

Hakki Pilke

43 Pro

FIREWOOD PROCESSOR

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



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

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1. General information

1.1.Introduction

The purpose of this manual is to ensure that the machine is used in the manner intended by the manufacturer, taking safety into consideration. Everyone operating the machine or working in close proximity to it must study this manual carefully.

Operators of the machine are expected to have basic skills in tractor handling, such as utilising the cardan shaft drive and the tractor's lifting equipment. Before commencing work, operators must also familiarise themselves with the machine's control and safety equipment, and ensure their proper operation.

Additional information on Maaselän Kone Oy's products is available on our website at www.hakkipilke.fi.

Keep this manual in the immediate vicinity of the machine.

1.2.Purpose of use

The Hakki Pilke 43 firewood processor is designed for preparing firewood from pruned wood or logs. The firewood processor must not be used to process any treated wood, such as is found in construction waste. Sand, nails or other impurities in the wood may damage the machine.

The maximum diameter of the logs to be processed is 43 cm. This limit must not be exceeded. 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 prevent the log from being fed into the machine. The splitting groove is designed for logs up to 60 cm in length. Never cut or split logs that exceed the maximum length.

1.3.Machine models and basic information

Model	TR	Combi	
Driving power	Tractor's cardan shaft (PTO)	PTO	Electrical
Weight	1,400 kg*	1,650 kg*	
PTO/Electrical drive	min 35 hp / max 500 rpm	15kW (min 32 A, type C fuse)	
Height/width/length	in the transport position 2,500/2,460/1,300 (mm)		
In-feed/out-feed conveyor	2,200/4,000 (mm)		
Saw bar/chain	bar: 18" groove 1.6 mm chain: 68 loops, pitch 0.404"		
Max log diameter	43 cm		
Max/min log length	Log max 60 cm; min 20 cm		

**weight with standard conveyor, the larger conveyor available as an accessory increases the weight by approx. 250 kg*

The machine's serial number, date of manufacture, weight, operating voltage (electric-powered machine) and model are indicated on the grey type plate located on the machine frame below the locking latch of the out-feed conveyor, on the right side of the operator.

1.4.Operating conditions

- The temperature range within which the machine can be operated is -20 to +30°C. In the winter, the operator must ensure that there is no risk of slipping in the working area.
- The working area must be level and clear of unnecessary items. No unauthorised persons are allowed to enter the working area. The machine may only be used in sufficient lighting conditions.

- The machine may not be used indoors.

1.5.Safety instructions

- This device is intended to be operated by only one operator. The danger zone is 10 m from the machine.
- Persons under 18 years of age may not operate the machine.
- The operator must ensure that the use of the device does not cause danger to others and that there are no unauthorised persons in the danger zone.
- The machine must not be operated while under the influence of alcohol or other drugs, or when tired.
- The machine must not be operated unless the operator has familiarised themselves with this instruction manual.
- The machine has been designed solely for making firewood.
- The machine must be placed in the transport position whenever it is moved. When transporting the machine on a public road, it must be equipped with additional lights. When transporting the machine in a tractor's lifting gear, ensure that there is enough weight on the front axle to ensure proper steering.
- The operator is not permitted to modify the structure or operation of the machine or remove protective equipment.
- The operator must wear ear protectors, sufficiently tight-fitting work clothing and gloves, protective goggles and safety footwear.
- Before starting up the machine, the operator must ensure that the machine and its guards are intact.
- When powering the machine with a tractor, the operator must ensure that the cardan shaft is undamaged and that the selected rpm range is correct. The machine must be attached to the tractor's lifting equipment during operation.
- Before starting up the firewood processor, the operator must ensure that all the control and safety devices are functional.
- When cleaning the machine or carrying out any maintenance, it must be disconnected from its power source.
- Keep the machine's warning labels visible and in good condition. Ensure that the machine features the labels listed in Section [1.7](#). If necessary, obtain replacements from your retailer.

1.6.Noise and vibration

A-weighted sound pressure at the working location 94 dB (L_{pA}); sound power during work cycle 99.0 dB (LWA). The vibration values do not exceed 2.5 m/s².

1.7.Warning symbols

 <p><i>Read the machine's manual before operating the machine.</i></p>	 <p><i>Wear eye and ear protection.</i></p>	 <p><i>Wear safety footwear and work gloves.</i></p>
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Do not wear any loose items of clothing.



Always grab the piece of wood or log from the side.



Lifting point for a forklift.



Beware of moving parts.



Beware of the cardan shaft.



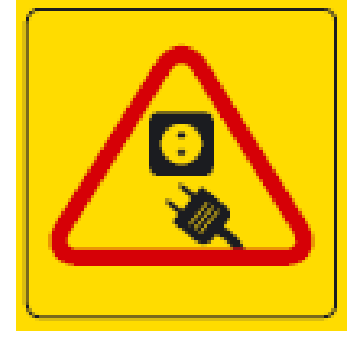
Beware of the saw chain.



Beware of the splitting blade.



Only one person may operate the machine.



Disconnect the power supply before any maintenance procedures.





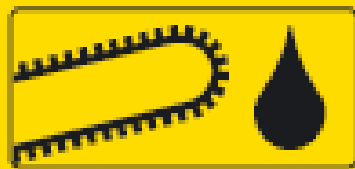



The danger zone around the machine is 10 metres.



Risk of crushing



The maximum permitted angle of the conveyor is 40°. Do not walk under the conveyor.

 <p><i>The maximum speed for the cardan shaft is 500 rpm.</i></p>	 <p><i>The rotation direction is in the direction of the arrow.</i></p>	 <p><i>Saw chain oil</i></p>
 <p><i>Hydraulic oil</i></p>	 <p><i>Danger zone</i></p>	 <p><i>Lubrication point</i></p>

2. Receipt and assembly

2.1.Delivery inspection

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

Check that the machine has not sustained any damage during transport, and ensure that all necessary parts are included in the package. In the event of any defects or damage, contact the retailer immediately. Remove any cable ties and strap supports installed for transport.

2.2.Lifting and moving the machine

When moving the machine, make sure that the moving and lifting capacity of your tractor or forklift is sufficient for the weight of the machine. Only lift the machine by the indicated lifting points (Figures 1a and 1b) or with the lifting equipment of the tractor.

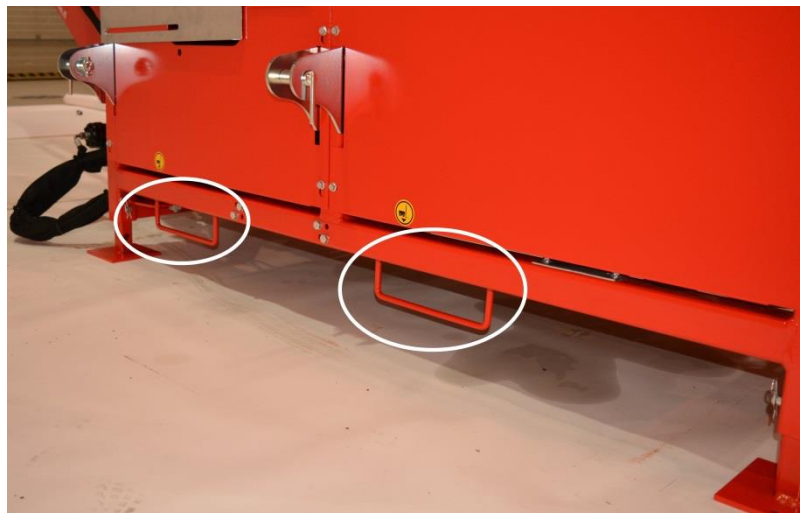


Figure 1a. Lifting points for a forklift (2 pcs).



Figure 1b. Lifting points of the machine for chains (3 pcs).

When connecting the machine to a tractor's lifting equipment, 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. Never use faulty equipment. The pins that are used to connect the pushbars and drawbars to the machine must be of the correct size, and the appropriate locking pins must be used to secure them.

The machine must be placed in the transport position if it is to be moved more than 5 metres. Exercise extreme caution when moving the machine in the operating position. Always lower the machine to the ground when you stop.

Note! Incorrect lifting may cause a hazardous situation or damage the machine.

2.3.Main components of the machine

The Hakki Pilke 43 is a firewood processor with fully hydraulic controls. In other words, all of the machine's functions are controlled hydraulically with operating levers on the machine's control panel. The guard of the cutting and splitting section is interlocked with the machine's operation: Opening the guard stops the cutting and splitting functions.

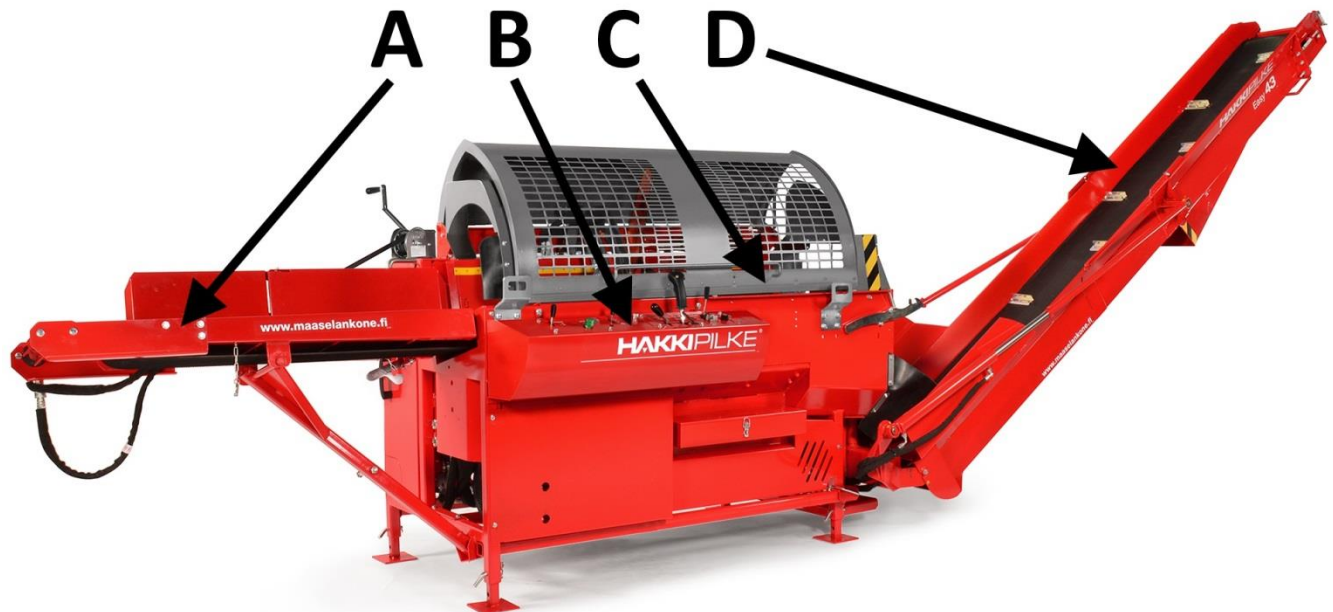


Figure 2. Main components of the machine

- A. In-feed conveyor
- B. Control panel
- C. Cutting and splitting unit
- D. Out-feed conveyor

Note! The pushbar lugs may be installed either way depending on the size of the tractor.

3. Control functions and setting up the machine

3.1. Arranging the machine for operation and transport

Before arranging the machine for operation and using it, ensure that the operating conditions, detailed in Section 1.4, are met and review the safety instructions in Section 1.5.

Note! Inspect and clean the machine according to Sections 4.3 and 5.8 before arranging it for transport.

3.1.1. Placing the in-feed conveyor in the operating or transport position

Place the in-feed conveyor in the operating position as follows:

1. Ensure that sufficient room is available to lower the in-feed conveyor (approx. 2 m).
2. Release the locking by lifting latch A from shaft B (Figure 3).
3. Lower the in-feed conveyor to the lower position with the winch, as shown in Figure 4.

Note! Make sure that the in-feed conveyor's support leg settles properly into place.

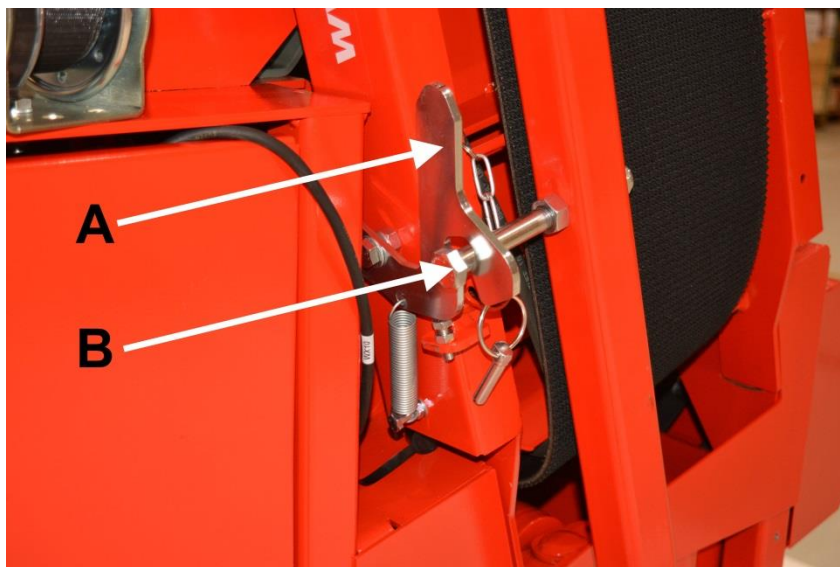


Figure 3.



Figure 4.

4. Remove cotter pin B and pull out locking pin A (Figure 5).



Figure 5.

5. Turn the log guide plate to the operating position and lock locking pin A into place with cotter pin B (Figure 5).

Place the in-feed conveyor in the transport position in reverse order.

*Figure 6.*

3.1.2. Placing the out-feed conveyor in the operating or transport position

Place the out-feed conveyor in the operating position as follows:

1. Ensure that there is sufficient room for opening the out-feed conveyor.
2. Turn off the machine.
3. Keep lock A (Figure 7) open and lower the out-feed conveyor to its lowest position with the winch.

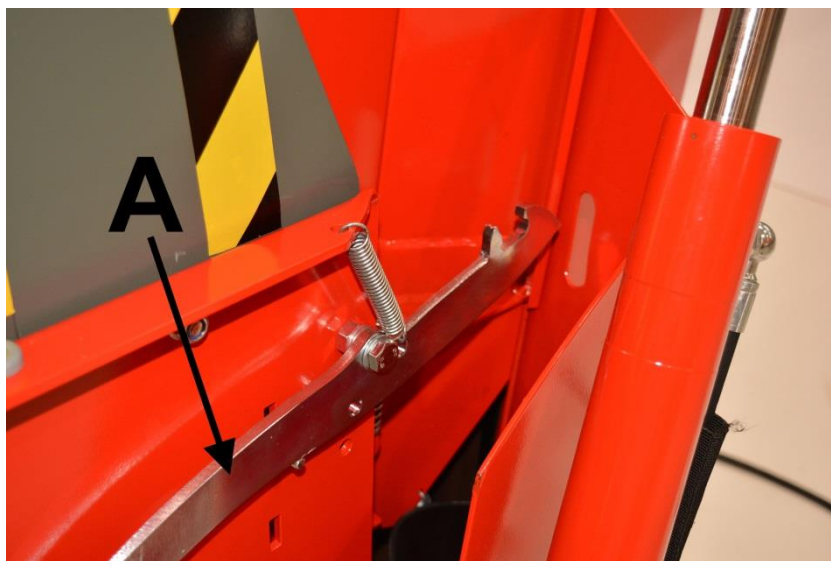


Figure 7.

If you are using a larger conveyor (as shown in Figure 8), lower the out-feed conveyor hydraulically with control lever E (Figure 10).

Note! Leave sufficient clearance (approx. 30 cm) for the discharge opening of the conveyor.

