HakkiPilke 42 EASY

LOG SPLITTER

- Instructions for assembly, operation, and maintenance
- EU Declaration of Conformity
- Safety instructions
- List of spare parts
- Terms of guarantee

Valimotie 1, FI-85800 Haapajärvi, Finland
tel.+358 8 772 7300, fax +358 8 772 7320
info@maaselankone.fi
www.maaselankone.fi

The operator must read and understand these instructions before operating the log splitter!

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1 GENERAL SAFETY INSTRUCTIONS

To avoid injury to anyone nearby, always be extra cautious and aware when operating the Hakki Pilke 1X42 hydro log splitter or when connecting it to a power source, such as a tractor.

Do not operate the splitter while under the influence of alcohol or drugs, or if you are exhausted, drowsy, or unable to control your bodily movements.

Only one person at a time is allowed to connect the splitter to a power source.
The 10-metre safety zone around the log splitter must be kept clear of unauthorised people whenever the machine is in use or being connected to a power source.

The operator must inform anyone within the safety zone of all the dangers that are related to the log splitter that is in operation.

Before using the log splitter, make sure that the operating environment, including the ground underneath, is safe for the machine, operator, and environment.

The 1X42 hydro log splitter is designed for preparing firewood from pruned or processed wood, such as billets. The log splitter must not be used to cut or split any treated wood, such as construction waste. The manufacturer will not be liable for any damage to the machine or the operator that is caused by processing such material.

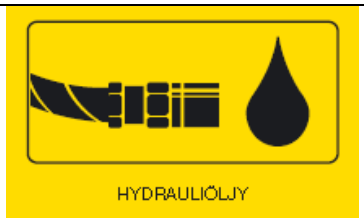
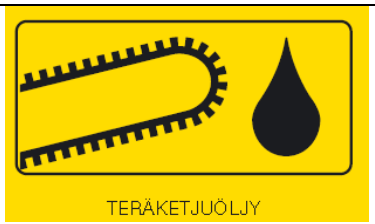
The splitting groove is designed for logs up to 60 cm (23.6 inches) in length. Never cut or split logs that exceed the maximum length.

The diameter of the cutter opening is 42 cm (16.5 in.). When estimating the diameter of the log you are about to cut, note that the shape of the log and other factors, such as branches and burrs, make the actual diameter larger, and may block the opening.

Never operate the log splitter if:
- you have not read and understood the instructions in this manual
- you are not familiar with the dangers associated with using the log splitter
- you do not know the proper emergency procedures related to the log splitter.

1.2 WARNING SYMBOLS

		
DANGER ZONE	BEWARE OF THE CHAIN	ONLY ONE PERSON AT A TIME IN THE WORK AREA
		
SHUT DOWN BEFORE MAINTENANCE	BEWARE OF MOVING PARTS	RISK OF ENTANGLEMENT WITH THE CARDAN SHAFT
		
RISK OF CRUSHING	DO NOT GO UNDER THE CONVEYOR MAX CONVEYOR TILT ANGLE	BEWARE OF THE SPLITTING BLADE

 READ THE MANUAL BEFORE USE	 USE PROTECTIVE EQUIPMENT	 USE PROTECTIVE EQUIPMENT
 ALWAYS GRAB A LOG BY THE SIDES	 MAX RPM	 Scale
 HYDRAULIC OIL	 LEFT ROTATION	 CHAIN OIL
 LIFTING POINT FOR FORKLIFT		 EMERGENCY STOP

2 SET-UP PREPARATIONS

2.1 Correct positioning

When viewed from the side, the log splitter must be standing completely straight!

A tractor-connected log splitter that is used for testing or log cutting/splitting must rest on its own weight on level ground.

Figure 211

When viewed from the back, the log splitter must stand completely straight!

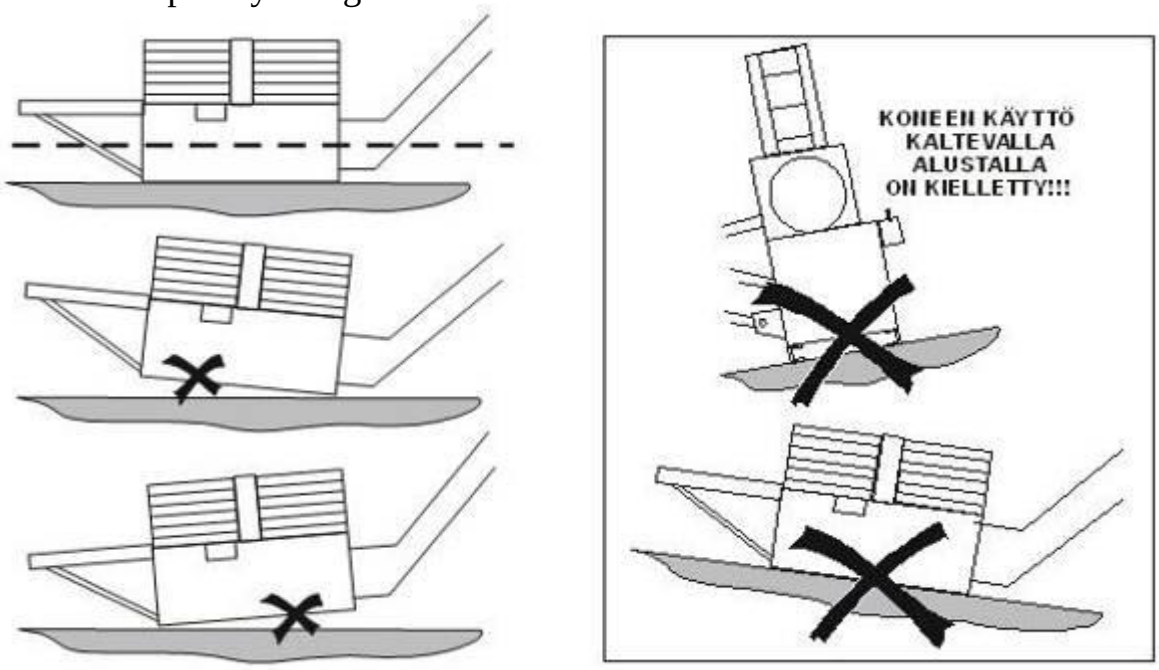


Figure 212

2.2 Dispose of the packaging in an environmentally responsible manner!

Figure 221

1. Mount the sawdust conveyor on the log splitter.

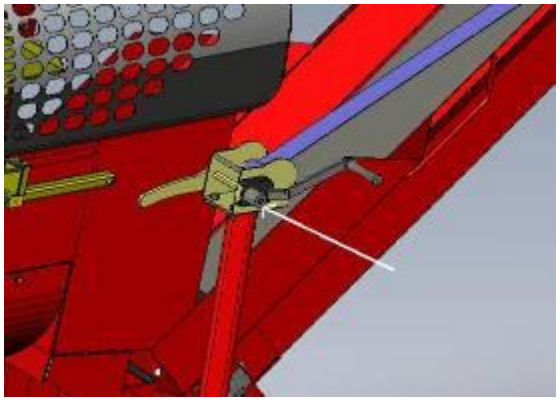


Figure 222

2. Mount the output conveyor crank. Note the screw thread.

Figure 223

3. Remove the support.

2.3 Test run preparations and test run

Before carrying out a test run, check the log splitter thoroughly for any damage or faults that could to lead to personal injury, or harm the splitter or environment.
All problems discovered during the test run must be attended to before the log splitter is used.

For information on the maintenance of the 1X42 log splitter, see Chapter 20.

3 CONNECTING THE SPLITTER TO A TRACTOR

The operator must read and understand all the operation, maintenance, and safety instructions in this manual before operating the log splitter.

A tractor-powered log splitter must be connected to a tractor at all times during use!

3.1 Cardan shaft

When connecting and using the cardan shaft, always follow all the instructions related to safe use and maintenance as provided by the cardan shaft manufacturer.

Never connect an unprotected shaft to the log splitt

The required power of the log splitter is approx. 15 kW, so that the cardan shaft should generate power of at least twice that amount.

Figure 310

Check that the shaft is properly locked into the splined shaft of the angle transmission!

Attach the chain that prevents the guard from rotating to the base of the angle transmission (Figure 310).

**After completing the connecting procedures,
check that all the connections are safe and secure!**

NOTE! Before moving the log splitter, check that your tractor has enough capacity to pull/lift the log splitter.

Always connect the cardan shaft on your own. The tractor cabin must be free of people and animals in order to prevent accidental contact with the controls while the log splitter is being connected to the tractor. Check all log splitter and tractor connecting devices before connecting them. All faulty devices must be repaired or replaced. Never connect the log splitter to a defective device or part. Carry out all connection procedures thoroughly and carefully.

3.2 Push bar and draw bars

The pins that are used to connect the push and drawbars to the log splitter must be of the correct size, and the appropriate locking pins must be used to ensure that they remain secure.

3.3 Power cord of the electronic measuring device (optional)

The cord must be routed so that using or moving the log splitter cannot damage it. Always check the condition and length of the cord before and after using or moving the log splitter.
Check that the plug is clean before connecting it to the tractor socket.

Tractor-powered

Electrically-powered

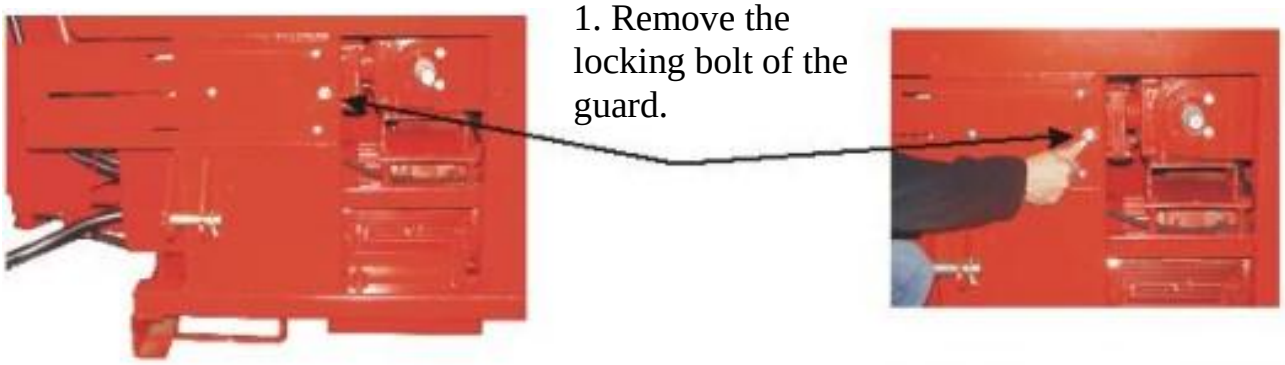
The socket of the measuring device of an electrically-powered log splitter is located at the

4 STARTING THE Hakki Pilke 1X42 Hydro LOG SPLITTER

Never start the log splitter before all the necessary preparations have been carried out.
The operator must read and understand all the instructions, maintenance, and safety insructions in this manual before operating the log splitter.

4.1 Selecting the power source for a tractor- and electrically-powered (combi) log splitter

Power source: tractor



Power source: electricity

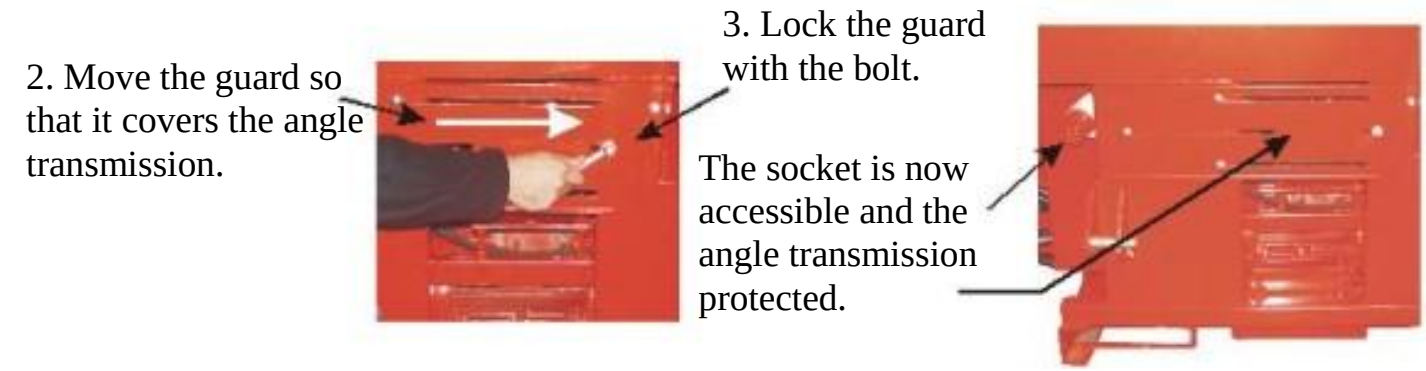


Figure 410

4.1 Start and Stop buttons

Electrically-powered log splitter

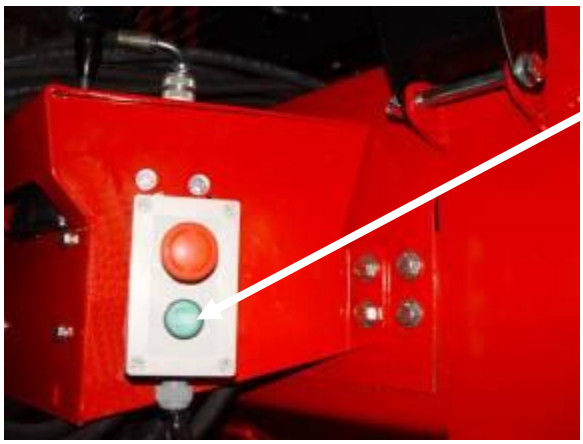


Figure 420

Power source: electricity

The Start/Stop buttons are located on the control console, on the right side of the operating levers.

The green button is the Start button.

The red button is the Stop button.
Note! The button must be in the UP position for the log splitter to start.
Turn the button slightly clockwise to lift it to the UP position.

Use the red button (Figure 420) to stop the log splitter.

Power source: tractor

A tractor-powered log splitter is started and stopped from the tractor cabin.
For more information, refer to the operator's manual of your tractor.

5 LOG SPLITTER CONTROLS

The log splitter is controlled with hydraulic control valves on the control console at the front of the machine.

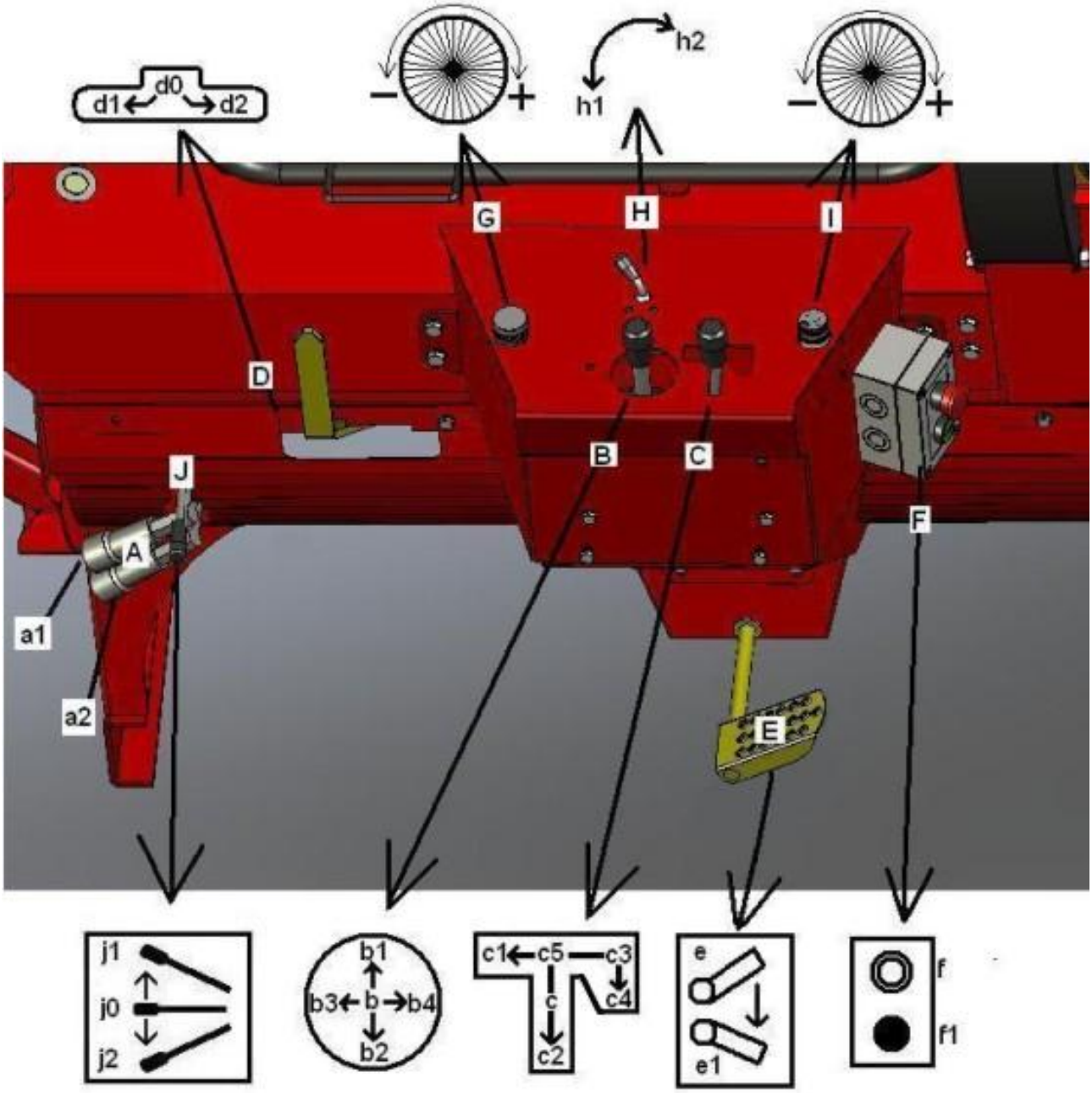


Figure 500

5.A External hydraulics, connectors a1, a2. Maximum pressure: 180 bar. Operating lever J: operating positions j1-j2
5.B Output conveyor and splitting blade control. Four operating positions:
b1 and b2: turn the output conveyor; b4 and b3: lift and lower the splitting blade.

5.C Cutting blade and input conveyor control. c2: lower the blade. c5: lift and stop the blade, start splitting.
c1: move the input conveyor backwards towards the blade. c3: move the input conveyor forwards towards the blade. c4: move the input conveyor to the right towards the blade at a greater force.

5.D Splitting beam reversal control. Standard position d0, default. d2: cancel splitting (push the lever quickly to the right). d1: stop the cancelling of splitting (push the lever quickly to the left).

5.E Foot switch. e1: start splitting mode by pressing the foot switch down.

5.F Start and stop an electrically-powered log splitter. f1: start the log splitter by pushing the button (lower button). f: stop the log splitter by pushing the button (top button). For more information, see Chapter 4.2.

5.G Adjust the lowering speed of the cutting blade. Turn the button to the right (+) to increase the speed and to the left (-) to decrease the speed.

5.H Start and stop the output conveyor rotation. h1: start the rotation. h2: stop the rotation.

5.I Adjust the output conveyor speed. Turn the button to the right (+) to increase the speed and to the left (-) to decrease the speed.

6 INPUT CONVEYOR

6.1 Lowering the input conveyor into the operating position

Figure 611

6.1.1. Turn the winch crank (B) into the direction of the arrow enough to release the winch belt (A) some 10 cm (3.9 in.).

NOTE! Check that there are no people or animals under the conveyor!

Figure 612a

Figure 612b

6.1.2 Press the locking handle (Figure 612b) down and then push the output conveyor slowly to the right of the winch until the belt is tight.

NOTE! Check the winch belt and make sure that it is strong enough to bear the weight of the input conveyor. The input conveyor is heavy and can cause permanent injury if it hits with full force.

The 1X42 Hydro log splitter is designed to be used by one person at a time. Lowering the input conveyor only takes one person. The input conveyor must be free of people and animals when it is being lowered.

Figure 613

6.1.3 Lower the input conveyor slowly with the winch while directing the support into the hole in the frame.

Figure 614

6.1.4 Once the support is in its place and the winch belt is loose, the input conveyor is ready for use. Check that the input conveyor belt is tight enough before continuing. The belt is tight enough if it rises about 2 cm (0.8 in.) from the middle.

6.1.5 To lift the input conveyor to the transport and storage position, perform the lowering steps in reverse order.

Note! Make sure that the table and support are locked into place in the transport and storage position.

7 OUTPUT CONVEYOR

7.1 Lowering the output conveyor into the operating position

Note! Make sure that there are no people or animals underneath the conveyor!

Figure 711

7.1-1.Turn the winch crank (B) into the direction of the arrow enough to release the winch belt (A) some 10 cm (3.9 in.).

Figure 712

CHECK that there are no people or animals under the conveyor! The safety zone around the log splitter is 10 metres (32.8 ft)!

7.1-2 Grip the output conveyor handle C tightly with your left hand and lift the input conveyor locking handle d with your right hand. (Do not lift the locking handle too high up, because it will lock the handle.)
Hold the locking handle d up and, while holding handle C, lower the conveyor until the winch belt tightens. Once the belt is tight, release your grip of handle d.

Figure 713

7.1-3 Lower the folded output conveyor slowly while turning the winch crank B until the belt is loose.

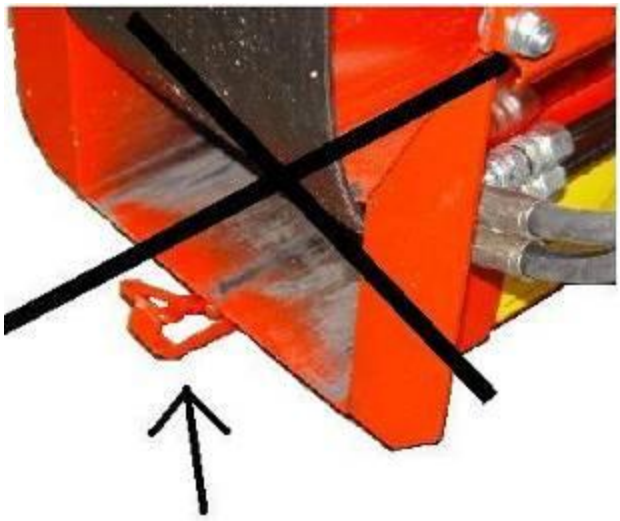


Figure 714

7.1-4 Check that the locking latch of the output conveyor’s extension is not in the wrong position. If the latch is visible, use the winch to lift the output conveyor slightly and turn the latch beneath the conveyor. See Figure 714.

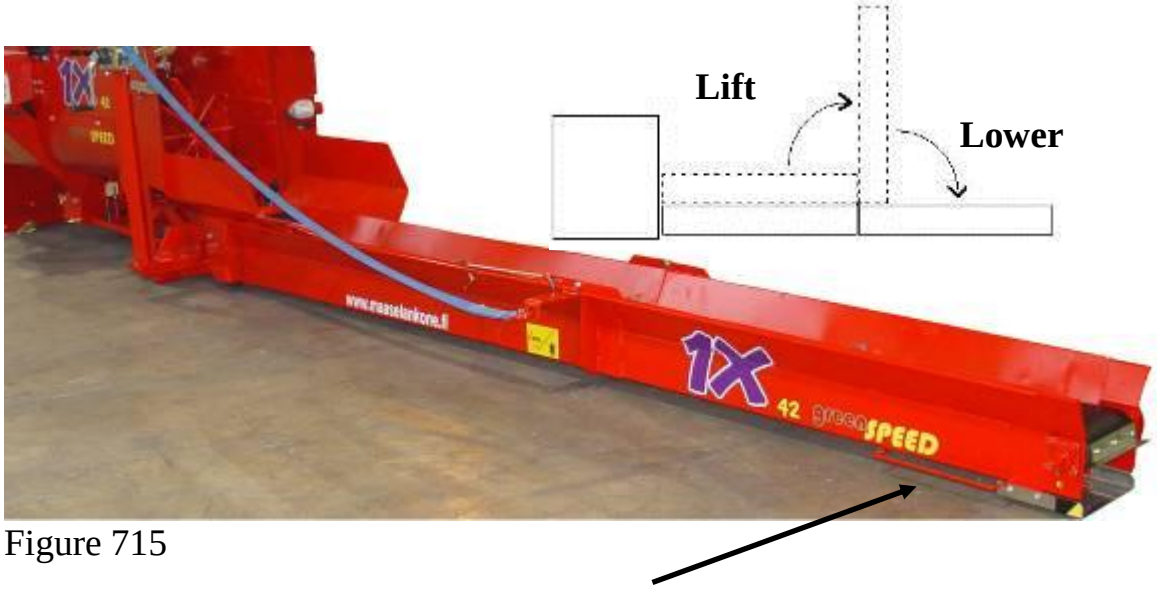


Figure 715

7.1-5 Unfold the output conveyor using handle C according to the figure. Make sure that the conveyor is on level ground and that the winch belt is loose. BE CAREFUL not to get your feet or hands caught in the joint!

Always take extra care when working with the output conveyor. Keep the conveyor area free of people and animals. The conveyor must not be connected to the mains, a tractor, or any other power supply!

Figure 716

7.1-6 The lever that prevents the output conveyor belt from folding. Turn the lever to the side of the conveyor (the right side when viewed from the winch).
If you fail to turn the lever, it may damage the output conveyor belt.

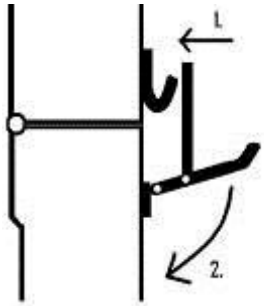


Figure 717

7.1.-7 Lift the output conveyor with the winch enough to see the extension joint and the locking pin from underneath. Lock the latch of the joint with a ring pin or similar as shown in the figure.

BE CAREFUL! NEVER GO UNDERNEATH THE CONVEYOR.

7.2 Lifting the output conveyor into the transport and storage position

To lift the output conveyor into the transport and storage position, perform the lowering steps in reverse order.

