

Palax Midi manual



Always study this manual before operating the machine.

Serial number _____

Year of manufacture _____

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1 Declaration of incorporation for partly completed machinery

Manufacturer: TP Silva Oy
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Person responsible for the technical file: Timo Jussila, timo.jussila@tpsilva.fi

Product: Palax Midi
Log-deck, firewood processor accessory

Drive: Auxiliary hydraulics valve of the firewood processor

Serial number: _____

We hereby declare that this machine meets the requirements concerning the safety of machinery specified in Government Decree 12 June 2008/400, which was instituted to bring into force Machinery Directive 2006/42/EC. We undertake to supply the necessary technical documents concerning partly completed products to national authorities upon request with the proper grounds. This partly completed machine may only be connected to a suitable Palax firewood processor that meets the requirements of the effective legislation and the Machinery Directive.

TP Silva Oy

1.1.2023



Seppo Koironen

Managing Director

2 Introduction

This manual is intended for operators with the appropriate expertise. The operator is required to have the general knowledge and skills needed in normal situations. For example, a person purchasing a tractor-powered machine is expected to be able to operate the tractor's cardan shaft drive.

Study the manual thoroughly before installing the machine and beginning operation. In addition, familiarise yourself with the controls and the emergency stop mechanism before operating the machine. Additional information on the products is available on our website at www.palax.fi.

Register yourself as the owner of the machine at <https://info.palax.fi> in order to ensure that you have access to the latest information on the machine.

NOTE! Always keep this manual in the immediate vicinity of the machine.

3 General safety instructions

Palax Midi is a log-feeding accessory for firewood processor models Palax KS35, KS43s, Power70, Power90 and Power100.

This machine is intended to be used connected to a firewood processor. Therefore, the safety provisions in the firewood processor's manual also apply to this machine.

Drive the device with the firewood processor's hydraulics valve; do not connect it to the tractor's hydraulics, for example.

Before using the machine, familiarise yourself with the operation of both the log deck and the firewood processor. You must also understand how the machine works and be aware of the risks involved. All safety instructions concerning the firewood processor also apply to the Palax Midi log deck.

Always use the feeding device with extreme care so as to avoid injuring yourself or other people in the vicinity or damaging the machine.

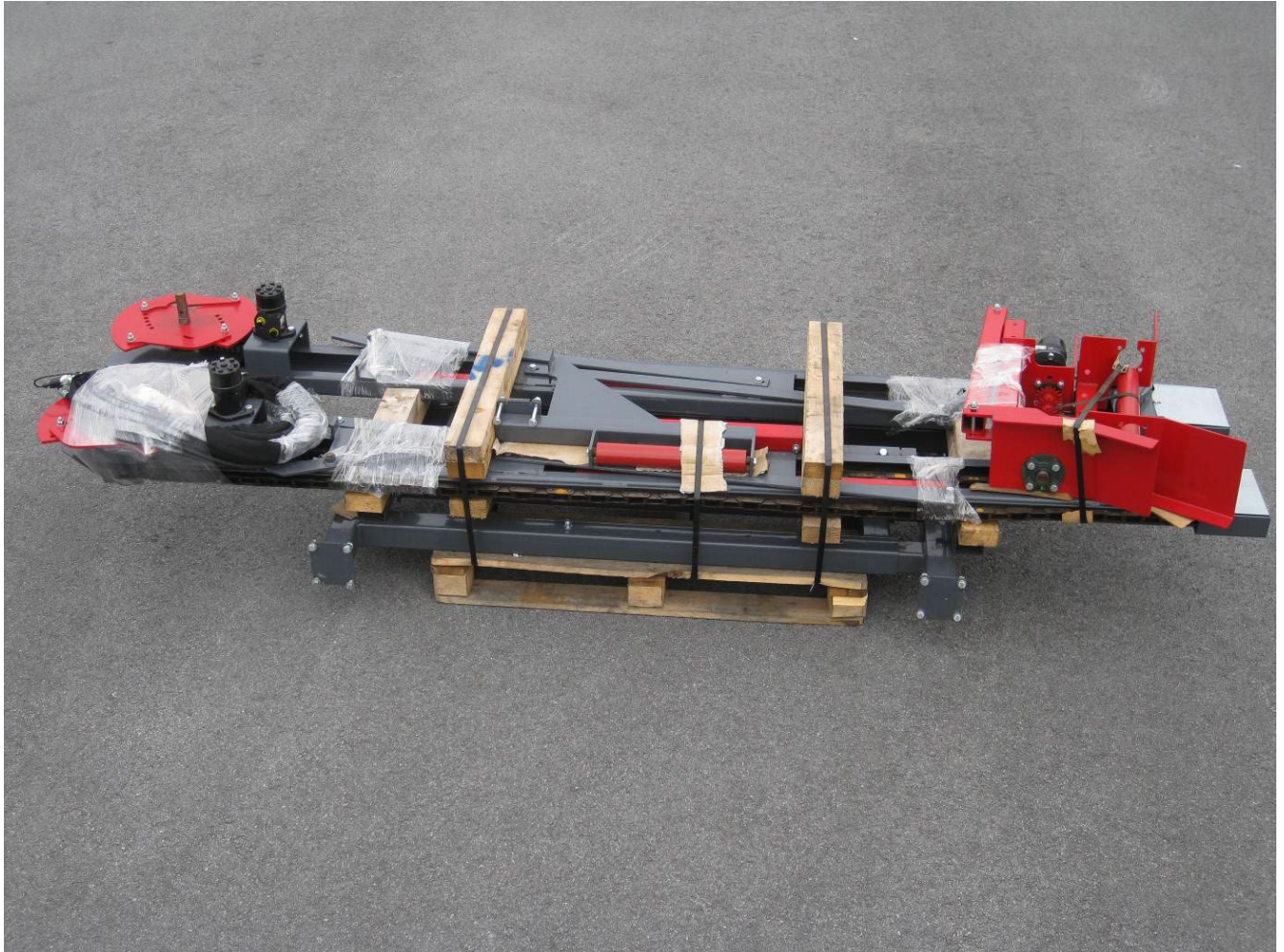
Persons under 18 years of age are not allowed to operate the machine!