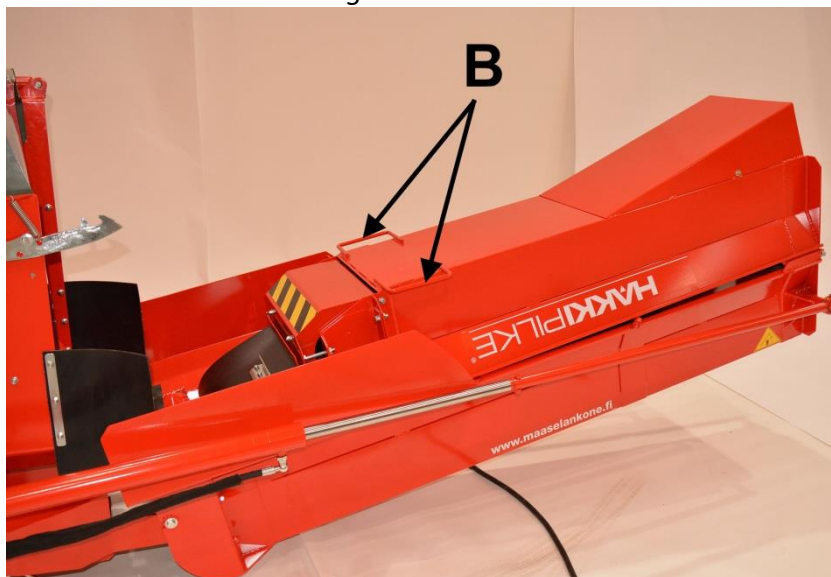


Figure 8.

4. Turn the upper section of the conveyor to the operating position with the handle(s) B (Figure 8). **Note! If necessary, have two people on either side of the conveyor to lift it!**
5. Lock the upper section of the conveyor into place with latch C and cotter pin D, as shown in Figure 9.
6. Turn the support bar (E in Figure 9) of the conveyor belt to the

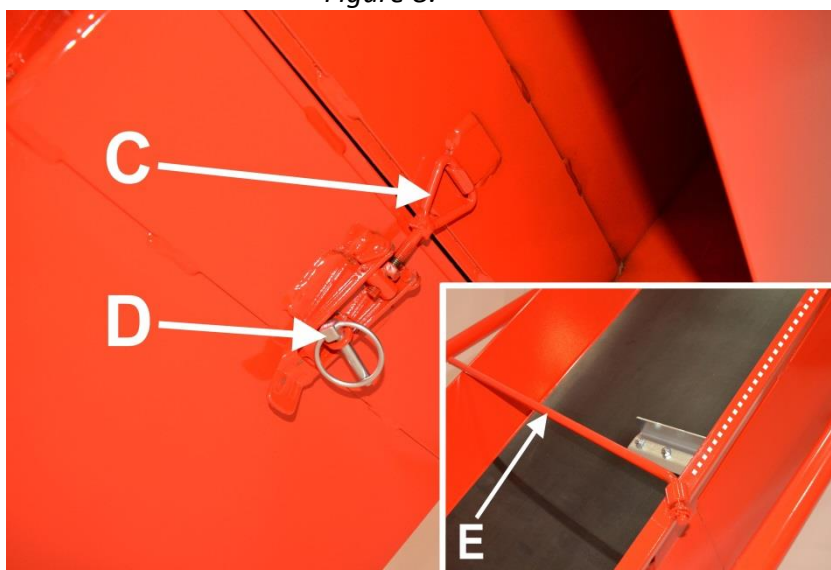


Figure 9.

operating position.

Place the out-feed conveyor in the transport position as follows:

1. Turn off the machine.
2. Release lock C of the upper section of the conveyor (Figure 9) and lower the conveyor to the lowest **possible** position with the winch or hydraulically with lever E, as shown in Figure 10 (when the machine has a larger conveyor).
3. Turn the conveyor belt's support bar E (Figure 9) on top of the belt and then turn the upper section of the conveyor on top of the lower section with the handle(s) B (Figure 8). **Note! If necessary, have two people on either side of the conveyor to lift it!**
4. Turn the conveyor to the middle position with lever F (Figure 10).
5. If you are using a **smaller conveyor**, set the debris removal mechanism to the upper position (by detaching the springs from the other end, 2 pcs) so that it does not connect with the rear blade support.
6. Lift the conveyor with the winch or hydraulically with lever E, as shown in Figure 10 (when the machine has a larger conveyor), until the conveyor locks into the upper position. Ensure that lock A connects firmly. Ensure that the protective strip of the splitting groove is retracted in the front.

Note! Do not stand on the out-feed conveyor! Do not use the winch if the belt is worn!

3.2.Controls

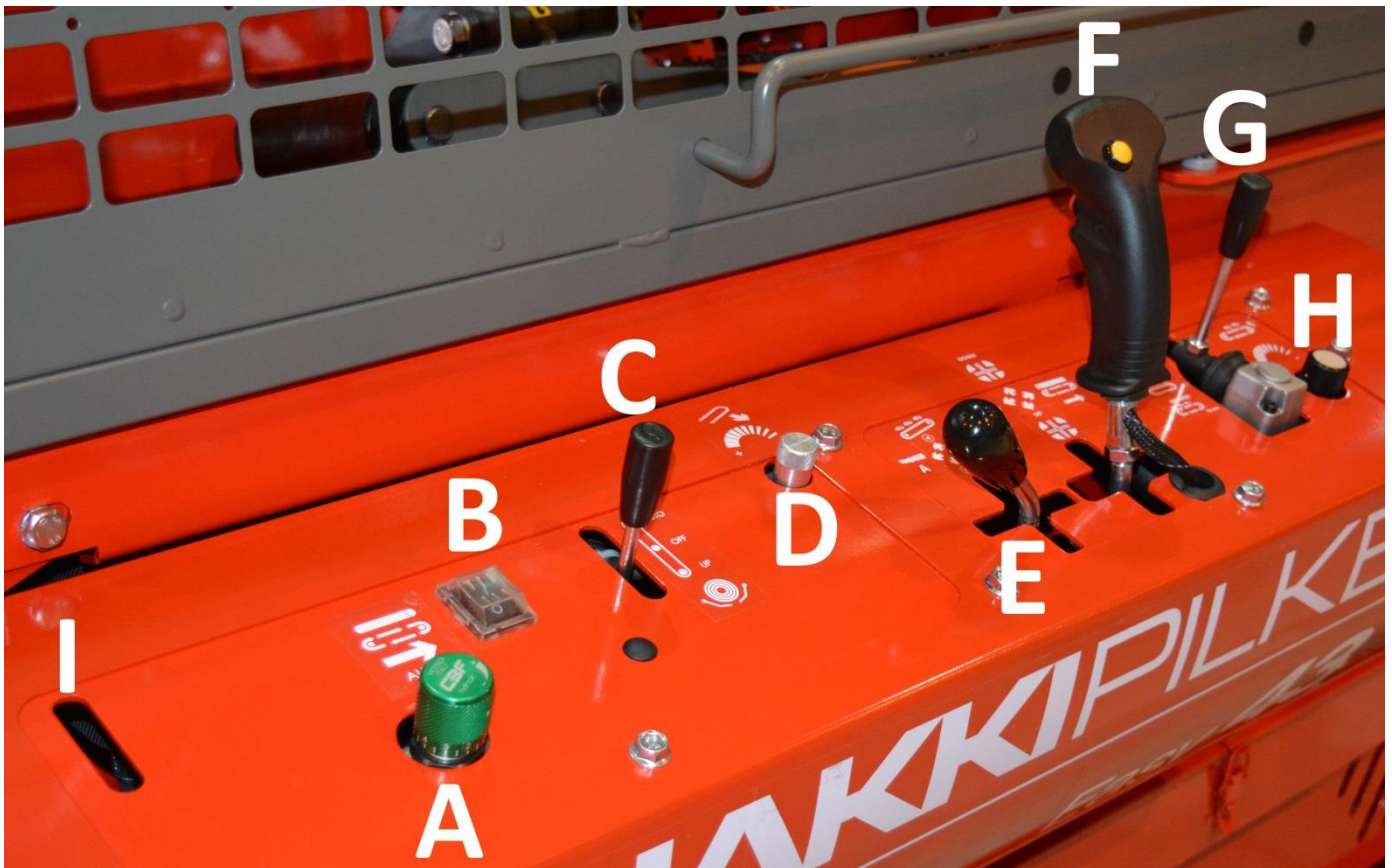


Figure 10. Controls

Names and functions of the controls in Figure 10

- A. **Feed assist speed control**; only affects the automatic feed speed during splitting when the feed assist mechanism is in use (switch B) (see Section 4.3.1).
- B. **Feed assist mechanism switch**
 - Switch in position 1: the feed assist mechanism is turned on: continues to feed for the duration of the splitting cycle
 - Switch in position 0: the feed assist mechanism is turned off – no automatic feed.
- C. **Control lever for guide plates that guide falling wood pieces** (see [Section 4.3.5](#))
 - Upper position: AUTO: the guide plates are in automatic mode, i.e. the plates go up and down automatically according to the movement of the saw bar

- Middle position: OFF: the guide plates are not in use
- Lower position: UP: manual control of the guide plates to the upper position (last log, for example)

D. **Adjuster of the lowering speed of the saw bar.** When the adjuster is turned towards the open position, the bar is lowered more quickly and vice versa. Adjustment range: approx. 1 rotation open (+) from the fully closed (-) position.

- Under normal conditions, the speed is adjusted automatically and you do not have to adjust it
- If necessary, fine-tune the speed by rotating the adjuster slightly towards the closed position

E. **Out-feed conveyor and accessory control lever** (when a smaller conveyor is being used)

- Lever up/down: the out-feed conveyor turns to the right/left
- Lever to the right/left: controls the accessory's functions (HakkiFeed or HakkiLift)

OR

Out-feed conveyor control lever (when a larger conveyor is being used). Note! In this case, the accessory is controlled with a valve located in position I in Figure 10.

- Lever up/down: the out-feed conveyor turns to the right/left
- Lever to the right/left: the out-feed conveyor is lowered/raised

F. **Joystick**

- Joystick to the left/right: the in-feed conveyor belt runs to the left/right.
- Joystick forwards/backwards: the splitting blade is lowered/raised
- **Button A:** lifting the hydraulic log press
- **Button B: HakkiSplit™** activating the splitting function. The feed assist mechanism also feeds for the duration of the splitting cycle if it is turned on.
- **Button C: HakkiCut™** performing the cutting function by keeping the button pressed:
 - The saw performs the cutting motion automatically (the cutting chain rotates and the saw bar is lowered to the lower position)
 - In addition, the wood measuring device is moved out of the way, the log press is pressed against the log and the guide plates are raised (if in AUTO position).

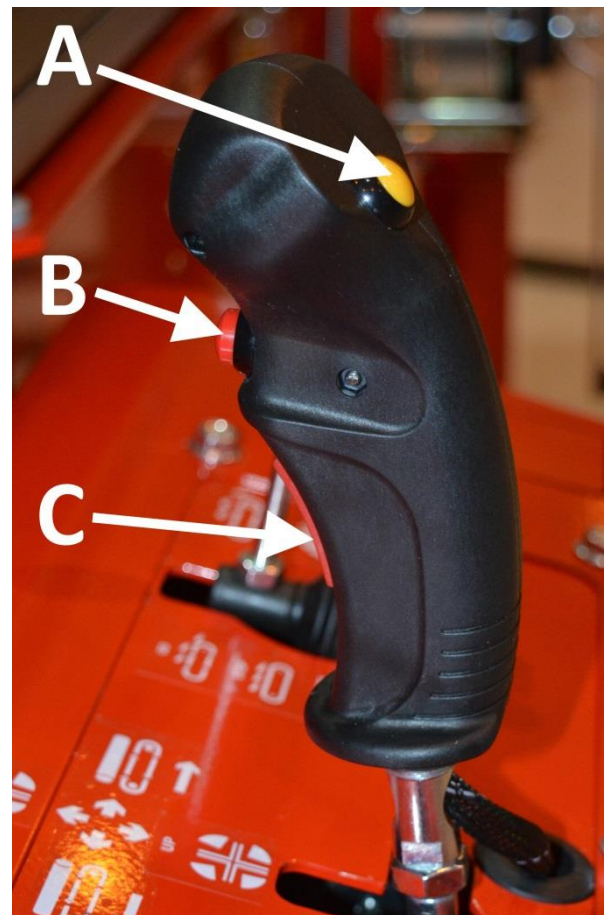


Figure 11. Joystick

G. Out-feed conveyor belt control lever

- Upper position: The out-feed conveyor belt rotates forwards
- Middle position: The out-feed conveyor belt does not move
- Lower position: The out-feed conveyor belt rotates backwards (momentary use for removing a blockage, for example)

H. Speed adjuster for the out-feed conveyor belt

- The belt's speed decreases when the adjuster is turned towards the closed position and vice versa

I. Accessory valve when a larger conveyor is used (otherwise empty as shown in Figure 10)

- Used for controlling accessories (HakkiFeed) **Note! Do not use the log lifter or other cylinders without lock valve 50030918, which is available as an accessory!**

3.2.1. Tractor drive

A tractor-powered firewood processor is connected to the tractor's three-point lifting devices and cardan shaft. To connect the machine to the cardan shaft, you have to move protective cover A of the socket and angle gear into a position where it covers the socket (in combi models).

Connecting the cardan shaft is a task for only one person. 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. Never use faulty equipment.

The 3-pin power cable for the electric controls is connected to the tractor's 12 V socket for a work machine (Figure 14).

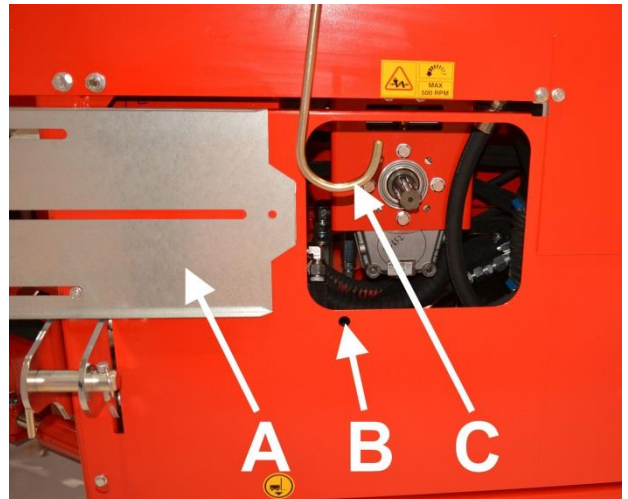


Figure 12.

When using the cardan shaft, observe any instructions provided by the manufacturer of the shaft. The machine requires 15 kW of power, which must be taken into account with regard to the capacity of the cardan shaft. A suitable cardan shaft is of power class four. Make sure that the connected shaft is locked to the splined shaft of the multiplier gear. Connect the chain that prevents the turning motion of the guard to hole B. Hang the cardan shaft from hook C when the machine is not being operated and when it is disconnected from the tractor. Finally, ensure that all connections are safe and secure. Never use a damaged or unprotected cardan shaft.

Note! Tractor-powered machines must be attached to the lifting equipment of the tractor.

Note! The starter (Figure 15) only functions when the machine is powered by electricity.

3.2.2. Electrical drive

An electrically powered machine is driven by a 15 kW electric motor. The IP rating of the electric motor is 55. The fuse must be at least a 32 A type C fuse. The electrical cable must be at least 5 x 6 mm², and the recommended maximum length is 25 metres. In order to connect the cable, move protective cover B of socket A and the angle gear and secure it into a position where it covers the angle gear.