Remember the following:

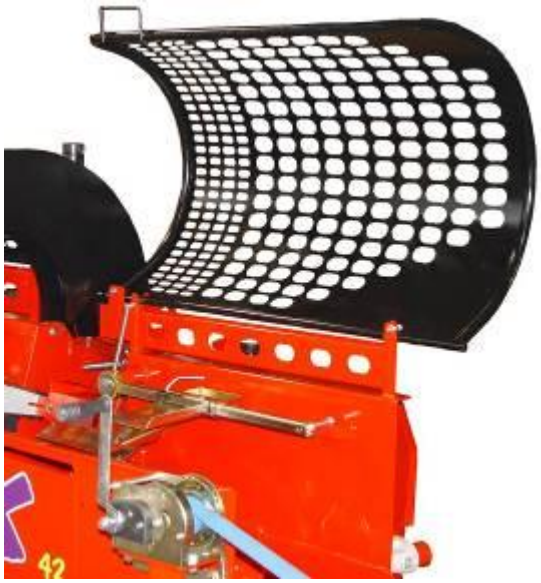


Figure 721

7.2-1 Raise the splitting guard before you lift the folded output conveyor into the transport and storage position.

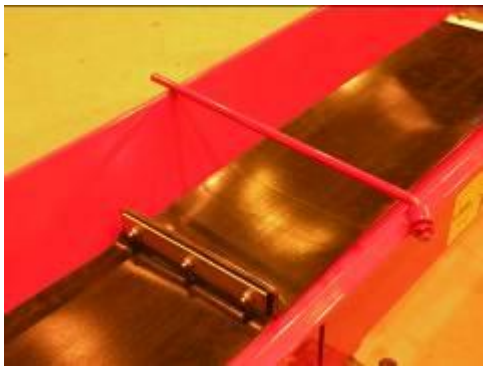


Figure 722

7.2-2 Note! The lever that prevents the belt from folding was turned to the side in Chapter 7.1-6. When lifting, you must first turn this lever against the output conveyor (Figure 722). This prevents the belt from rolling down and being damaged.

Figure 723

7.2-3 After folding and lifting the conveyor, check that the locking latch locks it into vertical position.

8 SPLITTING AND CUTTING GUARDS

The splitting and cutting guards have two positions. The splitting guards move freely, and are not locked for either splitting or cutting. The splitting and cutting modes can be used when the guards are down.
If you lift the guards while the log splitter is in operation, the applicable process, for example cutting, is stopped.

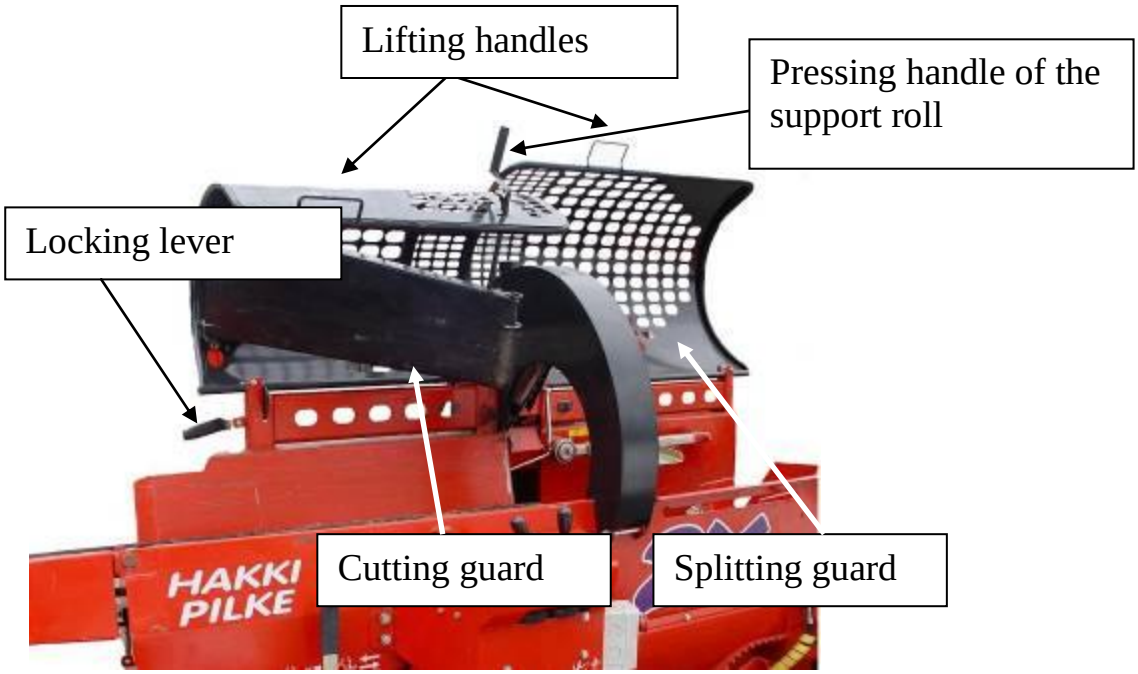


Figure 800

8.1 UP position

The guards are lifted up during maintenance, for example. When the output conveyor is in the storage position, the splitting guard must be up. When the guard is up, the log splitter cannot be used for splitting or cutting.

You can lift the guards from the lifting handles whenever necessary. The log splitter stops automatically when either of the guards is lifted.

You can lower the splitting guard straight down. BE CAREFUL when lowering the guard so that it does not hit you on the head. Ensure to also avoid your hands from getting caught. Never drop the guard down, but lower it steadily and slowly.

The cutting guard cannot be lowered directly from the lifting handle. You must support the cutting guard from the lifting handle while lifting the locking lever.
BE CAREFUL to not get your hands caught and that the pressing handle of the support roll does not hit you.

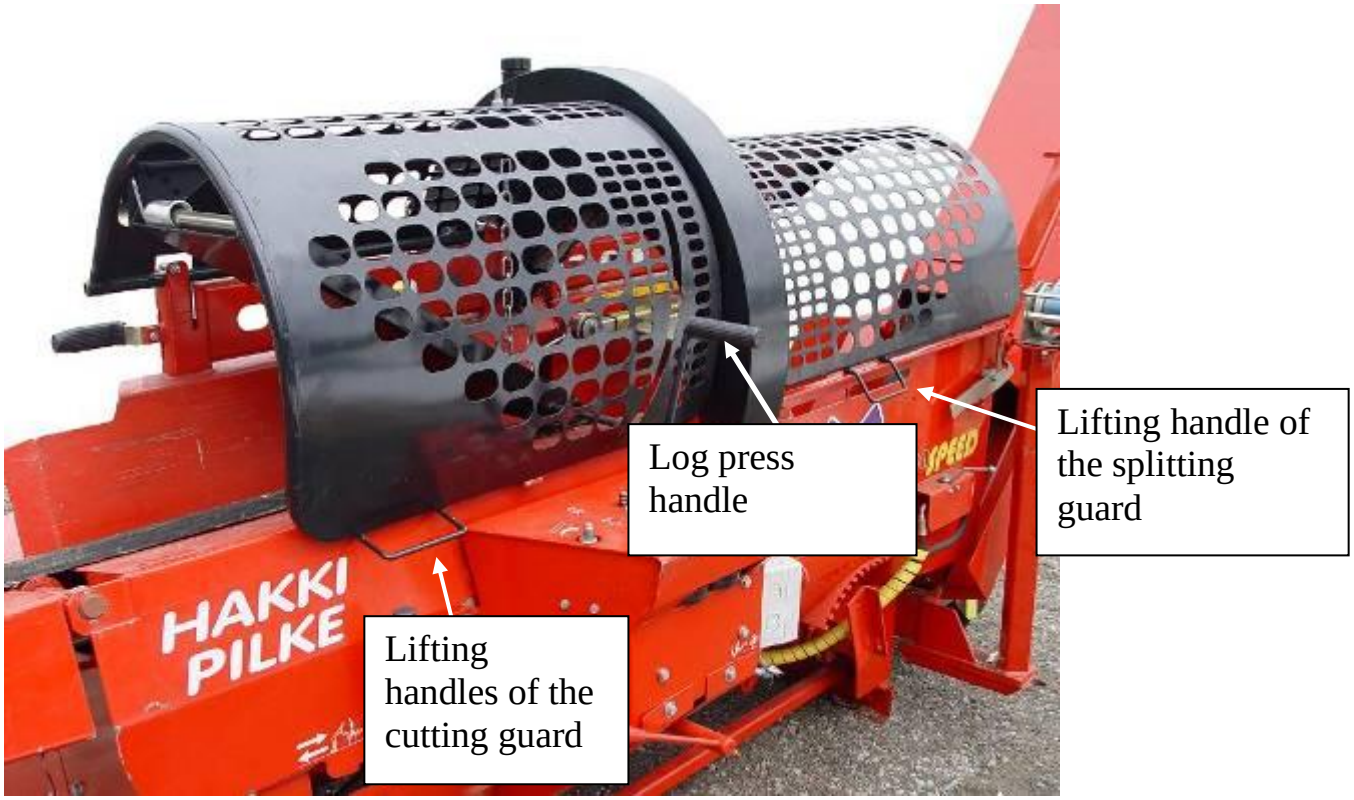


Figure 820

8.2 Operating position

When the guards are in the operating position, the log splitter can be used for cutting and splitting.

Figure 820 shows the lifting handles of the cutting and splitting guards, as well as the handle of the log press roll head from which the log press can be lifted, if necessary.

9 CUTTING MODE MEASURING DEVICE AND ADJUSTMENT

9.1 Manual measuring device

Figure 921

Choose the desired log length from the measuring tape and place the measuring device's front edge to it by lifting the locking bolt and moving the measuring device either forwards or backwards. Remember to replace the locking bolt and its pin.

9.2 Automatic measuring device

The log splitter can be equipped with an optional optical, freely adjustable measuring device for cutting logs.

Device parts:

Reflecting **sticker** and

tracing ray **transmitter**

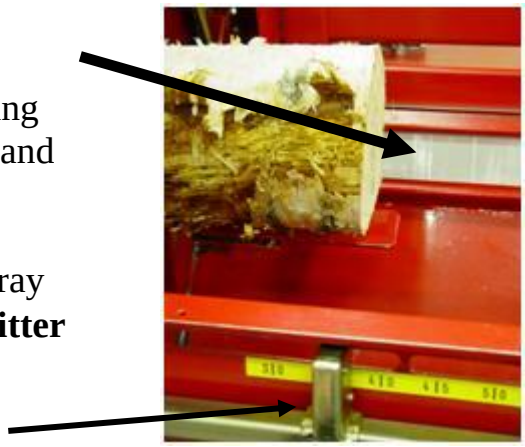


Figure 922

Measurement adjustment

Free the transmitter from the adjustment bar by unlocking the locking bolt.
Move the rear edge of the device to the desired measurement.
Lock the device into place with the locking bolt.

Figure 923

10 CUTTING MODE

For information on the applicable controls, see points 5C, 5H, and 5G in Chapter 5 (p. 12-13).

The 1X42 log splitter has hydraulic saw chain rotation.

Cutting mode prerequisites:
- The log splitter must be connected to a power source (see Chapters 3 or 4).
- The splitting and cutting guards must be in the operating position (Figure 820).

The blade flange is lowered with a hydraulic lever (5C, c2, p. 12). You can increase and decrease the lowering force with a separate adjustment screw (5G, p. 12).

The saw chain also stops when the splitting or cutting guard is lifted (Figure 800).

11 CONTROLLING THE SPLITTING SYSTEM

For information on the applicable controls, see points 5d and 5e in Chapter 5.

The splitting system is highly automated. Splitting mode starts once a log has been cut with the blade flange and the flange is being lifted. You can also start splitting mode with the foot switch (5E, p.12).
Use the splitting mode control lever to reset the splitting mode or to stop the resetting. (5D, p. 12).

Figure 111

Splitting mode control lever

You can use the splitting mode control lever to cancel splitting or to stop the cancelling.

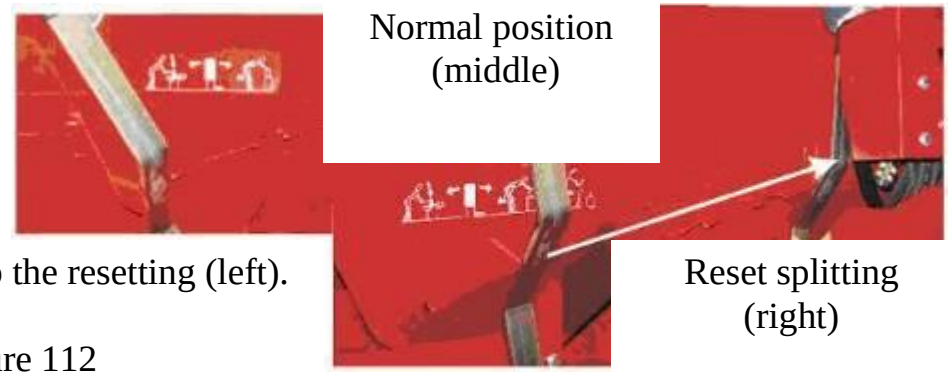
(the splitting mode control lever positions are illustrated on the next page, Figure 112)

Splitting mode start options

Automatic - set off as the splitting blade starts to rise from its lowest position.

Manual - set off with the foot switch

Splitting mode control lever positions:



Normal position (middle)

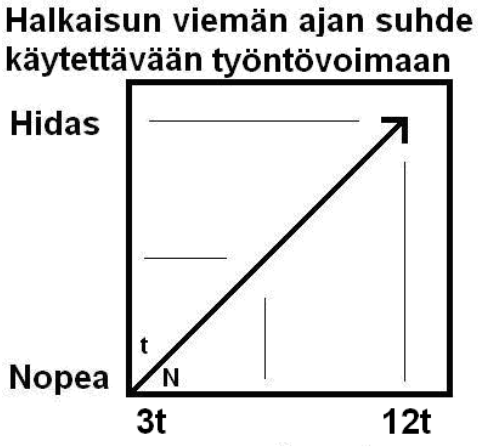
Stop the resetting (left).

Reset splitting (right)

Figure 112

12 Hydro

The resistance-controlled splitting force of the 1X42 hydro log splitter is based on the surface area. The force range is from 3 to 12 tonnes. The less force involved, the faster the splitting motion.



12.1 Automatic speed valve

The splitting system is equipped with an automatic speed valve. It decreases the selected thrust, but shortens the total splitting time by about a third. As resistance increases, normal thrust is turned on automatically.

13 SPLITTING BLADE

For information on the applicable controls, see points 5B3-4 in Chapter 5 (p. 12-13).
NOTE! The splitting blade must be down when the log splitter is in the transport and storage position.

13.1 Lifting and lowering the splitting blac

Place the middle part of the log to the middle [illegible]ting and lowering (lever 5B on page 12).

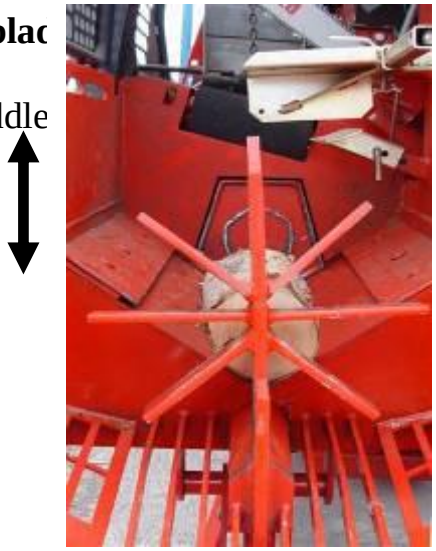


Figure 13.1

13.2 Replacing the splitting blade

STOP THE LOG SPLITTER BEFORE REPLACING THE SPLITTING BLADE!
WARNING! HANDLE THE BLADE WITH CARE!

Note that the blade must not be down when you remove the locking pin!

1. Lift the splitting blade and remove the locking pin (Figure 13.2a)
2. Lower the blade all the way down (5b3, p.12). This releases it from the adjusting joint. Grab the back of the blade from the operator's side.
Lift the blade off (Figure 13.2b).

To replace the blade, perform the steps in reverse order.

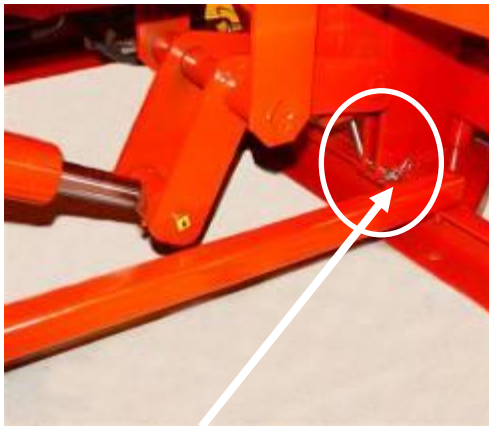


Figure 13.2a

Always hold the blade from the back, and never the sharpened side!

THE BLADE WEIGHS about 15 KG (4-part)

Figure 13.2b

14 TEST RUN

14.1 Testing the log splitter

The log splitter must always undergo thorough testing before it is used. Only a person who has read and understood the log splitter operation, maintenance, and safety instructions is allowed to carry out the testing and test run.

Before the test run, all the components of the log splitter must be checked. If any faults or wear that may affect the safe use of the machine is discovered, the log splitter must not be used until the faulty or worn component is replaced and safe use is ensured.

14.2 Carrying out the test run

14.2-a. Check that the log splitter's cutting and splitting guards are down.
14.2-b. Check that the input and output conveyors are in the applicable operating position.
14.2-c. Check that the cutting blade is up.
14.2-d1. Tractor-powered: Start the tractor and connect the output, starting with slow speeds and increasing the speed to a maximum of 300 RPM.
14.2-d2. Electrically-powered: Connect a cable to the log splitter socket, start the log splitter by pressing the Start (See Chapter 4.2, Start and stop buttons).
Note! When the surrounding temperature is below zero, run the log splitter for a while without any testing procedures to increase the viscosity of the log splitter's hydraulic oil.
14.2-e. Start the cutting blade by moving lever C into operating position c2 (see 5.C)
14.2-f. Check that the cutting blade lubrication works (see 20.11), **BE CAREFUL!**
14.2-g1. Check that the saw stops when you lift the cutting and splitting guards.
14.2-g2. Start splitting mode. Check that splitting stops when you lift the cutting and splitting guards.
14.2-h. Start cutting mode with the log splitter controls. (Lower and lift the cutting blade.) Check that cutting mode starts. Repeat the cutting blade action a few times.
14.2-i. Restart cutting mode and reverse the cutting direction half way by turning the cutting mode reverse lever once **(**see 5d**).**
14.2-j. Test the feed and return of the input conveyor **(**see C1, C3, and C4 **).**
14.2-k. Test that you can turn the output conveyor **(**see b1-b2**)** and change its speed **(**see 5i**).**
14.2-1. Test that you can lift and lower the splitting blade **(**see b3-b4**).**
14.2-m. Test the conveyor start and stop levers (see h1-h2).

If you discover any faults, even minor ones, during the test run, you must determine the cause and fix the problem before using the log splitter.

Note! Stop the log splitter and disconnect the tractor output or the electric power cable from the socket before determining and fixing the fault!

14.2.1 Safe operation of the output conveyor

When using the log splitter and the conveyor, you must monitor the conveyor and ensure that

- the conveyor belt keeps moving. If it stops, you can first try to use the start and stop levers (h1-h2) to raise the belt speed to the maximum. But this fails, stop the log splitter so that you can SAFELY determine what caused the belt stoppage and to fix the problem.
- the 1X42 Hydro log splitter must always be turned off when maintenance work is being carried out on the conveyor, or if you are removing pieces of wood, ice, snow etc. from the belt or frame.
- the conveyor frame and the top and bottom turnover rolls free of ice, snow, and wood residue.
- there is no snow, ice, or wood residue between the conveyor and the ground. If any exist, it must be cleaned as often as necessary to ensure that they do not cause damage or dangerous situations when the log splitter is in use.
- the conveyor is not positioned in such a manner that processed pieces of firewood can roll back into the splitting groove.
- pieces of firewood fall into the applicable containers, such as a platforms and cages, when leaving the conveyor.
- the firewood container does not become too full.
- there is at least a 50 cm (19.7 in.) between the pile of firewood and the tip of the conveyor.
- when moving the conveyor sideways the conveyor does not come into contact with any processed firewood, platforms, constructions, or buildings.
- when moving the log splitter slightly within the operating environment the conveyor is moved slowly so that no danger or damage is caused to the log splitter or the conveyor.
- the conveyor is in the transport position if it is being moved more than 5 metres (16.4 in.).
- NOTE! there is enough space above when the log splitter is moved so that the conveyor fully upright.

15 PROCESSING FIREWOOD

15.1 General information on firewood processing

A. You can start processing firewood once

15.1-A.1. You are familiar with all the functions of the log splitter.

15.1-A.2. You are familiar with all the instructions related to the operation, safety, and maintenance of the log splitter.

15.1-A.3. You are wearing protective clothing, including

- non-slip safety shoes
- tight-fitting gloves that allow you to take a tight grip of the logs
- tight-fitting clothes
- Avoid loose clothing as they can get caught in the moving parts and cause personal injury.
- appropriate face, eye, and hearing protection.

15.1-A.4. You have ensured that the operating environment is level and safe.

15.1-A.5. You have ensured that

- the air temperature cannot pose a risk to your health
- the snow or rain cannot pose a risk to your health or damage the log splitter
- the strong winds cannot pose a risk to your health or damage the log splitter during its use
- the lighting conditions whenever the log splitter is connected, used, transported, or stored are sufficient to prevent personal injury or damage to the machine.

B. When starting firewood processing, note that:

15.1-B.1. if the log splitter has been stored in temperatures below -10ºC (14 ºF), it will operate slowly at first.

In such a case, test the log splitter's cutting and splitting modes several times to ensure that the hydraulic oil becomes fluid and normal operating speed is achieved.

Note! Perform the test at slow speeds not exceeding 300 RPM.

15.1-B2. if the log splitter's hydraulic oil overheats for some reason, the machine must be stopped until the oil has cooled down.

15.2 Processing logs

15.2-1. Test the log splitter according to the instructions in Chapter 14.
15.2-2. Place the middle section of the splitting blade into the middle of the log, and specify the log length according to the instructions in Chapter 13.
15.2-3. Increase the speed to up to 500 RPM.
15.4-4. Select the logs that you want to process. **Note** that the diameter of the cutter opening is 42 cm (16.5 in.). Branches and the shape of the log may increase the log diameter.

WARNING! Logs must be fed into the log splitter so that it does not put the operator or machine at risk.
15.2-5 Turn the input conveyor control lever into the position where it feeds logs to the cutter (Chapter 5-c3). Once the log reaches the measuring device, stop the feeding. The log is now ready to be cut. If your log splitter is equipped with an optical measuring device, the input conveyor stops automatically.

WARNING! When feeding logs to the cutter on the input conveyor, make sure that the logs remain firmly on the conveyor. Adjust the conveyor speed to a safe level. When logs are fed to the cutter, the operator must stand next to the control console, never near the conveyor!

WARNING! When there are logs on the input conveyor, avoid getting your hands or other parts of your body caught between the wood and the parts of the log splitter.

WARNING! If a log hits the edge of the cutter opening or some part of the log splitter and stops moving, you must stop the conveyor and turn the conveyor control lever into the position where it brings the log back (Chapter 5.c1).

WARNING! If you need to remove a log from the input conveyor, make sure that it does not put the operator or machine at risk.

15.2-6. When the log stops for cutting, return the control lever to its initial position (Chapter 5-C0).

WARNING! Before cutting the log, check that its shape or branches are suitable for cutting and that no danger or damage will ensue.

NOTE!The saw must be on (the blade must rotate) before it is pressed against the log.

15.2-7. If the log is correctly placed on the input conveyor and its shape is safe for cutting, cut the log by holding the lever (5-C2) down until the log has been cut.

Figure 152

A cut log hits the log guide and is automatically guided into the correct position for the groove.

WARNING! Always check that the cut logs are positioned correctly for the groove (parallel).

16 NORMAL SPLITTING

Splitting mode is turned on when the cutting blade returns from its lowest position. You can also start the splitting mode by using the foot switch.

16.1 Fixing irregular log positions that prevent normal splitting

WARNING! If a fallen log is in an imbalanced, vertical, or some other position that makes splitting impossible, you must proceed as follows:

16.1-1. Open the splitter guard.

16.1-2. Correct the position of the cut log so that it can be split.

16.1-3. Close the splitter guard.

16.1-4. Restart splitting mode using the foot switch.

After splitting, feed more logs into the cutter and continue processing.

16.2 Removing logs from the cutting blade

16.2A Option A

A1. Cancel the cutting by pushing the reversing lever quickly in the reverse position (5.d1) so that the splitting beam returns to its initial position.
A2. WARNING! Stop the log splitter to prevent serious personal injury!
A3. Open the splitting guard.
A4. Remove the log from the blade by hitting it with a blunt instrument from the direction of the output conveyor. The purpose is to return the log to the splitting groove.
WARNING! Removing logs from the splitting blade must be done so that it does not put the operator or machine at risk.

16.2B Option B

B1. Cancel the cutting by pushing the reversing lever quickly in the reverse position (5.d1) so that the splitting beam returns to its initial position.
B2. Open the splitting guard.
B3. Place a considerably smaller and shorter log in the splitting groove between the splitting beam and the stuck log.
B4. Close the splitting guard.
B5. Start splitting mode with the foot switch.

WARNING! Never use Option B if the log is stuck on the blade in a slanted position or entirely sideways. REASON: The smaller log that is placed in the splitting groove may suddenly get plunged into the guards and cause damage or personal injury.
A slanted or sideways stuck log must be removed using a blunt instrument.

16.3 Cutting the last piece of a log

WARNING! Before cutting the last piece of a log, you must make sure that the log remains steadily on the input conveyor for the entire cutting duration.

If the last piece of a log is not large enough to make a whole piece of firewood, leave the last full-sized piece on the input conveyor and the undersized part on the splitting groove. Cut the log.

When the last piece is on the input conveyor, feed it to the splitting groove and start the splitting mode with the foot switch.

