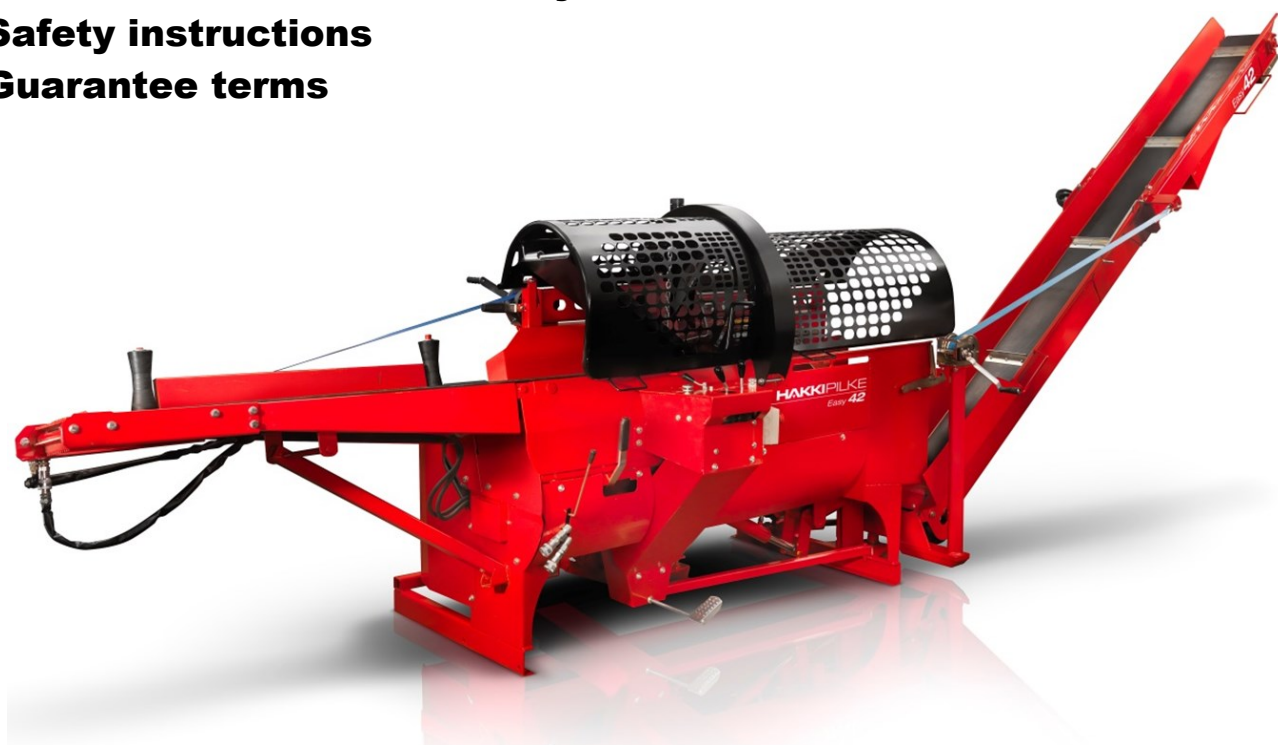


Hakki Pilke

Easy 42

FIREWOOD PROCESSOR

- **Instructions for assembly, operation and maintenance**
- **EC Declaration of Conformity**
- **Safety instructions**
- **Guarantee terms**



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The operator must read and understand these instructions before operating the firewood processor!

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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 Easy 42 firewood processor or when connecting it to a power source, such as a tractor.

The machine may not be operated while under the influence of alcohol or other drugs, or when tired or unable to control your bodily movements.

Only one person is allowed to connect the machine to a power source at a time. The 10-metre danger zone around the firewood processor 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 danger zone of the dangers related to the firewood processor when in operation.

Before using the processor, make sure that the operating environment, including the ground underneath, is safe for the machine, the operator and the environment. The machine is intended for outdoor use only. If the processor is used in poorly aired conditions, the operator must arrange sufficient ventilation.

The Hakki Pilke Easy 42 firewood processor is designed for preparing firewood from pruned or processed wood, such as logs. The firewood processor 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 channel is designed for logs up to 60 cm in length. Never cut or split logs that exceed the maximum length.











The diameter of the cutter opening is 42 cm. 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 firewood processor if:

- you have not read and understood the instructions in this manual
- you are not familiar with the dangers associated with using the firewood processor
- you do not know the proper emergency procedures related to the firewood processor

1.1 Warning symbols.

 <p>VAARA-ALUE ←10 m→</p>	 <p>VARO TERÄKETJUA</p>	 <p>VAIN YKSI HENKILÖ TYÖALUEELLA</p>
 <p>SAMMUTA KONE ENNEN HUOLTOA</p>	 <p>VARO KONEEN LIIKKUVIA OSIA</p>	 <p>NIVELAKSELIIN KIETOUTUMISVAARA</p>
 <p>PURISTUMISVAARA</p>	 <p>ÄLÄ MENE KULJETTIMEN ALLE KULJETTIMEN MAX. KALLISTUSKULMA MAX 40°</p>	 <p>VARO HALKAISEVAA TERÄÄ</p>

		
LUE OHJEKIRJA ENNEN KÄYTTÖÄ	KÄYTÄ SUOJAVARUSTEITA	KÄYTÄ SUOJAVARUSTEITA
	<p>MAX 500 RPM</p>	
TARTU PUUTA AINA KYLJISTÄ	MAX KIERROSNOPEUS	Scale
		
HYDRAULIÖLJY	PYÖRIMISSUUNTA VASEMMALLE	TERÄKETJUÖLJY
		
NOSTOKOHTA TRUKILLE	HÄTÄPYSÄYTYS	

1.2 2 SET-UP PREPARATIONS

2.1 Correct positioning

When viewed from the side, the firewood processor must be standing completely straight!

A firewood processor connected to a tractor that is used for testing or cutting/splitting must rest on its own weight on level ground.

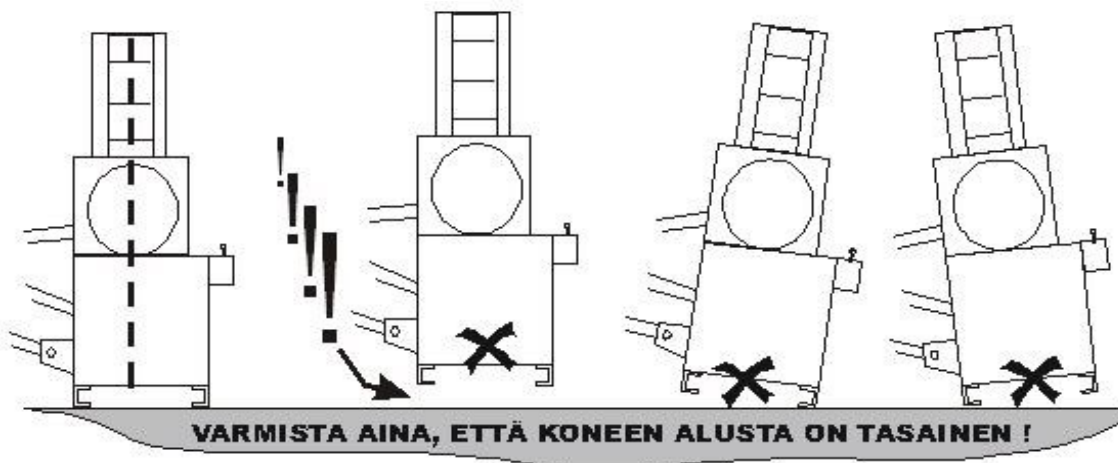


Figure 211

When viewed from the rear, the firewood processor must stand completely straight!

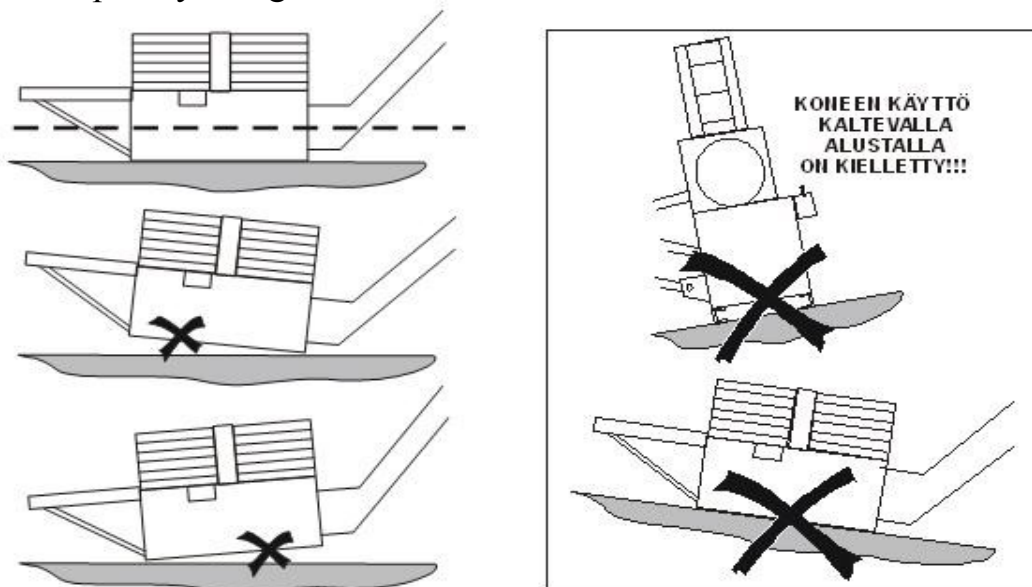


Figure 212

2.2 Dispose of the machine's packaging materials in an environmentally friendly manner!



Figure 221

1. Mount the sawdust guide onto the firewood processor.



Figure 222

2. Mount the out-feed conveyer crank. Note the thread on the crank's screw.

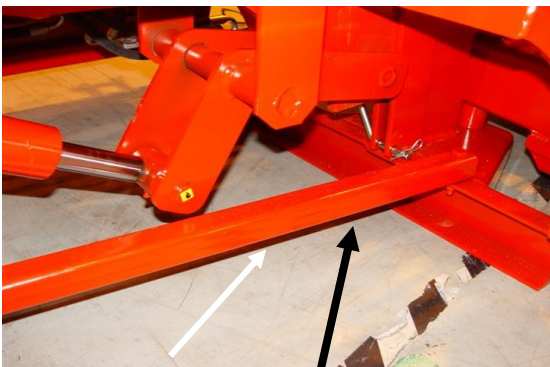


Figure 223

3. Remove the support.

2.3 Test run preparations and test run

Before carrying out a test run, check the firewood processor thoroughly for any damage or faults that could lead to injury, or harm the processor or the environment.

All problems discovered during the test run must be attended to before the firewood processor is used.

For information on the maintenance of the Hakki Pilke Easy 42 firewood processor, see Chapter 20.

3 CONNECTING THE FIREWOOD PROCESSOR TO A TRACTOR

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

A tractor-powered firewood processor must be connected to a tractor at all times during use!

3.1 Cardan shaft

When connecting and using the cardan shaft, you must consider all instructions for use, maintenance and safety that the manufacturer of the cardan shaft has issued on the safe usage of the shaft.

Connecting an unprotected shaft to the machine is strictly forbidden!

The required power to the machine is about 15 kW, the cardan shaft should generate power of at least twice that amount.



Figure 310

Make sure that the connected shaft is locked to the splined shaft of the angle gear!

Connect the chain that prevents the turning motion of the protective cover to the base of the angle gear, Figure 310.

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

NOTE! Before moving the firewood processor, check that your tractor has enough capacity to pull/lift it.

One person can connect the cardan shaft alone. When connecting the machine to the tractor, there must be no one in the tractor cabin, so as to prevent any accidental contact with the controls. Check all the connecting devices of the tractor and the firewood processor before connecting them. All faulty devices must be repaired or replaced. Never connect the firewood processor to a defective device or part. Carry out all connection procedures thoroughly and carefully.

3.2 Push bar and drawbars

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



3.3 Electronic measuring device's power cord (accessory)

The cord must be routed so that it cannot be damaged when using or moving the firewood processor. Always check the condition and length of the cord before and after using or moving the machine.

Check that the plug is clean before connecting it to the tractor socket.



Tractor-powered



Electric-powered

The socket for the measuring device of an electric-powered firewood processor is located at the back of the machine.

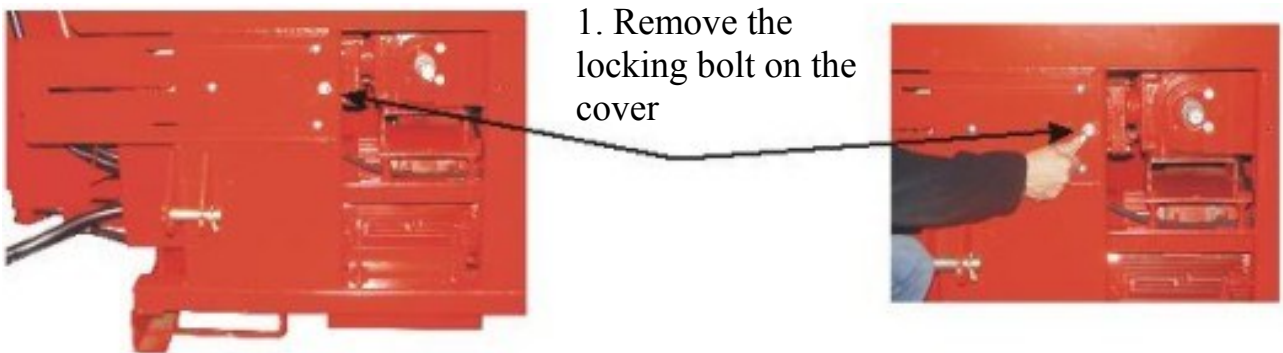
4 STARTING THE Hakki Pilke Easy 42

Never start the firewood processor before all the necessary preparations have been carried out.

