HakkiFeed 471

Adjustable log table

– Operating and maintenance instructions
– EC Declaration of Conformity
– Safety instructions
– Guarantee terms

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

MAASELÄN KONE OY
Valimotie 1, FI-85800 Haapajärvi, Finland
tel. 08-7727300
info@hakkipilke.fi
www.hakkipilke.com

Table of contents

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.

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 Feed 471 log table is intended for moving pruned wood or logs onto a Hakki Pilke firewood processor. The firewood processor must not be used to process any treated wood, such as is found in construction waste.

The maximum diameter of the logs to be processed is 47 cm. This limit must not be exceeded. The maximum (3 m) and minimum length (1.5 m) of the logs placed on the table depend on the adjustable width setting.

1.3. Machine models and basic information

Model	Hakki Feed 471 (accessory, Hakki Pilke)
Driving power	Hakki Pilke firewood processor's hydraulics (max 200 bar, max 16 l/min)
Weight	616 kg (+345 kg with 2 m extension)
Height/width/length	1,000–1,440 / 950–1,500 / 3,600 (mm)
Max log diameter	47 cm
Max/min log length	3,000 mm–1,500 mm
Max load-bearing capacity	2,500 kg (+2,000 kg with 2 m extension)

The machine's serial number, year of manufacture, weight and model are provided on the grey type place fixed to the machine's frame – right side of the in-feed conveyor **A**. (Figure 2, opposite side)

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.

1.5. Safety instructions

- This device is intended to be operated by only one operator. The danger zone is 10 meters 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 is only intended for transferring logs to the Hakki Pilke firewood processor.
- 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 cleaning the machine or carrying out any maintenance, it must be disconnected from its power source.

2. Receipt and assembly

2.1. Delivery inspection

Please dispose of the log table'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.

2.2. Assembly instructions

The table can be delivered either assembled or packaged. If the table is delivered in packaged form, it must be assembled before commissioning in accordance with separate assembly instructions provided with the package.

2.3. 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. Ensure the sufficient length of the lifting prongs so that the tips rest safely under both frame plates (Figure 1). Only lift the table when it is empty and use the lifting points shown in **Figure 1**.

Figure 1. Lifting points of the machine

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

2.4. Main components of the machine

Hakki Feed 471 is a hydraulically controlled accessory for the Hakki Pilke firewood processor. It is controlled hydraulically with the operating levers of the Hakki Pilke firewood processor's control unit.

A. In-feed conveyor
B. Chain conveyor
C. Dispenser stoppers
D. Dispenser

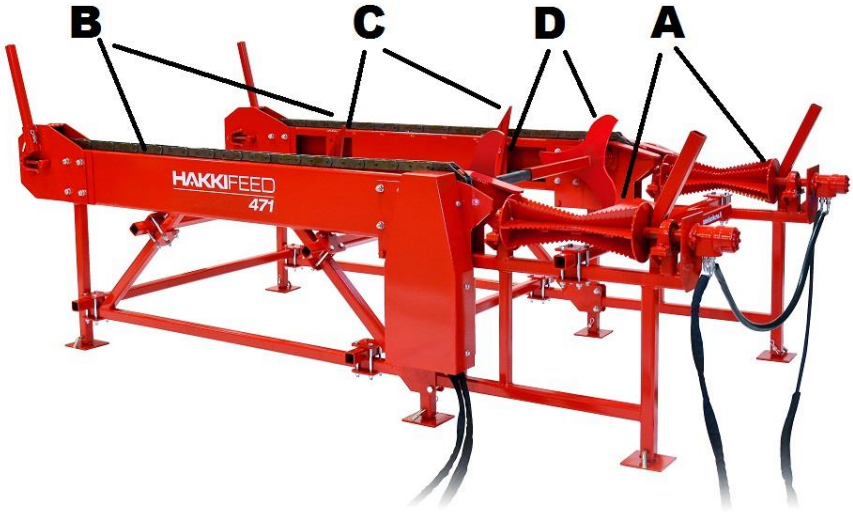


Figure 2. Main components of the machine

3. Control functions and setting up the machines

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.

When preparing the table for operation, ensure that it is positioned on an even and firm foundation so that the logs on the table are straight. Make sure that the machine's hydraulic hoses cannot be caught between moving parts or cause a hazard.

When arranging the machine for transport, clear the table of wood and fix the hydraulic hoses to it with cable ties, for example.

Note! Inspect and clean the machine before arranging it for transport.

3.1.1. Adjustments

The width of the table's chain conveyor can be adjusted between 950 and 1,500 mm and locked. Adjust the table width to a position where the log length exceeds the chain conveyor width by at least 500 mm.