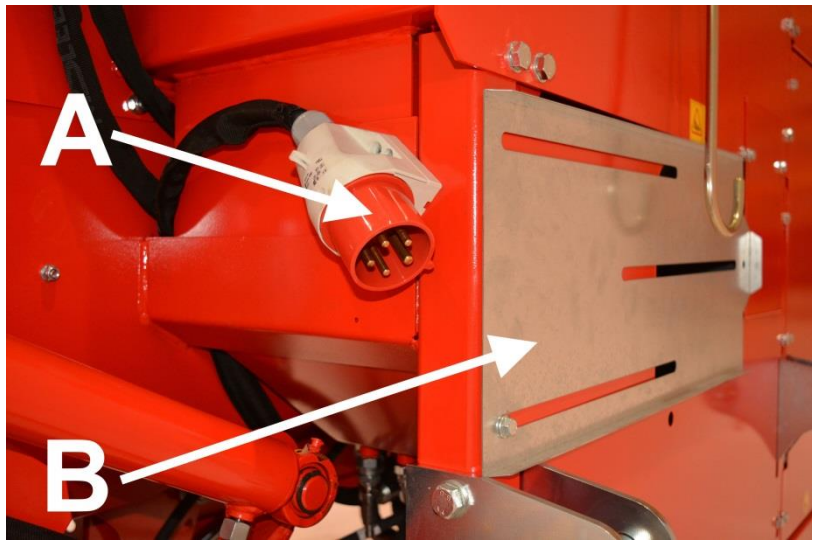


Figure 13. The machine's electrical drive

In an electrically powered machine, the power cable for the electric controls is connected to the 3-pin socket on the side of the machine.

The electrically powered machine is turned on with the green button of the remote starter, located in the control panel in the front of the machine (Figure 15). The actual starter is located below the machine's control panel. The starter features an automatic fuse and a thermal relay for the electric motor. The thermal relay can be reset by pressing the red stop button on the starter.



Figure 14. Electrical connector of the electric control device

If the electric motor rotates in the wrong direction (i.e. the machine makes an abnormal noise and the hydraulic functions are inoperable), the current phase is incorrect. We recommend using an extension cord that allows you to switch the current phase, or an adapter.

Note! If the extension cord does not have a phase switch, the electrical work related to changing the phase must only be performed by an electrician.



Figure 15. The machine's remote starter

3.2.3. Adjusting the log length

The Hakki Pilke 43 has a hydraulic measuring device for cutting firewood, with an adjustment value of approx. 20 to 60 cm.

When sawing, the limiter plate for logs (B in Figure 16) always moves approx. 5 cm backwards with the help of a hydraulic cylinder to ensure that the log does not get jammed and is able to freely fall on top of the guide plates or, alternatively, directly into the splitting groove.

1. Turn the machine off and open the machine's guard.
2. Adjust the log length limiter to the desired length by releasing the lock in Figure 16 to the open position (as shown in the smaller figure) and sliding limiter plate B to the desired position.
3. Turn lock A in Figure 16 back to the closed position.
4. If necessary, you can fine tune the measuring device to the desired position by turning nut C (Figure 16). Tightening the nut results in the log length being lengthened and vice versa. (If the log length is standard, you can fine tune the log length to minimise the amount of waste wood).



Figure 16. Log length adjustment

3.2.4. Using the out-feed conveyor

The Hakki Pilke 43 firewood processor's out-feed conveyor belt is driven by a hydraulic motor. To change the speed of the belt, use adjuster H (Figure 10). The conveyor can be turned sideways hydraulically with lever E (Figure 10) as follows:

- Lever forwards: the conveyor turns to the left.
- Lever backwards: the conveyor turns to the right.

When using a smaller conveyor:

- The conveyor is adjusted to the desired angle with winch A, as shown in Figure 17.

When using a larger conveyor: (with lever E in Figure 10)

- Lever to the left: the conveyor's angle to the ground increases
- Lever to the right: the conveyor's angle decreases

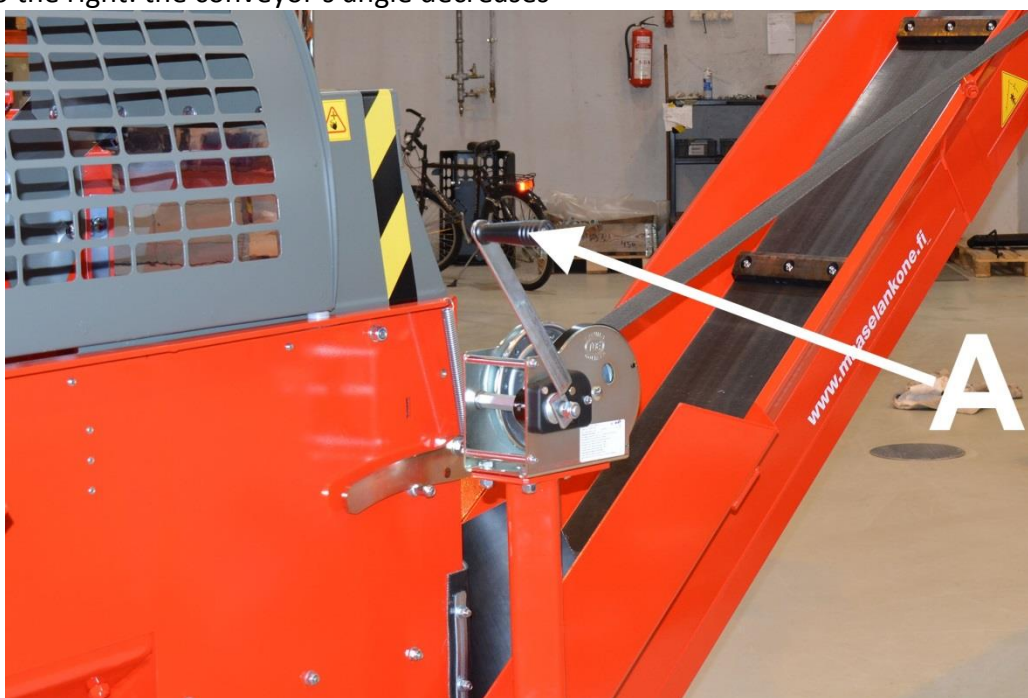
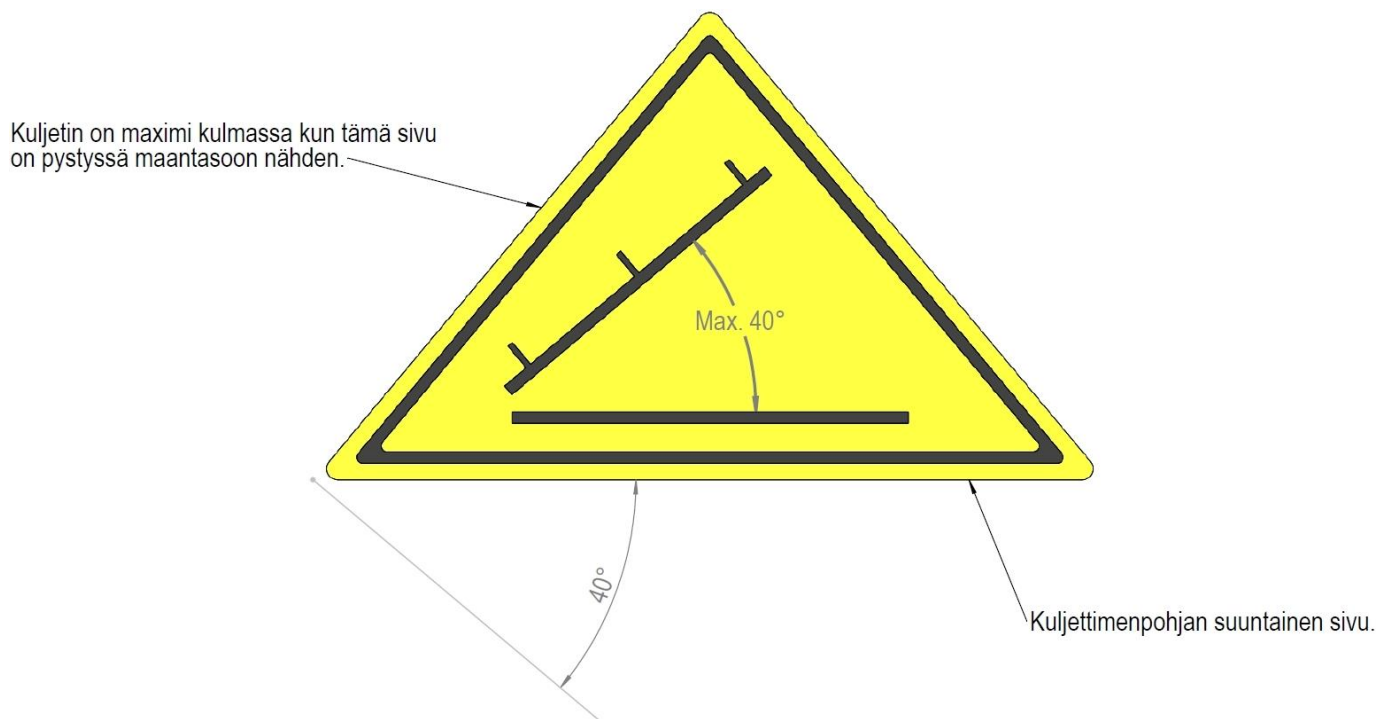


Figure 17.

NOTE! The maximum operating angle for the out-feed conveyor is 40°. The maximum angle is indicated in the label below and the instructions attached to the out-feed conveyor.



3.2.5. Splitting blade adjustment

The machine's splitting blade is controlled hydraulically with control lever F (Figure 10). Pushing the lever in the front position causes the blade to be lowered, while pulling the lever to the back position causes it to rise. Logs should always be as centred as possible when passing the blade in order to keep the size of the firewood consistent.

The blade can be lowered to the lowest position in one go by raising the blade to the upper position and clearing the space under the blade. The machine must be shut down and disconnected from its power source for the duration of the cleaning.

3.2.6. Using a sawdust removal device

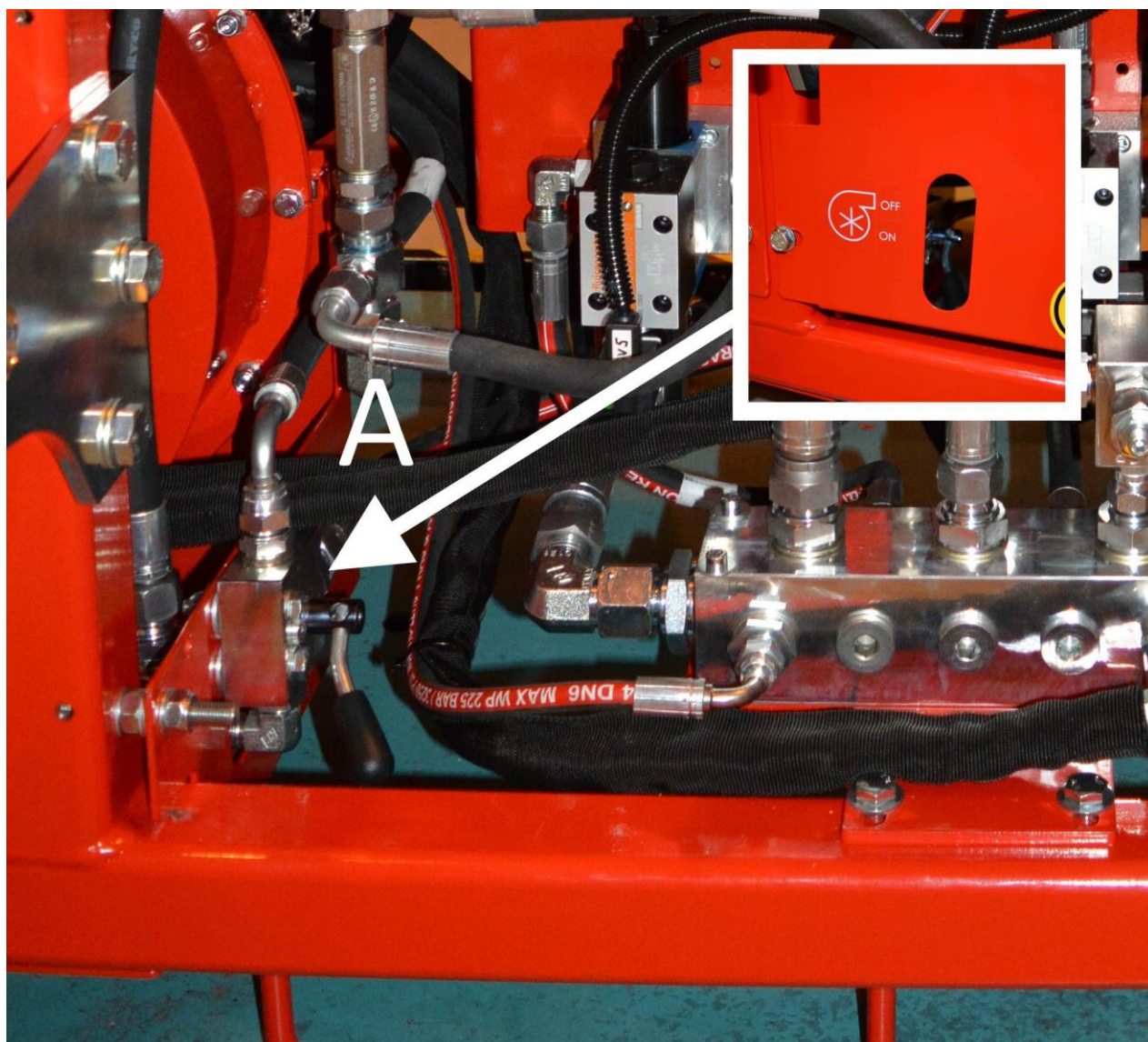


Figure 17.1

A hydraulic sawdust removal device is available for the machine as an accessory. It allows you to collect sawdust for other purposes. The sawdust removal device is automatically activated when the machine starts up.

However, you can deactivate it when necessary by turning lever A to the OFF position, as shown in Figure 18.

4. Operating the machine

4.1. Performing a test run on the machine

The machine may not be used before a test run has been performed and all the functions of the machine have been tested. Both the test run and testing can only be performed by a person who has studied the machine's manual.

Note! When turning on the machine in cold weather (-5°C or colder), it is recommended that you use a separate heater for oil (accessory). In addition to this, the machine needs to be idled without work motions until the oil temperature has increased sufficiently.

Before the test run, all 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.

1. Check that the guard for the firewood processor's cutting and splitting section is down.
2. Check that the in-feed and out-feed conveyors are in the operating position.
3. Make sure that the splitting groove is empty.
4. Make sure that you are familiar with the functions of the machine's controls. If necessary, see Section 3.2.
5. Activation.
 - a. Tractor drive: Insert the connector for the electric control device into the tractor's electrical socket. Start the tractor and connect the output, starting with a slow speed and increasing the speed to a maximum of 500 rpm.
 - b. Electrical drive: Connect the cable to the socket of the firewood processor, start the machine by pressing the start button and wait until the electric motor operates at full speed.
6. Start the splitting cycle by pressing button B (Figure 11) on joystick F (Figure 10). The splitting motion must be normal.
7. Make sure that the saw and the lubrication on the cutting chain work as follows: (If necessary, see Section 7.0)
 - a. Perform a few sawing cycles without wood by pressing down button C (Figure 11).
 - b. Make sure that the saw bar is lowered all the way down during the sawing cycle, then automatically raised back up when button C is released, and that the cutting chain rotates for the entire time that button C is pressed down.
 - c. Turn off the machine and disconnect it from the power source.
 - d. Open the guard and see if the cutting chain has been supplied with oil.
8. Start the splitting cycle and stop it by opening the guard mesh. Make sure that the splitting beam returns to its initial position when the guard mesh is closed.
9. Conduct a test run for the in-feed conveyor's feed and return motion with joystick F (Figure 10).
10. Activate the out-feed conveyor by pushing lever G (Figure 10) to the front position. Make sure that the conveyor belt stops when lever G is placed in the middle position and that the feed is reversed when lever G is in the back position. Set the conveyor belt to a suitable speed with controller H (Figure 10).

If a fault, failure or leak occurs during the test run, determine the cause and take remedial action as necessary. The machine must be shut down and disconnected from the power source for the duration of both the diagnostics and repairs.

4.2.Placing logs on the in-feed conveyor

We recommend the use of auxiliary devices, such as the HakkiFeed 472 log table. If a log table is not attached to the machine, the maximum allowed length is 4.5 m. Always lift and place wood on the in-feed conveyor in a safe manner that does not put the operator in danger.

Note! Placing logs directly on the in-feed conveyor with a loader is strictly prohibited.

Note! Ensure that the log's centre of gravity stays on the conveyor.

Note! If the machine has a larger out-feed conveyor, use of the log lifter is prohibited, as the control valve uses a motor spool.