Do not feed more than one log at a time.

During operation, other people or items or equipment that may be damaged must not be in the vicinity of the machine. The safety area around the deck is 10 metres.

4 Assembly instructions for the Palax Midi log deck

4.1 *Delivery package*



4.1.1 Required tools

- 19 mm wrench, 2 pcs
- 22 mm wrench
- 24 mm wrench
- 27 mm wrench
- 30 mm wrench, 2 pcs
- 5 mm Allen key

4.2 Assembly



Place the frame parts in an upright position for installation of the legs.





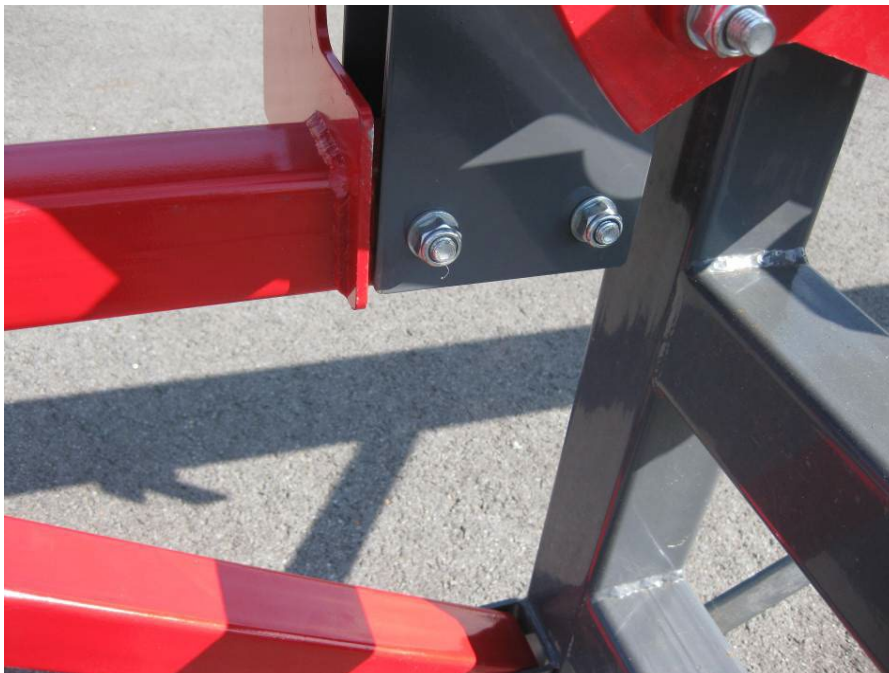
Turn the frame parts into a position where the legs point downwards and the one-part brackets face inwards (A). The width of the deck can be adjusted from 1.7 m to 2.3 m (B).