Adjust the table height according to the firewood processor model in such a way that the table's in-feed conveyor A is at least 20 mm higher than the machine's in-feed belt. Adjust the distance between the machine and table to ensure the safe transfer of logs to the machine. The maximum allowed distance between the table's feed roller and the machine's in-feed arrangement is 500 mm.

3.1.2. Connecting the hydraulics

Use the operator's manual of the relevant Hakki Pilke firewood processor for the connections!

Use of the table requires two separate control valves: Example **Figure 3.**

Figure 3.

In-feed conveyor A (Figure 2)

- Connected in series to the Hakki Pilke firewood processor's in-feed system (quick couplings **C** (red) and **D** (black))

  Note! If the machine features the valve shown in Figure 3, it must be opened to ensure oil flow through the quick couplings.

Chain conveyor B (Figure 2)

- Connected to the accessory valve of the Hakki Pilke firewood processor (quick couplings **A** (red) and **B** (black))

- Chain conveyor motor's spill hose (from the motor end): connect the hose directly to the machine's hydraulic oil tank

Note! Dispenser D runs when chain conveyor B is being operated.

Ensure that all connections are safe and secure!

3.1.3. Adjusting table width (according to log length)

1. Disconnect the table from the power source.
2. Clear the table of logs.
3. Loosen the fastenings in Figure 3 (10 points, four bolts each); A1–2 in the in-feed table and B1–4 in the chain conveyor.
4. Carefully narrow or widen the table between 950–1,500 mm. Ensure straightness by measuring it.
5. Retighten the fastening points in Figure 3 and test the table.

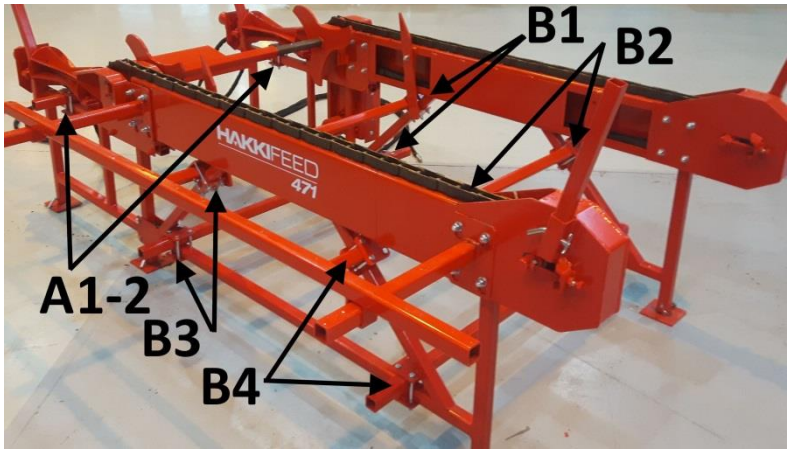


Figure 3. Fastening points

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

1. Make sure that you are familiar with the functions of the machine's controls. See Section 3.
2. Operate in-feed conveyor A (Figure 2) empty, and ensure that the rollers run freely and in the right direction.
3. Operate chain conveyor B empty, and ensure that the chains run freely and in the right direction.
4. Load logs on chain conveyor B, and use one log to test the operation before beginning actual work.

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

4.2. Loading logs onto the chain conveyor

Use a forklift with a sufficiently long fork to ensure safe loading.

- Always load logs from the chain conveyor side.
- Lower the logs on the chains carefully. Never drop logs on the chains.
- Load logs in the machine with the stem end first, and ensure that the centre of gravity is in the middle so that the logs cannot tip to the side off the conveyor.
- Do not exceed the load-bearing capacity of the table (Section 1.3), and leave enough room for the free operation of dispencer D.
- Smaller logs can be stacked on top of each other, but a total height of 47 cm must not be exceeded.

Note! Ensure that there are no other people in the vicinity of the machine when loading logs!
Note! Ensure that the log's centre of gravity stays on the conveyor!

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 any 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, a test run must be carried out on the machine, according to the instructions in Section 4.1.

5.1. Chains

Tighten the chains of chain conveyor B in accordance with **Figure 4**. Adjust them by opening the lock nut and move tensioning nut as shown in Figure 4 on the *left*. The tightened tensioning nut after adjustment is seen on the *right* in the figure. The tightness is correct when the chain hangs in the housing about 10 mm from the bottom and rises about 100 mm when lifted from the centre. Excessively tight chains move sluggishly and excessively loose chains increase wear or cause jams. Check also that the lining of the chain is in the center.

Figure 4 (Arrow left: tension, Arrow right: lock nut)

Tighten the motor chain by opening the motor guard of chain conveyor B. The correct tightness is presented in Figure 5 to the left. Tension the chain as follows:

- Open the three motor fastening screws in Figure 5 (pictured in the centre).
- Open locking nut B, tighten bolt A and finally lock the locking nut and tighten the motor's fastening screws (in the middle).