4.3. Feeding and sawing wood

The in-feed conveyor feeds the wood into the firewood processor. Turn joystick F (Figure 10) to the right to feed wood into the machine. The feed can be cancelled by turning the joystick to the left.

When feeding wood into the machine, make sure that it does not present a risk of your clothes, hands or other parts getting caught in the machine, such as due to the shape of the log. Do not use your hand to guide the log into the cutting section. Adjust the wood measuring device to the desired length and make sure that the speed of the out-feed conveyor belt is suitable by adjusting it.

1. Choose the log to process. Note that the maximum log diameter is 43 cm. The knottiness and shape of the log can increase the diameter.
2. Use joystick F to feed the log into the machine with the in-feed conveyor.
3. When the log stops in the hydraulic measuring device for cutting, cut the log by pressing button C (Figure 11) on the joystick. This will activate the cutting chain and sawing cycle automatically.
4. Return the saw bar to the upper position by releasing button C (Figure 11).

Note! Do not operate the feed during sawing or when the saw bar is not fully in the upper position.

4.3.1. Feed assist mechanism

The Hakki Pilke 43 firewood processor is equipped with a feed assist mechanism, which helps you process logs of equal length by automatically feeding logs forwards whenever the machine's splitting beam moves forwards. By using the mechanism, you do not have to feed logs with joystick F (Figure 10). You can turn the feature on/off as necessary by using switch B (Figure 10).

The in-feed conveyor's speed can be adjusted with adjuster A (Figure 10). For example, the adjuster is turned towards the closed position when producing shorter logs and vice versa. Turning the adjuster towards the closed position causes the feed assist mechanism to feed the log at a slower speed and make a shorter feed motion.

4.3.2. Hydraulic log press

The Hakki Pilke 43 firewood processor is equipped with a hydraulic log press, which always **automatically** presses the log against the in-feed conveyor when the log is being cut, i.e. when the saw bar is lowered, the log press presses the log downwards. Thanks to this mechanism, the operator only needs to make sure that the log being fed does not collide with the log press when **a new log** is being fed into the cutting section by lifting the log press to the upper position by pressing button **A (Figure 11)**.

For maintenance purposes, the machine is delivered with (in the tool box) a long bolt that is used to keep the log press in the upper position, as shown in Figure 17.2. This makes it easier to perform maintenance measures (such as removing the in-feed conveyor's maintenance hatch).



Figure 17.2

4.3.3. **Jamming of the cutting blade**

If the cutting blade gets jammed in the log, stop sawing and try again on another section of the log. If the cut is misaligned because the bar drags to one side, the sharpness of the cutting chain and the bar must be checked. A chain that is not evenly sharp will always drag towards the blunter side, which will make cutting a thick log impossible. On the other hand, sawing with an evenly dull chain is inefficient, and the cutting chain must be sharpened or replaced (see Section 5.1.1).

4.3.4. **Sawing the last log**

When sawing logs, the second to last piece should be sawn in such a way that the remaining piece is of a sufficient length. This ensures that the log stays firmly under the hydraulic log press and that the sawing is steady and safe. You can set the guide plates to rise manually before the last log is fed into the splitting groove to make it more likely that the very last piece will fall into the correct position.

4.3.5. Guide plates for falling wood pieces

The machine is equipped with guide plates to ensure that the cut pieces of wood are always lowered to the bottom of the splitting groove in the right position. First, the cut piece of wood is lowered on top of the plates, as shown in Figure 18, which then lower the piece to the bottom of the splitting groove (Figure 19) in a controlled manner.

The need for the guide plates depends on the thickness and length of the piece of wood that is being split. A longer and thinner piece of wood is easier to lower to the splitting groove in the right position than a shorter and thicker piece. The operator can choose whether to use the guide plates or not. They can also be used manually for controlling the fall of the final log, for example.

When the guide plates are in automatic mode (controller C in Figure 10 is in the front position), they immediately rise up when the saw bar starts to cut wood. Once the log has been cut and the piece has fallen on the plates, release the sawing button, which raises the bar and lowers the guide plates automatically to the lower position (Figure 19).

When the plates are not in use (controller C in Figure 10 is in the back position), they remain in the lower position, as shown in Figure 19.

In manual mode, the operator can manually raise/lower the plates with controller C (Figure 10).



Figure 18.



Figure 19.

4.3.6. Using the quick couplings of the additional hydraulics

1. Connect the additional hydraulics (e.g. when using the lateral transfer mechanism of the HakkiFeed 472 log table) by pushing the auxiliary device's hydraulic hoses into quick couplings A and B in Figure 20. Connect the accessory hose (marked in red) to quick coupling A.
2. Use the additional hydraulics with controller E in Figure 10.

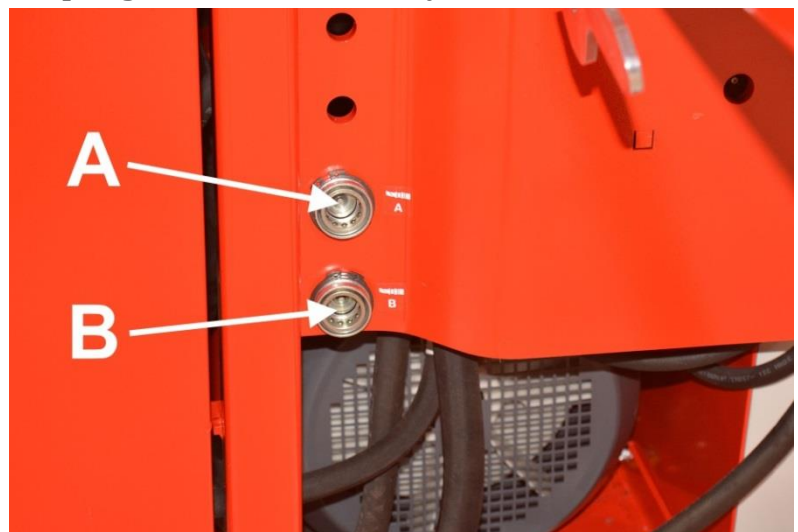


Figure 20.

OR if the machine is equipped with a

larger out-feed conveyor, use the controller in position I (Figure 10).

Note! If the machine has a larger out-feed conveyor, use of the log lifter is prohibited, as the control valve uses a motor spool.

4.3.7. Connecting a log table's in-feed rollers to the in-feed conveyor

A log table's (e.g. HakkiFeed 472) in-feed rollers can be connected in series with the in-feed conveyor. The rollers automatically synchronise with the in-feed conveyor when logs are fed with joystick F (Figure 10) or when feed assist mechanism B is being used. The hoses of the log table in-feed rollers are connected to the machine's in-feed conveyor as follows:

1. Turn off the machine and disconnect it from the power source.
2. Remove hose B from quick coupling A (Figure 21).
3. Connect the pressure hose of the log table rollers (marked in red) to quick coupling A.
4. Connect the return hose of the log table rollers to hose B (with a female coupling).

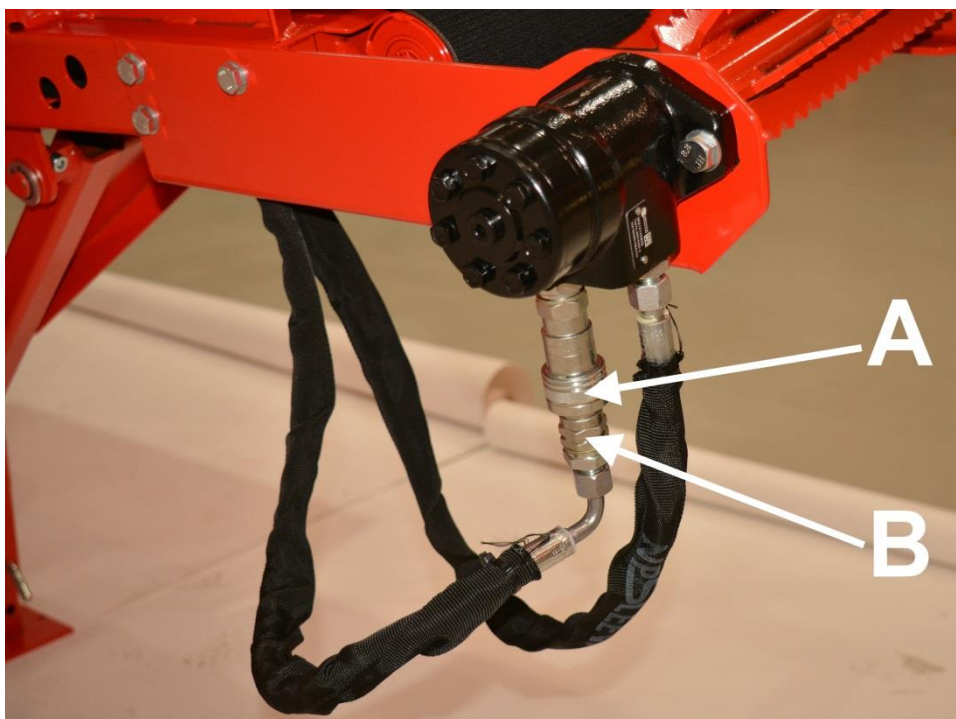


Figure 21.

4.4.Log splitting

4.4.1. Jamming of wood on the splitting blade

If a piece of wood gets jammed on the splitting blade in a situation where the splitting force is insufficient to push the piece past the blade despite several attempts to do so, do the following:

1. Return the splitting beam to the initial position by opening and closing the machine's grey protective cover.
2. Lift the splitting blade to the highest possible position with lever F (Figure 10) and activate the splitting cycle again by pressing button B (Figure 11).
3. If necessary, cut a sufficiently thick piece of wood (approx. 20–25 cm) into the splitting groove and activate the splitting cycle. The new piece will then push the jammed piece past the blade.
4. Lower the blade by approx. 10 cm and repeat step 3. Repeat step 4 until the jammed log has passed the blade, piece by piece.

4.4.2. Resplitting or splitting without cutting

1. Raise the protective cover of the cutting and splitting groove.
2. Place the log you want to split in the splitting groove.
3. Close the protective cover of the cutting and splitting groove.
4. Activate the splitting cycle with button B (Figure 11).

The above procedure can be used to split wood without cutting it as necessary.

4.4.1. Replacing the splitting blade

Exercise extreme caution when handling the blade, and wear protective gloves.

1. Pull handle B (Figure 22) to make it possible to lower the splitting blade to the lowest possible position.
(Note! the out-feed conveyor is A in Figure 22)
2. Lower the splitting blade to the lowest possible position. **If necessary, remove pieces of wood from under the blade.**
3. Turn off the machine and disconnect it from the power source.
4. Lift the splitting blade out of its slot.
5. Install a new splitting blade by reversing the above steps.

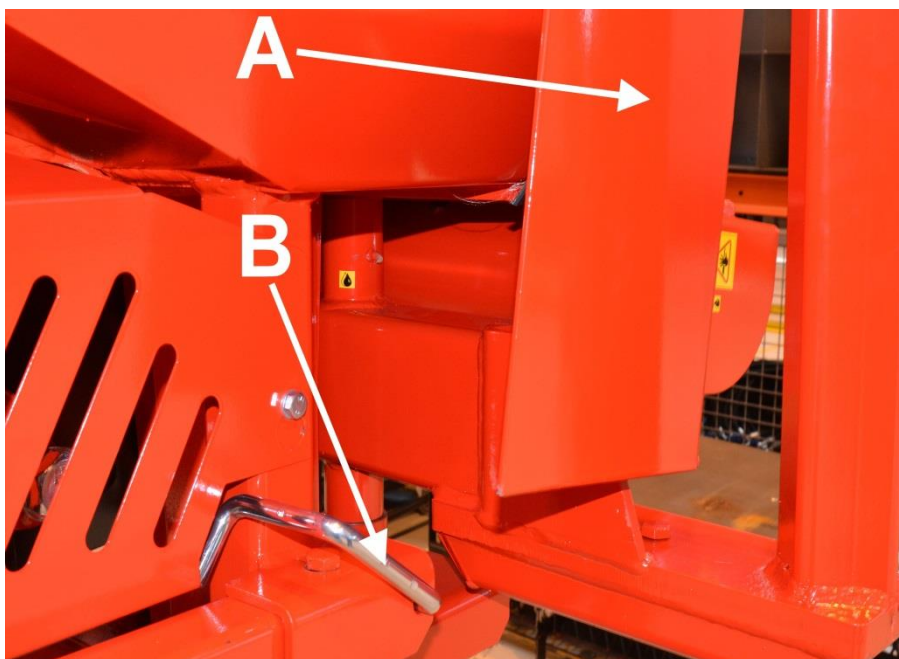


Figure 22.

4.4.2. Adjusting the stroke length of the splitting motion

In the Hakki Pilke 43 firewood processor, the splitting cylinder is controlled electrically with sensors A and B in Figure 23. The stroke length of the splitting cylinder can be adjusted as follows:

1. Shut down the machine and disconnect it from its power sources.
2. Remove the machine's cover plate, as shown in Figure 23.

3. Sensor A (Figure 23) determines the spot in which the splitting beam stops during the return motion. If necessary, change the position of the sensor. Loosen the sensor's fastening bolt, move the sensor and tighten the bolt to secure it in place.
4. Sensor B (Figure 23) is used to determine the point at which the splitting cylinder changes direction during the splitting cycle, i.e. how close to the splitting beam the splitting blade goes. If necessary, change the position of the sensor, as instructed in section 3 above.

Note! The covers and guards must be reattached after maintenance.

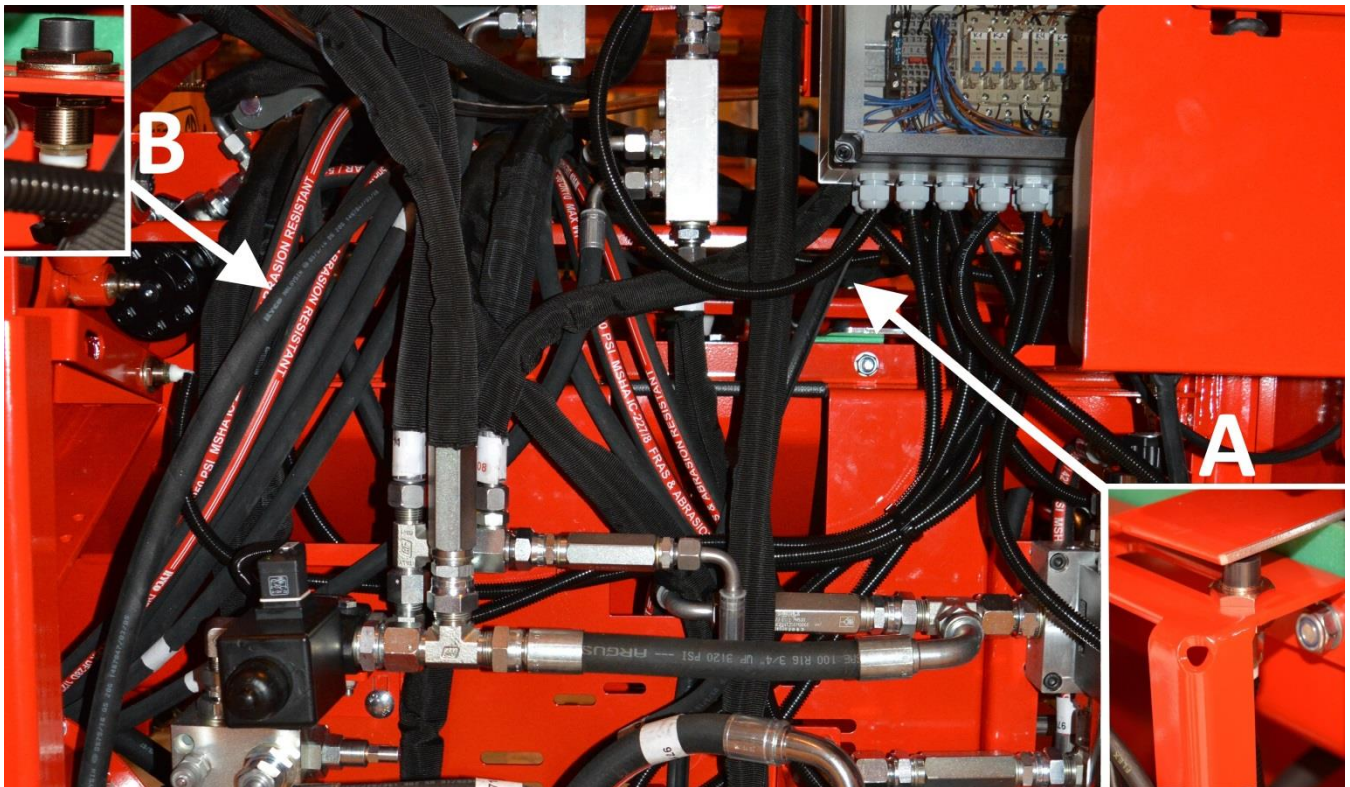


Figure 23.

