

Hakki Pilke 30

FIREWOOD PROCESSOR

- ASSEMBLY INSTRUCTIONS
- OPERATOR MANUAL
- SAFETY REGULATIONS
- SERVICE INSTRUCTIONS
- SPARE PARTS LIST
- GUARANTEE TERMS
- EC DECLARATION OF CONFORMITY

**THE MACHINE MUST NOT BE
OPERATED BY A PERSON WHO IS NOT
FAMILIAR WITH THESE INSTRUCTIONS**

MAASELÄN KONE OY

www.maaselankone.fi

% + 358 8 7727 300

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WARRANTY CONDITIONS ON MAASELÄN KONE OY PRODUCTS: Virhe. Kirjanmerkkiä ei ole määritetty.	

General safety instructions

The operation of this machine as well as its attachment to the power source, such as a tractor, must be carried out with great care, so that neither the person who carries out the attachment or other persons nearby will be subjected to injury.

The machine must not be operated by persons who are tired, intoxicated or under the influence of drugs, or are not sufficiently capable of controlling their actions in order to avoid accidents.

The connection of the machine to the power source has to be carried out by only one person at a time. The risk zone around the machine is 10 metres. No other person, except for the operator, must be within this range during the connection and operation.

If persons other than the operator remain within the risk zone, the operator must make them aware of the dangers that the operation of the machine entails.

The work site and its surroundings must be organised before operation of the machine, so that working will be safe.

The Hakki Pilke Firewood Processor is designed for making firewood of lopped trees and other lopped and pre-processed wood, such as pre-cut logs. It is forbidden to process wood material that is handled in any other way, such as construction waste. The manufacturer of the machine is not responsible for any damages that processing of such wood may cause to the machine or operator.

The work capacity of the machine, i.e. the maximum wood diameter of 30 cm and the maximum wood length of 60 cm must not be exceeded.

It is forbidden to operate the machine, if the operator is not:



- familiar with these instructions
- familiar with possible risk situations that may occur during the operation of the machine
- able to act if some dangerous situation should occur during the operation











If the machine is faulty, or a part which the operator is not able to replace by himself has broken, he must contact the seller, the manufacturer or the importer of the machine.

The operator must always check all the components before connecting the machine to the tractor or before operating it. Under no circumstances should the machine be used even if the smallest amount of wear or tear is detected in its

structure or components. The faulty parts must be repaired or replaced with new ones.

Warning symbols

 <p>VAARA-ALUE</p>	 <p>VARO TERÄKETJUA</p>	 <p>VAIN YKSI HENKILÖ TYÖALUEELLA</p>
<p>DANGER ZONE</p>	<p>BEWARE OF THE CHAIN</p>	<p>ONLY ONE PERSON AT A TIME IN THE WORK AREA</p>
 <p>SAMMUTA KONE ENNEN HUOLTOA</p>	 <p>VARO KONEEN LIIKKUVIA OSIA</p>	 <p>NIVELAKSELIIN KIETOUTUMISVAARA</p>
<p>SHUT DOWN BEFORE MAINTENANCE</p>	<p>BEWARE OF MOVING PARTS</p>	<p>RISK OF ENTANGLEMENT WITH THE CARDAN SHAFT TR/combi models only</p>
 <p>PURISTUMISVAARA</p>	 <p>ÄLÄ MENE KULJETTIMEN ALLE KULJETTIMEN MAX. KALLISTUSKULMA</p>	 <p>VARO HALKAISEVAA TERÄÄ</p>
<p>RISK OF CRUSHING</p>	<p>DO NOT GO UNDER THE CONVEYOR MAX CONVEYOR TILT ANGLE</p>	<p>BEWARE OF THE SPLITTING BLADE</p>

 <p>LUE OHJEKIRJA ENNEN KÄYTTÖÄ</p>	 <p>KÄYTÄ SUOJAVARUSTEITA</p>	 <p>KÄYTÄ SUOJAVARUSTEITA</p>
<p>READ THE MANUAL BEFORE USE</p>	<p>USE PROTECTIVE EQUIPMENT</p>	<p>USE PROTECTIVE EQUIPMENT</p>
 <p>TARTU PUUTA AINA KYLJISTÄ</p>	<p>MAX 480 RPM</p> <p>MAX RPM</p>	 <p>SCALE</p>
<p>ALWAYS GRAB A LOG BY THE SIDES</p>	<p>MAX RPM</p>	<p>SCALE</p>
 <p>HYDRAULIÖLJY</p>	 <p>PYÖRIMISSUUNTA VASEMMALLE</p>	 <p>TERÄKETJUÖLJY</p>
<p>HYDRAULIC OIL</p>	<p>LEFT ROTATION</p>	<p>CHAIN OIL</p>
 <p>NOSTOKOHTA TRUKILLE</p>	 <p>NOSTOKOHTA KOUKULLE</p>	 <p>HÄTÄPYSÄYTYS</p>
<p>LIFTING POINT FOR FORKLIFT</p>	<p>LIFTING POINT FOR HOOK</p>	<p>EMERGENCY STOP</p>

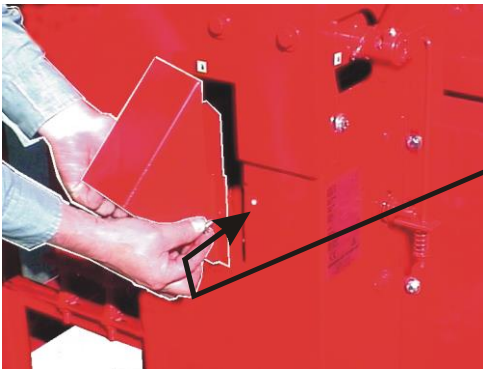
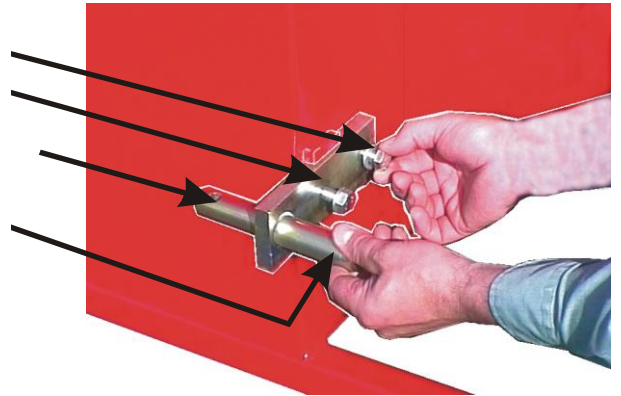
Preparations before putting a new machine into service

Dispose of the packing material in an environmentally friendly way !

Assemble the parts that were delivered packed with the machine:

Attach the bracket with pins for drawbars of tractor with two bolts to the frame of the machine. Tighten the screws with a wrench.

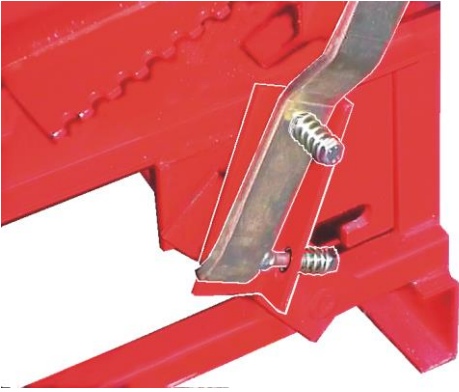
Note ! There are pins for drawbars with both small and big eyes in the same bracket. The pins that are going to be used to connect the machine to the tractor should be placed outwards.



Attach the sawdust cover that leads from the saw chain with two bolts, to the frame of the machine. Tighten the bolts with a wrench.

Attach the cover of the articulated shaft with four bolts to the frame of the machine, to the front part of the angular gear. Tighten the bolts with a wrench.

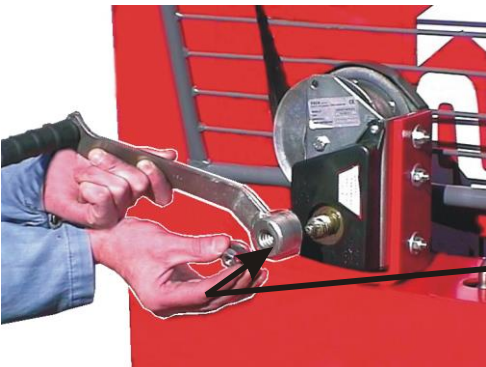
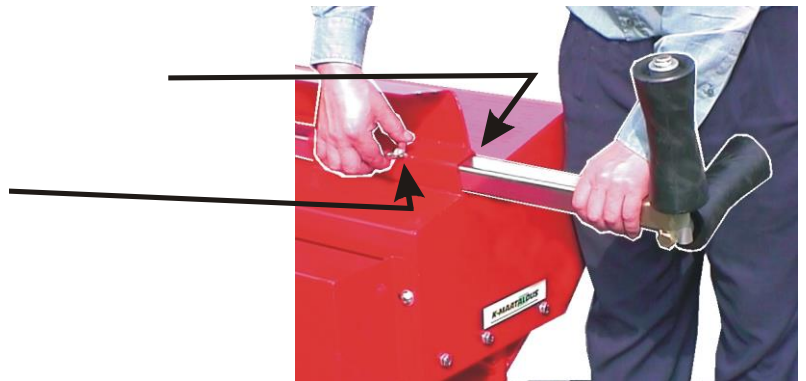




Attach the height adjustment lever of the splitting blade as illustrated in the picture. Place the spring, which keeps the lever in its adjustment slot, on the outside under the cap of the bolt. Place the spring, which enables the blade to move, under the nut. The bolt and the nut are correctly tightened when the spring starts to tighten.

Place the extension of the crosscut table in the square pipe in the corner of the table.

Lock the extension to the desired length with the locking nut.



Turn the control handle of the conveyor winch in place and lock it with the nut.

Note! Do not tighten the nut, but leave a 3 mm space between the crank and the nut !

Putting a machine with a feed conveyor into service

All measures that are explained in the chapter “Putting a new machine into service” need to be carried out before putting into service a machine with a feed conveyor.

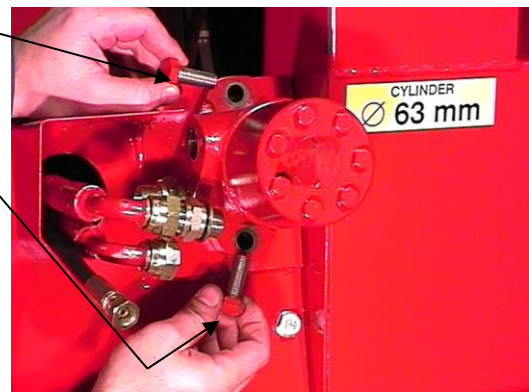
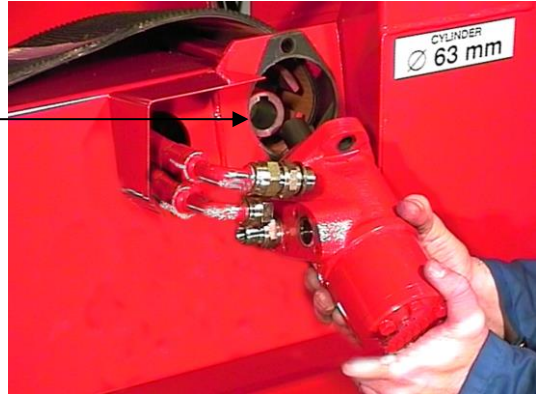
1. Install the hydraulic pump, which comes with the machine, to the front roller shaft of the conveyor.