Figure 5 (tightening the motor chain)

5.2. Lubrication

There are 13 pcs of lubrication points in the machine, presented in the figures below.

1. Chain conveyor (B) chains and support beams 2 pcs, **Figure 6: B** (every 50 hours)
2. Dispenser stoppers (A) 2 pcs, **Figure 6: A** (every 50 hours)
3. Motor chain 1 pc (under the guard), **Figure 7** (every 100 hours)
4. In-feed conveyor A bearing nipples 4 pcs, **Figure 6: C** (every 200 hours)
5. Dispenser bearing nipples, 4 pcs, **Figure 6: D** (every 200 hours)

Note! Be careful when applying grease to dustproof bearings!

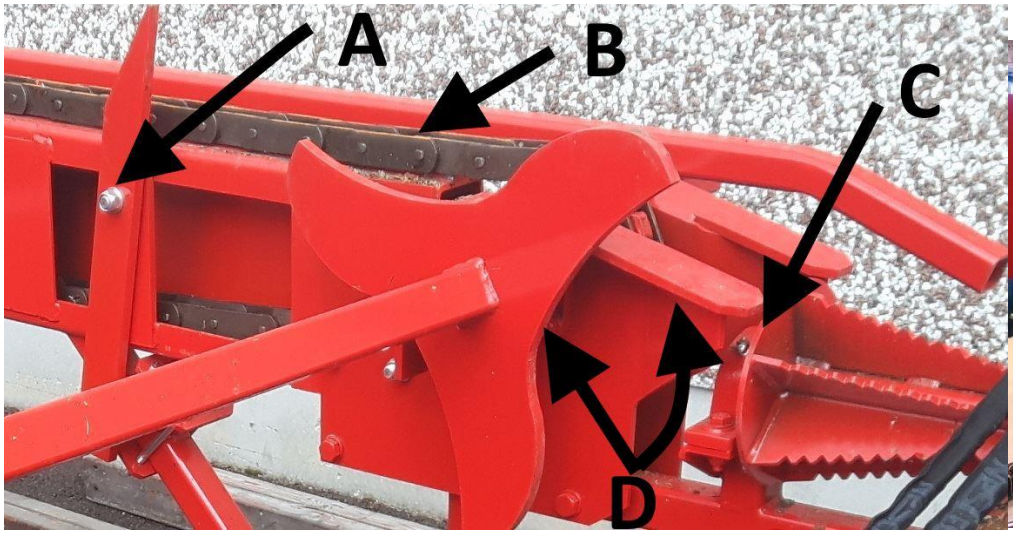


Figure 6

Figure 7

Washing and cleaning

Loose debris and sawdust can be cleaned 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.

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 machine must be lubricated according to the instructions in Section 5.2.

6. 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 Section 5.8 and lubricated according to Section 5.5.