4.5.Using the out-feed conveyor

The out-feed conveyor can be controlled horizontally and vertically. The safety zone for the out-feed conveyor is 10 metres. When operating the machine, the maximum permitted angle of the out-feed conveyor is 40°. The running speed of the out-feed conveyor can be freely adjusted with adjustment screw H (Figure 10). If the conveyor is jammed for any reason, the out-feed conveyor must be stopped with lever G (Figure 10) and the machine shut down before the cause is removed. If the cause for the failure is in the debris removal mechanism, you can reverse the conveyor belt for a short distance with lever G (Figure 10). There must be at least 50 cm between the end of the out-feed conveyor and the pile of processed firewood.

The tightness of the out-feed conveyor belt (and the belt's alignment) can be adjusted as follows:

1. Loosen fastening nut A (Figure 24).
2. Tighten/loosen the belt with nut B in Figure 24 (the same amount on both sides of the belt). If the belt is crooked, loosen nut B (in relation to the spring) on the side towards which you wish to align the belt better.
3. When the conveyor belt is at the correct tension and properly aligned, tighten the fastening nuts (A) on both sides.

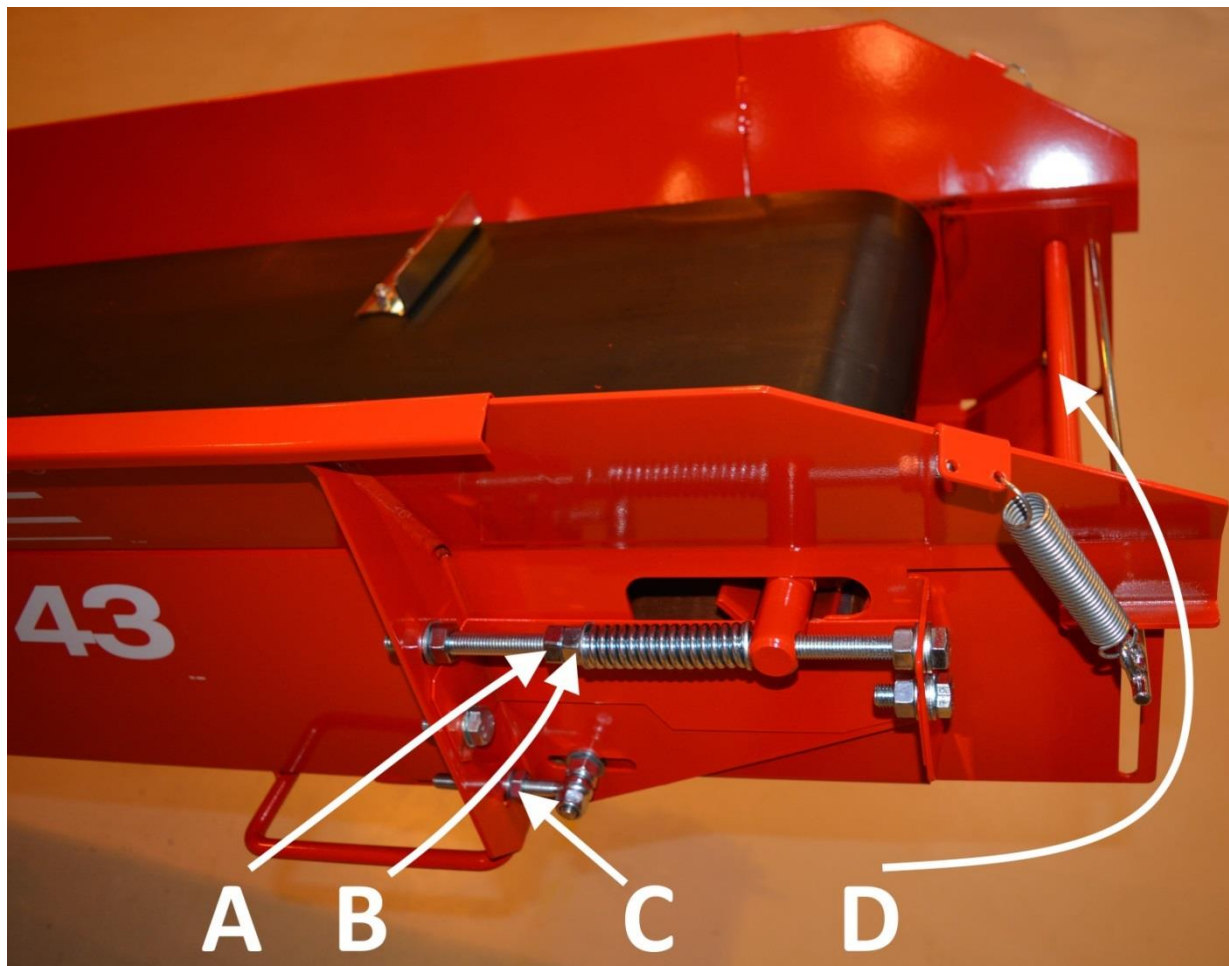


Figure 24.

The out-feed conveyor has an automatic debris removal device. It separates debris and sawdust from the processed firewood.

The following things significantly affect the operation of the debris removal device: the angle of the out-feed conveyor, the speed of the belt and the distance of separation plate D (Figure 24) from the upper roller of the conveyor. In other words, the debris separation result is better the steeper the angle (however, no more than 40 degrees), the lower the speed and the longer the distance between separation plate D and the upper roller. The distance of separation plate D is optimised at the factory in conjunction with the testing of the machine. However, the adjustment can be changed with adjustment screw C (2 pcs, Figure 24), if necessary.

The optimal speed for the belt can be determined by trying different settings. The split logs should only just pass over the plate.

Note! The operator must ensure that the distance between the debris discharge opening and the pile of debris that accumulates under it is at least 30 cm.

4.6.After use

1. After you have finished making firewood, stop the out-feed conveyor, shut down the machine and remove the firewood from the splitting groove and conveyor.
2. Check that the machine has not been damaged.
3. Place the out-feed conveyor into a position that allows the conveyor and firewood processor to be moved safely off the processed firewood.
4. Clean the machine.

If you will not be using the firewood processor for a while, do the following:

5. As necessary, use your tractor's hydraulics or a forklift to hoist the firewood processor and carefully move it to a location where you can place the in-feed and out-feed conveyors into their transport and storage position.
6. Place the conveyors into the transport and storage position.
7. Clean the machine and carry out any maintenance.
8. Store the machine according to the instructions in Section 10.

5. Machine maintenance

The machine must be disconnected from its power source before any maintenance, adjustment, replacement or cleaning measures. Only use spare parts that are supplied by the manufacturer or your retailer. If the guards of the machine have to be removed for maintenance, they must always be reattached before the machine is activated. After maintenance and adjustment measures, the machine must be test run according to the instructions in Section 4.1.

5.1. Cutting blade and drive end

If the cutting blade of the machine does not penetrate the wood properly or the cut is skewed, the cutting chain is most likely blunt or the saw bar is bent. It is a good idea to keep a replacement chain on hand, so that you do not need to interrupt your work to sharpen the chain.

5.1.1. Replacing and tensioning the saw chain

The Hakki Pilke 43 firewood processor comes standard with a patented AC10™ automatic cutting chain tensioner. When the machine is running, the hydraulic cylinder pushes the saw motor backwards with a constant force, keeping the cutting chain's tension optimal. The operator does not need to worry about the cutting chain's tension.

Replace the cutting chain as follows:

1. Turn off the machine, disconnect it from its power source and open the machine guard.
2. Turn lever A (Figure 25) to the OFF position to release the pressure in the automatic cutting chain tensioner.
3. Put on gloves and pull the cutting chain downwards at the middle of the beam. This will loosen the chain and allow you to remove it.
4. Install the new cutting chain and ensure that the cutting teeth come first in relation to the rotating direction.
5. Turn lever A (Figure 25) to the ON position, as shown in Figure 25.
6. Close the machine guard and turn on the machine. This will automatically tension the cutting chain to the right tension and raise the saw bar.

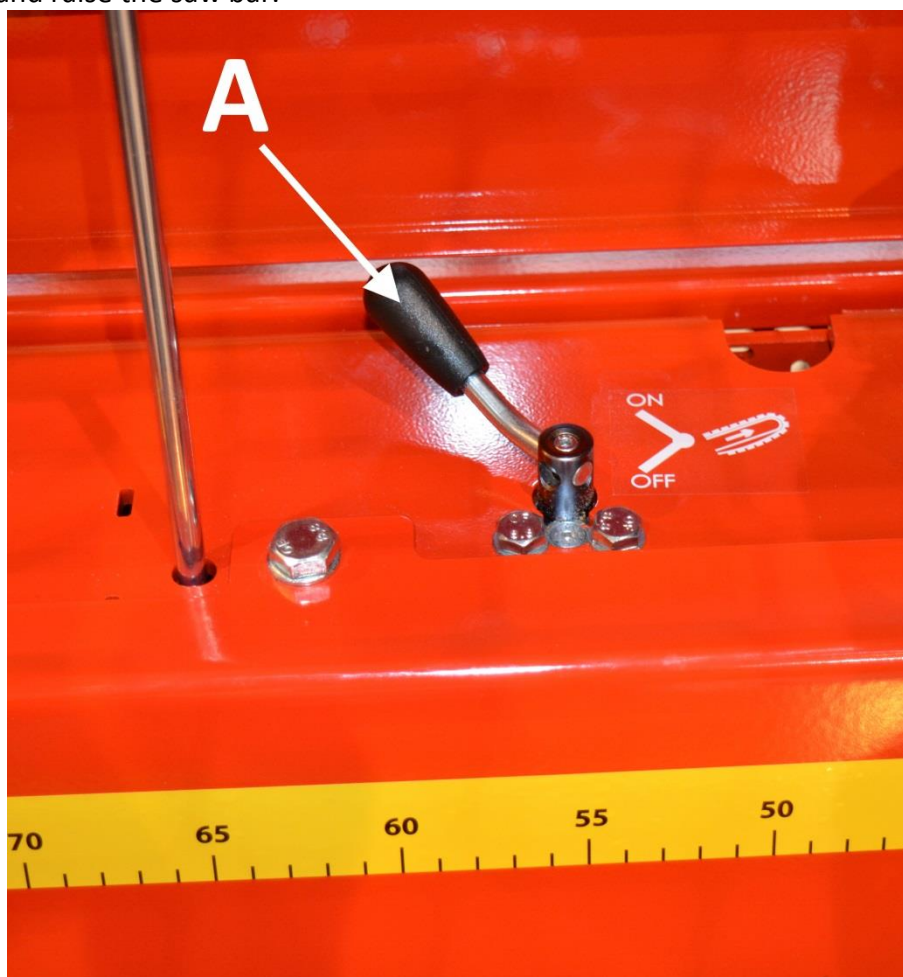


Figure 25.

To check the tension of the cutting chain, wear protective gloves and pull the lower edge of the chain at the middle of the beam. The tension is correct if you can pull out three teeth by applying moderate force.

5.1.2. Replacing the saw bar

Replace the saw bar as follows:

1. Remove the cutting chain according to steps 1–3 of Section 5.1.1.
2. Remove the beam's fastening bolts (A in Figure 26).
3. Remove fastening plate C (Figure 27) and remove the saw bar from the groove.
4. Place the new bar against gear wheel B, twist it into the groove and loosely attach the saw bar bolts (A) and fastening plate C.
5. Install the cutting chain in place according to steps 4–6 of Section 5.1.1.

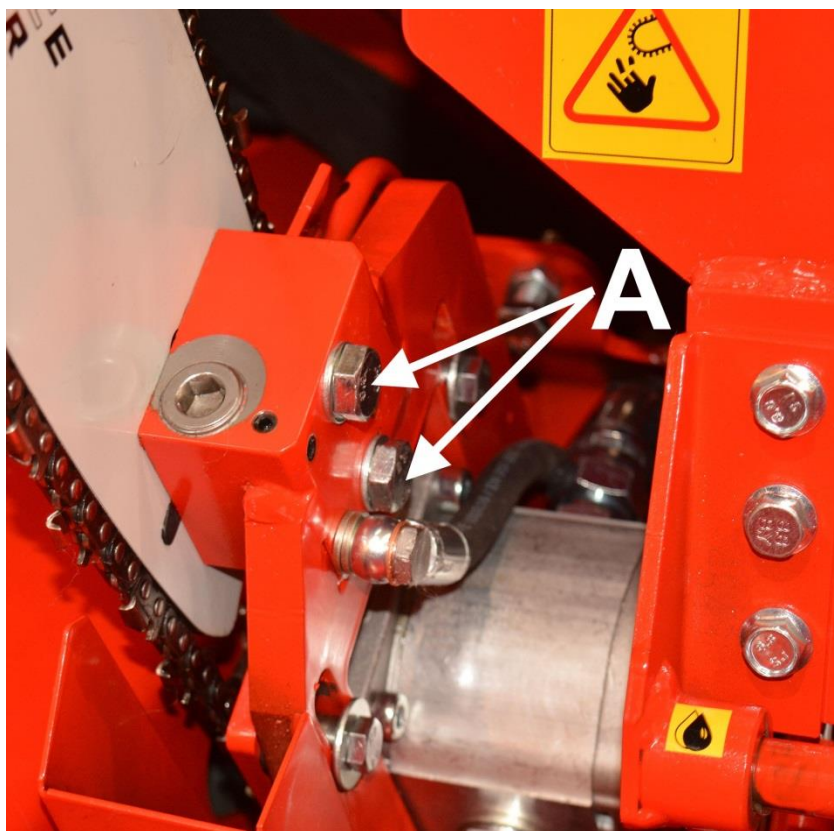


Figure 26.

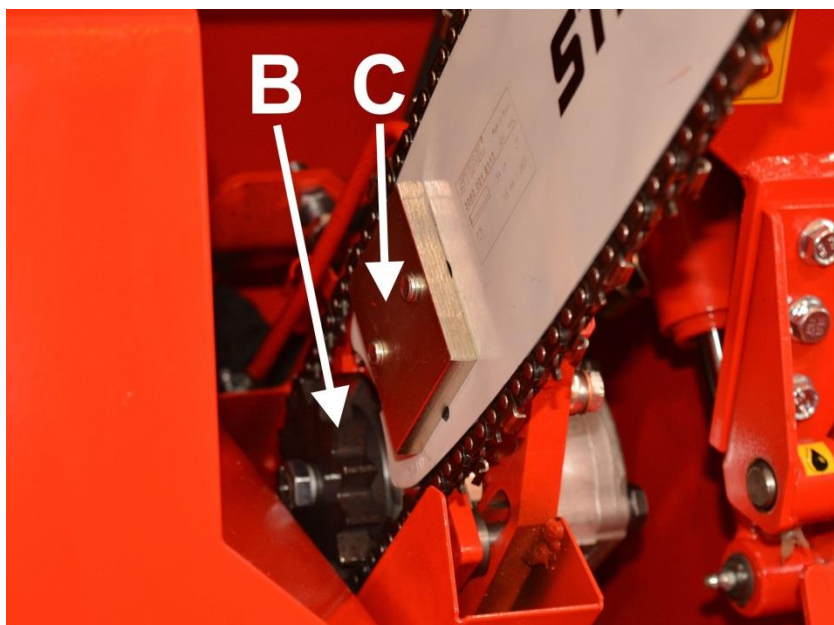


Figure 27.