16.4 Re-splitting logs

a. Lift the splitting groove guard up.
b. Place the log you want to re-split in the splitting groove.
c. Close the splitting groove guard.
d. Start the splitting mode with the foot switch.

17 FINISHING WORK

a. After you have finished making firewood, remove the logs from the splitting groove and conveyor carefully.
b. Place the conveyor in a position where the conveyor and log splitter can be moved safely off the processed firewood without any risk of injury or damage.
c. Use the tractor's hydraulics to hoist the log splitter and use the tractor to move it to a location where you can place the input and output conveyors into their transport and storage position.
d. Place the conveyor into the transport and storage position.
e. Stop the log splitter.
f. Clean the log splitter.

18 TRANSPORTING THE LOG SPLITTER

When using a tractor to transport the log splitter make sure that

NOTE! The splitting blade must be down when the log splitter is in the transport and storage position.

- the input and output conveyors are in the transport position
- that the transportation height and width of the log splitter is safe so that it or the conveyors do not hit any buildings, structure, trees, or similar
- the transportation speed is at a safe level
- no extra weight is placed on the log splitter
- if you stop during transport - even for a little while - the log splitter must be lowered to the ground.

19 STORING THE LOG SPLITTER

- Clean the log splitter of any wood and snow residue before placing it into storage. Make sure that the log splitter is stopped before carrying out any cleaning procedures.
- Check that there are no oil leaks before placing the log splitter into storage.
- Store the log splitter in a space with a roof. If you store it outdoors, cover the log splitter with wind and snow proof material.
- Store the log splitter in the transport position on level ground so that the machine cannot topple over. Never store the log splitter on slanting ground!
- Store the log splitter in a location where nothing can crash into it by accident.

20 LOG SPLITTER MAINTENANCE

NOTE! Read the log splitter's terms of guarantee on the last page and remember that it is forbidden to use a faulty machine.

20.1 Maintenance of the cutting and splitting guards

- Keep the guards undamaged
- Make sure that the log splitter's functions (cutting, splitting) stop when the cutting or splitting guards are opened.

If the functions do not stop or start:

- Determine the cause of the malfunction and, if necessary, contact the manufacturer or an authorised mechanic according to the terms of guarantee.
- Manufacturer's contact information:

Maaselän Kone Oy
Valimontie 1
FI-85800 Haapajärvi
Finland
Tel. +358 8 772 7300
Fax +358 8 772 7320
email: info@maaselankone.fi
www.maaselankone.fi

WARNING! DO NOT USE A DEFECTIVE LOG SPLITTER!
Remember lubrication! The maintenance of the lubrication nipples and other targets of the 1X42 log splitter that need to be greased!

20.2 Maintenance of the optical log measuring device

Note! The optical measuring device is optional.

Keep the power cord of the measuring device undamaged and its socket clean

Always clean the eye of the light beam transmitter and the back-reflecting sticker of the measuring device before using the log splitter

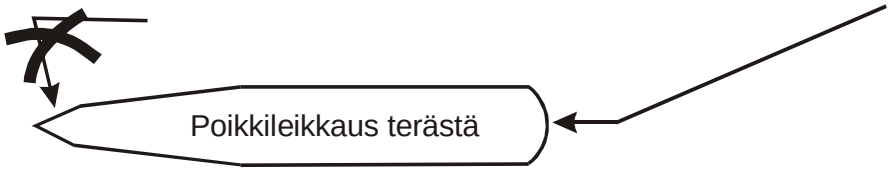
Figure 202

20.3 Maintenance of the splitting blade

Keep the splitting blade sharp and when processing wood, make sure that there isn't any material on the wood that may damage the blade.

Always wear gloves when handling the blade!

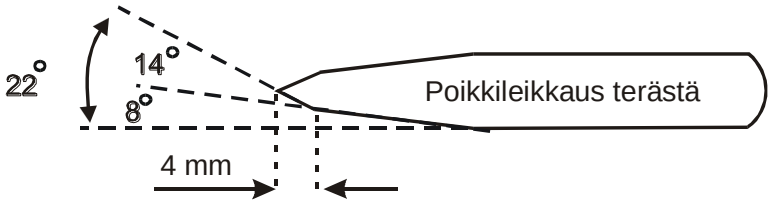
WARNING! Always hold the blade from the back, and never from the sharpened side!



20.3.1 Sharpening the splitting blade

Remove the blade from the splitting groove, see Chapter **"Removing the blade".**

Place the blade in a location where you can safely sharpen it. If you start the sharpening with a grinder, shield your eyes and carry out the sharpening so that the blade does not overheat.
Finish the sharpening with a file and make the bevels according to the figure.



20.4 Maintenance of the input conveyor

Make sure that the input conveyor's lock works when the conveyor is in the transport position

Check the belt's tightness when the conveyor is in the working position. The belt is tight enough when it is able to transport a log.
If the belt is too tight, it wears down faster and reduces machine

Figure 204a

- Adjusting the belt's tightness:
The tightness is adjusted with the screws at the end of the conveyor.

- The correct position of the belt in relation to the frame and the folding rolls:
The belt should roll in the middle of the frame and the folding rolls.

If the belt is crooked on one side, it should be adjusted to the middle of the frame and the folding rolls by tightening the adjustment nut on the side to which the belt is being pulled, or the other way around, by loosening the nut on the side to which the belt should go.

Always check the condition of the conveyor winch and pulley belt before using the machine.


Figure 204b

20.5 Adjusting the tightness of the output conveyor's belt and other maintenance

Stop the machine for maintenance.

The belt must always be tight enough to be able to convey the processed firewood from the splitting groove.

If the belt is too tight, the log splitter's machine power is reduced, the belt becomes strained and its operating life shortens.
The adjustment of the belt is spring-loaded.

The belt's tightness can be adjusted by adjusting a screw (Figure 205a).
First remove the protective plate.
NOTE! Remember to check the tightness on both sides.

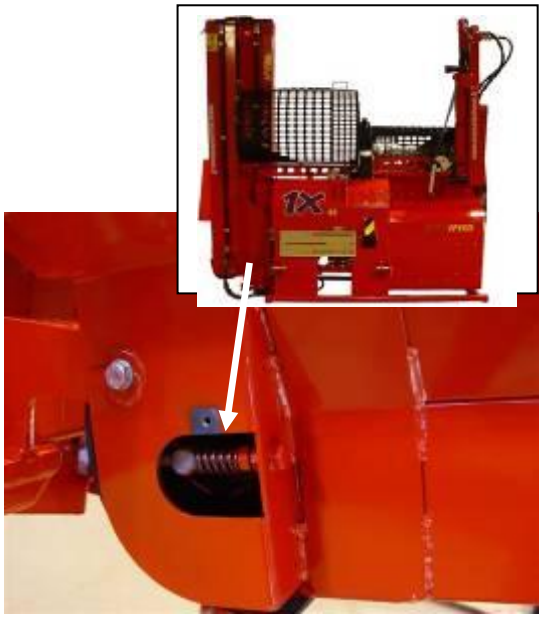


Figure 205a

Make sure that the belt goes in the middle of the frame and the turnover rolls. If the belt gets pulled to the side, tighten it with the adjustment screw on the side to which the belt is pulled, or loosen the opposite side.

Make sure that the locking of the transport and storage position of the conveyor works.

Check that no oil leaks into the environment out of the conveyor's hydraulic system.

Lubricate the bearing of the upper part's turnover roll every 100 service hours. The bearings of the turnover rolls of the lower part are self-lubricated.

Also remember other parts that need lubrication, for example the lubrication nipple of the shaft of the output conveyor's lateral turn (Figure 205b)!

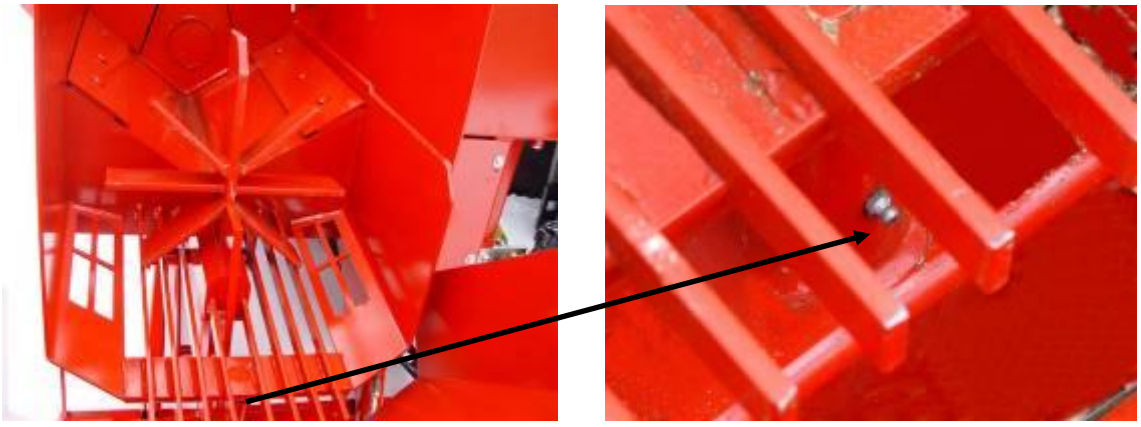


Figure 205b

20.6 Maintenance of the cutting flange and blade

Always wear gloves when handling the cutting blade. NOTE! THE MACHINE MUST BE TURNED OFF AT ALL TIMES WHEN CARRYING OUT MAINTENANCE!

20.6.1 Tightening and changing the flange, blade chain

To make the job easier, you may turn the blade guard.
Remove the two screws from the input and output conveyors' side, indicated by arrows, and turn the blade guard to the position shown in the figure.
Disconnect the machine from the tractor and power supply.

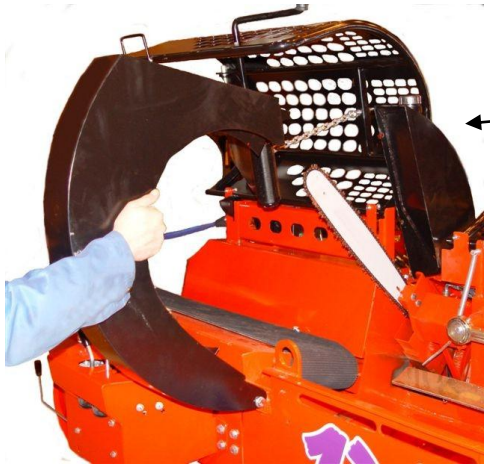


Figure 2061a

Tightening: Loosen the blade flange's fastening bolts (2 pcs), indicated by the arrows, and tighten the screw in the direction of the flange with a chisel head screwdriver, until the blade chain is tight enough that you can see three slot teeth when lifting the chain from the middle (Figure 2016c).

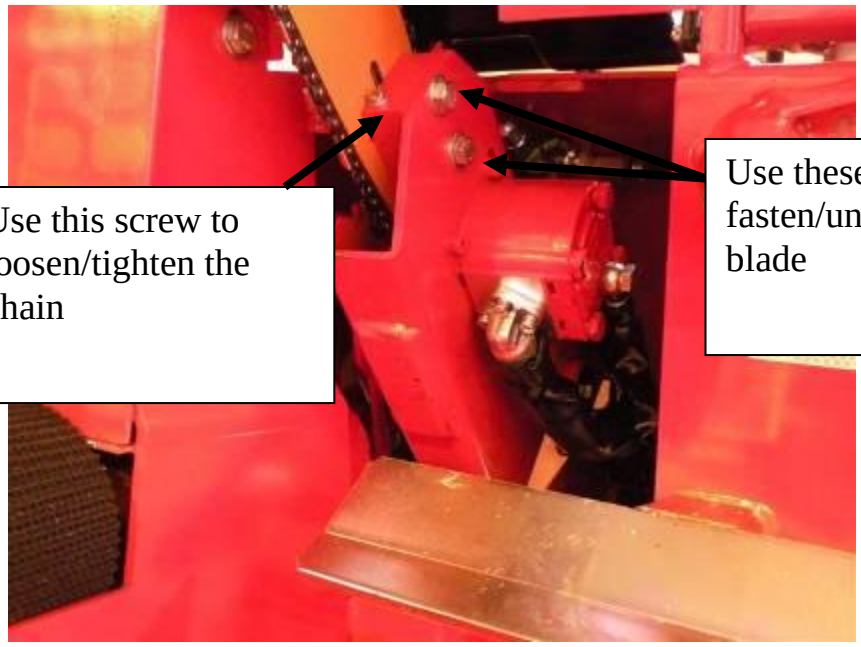


Figure 2061c

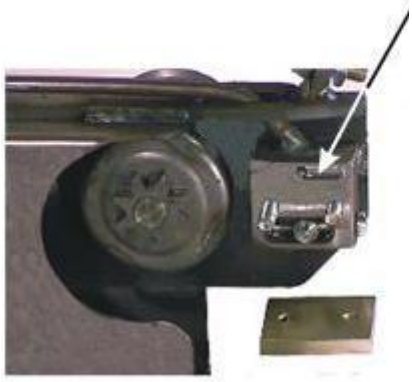


Figure 2061c

The oil channel must be kept clean:
Remove visible dirt and check that oil flows from the channel (start the machine and rotate the "cutting flange" by lowering it).

The correct tightness of the chain:
When pulling the chain slightly, three slot teeth are revealed from their slot.

20.6.3 Installing the chain and the flange

1. Adjust the chain to the flange
Note! The right way

2. Put the chain onto the chain wheel and the flange into the tightening pin as well as to the flange fastening bolts

3. Put the blade batten to the flange fastening bolts and twist the bolts almost to the end

4. Tighten the chain sufficiently from the tightening bolt (Figure 2061b)

5. Tighten the fastening bolts of the flange sufficiently while holding the flange up.

Figure 2063

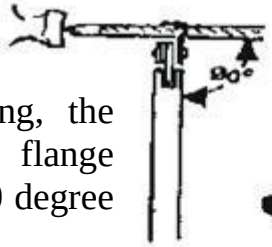
20.7 Sharpening the blade chain

When sharpening, avoid making the following mistakes:

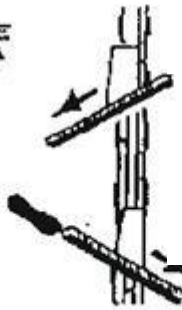
The file is too small

The lowering measure is too big

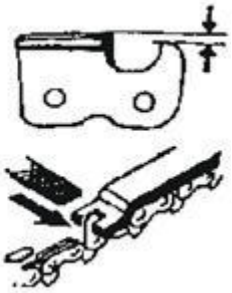
The lowering measure is too small



When filing, the chain and flange are in a 90 degree angle



Remember the correct filing direction!

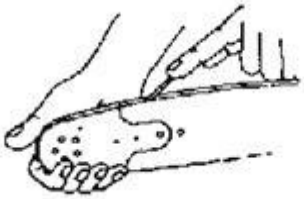


The correct lowering measure is 0.65 mm

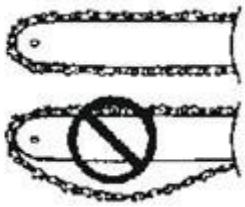
20.8 Maintenance of the flange

Carry out maintenance on the flange when necessary

Remove twists from the flange with a flat file



Clean the flange groove and the lubricating oil channel



Keep the chain at the correct operation tightness so that the flange does not wear

20.8 Lubrication

Hydraulic oil
Container capacity 65 L
Oil type, for example Neste 32 Super

The hydraulic filter is located next to the filling hole of the hydraulic oil, behind the protective cage, see Figure 20111

Change the hydraulic oil filter
once every working season
Order numbers:

97348 Filter insert
97349 Complete filter

IMPORTANT!

Other lubrication targets are
marked with little, yellow stickers.
Add vaseline to the marked spots
every 100 hours.

20.11.1 Lubricating the blade chain

The log splitter is equipped with automatic blade chain lubrication.

The automated system dispenses oil onto the blade chain only when the log splitter is used. Always use appropriate oil to lubricate the blade chain.

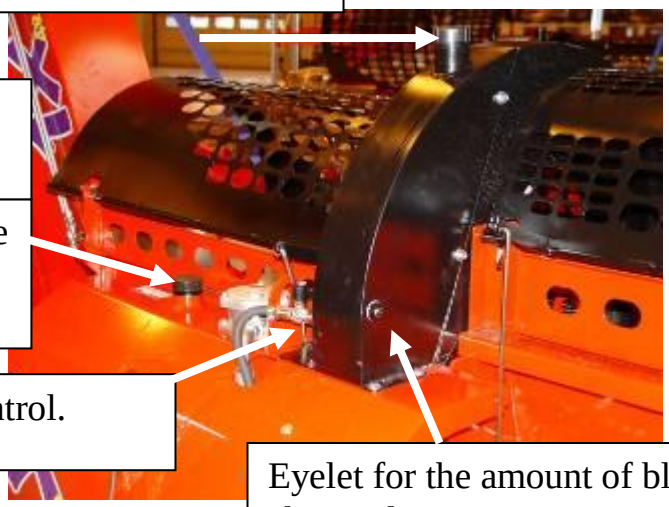


Figure 20111

Note! The air temperature affects the viscosity of the oil and, therefore, also the amount of oil that is released to the flange.
The correct amount of oil released to the flange:
If the flange heats up and there is smoke when cutting wood, add more oil. If you can see oil splashing from the blade chain to the guards, reduce the amount of oil.

20.11.2 Angle transmission oil

for example EP 80 / 90
The oil check eyelet is behind the angle transmission. There is enough oil in the angle transmission if oil spills out from the eyelet.

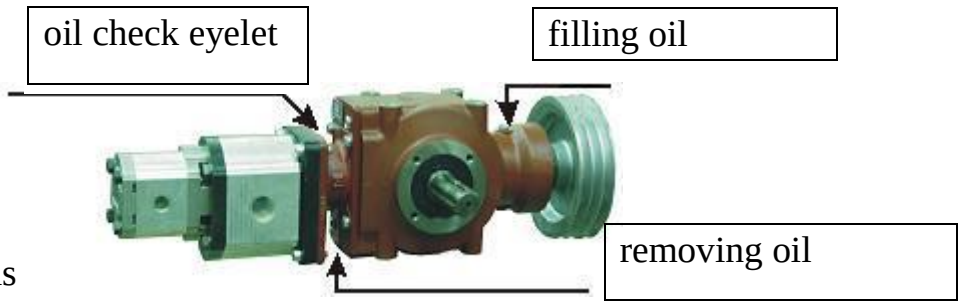


Figure 20112

20.12 Operation of the cutting mechanism

1. Drive end down, trigger bar (Figure 2012b) locks to the roll of the drive end (white arrow)

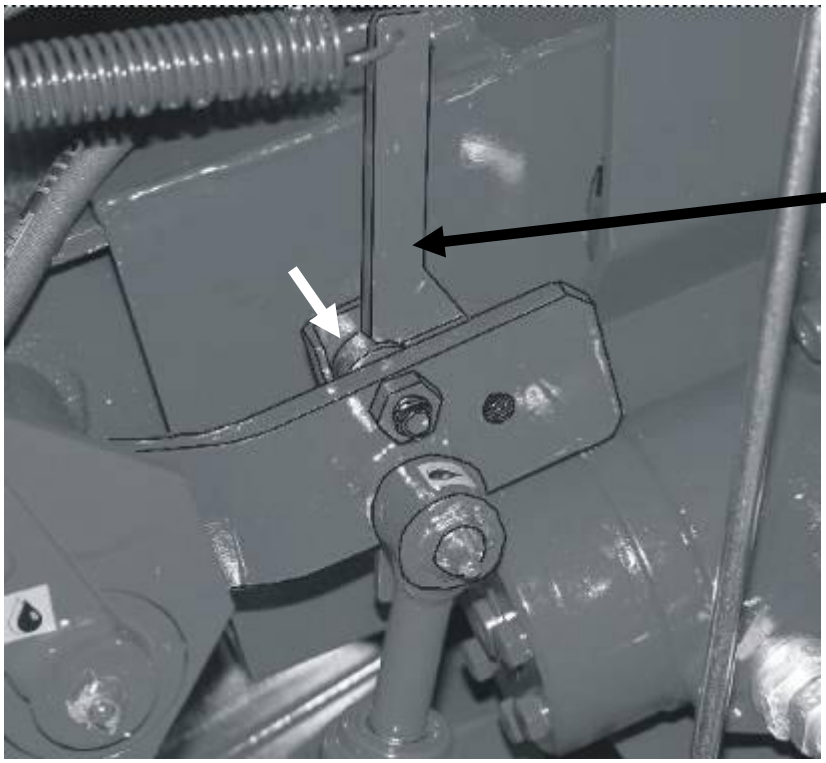


Figure 2012a

Figure 2017b

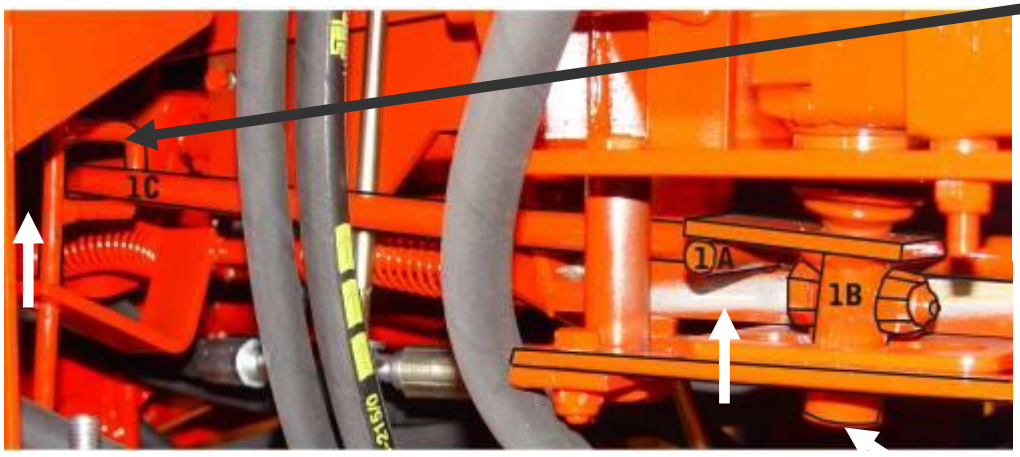


Figure 2012c

2. Drive head up, the trigger bar (Figure 2012b) lifts the starting lever (1C) and the starting lever disc (1A) turns the splitting valve push rod (1B) into the splitting position (Figure 2012d).

2b. The cutting flange has been lifted to the upper position, the trigger bar (Figure 2012b) has used the starting lever, whose disc has moved the push rod into the splitting position (Figure 2012d) (the starting lever (Figure 2012e) has been lowered to the free position along with the trigger bar (Figure 2012f)) and the slide has gone into motion.

2012d

Figure 2012f

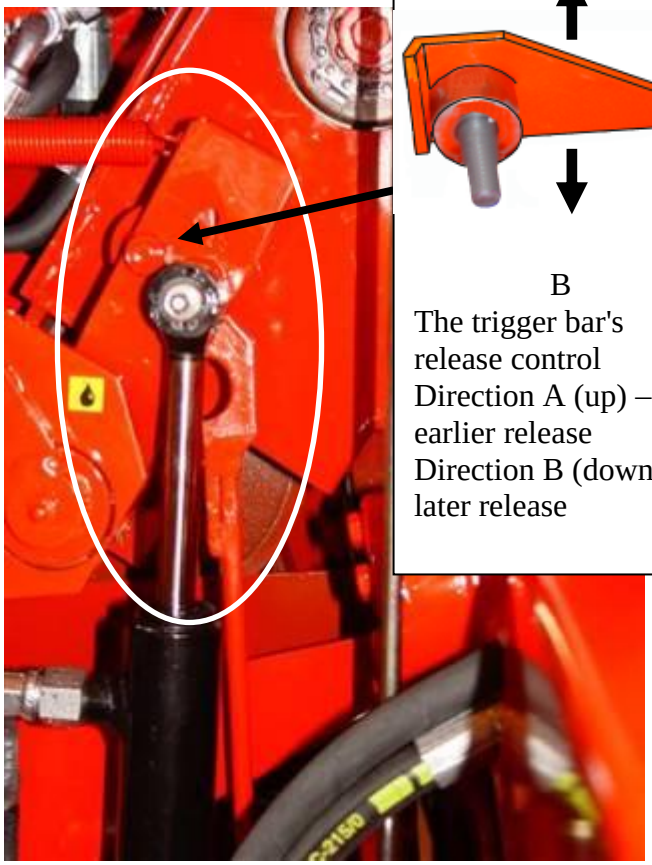


Figure 2012e

2c. The slide has reached its extreme position and the slide rod (Figure 2012g) has used the return shaft (Figure 2012h), which has moved the push rod to the reversing position (Figure 2012i).

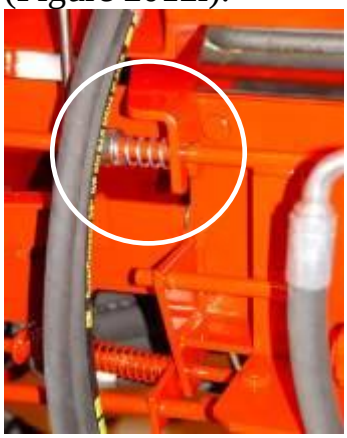
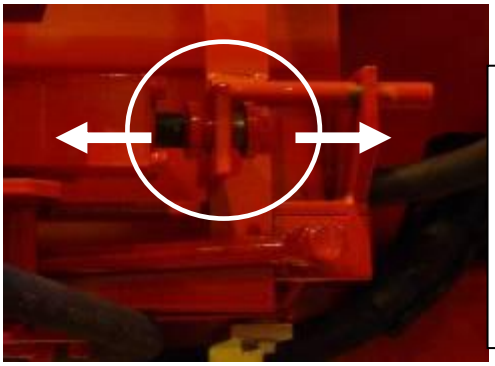


Figure 2012g



Return shaft
Left arrow: slide return
Right arrow: push rod to the middle position

Figure 2012h

Figure 2012i

2d. The slide has returned and the slide rod (Figure 2012j) has moved the push rod back to the initial position.

