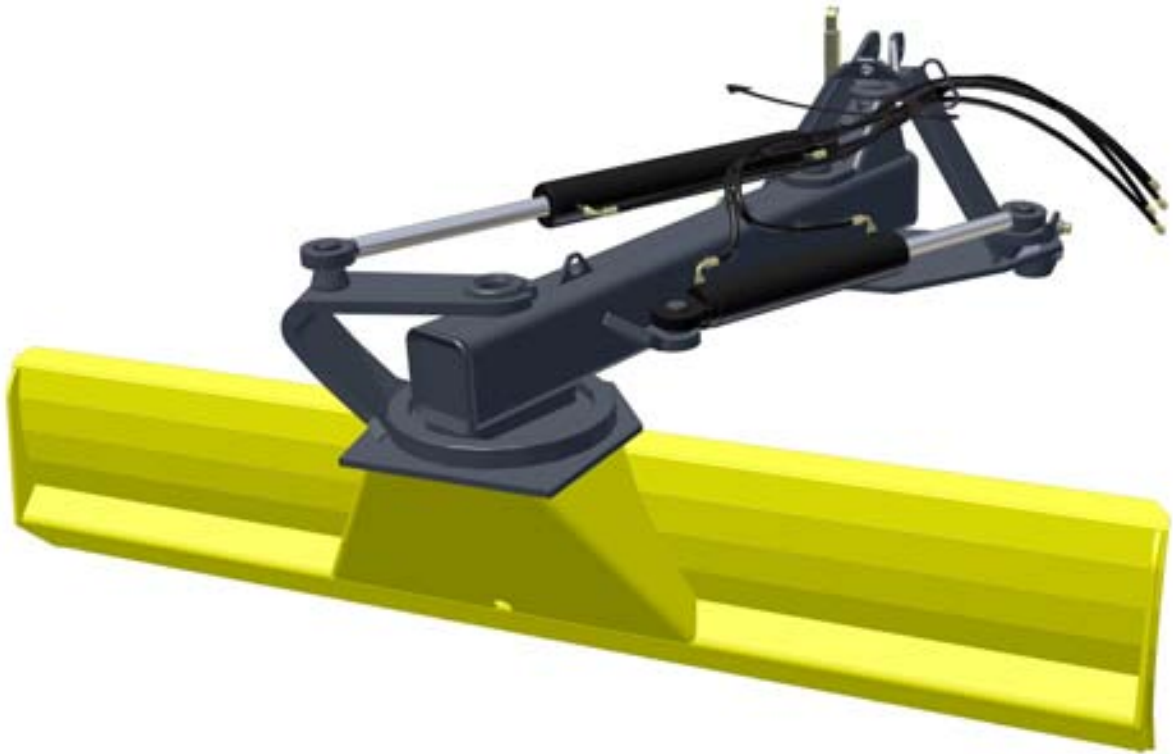


## VAMA-TAKALANAT

[www.vama-product.com](http://www.vama-product.com)

### Hydraulic offset adjustment:

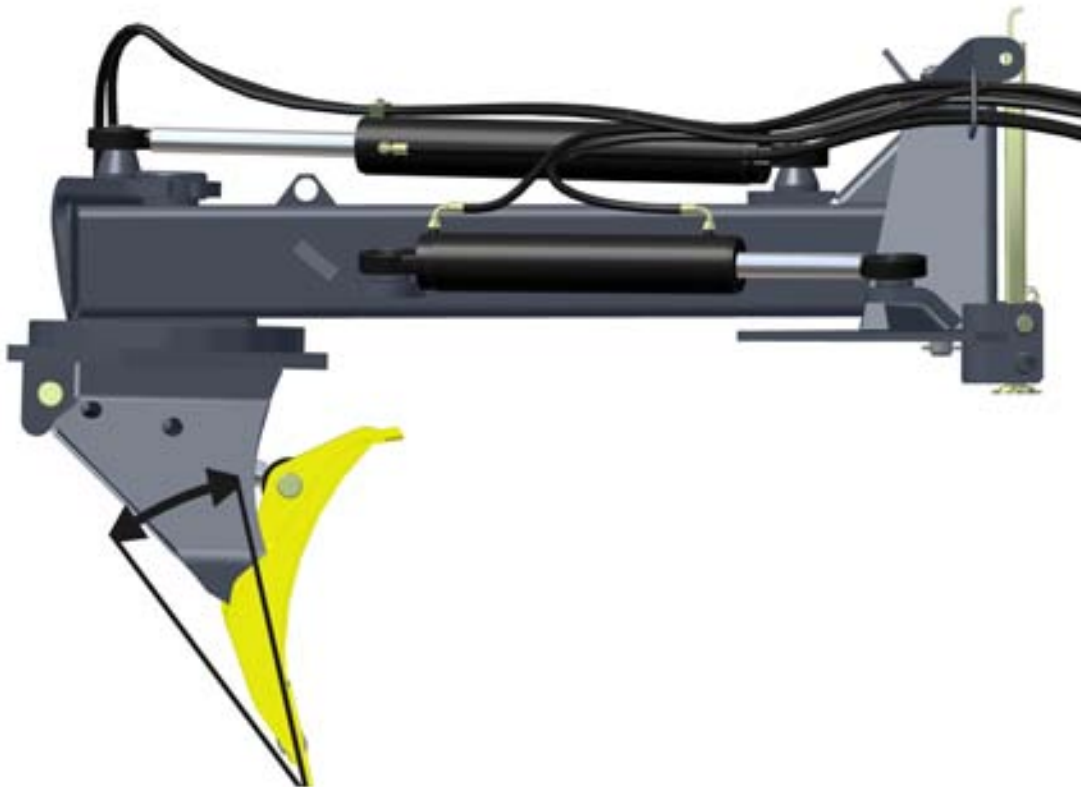
- In JH2-models offset adjustment steplessly through 55°.
- In R2- and R3-models offset adjustment steplessly through 64°.



### 4.3 Take-angle adjustment

#### R3-models

- Adjustment angle 24°.
- Blade angle adjustment steplessly 50°-74°.