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

4.1 Selecting the power source for a tractor- and electric-powered (combi) firewood processor

Tractor drive



Electrical drive

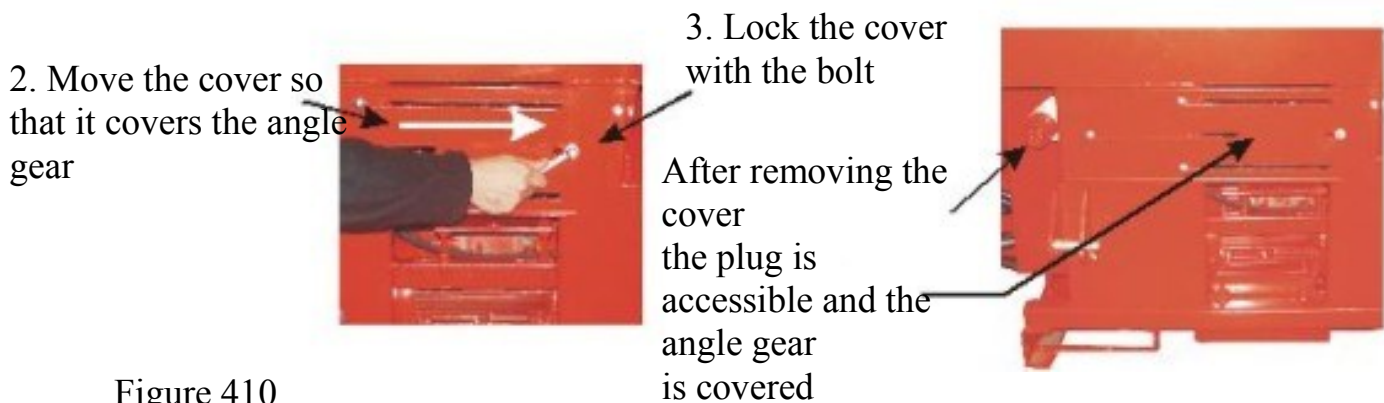


Figure 410

4.1 Start and Stop buttons

Electric-powered model

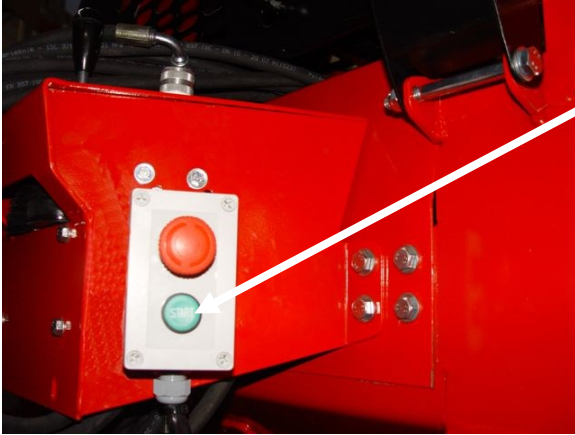


Figure 420

Electrical drive

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 firewood processor to start.

Turn the button slightly clockwise to lift it to the UP position.

Use the red button (Figure 420) to stop the firewood processor.

Tractor drive

Tractor-powered models are started and stopped from the tractor cabin.

For more information, refer to your tractor's operator manual.

5 CONTROLS

The firewood processor is controlled with hydraulic control valves on the control console at the front of the machine.

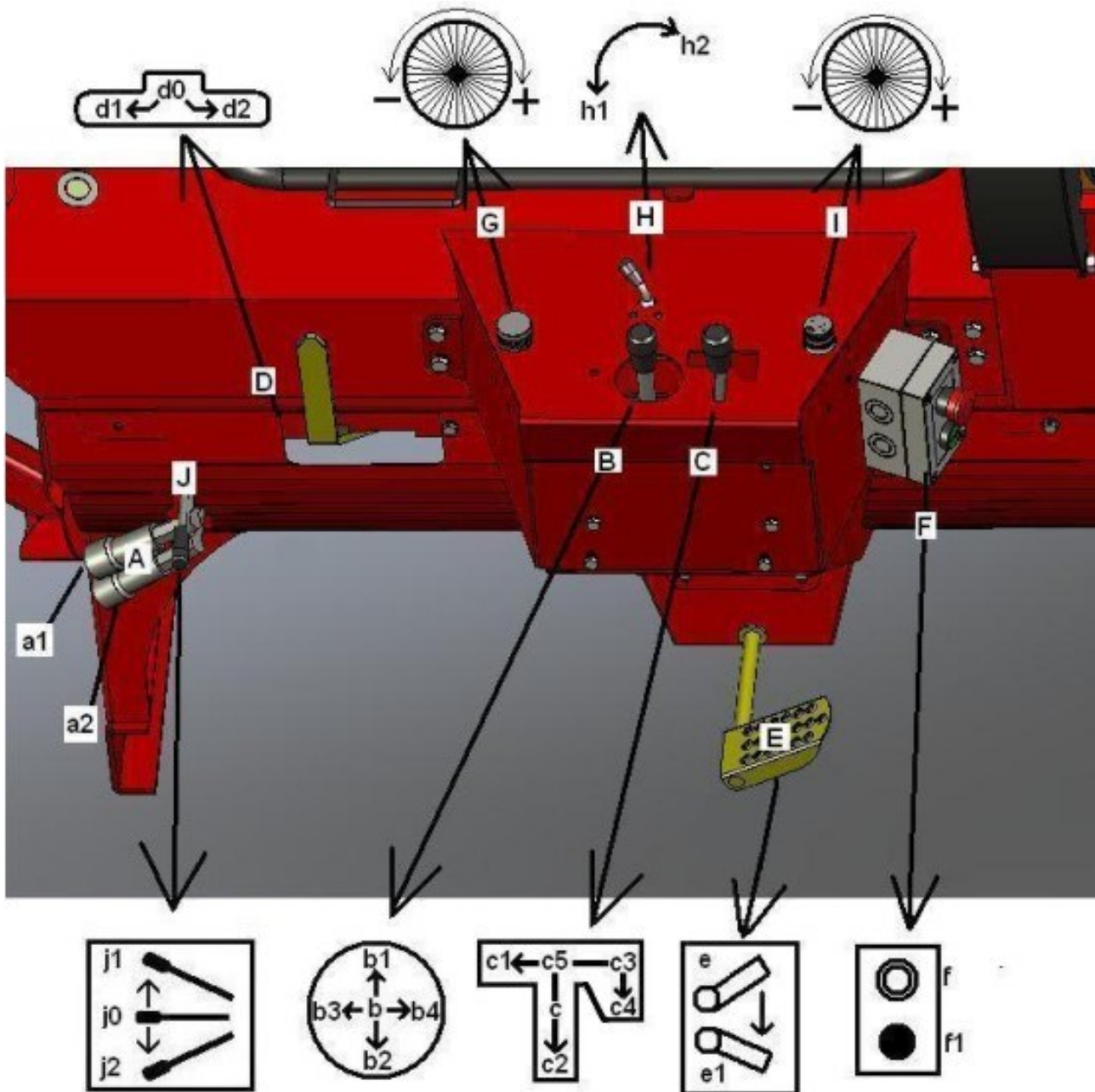


Figure 500

5.A External hydraulics, connectors a1, a2. Maximum pressure: 180 bar. Operating lever J: operating positions j1-j2

5.B Out-feed conveyor and splitting blade control. Four operating positions: b1 and b2: turn the out-feed conveyor; b4 and b3: lift and lower the splitting blade.

5.C Cutting blade and in-feed conveyor control. Lever C, c2: lower and start the blade. c5: lift and stop the blade, start splitting.

c1: move the in-feed conveyor to the left and c3: move the in-feed conveyor to the right towards the blade. c4: move the in-feed conveyor to the right towards the blade with 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 pedal. e1: start splitting mode by pressing the foot pedal E down.

5.F Starting and stopping an electric-powered firewood processor. f1: start the firewood processor by pushing the lower button. f: stop the firewood processor by pushing the top button. For more information, see Section 4.2.

5.G Adjusting 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 Starting and stopping the conveyor belt rotation. h1: start the rotation. h2: stop the rotation.

5.I Adjusting the out-feed conveyor speed. Turn the button to the right (+) to increase the speed and to the left (-) to decrease the speed.

6 IN-FEED CONVEYOR

6.1 Lowering the in-feed conveyor into the operating position



Figure 611

6.1.1. Turn the winch crank (B) in the direction of the arrow to release the winch belt (A) about 10 cm.

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

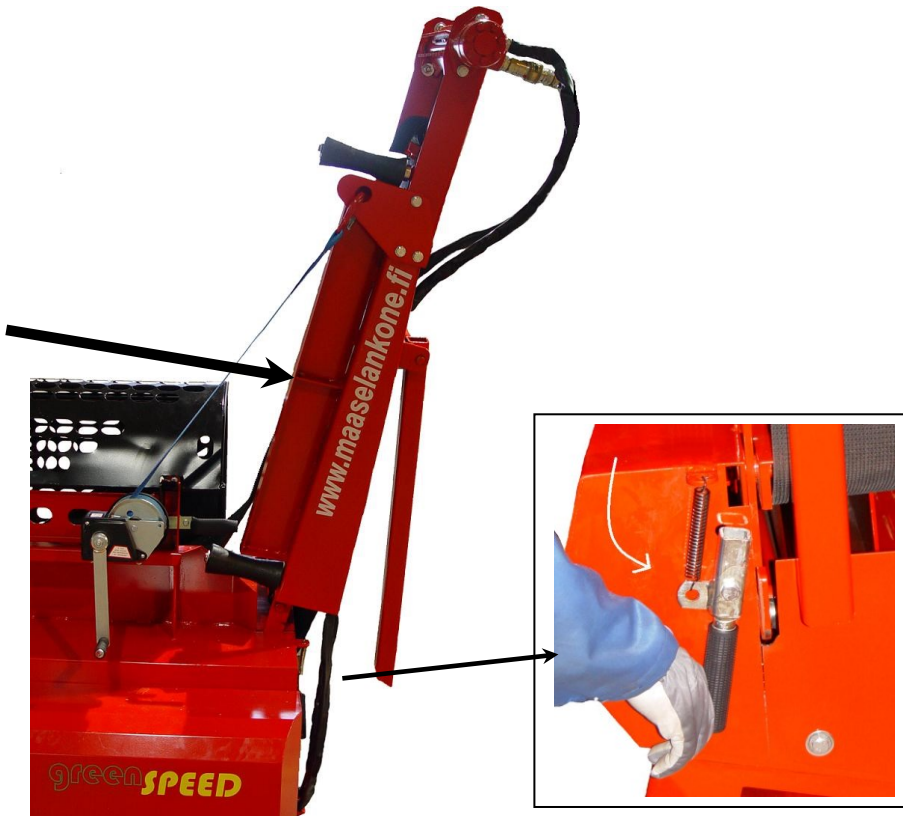


Figure 612a

Figure 612b

6.1.2 Press the locking handle (Figure 612b) down and then push the out-feed 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 in-feed conveyor. The in-feed conveyor is heavy and can cause permanent injury if it strikes with full force.

The Hakki Pilke Easy 42 firewood processor is designed to be used by one person at a time. One person alone can lower the in-feed conveyor. Under no circumstances should there be people or animals underneath the in-feed conveyor when it is being lowered.



Figure 613

6.1.3 Lower the in-feed 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 place and the winch belt is loose, the in-feed conveyor is ready for use. Check that the in-feed conveyor belt is tight enough before continuing. The belt is tight enough if it rises about 2 cm from the middle.

6.1.5 To lift the in-feed 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 OUT-FEED CONVEYOR

7.1 Lowering the out-feed conveyor into the operating position



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

Figure 711

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



Figure 712

CHECK that there are no people or animals underneath the conveyor! The safety zone around the machine is 10 metres!

7.1-2 Grip out-feed conveyor handle C tightly with your left hand and lift in-feed conveyor locking handle D with your right hand. (Do not lift the locking handle up too high, as it will lock the handle.)

Hold locking handle D up and, while holding handle C, lower the conveyor until the winch belt tightens. Once the belt is tight, release handle D.