2. Attach the motor to the frame of the machine with two bolts, which come with the motor. Install the bolts to the holes in the motor bracket and in the frame of the machine and fix the motor in place with nuts.

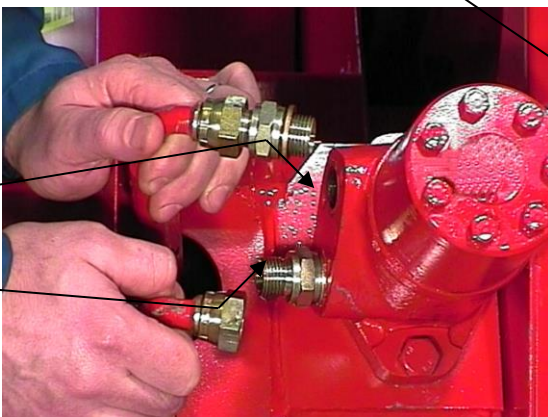
3. Install the hydraulic hoses:

Connect the hose without double nipple to the double nipple in the motor.

Release the double nipple from the hose which has double nipple and install it to the motor. Install the hose to the motor's nipple. Tighten the nipples to the motor and hoses to the nipples.

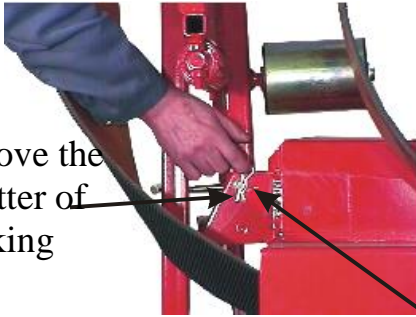


Ensure that the connections are tight !!!



Swinging the feed conveyor into work position

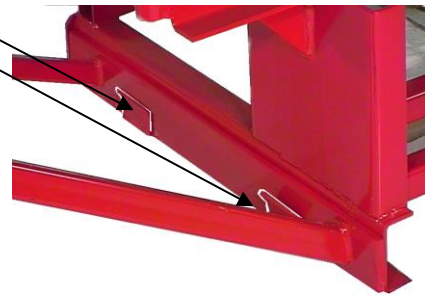
1. Remove the split cotter of the locking peg



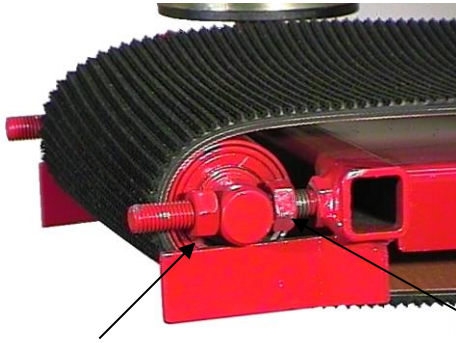
2. Remove the locking peg of the support.



3. Swing the conveyor in horizontal position and place the support of the conveyor in the slots at the lower part of the frame.



Adjustment of the feed conveyor belt



Loosen the locking nut of the adjustment device and adjust the tightness of the belt on both sides. The tightness is correct if the conveyor is able to transfer the wood forward and the drive wheel does not slip. Don't keep the belt too tight to avoid straining and shortening its service life.



If the belt has a tendency to travel towards the edge of the conveyor, extend the edge on the side where the belt is moving to.

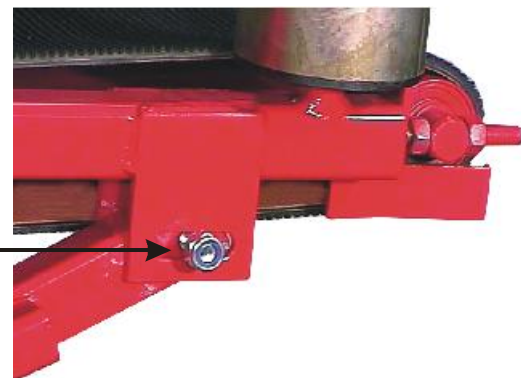
Swinging the feed conveyor into transport position

Swinging the feed conveyor into transport position is done in the reverse order to swinging the conveyor into work position. Always ensure, when the conveyor is in the transport position, that it is locked in place with the locking peg and its position is secured with a split cotter. See item 1 "Removal of the split cotter" on this page.

Adjustment of the feed conveyor into horizontal position



The horizontal position of the conveyor can be adjusted at the upper joint of the support



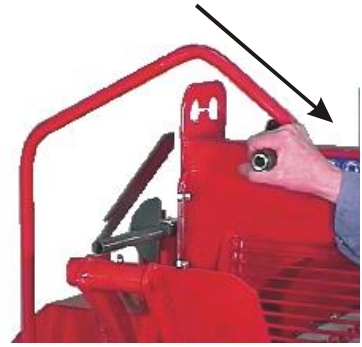
Operation of the conveyoyr



When the crosscut lever is in its start position the feed conveyor belt does not move



When the spring-loaded cross-cut lever is pushed upwards, the belt will transfer the wood against the wood length limiter

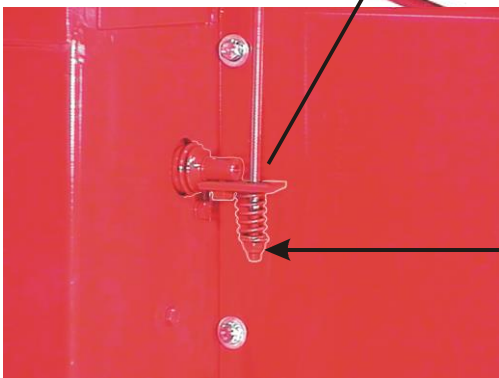


The belt will stop as soon as the lever has been brought back to its initial position



CAUTION !

Transfer the wood with the feed conveyor to the cutting position with care, so that
 - the wood will stay on the conveyor
 - your hand or any other part of your body won't cling to the wood or get pressed between the parts of the machine frame



The sensitivity of the feed conveyor's movement can be adjusted with the lever system of the valve which controls the conveyor.

Discharge conveyor

Swinging the conveyor into work position



1. Unwind some line from the winch



2. Push the conveyor towards the machine and release the locking of the conveyor by lifting the locking peg upwards



3. Pull the conveyor until the line of the winch tightens



4. Lower the conveyor with the winch to horizontal position.



5. Straighten the conveyor to its full length.



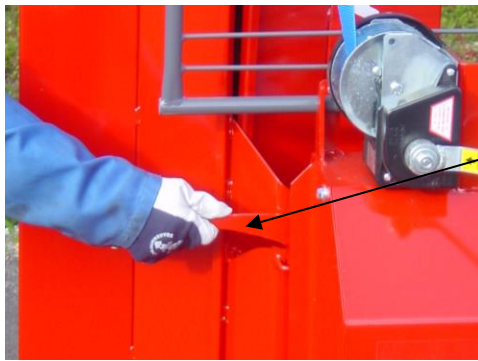
6. Adjust the conveyor with the winch to desired inclination and lock it with the lock in the bottom of the conveyor.



7. Swing the belt holder to the side of the conveyor.

Swinging the conveyor into transport position

Bringing the conveyor into transport position is carried out in the reverse order to instructions in chapter “Swinging the conveyor into work position”.



Always secure the locking after bringing the conveyor into transport position!

Connecting the machine to the tractor

Always connect the machine alone. Make sure that there are no other persons or animals in the cabin that could accidentally touch the controls during the connection. Check all the connection parts of the machine and tractor before attachment. If they are faulty, repair or replace them with new ones. It is absolutely forbidden to connect the machine with faulty devices or parts.

Always carry out the connection calmly in one go without interruption. Secure the locking of the pins with appropriate cotters. Check once more after completion of the connection that the procedure has been completed successfully. When connecting the articulated shaft, observe the instructions on safe connection that the manufacturer of the shaft has given.

It is absolutely forbidden to connect an unprotected shaft to the machine!

The maximum power demand of the machine is 7.5 kW (Model Easy 10 kW). Dimension the articulated shaft according to this.

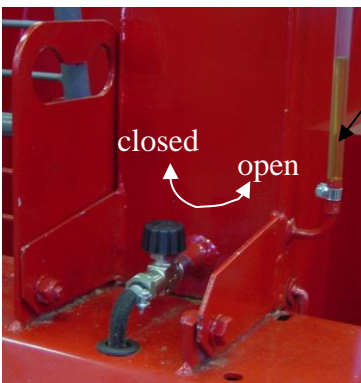
Test run and testing of the functions

Always carry out the test run and testing of the functions before starting work.



1. Bring the conveyor into work position let down the cover of the splitting channel.
2. Start the tractor and let it idle.
3. Switch on the power take-off by lifting the clutch pedal slowly and smoothly.
4. Open the cock to allow the oil flow to the saw chain.

The oil level in the tank can be checked in the plastic hose.



Adjustment of oil flow to the chain;

Adjustment of oil flow to the chain;

1. Turn the flow regulation valve to a position in which the oil flow to the chain is sufficient.

In summer about $\frac{3}{4}$ of a round,

In winter about 1 round,

from closed-position.

2. Observe the oil flow to the chain as the weather conditions change. When the weather is warm, the oil is less viscous and flows easier to the chain, thus the valve needs to be adjusted to a smaller flow ! If the weather is cold, do the opposite.

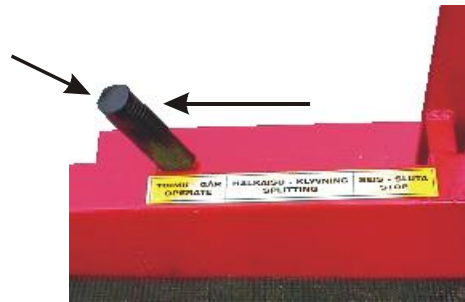
Lubricating the saw chain

NOTE! The chain lubrication opens up and closes automatically when the machine is started or shut down. The flow regulation valve is only used for adjustment of flow.

Observe the oil flow to the sawbar and the chain if the weather conditions are changing. In warm weather, the oil is less viscous and flows more easily to the chain. The valve should be adjusted in the direction of lower flow ! For cold weather, the procedure is the opposite.

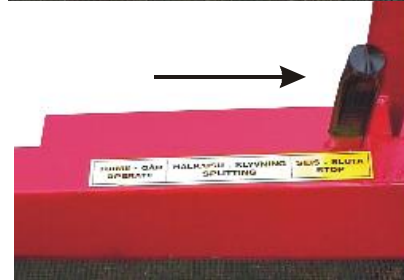
5. Bring the splitting lever to the IN OPERATION position.