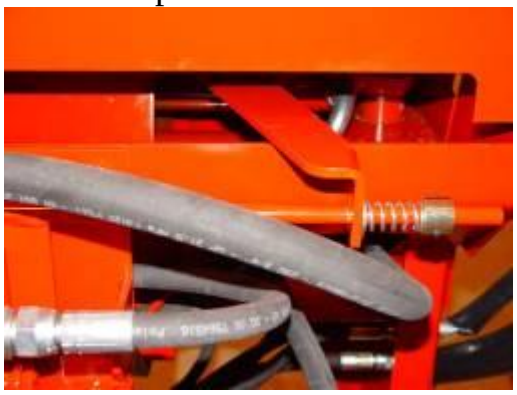


Figure 2012j
the slide in its initial position

Figure 2012k
The initial position of the push rod

20.13 The safety mechanism of the log splitter

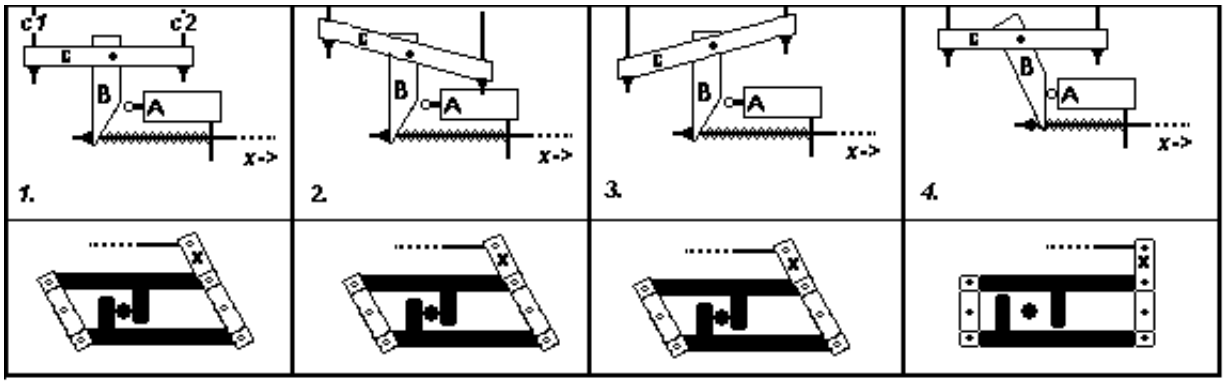


Figure 2013

In Figure 1 the protective cages of the cutter and the splitter are up and the bars c1 and c2 are hanging down freely; in this situation the ball shaft is out and the hydraulic functions are inoperable.

In Figure 2 the protective cage of the splitter is down and that of the cutter is up, c1 is tight, but c2 is hanging freely. The ball shaft is out and the hydraulic functions are inoperable.

In Figure 3 the protective cage of the cutter is down and that of the splitter is up, c2 is tight, but c1 is hanging freely. The ball shaft is out and the hydraulic functions are inoperable.

In Figure 4 both protective cages are down, level rod B is turning to the right, when looking from the behind of the log splitter, pushing the ball shaft in. If bars c1 and c2 are not tight enough, level rod B does not turn far enough and the hydraulics of the machine do not work. How to fix: tighten the screws at the ends of both bars, until the ball shaft reaches the base.

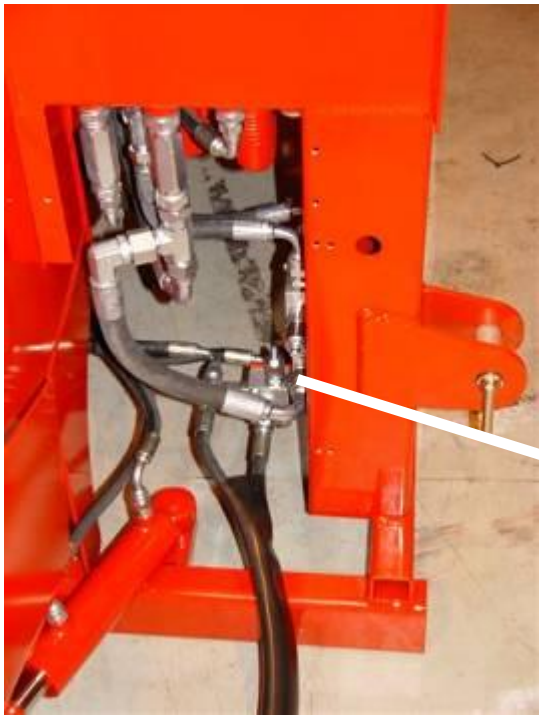
The operating lever of the safety mechanism of the splitting valve is marked as bar X in the figures. As level rod B pushes the ball shaft to the base, bar X moves to the right, when looking from the behind of the log splitter, and releases the push rod from safety locking into operating position.

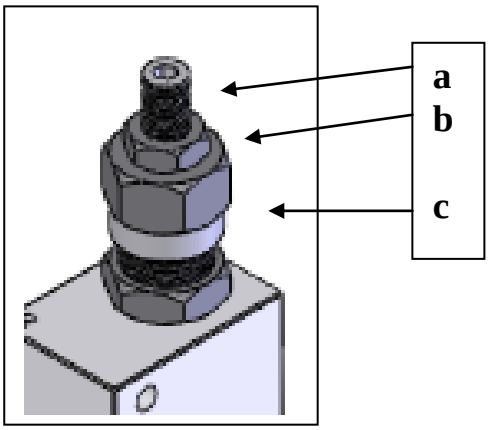
If the safety mechanism does not open, even though both protective cages are down, tighten the attachment point screw of bar X in the lower part of rod B.

Below the first figures are the figures of the safety mechanism of the splitting valve. In Figures 1-3 the pushing rod of the splitting valve is security-locked, and in picture 4 it is in operation, because rod B has moved bar X to the right and shifted the safety mechanism into the operation position.

20.15 Increasing the force of the output conveyor

Release the locking screw b (hold the stem of the valve with the other wrench, c).
Twist the shaft with a hex key, a, ¼ of a turn at a time clockwise (downwards) in order to increase force.
Test. If the force is still not enough, add another ¼ of a turn.
If you want to decrease force, twist the shaft counterclockwise (upwards).
Tighten the locking screw.





Figures 20151

20.16 Increasing the force of the input conveyor

Increasing the force of the input conveyor is carried out in the same way as that of the output conveyor, see Chapter 20.15.

The location of the adjustment valve is behind the machine, to the left of the valve mechanism (Figure 20161).

Figure 20161

20.17 Adjusting the length of the splitting motion

A. Open the guard of the valve mechanism behind the splitter:

The guard is hinged on the left brim and attached to the frame with two 13 mm bolts (below the input conveyor's locking device). Remove the bolts and open the guard.

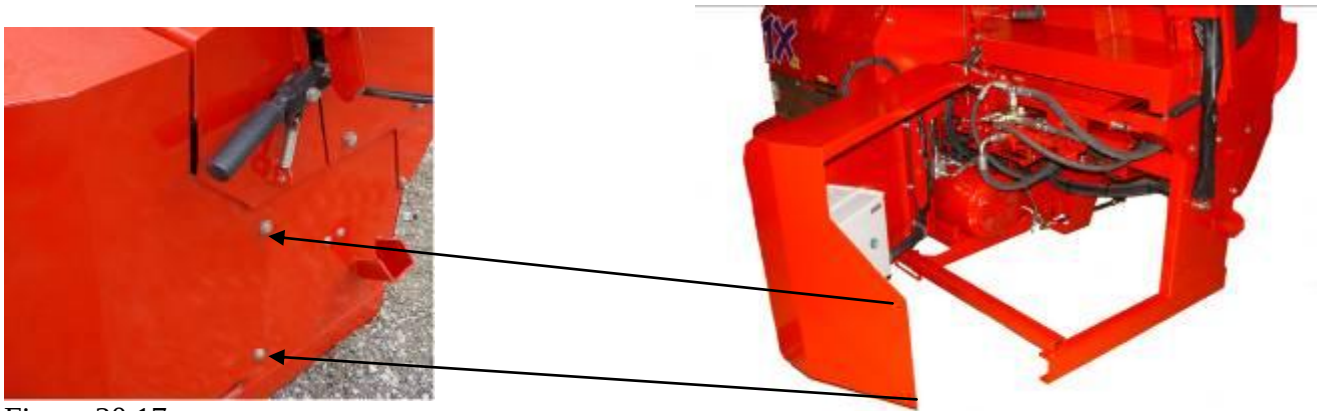


Figure 20.17a

You can adjust the initial position of the splitting bar, as well as the starting point of its reversal motion, by adjusting the retainer bushing of the bar of the splitting motion guard behind the machine.

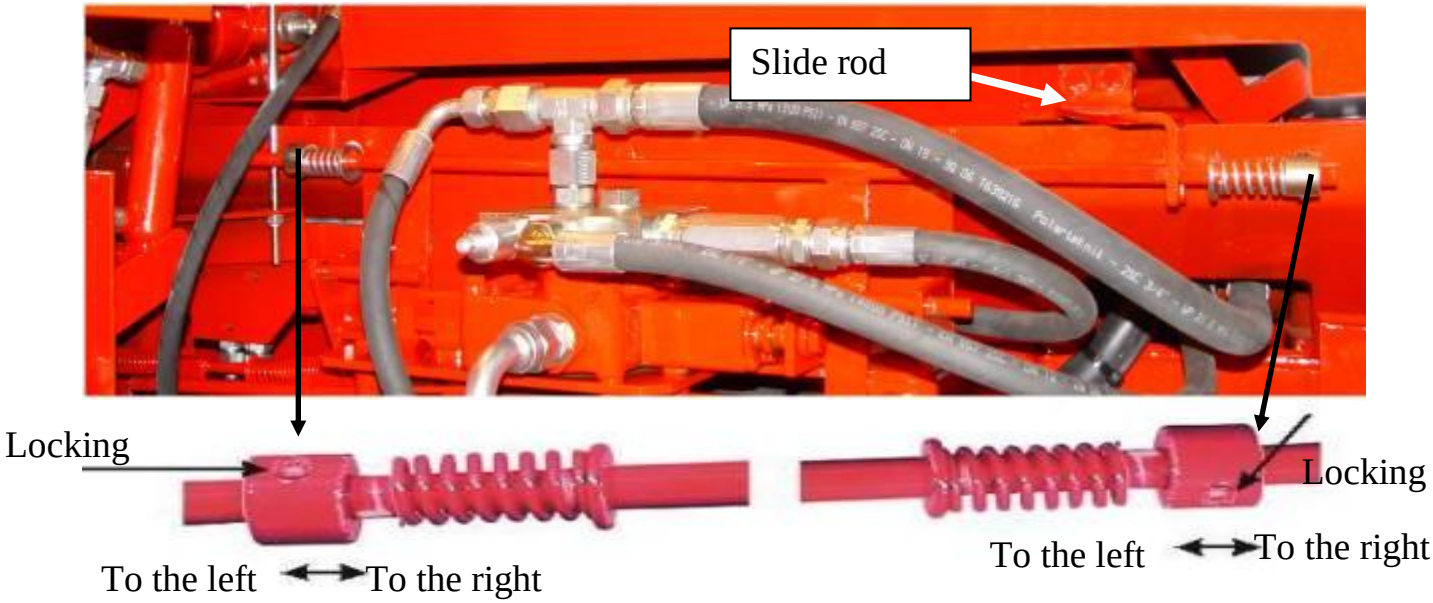


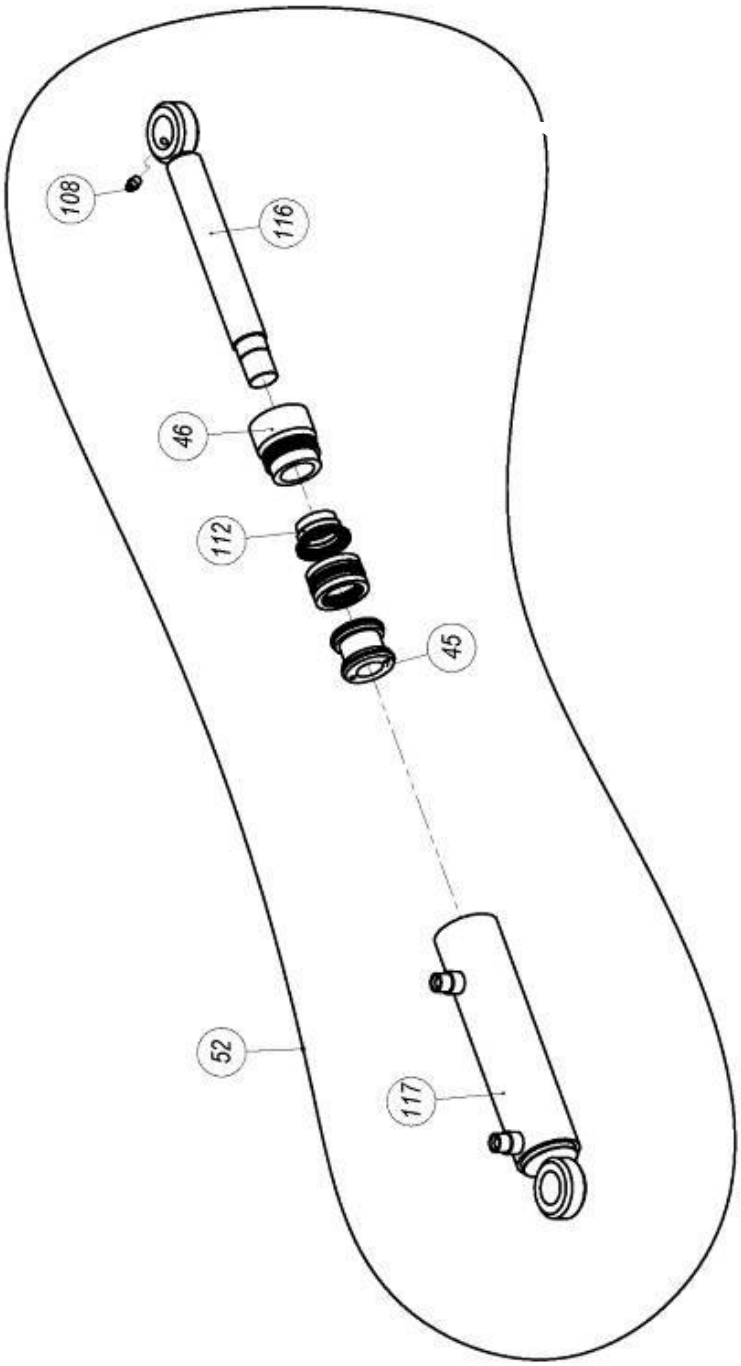
Figure 2017b

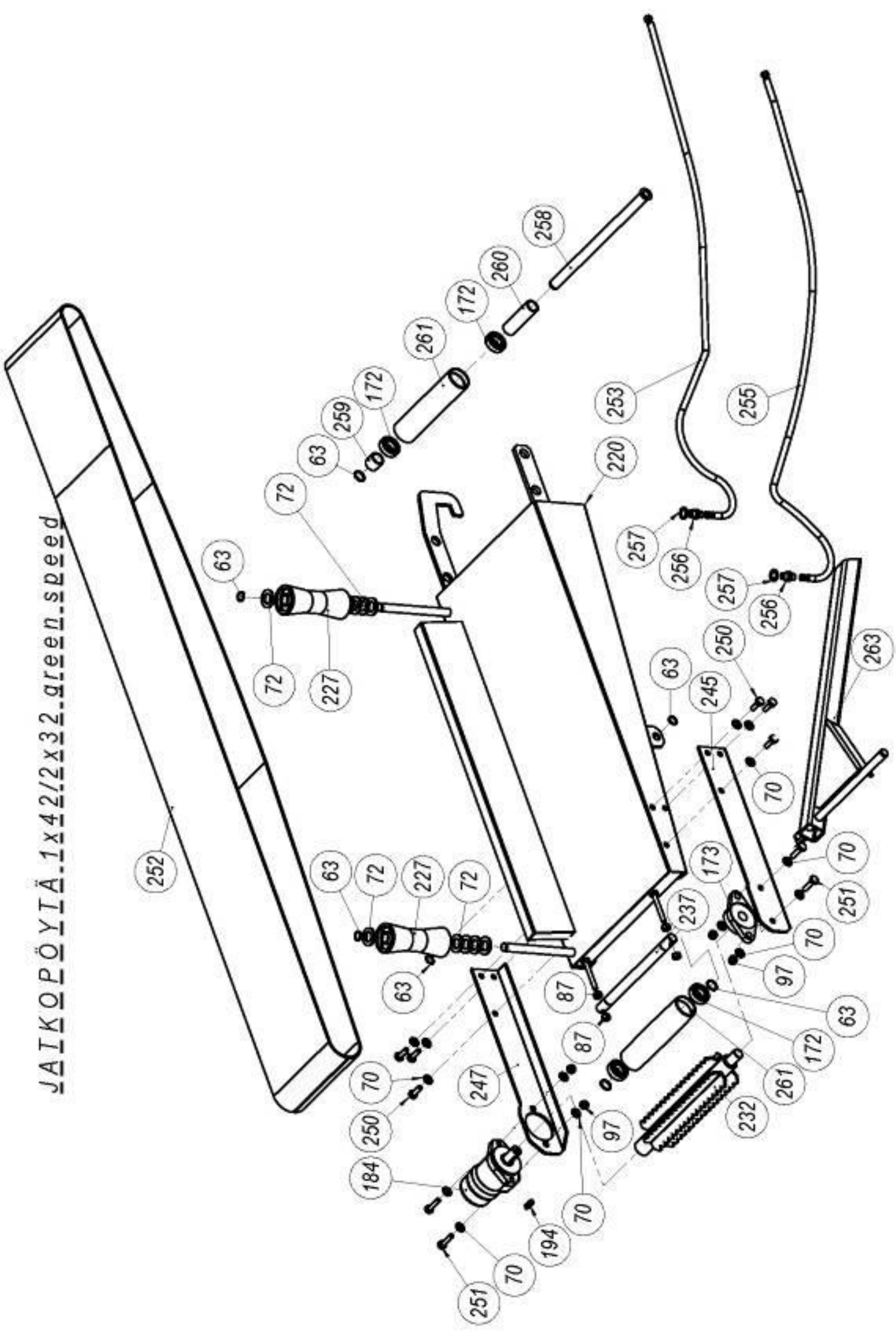
B. Adjusting the bushings of the splitting motion guard

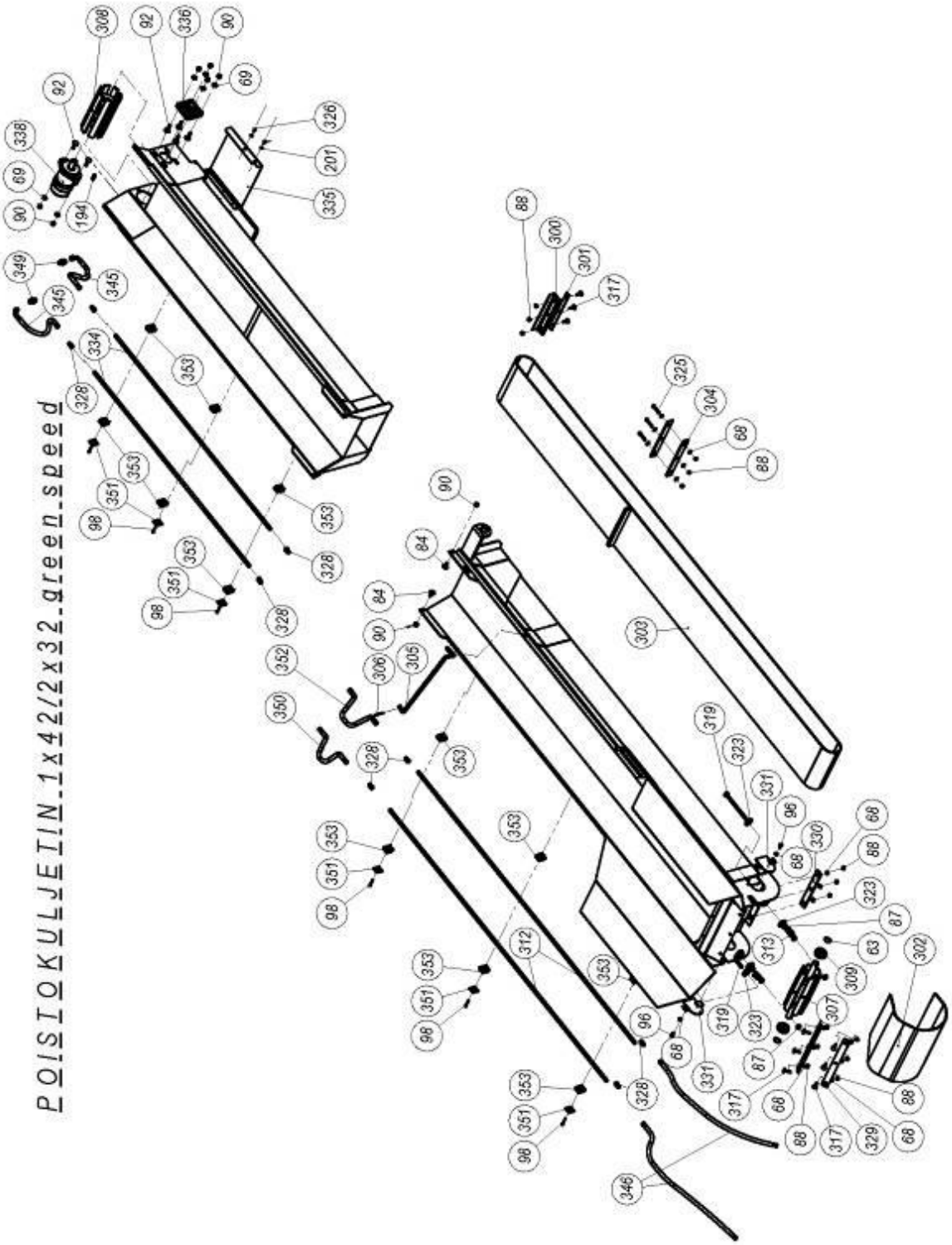
Left bushing::
Shifting to the left:
Returning the bar is moved to a later stage
Shifting to the right:
Returning the bar is advanced

Right bushing:
Shifting to the left:
Returning halts sooner
Shifting to the right:
Returning halts later

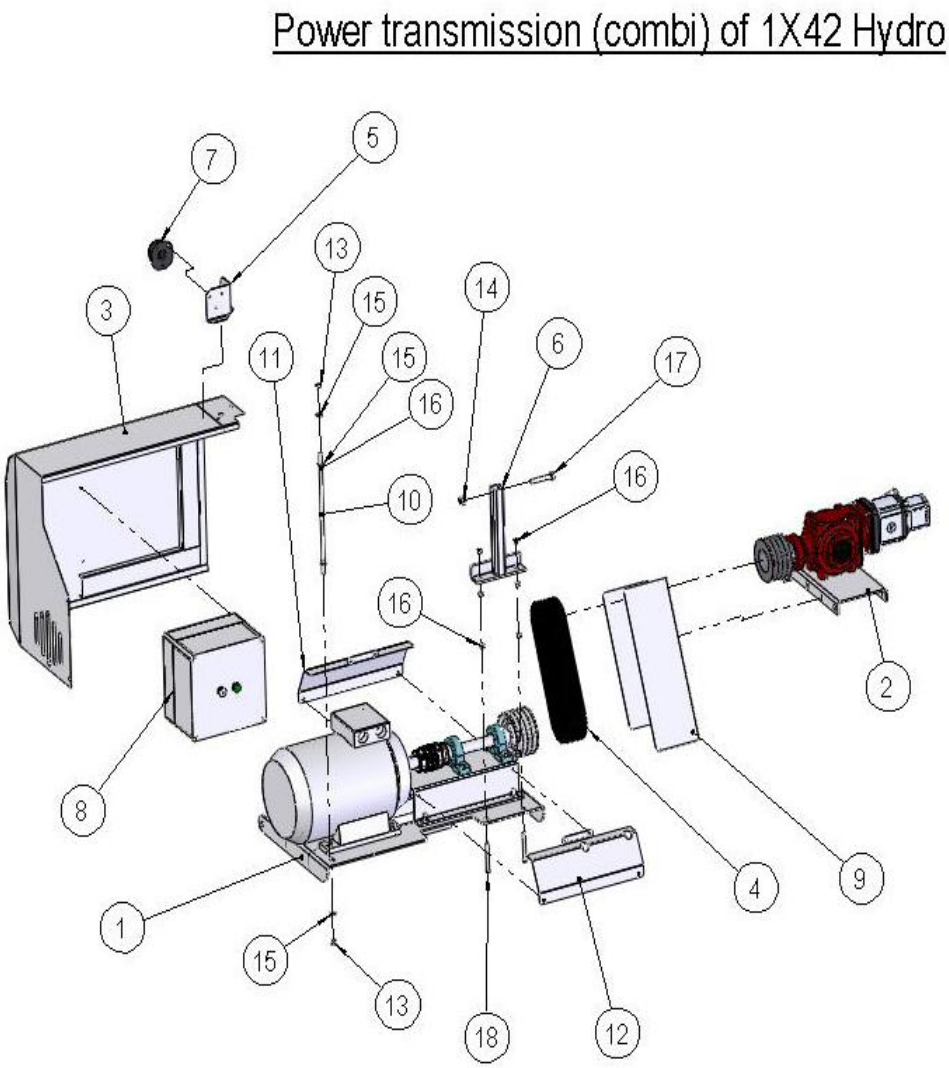
KULJETTIMEN.KÄÄNNÖNSYLINTERI.1x42/2x32.