## 5 TECHNICAL SPECIFICATIONS

### 5.1 Mekanical models

Model	Working width mm	Blade height mm	Weight kg	Offset adjustment	Blade adjustment	Take-angle adjustment
210/K	2100	565	270	Mek.	Mek.	–
250/K	2500	565	323	Mek.	Mek.	–
225/J	2250	710	458	Mek.	Mek.	–
250/J	2500	710	473	Mek.	Mek.	–
300/J	3000	710	560	Mek.	Mek.	–

### 5.2 Hydraulic models

Model	Working width mm	Blade height mm	Weight kg	Offset adjustment	Blade adjustment	Take-angle adjustment
250/KH1	2500	565	368	Mek.	Hydr.	–
250/JH1	2500	710	518	Mek.	Hydr.	–
300/JH1	3000	710	650	Mek.	Hydr.	–
380/JH1	3800	710	775	Mek.	Hydr.	–
250/JH2	2500	710	558	Hydr.	Hydr.	–
300/JH2	3000	710	695	Hydr.	Hydr.	–
380/JH2	3800	710	820	Hydr.	Hydr.	–

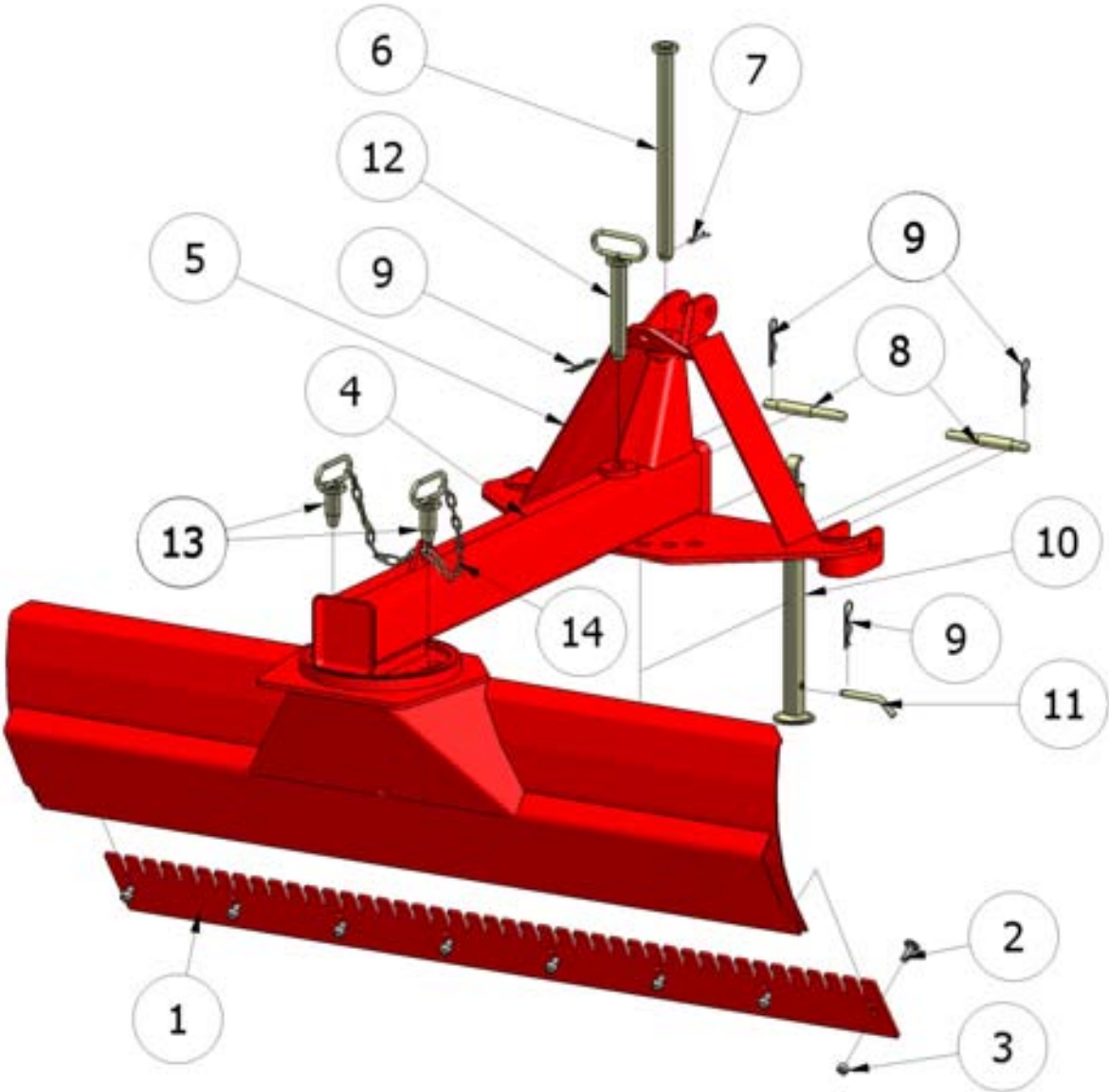
### 5.3 R-models

Model	Working width mm	Blade height mm	Weight kg	Offset adjustment	Blade adjustment	Take-angle adjustment
2500 R2	2500	710	780	Hydr.	Hydr.	–
3000 R2	3000	710	870	Hydr.	Hydr.	–
3800 R2	3800	710	940	Hydr.	Hydr.	–
2500 R3	2500	710	980	Hydr.	Hydr.	Hydr.
3000 R3	3000	710	1040	Hydr.	Hydr.	Hydr.
3800 R3	3800	710	1140	Hydr.	Hydr.	Hydr.

6 LISTS OF PARTS

6.1 K-models

VAMA 210/K  
VAMA 250/K



# VAMA-TAKALANAT

www.vama-product.com

<b>NO</b>	<b>PARTS LIST</b>	<b>PARTS NUMBER</b>	<b>PIECE</b>
1	Gutting edge 210	<b>TE04</b>	1
1	Gutting edge 250	<b>TE02</b>	1
2	Gutting edge mounting bolt	<b>6016X0452C</b>	8-9
3	Gutting edge mounting nut	<b>31716</b>	8-9
4	Frame	<b>LA013004</b>	1
5	Towing frame	<b>LA014004</b>	1
6	Towing frames nodepin	<b>LA015109</b>	1
7	Split pin	<b>0470 8 80</b>	1
8	Towing pin	<b>LA015100</b>	2
9	Hair clip pin	<b>0473 5 1</b>	4
10	Supporting foot	<b>LA014100</b>	1
11	Supporting foot locking pin	<b>LA014104</b>	1
12	Offset adjustment locking pin	<b>LA015105</b>	1
13	Blade turning locking pin	<b>LA015101</b>	2
14	Locking pin chain	<b>LA015500</b>	1