Figure 713

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

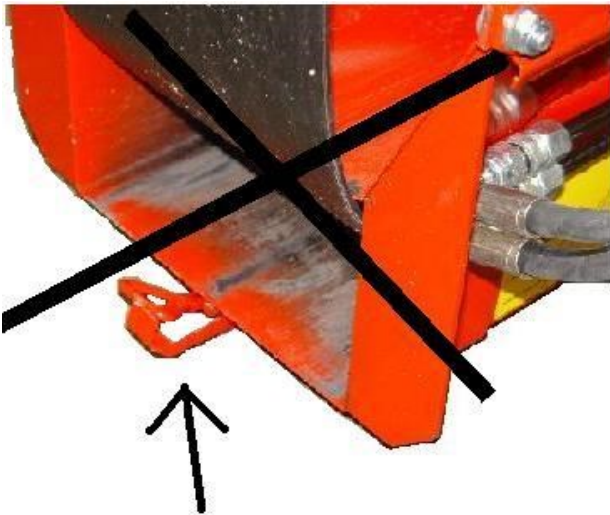


Figure 714

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

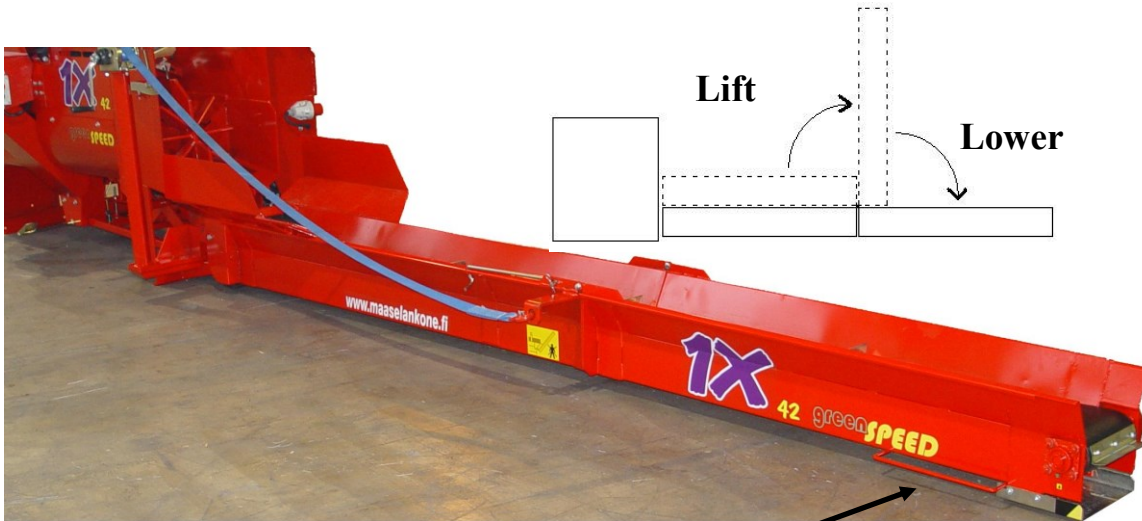


Figure 715

7.1-5 Unfold the out-feed 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 out-feed conveyor. Ensure that the conveyor area is kept free of people and animals. The conveyor must not be connected to the mains, a tractor or any other power supply!

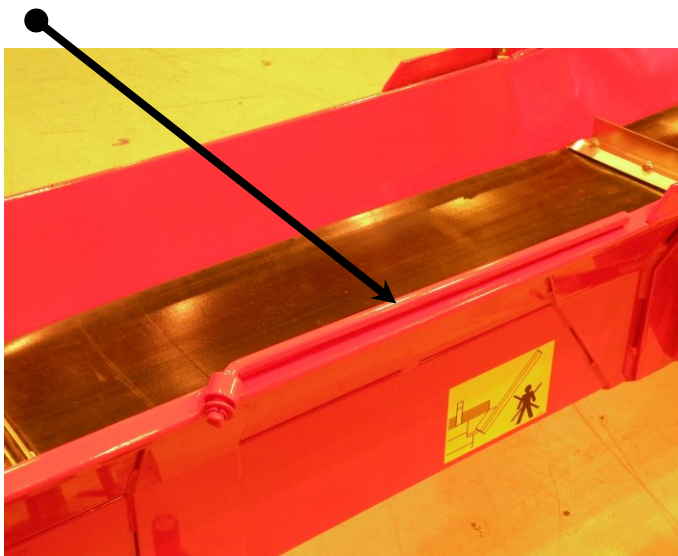


Figure 716

7.1-6 The lever that prevents the out-feed conveyor belt from rolling. 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 out-feed conveyor belt.



Figure 717

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

BE CAREFUL! NEVER MOVE UNDERNEATH THE CONVEYOR.

7.2 Placing the out-feed conveyor into the transport and storage position

To place the out-feed conveyor into the transport and storage position, perform the steps for the operating position in reverse order.

Remember the following:

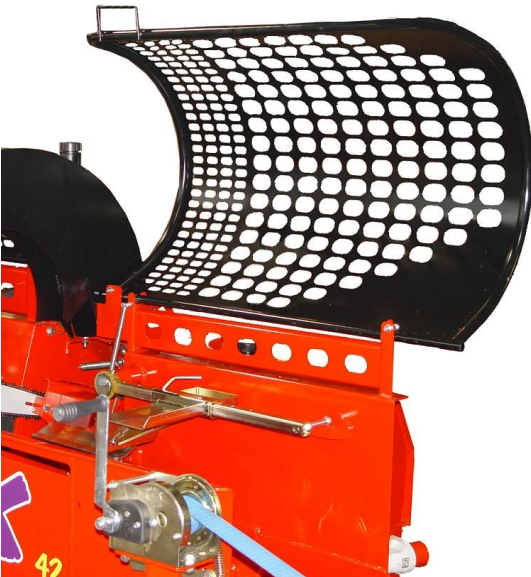


Figure 721

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

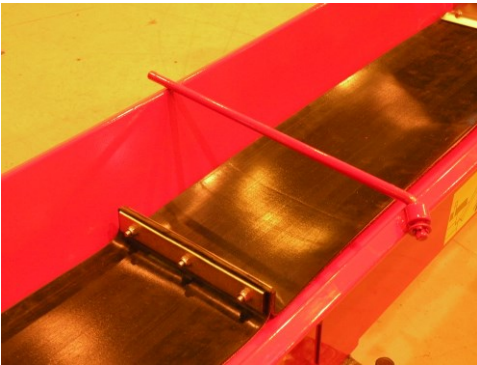


Figure 722

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

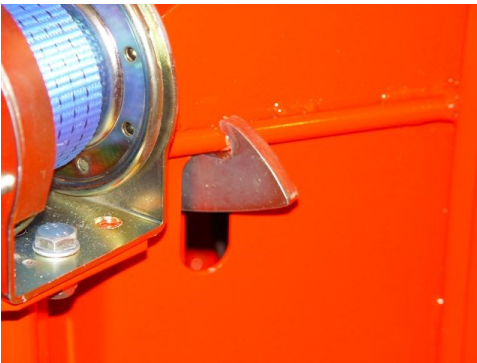


Figure 723

7.2-3 After folding and lifting the conveyor, check that the locking latch locks it into the 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 functions can be used when the guards are down.

If you lift the guards while the firewood processor is in operation, the cutting and splitting functions are stopped.

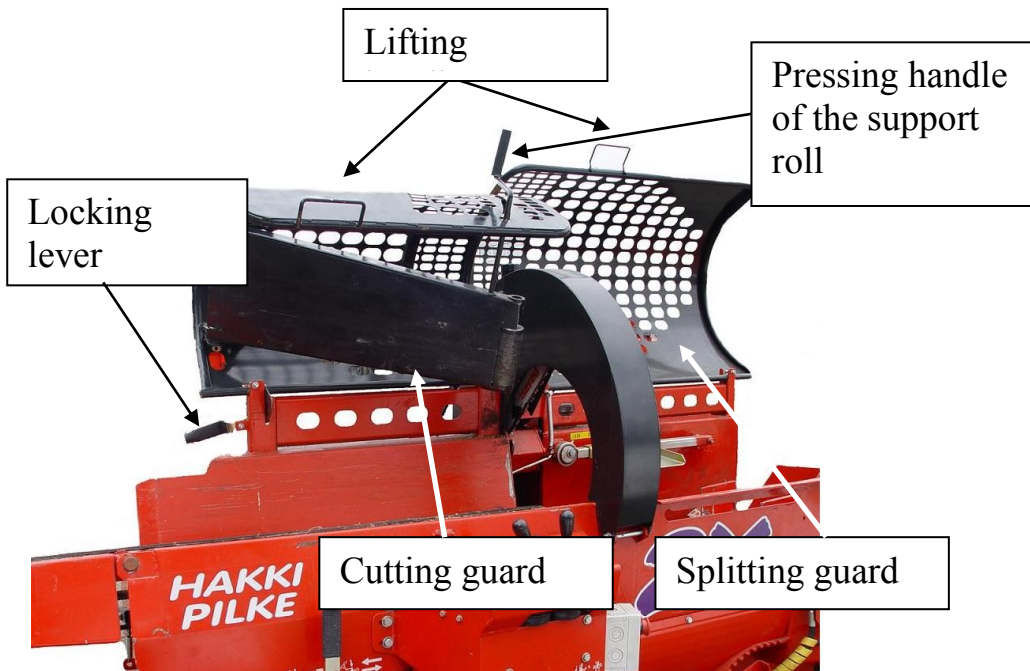


Figure 800

8.1 UP position

The guards are lifted up during maintenance, for example. When the out-feed conveyor is in the storage position, the splitting guard must be in the raised position. In this position, the splitting and cutting functions are not operable.

You can lift the guards from the lifting handles whenever necessary. The firewood processor stops automatically when either of the guards is lifted up.

You can lower the splitting guard straight down. BE CAREFUL not to hit your head on the guard or get your hands caught in between. Never drop the guard down: lower it steadily and slowly.

The cutting guard cannot be lowered directly from the lifting handle. The operator must support the cutting guard from the lifting handle while lifting the locking lever.

BE CAREFUL not to get your hands caught or hit yourself with the pressing handle of the support roll.

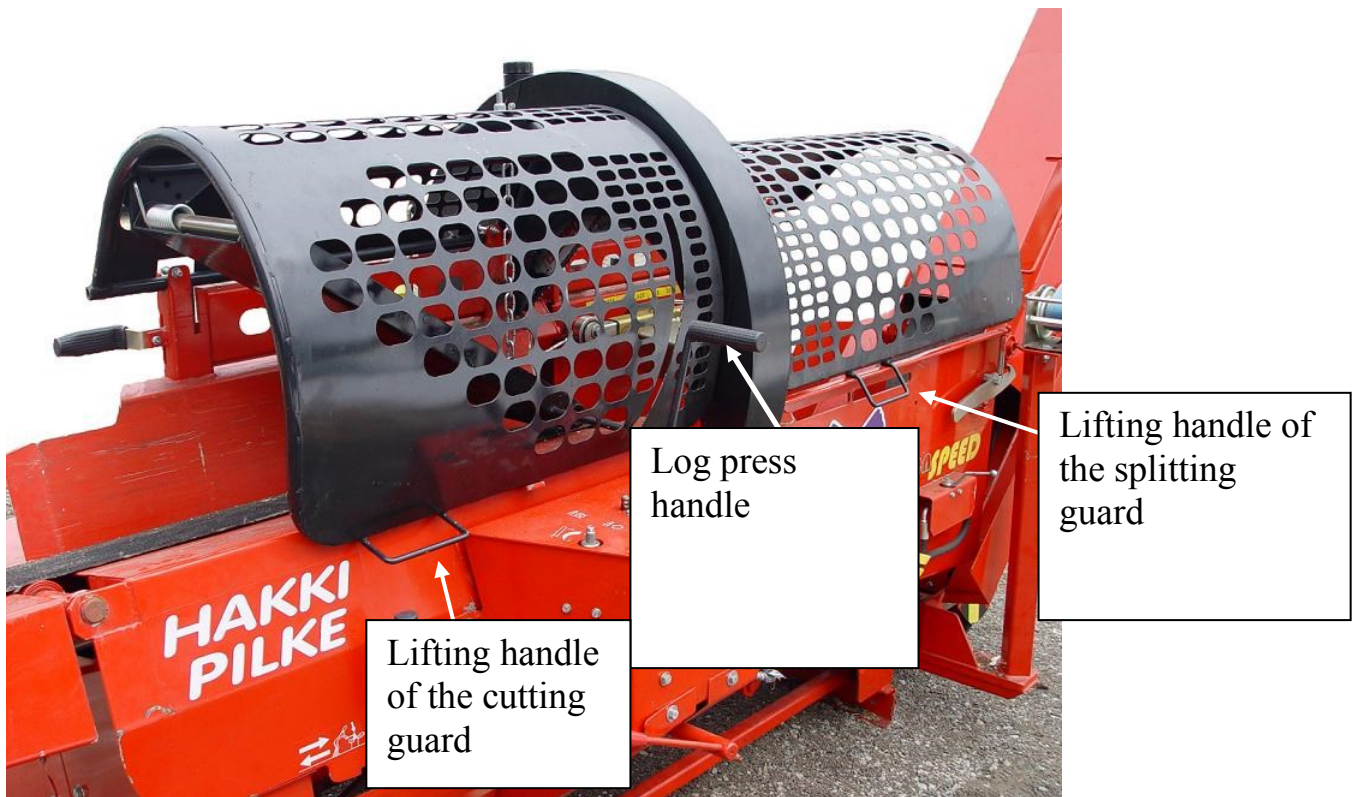


Figure 820

8.2 Operating position

In the operating position, the firewood processor 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 MEASURING DEVICE AND ADJUSTMENT

9.1 Mechanical measuring device



Locking pin. Remove the bolt pin from below to lift the bolt.

Log guide that guides the cut log correctly into the splitting channel.

Figure 921

Choose the desired firewood length from the measuring tape and place the measuring device's front edge alongside 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 firewood processor is equipped with an optical, freely adjustable measuring device for cutting firewood.

Device parts:

Absorbing sticker, tracing emitter, and solenoid valve.

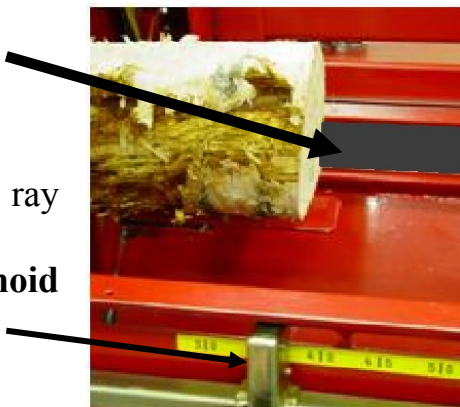


Figure 922

Measurement adjustment

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



Figure 923

Sensitivity adjustment

Move the emitter to the opening in the frame and adjust the sensitivity by turning the adjustment screw on top of the emitter as needed. The ray is reflected on the surface of the wood, so check the level using a log.

10 CUTTING FUNCTION

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

The Hakki Pilke Easy 42 firewood processor features hydraulic saw chain rotation.

The cutting function requires that:

- The firewood processor is connected to a power source (see Chapters 3 or 4).
- The splitting and cutting guards are in the operating position (Figure 820).