JATKOPÖYTÄ.1x42/2x32.green.speed


POISTOKULJETIN_1x42/2x32_green_speed

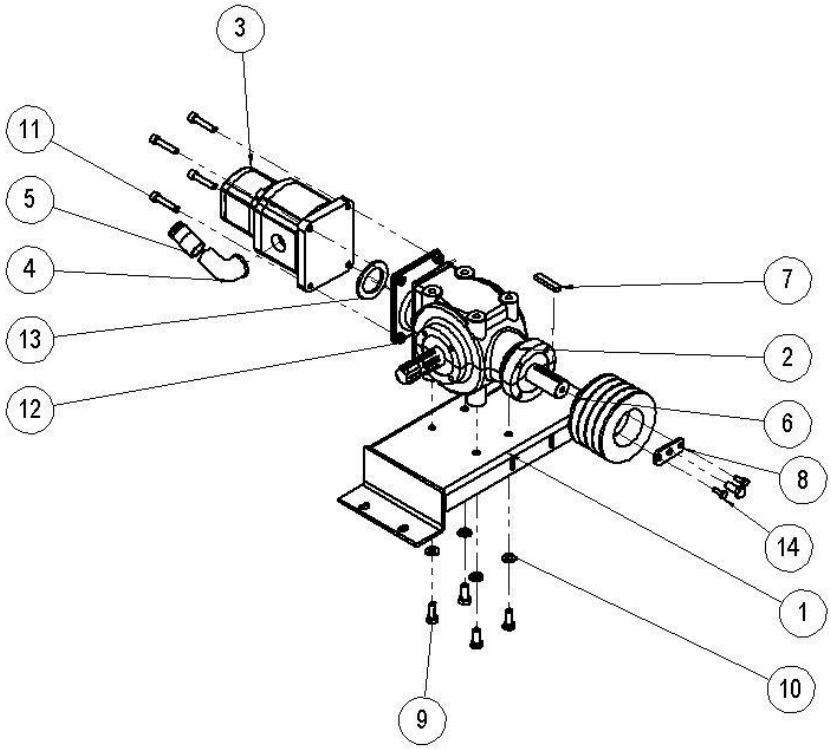
Power transmission (combi) of 1X42 hydro



Nr.	Part number	Pcs
1	61316_Motor and extension shaft	1
2	61313_Angle transmission and pump (Combi)	1
3	61280_Valve gear guard	1
4	95479_Chock belt B40	4
5	61312_Tractor socket clamp	1
6	61295_Housing clamp support	1
7	95201_Socket assembly	1
8	95157_Starter cover 15 kW	1
9	61309_Belt Guard	1
10	61285_Support bar	1
11	61310_Shaft guard front	1
12	61311_Shaft guard back	1
13	96218_Locking nut DIN 985 M12	2
14	96219_Locking nut DIN 985 M16	1
15	96058_Bottom plate DIN 125 A12	4
16	96200_Hex nut DIN 934 M12	8
17	96118_Hexagonal screw DIN 931 M16x90	1
18	96151_Hexagonal screw DIN 933 M12x100	2

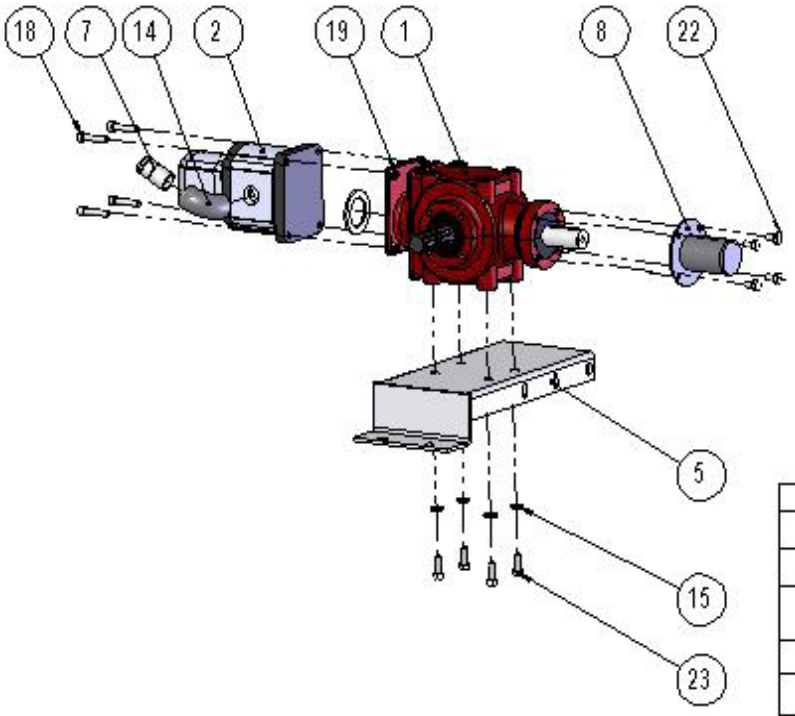
Assembly of the angle transmission and hydraulic pump (Combi)

61313_Angle transmission and pump (Combi)



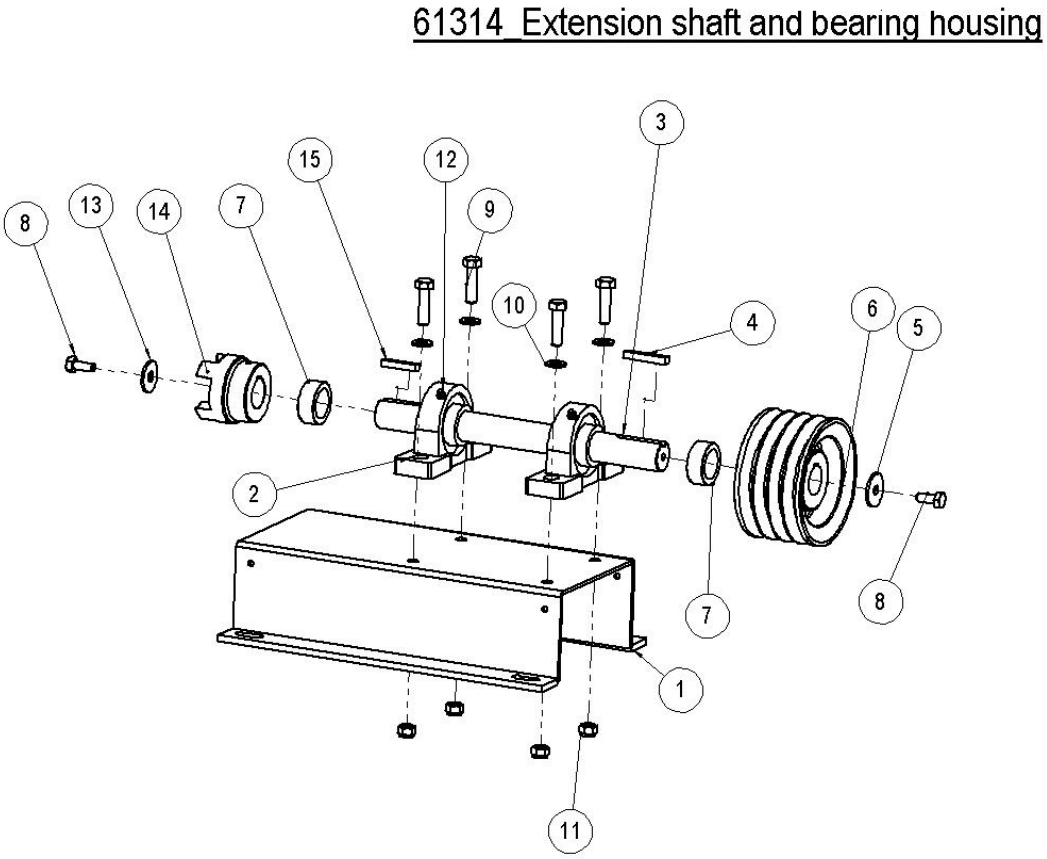
Nr	Part number	Pcs
1	61252_Angle transmission housing on the 42 hydraulicsaw	1
2	95173_Anfle transmission (BigX, 2061)	1
3	97326_Hydraulic pump	1
4	97432_3,4 curve	1
5	47112 C_Nipple	1
6	95123_Angletransmission belt pulley 4B132	1
7	47837_Chock 10x8-55	1
8	47604_Belt pulley fastening rod	1
9	96146_Hexagonal screw DIN 933 M12x30	5
10	96058_Bottom plate DIN 125 A12	4
11	96011_Hexagonal socket head screw 12.9 DIN 912 M10x50	4
12	96068_Locking nut DIN 985 M10	4
13	baffle board for the angle transmission	1
14	96130_Hexagonal screw DIN 933 10.9M8x20	2

Power transmission of a tractor-powered 1X42 hydro log splitter



Nr	Part number	Pcs
1	95173_Angle transmission (BigX, 2061)	1
2	97326_Hydraulic pump	1
5	61252_Angle transmission housing on the 42 hydraulic saw	1
14	97432_3/4 curve for the pump	1
7	47112 C_Nipple	1
8	47607_Angle transmission top	1
15	96058_Bottom plate DIN 125 A12	4
23	96146_ Hexagonal screw DIN 933 M12x30	4
18	96011_Hexagonal socket head screw 12.9 DIN 912 M10x50	4
19	96068_Locking nut DIN 985 M10	4
22	96138_Hexagonal screw DIN 933 M10x20	4

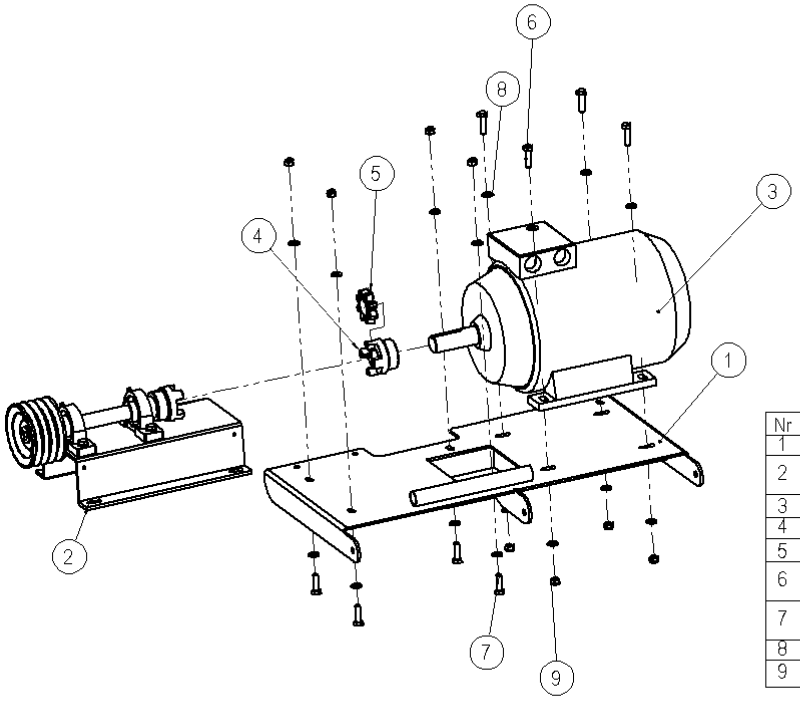
Bearing housing and extension shaft of the electric motor (combi)



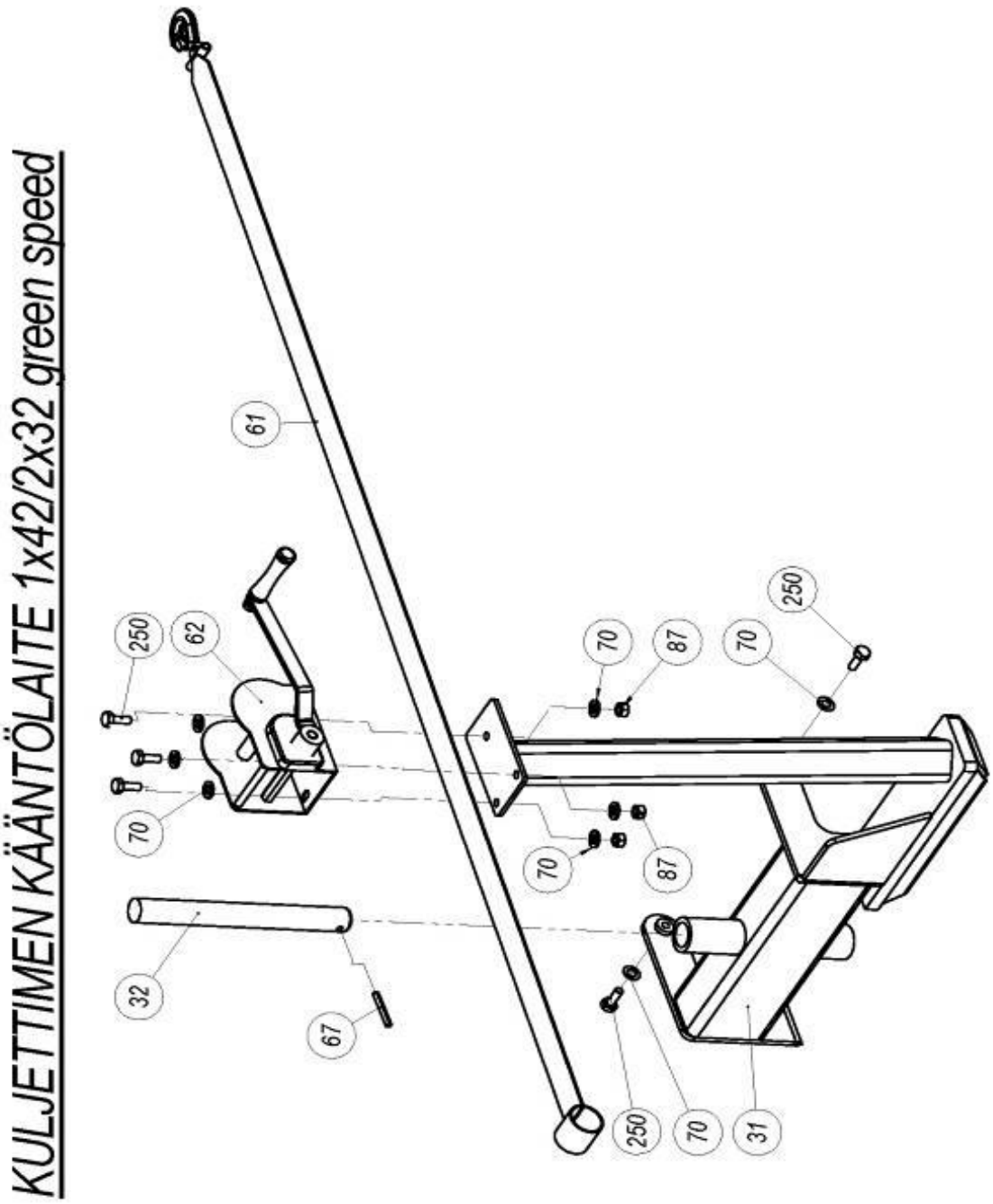
Nr	Part number	Pcs
1	61288_Bearing housing	1
2	95058_Bearing unit UCP207	2
3	61284_Shaft	1
4	47837_Chock 10x8-55	1
5	10492_Washer	1
6	95478_V-belt pulley SPB 140-4	1
7	34039_Bushing D50-35.5-20	2
8	96139_Hexagonal screw DIN 933 M10x25	2
9	96149_Hexagonal screw 933 M12x45	4
10	96058_Bottom plate DIN 125 A12	4
11	96218_Locking nut DIN 985 M12	4
12	96276_Lubrication nut M8X1	2
13	96340_Plate DIN 9021 M12	1
14	Switch, shaft side	1
15	48038_Chock	1

Assembly of the electric motor (combi)

61316_ Motor and extension shaft



Nr	Part number	Pcs
1	61281_Electric motor housing	1
2	61314_Extension shaft and bearing housing	1
3	95043_Motor 15 kW	1
4	95477_Switch package D42-D35	1
5	95113_Switch rubber	1
6	96149_Hexagonal screw DIN 933 M12x45	4
7	96148_Hexagonal screw DIN 933 M12x40	4
8	96058_Botto plate DIN 125 A12	16
9	96218_Locking nut DIN 985 M12	8


KULJETTIMEN KÄÄNTÖLAITE 1x42/2x32 green speed
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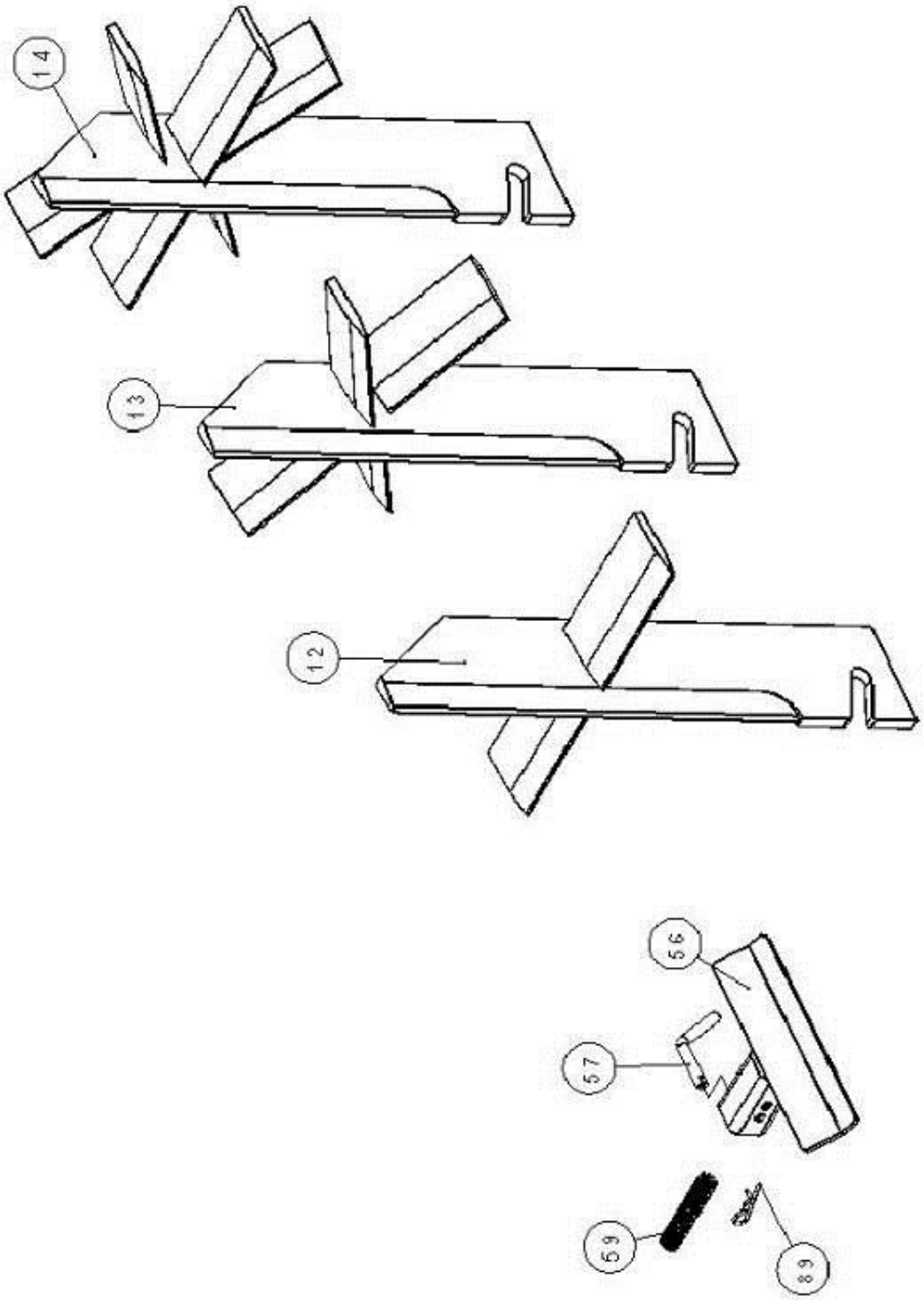
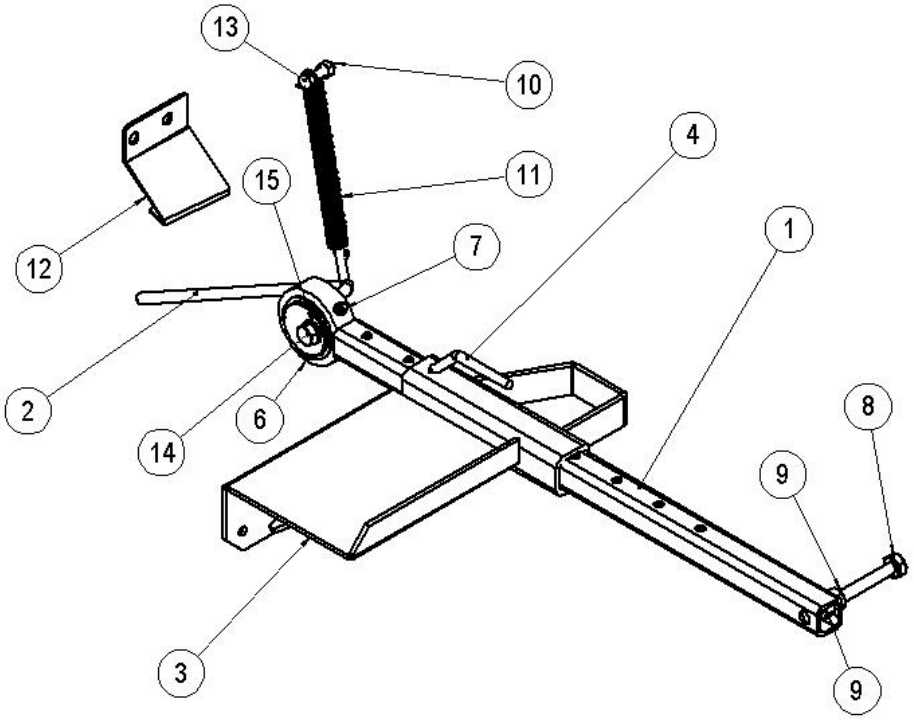
32
67
250
70
31

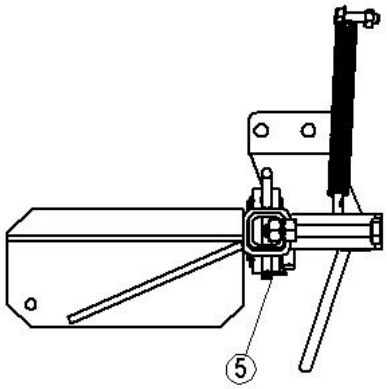
PUUNOHJAIN + HALKAISUTERÄT 1x42 green speed



Wood length limiter, mechanical

61323 Wood lenght limiter 1X42 Hydro

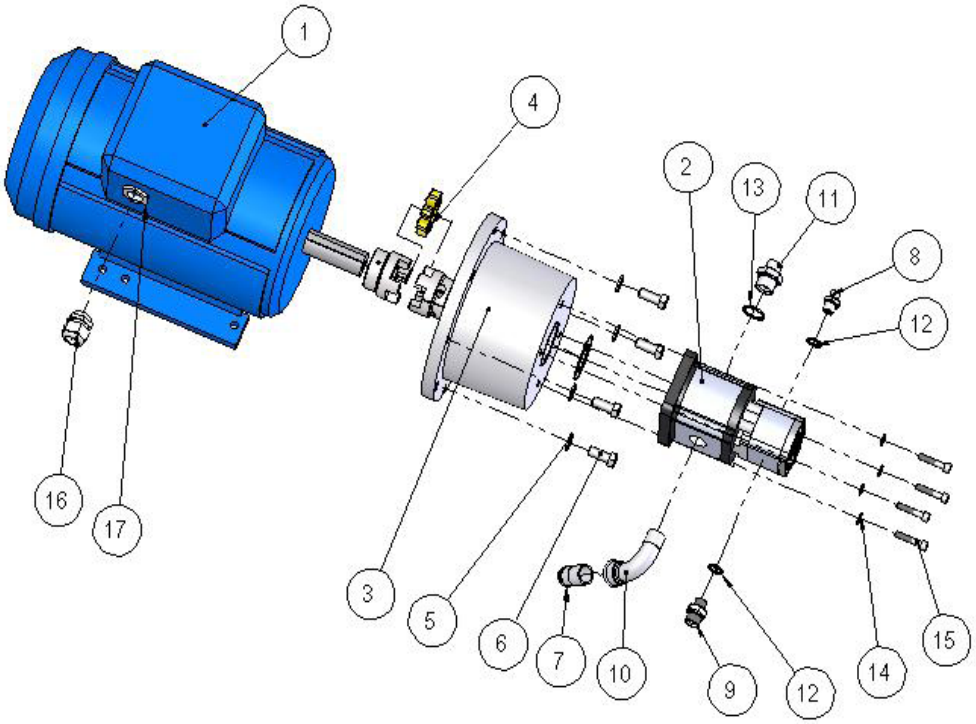




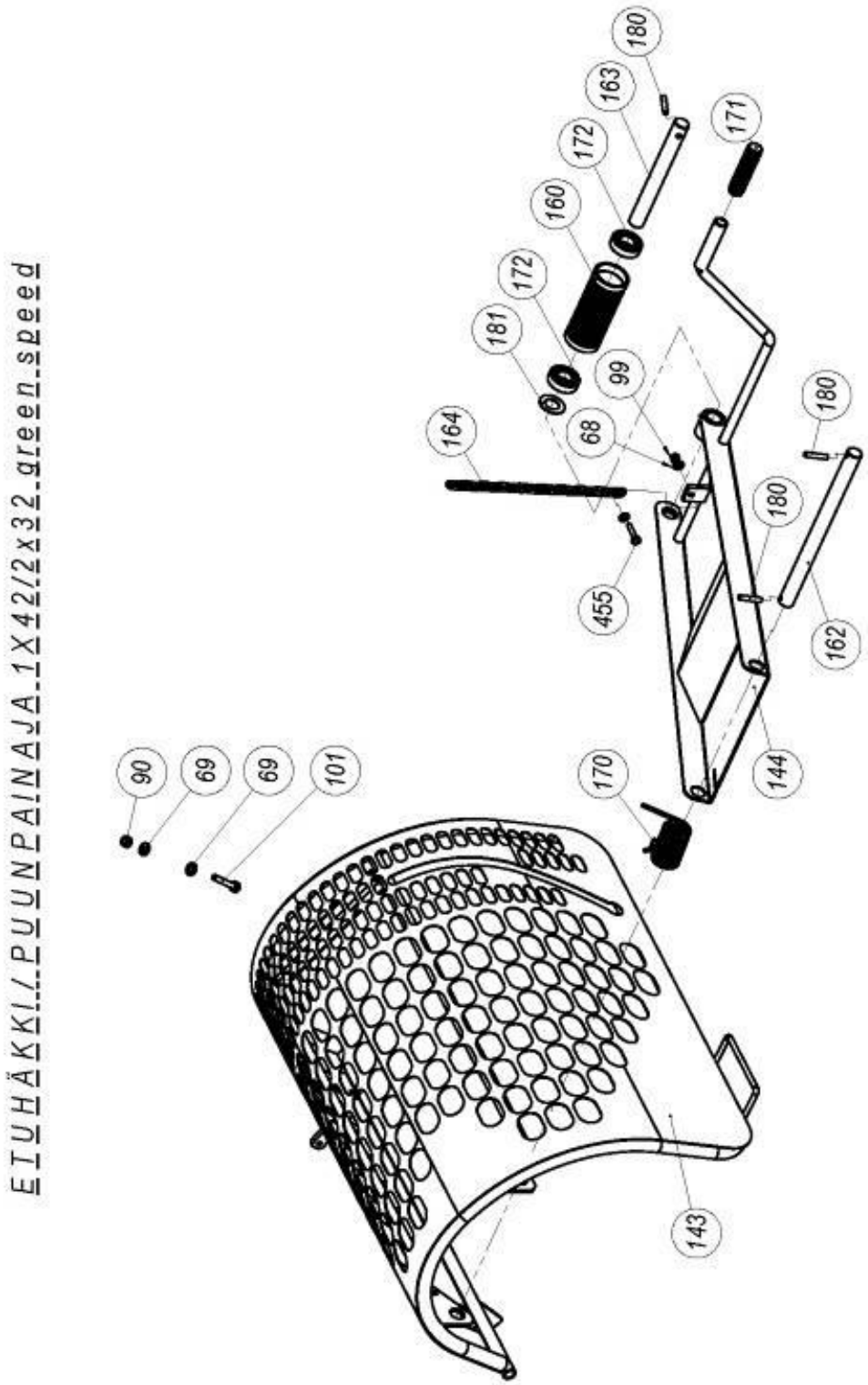
No.	Part number	Pcs.
1	60668_Wood lenght limiter arm	1
2	61322_Eccentric adjuster	1
3	60670_Wood lenght limiter	1
4	10065_Locking pin	1
5	96208_Cotter pin	1
6	96046_Retaining ring DIN 471 50	1
7	96276_Lubrication nipple M8X1	1
8	96111_Hex screw DIN 931 M12x90	1
9	96200_Hex nut DIN 934 M12	2
10	96196_Hex nut DIN 934 M8	1
11	60677_Tension spring + rod	1
12	61324_Control plate	1
13	96165_Hex screw DIN 933 M8x30	1
14	96138_Hex screw DIN 933 M10x20	1
15	96049_Washer DIN 125 A10	1