**PLEASE NOTE! When ordering spare parts, always give the model of rear blade, serial number and part number.**

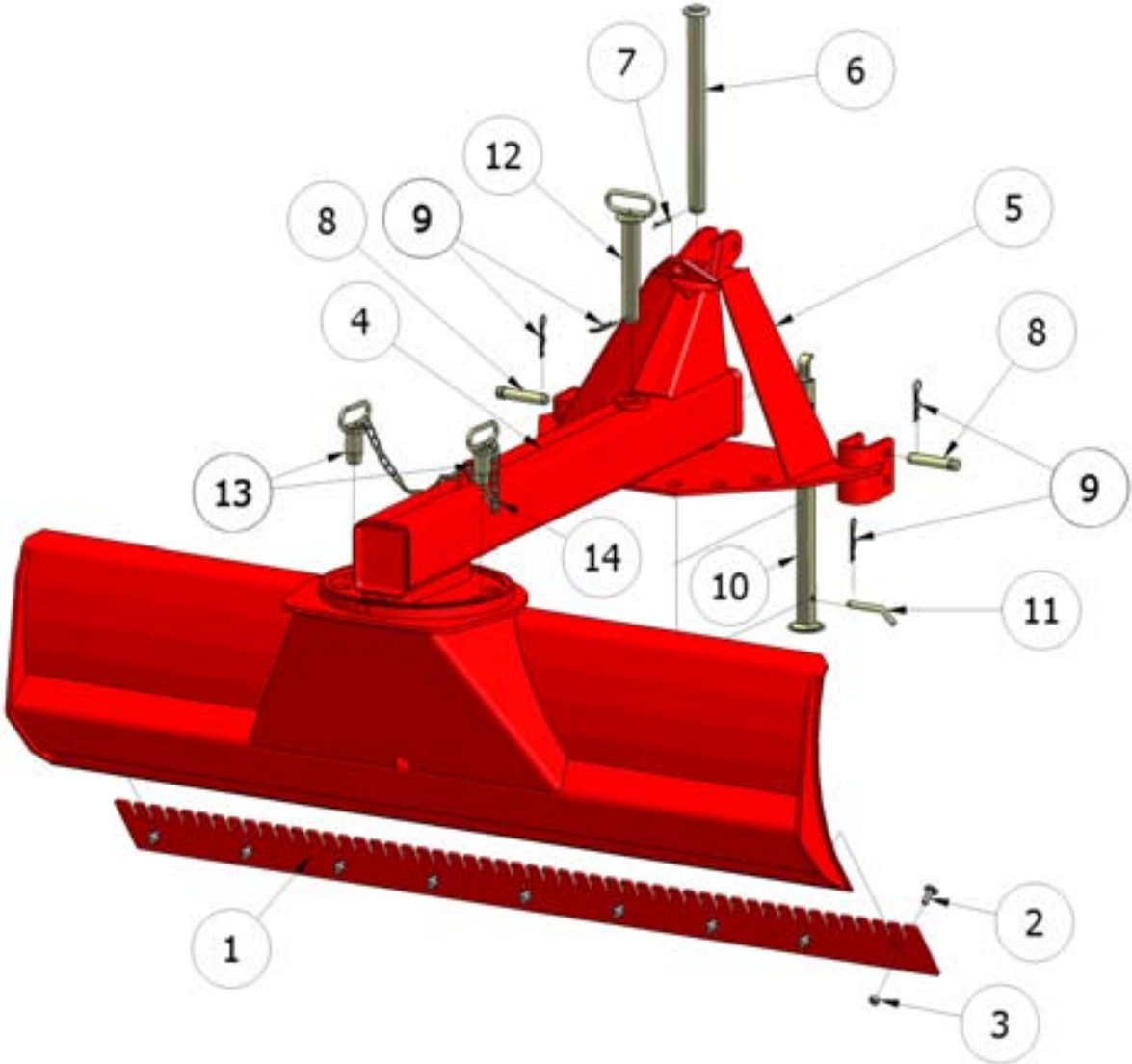
**VAMA-Product Oy**

84100 YLIVIESKA

tel. +358 8 461 425

6.2 J-models

VAMA 225/J  
VAMA 250/J  
VAMA 300/J



# VAMA-TAKALANAT

www.vama-product.com

<b>NO</b>	<b>PARTS LIST</b>	<b>PARTS NUMBER</b>	<b>PIECE</b>
1	Gutting edge 225	<b>TE03</b>	1
1	Gutting edge 250	<b>TE02</b>	1
1	Gutting edge 300	<b>TE01</b>	1
2	Gutting edge mounting bolt	<b>6016X0452C</b>	8-11
3	Gutting edge mounting nut	<b>31716</b>	8-11
4	Frame	<b>LA013003</b>	1
5	Towing frame	<b>LA014000</b>	1
6	Towing frames nodepin	<b>LA015209</b>	1
7	Split pin	<b>0470 8 80</b>	1
8	Towing pin	<b>LA015200</b>	2
9	Hair clip pin	<b>0473 5 1</b>	4
10	Supporting foot	<b>LA014100</b>	1
11	Supporting foot locking pin	<b>LA014104</b>	1
12	Offset adjustment locking pin	<b>LA015205</b>	1
13	Blade turning locking pin	<b>LA015201</b>	2
14	Locking pin chain	<b>LA015500</b>	1