6. Bring the sawbar down and up again to make the hydraulic splitting system do the splitting motion.



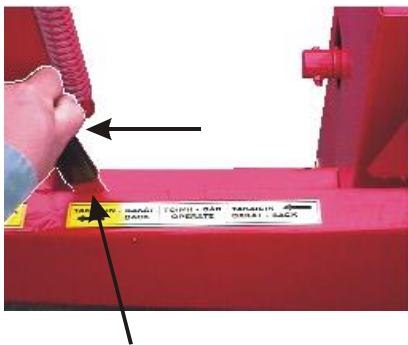
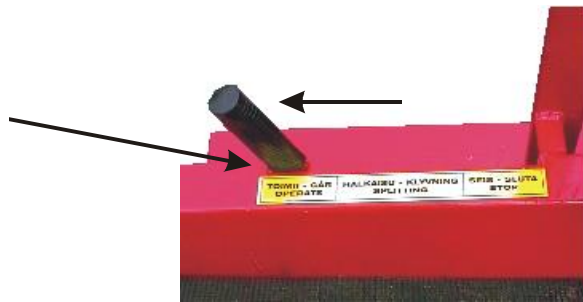
Stopping the splitting movement

7. The splitting motion can be stopped by bringing the splitting lever to the STOP position



Reversing the splitting movement

8. Bring the lever to the IN OPERATION position when the splitting lever is in the STOP position



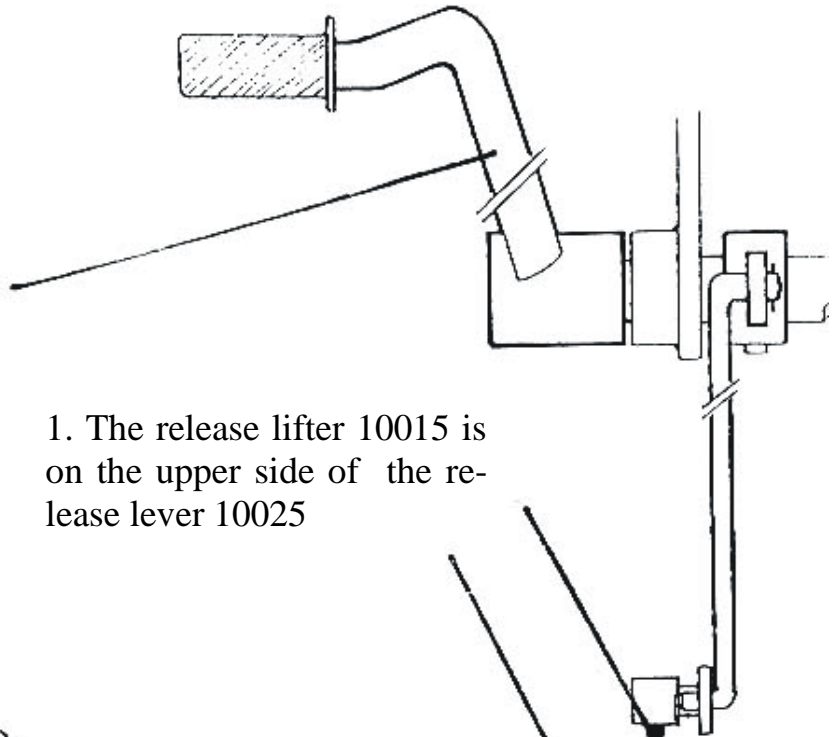
9. After the REVERSE SPLITTING lever has been moved to the left, the splitting beam that is closer to the operator will return to its initial position.



10. After the REVERSE SPLITTING lever has been moved to the right, the splitting beam that is closer to the tractor will return to its initial position

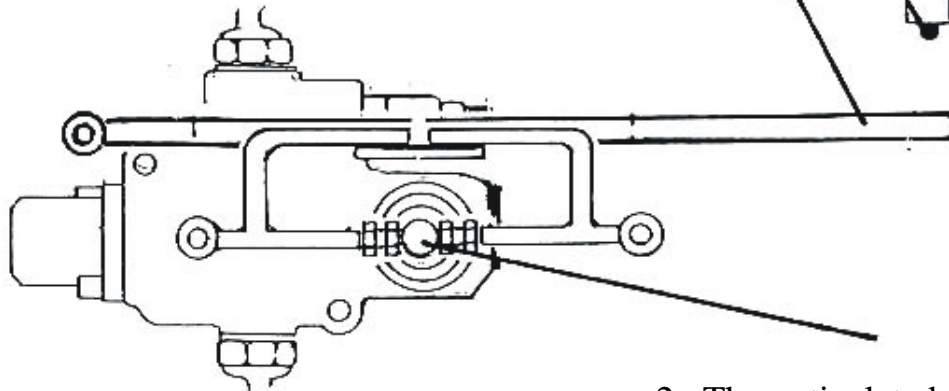


Initial position,
where the crosscut
lever 10143 is in its
upper position



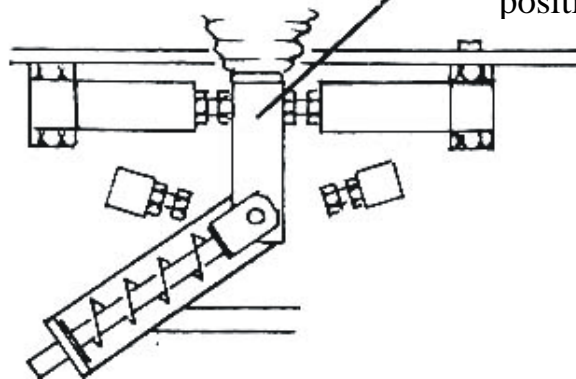
1. The release lifter 10015 is
on the upper side of the re-
lease lever 10025

**View from the
front**



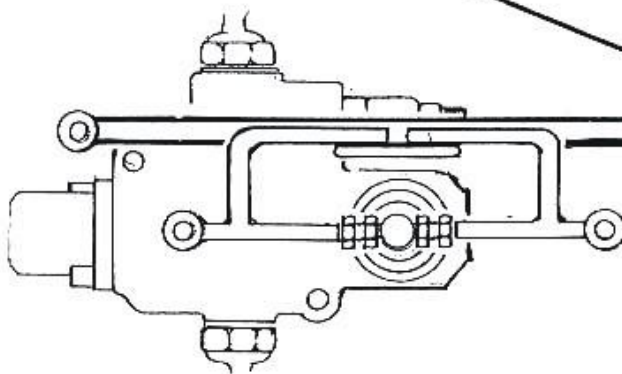
2. The articulated lever of the
valve 10167 is in the middle
position

**View from the
top**



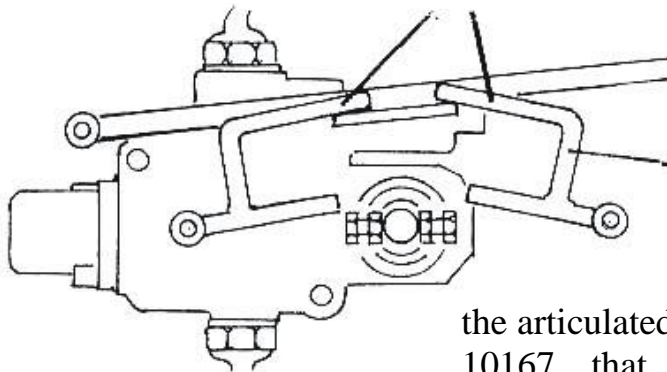
After pressing down the cross-cut lever 10143 (the tree has been cut)

1. The release lifter 10015 has to be below the release lever 10025



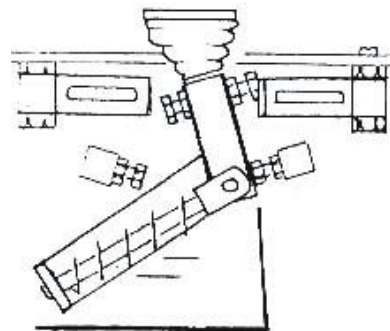
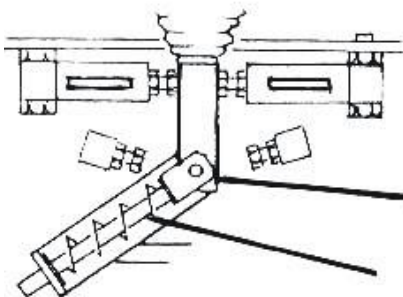
2. When the cutting lever 10143 lifts up, the release lifter 10015 will lift the release lever 10025 up.

3. When the release lever 10025 comes up, it will lift the release levers 10023 (2 pcs) up.



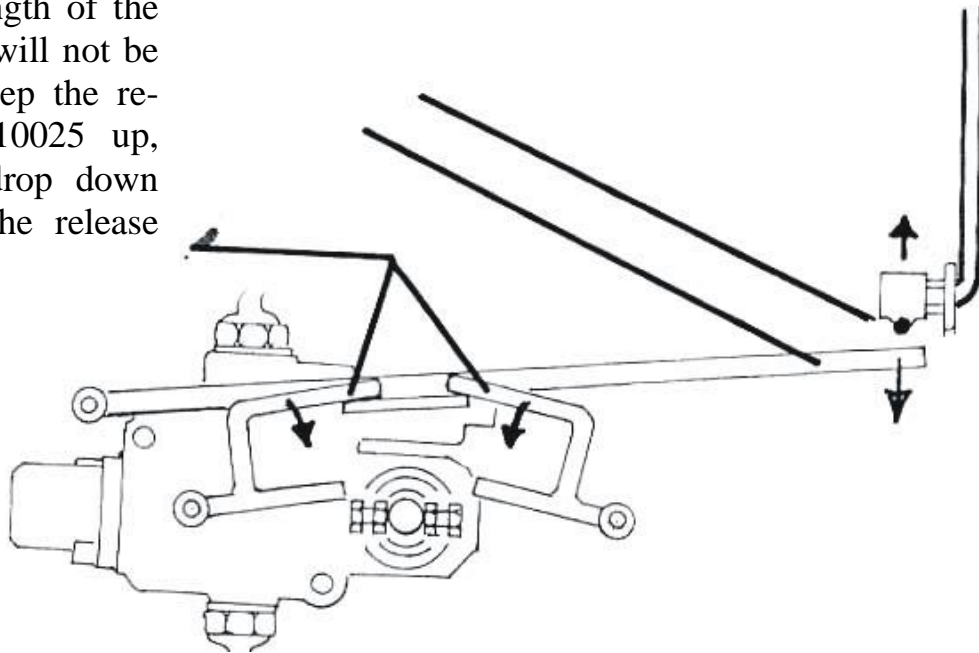
4. When the release levers 10023 come up,

the articulated lever 10167, that steers the valve spool, pushes the valve spool to the direction that the compression spring 10018 forces it to and starts the splitting beams 10006a and 10006b.