Power transmission of an electrically-powered 1X42 hydro log splitter

61256_Motor and hydraulic pump



Nr	Part number	pc
1	95463_Electric motor 15kw	1
2	97326_Hydraulic pump	1
3	97518_Intermediate flange for the 15kw motor	1
4	97553_Switch package	1
5	96059_Bottom plate DIN 125 A16	4
6	96154_Hexagonal screw DIN 933 M16x40	4
7	47112 C_Nipple	1
8	97203_Double nipple, straight 3,8 x 1,2	1
9	97205_Double nipple, straight	1
10	95400_Curve 1 inch NS 25	1
11	97208_Double nipple, straight 3,4x1	1
12	97213_USIT 1,2	2
13	97215_USIT 1	1
14	96049_Bottom plate DIN 125 A10	4
15	96011_Hexagonal socket head screw 12.9 DIN 912 M10x50	4
16	95273_Cable clamp M32x1,5	1
17	95274_Adaption bushing M40uk,32sk	1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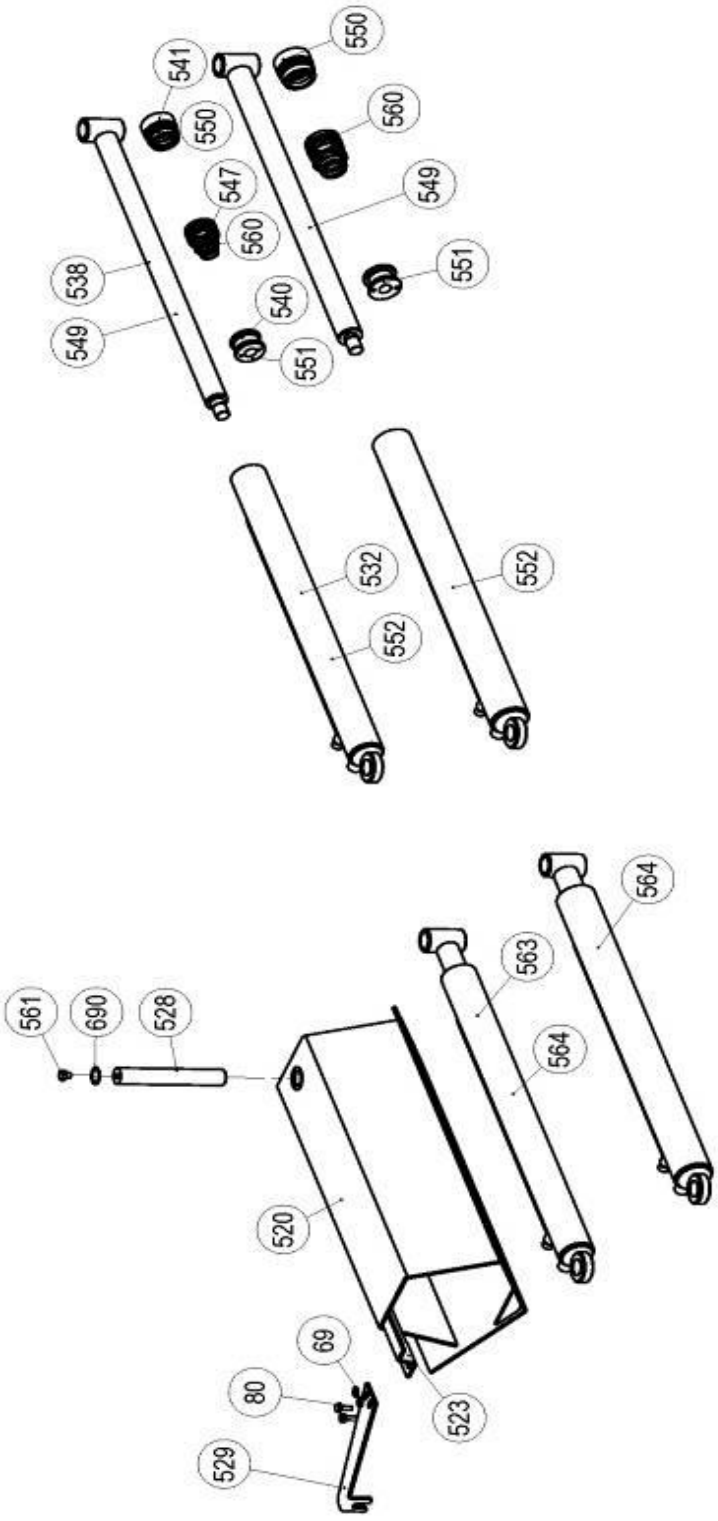
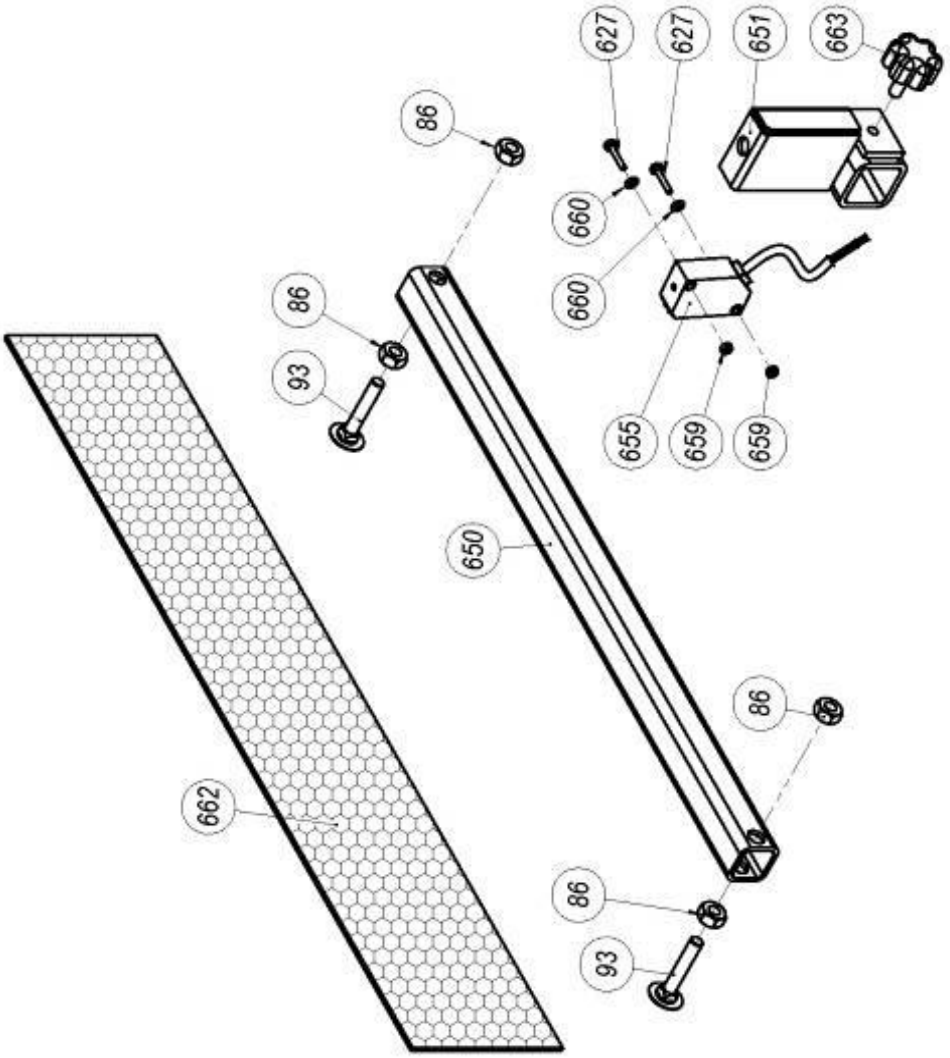
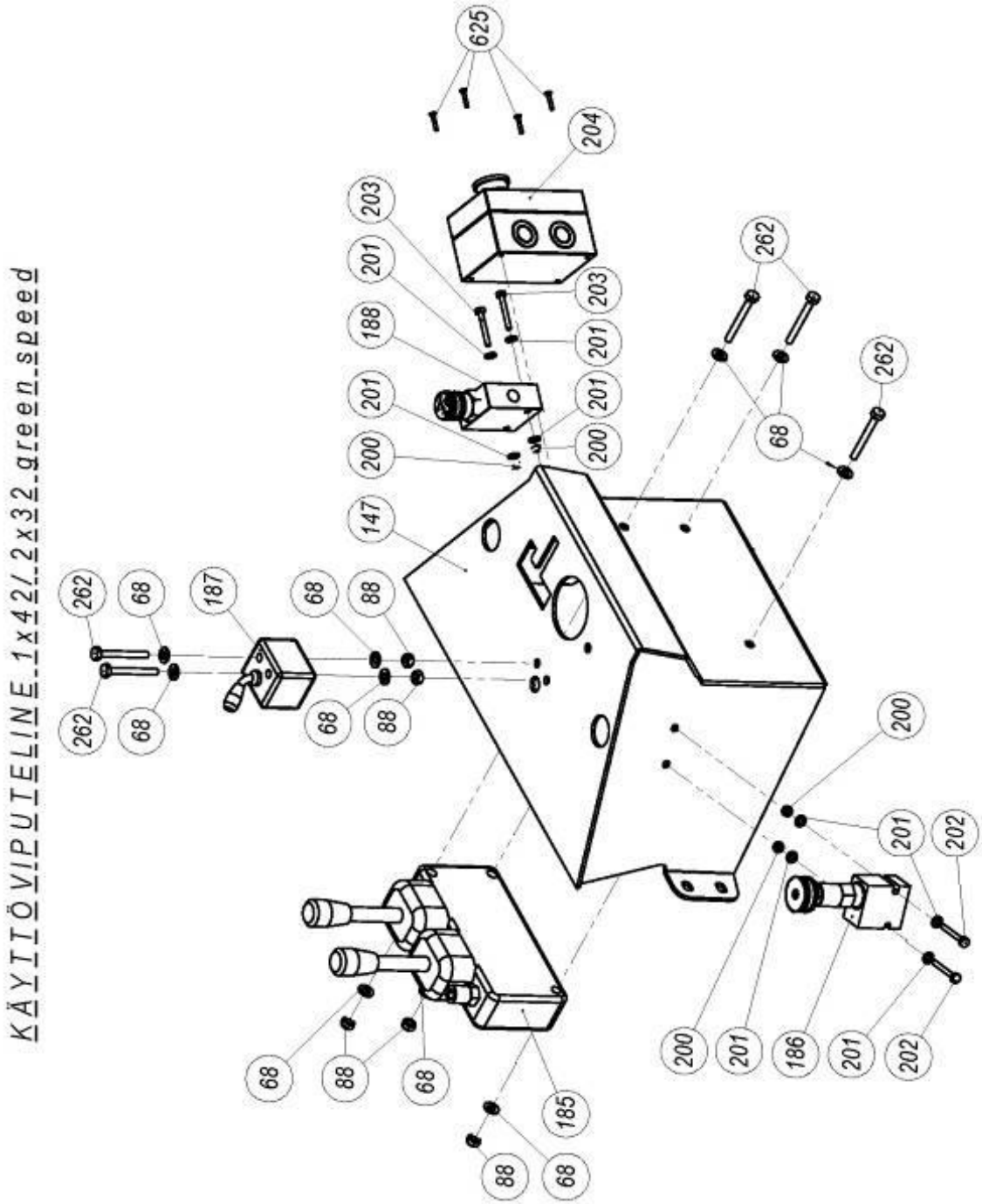
162
144
170
90
69
69
101
143

HALKAISU 1x42 green speed



OPTINEN PUUNMITTALAITE 1x42 green speed(lisävaruste)




KÄYTTÖVIPUTELINE_1x42/_2x32_green_speed
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262
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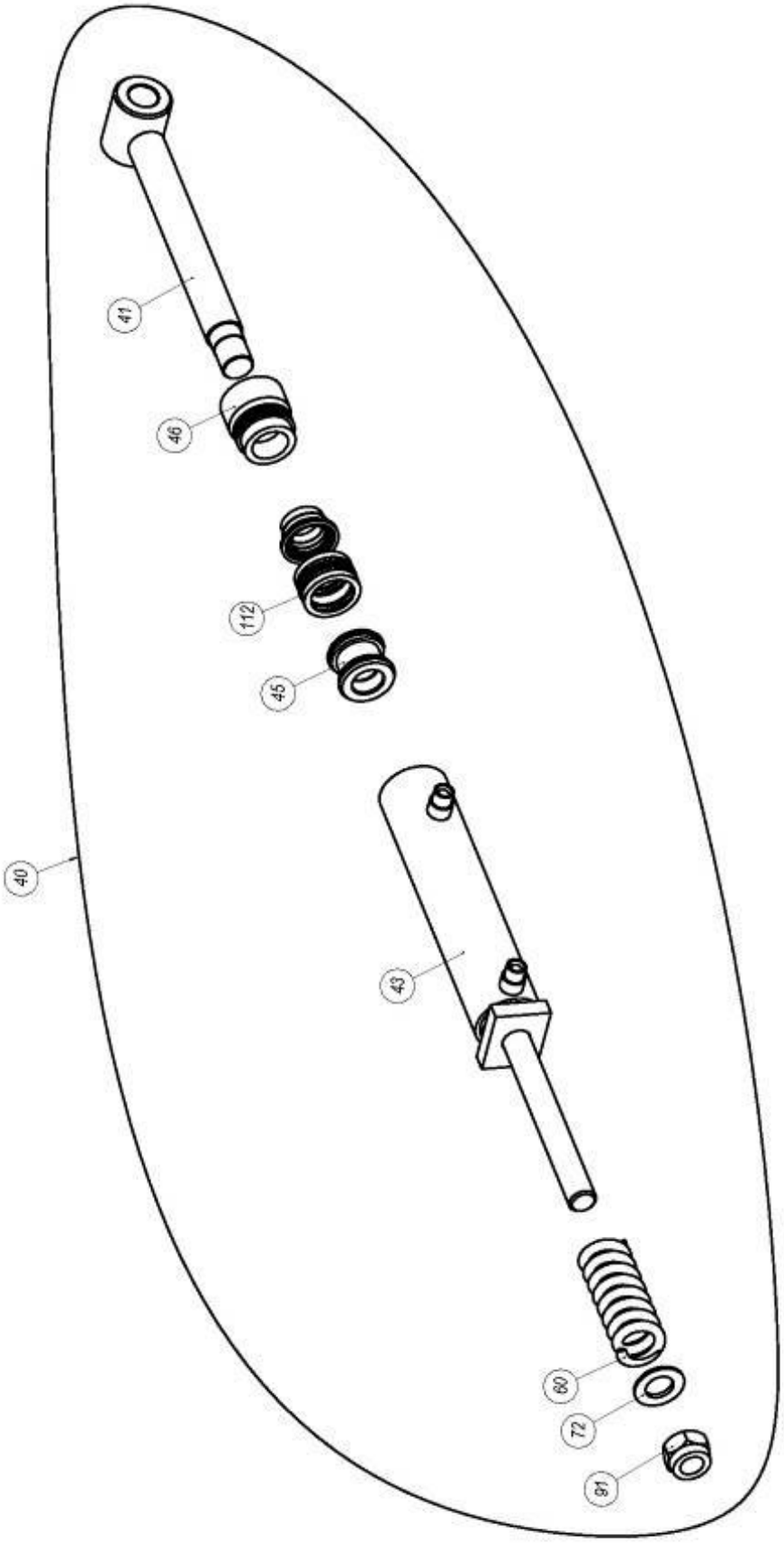
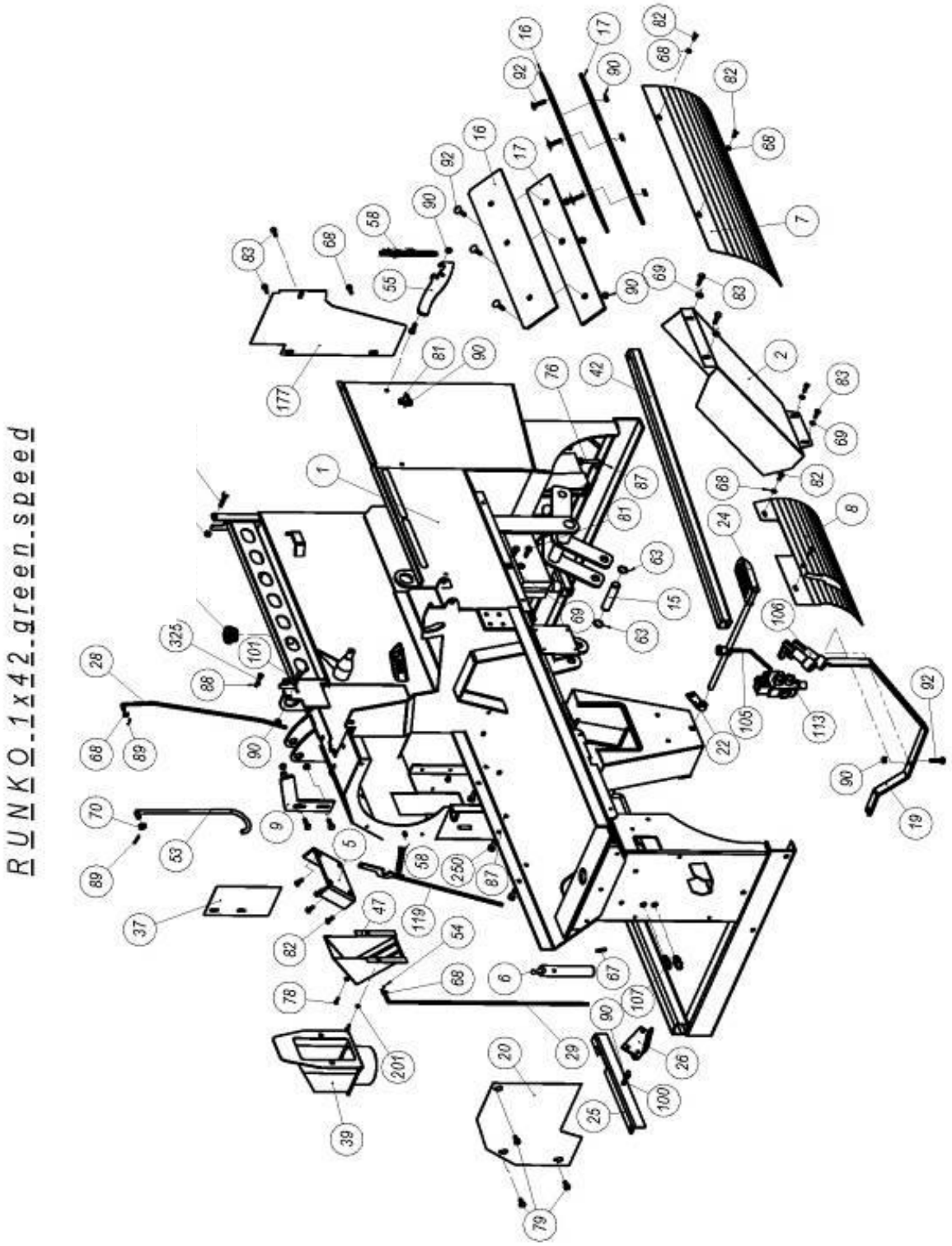
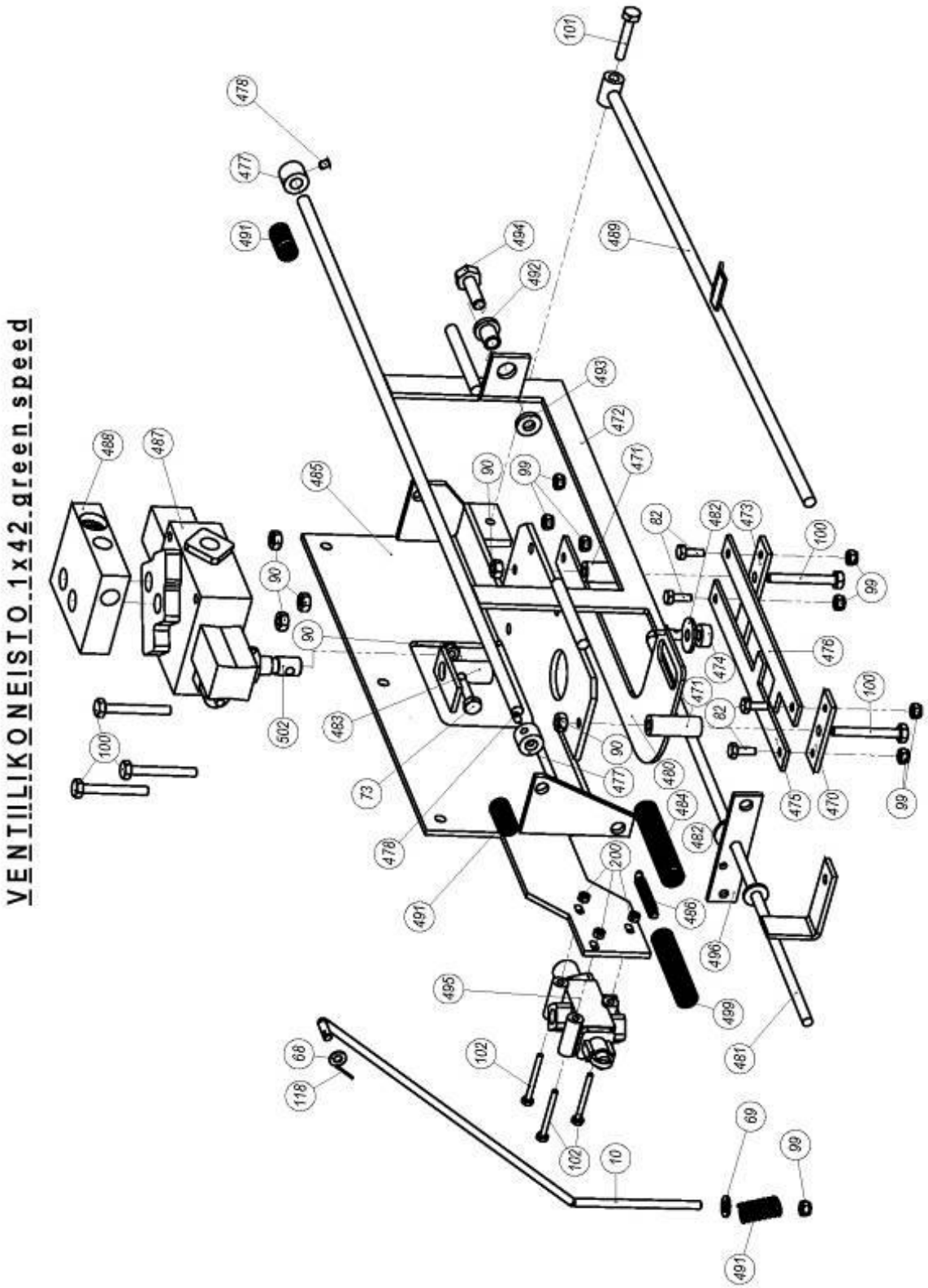
185
186
202