**PLEASE NOTE!** When ordering spare parts, always give the model of rear blade, serial number and part number.

**VAMA-Product Oy**

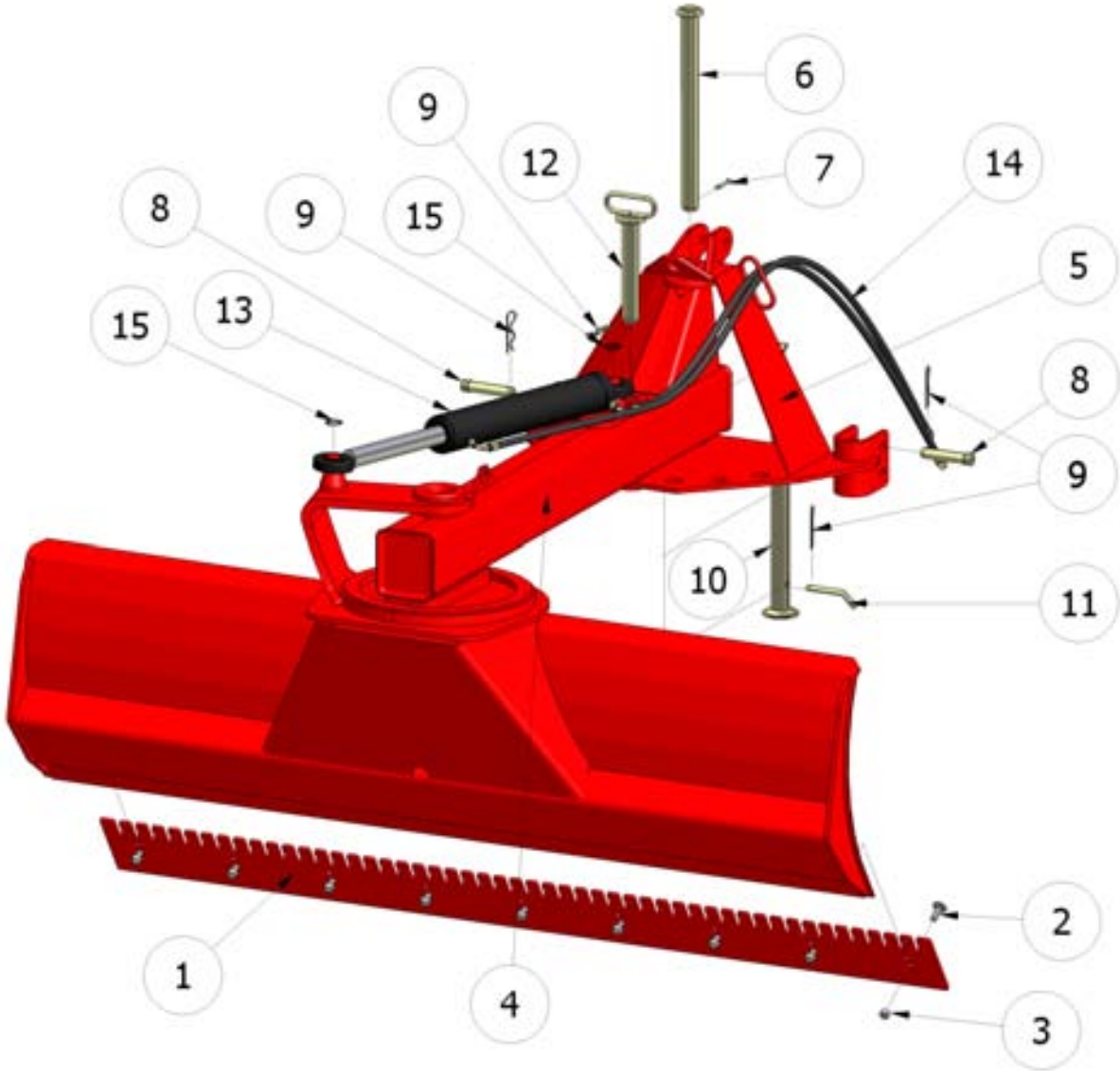
84100 YLIVIESKA

tel. +358 8 461 425



6.3 KH1-model

VAMA 250/KH1



# VAMA-TAKALANAT

www.vama-product.com

<b>NO</b>	<b>PARTS LIST</b>	<b>PARTS NUMBER</b>	<b>PIECE</b>
1	Gutting edge 250	<b>TE02</b>	1
2	Gutting edge mounting bolt	<b>6016X0452C</b>	9
3	Gutting edge mounting nut	<b>31716</b>	9
4	Frame	<b>LA013005</b>	1
5	Towing frame	<b>LA014005</b>	1
6	Towing frames nodepin	<b>LA015109</b>	1
7	Split pin	<b>0470 8 80</b>	1
8	Towing pin	<b>LA015100</b>	2
9	Hair clip pin	<b>0473 5 1</b>	4
10	Supporting foot	<b>LA014100</b>	1
11	Supporting foot locking pin	<b>LA014104</b>	1
12	Offset adjustment locking pin	<b>LA015105</b>	1
13	Blade turning cylinder	<b>SYL01004</b>	1
14	Turning cylinder pipes	<b>LE4+LE5</b>	1
15	Cylinder locking cotter	<b>0438 40</b>	2