Raise the bearers on top of the frame parts, with the motor ends facing the two-part brackets. Attach the drive shaft between the bearers to equalise the rotational speed. Observe that both in-feed discs must be in the same position.

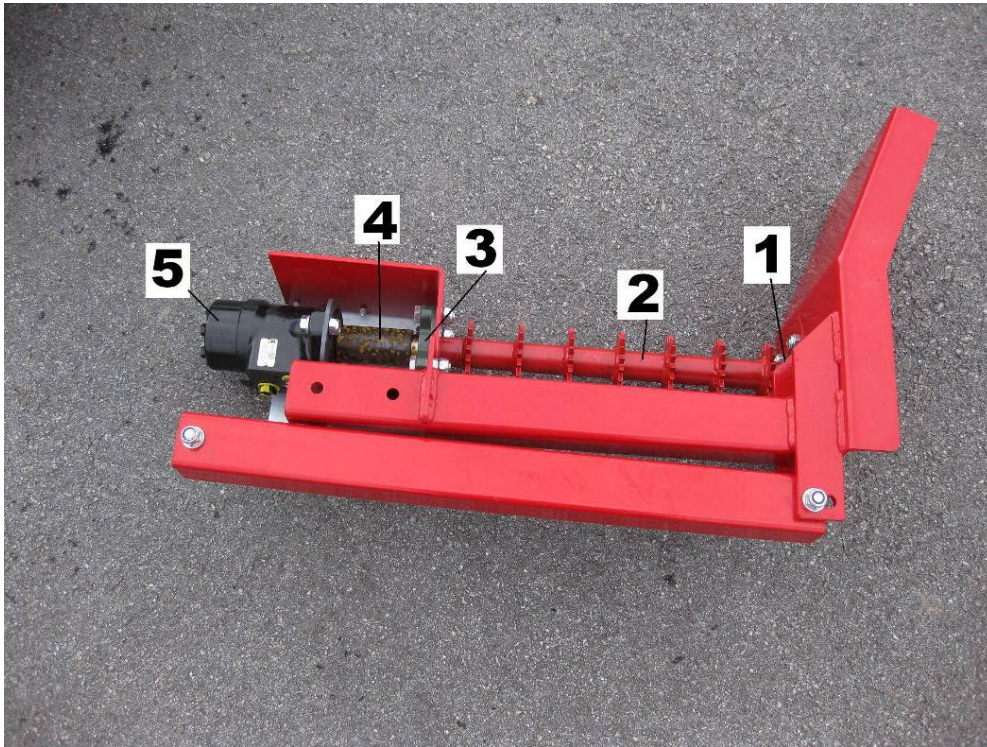


The motor beds and the rollers must be attached to the end and supported by the lower brackets.