TERÄN_NOSTOSYLINTERI_1x42/2x32_green_speed




RUNKO_1x42_green_speed


VENTIILIKONEISTO_1x42.green_speed
101
478
477
491
494
492
489
493
472
471
488
487
485
90
99
82
482
473
100
476
474
502
483
73
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484
475
470
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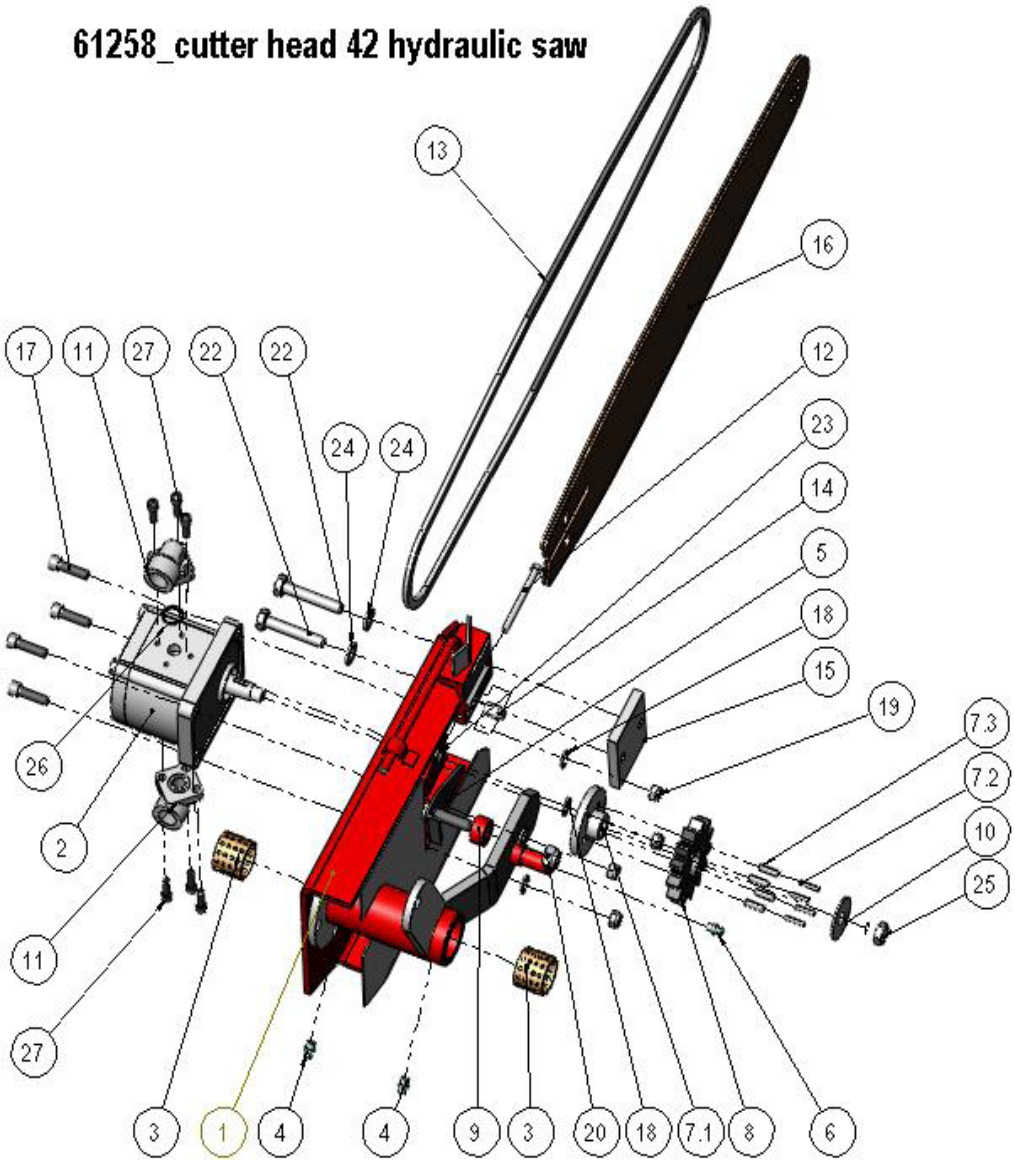
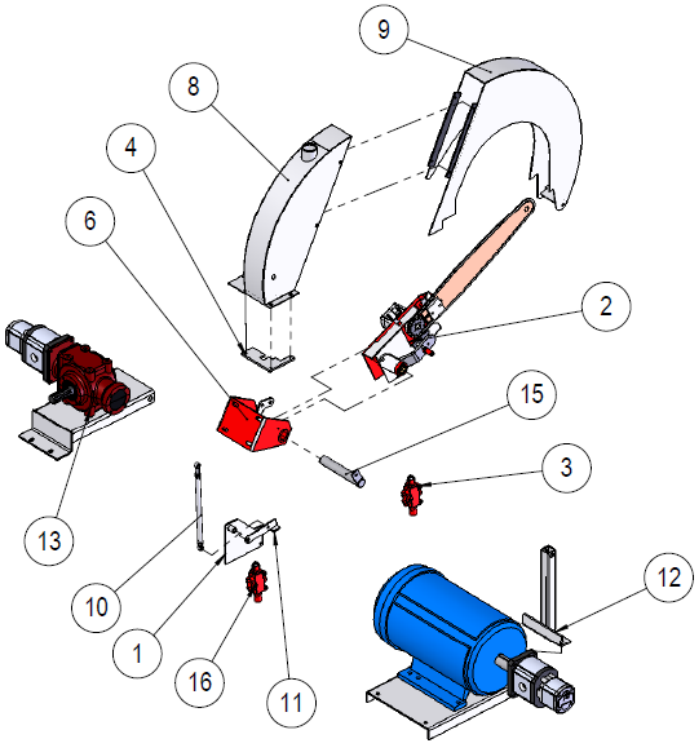
495
499
481
68
118
102
10
69
491

Saw unit of 1X42 hydro

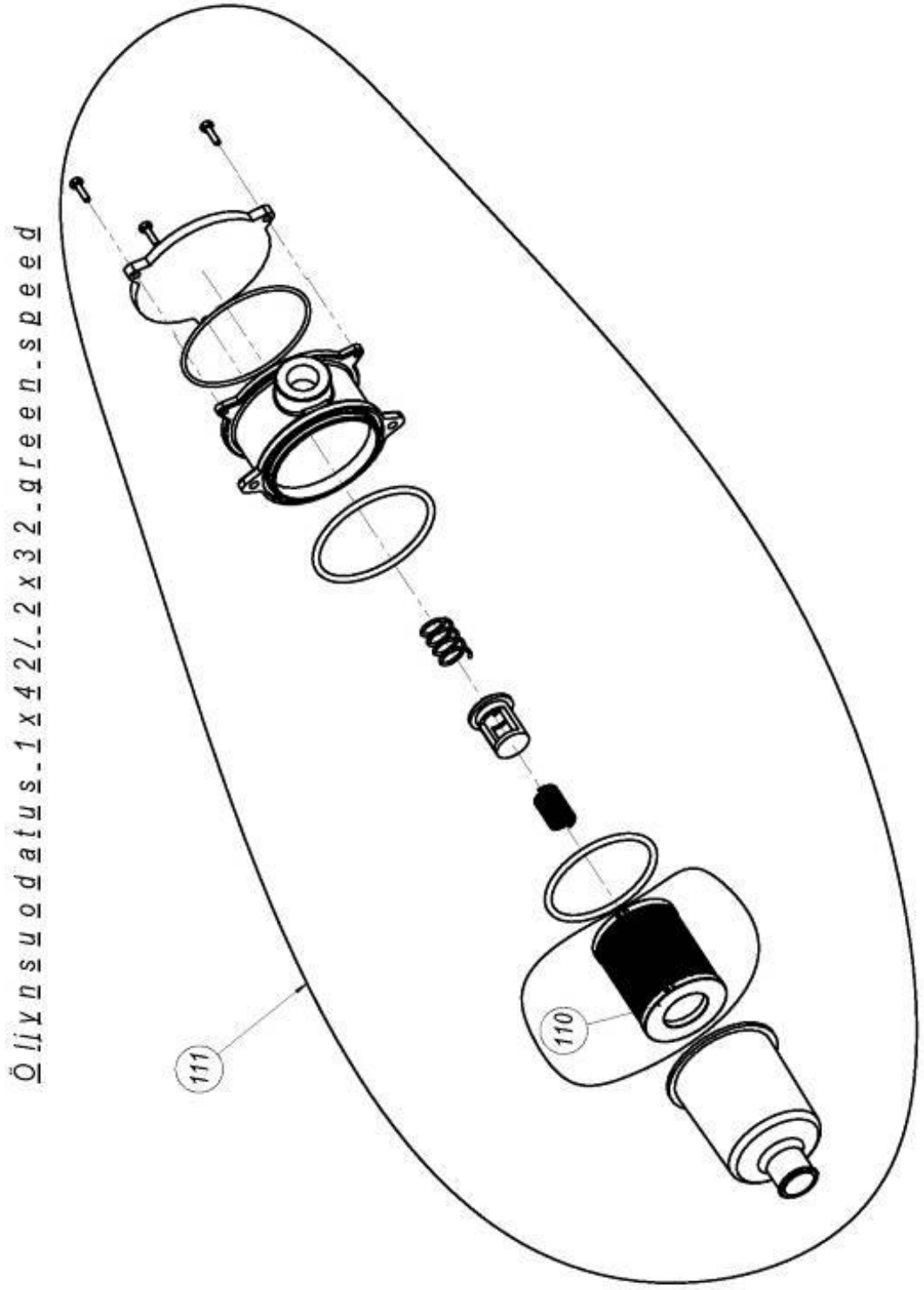


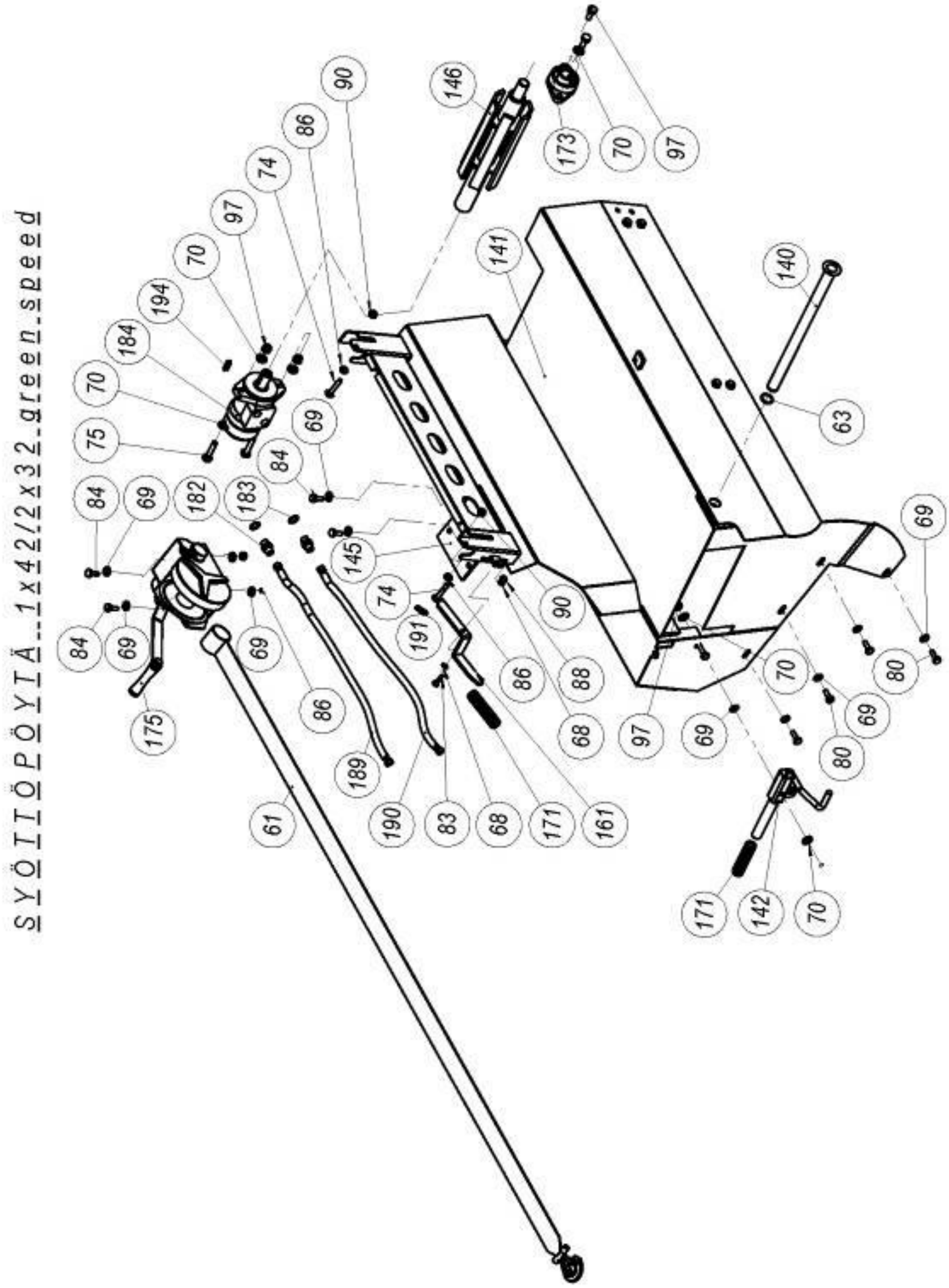
Nro	Part number	Pcs
1	61246_Drive end of the blade	1
2	97570_gear motor	1
3	95276_Slide bearing	2
4	96276_Lubrication nipple M8X1	2
5	61169_Adjustment bar clamp	1
6	96273_Lubrication nipple M6X1	1
7	47306_Drive pulley assembly	1
7.1	47304_Drive pulley fastening bushing	1
7.2	96072_Spring cotter DIN 1481 4x20	4
7.3	96075_Spring cotter DIN 1481 6x20	4
8	95139_Drive pulley	1
9	10464_Release bushing	1
10	96340_Washer	1
11	97316_Connecting flange	2
12	96267_M6x70 slothead screw DIN84	1
13	95149_Blade chain stihl 404 1,6 69 links	1
14	47295_Flange tightening	1
15	47294_Blade flange attaching plate	1
16	95137_Blade flange 20 inches	1
17	96341_Hexagonal socket head screw DIN 912 M8x30	4
18	96061_Bottom plate DIN 125 A8	4
19	96222_Locking nut DIN 985 M8	4
20	96218 Locking nut DIN 985 M12	1
22	96100_Hexagonal screw DIN 931 M10x60	2
23	96221_Locking nut DIN 985 M6	1
24	96049Aluslaatta DIN 125 A10	2
25	96206 Hex nut DIN 936 M12	1
26	O-ring 20	2
27	96018_Hexagonal socket head screw DIN 912 M6x20	6

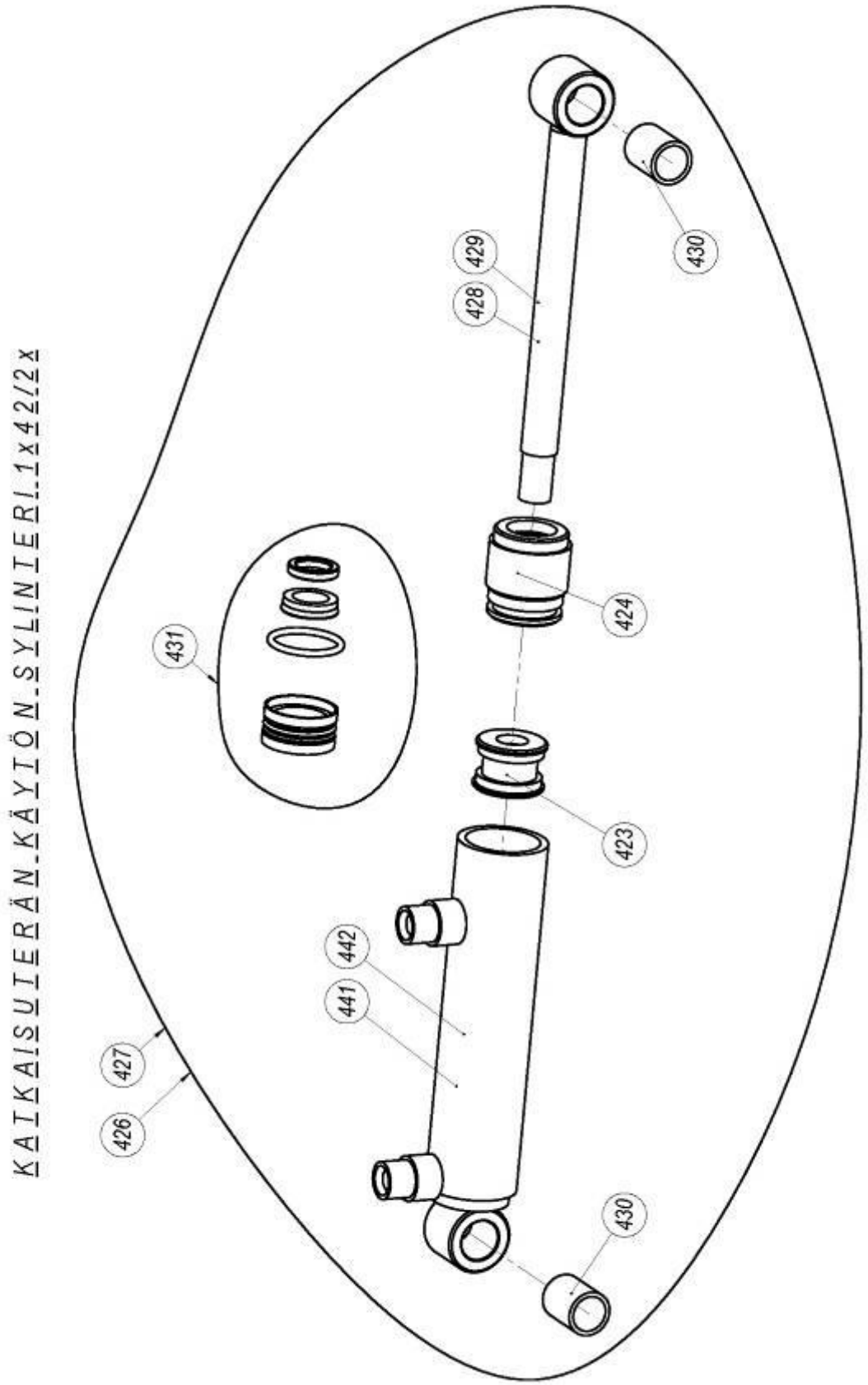
Assembly of the cutting in 1X42 hydro



ITEM NO.	PART NUMBER	QTY.
1	61254_hydraulióljysäiliö 42 hydr.sahalla	1
2	61247_Teräpää 42 hydrsaha	1
3	97554_häkkiventtiili(rullakara)(jousi2,5mm lanka)	1
16	97557_sahaventtiili(pallokara)(jousi 2mm lanka)	1
4	61223_käyttöpään rajoitinlevy	1
6	61239_käyttöpään kiinnitysteline	1
7	61225_sähkömoottorinpeti (42 hydr.saha)	1
8	61248_42 teräketjuöljysäiliö	1
9	61243_kääntyvä teräsuoja	1
10	61238_säätötanko	1
11	61250_venttiilin painin	1
12	61240_petintuki	1
13	61253_kulmavaihde ja pumppu	1
14	61252_kulmavaihteenpeti 42 hydr.sahalla	1
15	47244_Terän käyttöaks.kokoonp.(hydr.)	1
17	61256_sähkömoottori ja pumppu	1


Öljynsuodatus_1x42/_2x32_green_speed
111
110


SYÖTTÖPÖYTÄ 1x42/2x32 green speed


KAIKKAISUITERÄN_KÄYTÖN_SYLINTERI_1x42/2x
429
428
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423
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441
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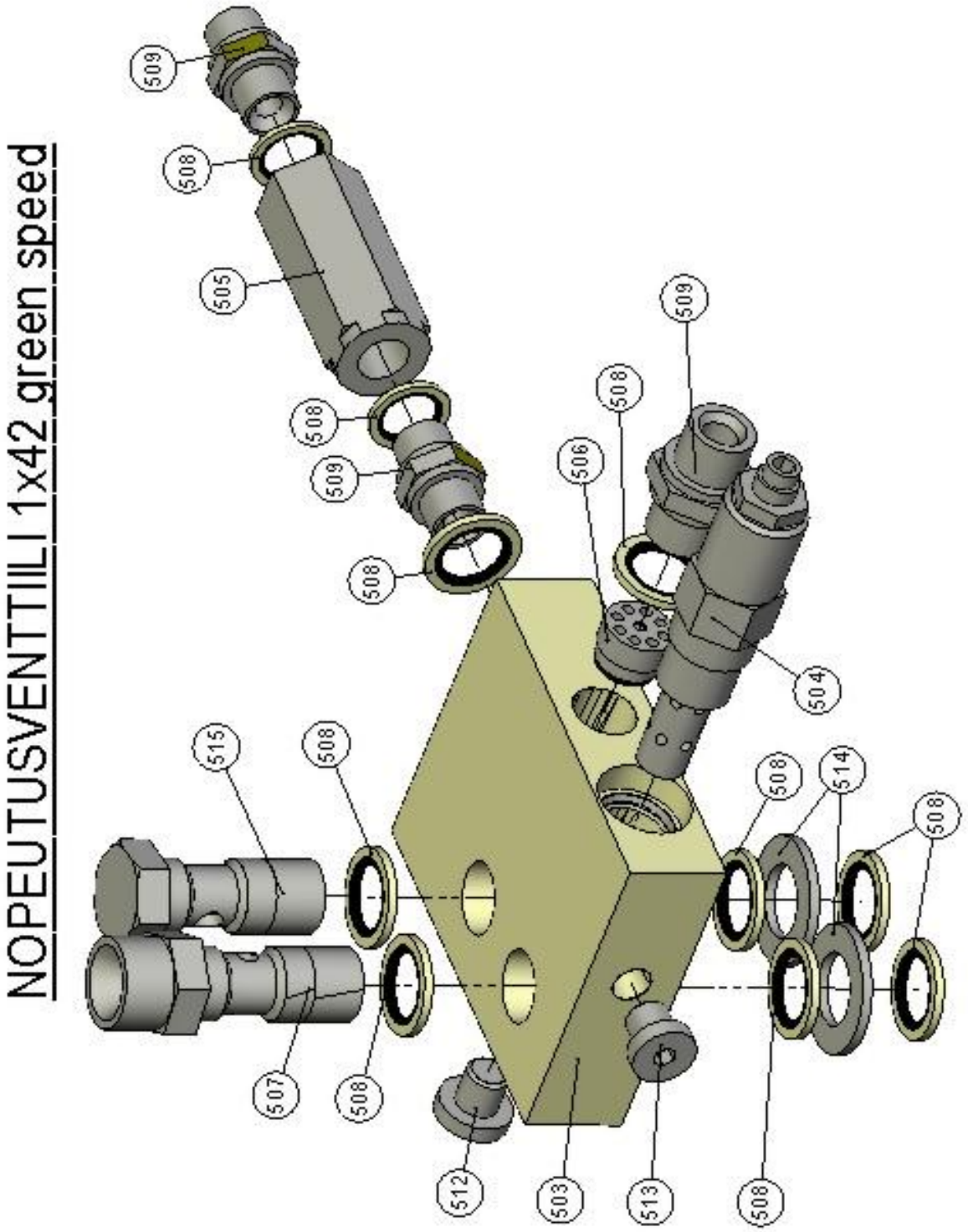
426
430


NOPEUTUSVENTTIILI 1x42 green speed
509
508
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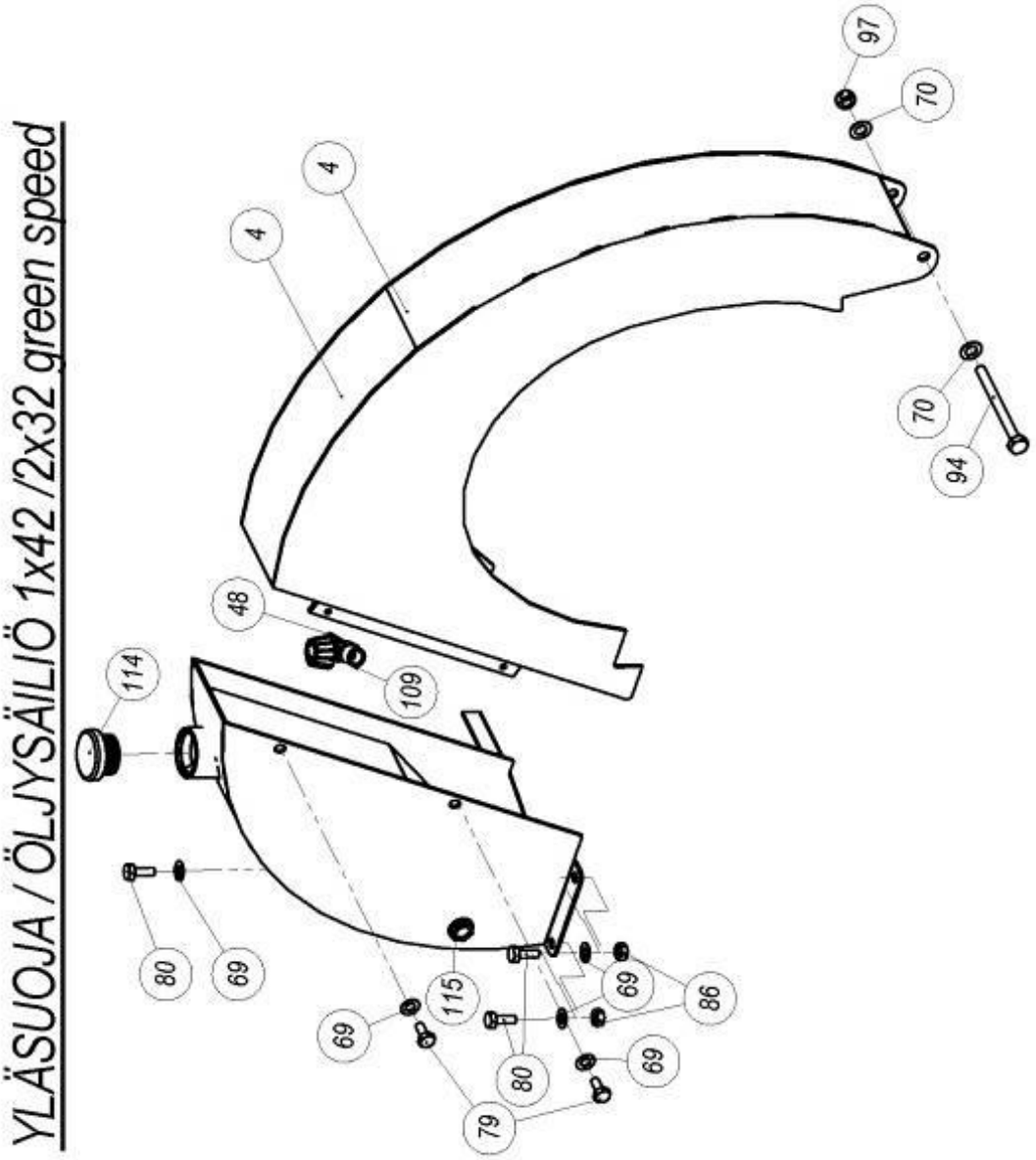
508