7. Maintenance table

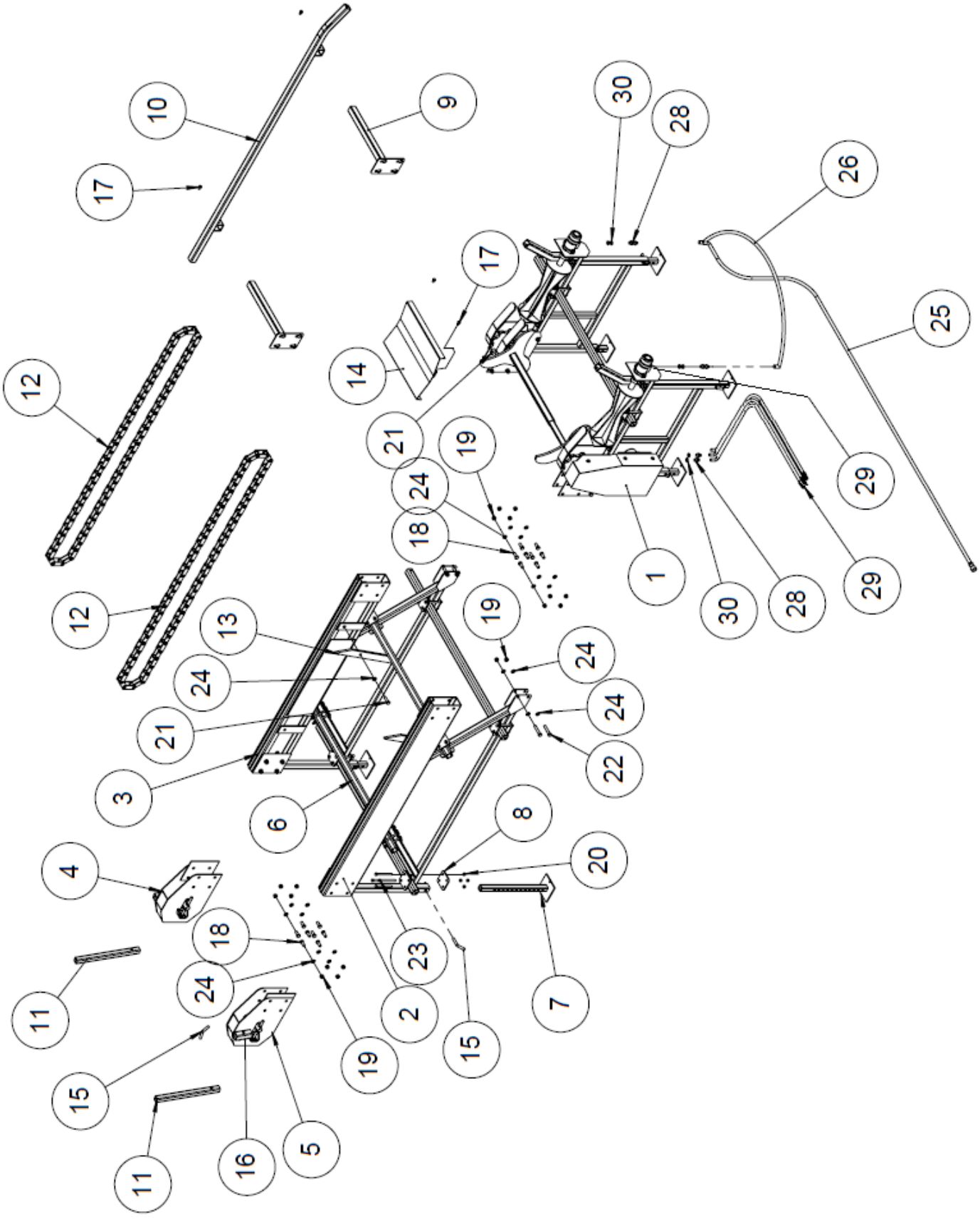
Item	Task	Daily	Interval 100 h	Interval 500 h	Substance/accessory item
Lubrication points	Lubrication	(Section 5.2)			Lubrication grease/oil
Chains (condition, tightness)	Check	X			
Hoses	Check	X			

8. Failures and remedial measures

Failure	Cause	Remedial measure
The chain conveyor chains are not running or are sluggish	1. The chains are too tight or loose 2. Log stuck crosswise 3. Chains must be greased 4. Quick coupling fault or loose coupling 5. Incorrect valve pressure	1. Check chain tension (Section 5.1) 2. Remove and replace 3. Grease chains 4. Repair connection 5. Contact the retailer
The in-feed conveyor rollers are not rotating.	1. The feed serial connection valve is connected to the machine 2. Quick coupling fault or loose coupling 3. Log stuck	1. Open the valve 2. Repair connection 3. Disconnect from the power source and remove blockage

9. Spare part images

9.1. Main assembly figure



9.2. Main assembly parts list

No.	Number	Name	Pcs
1	48509	Cross conveyor (adjustable)	1
2	48100	Conveyor frame right	1
3	48002	Conveyor frame left	1
4	48009	Roller attachment rear	1
5	48014	Roller attachment rear	1
6	45541	Pipe bar 50x50x5	5
7	48015	Height adjustment pipe	6
8	48525	Pipe fastening plate	20
9	96104	Hex head screw DIN931 M12x140	54
10	96117	Hex head screw DIN931 M16x55	10
11	96118	Hex head screw DIN931 M16x90	4
12	96218	Locking nut DIN985 M12	54
13	96219	Locking nut DIN985 M16	38
14	48531	Support	2
15	48535	Support frame	1
16	48044	Rear stop pipe	2
17	95075	Conveyor chain M80-A-80	2
18	48045	Log stopper plate	2
19	48565	Stopper for falling logs	1
20	48033	Pin	8
21	96208	Hitch pin	8
22	96144	Hex head screw DIN933 M12x20	4
23	96154	Hex head screw DIN933 M16x40	24
24	96059	Washer DIN125 A16	44
25	97152	Hydraulic hose 4500	1
26	97128	Hydraulic hose 1700 90-90	1
28	97203	Double nipple, straight 3/8” x 1/2"	6
29	97076	Hydraulic hose 3700mm	4
30	97213	USIT 1.2	6

10. Guarantee terms

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

A guarantee 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 (chains and wear parts), 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.
- Normal adjustment, care, maintenance or cleaning measures.
- 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.

11. Declaration of incorporation for partly completed machinery

(Machinery Directive 2006/42/EC, Annex II B)

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 Feed 471 log table (Hakki Pilke firewood processor accessory) Serial number: ……

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

This partly completed device may only be connected to a compatible
Hakki Pilke firewood processor.

Location and date: Haapajärvi, 6 September 2018

Signature: 

Anssi Westerlund
Managing Director