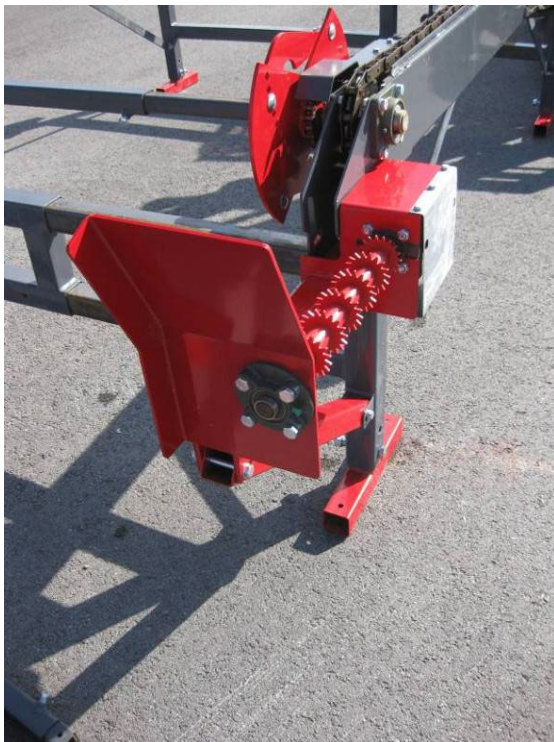


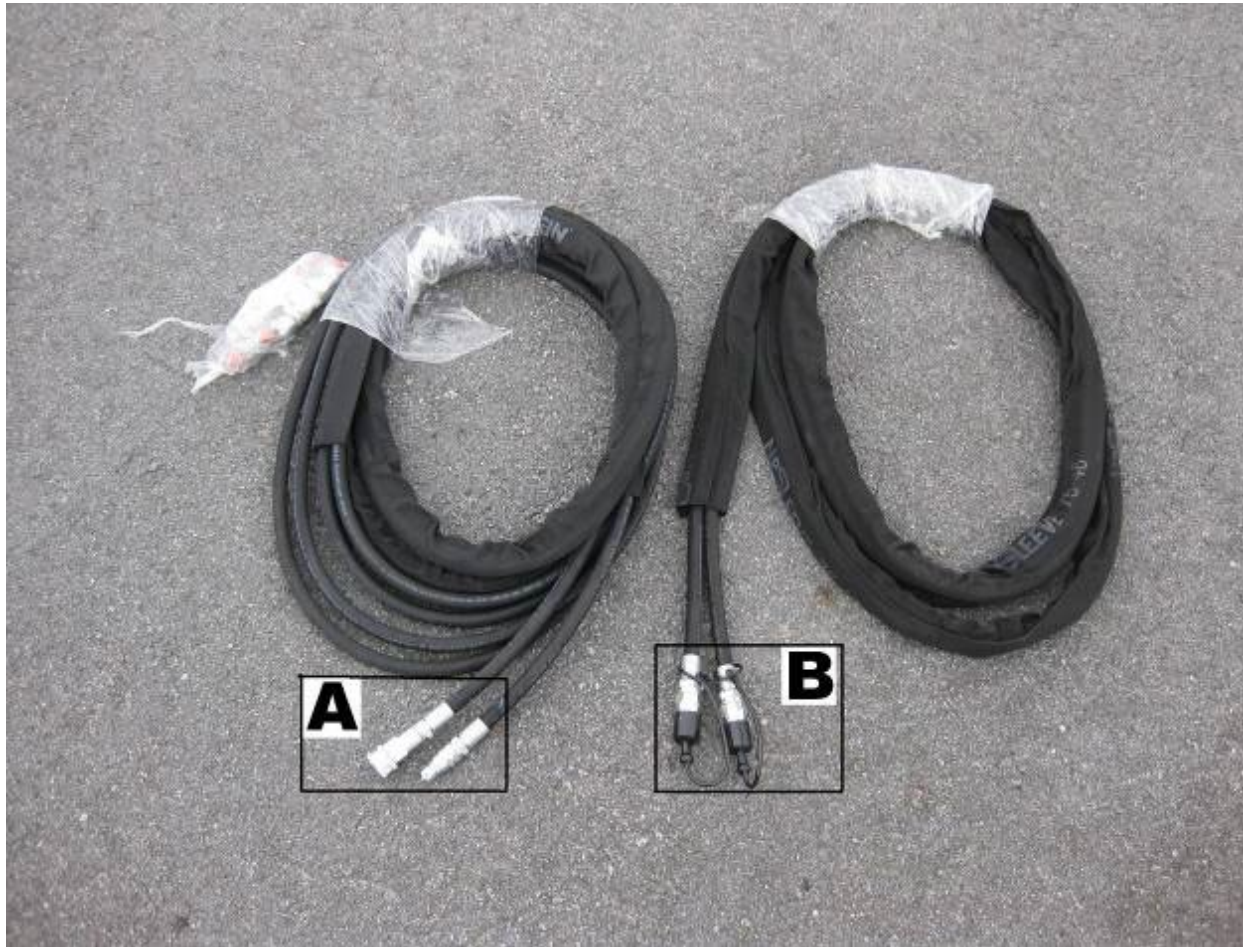
The supplementary roller must be attached halfway between the roller/motor.