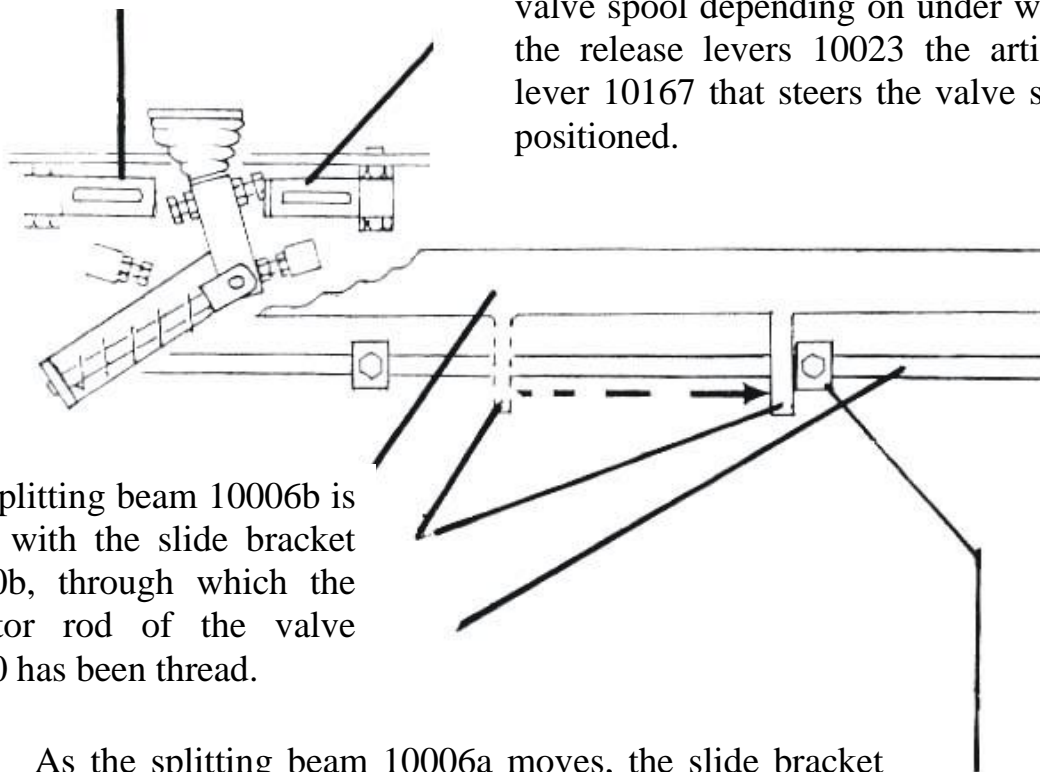
until, after a certain position, the length of the release lifter will not be enough to keep the release lever 10025 up, but it will drop down also taking the release levers 10023.

When the crosscut lever 10143 comes up to its upper position, it will be followed by the release lifter 10015 together with the release lever 10025,



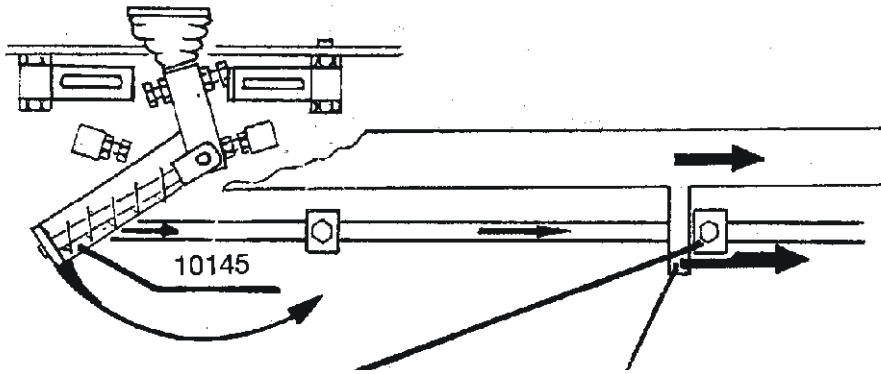
One release lever 10023 will drop to its initial position

and the other one will drop on top of the articulated lever 10167, which steers the valve spool depending on under which of the release levers 10023 the articulated lever 10167 that steers the valve spool is positioned.



The splitting beam 10006b is fitted with the slide bracket 10010b, through which the actuator rod of the valve 10170 has been thread.

As the splitting beam 10006a moves, the slide bracket 10010b will move together with it being guided along the actuator rod of the valve 10155 until it will bump into the stoppers in the actuator rod 10170.

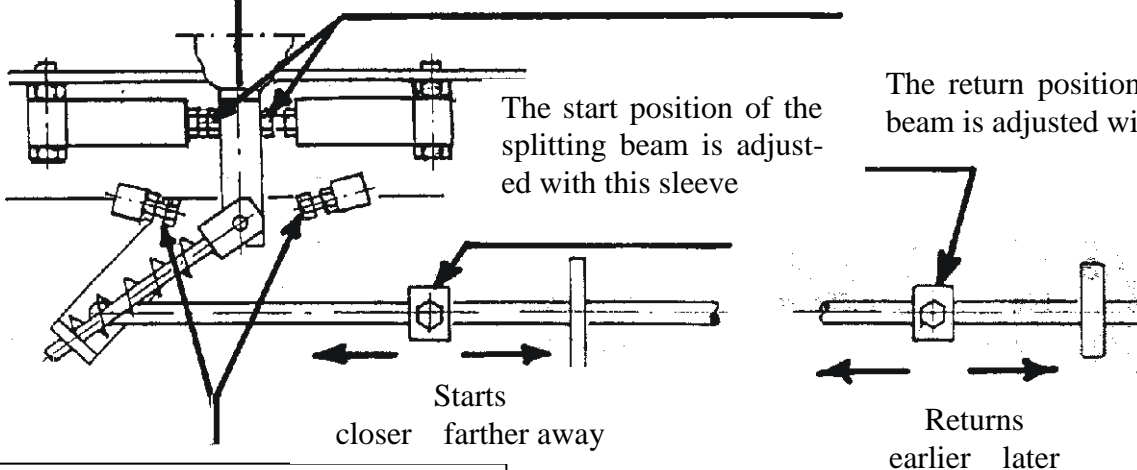


When bumping into the stopper 10170, the slide bracket 10010b will move the actuator rod 10155 with it. This will continue until the actuator rod 10155 reaches the position, where it will make the valve lever 10145 swing and make the articulated lever 10167 return to its centre position against the release lever 10023. Now the splitting beams 1006a and will be in their initial positions, one close to the splitting blade and the other one on the left side of the sawbar.

ADJUSTMENT INSTRUCTIONS OF THE WIREWOOD PROCESSOR VALVE

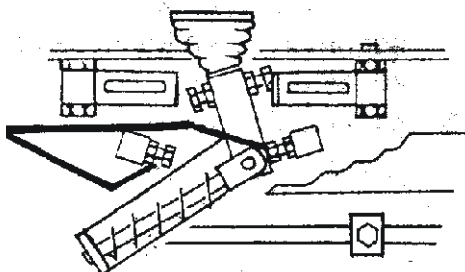
10167 in the centre position

The centre position of the valve is adjusted with these screws so that the cylinder won't be able to move



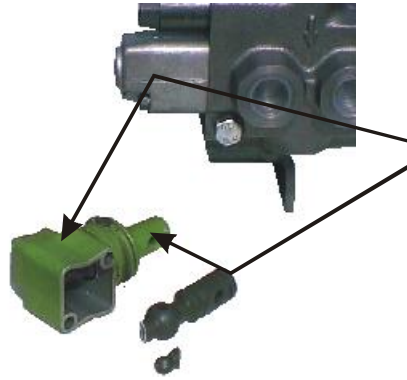
The extreme positions of the valve are adjusted with these bolts. **MAKE SURE**, that the articulated lever will touch the adjustment bolt in its extreme position

As the splitting beam 10006a moves, the slide bracket 10010b will move together with it being guided along the actuator rod of the valve 10155 until it will bump into the stoppers in the actuator rod 10170.



See the next page "Replacement of the broken ball joint"

After breaking the ball joint, the splitting system of the machine will not work!

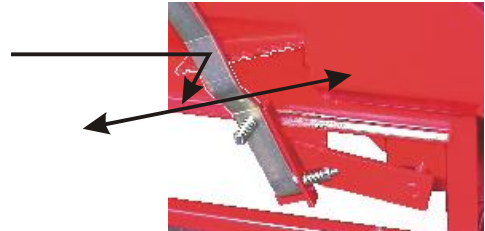


Replacement of the broken ball joint
Unfasten the ball joint cover from the valve and mount an intact ball joint into the cover.

Adjustment and dismounting of the splitting blade

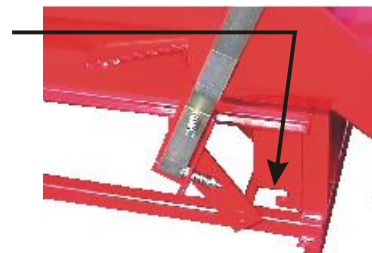
The vertical position of the splitting blade can be adjusted inside the splitting chute. The size of the wood determines the vertical position of the horizontal blade. It is most appropriate that the blade cross will hit the wood in the middle thus splitting the wood into same size pieces. The adjustment is the same for blades that split into 4 pieces as for blades that split into 6 pieces (additional equipment).

The adjustment lever will be released from its locking when pulled away from the machine. The vertical position of the blade is adjusted by moving the lever sideways. The blade will be locked in the desired position as soon as the lever is returned to the locking grooves on the machine frame.



The blade can be released from its adjustment lever and removed by adjusting it first to its lowest position.

The blade can be removed for sharpening, or making firewood of logs, which are not meant to be split.



How to make firewood, general instructions

Do not start making firewood until;

- you are familiar with the control levers of the machine and you know how to operate them
- you know everything about the operational safety of the machine
- you wear clothes suited for the work, i.e.
 - safety boots with non-slip soles
 - gloves that give you a firm hold of the wood
 - suitable clothes that are not too loosely-fitting

Avoid too loosely-fitting clothes because they may cling to the wood or the machine and as a result of this an accident !

- you wear appropriate face and eye shields and ear protectors
- you have arranged the work site so that it is even and safe
- you have observed the temperature and that heat and frost cannot cause you any harm
- you have observed that the weather is such that neither rain nor blizzard can cause harm to yourself or to the machine
- you have taken care that strong wind cannot cause harm during the operation either to yourself or to the machine
- you have observed that the working environment is sufficiently illuminated to avoid accidents during the connection, operation, transportation and storing of the machine

When starting to make firewood please observe the following:

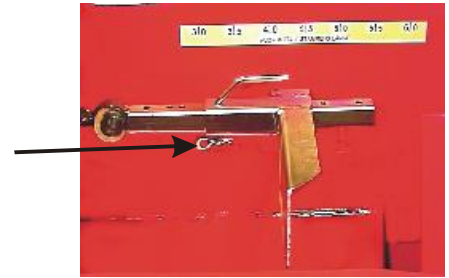
- if the machine has been stored in temperatures below 10 degrees, all its movements will be slow to start with. In this case you should test the crosscut and splitting movements several times to heat the oil up and to make the movements of the machine normal
- if the firewood is processed in temperatures above 20 degrees, the oil may overheat and the work must be stopped until the oil has cooled down

You can start making firewood as soon as the machine has been connected to the power source and the test run has been completed according to these instructions, and the operator has familiarised himself with all safety precautions related to the operation of the machine.

How to make firewood

1. Put the splitting lever to the STOP position and open the cover of the splitting chute
2. Remove the cotter of the wood length limiter's locking peg and the peg itself. Adjust the limiter to the desired wood length
3. Lock the limiter in place with the peg and the cotter
4. Adjust the vertical position of the splitting blades to the desired height with the adjustment lever
5. Close the cover of the splitting chute and bring the splitting lever to the IN OPERATION position
6. Choose the wood to be processed so that you are able to lift it on the machine alone.