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

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

11 SPLITTING SYSTEM CONTROL

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

The splitting system is highly automated. The splitting function starts once a log has been cut with the saw bar and the bar is being lifted. You can also start the splitting function with the foot pedal (5E, page 12).

Use the splitting function control lever to reset the splitting or to stop the resetting. (5D, page 12).



Figure 111

Splitting function control lever

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

(see the splitting function control lever positions on the next page, Figure 112)

Splitting start options



As the cutting blade starts to rise from its lowest position.



Starting with the foot pedal

Splitting function control lever positions:



Stop the resetting (left).

Normal position (middle)



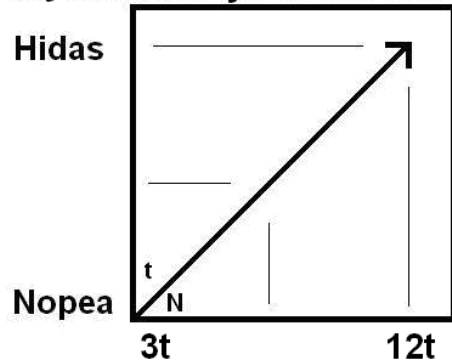
Reset splitting (right)

Figure 112

12 Hydro

The resistance-controlled splitting force of the Hakki Pilke Easy 42 firewood processor is based on surface area. The force range is from 3 to 12 tonnes. The less force is in use, the faster the splitting motion.

Halkaisun viemän ajan suhde käytettävään työntövoimaan



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 (pages 12-13).

NOTE! The splitting blade must be lowered when the firewood processor is in the transport and storage position.

13.1 Lifting and lowering the splitting blade

Position the middle part of the log in the middle of the splitting blade by lifting and lowering it (lever 5B, page 12).

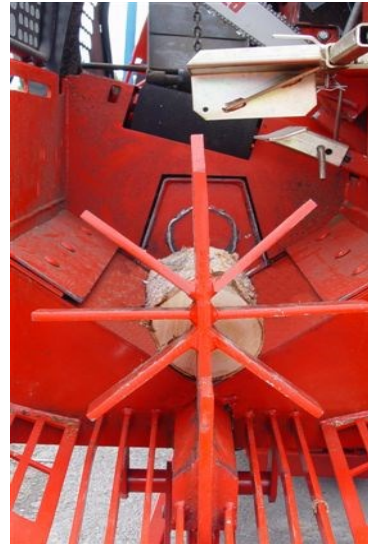


Figure 13.1

13.2 Replacing the splitting blade

STOP THE MACHINE BEFORE REPLACING THE SPLITTING BLADE!
WARNING! HANDLE THE BLADE WITH CARE!

Note that the blade must not be in the lowered position 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, page 12). This releases it from the adjusting joint.
3. Grab the back of the blade on the conveyor's side.
4. Lift the blade off (Figure 13.2b).

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

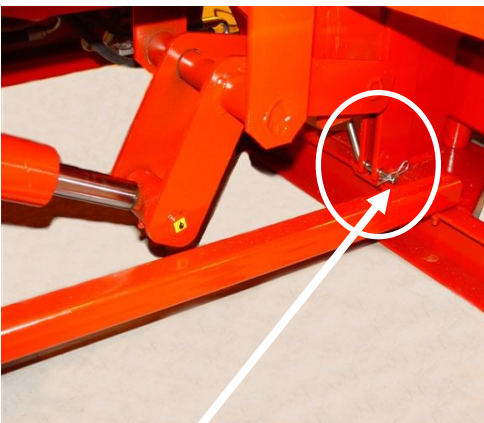


Figure 13.2a

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

THE BLADE WEIGHS ABOUT 15 KG (4-way)



Figure 13.2b

14 TEST RUN

14.1 Testing the firewood processor

The machine may not be used before a test run that tests all of the functions of the machine has been carried out. Only a person who has read and understood the firewood processor's operation, maintenance and safety instructions is allowed to carry out the testing and test run.

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

14.2 Carrying out the test run

14.2-a. Check that the firewood processor's cutting and splitting guards are in the lowered position.

14.2-b. Check that the in-feed and out-feed conveyors are in the operating position.

14.2-c. Check that the cutting blade is in the raised position.

14.2-d1. Tractor drive: Start the tractor and connect the output with low revolutions and

add revolutions max 300 r/min

14.2-d2. Electrical drive: Connect a cord to the machine's power socket, turn on the machine

by pressing the start button (see Section 4.2, start and stop buttons).

Note! When the air temperature is below zero, run the firewood processor for a while without any testing procedures to increase the viscosity of the machine'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), **TAKE CARE!**

14.2-g1. Check that the saw stops when you lift the cutting and splitting guards.

14.2-g2. Start the splitting function. Test to see that the splitting motion stops by lifting the cutting and
splitting guard.

14.2-h. Start the splitting motion with the firewood processor controls. (Lower the cutting blade and

lift it up.) Check that the splitting function starts. Repeat the cutting blade motion

a few times.

14.2-i. Restart the splitting function and reverse the splitting direction half way by turning the splitting function reverse lever once (see 5d).

14.2-j. Test the feed and return of the in-feed conveyor (see C1, C3 and C4).

14.2-k. Test that you can turn the out-feed conveyor (see b1-b2) and change its speed (see 5i).

14.2-l. 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 firewood processor.

Note! Stop the firewood processor and disconnect the tractor output or the electric power cord from the socket before determining and fixing the fault!

14.2.1 Safe operation of the out-feed conveyor

When using the firewood processor 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. If this fails, stop the firewood processor so that you can SAFELY determine what caused the belt stoppage and fix the problem.
- the Hakki Pilke Easy 42 firewood processor 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 return rollers are kept 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 it does not cause damage or dangerous situations when the firewood processor is in use.
- the conveyor is not positioned in such a manner that processed pieces of firewood can roll back into the splitting channel.
- 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 gap 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.
- moving the firewood processor slightly within the operating environment must be performed slowly so that no danger or damage is caused to the processor or the conveyor.
- the conveyor is in the transport position if it is being moved more than 5 metres.
- NOTE! Make sure that when moving the machine and the conveyor in the full upright position there is enough space above.

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 firewood processor.

15.1-A.2. You are familiar with all the instructions on the operation, safety and maintenance of the firewood processor.

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
- If your clothes are too loose, they may get caught on wood, the machine, etc. causing an accident
- appropriate face, eye and hearing protection.

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

15.1-A.5. You have ensured that

- the air temperature cannot cause danger to your body
- snow or rain cannot pose a risk to your health or damage the firewood processor
- strong winds cannot pose a risk to your health or damage the firewood processor during its use
- the lighting conditions whenever the firewood processor is connected, used, transported or stored are sufficient to prevent injury or damage to the machine.
- there is sufficient ventilation around the machine and/or that the operator has sufficient respiratory protection.

B. When starting firewood processing, note that:

15.1-B.1. if the firewood processor has been stored in temperatures below -10°C, it will operate slowly at first.

In such cases, test the firewood processor's cutting and splitting functions 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 r/min.

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

15.2 Processing firewood

15.2-1. Test the machine according to the instructions in Chapter 14.

15.2-2. Adjust the position of the middle section of the splitting blade into the middle of the log, and set the length of the firewood according to the instructions in Chapter 13.

15.2-3. Add output revolutions max 500 r/min

15.4-4. Choose the log to process. **Note** that the diameter of the cutter opening is 42 cm. The knottiness and shape of the log can increase the diameter.

WARNING! Logs must be fed into the firewood processor in a way that does not put the operator or the machine at risk.

15.2-5. Turn the in-feed conveyor control lever to the position where it feeds logs to the cutter (Section 5-c3). Once the log reaches the measuring device, stop feeding. The log is now ready to be cut. If your firewood processor is equipped with an optical measuring device, the in-feed conveyor stops automatically.

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

WARNING! When there are logs on the in-feed conveyor, avoid getting your hands or other parts of your body caught between the wood and the parts of the firewood processor.

WARNING! If a log hits the edge of the cutter opening or some other part of the firewood processor and stops moving, you must stop the conveyor and turn the conveyor control lever to the position so that it returns the log (Section 5.c1).

WARNING! If you need to remove a log from the in-feed 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 (Section 5-C0).

WARNING! Before cutting the log, check that its shape and any branches on it 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 in-feed conveyor and its shape is safe for cutting, cut the log by holding the lever (5-C2) in the extreme position 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 channel.

WARNING! Always check that the cut logs are positioned correctly in the channel.

16 NORMAL SPLITTING

The splitting function is turned on when the cutting blade returns from its lowest position. You can also start the splitting function by using the foot pedal.

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 splitting guard.
- 16.1-2. Correct the position of the cut log so that it can be split.
- 16.1-3. Close the splitting guard.
- 16.1-4. Start the splitting motion with the foot pedal.

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

16.2 Removing logs from the splitting blade

16.2A Option A

A1. Reverse the splitting motion by pushing the reversing lever quickly into the reverse position (5.d1) so that the splitting beam returns to its initial position.

A2. **WARNING!** Stop the firewood processor to prevent serious injury!

A3. Open the splitting guard.

A4. Remove the log from the blade by striking it with a blunt instrument from the direction of the out-feed conveyor. The purpose of this is to return the log to the splitting channel.

WARNING! The removal of logs from the splitting blade must be done in a way that does not put the operator or machine at risk.

16.2B Option B

B1. Reverse the splitting motion by pushing the reversing lever quickly into 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 into the splitting channel between the splitting beam and the stuck piece of wood

B4. Close the splitting guard.

B5. Start the splitting motion with the foot pedal.

WARNING! Never use Option B if the log is stuck on the blade in a slanted position or entirely sideways. REASON: The smaller log placed in the splitting channel may suddenly get pushed into the guards and cause damage or injury. A log that is stuck in a slanted or sideways position 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 in-feed conveyor for the entire duration of the cutting.

If the last piece of a log is not large enough to form a whole piece of firewood, leave the last full-sized piece on the in-feed conveyor and the undersized part on the splitting channel. Cut the log.

When the last piece is on the in-feed conveyor, feed it to the splitting channel and start the splitting function using the foot pedal.

16.4 Resplitting logs

- a. A. Lift the splitting channel guard up.
- b. Place the log you want to resplit in the splitting channel.
- c. Close the splitting channel guard.
- d. Start the splitting function with the foot pedal.

17 FINISHING WORK

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

18 TRANSPORTING THE FIREWOOD PROCESSOR

When using a tractor to transport the firewood processor, make sure that

NOTE! The splitting blade must be lowered when the firewood processor is in the transport and storage position.

- the in-feed and out-feed conveyors are in the transport position
- the machine is kept at such a height that it or the conveyors do not crash into buildings or other constructions or growth above them, below them or on the sides.
- the transportation speed is at a safe level
- no extra weight is placed on the firewood processor
- if you stop during transport – even for a little while – the firewood processor must be lowered to the ground.

19 STORING THE FIREWOOD PROCESSOR

- Clear the firewood processor of any wood and snow residue before placing it into storage. Make sure that the machine is stopped before carrying out any cleaning procedures.
- Check that no oil leaks into the environment before placing the firewood processor into storage.
- Store the firewood processor in a covered space. If you store it outdoors, cover the machine with wind and

snow-proof material.

- A stored machine must be in the transport position and it must be stored on a platform that prevents the machine from falling over. Never store the machine on slanting ground!
- Store the machine in a location where nothing can crash into it by accident.

20 FIREWOOD PROCESSOR MAINTENANCE

NOTE! Read the firewood processor's guarantee terms 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 machine's functions (cutting, splitting) stop when the cutting and 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 guarantee terms.
- 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 FIREWOOD PROCESSOR!
Remember lubrication! Maintenance of the Hakki Pilke Easy 42 firewood processor's grease nipples and other lubrication points!

20.2 Maintenance of the optical measuring device

The Hakki Pilke Easy 42 is equipped with an optical measuring device.

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

Always clean the eye of the light beam emitter and the reflecting sticker of the measuring device before using the firewood processor. Adjust the sensitivity as needed according to Section 9.2.

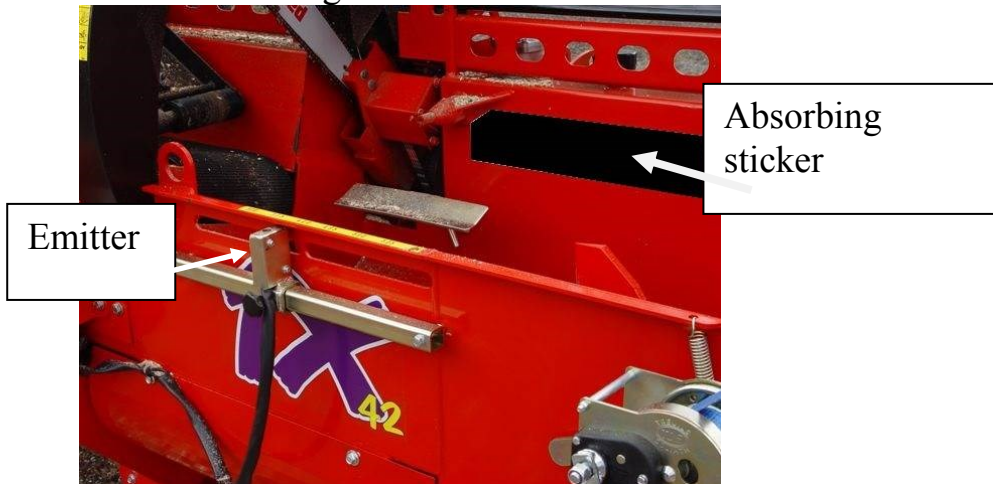


Figure 202

20.3 Maintenance of the splitting blade

Keep the splitting blade sharp and make sure that there is no material on the processed wood that may damage the blade.