Assembly order of the motor bed;

1. End bearing 2. Roller. 3. Bearing. 4. Intermediate sleeve. 5. Motor.



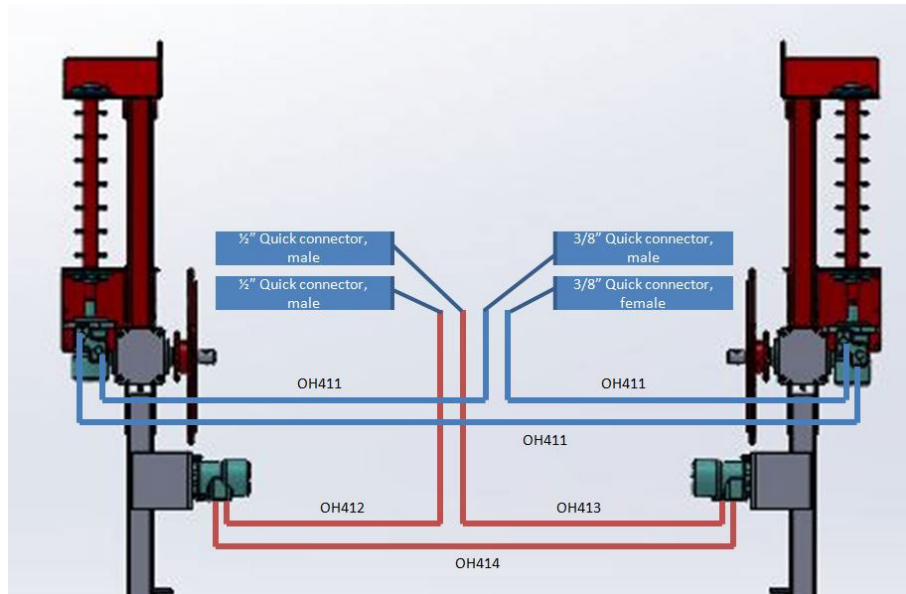


Hydraulic hose packages and connecting hoses for the motors.

3/8" quick-connectors, male + female (A), for the feed roller motor.

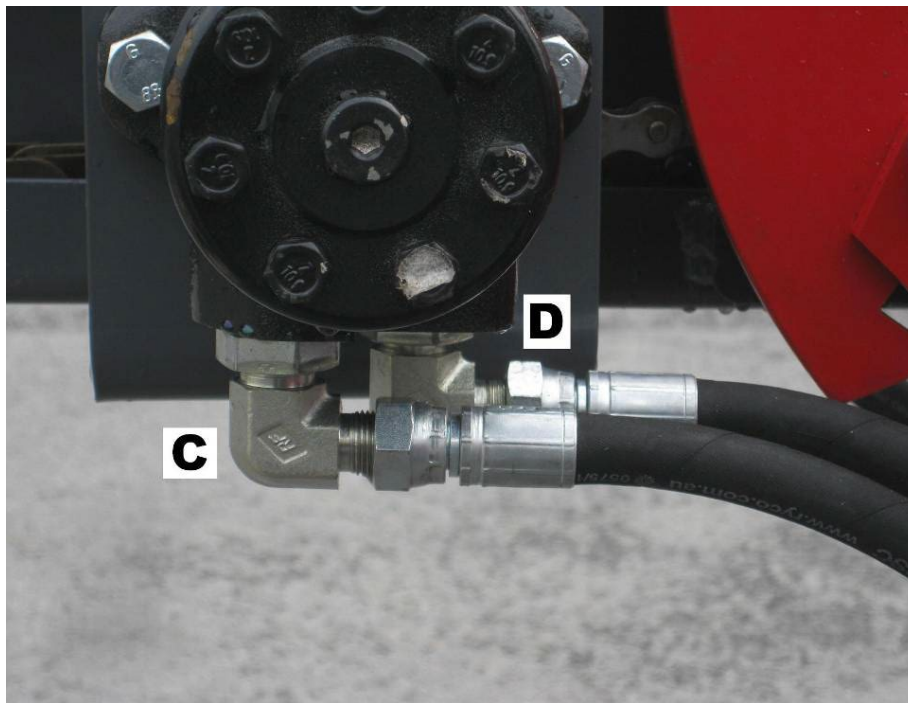
1/2" quick-connectors, male + male (B), for the bearer motors.