5.2.Changing the oil of the multiplier gear

1. Remove the lifting arms' pins B (2 pcs, Figure 28).
2. Remove/loosen the bolts circled in Figure 28 and remove protective plates A, C and D.
3. Remove drain plug G (Figure 29) and pour the oil in a suitable container.

Note! The multiplier gear's oil volume is 0.34 litres.

4. Close plug G and open filler cap E (Figure 29).
5. Feed the new oil to the multiplier gear and close filler cap E. The required amount is 0.34 litres. You can check the oil level through oil level gauge F (Figure 29).
6. Put the protective plates (A, C and D) and the lifting arms' pins (B) in Figure 28 back in place.

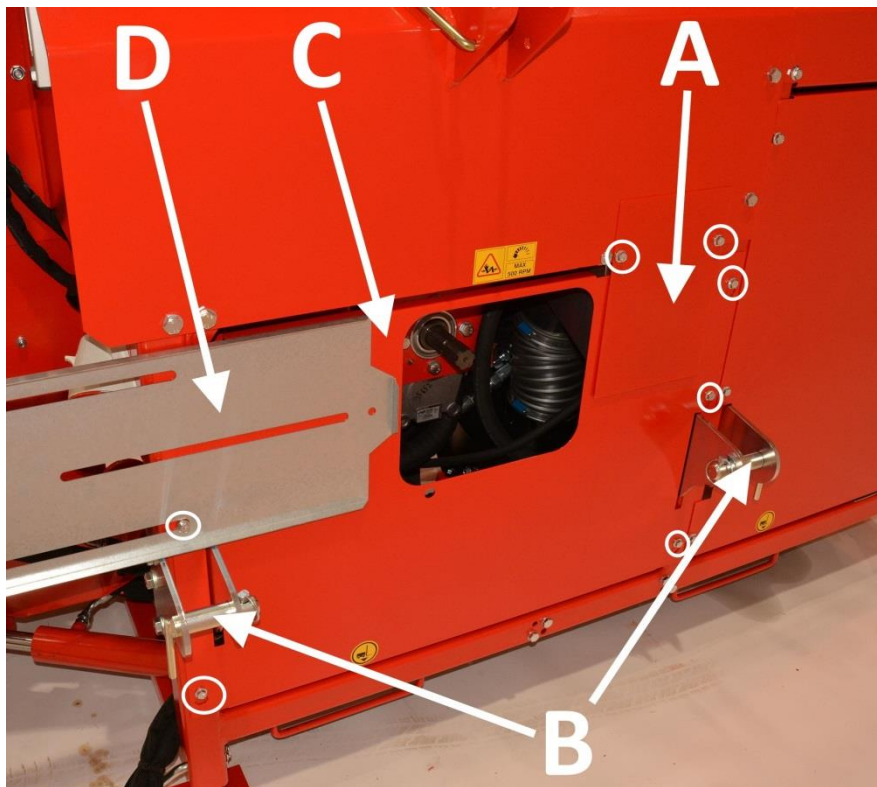


Figure 28.

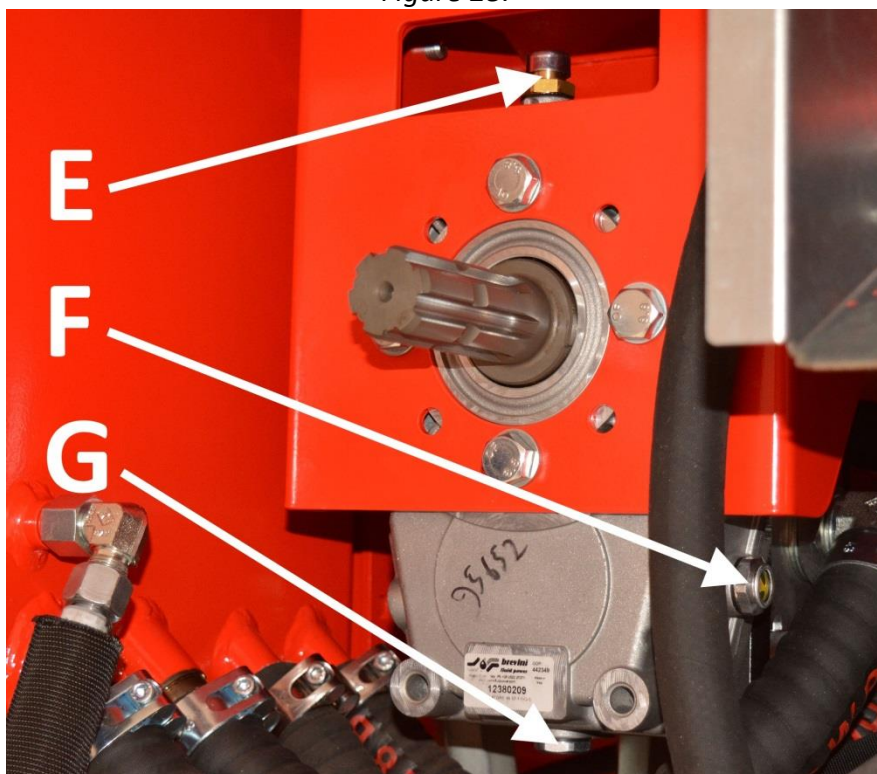


Figure 29.

5.3.Changing the hydraulic oil and filters

1. Turn off the machine and disconnect it from its power source.
2. Open filler cap A (Figure 30).
3. Remove the bolts circled in Figure 30, the filter cover and the old hydraulic filter.
4. Open drain plug C (Figure 31) and drain the old hydraulic oil into a suitable container.

Note! The oil volume is approx. 110 litres, so be prepared to replace the container more than once as necessary.

Note! Choose the correct type of oil according to the operating conditions! If the electric motor is turned on in a cold space, the use of an oil with a viscosity of ISO VG 32 and an oil heater accessory is recommended. In a tractor, the recommended oil under normal conditions is ISO VG 46 (with the oil temperature no more than 60°C). Under hot conditions, the use of an oil cooler is recommended (available as an accessory).

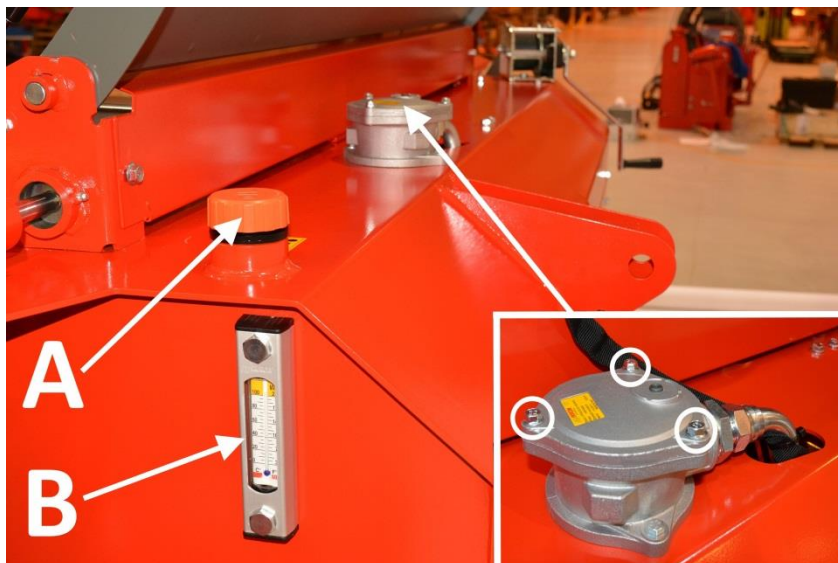


Figure 30.

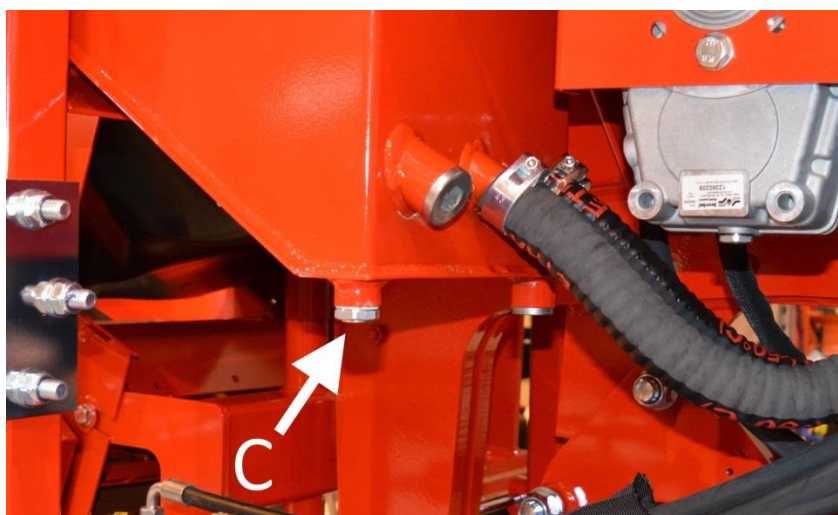


Figure 31.

5. Put plug C back in place and feed the new oil to the tank through the opening of filler cap A (approx. 110 litres).
6. Install a new filter in place and close the filter cover with the bolts circled in Figure 30.
7. Use gauge B (Figure 30) to make sure that the oil level is near maximum.

5.4. Conveyor maintenance

5.4.1. Replacing and tensioning the in-feed conveyor belt

Replace the in-feed conveyor belt as follows:

1. Shut the machine down and disconnect it from its power sources.
2. Raise and lock the in-feed conveyor into the transport position. (See Section 3.1.1.)
3. Move the belt joint to a suitable height.
4. Disconnect the joint by using pliers, for example, to pull out pin A (Figure 38), which holds the joint together.
5. Remove the old belt.
6. Slide the new belt under the table from the side of the in-feed conveyor's drive roller until you can pull the belt out from the other end (C).
7. Lead the rest of the belt under the log press, around the rear roller and, finally, behind the conveyor.
8. Connect the joint by inserting pin A into the joint.
9. Turn the conveyor back to the operating position and tension the belt.
10. Finally, adjust the belt to the correct tension and to run straight with the help of the adjustment nuts D.

The belt is at the correct tension when its middle section is raised approx. 5 cm when the conveyor is in the operating position. An excessively tight belt may be damaged more easily, and it places unnecessary strain on the bearings of the conveyor.

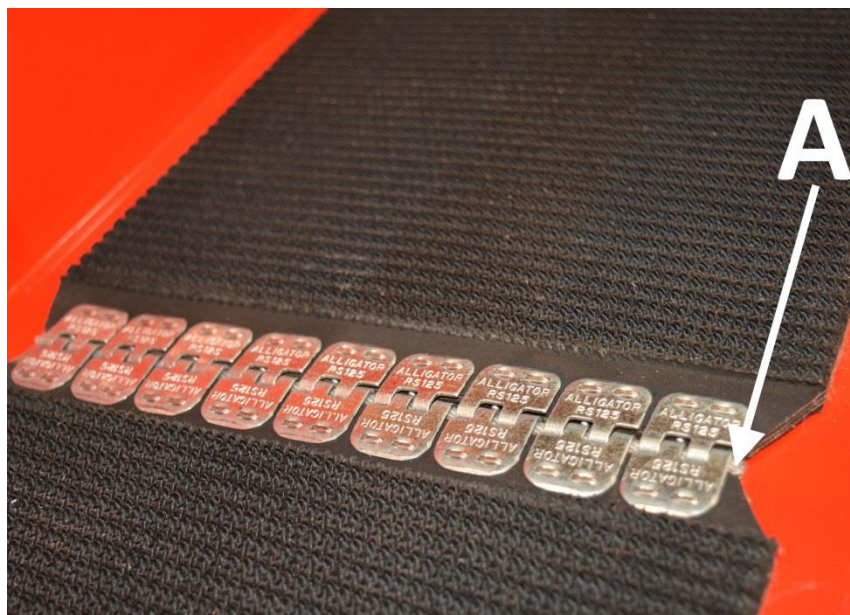


Figure 38.

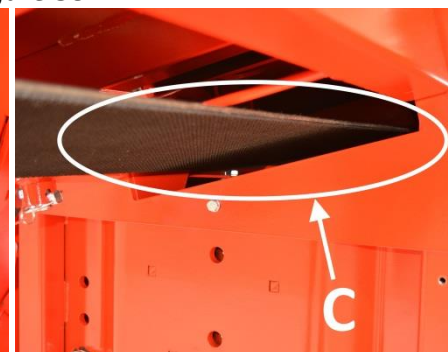


Figure 39.

Figure 40.

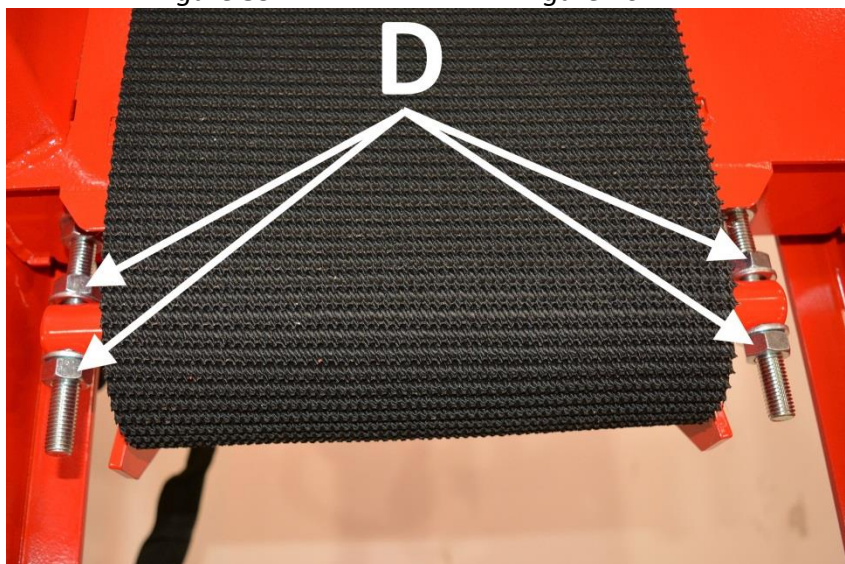


Figure 41.

5.4.2. Replacing and tensioning the out-feed conveyor belt

The instructions for tensioning and aligning the out-feed conveyor are presented in Section 4.4.

Replace the out-feed conveyor belt as follows:

1. Pull out the pin locking the conveyor in place and lower the conveyor to the ground.
2. Shut the machine down and disconnect it from its power sources.
3. Move the belt joint to the start of the conveyor.
4. Fold the conveyor, but do not place the belt support in the transport position. This will allow the belt to hang loose.
5. Disconnect the joint by opening the bolts.
6. Remove the old belt.
7. First, insert the new belt under the folded conveyor (bottom opening) from the end of the conveyor with the plates facing downwards. Feed the belt in until you can pull it out from the other end of the conveyor. Pull out a length of approx. 60 cm.
8. Push the other end of the belt into the upper section of the folded conveyor (top opening) from the end of the conveyor. Feed it in until you can connect the joint.
9. Pull the excess belt to the start of the conveyor.
10. Lower the conveyor back to the operating position and tension the belt.

The belt is at the correct tension when its middle section is raised approx. 15 cm when the conveyor is in the operating position. An excessively tight belt may be damaged more easily, and it places unnecessary strain on the conveyor bearings.

5.4.3. Replacing the out-feed conveyor plates

The out-feed conveyor plates can be replaced by disconnecting the bolt joints (3 x M8) fastening the plates and replacing the plates with new ones. It is recommended that you move the belt into a position that puts the plate to be replaced above the conveyor. Shut the machine down and disconnect it from the power source for the duration of the procedure.

5.5. Lubrication

All of the firewood processor's lubrication points, which require Vaseline, have been labelled. There are 33 lubrication points, presented in the figures below. Note! Take care when applying grease to dustproof bearings!