**PLEASE NOTE! When ordering spare parts, always give the model of rear blade, serial number and part number.**

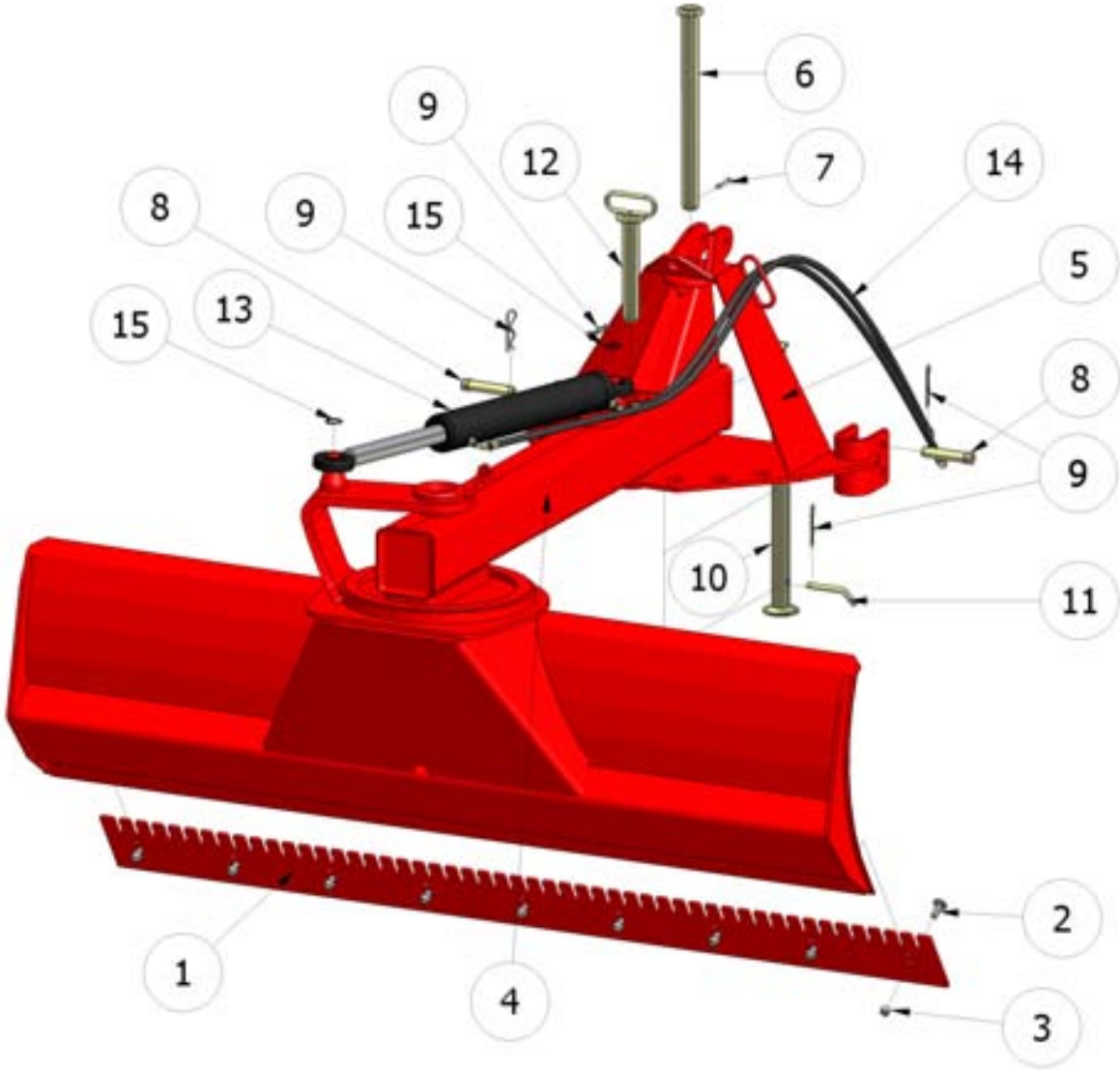
**VAMA-Product Oy**

84100 YLIVIESKA

tel. +358 8 461 425

6.4 JH1-models

VAMA 250/JH1  
VAMA 300/JH1  
VAMA 380/JH1



# VAMA-TAKALANAT

www.vama-product.com

<b>NO</b>	<b>PARTS LIST</b>	<b>PARTS NUMBER</b>	<b>PIECE</b>
1	Gutting edge 250	<b>TE02</b>	1
1	Gutting edge 300	<b>TE01</b>	1
1	Gutting edge 380	<b>TE05</b>	1
2	Gutting edge mounting bolt	<b>6016X0452C</b>	9-13
3	Gutting edge mounting nut	<b>31716</b>	9-13
4	Frame	<b>LA013001</b>	1
5	Towing frame	<b>LA014001</b>	1
6	Towing frames nodepin	<b>LA015209</b>	1
7	Split pin	<b>0470 8 80</b>	1
8	Towing pin	<b>LA015200</b>	2
9	Hair clip pin	<b>0473 5 1</b>	4
10	Supporting foot	<b>LA014100</b>	1
11	Supporting foot locking pin	<b>LA014104</b>	1
12	Offset adjustment locking pin	<b>LA015205</b>	1
13	Blade turning cylinder	<b>SYL01004</b>	1
14	Turning cylinder pipes	<b>LE4+LE5</b>	1
15	Cylinder locking cotter	<b>0438 40</b>	2