Always wear gloves when handling the blade!

WARNING! When handling the blade, always hold it from the back and never grab the blade on the sharpened side!

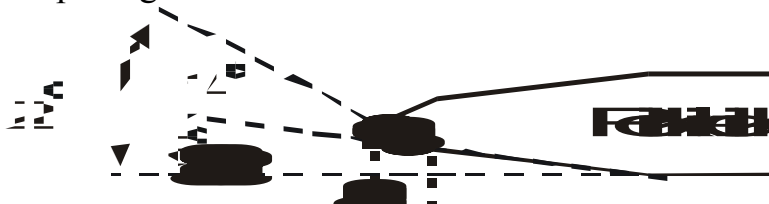


20.3.1 Sharpening the splitting blade

Remove the blade from the splitting channel; see the section on **Replacing 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 create the bevels according to the figure.



20.4 Maintenance of the in-feed conveyoyr

Make sure that the in-feed conveyoyr lock works when the conveyoyr is in the transport position

Check the belt tightness when the conveyoyr is in the operating position. The belt is tight enough when it is able to convey a log. If the belt is too tight,

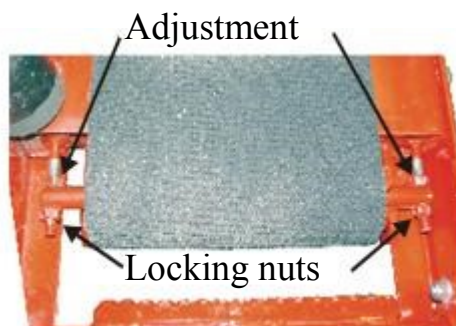


Figure 204a

If the belt is crooked on one side, it should be adjusted to the middle of the frame and the return rollers by tightening the adjustment screw on the side to which the belt is being pulled, or the other way round, by loosening the screw on the side to

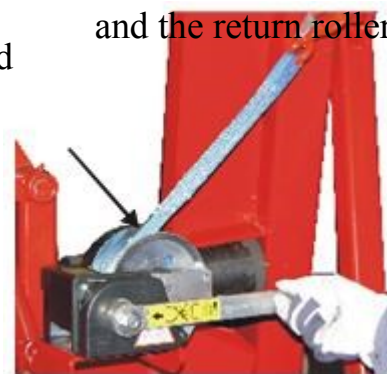
Always check the condition of the conveyoyr winch and pulley belt before using the machine.

- Adjusting the belt tightness;

The tightness is adjusted with the screws at the end of the conveyoyr.

- The correct position of the belt in relation to the frame and the return rollers;

The belt should roll in the middle of the frame and the return rollers.



Figures 204b

20.5 Adjusting the tightness of the out-feed conveyor 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 channel, but the adjustment springs are not pushed in tightly and the belt rolls smoothly.

If the belt is too tight, the conveyor power is reduced, the belt becomes strained and its operating life shortens. The adjustment of the belt is spring-loaded.

Note! Note that the belt will shrink when it becomes wet, and will only return to normal size once it has fully dried.

The belt tightness can be adjusted by adjusting a screw, Figure 205a.

NOTE! Remember to check tightness and alignment on both sides.



Figure 205a

Make sure that the belt goes in the middle of the frame and the rollers. 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 from the conveyor hydraulics.

Lubricate the bearing of the lower roller every 100 service hours. The bearings of the upper roller are self-lubricated.

Also remember other lubrication points, for example the lubrication nipple of the shaft of the out-feed conveyor's lateral turn (Figure 205b)!



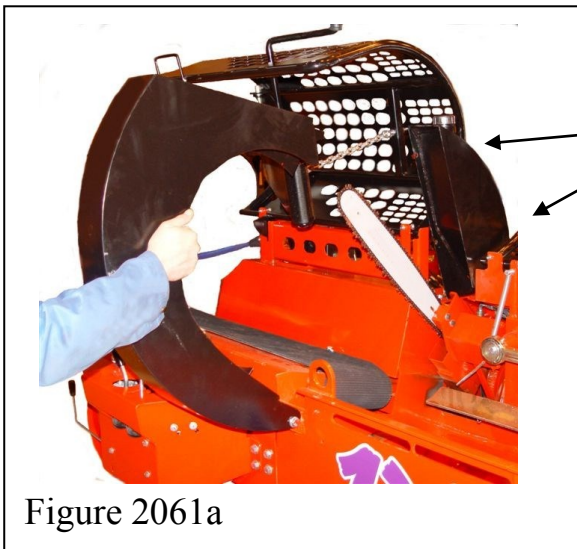
Figure 205b

20.6 Maintenance of the saw bar and cutting 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 Replacing and tightening the saw bar and cutting chain

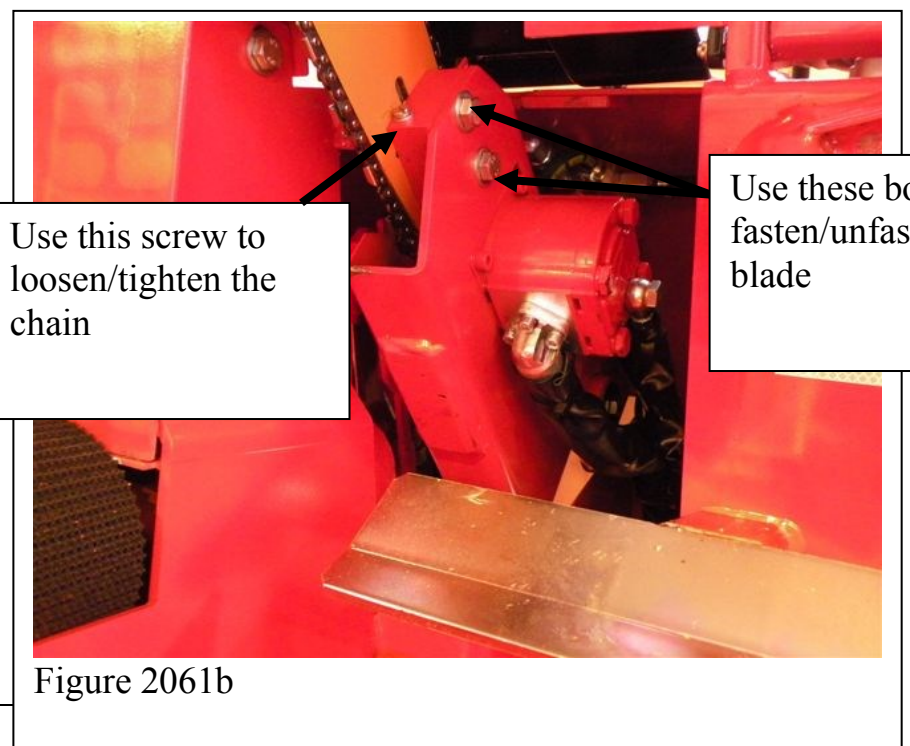
To make the job easier, you may turn the blade guard.
Remove the two screws from the in-feed and out-feed conveyors' side, indicated by arrows, and turn the blade guard to the position shown in the figure.
Disconnect the machine from the tractor and power supply.



Remove the four fastening bolts.

Figure 2061a

Tightening: Loosen the saw bar'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 cutting chain is tight enough that you can see three teeth when lifting the chain from the middle (Figure 2016c).



Use this screw to loosen/tighten the chain

Use these bolts to fasten/unfasten blade

Figure 2061b

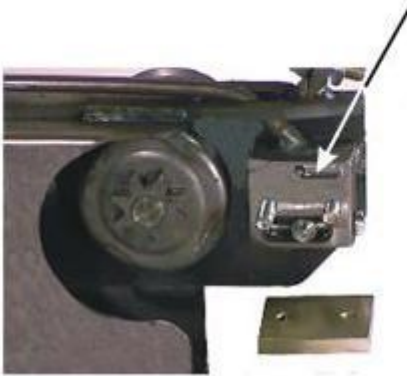
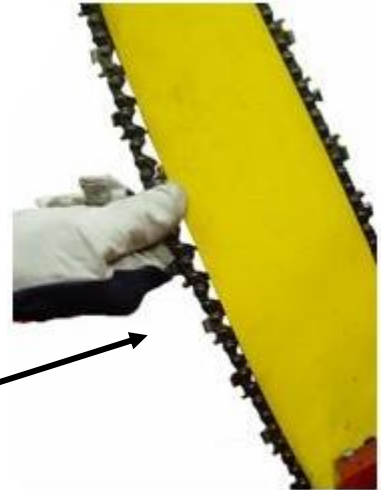


Figure 2061c

The oil channel must be kept clean:

Remove visible dirt and check (start the machine, rotate the “saw bar” by lowering it) that oil flows from the channel.



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 bar

1. Adjust the chain to the bar

Note! The correct way

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

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

4. Tighten the chain sufficiently from the tightening bolt, 2061b

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

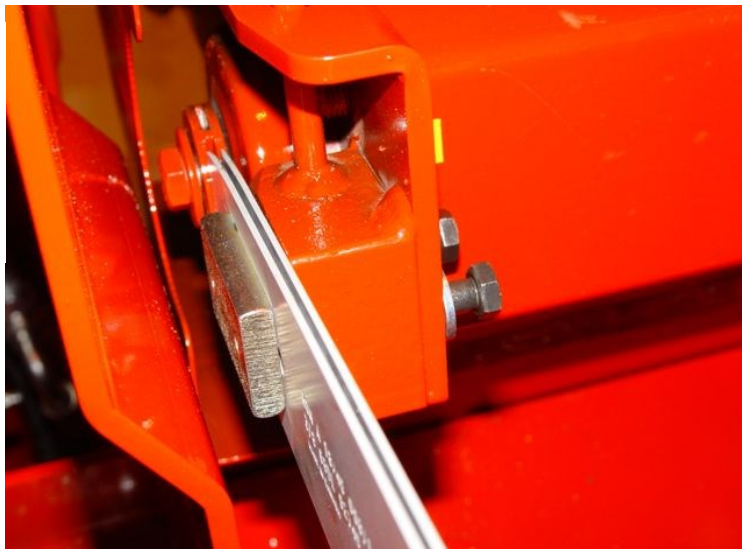


Figure 2063

20.7 Sharpening the cutting chain

When sharpening, avoid making the following errors:



The file is too small

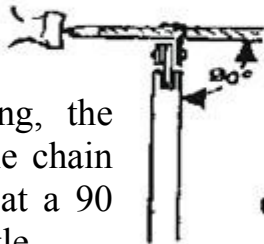


The lowering dimension is too large



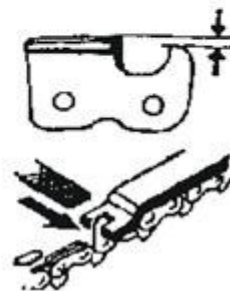
The lowering dimension is too small

When filing, the file and the chain + bar are at a 90 degree angle



Remember the correct direction!

the filing



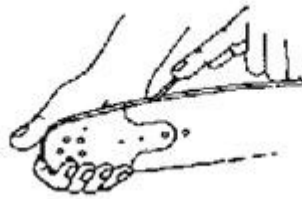
The correct lowering dimension is 0.65 mm

20.8 Maintenance of the bar

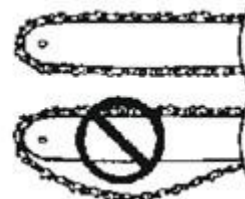
Carry out maintenance on the bar when necessary



Remove any twists in the bar with a flat file



Clean the bar groove and lubrication oil channel



Keep the chain at the correct operation tightness so that the bar and chain do not wear

20.8 Lubrication

Hydraulic oil

Container capacity 65 L

Oil type in normal use: ISO VG 32, such as Teboil 32 S. In hot conditions: ISO VG 46/68, such as Teboil 46 S or Teboil 68 S.

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, replacement cartridge

97349 Complete filter, with frame

TÄRKEÄÄ !!!

Other lubrication points are marked
with little yellow stickers. Add
Vaseline to the marked spots every
100 hours.

All of the firewood processor's lubrication points, which require Vaseline, have been labelled.

Primary lubrication points must be lubricated every 10 hours There are ten lubrication points, presented in the figures below.