If the trees are warped, knotty or gnarled, too long or in other respects such, that their handling may cause a risk, process them with a chain saw in such a manner that no danger can result from their handling.



7. Take your position by the machine as illustrated in the picture. Transfer the wood against the length limiter either by hand or with the feed conveyor.



8. Hold the wood with your left hand.

9. Press the crosscut lever down gently. NEVER HIT THE LEVER! The stretching out of the chain will reduce considerably as soon as the chain has touched the tree. The danger of the wood rotating will be reduced at the same time.



10. As soon as the wood has been cut and it drops into the splitting chute, hold the crosscut lever down and check the position of the wood in the splitting chute. If the wood aligns with the chute and does not have burls, big branches or anything else that could make it stick to the splitting blade, lift up the cutting lever.

How to remove wood that is stuck in the splitting blade

If the wood is placed in the chute at an angle, it is likely that it will also hit the splitting blade at an angle and get stuck in it. Should this happen, do the following:

1. Lift up the cross-cut bar. Bring the splitting lever to the STOP position and proceed as instructed in chapters “ Stopping the splitting movement” and “Reversing the splitting movement” in this manual.
2. As soon as the splitting cylinder has returned from the splitting blade to its initial position in which the wood has stuck, bring the splitting lever to the STOP position.
3. Open the cover of the splitting chute and remove the wood that has stuck in the splitting blade by hitting it with another heavy piece of wood or some other striking tool. The right direction to release a stuck piece of wood is from the conveyor side towards the splitting chute.

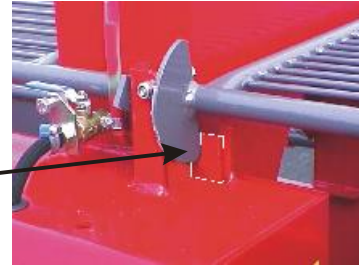
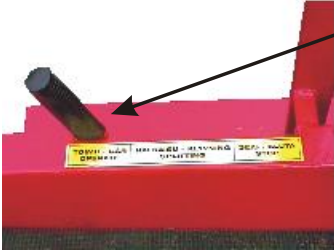
Look out for the splitting blade when you release stuck wood from it!!

After having released the stuck wood, move it to the side for splitting it with some other machine or device. If you still think that it is possible to split this particular wood with the 2X machine, do as follows:

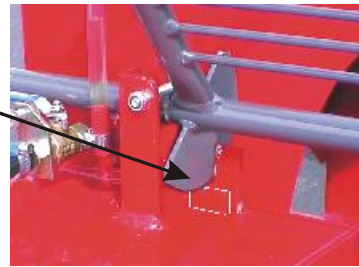
1. Place the wood into the splitting chute. The splitting lever must be in the STOP position and the splitting beam has to be in its initial position. Place the wood so that it will be possible to split it.
2. Swing the splitting blade with its adjustment lever to its lowest position. The horizontal splitting blade will retract and the wood will be split into only two parts.
3. Turn the cover of the splitting chute into the down position and bring the splitting lever to the IN OPERATION position.
4. Press the sawbar with the cross-cut lever down and up to start the splitting movement.
5. Re-adjust the horizontal splitting blade to its initial position and resume making the firewood

The operation and locking of the splitting chute

When the splitting lever is in the IN OPERATION position, the splitting system will be in operation and the cover of the splitting chute will not open. The mechanism at the hinges prevents the cover from opening.



When the splitting lever is in the STOP position, the splitting system will not be in operation and the cover can be opened after the locking has been released.



It is forbidden to operate the machine if the locking mechanism on the cover is out of order. The mechanism must be repaired!!

How to split wood that has already been split

1. Bring the splitting lever to the STOP position and open the cover of the splitting chute.
2. Place the wood in the splitting chute parallel to it. The splitting cylinder is in its initial position. Put down the cover of the splitting chute.
3. Bring the splitting lever to the IN OPERATION position and release the splitting movement.

How to cut the last log

ALWAYS LEAVE THE FULL-SIZE PART of the last log on the side of the cutting table and the shorter part on the side of the splitting chute when transferring it for cutting



To cut the last log, press the wood with the supporting roll and cut it by pressing the cross-cut lever down gently.

Never transfer the log that you intend to cut last in the cutting opening in such a position that it will settle in the opening at an angle.

Should this happen:

1. Bring the splitter lever to the STOP SPLITTING position
2. Open the cover of the splitting chute
3. Draw the wood into the splitting chute and lift it away from the chute. **Never push the wood back to the cutting table through the cutting opening.**
4. Close the cover of the splitting chute and bring the splitting lever to the IN OPERATION position.
5. Replace the wood on the cutting table and transfer it to be cut again as instructed in the chapter “How to cut the last log”



How to transfer the last log into the splitting chute

If the machine is equipped with the feed conveyor:

Loosen your grip from the handle of the cover and feed the wood into the splitting chute by lifting the crosscut lever to its upper position as instructed in the chapter “How to operate the feed conveyor”

If the machine is not equipped with the feed conveyor;



Lift the cover of the cutting opening up by about 5 cm measured from the surface of the wood and push the wood into the splitting chute with a small rapid hand movement. **NEVER PUT YOUR HAND FURTHER IN THAN TO THE LEVEL OF THE SUPPORTING ROLL!**



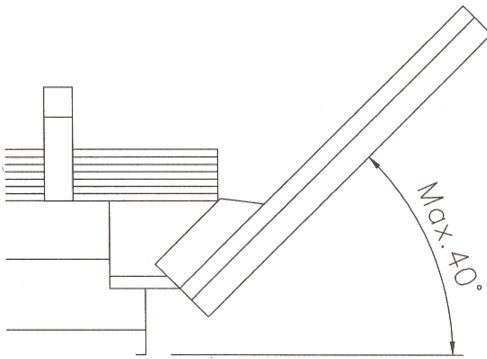
Always **LOOK OUT FOR** the spring-loaded cover of the cutting opening. **NEVER** put your hand between the wood and the roll during transfer of the wood. **BE CAREFUL** not to put your hand between the supporting roll and the cutting table or the conveyor belt.

How to make firewood with a machine without discharge conveyor

If firewood is processed with a machine that is not equipped with a discharge conveyor, it needs to be taken into account in all matters that are stated in this manual concerning the safe operation of the machine and in addition to this:

The finished firewood that heaps up next to the machine on the rear side of the splitting blades has always to be taken away immediately so that it does not cause risks or damage to the operator or the machine itself. The machine always has to be stopped before removal of the firewood.

How to operate the discharge conveyor



Read the chapters “Swinging the conveyor into work/transport position” pages 11-12.

- How to swing the conveyor into transport and work positions

The conveyor has to be placed at such an angle that it will be able to transfer all the finished firewood away from the firewood processor. It is forbidden to install the conveyor in such a steep position that the wood will roll back into the splitting chute!

During processing of the firewood the operation of the conveyor has to be followed and in particular the following matters have to be observed:

- The locking of the conveyor's drive wheel on the spline shaft (the shaft, to which the articulated shaft of the tractor is connected) of the angular gear has to be checked from time to time.
- The rotation of the conveyor belt has to be supervised, and if it stops, the machine has to be stopped immediately. The reason for stopping has to be cleared up when the machine is standing still. The fault has to be repaired immediately!
- It is forbidden to put your hand in the openings at the bottom and top ends of the conveyor during the operation.
- The conveyor trough, along which the firewood moves, must be kept free of ice, snow and wood waste.
- The ice, snow and wood waste that gather in the lower part of the machine and conveyor must be removed often enough that it won't cause damage or dangerous situations when working with the machine.

During processing of firewood ensure that:

- The firewood, which drops down from the conveyor, hitting the intended platform, cage, bed etc. is not allowed to fill the containers with more than they can reasonably hold.
- The load, which is intended to be transported, is structured in such a way that no firewood can drop from it during transportation.
- When the conveyor is in work position and the processing of firewood is underway, the distance between the top end of the conveyor and the firewood heap is not shorter than 50 cm.
- The conveyor is placed into transport position even for transfers at the work site.

Finishing the work

1. Make sure that there are no logs in the splitting chute or on the conveyor belt
2. Stop the power take-off of the tractor
3. Place the conveyor at a slightly steeper angle
4. Lift the machine with the three-point linkage of the tractor by about 10-15 cm and drive the tractor with the machine connected to it a bit further away from the processing site. Drive slowly and carefully in order to avoid damage to the machine and especially to the conveyor. TAKE CARE that the conveyor cannot bang into the platform, heap or anything else during the transportation.
5. Clean the machine as soon as you have arrived in a place where the cleaning of sawdust and other wood waste is possible.
6. Lower the machine onto the ground and bring the conveyor into transport position.

Transfer of the machine

Always make sure, when transferring the machine with a tractor, that:

- The conveyor is in transport position
- You have observed the necessary horizontal and vertical clearances, which the machine and the conveyor require. In other words:
 - The height of the machine has to be so low that it cannot collide with any obstacles along the route.
 - The machine has to be kept at such a distance from the ground that it cannot collide with any obstacles along the route such as stones, stumps or other obstacles.
 - All cantilevers by the sides of the machine, such as the extension of the cutting table and the feed conveyor have been brought into transport position and during the transportation, especially in curves, care is taken that the machine with the conveyor will not collide with anything on the side.
- The transportation has to be carried out at such a low speed that no damage can occur.
- It is not allowed to carry any extra items on top of the machine during the transportation.
- The machine has to be lowered onto the ground even for short breaks, especially if the driver will leave the cabin.

Storing the machine

- Before putting the machine into storage it has to be cleaned of sawdust and wood waste.
- The machine shall be stored in a shed or, if it will be stored outdoors, must be covered with rain and snow proof material.
- The machine has always to be stored in its transport position and on such a base, that it cannot fall. It is absolutely forbidden to store the machine on an inclined base.
- The storing place has to be arranged so that it is impossible to bang into the stored machine.

Sharpening the saw chain

USE GLOVES WHEN HANDLING THE SAW CHAIN!!!

The machine must be completely stopped when preparing the sharpening of the saw chain.

1. Put the crosscut lever into the STOP position and open the cover of the splitting chute.



THE MACHINE MUST ALWAYS BE SWITCHED OFF BEFORE THE SAWBAR COVER

2. Turn the cover of the cutting opening into the rear position

3. Open the cover box of the saw chain.



4. Turn the cover box to the upper position

5. Sharpen the saw chain working from the side of the feed

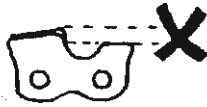
6. Sharpen the saw chain working from the side of the splitting chute.

When sharpening the chain avoid the following mistakes:

1. Filing too deep with too thin file.



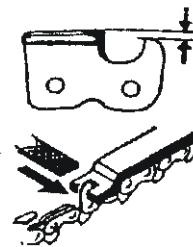
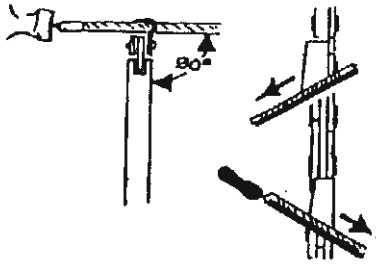
2. The depth gauge of the saw chain is too big, should be 0,65 mm.