1. Grease nipple of the out-feed conveyor's turning joint (1 pc) in Figure 42. (every 50 hours)
2. Grease nipples of the height adjustment device of the splitting blade (2 pcs) in Figure 43. (every 50 hours)
3. Bearing nipples of the out-feed conveyor's lower roller (2 pcs) in Figure 44. (every 200 hours)
4. Grease nipples of the guide plate (2 pcs, every 50 hours) and the grease nipple of the in-feed conveyor drive roller in Figure 45. (every 200 hours)
5. Grease nipples of the cutting cylinder (2 pcs) in Figure 46. (every 50 hours)
6. Grease nipples of the splitting cylinder's pin (2 pcs) in Figure 47. (every 50 hours)
7. Grease nipples of the wood measuring device (2 pcs) and one of the guard's two grease nipples in Figure 48. (every 50 hours)
8. Grease nipples of the out-feed conveyor's swivel cylinder (2 pcs) in Figure 49. (every 50 hours)
9. Grease nipples of the log press (7 pcs) in Figure 50. (every 50 hours)
10. The guard's second hinge nipple in Figure 51. (every 50 hours)
11. Grease nipples of the measuring device (2 pcs) and the guide plate (2 pcs) in Figure 52. (every 50 hours)

12. Grease nipples of the guide plates' cylinder (2 pcs) and the grease nipple of the mechanism in Figure 53. (every 50 hours)

13. Grease nipple of the hydraulic in-feed roller bearing in Figure 53 a. (every 200 hours)



Figure 42.

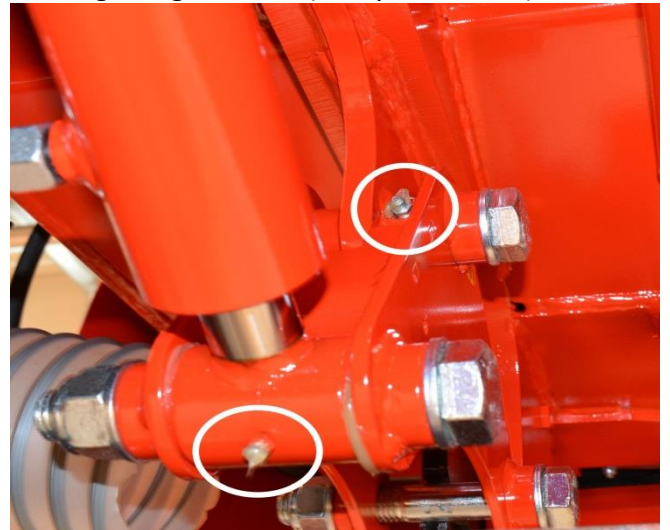


Figure 43.



Figure 44.



Figure 45.

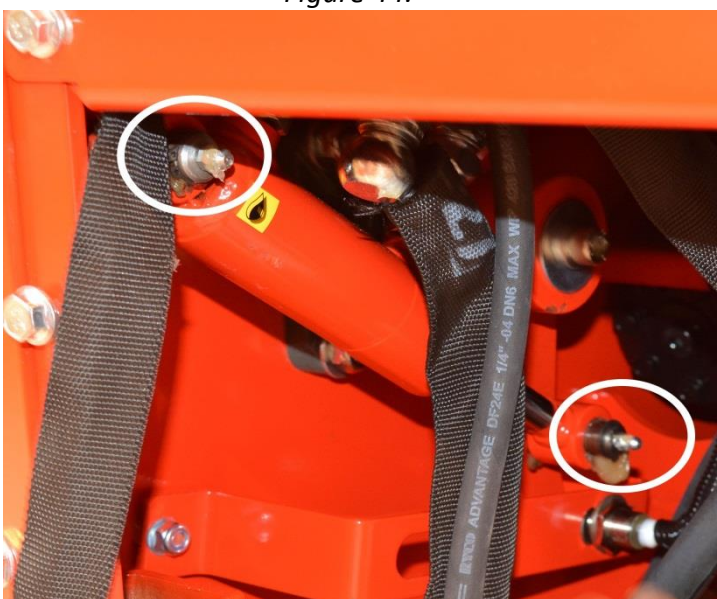


Figure 46.



Figure 47.



Figure 48.



Figure 49.

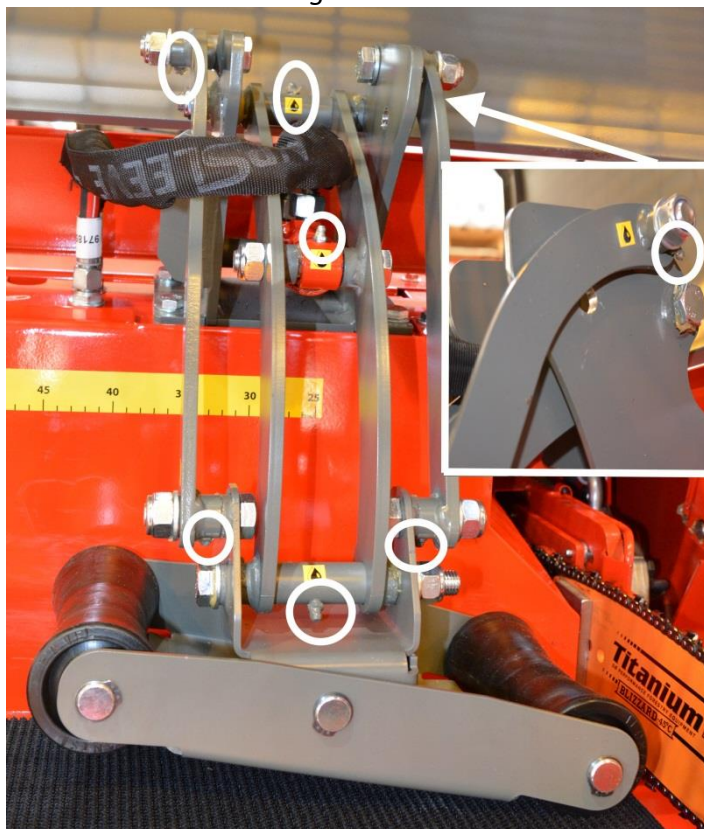


Figure 50.



Figure 51.

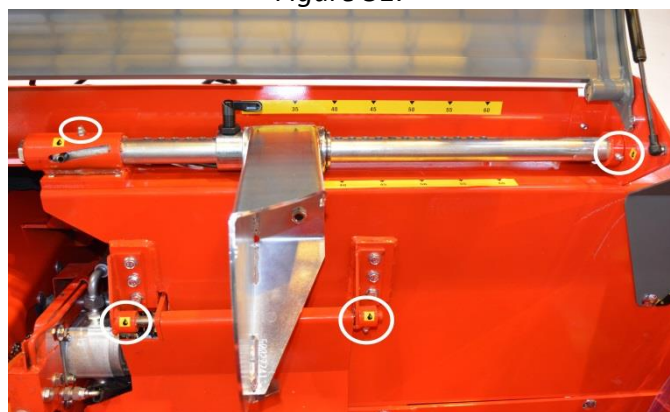


Figure 52.

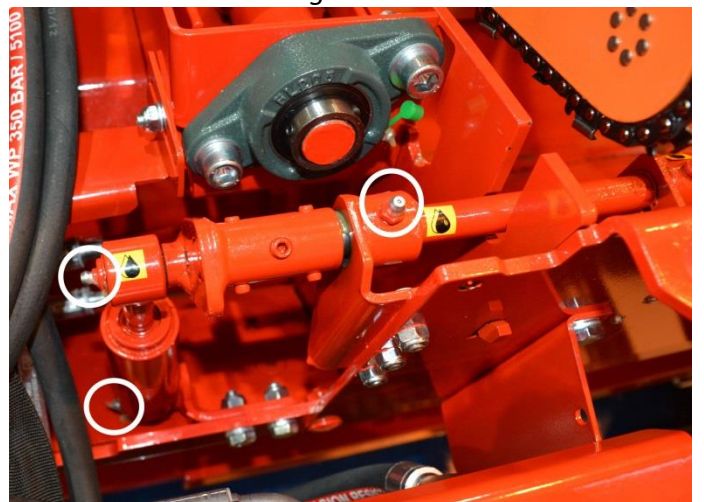


Figure 53.



Figure 53 a.

5.6.Saw chain lubrication

The cutting chain is automatically lubricated whenever it rotates. In other words, oil is fed to the cutting chain hydraulically from the tank with a controlled pump, and the pumping motion occurs when the saw begins to run. You can adjust the amount of cutting chain oil fed to the chain with the help of hex socket screw A (Figure 54), i.e. the amount of oil decreases when the screw is tightened and vice versa.

The factory setting for screw A (Figure 54) is 3.5 turns towards the open position from the closed position. Increase or decrease the amount as necessary according to the type of wood, air temperature and type of oil.

Before starting, always check that oil is fed to the chain by rotating the chain without sawing wood.

You can monitor the cutting chain's oil level through opening A (Figure 55).

Add cutting chain oil as follows:

1. Remove fastening screw B and open the guard with handle C (Figure 55).
2. Remove the canister's rubber fastening, then the filler cap and the empty canister.
3. Install a new, full canister in place by following these steps in reverse order. Check that the hoses and the pump outputs are free of air bubbles. (See the following section.)

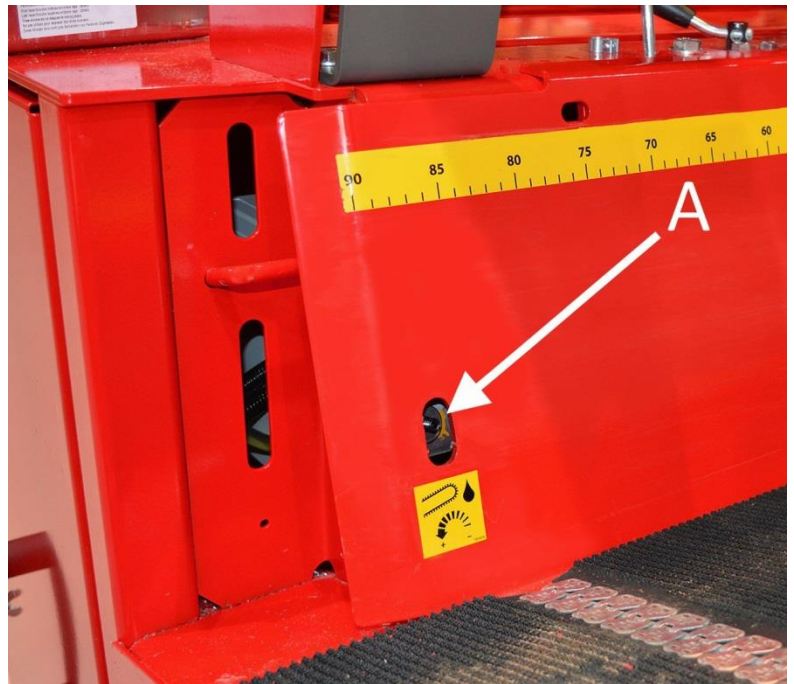


Figure 54.

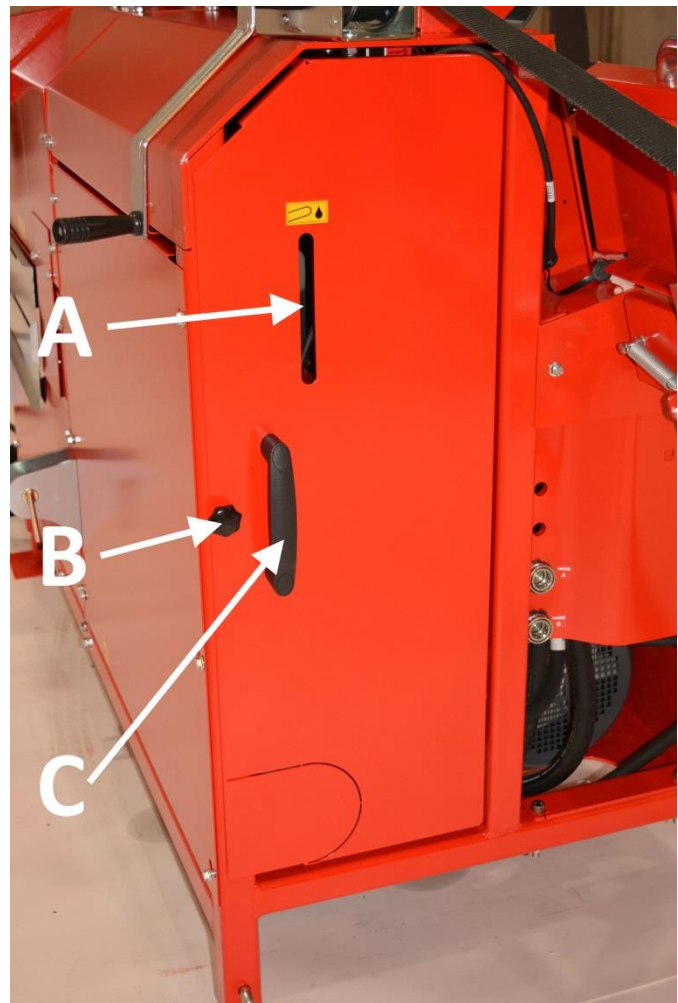


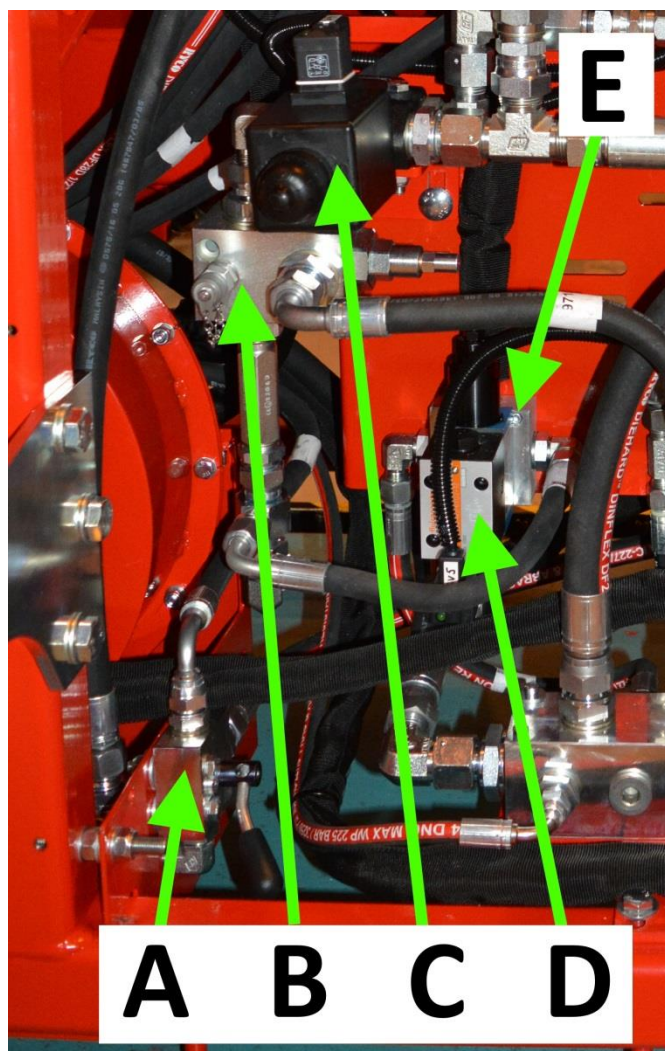
Figure 55.

Bleeding the air out of the cutting chain oil lines:

Any possible air can be easily discharged from the system with a hydraulic pump. Remove hex socket screw A (Figure 54). Then pump the pump piston (under the screw) with a screwdriver, for example, until cutting chain oil comes out of the base of the beam and there are no air bubbles in the hoses. Then fasten hex socket screw A back into place and adjust the cutting chain oil volume with the help of the instructions in Section 7.