Grease nipples of the height adjustment device of the splitting blade (2 pcs) in Figure 208a (left)

Grease nipple of the out-feed conveyor reversal link (1 pc) in Figure 208a (right)

Cylinder nipples of the cutting unit (2 pcs) in Figures 208b and 208c

Grease nipples of the cutting unit joint (2 pcs) in Figure 208d

Grease nipple of the wood measuring device (1 pc) in Figure 208e

Out-feed conveyor turning device cylinder 208f

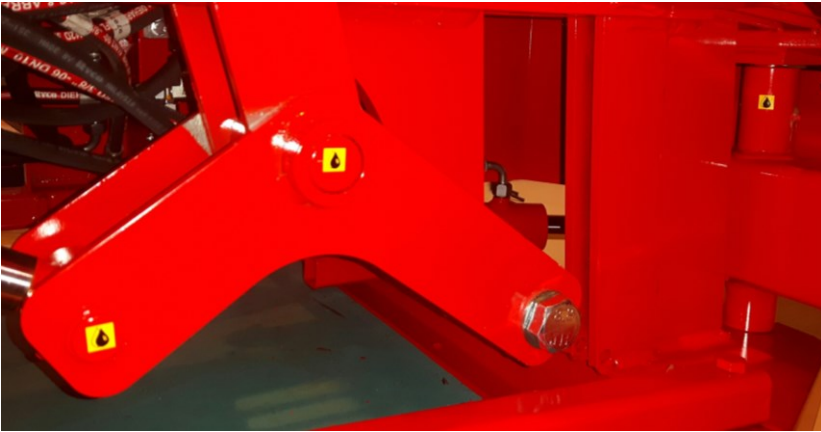


Figure 208a

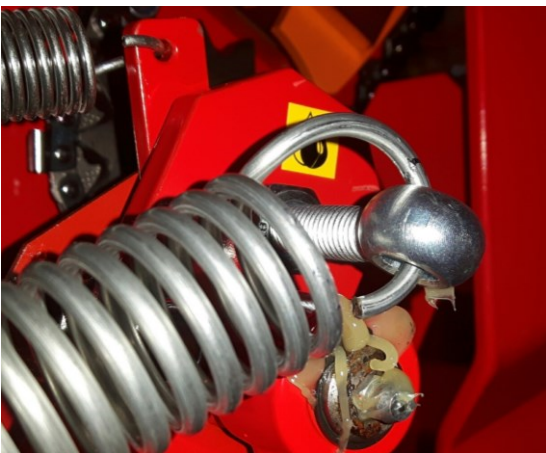


Figure 208b



Figure 208c



Figure 208d

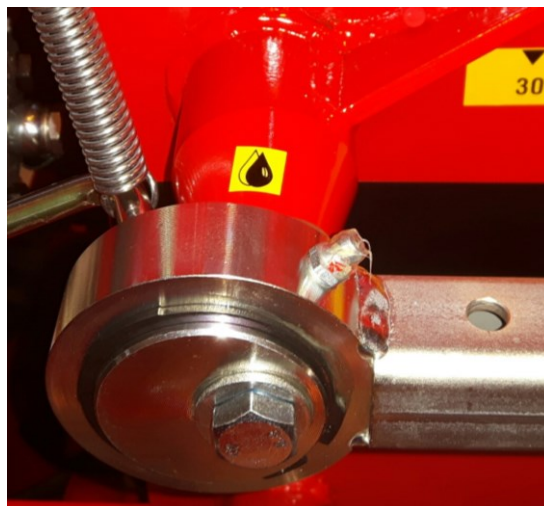


Figure 208e

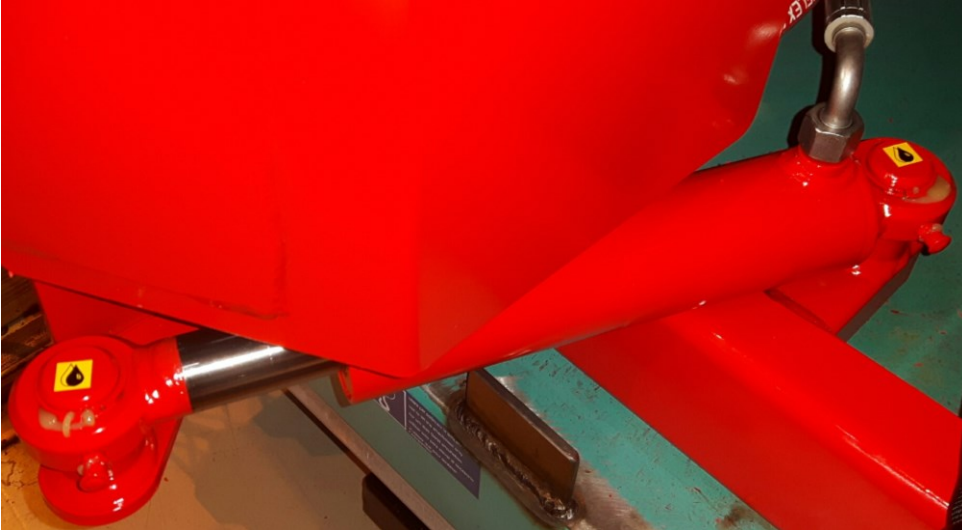


Figure 208f

Secondary lubrication points such as nipple bearings should be lubricated every 100 hours under normal conditions. There are four lubrication points, presented in the figures below.

Note! do not damage the dust covers of the bearings by applying too much grease!

Lower out-feed conveyor roller bearings (2 pcs) in Figure 208g (left and right)

Hydraulic in-feed roller (1 pc) in Figure 208h

Inner roller bearing of the in-feed conveyor (1 pc) in Figure 208i



Figure 208g



Figure 208h

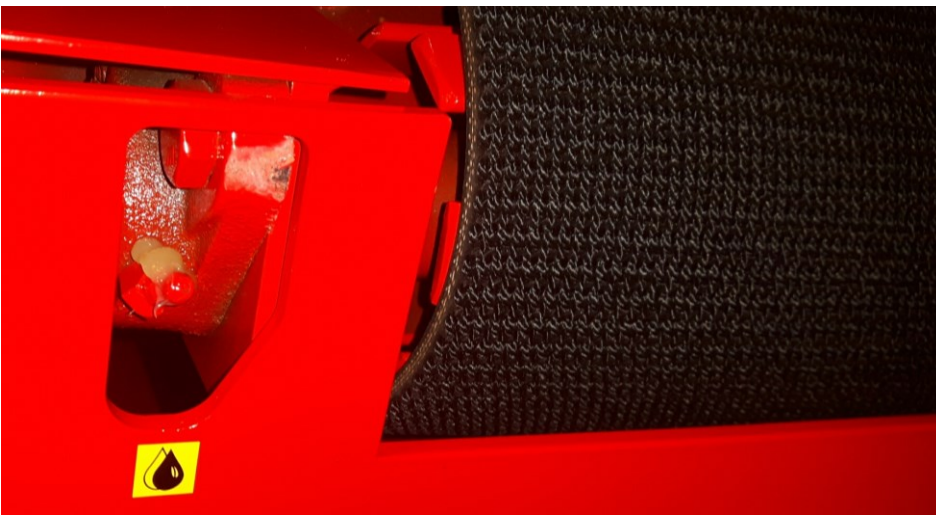
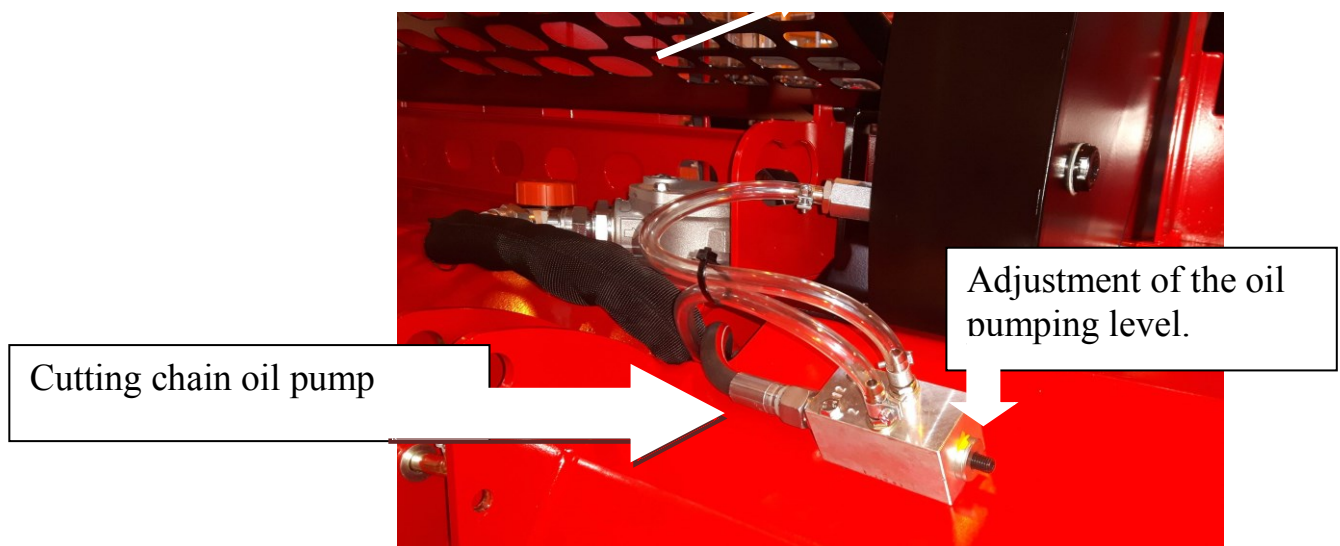
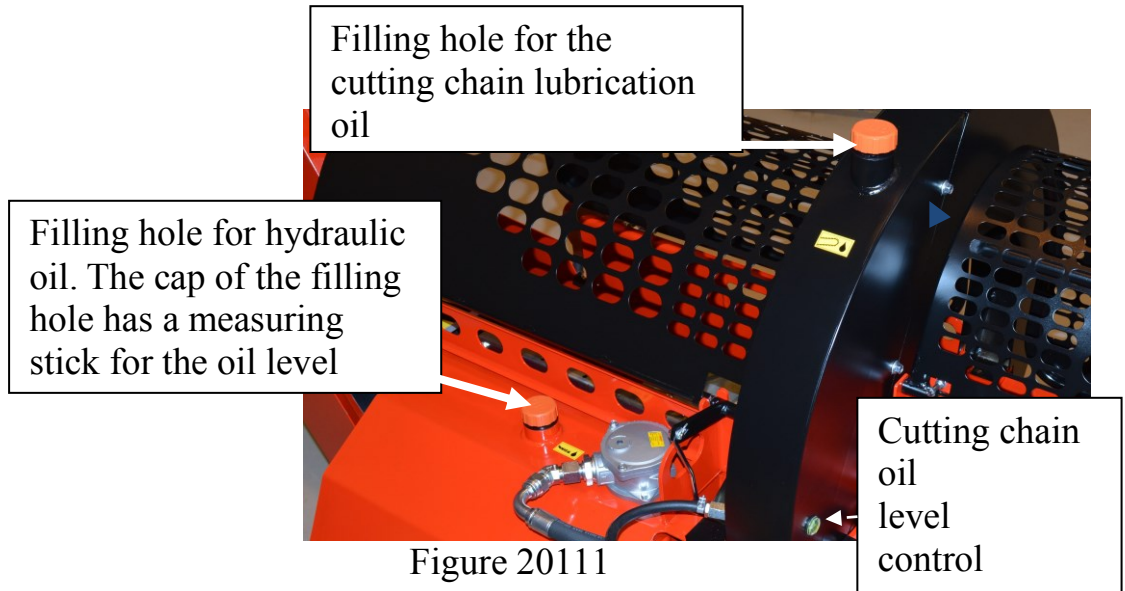


Figure 208i

20.11.1 Cutting chain lubrication

The firewood processor is equipped with automatic cutting chain lubrication.

The automated system dispenses oil onto the chain only when the machine is being used. Always use the appropriate oil to lubricate the cutting chain.



Note! The cutting chain oil pump dispenses oil to the chain when the saw bar is lowered. The amount of oil can be adjusted as necessary with the adjustment screw in Figure 20111a. Tighten the screw to decrease the amount, unscrew to increase. The pump may be bled of air by removing the screw and pumping manually until the transparent hoses are free of air bubbles.

20.11.2 Angle gear oil

for example, EP 80/90

The oil level control gauge is located behind the angle gear. There is enough oil in the angle gear if oil spills out from the opening.

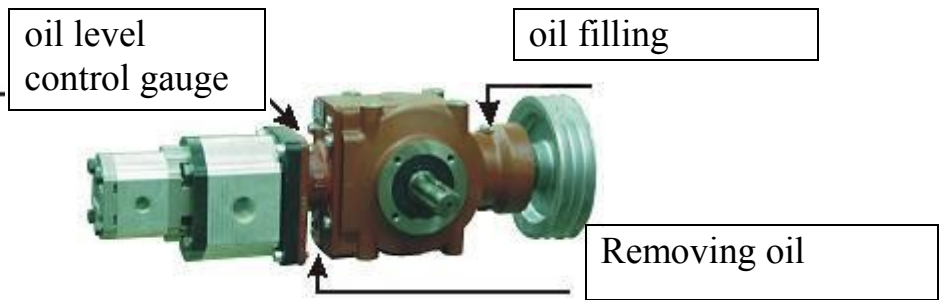


Figure 20112

20.12 Operation of the splitting mechanism

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

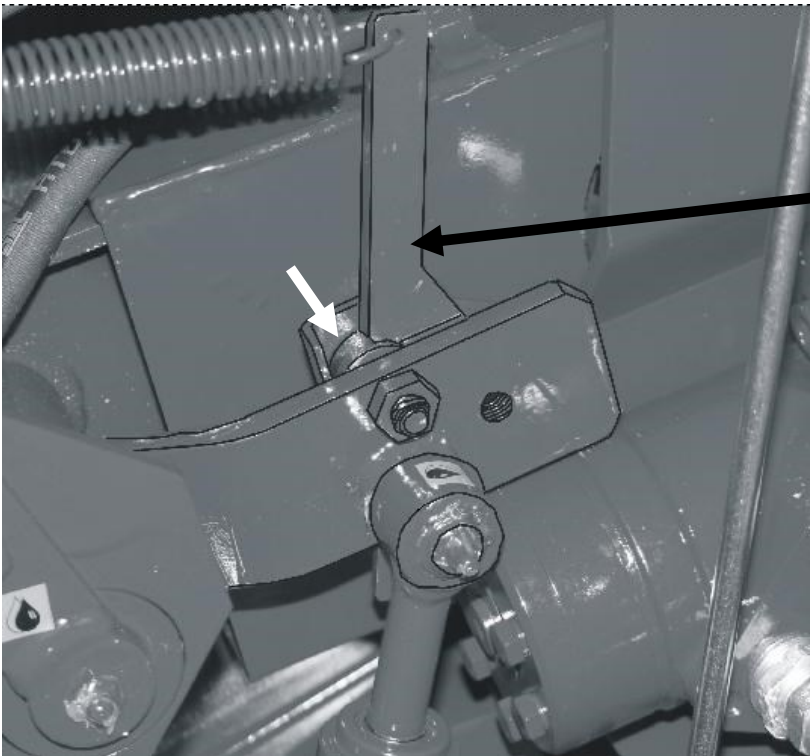


Figure 2012a



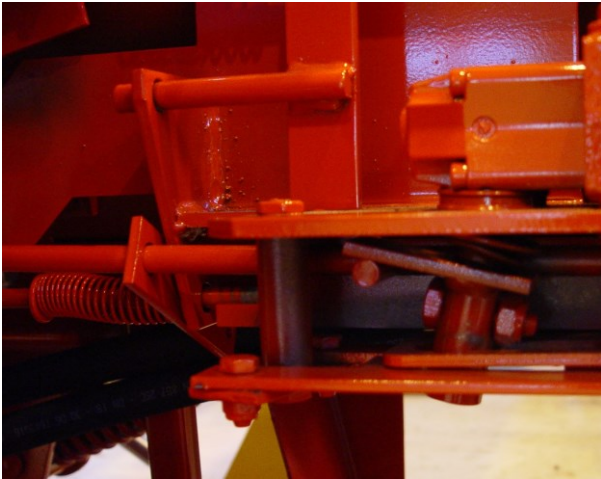
Figure 2012b



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 saw bar has been lifted to the upper position, the trigger bar (Figure 2012b) has activated the starting lever, whose disc has moved the push rod into the splitting position (2012b) (the starting lever has been lowered into the free position along with the trigger bar, Figure 2012f) and the slide has gone into motion.