3. The depth gauge is too small.



When filing the saw tooth, keep the file at a 90° angle with regard to the sawbar and the chain. Always execute the filing thrust from the inside of the saw chain.



The right depth gauge is 0,65 mm

7. Once the sharpening is completed, swing the box cover of the chain down and lock it in place.

8. Swing down the cover of the splitting chute.

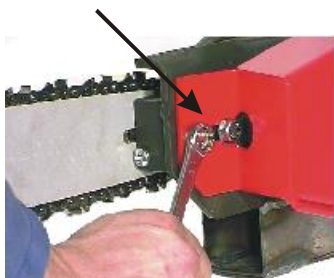
It is forbidden to operate the machine if the crosscut chain will remain visible in the cutting opening and is not lifted completely up inside the cover!



If the saw chain is not lifted completely up, tighten the spring that pulls the sawbar up with its adjustment nut. If the adjustment reserve is not enough, replace the spring with a new one.

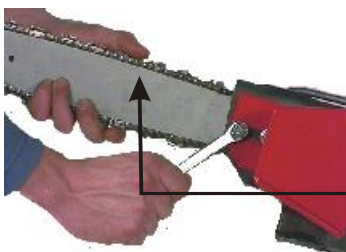
Tightening the saw chain

Loosen the attachment screws of the sawbar and adjust the chain to the correct tightness with the setscrew of the chain.



Correct tightness of the chain:

When pulling the chain, one tooth remains visible at the lower edge, and after tightening, the chain will sit tight in the sawbar at its lower edge.



Attachment of the sawbar:

Raise the sawbar with hand and tighten the bolts.

Replacement of the chain and the sawbar

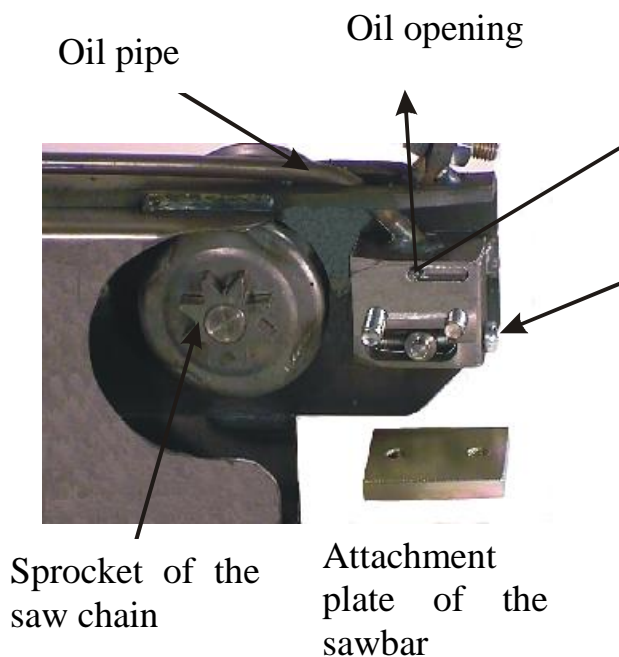
1. Unscrew the attachment bolts and the attachment plate of the sawbar as well as the saw chain.

2. Before mounting the new chain or sawbar clean the saw chain oil opening.

3. Screw the chain tightener to its initial position.

4. Place the chain and the sawbar in place. Remember to place the chain in the right way, i.e. with the sharp edge of the tooth towards the sprocket at the lower edge of the sawbar.

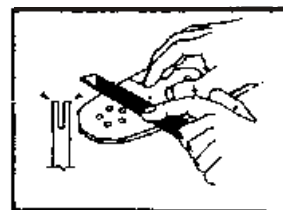
5. Mount the attachment plate of the sawbar and tighten the chain and the sawbar in place as instructed in the chapter "Tightening the saw chain".



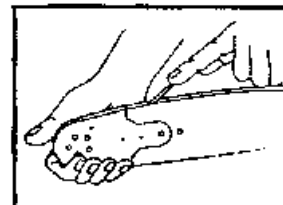
Maintenance of the sawbar

When necessary, service the saw chain and the sawbar according to the following instructions:

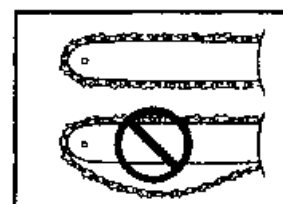
Remove the thread of the sawbar with a flat file



Clean the sawbar groove

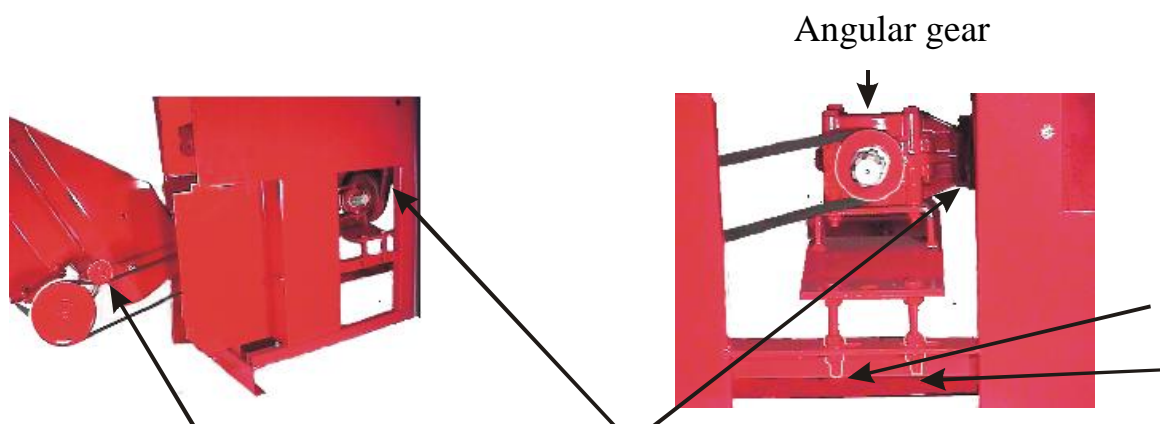


Remember the correct tightness of the chain !!!



Adjustment of the v-belts and conveyor belts

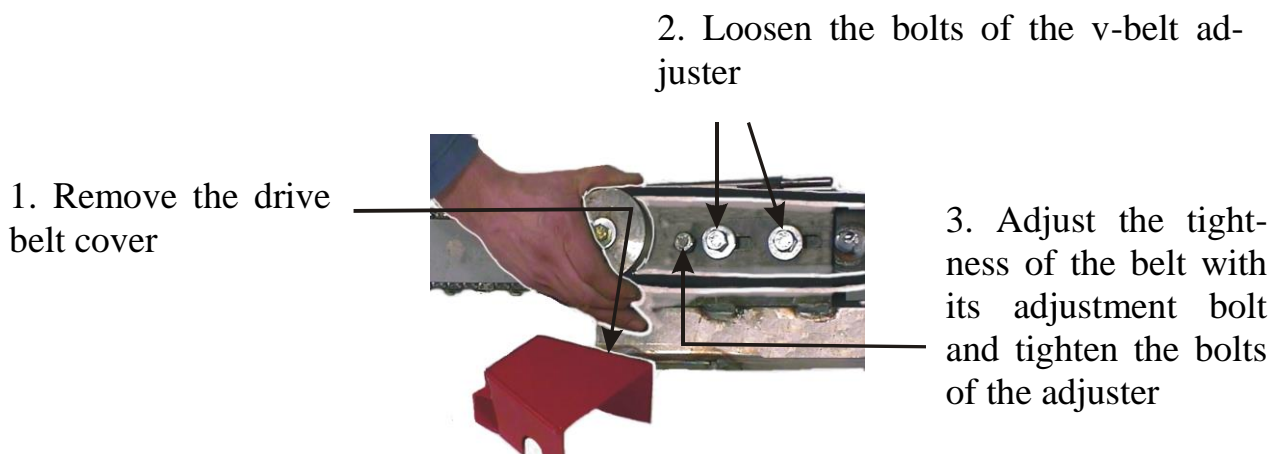
Always stop the machine before adjusting the belts !!!



The spring-loaded tension wheel keeps the drive belt of the conveyor suitably tight. Note! The tension wheel has to press the belt at its rear side.

The belts, between the angular gear and the drive shaft of the hydraulic pump can be adjusted with the adjustment bolts of the gear bracket.

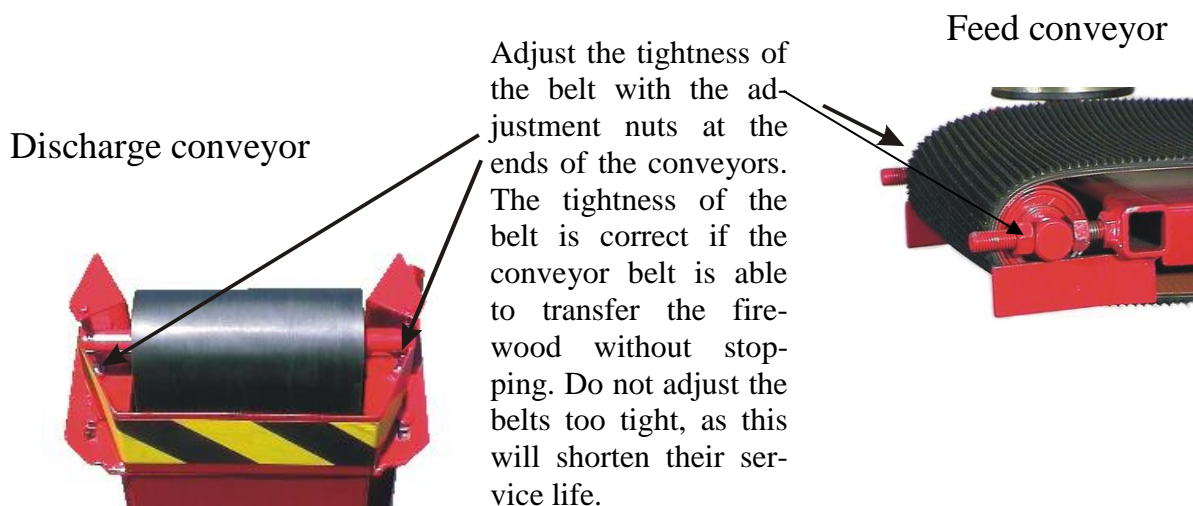
Adjustment of the saw chain drive belt



Tightness of the belts

The correct tightness of the belt between the angular gear and the drive shaft of the hydraulic pump as well as the drive belt of the saw chain: The tightness is right when the belts stretch down about 20 mm when they are pressed down at the rear side of the belt exactly halfway between the pulleys.

Adjustment of the discharge and feed conveyor belts



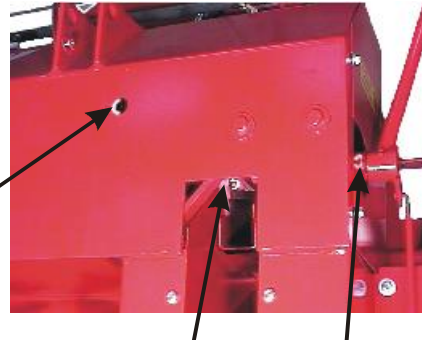
A belt that has a tendency to travel to the side can be straightened up by extending the adjustment with the adjustment nut on that side to which the belt is travelling.