5.7.Solenoid and pressure regulating valves

The machine's cartridges have been adjusted to the correct settings at the factory. The firewood processor's guarantee is void if the factory settings are changed. If you need to change the settings for any reason, first contact the manufacturer or retailer and follow their instructions carefully. Changing the cartridge settings incorrectly may damage the machine or render it hazardous to operate. The relief valve settings can be changed as follows: loosen the locking nut and tighten or loosen the hex socket screw as needed (when the screw is tightened, the pressure increases and vice versa). Finally, tighten the locking nut. The relief valves and solenoid valves of the Hakki Pilke 43 are shown in the following figures:



- A. Sawdust blower tap.
- B. Main relief valve of a larger hydraulic circuit (a larger hydraulic pump). The correct adjustment value is 215 bar.
- C. Solenoid valve of the saw motor.
- D. Solenoid valve of the saw control.
- E. Pressure reducing valve. The correct adjustment value is 15 bar.

Figure 56.

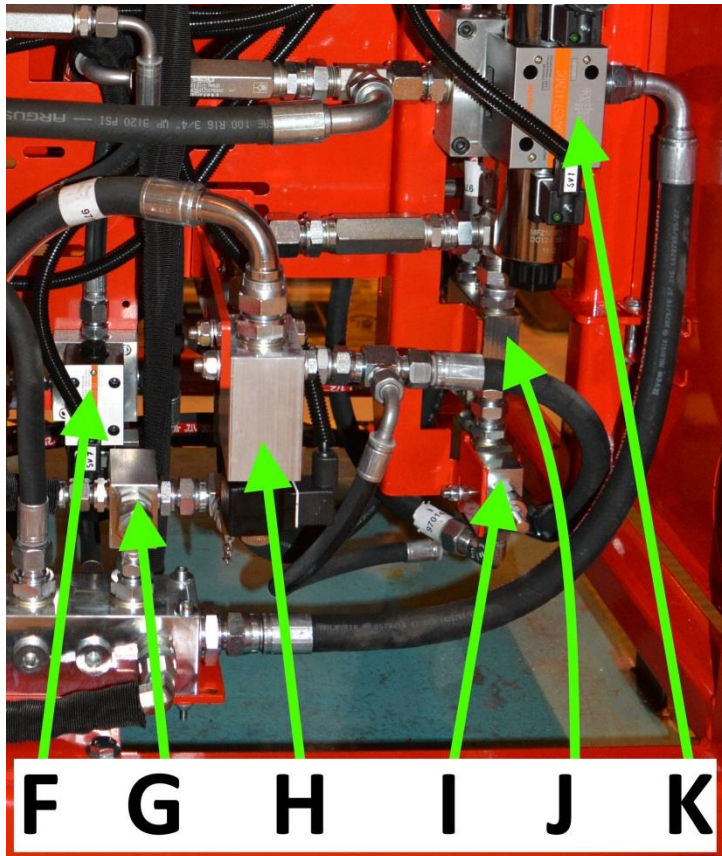


Figure 57.

- F. Solenoid valve of the feed assist mechanism.
- G. Main relief valve of a smaller hydraulic circuit (a smaller hydraulic pump). The correct adjustment value is 250 bar.
- H. High-pressure valve.
- I. Pressure-increasing valve. Correct adjustment value: the hex socket screw is **9.5 mm** visible in relation to its head (under a protective cup).
- J. Speed valve. Correct adjustment value: the hex socket screw is **7.0 mm** visible in relation to its head (under a protective cup).
- K. Solenoid valve of the splitting function.

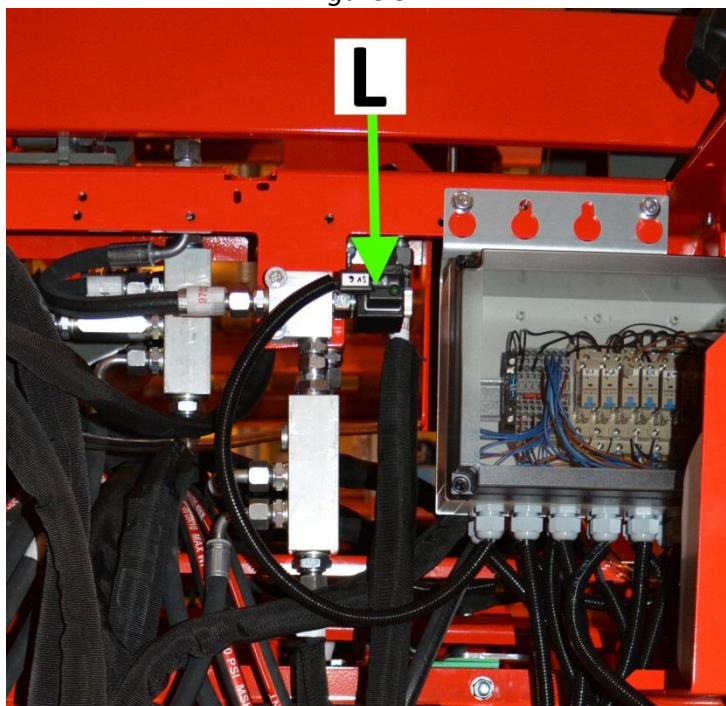
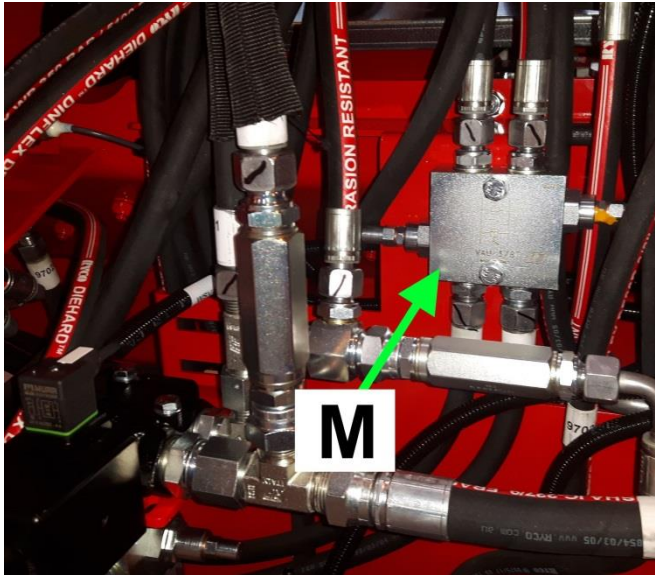


Figure 58.

- L. Solenoid valve of the log press.



M. Relief valve of the out-feed conveyor turning mechanism

Figure 58a

5.8. Guard mesh safety device

The safety device connected to the guard mesh is located behind the relay housing (Figure 59, item A). The easiest way to access the safety device is to detach the relay housing, opening the screws circled in Figure 59 and lifting the relay housing out.

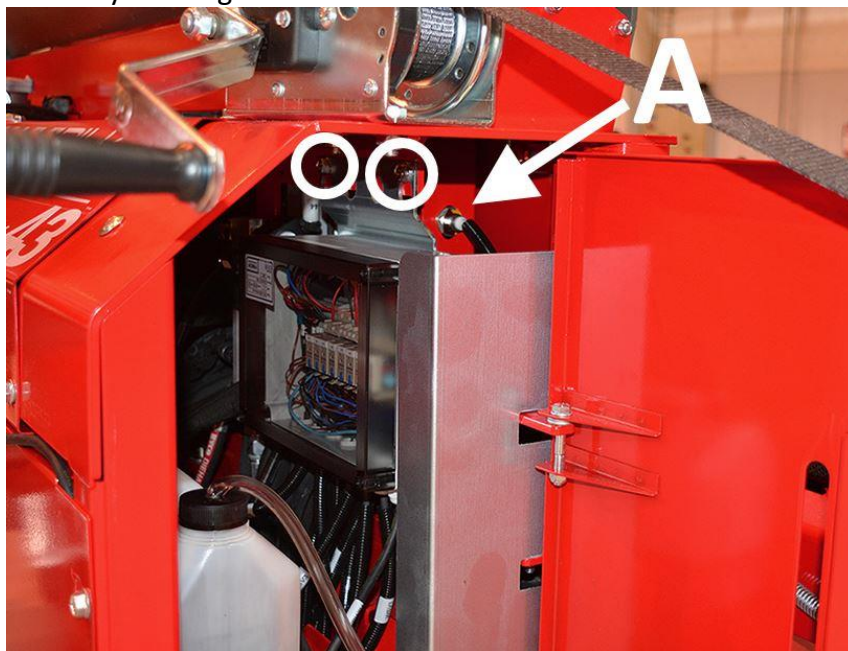


Figure 59.

The safety device operates based on the inputs of sensors WB1 and WB2 and the position of sensor plate A (Figure 60).

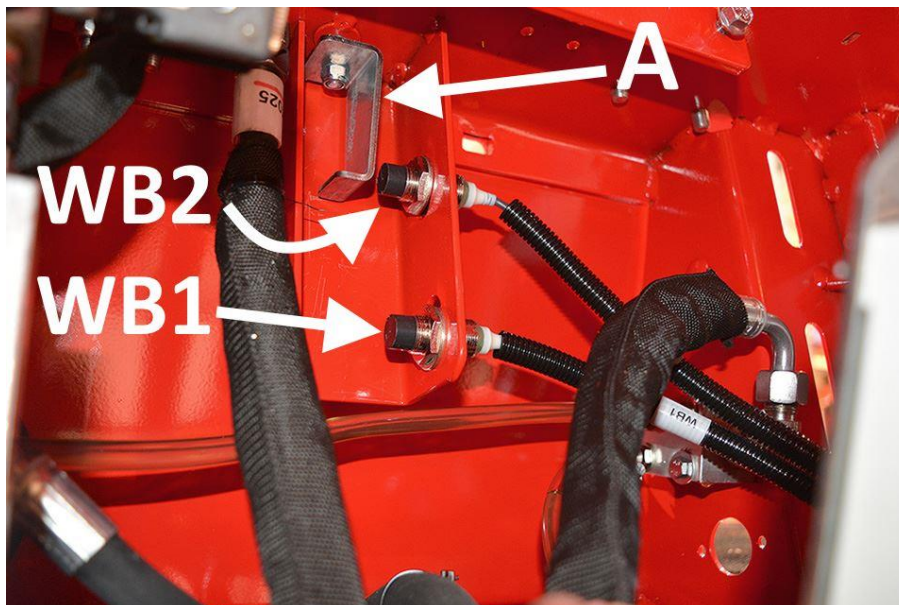


Figure 60.

1. When sensor plate A is at the position of the upper sensor WB2: the guard mesh is open, the sensor WB2 light is on and electrically controlled functions, such as sawing and splitting, are off.
2. When sensor plate A is at the position of the lower sensor WB1: the guard mesh is closed, the sensor WB2 light is off and the sensor light WB1 is on, and electrically controlled functions, such as sawing and splitting, are operable.

5.9. Washing and cleaning

Any loose dirt and sawdust can be removed from the machine with pressurised air, for example. The machine can also be washed with a high-pressure washer as long as the water jet is not aimed directly at the bearings or electrical equipment.

Always ensure that the machine and the working area are sufficiently clean during operation. The machine must always be cleaned after use. Clean the machine at suitable intervals and always before storing the machine for a prolonged time. After washing, the firewood processor must be lubricated according to the instructions in Section 6.

5.10. Storage

Although the machine is intended for outdoor use, it should be covered and stored in a sheltered location or indoors. Before prolonged storage, the machine must first be cleaned, then washed according to the instructions in Section 9 and lubricated according to Section 6.

Note! The out-feed conveyor belt may shrink and tighten while in storage due to humidity. For this reason, the out-feed conveyor must be folded into the transport position while the machine is in storage.

5.11. Maintenance table

Item	Task	Daily	Interval 100 h	Interval 500 h	Substance/accessory item
Multiplier gear oil	Check 1st change Subsequent		X X	X	SAE 80/90. 0.34 l
Hydraulic oil Normal conditions	Check 1st change Subsequent	X	X	X	Amount approx. 110 l For example ISO VG 32
Oil filter	Always when changing oil				Number: 97348 13921107005357
All levers	Lubrication		X		Lubrication oil
Saw bar	Check	X			18" 1.6 mm
Cutting blade	Sharpen as necessary				0.404" 68 vl /1.6 mm
Machine	Clean Wash as necessary	X			
Electric motor	Cleaning	X			
Electrical equipment	Cleaning	X			
Winch and strap	Check	X			
Grease nipples	Lubrication	According to Section 6			
Splitting beam (inside the machine)	Cleaning as necessary		X		

5.12. Failures and remedial measures

Failure	Cause	Remedial measure
The splitting force is insufficient to split the log.	<ol style="list-style-type: none"> 1. The log/splitting blade is in an incorrect position. 2. The splitting force is not great enough. 	<ol style="list-style-type: none"> 1. Fix the position of the log/splitting blade. 2. Contact the retailer.
The in-feed conveyor belt does not move.	<ol style="list-style-type: none"> 1. The belt is too loose. 	<ol style="list-style-type: none"> 1. Tension the belt according to the instructions in Section 5.4.1.
The out-feed conveyor belt does not move	<ol style="list-style-type: none"> 1. The belt is too loose (the lower drive roller moves). 2. The lower drive roller is jammed and does not move. 	<ol style="list-style-type: none"> 1. Tighten the belt according to the instructions in Section 4.4. 2. Disconnect the machine from the power source and remove the obstruction.
The cutting chain does not properly penetrate the wood.	<ol style="list-style-type: none"> 1. The saw chain is dull. 2. The saw bar is crooked. 	<ol style="list-style-type: none"> 1. Sharpen or replace the saw chain. 2. File the bar to make it straight.
The machine starts but none of the functions work. The machine makes an abnormal noise.	The electric motor runs in the wrong direction.	See Section 3.2.2.
The electric motor does not start.	<ol style="list-style-type: none"> 1. The machine makes a loud noise but does not start. 2. The thermal relay has tripped. 3. Starter fuse triggered. 4. The input cable is faulty. 	<ol style="list-style-type: none"> 1. The gear fuse has blown. Replace it. 2. Reset the thermal relay with the starter's stop button. 3. Disconnect from the power source and check the starter relay. 4. Replace the cable.
The electric motor tends to stop, and the thermal relay is easily triggered.	<ol style="list-style-type: none"> 1. The thermal relay is broken or incorrectly adjusted. <p>Some other problem?</p>	<ol style="list-style-type: none"> 1. Contact the retailer.
The cutting or splitting function does not work.	<ol style="list-style-type: none"> 1. The machine guard is open. 	<ol style="list-style-type: none"> 1. Close the guard completely.
The sawdust blower is jammed.	<ol style="list-style-type: none"> 1. Ensure that the cock is in the ON position. 2. There is a chip or obstruction in the sawdust blower. 3. The motor's relief valve is leaking (debris inside). 	<ol style="list-style-type: none"> 1. See Section 3.2.6 2. Clean the blower's motor. 3. Open and clean the adjustment cartridge.
The machine's electrical control does not work or works unreliably (sawing button, splitting button)	<ol style="list-style-type: none"> 1. In a PTO machine, the 12 V plug is not connected to the tractor (in an electrical model, the 12 V plug is not connected to the machine) 2. Guard open or sensor fault 3. Connection or grounding fault in the tractor. 	<ol style="list-style-type: none"> 1. Connect plug. See Section 3.2.1 or 3.2.2 2. Fully lower the guard and check sensor operation (Figure 60). 3. Check the connections 4. Upper right in Figure 23. Determine the cause

	4. Burnt fuse in the 12 V relay box.	of the burnt fuse, and replace the fuse after repairs.
The saw bar is not lowered fully when the cutting button is pressed.	<ol style="list-style-type: none"> 1. The lowering valve has been adjusted shut. Figure 10 item D. 2. Saw dust or debris under the saw drive end 	<ol style="list-style-type: none"> 1. Open the adjustment by one rotation 2. Clean

6. Guarantee terms

“Guarantee terms come into force when you register your customership on the extranet service found on our website.”

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 claim 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 in the claim 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 the material or workmanship.
- Reasonable repair expenses in accordance with the agreement between the seller or buyer and the manufacturer. Faulty parts will be replaced with new ones. A faulty part or parts replaced due to a material fault must 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 as well as 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 not to be covered by the guarantee, the manufacturer has the right to charge the customer for the troubleshooting 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 excludes all other responsibilities.

7. 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

Hakki Pilke 43 Pro firewood processor Serial number:

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

Location and date: Haapajärvi, 25 September 2017

Signature:



Anssi Westerlund
Managing Director