**PLEASE NOTE! When ordering spare parts, always give the model of rear blade, serial number and part number.**

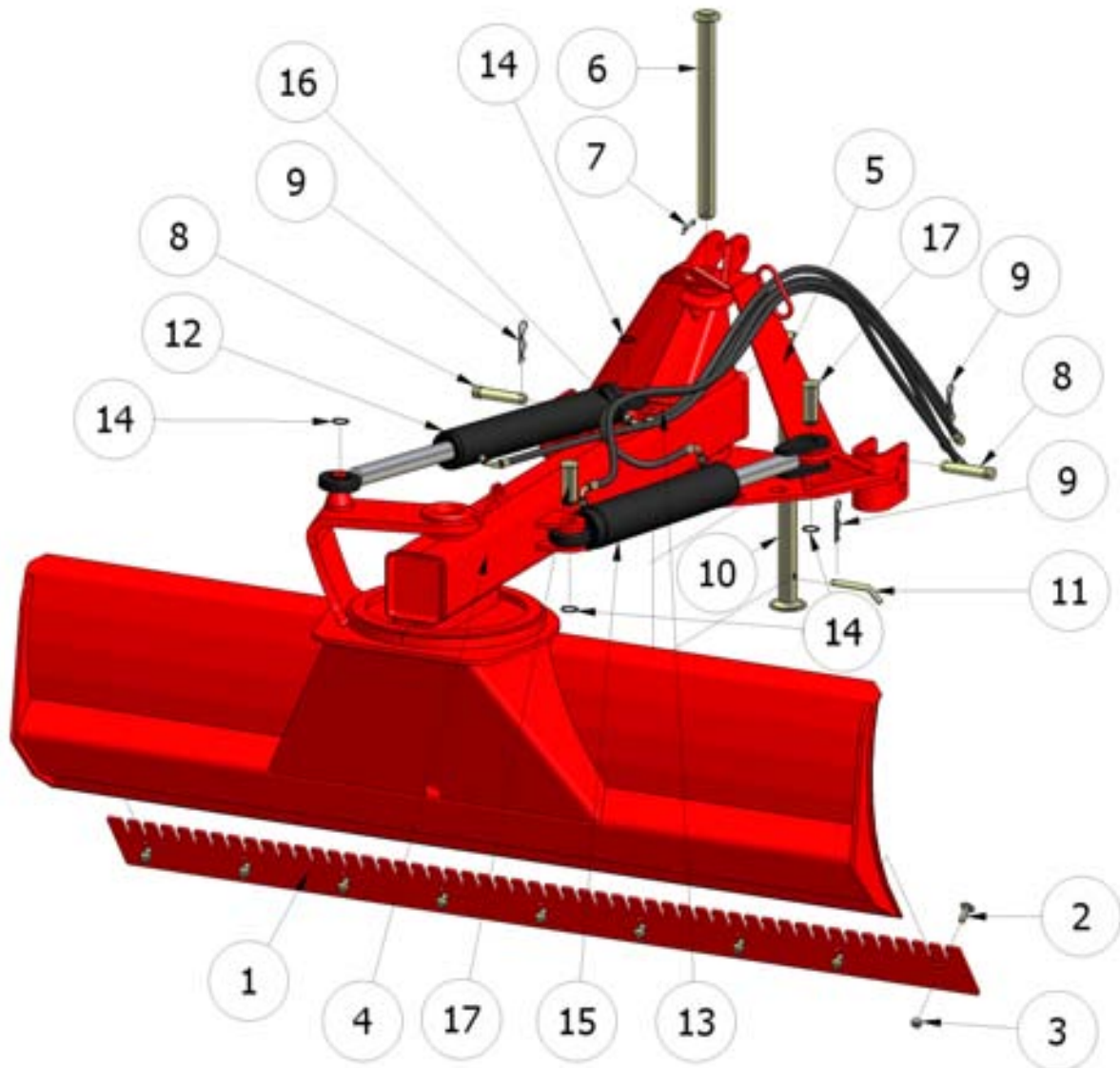
**VAMA-Product Oy**

84100 YLIVIESKA

tel. +358 8 461 425

6.5 JH2-models

VAMA 250/JH2  
VAMA 300/JH2  
VAMA 380/JH2



# VAMA-TAKALANAT

www.vama-product.com

<b>NO</b>	<b>PARTS LIST</b>	<b>PARTS NUMBER</b>	<b>PIECE</b>
1	Gutting edge 250	<b>TE02</b>	1
1	Gutting edge 300	<b>TE01</b>	1
1	Gutting edge 380	<b>TE05</b>	1
2	Gutting edge mounting bolt	<b>6016X0452C</b>	9-13
3	Gutting edge mounting nut	<b>31716</b>	9-13
4	Frame	<b>LA013002</b>	1
5	Towing frame	<b>LA014002</b>	1
6	Towing frames nodepin	<b>LA015209</b>	1
7	Split pin	<b>0470 8 80</b>	1
8	Towing pin	<b>LA015200</b>	2
9	Hair clip pin	<b>0473 5 1</b>	3
10	Supporting foot	<b>LA014100</b>	1
11	Supporting foot locking pin	<b>LA014104</b>	1
12	Blade turning cylinder	<b>SYL01004</b>	1
13	Turning cylinder pipes	<b>LE4+LE5</b>	1
14	Cylinder locking cotter	<b>0438 40</b>	4
15	Offset cylinder	<b>SYL01005</b>	1
16	Offset cylinder pipes	<b>LE5+LE5</b>	1
17	Offset cylinder locking pin	<b>LA015212</b>	2