4.2.1 Feed bearer hydraulics



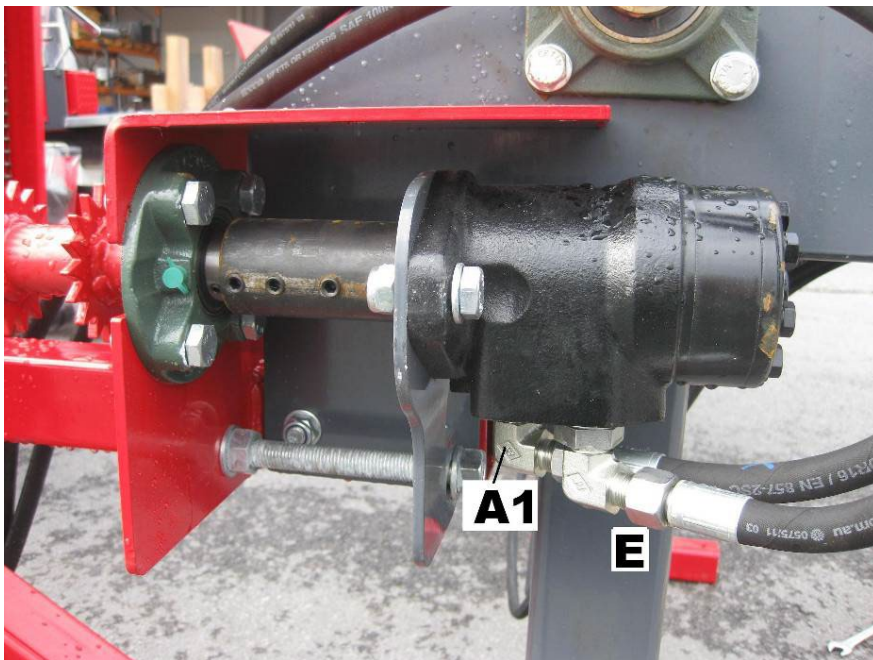
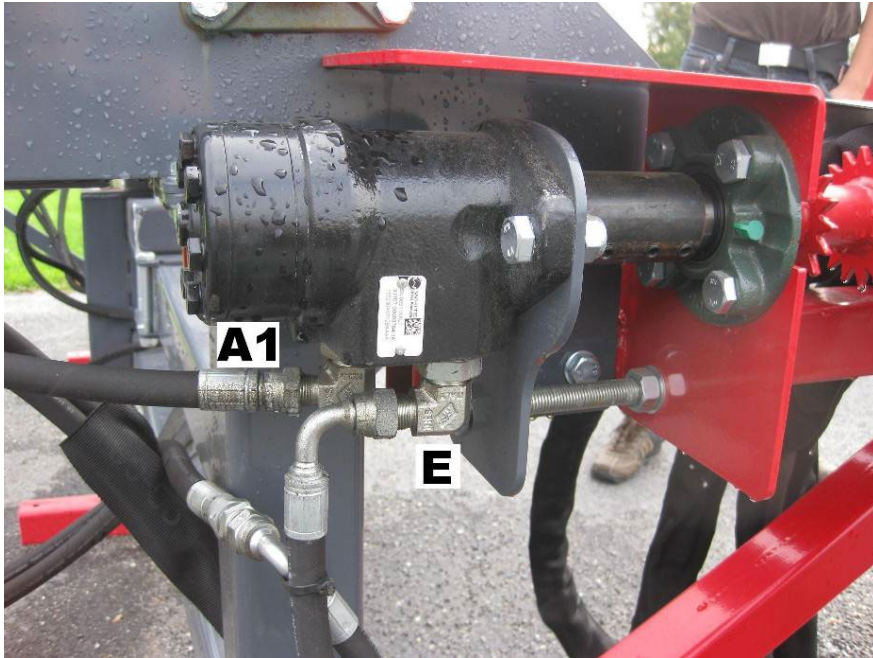
Feed bearer motors are connected in series.

The connecting hoses of the motors (C and D) point downwards, and the inlet/return hoses point to the side (B)



Hoses C and D must be installed as shown in the picture to enable the drive motors to rotate in the same direction.