YLÄSUOJA / ÖLJYSÄILIÖ 1x42 /2x32 green speed
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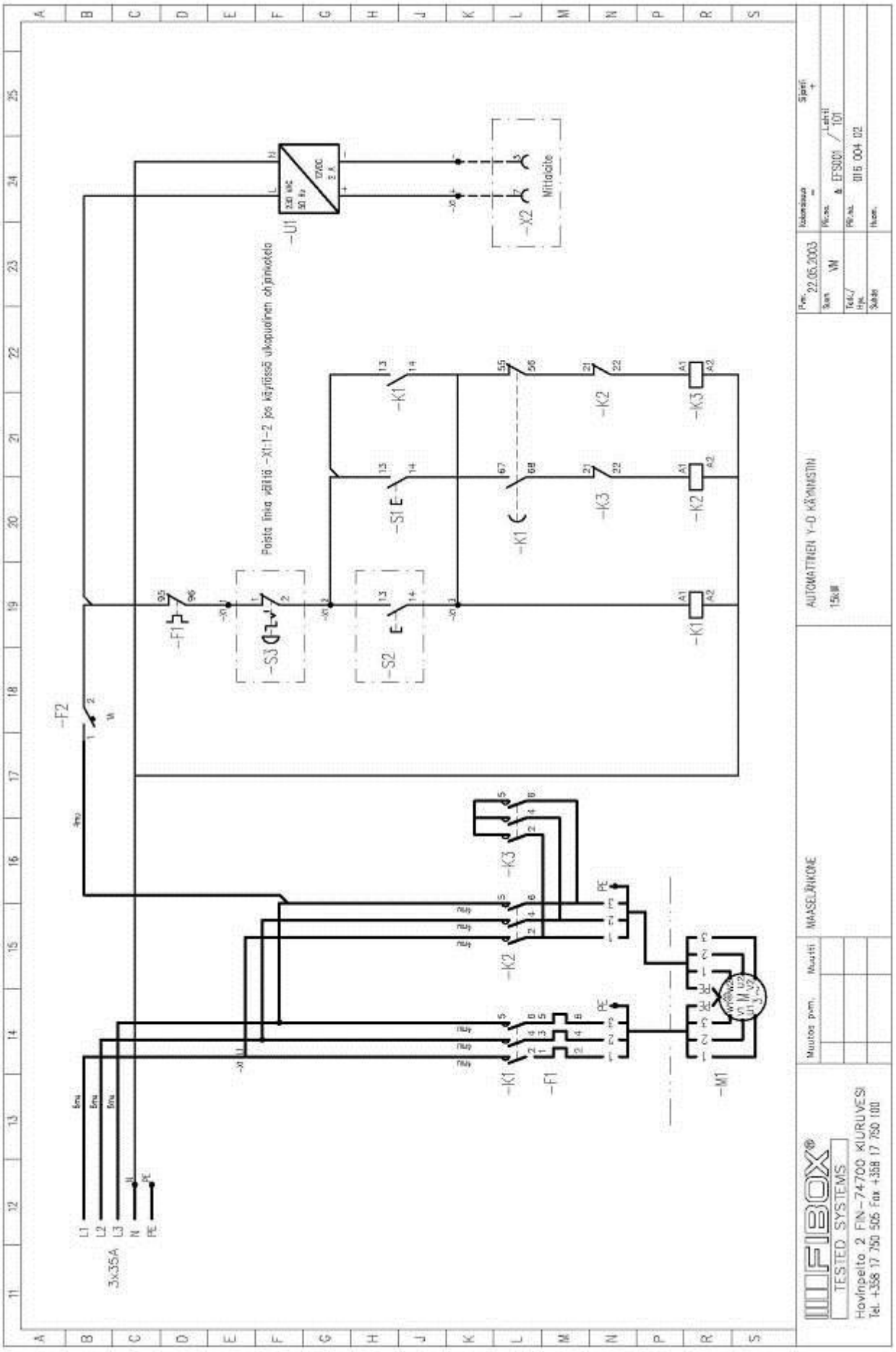
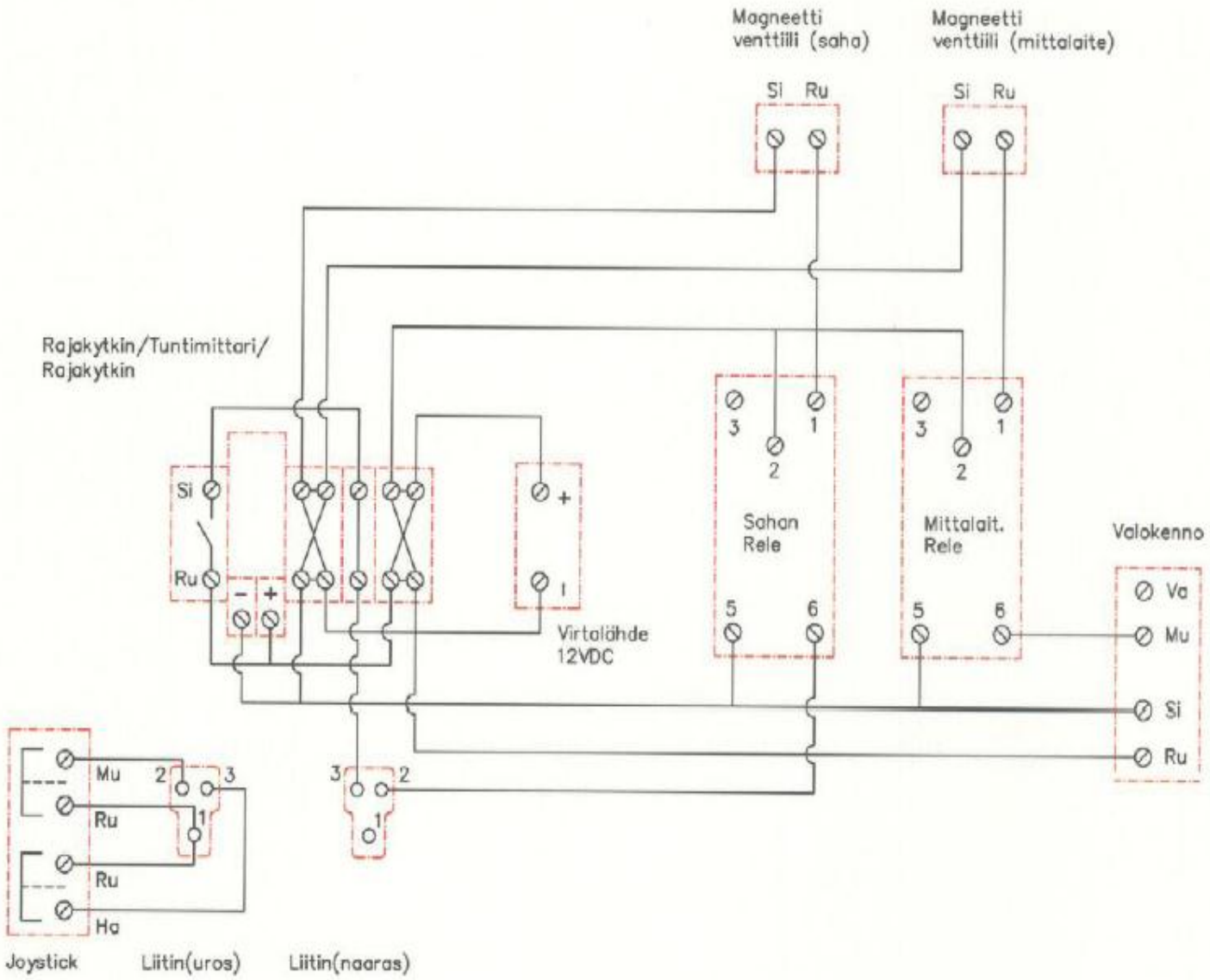
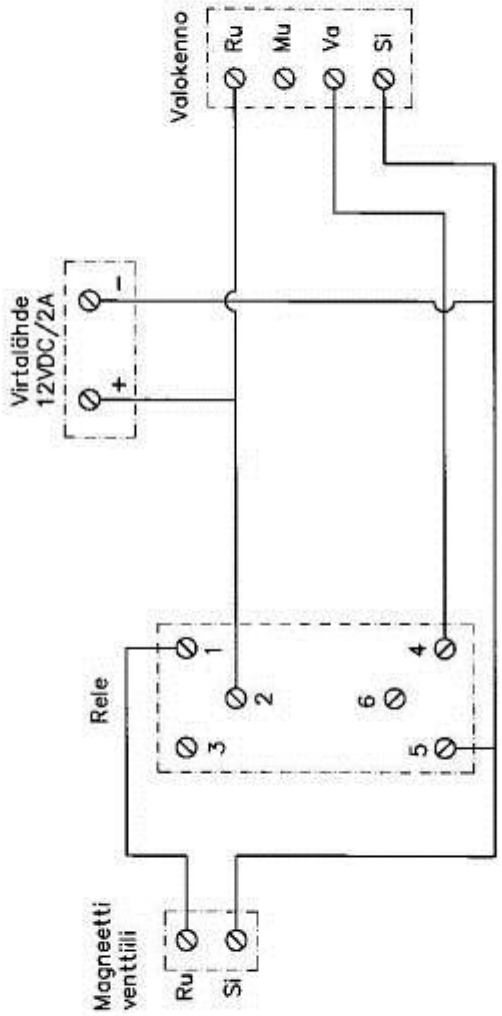
69
79


AUTOMAATTINEN Y-D KÄYNNISTIN
MAASELÄKONE
Poista linja päältä -X1:1-2 jos käytössä ulkopuolinen ohjainlaite
-U1
-X2
Mittalaite
-F1
-S3
-S2
-S1
-K1
-K2
-K3
-F2
-M1
L1
L2
L3
N
PE
3x35A
FIBOX
TESTED SYSTEMS
Hovinpelto 2 FIN-74700 KIURUVESI
Tel. +358 17 750 505 Fax +358 17 750 100

OPTINEN MITTALAITE/HYDR.TERÄKETJUN VETO
RAJAKYTKIN/TUNTIMITTARI (SÄHKÖKAAVIO)



OPTINEN MITTALAITE (sähkökaavio)



LIST OF SPARE PARTS

1X 42

Frame

	NO.	ITEM	pcs
1	61010	Frame	1
2	61025	Hose cover	1
4	61060	Upper guard 1x42	1
5	61065	Blade end platform plate	1
6	61078	Cylinder pin	1
7	61087	Right front sheet panel	1
8	61088	Left front sheet panel	1
9	61094	Cylinder mounting	1
10	61121	Foot pedal lever for the valve	1
11	97522	DF5-3 selector valve	1
12	61145	Splitting blade 4 part	1
13	61144	Splitting blade 6 part	1
14	61140	Splitting blade 8 part	1
15	61180	Pin	1
16	61047	Slider bracket	2
17	61048	Slider bracket	2
19	60070	Reversing lever	1
20	60136	Cinder sheet	1
22	60320	Lever rod of the foot pedal	1
23	60330	Upper container	1
24	60350	Foot switch	1
25	60363	Idler	1
26	60367	Joint lever	1
27	60369	Connecting rod adjusting bolt	1
28	60373	Locking bar of the back cage	1
29	60375	Locking bar of the front cage	1
30	60460	Back cage	1
31	60600	Output conveyor turning device	1
32	60613	Turning device pin of the output conveyor	1
34	60664	Eccentric adjuster (1x42 GS)	1
34	60660	Eccentric adjuster (2x32 GS)	1
35	60668	Wood length guard	1
36	60670	Wood length guard	1
37	60698	Left articulated shaft guard	1
38	60675	Stiffener wood length spring	1
39	60680	Sawdust box (vacuum connection, OPTIONAL)	1
40	60915	Splitting blade adjustment cylinder	1

41	60920	Cylinder arm	1
42	60931	Transport tube	1
43	60916	Cylinder pipe	1
45	10260	Plunger	1
46	10261	Handle control	1
47	10150	Sawdust guide	1
48	97281	Hose nipple 3, 8-8	1
52	11160	Cylinder Ø50 , Ø32	1
53	08055	Cardan shaft hook	1
54	96038	Retaining ring DIN 471 16	2
55	47089	Locking bolt of the conveyor	1
56	47390	Wood guide	1
57	10065	Locking pin	2
58	95011	Draw-spring	3
59	95018	Pressure spring Ø22x2 L=140	1
60	95026	Pressure spring Ø26-9-120	1
61	95068	Winch linen with a hook	1
62	95412	Winch	1
63	96042	Retaining ring DIN 471 25	6
64	96044	Retaining ring DIN 471 30	1
65	96046	Retaining ring DIN 471 50	1
66	96040	Retaining ring DIN 471 20	2
67	96079	Spring cotter DIN EN ISO 13337 8x60	2
68	96057	Bottom plate DIN EN ISO 7089 A8	28
69	96048	Bottom plate DIN EN ISO 7089 A10	44
70	96050	Bottom plate DIN EN ISO 7089 A12	45
71	96051	Corrugated plate DIN EN ISO 7089 A14	3
72	96054	Bottom plate DIN EN ISO 7089 A25	11
73	96097	Hexagonal screw DIN 933 M10x35	1
74	96098	Hexagonal screw DIN 601 M10x40	2
75	96109	Hexagonal screw DIN 931 M12x60	2
76	96110	Hexagonal screw DIN 933 M12x70	2
77	96111	Hexagonal screw DIN 931 M12x90	1
78	96135	Hexagonal screw DIN 933 M6x20	2
79	96138	Hexagonal screw DIN 933 M10x20	5
80	96139	Hexagonal screw DIN 933 M10x25	9
81	96140	Hexagonal screw DIN 933 M10x30	4
82	96162	Hexagonal screw DIN 933 M8x20	15
83	96163	Hexagonal screw DIN 933 M8x25	8
84	96186	Lock screw DIN 603 M10x25	10
85	96189	Lock screw DIN 603 M12x40	6
86	96199	Hex nut DIN 934 M10	11
87	96200	Hex nut DIN 934 M12	13

88	96205	Hex nut DIN 934 M8	42
89	96208	Needle pin	4
90	96067	Locking nut DIN 985 M10	34
91	96214	Locking nut DIN 985 M24	1
92	96314	Lock screw DIN 603 M10x40	13
93	96312	Lock screw DIN 603 M10x50	2
94	96142	Hexagonal screw DIN 931 M12x120	4
95	96262	Hexagonal screw DIN 933 M5x16	3
96	96315	Hexagonal screw DIN 933 M8x16	2
97	96218	Locking nut DIN 985 M12	17
98	96281	Hexagonal screw M5x35	6
99	96217	Locking nut DIN 985 M8	16
100	96280	Hexagonal screw DIN 933 M10x70	8
101	96099	Hexagonal screw DIN 933 M10x50	5
102	96120	Hexagonal screw DIN 933 M6x55	3
105	61119	Auxiliary valve lever	1
106	97210	Quick coupling/female	2
107	03046	Double nipple	2
108	96275	Lubrication nipple M8X1	2
109	97280	Cock	1
110	97348	Filter insert	1
111	97349	Filter box	1
112	97294	Plunger sealing series 50-32	2
113	97402	Hydraulic valve	1
114	97429	Oil cap	2
115	97446	Oil eye	1
116	11162	Arm	1
117	11161	Pipe	1
118	96243	Cotter pin	3
119	61185	Gate	1

Inputing table/ Front age/ Wood press

	NO.	ITEM	Pcs
140	61161	Attaching shaft of the table extension	1
141	60180	Inputing table	1
142	61108	Input conveyor locking	1
143	60420	Front cage	1
144	60440	Complete wood press	1
145	60610	Winch attaching plate	1
146	60690	Pincher roll of the inputing conveyor	1

147	60830	Lever stand upper part	1
160	10219	Roll	1
161	10341	Open locking rod of the front cage	1
162	10338	Wood press fastening pin	1
163	10393	Roll shaft	1
164	10657	Chain	1
170	95027	Torsion spring Ø5	1
171	95034	Handle	3
172	95050	Bearing 6205-2RS	6
173	95057	Collar step bearing unit UCFL-205	1
174	95068	Winch linen	1
175	95069	Winch with break	1
177	60208	Cinder sheet of container	1
180	96077	Spring pin DIN 1481 8x40	3
181	96256	Shim	1
182	97202	Double nipple straight	6
183	97212	USIT 3.8	2
184	97307	Hydraulic motor EPM160CD	2
185	97408	Hydraulic valve EASY VA	1
186	97427	Cartridge valve/casing: 97420	1
187	97533	Valve	1
188	97524	Valve	1
189	97061	Inputing table hose	1
190	97097	Inputing table hose b	1
191	95012	Draw-spring	1
192	95029	Draw-spring	1
194	97371	Wedge hydraulic motor	1
200	96221	Hex nut DIN EN ISO 4032 M6	4
201	96056	Bottom plate DIN EN ISO 7089 A6	8
202	96119	Hex nut DIN EN ISO 4016 M6x50	2
203	96033	Hex nut DIN EN ISO 4016 M6x40	2
204	95160	Remote starter	1

Table extension

	NO.	ITEM	Pcs
220	**60281**	Table extension	1
227	95001	Keel roll	2
232	61105	Pincher roll of the inputing conveyor	1
237	60294	Pressure roller shaft	1
245	**60304**	Tail roll clip plate	1
247	**60305**	Tail roll clip plate	1
250	96145	Hexagonal screw DIN 931 M12x30	6

251	96148	Hexagonal screw DIN 933 M12x40	4
252	95298	Inputing table belt	1
253	97094	Extension roll hose	1
255	97095	Extension roll hose b	1
256	97202	Double nipple straight 3.8uk 3.8uk	2
257	97213	USIT 1.2	2
258	**60296**	Carryover roll shaft	1
259	60298	Carryover roll bushing	1
260	60297	Carryover roll bushing	1
261	60286	Carryover roll	2
262	96301	Hexagonal screw DIN 933 M8x20	5
263	60300	Table extension support	1

Output conveyor

	NO.	ITEM	Pcs
300	10135	Conveyor rake	8
301	10135a	Conveyor rake dolly	8
302	61162	Conveyor under screen belt	1
303	95126	Conveyor belt 240EP 250L=8130	1
304	10136	Belt connection rod	2
305	10225	Conveyor belt holder	1
306	96208	Needle pin	1
307	10132	Conveyor roll	1
308	10720	Conveyor belt pulley	1
309	95050	Bearing 6205	2
312	60882	Hydraulic pipe conveyor (bottom)	2
313	95014	Pressure spring 3.5x22x38	2
317	96191	Lock screw DIN 603 M8x25	12
319	96105	Hexagonal screw DIN 961 M12x150	2
323	96306	Basket panel DIN 9021 M12	4
325	96092	Hexagonal screw DIN 931 M8x40	6
326	96000	Hexagonal screw DIN 933 M6x12	4
328	97466	Hydraulic connector 97465 / 97223	16
329	10127	Conveyor rubber baffle fastening rod	1
330	09200a	Rubber baffle fastening rod	1
331	60888	Guard	2
334	60885	Hydraulic pipe conveyor (top)	2
335	10725	Conveyor pincher roll guard	1
336	95063	Bearing unit UCF205	1
338	97334	Hydraulic motor MSEPM50CD	1
345	97082	Hose conveyor's end	2

346	97050	Conveyor's bottom end hose	2
349	97202	Double nipple straight 3.8uk 3.8uk	2
350	97085	Conveyor's middle hose	1
351	97503	Hose connector top D12	6
352	97003	Conveyor's middle hose	1
353	97501	Hose clamp half	12

Valve gear

	NO.	ITEM	Pcs
470	60782	Recuperator's swivel rod	1
471	60783	Recuperator bushing	2
472	61137	Valve reversing plate	1
473	60785	Recuperator's swivel rod	1
474	60786	Swivel rod's bushing	1
475	60784	Stopper rod	1
476	60781	Stopper rod	1
477	10170	Bushing of valve operating rod	2
478	96228	Clamping screw DIN 913 M8x18	2
479	60769	Operating rod of releasing plate	1
480	61139	Releasing plate	1
481	60758	Connecting rod	1
482	96064	Basket panel DIN 440 M10	2
483	61128	Operating lever	1
484	95018	Pressure spring Ø22x2 L=140	1
485	61126	Valve fastening plate	1
486	95012	Draw-spring Ø9.8 x 0.9 L=40	1
487	97507	SD11 valve	1
488	47496	Automatic acceleration valve	1
489	61138	Starting lever	1
491	95015	Pressure spring	1
492	61146	Valve bushing	1
493	61147	Valve mandrel	1
494	96309	Valve bolt	1
495	97522	DF5-3 selector valve	1
496	60744	Foot pedal rod	1
499	95022	Pressure spring Ø22x2.5 L=140	1
502	97479	Ball joint	1

Automatic acceleration valve

503	47496	Acceleration rod's frame	1
504	97412	Cartridge	1
505	97252	½ check valve	1
506	97437	Rotatable check valve	1
507	47497	Banjo bolt	8
508	97213	USIT ½	4
509	97204	Double nipple straight 1/2	3
512	97260	3/8 UK plug	1
513	97259	1.4 plug	1
514	96053	Bottom plate DIN EN ISO 7089 A20	2
515	47499	Banjo bolt	1

Splitting

520	61071	Slide plate (top)	1
523	61134	Fastening rod of valve control plate	1
528	61084	Slide attaching pin	1
529	61069	Valve control plate	1
532	61114	Cylinder liner Ø73 , 63	1
538	47748	Arm Ø45	1
540	10,164m	Plunger Ø63	1
541	10164o	Arm control Ø70/45	1
547	97296	Sealing series D63-45	1
549	61118	Arm Ø50	1
550	60597	Arm control Ø80,70- 50	1
551	37,028m	Plunger Ø 70	1
552	61117	Cylinder liner Ø80 , 70	1
560	97368	Sealing series D70-50	2
561	96144	Hexagonal screw DIN 961 M12x20	1
563	61115	Cylinder Ø73, 63 (complete)	1
564	60590	Cylinder Ø80, 70 (complete)	1

Optical wood measuring device

	NO.		
650	60650	Fastening pipe	1
651	47550	Wood measuring device	1
655	95197	Light cell	1
659	96312	Hex nut DIN 934 M4	2
660	96313	Bottom plate DIN 125 A4	2
662	95199	Reflecting sticker	1
663	95033	Knurled head screw M8-20	1

EU DECLARATION OF CONFORMITY OF MACHINE
(Machine Directive 2006/42/EC, Appendix II A)

Manufacturer: Maaselän Kone Oy

Address: Valimotie 1, 85800 Haapajärvi, Finland

Name and address of the person who is authorized to collect technical file:

Name: Juha Autio **Address: Valimotie 1, 85800 Haapajärvi, Finland**

Declares that

HakkiPilke 42 Easy **Serial number:……..**

- **is compatible with relevant regulations of the Machine Directive (2006/42/EC)**
- **is compatible with the following other EC-Directives:**
  EMC-Directive 2004/108/EC and Low Voltage Directive 2006/95/EC

Place, time: Haapajärvi 1.2.2012

Jari Löfroos
Managing Director

TECHNICAL SPECIFICATIONS

Required power	15 KW
Max log diameter	420 mm
Max firewood length	200-600 mm
Thrust of splitting cylinder	3 t – 13.2 t
Splitting blade options	Standard 4 part splitting; as an optional extra 2, 6 or 8 part splitting.
Cutter bar	Harvester 20”, 16 H, 1.6mm/0.63
Blade chain	71 loops/0.404"
Hydraulic oil volume	65 l
Maximum width in working position	9.5 m
Input conveyor length	2,620 mm
- belt width	250 mm
Dimensions in the transport position	
- height	2,500 mm
- width	2,700 mm
- depth	1,360 mm
Total weight	1,065 kg
Power source: electricity	+50 kg
Output conveyor length	4 m, foldable
- - conveyor belt width	250 mm

Sound power level	108 dB
A-weighted sound pressure level at the operator's place	96 dB

Optional extras:

- Log elevator
- Dispensing log holder
- Hydraulic inputing table

TERMS OF GUARANTEE

We grant a guarantee for our machines with the following conditions:

1. This guarantee covers such defects that are caused by manufacturing or material failures, except for those that are the components classified as parts that wear.

2. The guarantee is valid for the original buyer starting from the day of purchase for one (1) year, but for no more than 1,000 operating hours.

3. The guarantee is not valid in case the machine has been used in contravention to the instructions or for some use other than what the manufacturer originally designed it for, or in case other than original spare parts have been used in the machine, or the maintenance instructions have been neglected.

4. A guarantee demand has to be issued **immediately** upon the discovery of a defect to the seller or factory. Repair under guarantee requires that the customer can reliably prove that the guarantee is valid.

5. The guarantee does not include standard adjustments, user guidance, care, maintenance or cleaning procedures.

6. Repair under guarantee requires that no attempts have been made to fix the machine or a part of it before a written notification of the defect has been made to the seller, manufacturer, or importer.

7. Only a serviceman authorised by **the manufacturer or importer** is allowed to carry out repair under guarantee. The guarantee does not cover washing, cleaning, or oil or fuel changes done while carrying out the above-mentioned repair work.

8. The repair work hours are compensated according to the standard rates as defined by the manufacturer.

9. The manufacturer of the machine is not liable to compensate for any possible travelling costs resulting from the repair work.

10. A spare part will be delivered free of cost when delivering with the usual means in the case of the part in question, in normal schedule.

11. The receiver is liable for costs occurring from special deliveries, such as express mail.