**PLEASE NOTE! When ordering spare parts, always give the model of rear blade, serial number and part number.**

**VAMA-Product Oy**

84100 YLIVIESKA

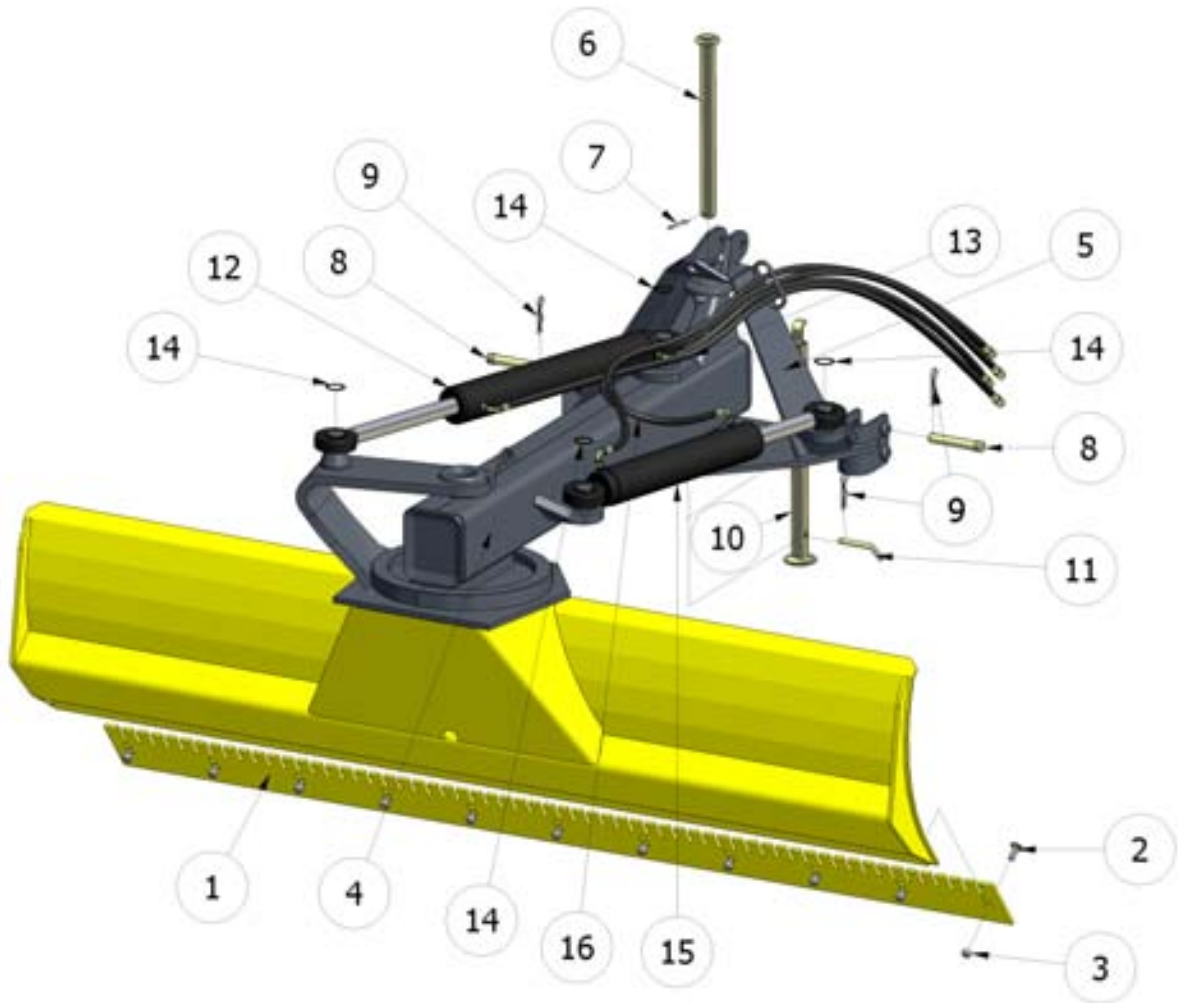
tel. +358 8 461 425

6.6 R2-mallit

VAMA 2500 R2

VAMA 3000 R2

VAMA 3800 R2



# VAMA-TAKALANAT

www.vama-product.com

<b>NO</b>	<b>PARTS LIST</b>	<b>PARTS NUMBER</b>	<b>PIECE</b>
1	Gutting edge 250	<b>TE02</b>	1
1	Gutting edge 300	<b>TE01</b>	1
1	Gutting edge 380	<b>TE05</b>	1
2	Gutting edge mounting bolt	<b>6016X0452C</b>	9-13
3	Gutting edge mounting nut	<b>31716</b>	9-13
4	Frame	<b>LA013000</b>	1
5	Towing frame	<b>LA014003</b>	1
6	Towing frames nodepin	<b>LA015209</b>	1
7	Split pin	<b>0470 8 80</b>	1
8	Towing pin	<b>LA015300</b>	2
9	Hair clip pin	<b>0473 5 1</b>	3
10	Supporting foot	<b>LA014100</b>	1
11	Supporting foot locking pin	<b>LA014104</b>	1
12	Blade turning cylinder	<b>SYL01010</b>	1
13	Turning cylinder pipes	<b>LE4+LE7</b>	1
14	Cylinder locking cotter	<b>0438 50</b>	4
15	Offset cylinder	<b>SYL01009</b>	1
16	Offset cylinder pipes	<b>LE7+LE7</b>	1