Lubrication of the machine

Lubricate with grease at intervals of 100 h



The bearings of the hydraulic pump drive shaft.



The joints of the crosscut lever



The joint of the cutting opening cover



The drive shaft of the saw chain



Discharge conveyor:
the bearings of the lower roller

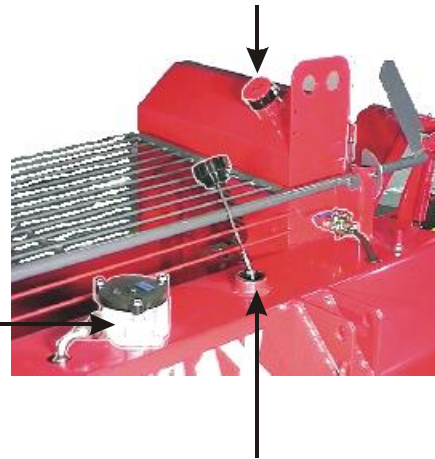
Change once a year

The oil in the angular gear. E.g. EP 80/90



The correct oil level: in horizontal position the oil flows out through the filling opening

Hydraulic oil filter
Type CR 50



Always when necessary, add saw chain oil

Hydraulic oil, 40L
e.g. Neste 32

Technical specifications:

Power demand	7,5 kW (Model Easy 10 kW)
Crosscut sawbar	chain 0,325'' / 56 drive links sawbar 13''
Splitting	hydraulic cylinders 2 pcs, diam. 50 mm Thrust force 3500 kp Optional equipment 63 mm / 5500 kpm
Splitting blade	as standard, a blade that splits into 4 parts, A blade that splits into 6 parts as an option
Hydraulic pressure	180 bar
Flow of hydraulic pump	44 l / min
Volume of the oil tank	40 l, the oil is included as standard
Weight with conveyor	650 kg
Length of conveyor	4 m
Acoustic pressure level at the operator's place LAeq	95 dB
Acoustic power level Lw	111dB
Maximum noise level at the operator's place Lcpeak	<130 dB (125 dB)
Weighted acceleration of hand vibration aw	<2,5 m/s ² (0,9 m/s ²)

Manufacturer:

MAASELÄN KONE OY

Valimotie 1, 85800 HAAPAJÄRVI, FINLAND

+358 8 7727300, Fax +358 8 7727320

Web: <http://www.maaselankone.fi>

Email: info@maaselankone.fi

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

Manufacturer: Maaselän Kone Oy

Address: Valimotie 1, 85800 Haapajärvi, Finland

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

Name: Tapio Aittokoski

**Address: Valimotie 1, FI-85800
Haapajärvi, Finland**

Declares that

Hakki Pilke 30 Expert / Easy

Serial number:.....

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

Place, time: Haapajärvi 5.11.2012



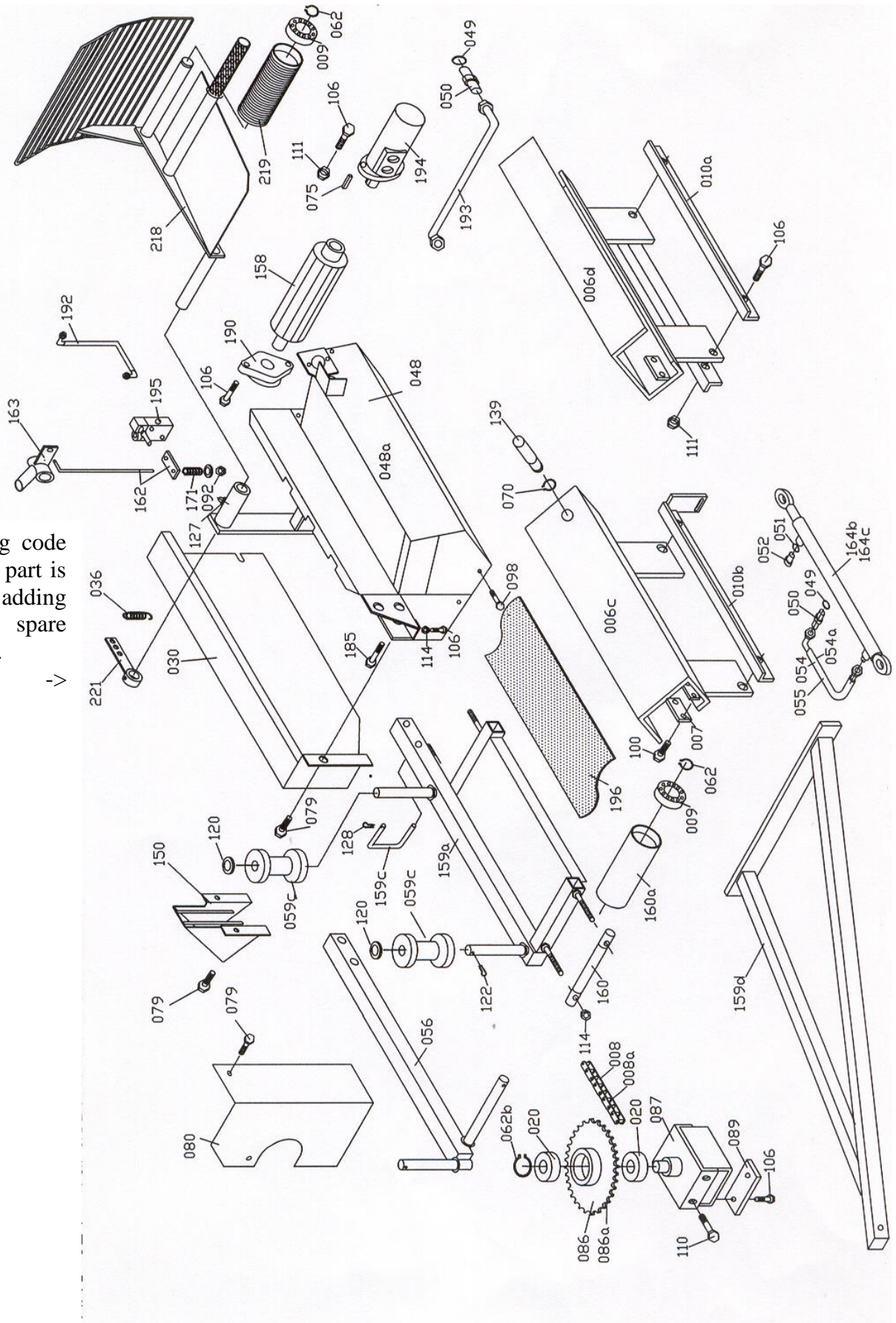
Martti Kenttälä
Managing Director

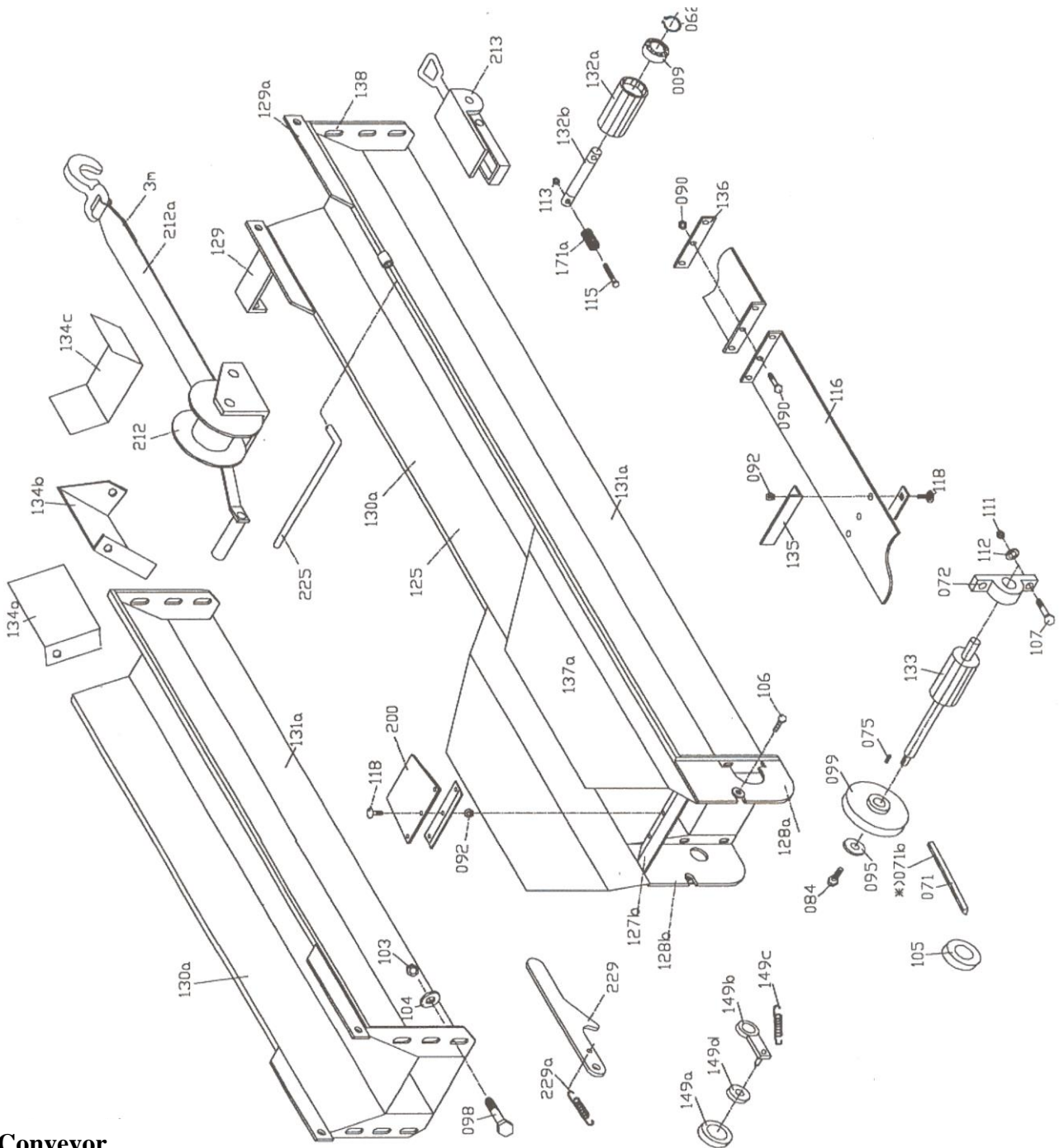
WHERE IS THE TROUBLE ?	POSSIBLE REASON	HOW TO REPAIR	SEE PAGE
CUTTING OF WOOD			
Chain stops while cutting	V-belt of chain loose	Tighten the belt	
Chain doesn't cut well	Chain is dull Thread at lower edge of sawbar due to wear	Sharpen the chain File the sawbar	29 31
Sawbar doesn't rise high enough	Spring that pulls the sawbar loose	Tighten the spring	
SPLITTING OF WOOD			
Splitting doesn't start	Crosscut lever is in the STOP position	Bring the lever into the IN OPERATION position	
	Sawbar wasn't pressed down to its lowest position	Press the sawbar momentarily down to its lowest position	
	Release lifter 10015 is stuck or the spring that controls it has broken i.e. the release lever won't go to the underside of the release lever 10025	Change the spring	15-16
	Release lever 10025 is bent upwards and it isn't able to lift the release levers 10023 high enough	Bend the lever downwards	15-16
	Ball joint in the articulated lever, that goes into the valve, is broken	Change the ball joint	
There is wood waste in the release lever system	Clean the lever system		