2012d

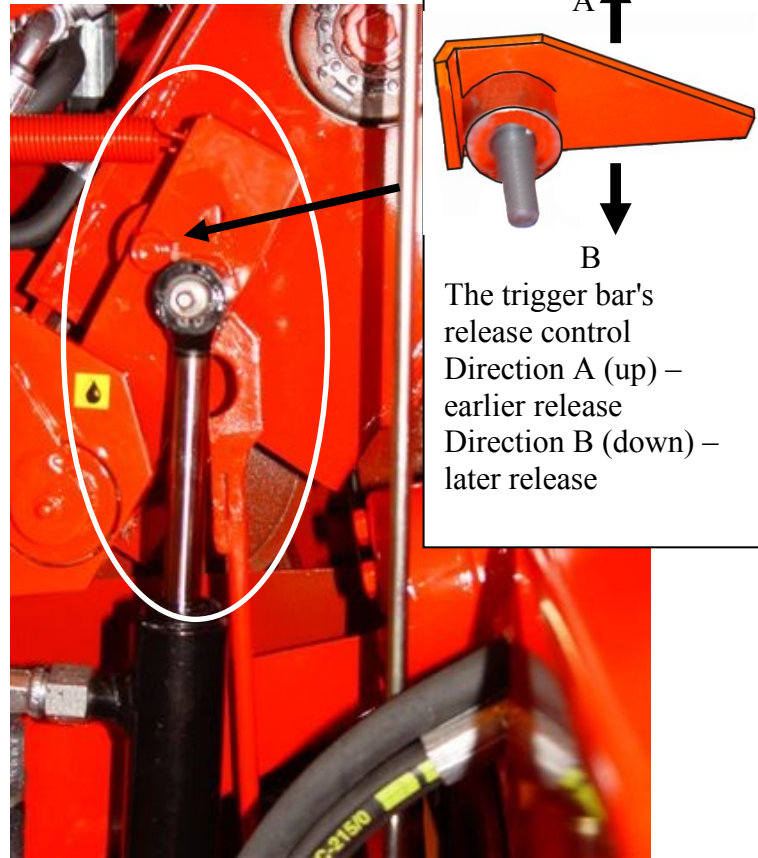


Figure 2012e



Figure 2012f

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

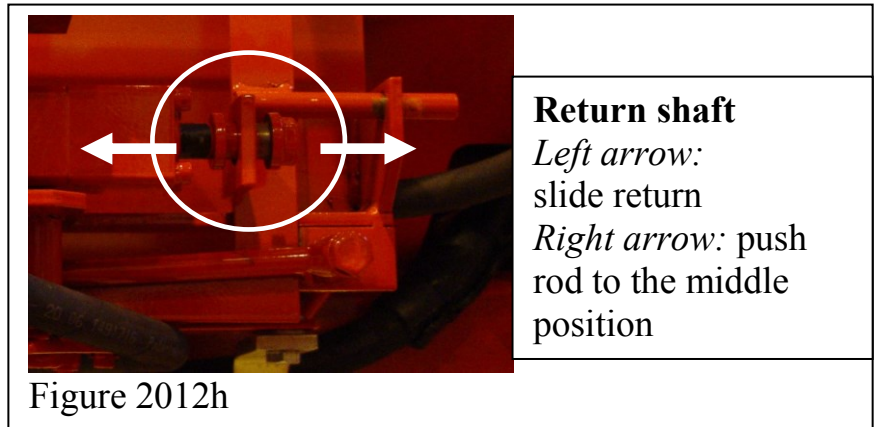
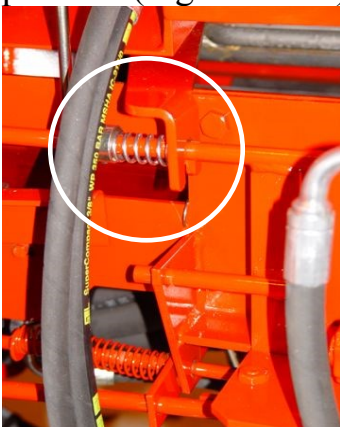


Figure 2012h

Figure 2012g



Figure 2012i

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

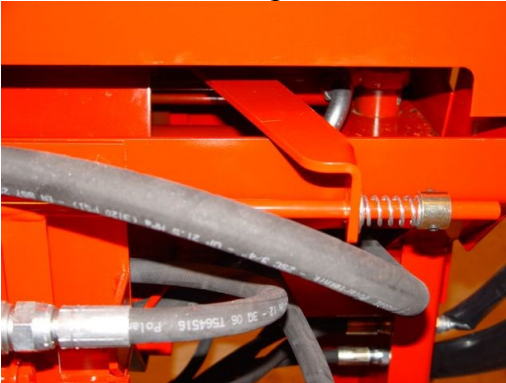


Figure 2012j
the slide in its initial position

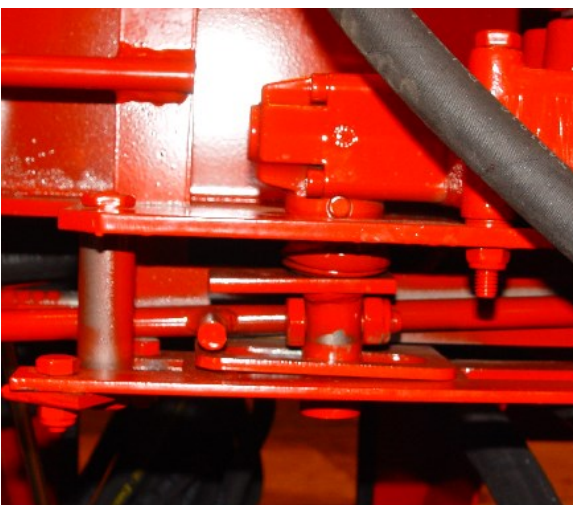


Figure 2012k
The initial position of the push rod

20.13 The safety mechanism of the splitting function

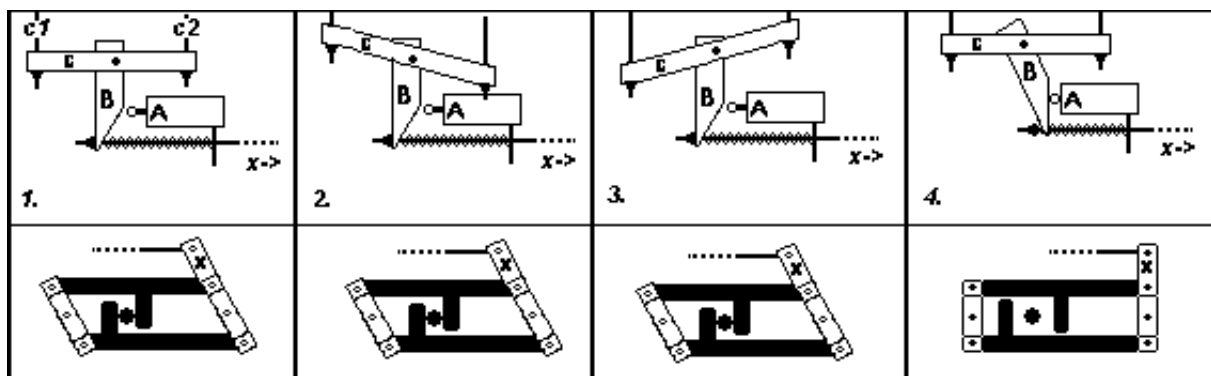


Figure 2013

In Figure 1, the protective cutting and splitting cages are in the raised position and 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 splitting cage is in the lowered position and that of cutting is in the raised position, c1 is tight, but c2 is hanging freely. The ball shaft is out and the hydraulic functions are inoperable.

In Figure 3 the protective cutting cage is in the lowered position and that of splitting is in the raised position, 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 in the lowered position, level rod B is turning to the right, looking from the behind of the machine, 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, looking from the rear of the machine, and releases the push rod from safety locking into the operating position.

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

Below the initial figures, there are figures depicting the safety mechanism of the splitting valve. In Figures 1-3 the pushing rod of the splitting valve is security-locked, and in Figure 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 out-feed conveyor

Note! Do not adjust the relief valves unless you are certain of what you are doing. Always contact the retailer or the manufacturer first. Incorrect adjustments can cause damage and will void the guarantee.

Release the locking screw b (hold the stem of the valve with the other wrench, c). Twist the shaft with a hex key, a, $\frac{1}{4}$ turn at a time in a clockwise (downwards) direction in order to increase force.

Test. If there is still insufficient force, add another $\frac{1}{4}$ turn.

If you want to decrease force, twist the shaft anticlockwise (upwards).

Tighten the locking screw.

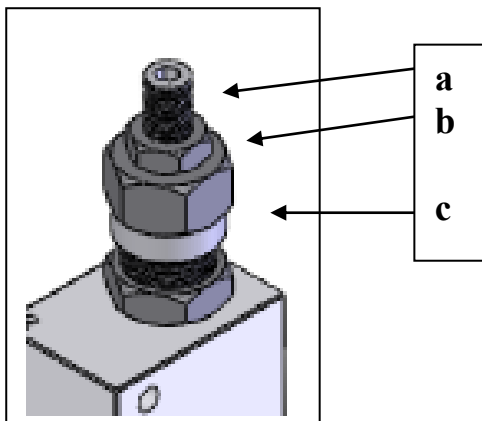
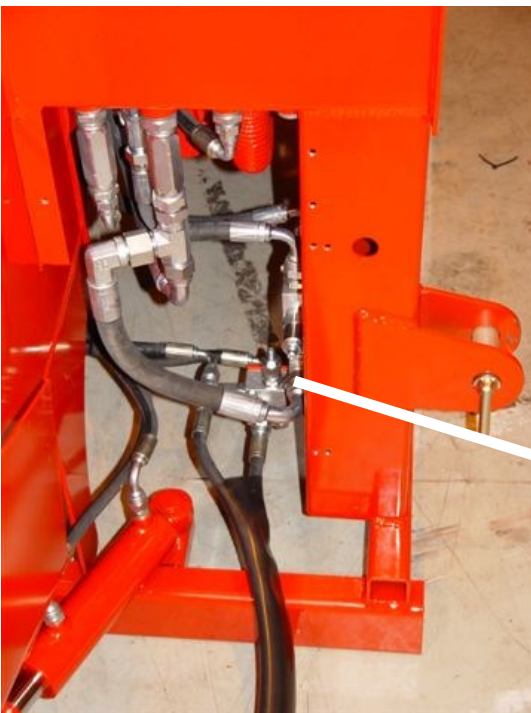


Figure 20151

20.16 Increasing the force of the in-feed conveyor

Note! Do not adjust the relief valves unless you are certain of what you are doing. Always contact the retailer or the manufacturer first. Incorrect adjustments can cause damage and will void the guarantee.

Increasing the force of the in-feed conveyor is carried out in the same way as that of the out-feed conveyor, see Section 20.15.

The location of the adjustment valve is to the rear of the machine, to the left of the valve mechanism, Figure 20161.