**PLEASE NOTE!** When ordering spare parts, always give the model of rear blade, serial number and part number.

**VAMA-Product Oy**

84100 YLIVIESKA

tel. +358 8 461 425

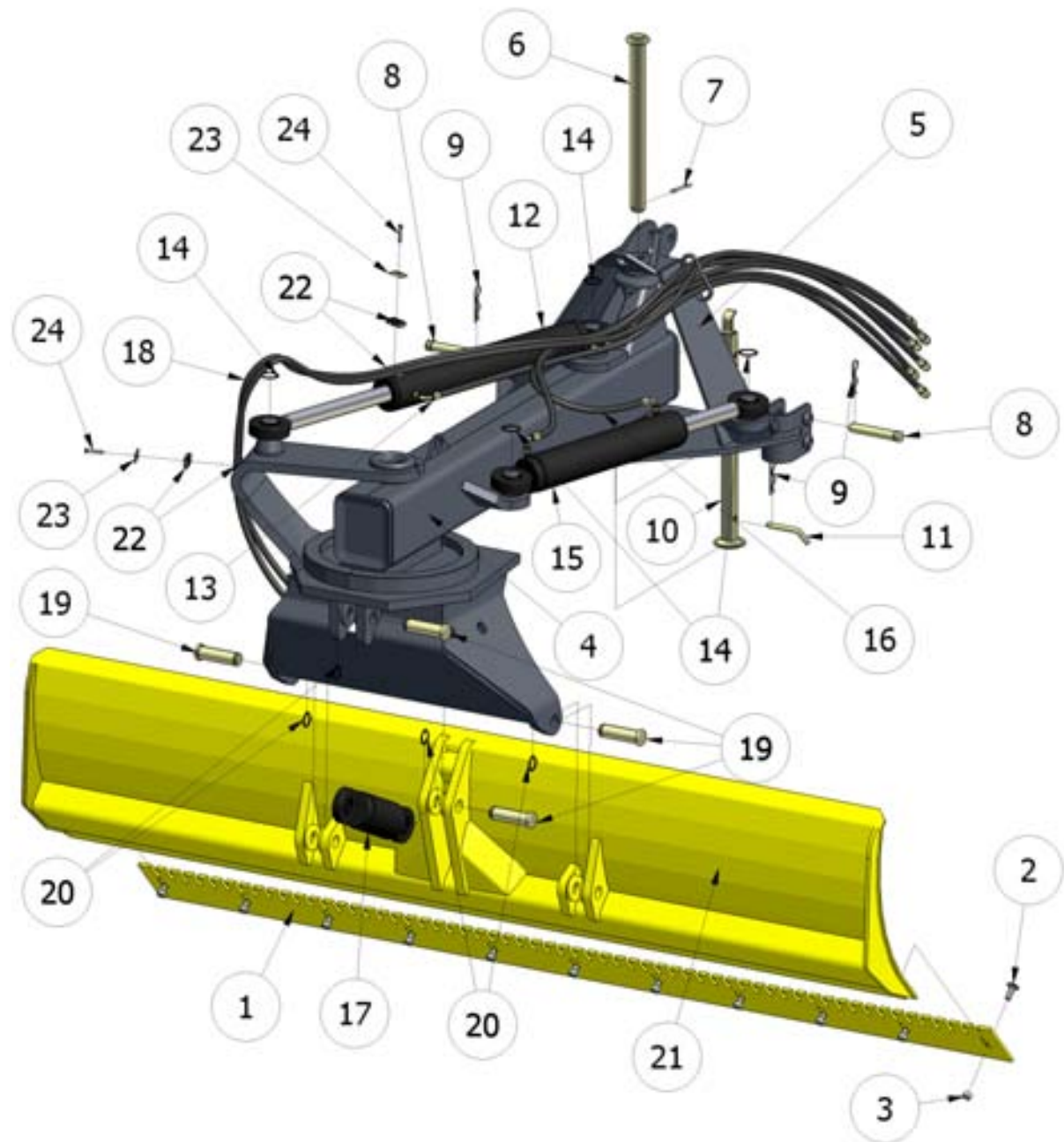


6.7 R3-models

VAMA 2500 R3

VAMA 3000 R3

VAMA 3800 R3



# VAMA-TAKALANAT

www.vama-product.com

<b>NO</b>	<b>PARTS LIST</b>	<b>PARTS NUMBER</b>	<b>PIECE</b>
1	Gutting edge 250	<b>TE02</b>	1
1	Gutting edge 300	<b>TE01</b>	1
1	Gutting edge 380	<b>TE05</b>	1
2	Gutting edge mounting bolt	<b>6016X0452C</b>	9-13
3	Gutting edge mounting nut	<b>31716</b>	9-13
4	Frame	<b>LA013000</b>	1
5	Towing frame	<b>LA014003</b>	1
6	Towing frames nodepin	<b>LA015209</b>	1
7	Split pin	<b>0470 8 80</b>	1
8	Towing pin	<b>LA015300</b>	2
9	Hair clip pin	<b>0473 5 1</b>	3
10	Supporting foot	<b>LA014100</b>	1
11	Supporting foot locking pin	<b>LA014104</b>	1
12	Blade turning cylinder	<b>SYL01010</b>	1
13	Turning cylinder pipes	<b>LE4+LE7</b>	1
14	Cylinder locking cotter	<b>0438 50</b>	4
15	Offset cylinder	<b>SYL01009</b>	1
16	Offset cylinder pipes	<b>LE7+LE7</b>	1
17	Take-angle adjustment cylinder	<b>SYL01011</b>	1
18	Take-angle adj. Cylinder pipes	<b>LE8+LE9</b>	1
19	Nodepin	<b>LA015301</b>	4
20	Nodepins locking cotter	<b>0438 40</b>	4
21	Rear blade 250	<b>LA011002</b>	1
21	Rear blade 300	<b>LA011001</b>	1
21	Rear blade 380	<b>LA011000</b>	1
22	Pipeholder	<b>DS320/20</b>	4
23	Pipeholders coverplate	<b>DPDS-3</b>	2
24	Pipeholders bolt	<b>1053 8 50</b>	2

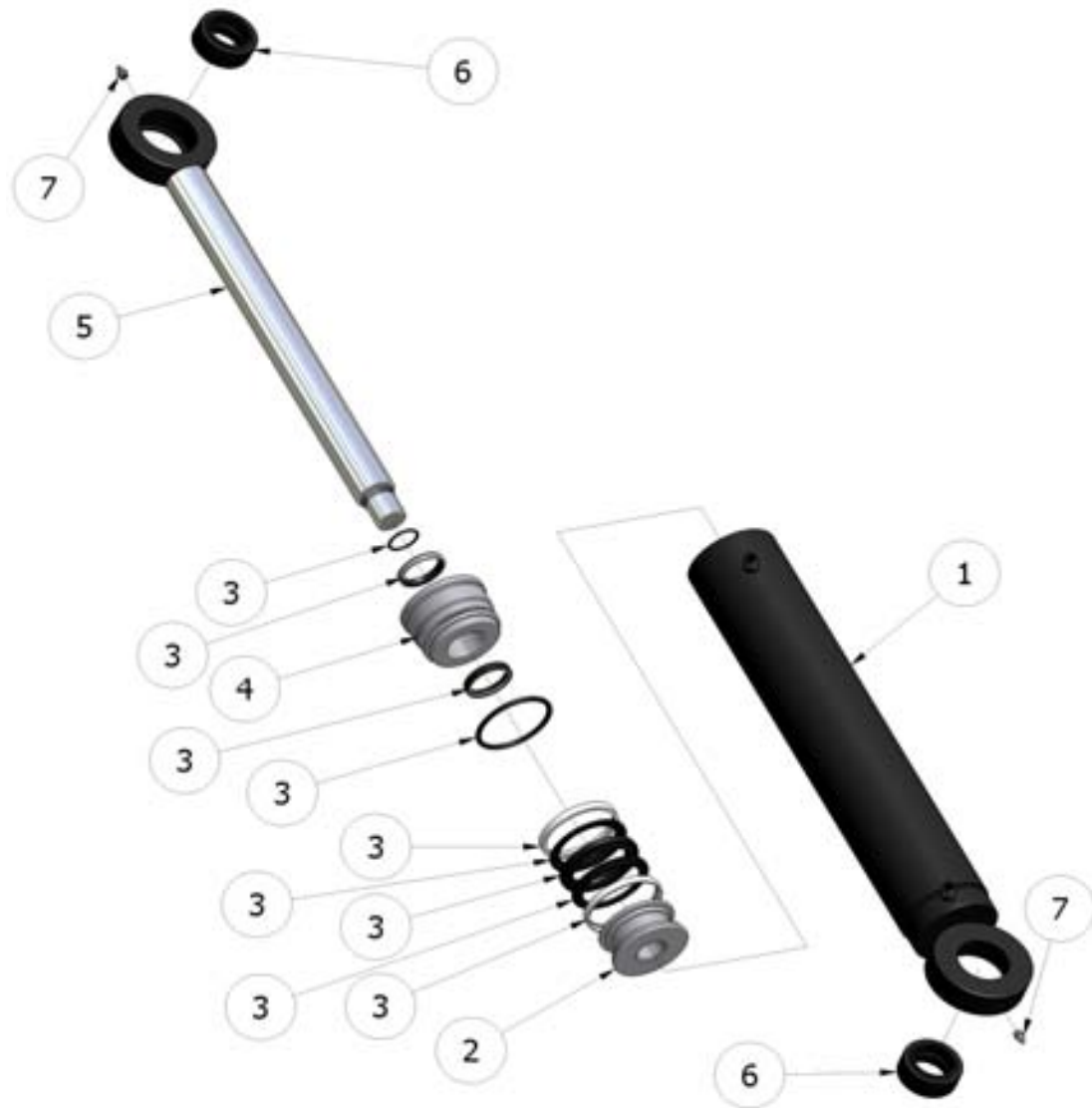
**PLEASE NOTE! When ordering spare parts, always give the model of rear blade, serial number and part number.**

**VAMA-Product Oy**

84100 YLIVIESKA

tel. +358 8 461 425

### 6.8 VAMA-cylinders



NO	PARTS LIST	PIECE
1	Cylinder pipe	1
2	Piston	1
3	Gasket serie	1
4	Cap	1
5	Cylinder arm	1
6	Cylinder eye	2
7	Fat adapter	2

**PLEASE NOTE!** When ordering spare parts, always give the model of rear blade, serial number and part number.

## **7 THE REAR BLADES DISUSE**

- When the rear blade is old and it would not use anymore, deliver all metalparts to recycling center.
- When spare parts are changed, deliver old parts to recycling center.
- Hydraulic-oils have to deliver to appropriate recycling center.

**VAMA-TAKALANAT**  
**[www.vama-product.com](http://www.vama-product.com)**

**VAMA-Product Oy**  
**84100 Ylivieska**  
**tel +358 8 461 425**