Splitting movement continues	Release levers/plates 10023 rounded and they are not able to stop the articulated lever 10167 in its middle position	File the plates angular
	Caps of the bolts in the angular levers are rounded	Change the bolts or turn a new corner
	Release levers 10023 are stuck in their upper positions	Check the attachment of the release levers and clean them of the wood waste
Splitting force is not enough	Logs are too knotty, gnarly or big	Convert the blade to split only into two parts
Splitting cylinders won't go to their extreme position	Wood waste has gathered in the slot on the splitting blade side at the lower part of the splitting chute	Remove the waste
	Stoppers 10170 in the operating levers of the valves have moved	Check the position of the stoppers and adjust them if necessary
Both splitting cylinders travel towards the splitting blade at the same time	Roller chain 10008 has broken	Change the chain
Splitting beams stop at different distances from the splitting blade	Roller chain 10008 loose	Tighten the chain
Conveyor belt does not move	Belt is too loose	Tighten the belt
	Conveyor belt moves at an angle and clashes with the frame of the conveyor	Straighten up the belt

	Wood waste or a log between frame and belt either at the top or bottom end	Remove the waste or log
	V-belt between machine and conveyor is broken or not in place	Put the belt in place or replace it
	Conveyor drive pulley on the spline shaft of angular gear is broken	Replace the pulley
Feed conveyor does not work	Belt is loose	Tighten the belt
	Rod 10162 of the feed conveyor valve has been extended too much	Readjust the length of the rod
	Cotter in the feed conveyor lever 10163 is broken	Replace the cotter
	Ball joint in the feed conveyor is broken	Replace the ball joint
	Feed conveyor belt moves at an angle and clashes with the frame of the machine	Straighten the position of the belt

The ordering code of the spare part is made up by adding 10 before spare part number.
 f.ex. 024
 10024





Conveyor

The ordering code of the spare part is made up adding 10 before spare part number
f.Ex. 071 -> 10071

Spare part list

Hakki Pilke 2X P			
Item	Pc		
10001b Frame	1	10042 Cock	1
10002a Angular gear B2021	1	10043 Hose tightener 35	2
10003 Valve	1	10044 Sawbar attachment plate	1
10003a Ball joint of valve	1	10045 Suction hose, inner diam. 25	1
10004b Upper cover	1	10046 Sawbar attachment pin	1
10005 Hydraulic pump 16	1	10047 Angular fitting 90 3/4"	1
10006c Slide, left	1	10048b Feed conveyor table	1
10006d Slide, right	1	10048c Feed table	1
10007 Attachment plate of chain	2	10049 Seal ring 1/2"	6(12)
10008a Roller chain 1" 47 links		10050 Double nipple 1/2"	6(12)
10009 Bearing 6205RS	4	10051 Seal ring 3/8"	4
10010a Slide bracket	3	10052 Breather 3/8"	2
10010b Slide bracket	1	10053 Hose 1/2" 1,7 m	2
10011 Draw-spring 0.9x9.8x100	1	10054 Hose 1/2" 0,75 m	1
10011a Draw-spring 0.9x9.8x40	1	10055 Hose 1/2" 0,65 m	1
10012 Hexagonal nut M12x180	1	10056 Roller of extension lever	1
10013 Intermediate rod	1	10057 Filling cap 1 1/2"	2
10014 Release rod	1	10058 Hose, inner diam. 8	1
10015 Release lifter	1	10059c Guide roller	1
10016 Release lever	1	10060 Hose support 8-14	2
10017 Stop lever	1	10061b Spring	1
10017a Intermediate plate	1	10061e Wood length limiter	1
10018 Compression spring 2x22x40	1	10061f Lever	1
10019 Stop lever plate	1	10062 Locking ring A25	2(7)
10020 Bearing 6207RS	2	10062b Locking ring A35	2
10021 Sawbar 13"	1	10063a Pipe of wood length limiter	1
10022 Return lever	1	10065 Locking peg	1
10023 Release lever	2	10066 Drive pulley 1A180/35	1
10024 Intermediate rod	1	10067 Drive pulley 3A90/35	1
10024d Intermediate rod (electric)	1	10068 Drive pulley 3A180/25	1
10025 Release lever	1	10069 V-belt A38	3
10026a Stop lever plate	1	10070 Locking ring A30	4
10026b Stop lever plate	1	10071b Drive belt A98 & el. A100	1
10027 Stop lever	1	10072 Bearing UCP207	4
10028 Saw chain 0,325" 56 links	1	10073a Pump drive shaft	1
10029 Valve bracket	1	10074 Key 7x8x75	1
10030b Valve cover	1	10075 Key 7x8x30	3
10031 Filter cartridge CR50	1	10076a Cover	1
10032 Filter FIO 50/3	1	10077 Key 7x8x15	1
10034 Drive belt XPA882	1	10078 Slot headed screw M6x40	1
10035 Spring tensioner	1	10079 Hexagonal screw M8x12	12
10036 Draw-spring 3.5x30x190	1	10097a Cover	1
10037 Sawbar bracket	1	10080 Cover	1
10038 Hose, inner diam. 8	1	10081 Pump bracket	1
10039 Drive pulley 1A80	1	10082 Draw pin	2
10040 Drive shaft of saw chain	1	10083 Chain drive plate	1
10041 Sawbar attachment plate	1	10084 Hexagonal screw M8x20 16 10.9	2
		10085 Drive shaft of saw	1
		10086a Sprocket 1" Z21	1

10087	Shaft casing	1	10135	Scraper of conveyor	9
10088	Hexagonal screw M8x55 10.9	3	10136	Jointing plate of belt	2
10089	Fastening plate of tension wheel	1	10139	Cylinder pin	2
10090	Allen screw M8x35	10	10143	Control lever	1
10091	Hexagonal screw M8x60	4	10144	Hexagonal screw M10x20	2
10092	Hexagonal nut M8	48	10145	Valve lever	1
10093	Hexagonal screw M6x20	2	10149a	Tension wheel	1
10094	Washer M8	20	10149b	Bar of tension wheel	1
10095	Washer M10/36	4	10149c	Drive spring 2x20x100	1
10096	Washer M8/27	1	10149d	Bearing 6203 2RS	1
10098	Hexagonal screw M10x30	6	10150	Dust guide	1
10098c	Support rod of upper position	1	10152	Chain cover	1
10099	Drive pulley 1A180/28	1	10155	Control bar of valve	1
10100	Hexagonal screw M10x40	4	10158	Drive roller of feed conveyor	1
10101	Hexagonal screw M10x50	4	10159	Extension roller pipe of feed conveyor 2.2m	1
10102	Hexagonal screw M10x130	4	10159a	Feed conveyor 2.2m	1
10103	Hexagonal nut M10 nyloc	16	10159c	Locking peg	1
10104	Washer M10	4	10159d	Table support	1
10105	Drive pulley 80/6-u	1	10160	Shaft Ø 25	1
10106	Hexagonal screw M12x35	8	10160a	Roller	1
10106a	Hexagonal screw M14x35	4	10163	Blade control lever (feed conv.)	1
10107	Hexagonal screw M12x45	8	10164b	Cylinder 50/32-710 piston seal SM50/38x20w Rod seal TS32/40x5.8 O-ring 3x45	2
10108	Hexagonal screw M12x70	2	10164c	Cylinder 64/45-710 Piston seal SM63/51x20w Rod seal TS45/55x10 O-ring 3x58	2
10109a	Coupling half	1	10165	Angular gear shaft	1
10109b	Coupling half	1	10166a	Splitting blade into 2 and 4 parts	1
10109c	Coupling rubber	1	10166c	Splitting blade into 6 parts (optional equip.emt)	1
10110	Hexagonal screw M12x80 full thr.	4	10167	Articulated lever	1
10111	Hexagonal nut M12 nyloc	17	10171	Compression spring 2.5x20x38	3
10112	Washer M12	4	10171a	Compression spring 3.5x22x38	4
10113	Blade adjustment linkage	1	10181	Electric motor rack	1
10114	Hexagonal nut M12	10	10182	Idlers for electric motor drive	1
10115	Hexagonal screw M12x120	2	10182a	Idlers for combustion engine drive	1
10116	Belt 240x8200	1	10183	Drive pulley of electric motor	1
10118	Locking screw M8x20	30	10184	Shaft cover	1
10119	Blade adjustment lever	1	10185	Hexagonal screw M12x60	1
10120	Washer M20	4	10187	Motor starter casing	1
10121	Angular gear rack	1	10189	Combustion engine rack	1
10122	Split cotter 3.2x32	4	10190	Bearing UCFL205	1
10123	Split cotter 2.5x20	3	10191	Combustion engine shaft	1
10124	Stop screw M8x8	8	10192	Hose 1/2" 0,75 m	1
10125	Lower frame of conveyor	1	10193	Hose 1/2" 0,8 m	2
10126	Upper frame of conveyor	1	10194	Hydraulic motor OMP400	1
10127	Grease nipple M8x1	6	10195	Valve SD4/1 neg. kj.	1
10128	Cotter M3	2	10196	Belt 200x4600 (2.2m)	1
10130	Intermediate block 1m				
10132a	Upper roller 100x240	1			
10132b	Upper roller shaft	1			
10133	Drive roller Ø 100	1			
10134a	Side plate, left	1			
10134b	Sideplate, right	1			
10134c	Top end cover	1			

10197	Electric motor 7,5kW/1500	1
10198	Motor starter 7.5kW	1
10199	Connector 5x32A	1
10200	Rubber flap	1
10200a	Rubber cable 5x2.5x2.5m	1
10201	Rubber cable 7x1.5x2m	1
10203	V-belt A36	3
10204	Washer	1
10205	Slot ended screw M4x20	4
10206	Hexagonal nut M4	4
10207	Hexagonal screw	2
10208	Battery rack	1
10209	Battery	1
10210	Combustion engine 13 hp	1
10211	Cover	1
10212	Winch	1
10212a	Winch line 3m with hook	1
10213	Bolt	1
10218	Cover	1
10219	Roller	1
10221	Spring bracket	1
10225	Belt holder	1
10229	Locking peg of conveyor	1
10229a	Spring 2x15x150	1
10230	Fastening parts of winch	1
10231	Lubrication valve	1
10320	Locking bar of blade	1
10321	Fastening of locking bar	1

Guarantee terms

“Guarantee terms come into force when you register your customership in 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 demand has to be issued to the seller **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 through the retailer.

The guarantee does not cover

- Damages caused by normal wear and tear (for example blades, mats and belts), improper use or use contrary to the instruction manual
- Damages caused by negligence of maintenance or storage procedures detailed in the instruction manual
- Damages 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 pinpointing 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.

V.A.T. number FI 0550899-7

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