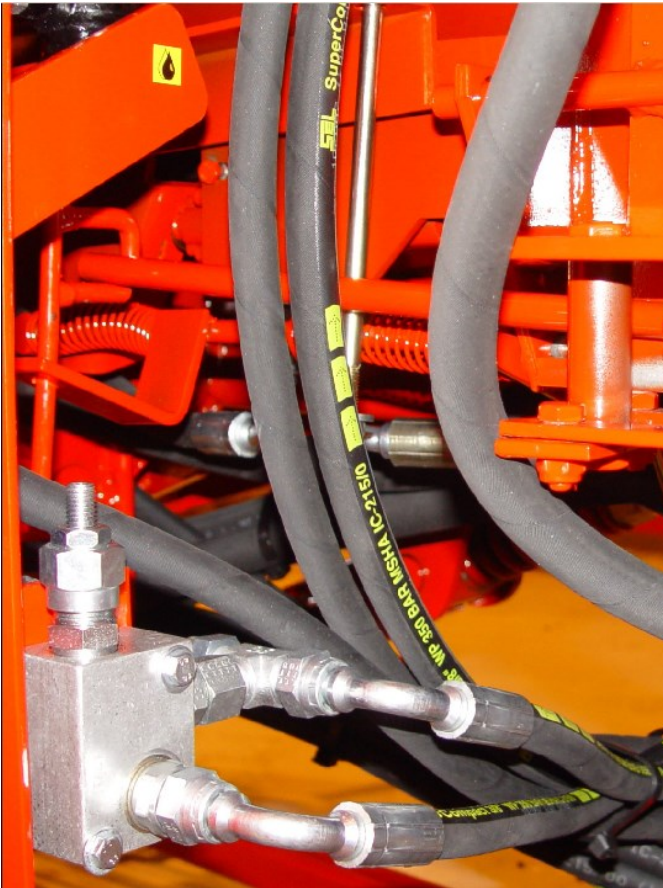


Figure 20161

20.17 Adjusting the length of the splitting motion

A. Open the valve mechanism guard behind the machine:

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

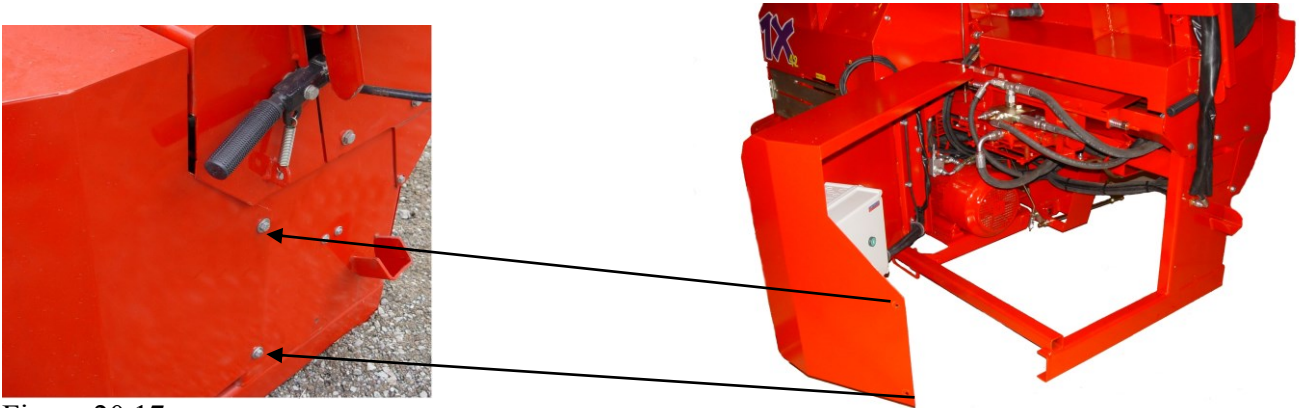


Figure 20.17a

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 splitting motion guard bar behind the machine.

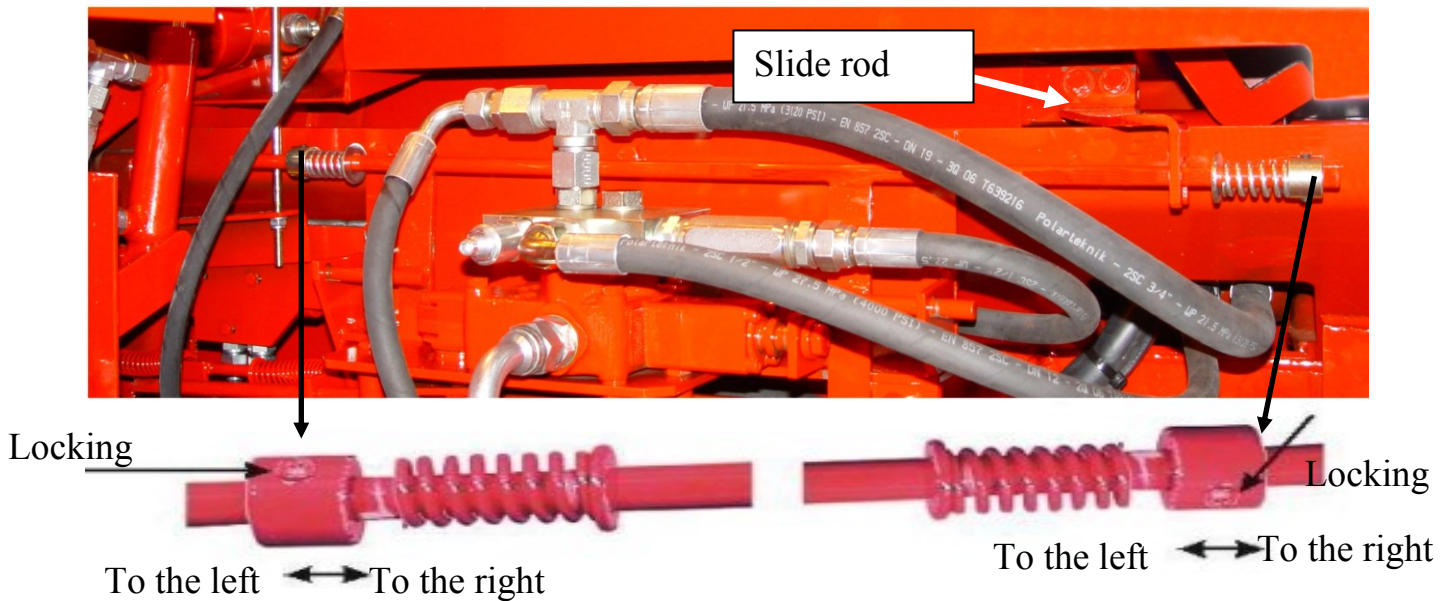


Figure 20.17b

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

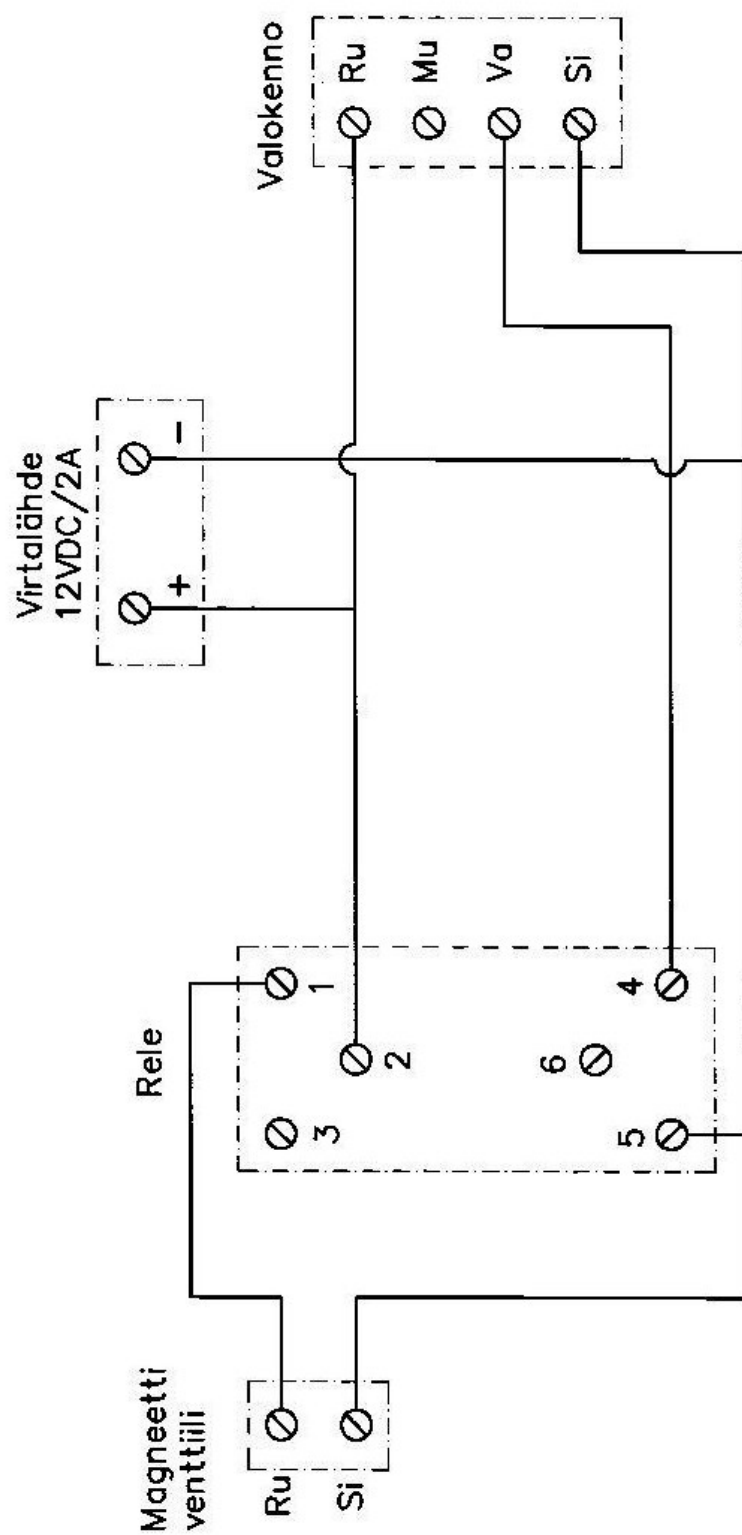
Shifting to the right:

Returning halts later

Maintenance table

Target	Task	Daily	Interval 100 h	Interval 500 h	Substance/access ory item
Angle gear oil	Check 1st change Subsequent	X	X	X	SAE 80/90 1.2 1
Hydraulic oil Normal conditions	Check 1st change Subsequent	X	X	X	Such as Teboil S 32 in hot conditions: Such as Teboil S 46
Oil filter	Always when changing oil				HEK02-20.201- AS-RP025-VM- B17-B part number: 97348
Valve mechanism	Lubrication		X		Lubrication oil, spray
All levers	Lubrication		X		Lubrication oil
V-belts Angle gear /Electric motor	Check and replace as necessary	X			B42.5 2061 part number: 95479
Cutting blade	Sharpen as necessary	X			0.404" 71 vl/1.6 mm part number: 95138
Machine	Clean	X			
	Wash As necessary				
Electric motor	Clean	X			
Electrical equipment	Clean	X			
Saw bar	Maintenance as necessary <i>See Section 20.8</i>	X			20"/1.6 mm part number: 95137
Nipple greasing	Grease <i>See Section 20.8</i>	X			Vaseline, such as "multi purpose grease"

OPTINEN MITTALAITE (sähkökaavio)



**EC Declaration of Conformity for the machine
(Machinery Directive 2006/42/EC, Appendix II A)**

**Manufacturer: Maaselän Kone Oy
Address: Valimotie 1, FI-85800 Haapajärvi, Finland**

Name and address of the person who is authorised to compile the technical file:

Name: Timo Jussila Address: Valimotie 1, FI-85800 Haapajärvi, Finland

The aforementioned person assures that

HakkiPilke 42 Easy Serial number:

- **is compliant with the applicable regulations of the Machinery Directive (2006/42/EC)**

Location and date: Haapajärvi 17 May 2016



**Signature:
Anssi Westerlund
Managing Director**

TECHNICAL SPECIFICATIONS

Required power	15 KW	
Max log diameter	420 mm	
Firewood length	200–600 mm	
Thrust of splitting cylinder	3 t–13.2 t	
Splitting blade options	2/4-way as standard, 6, 8 or 12-way as accessory.	
Saw bar	Harvester 20", 16 H, 1.6 mm/0.63	
Cutting chain	71 loops/0.404"	
Hydraulic oil volume	65 l	
Maximum width in the operating position	9.5 m	
In-feed conveyor length	2,620 mm	
- belt width	250 mm	
Machine dimensions in the transport position		
- Height	2,500 mm	
- Width	2,700 mm	
- Depth	1,360 mm	
Total weight	1,170 kg	
Electrical drive	+50 kg	
Out-feed conveyor length	4 m, foldable	
- belt width	250 mm	
Sound power level	108 dB	
A-weighted sound pressure level at the operator's position		96 dB
Optional accessories;		
- Log lifter		
- Dispensing log holder		
- Hydraulic in-feed conveyor		
- Hydraulic sawdust removal		
- Firewood cleaning drum		

Guarantee terms

The guarantee is valid for the original buyer for 12 months, starting from the date of purchase, but for no more than 1,000 operating hours. In guarantee matters, always contact the machine's seller before undertaking any procedures.

A guarantee demand must be issued to the seller in writing **immediately** upon discovery of a defect. If the defect concerns a damaged part or component, please send a photograph of the damaged part or component to the seller, if possible, so the fault can be identified. When submitting a guarantee claim, the buyer must always include the type and serial number of the machine and present a receipt that includes the date of purchase. Guarantee claims must be submitted to an authorised retailer.

The guarantee covers

- Parts damaged in normal use due to faults in material or manufacture.
- Reasonable expenses caused by repairing a fault in accordance with the agreement between the seller or buyer and manufacturer. Faulty parts will be replaced with new ones. A faulty part or parts replaced due to a material fault should be returned to the manufacturer via the retailer.

The guarantee does not cover

- Damage caused by normal wear and tear (such as blades and belts), improper use, or use contrary to the instruction manual.
- Damage caused by negligence of maintenance or storage procedures detailed in the instruction manual.
- Damage caused during transport.
- Cutting blades, V-belts and oil, and normal adjustment, care, maintenance or cleaning procedures.
- Defects in a machine to which the buyer has carried out or commissioned structural or functional changes, to the degree that the machine can no longer be considered equivalent to the original machine.
- Other potential costs or financial obligations resulting from the procedures mentioned above.
- Indirect costs.
- Travel costs resulting from guarantee repairs.
- The guarantee for parts replaced during the guarantee period of the machine expires at the same time as the machine's guarantee.
- The guarantee is void if the ownership of the machine is transferred to a third party during the guarantee period.
- The guarantee is void if any of the machine's seals have been broken.

If a fault or defect reported by the customer is found to not be covered by the guarantee, the manufacturer has the right to charge the customer for the identification and possible repair of the fault or defect in accordance with the manufacturer's current price list.

This guarantee certificate indicates our responsibilities and obligations in full and it excludes all other responsibilities.