4.2.2 Feed roller hydraulics

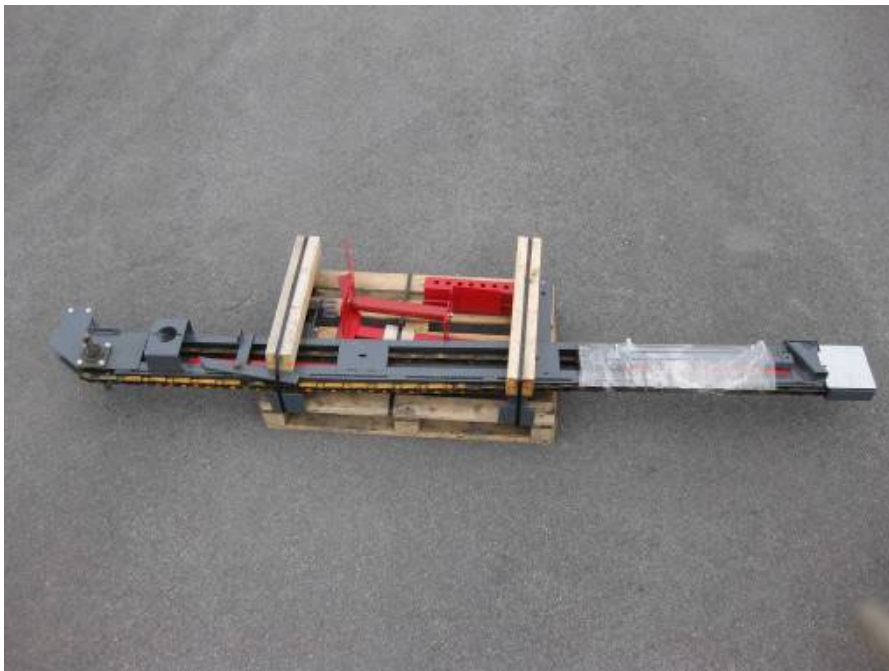


If the deck is fitted with just one feed roller, hoses A1 must be connected to the roller motor. If you add feed rollers to the deck, transfer one of the hoses A1 to the motor that you added, and connect hose E between the motors. If the feed roller rotates in the wrong direction after installation, reverse the hoses in the motor.

4.2.3 Additional bearer



Delivery package of the additional bearer.





Attach the additional bearer halfway between the main bearers. Replace the drive shafts with the shorter ones that were delivered with the additional bearer.



Remove the additional roller and attach instead the roller/motor that was included in the additional bearer package.

5 Type plates, main measurements and warning labels

5.1 The machine's type plate



- ❑ Name and address of manufacturer
- ❑ Machine type
- ❑ Production number and year
- ❑ Machine weight
- ❑ The plate is on the chain guard of the machine's in-feed disc.
- ❑ Indicate the production number and year when ordering spare parts.



5.2 The machine's main measurements

Weight	450 kg or 600 kg
Height/width/length	1,846 x 2,788 x 3,936 mm
Max log diameter	43 cm/see firewood processor limitations
Max log length	4 m/see firewood processor limitations
Max load on deck	Approx. 7 m ³ , depending on the wood

5.3 Warning labels

	
<p>Only one person may operate the machine.</p>	<p>Beware of the moving feeding device.</p>

6 Operation

6.1 General



Figure 1. Adjustable legs

- ❑ Ensure that the working surface is flat and hard beneath the Midi deck. You can adjust the alignment and height of the machine with the adjustable legs. Figure 1.
- ❑ The correct height is adjusted based on the firewood processor's log holder. The deck's feed roller and the firewood processor's log holder should be at the same height.
- ❑ In order to avoid feed malfunctions, you should sometimes rotate the deck backwards to straighten the logs on it against the stopper. Figure 2 A.

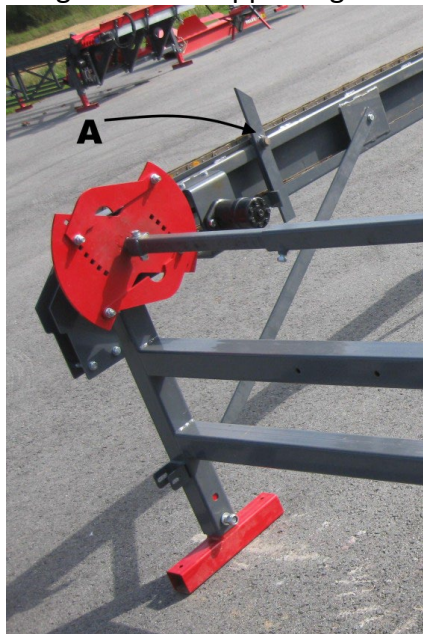


Figure 2. Log stopper



Figure 3. The in-feed disc adjusted for small and large logs

- ❑ The in-feed discs feature adjusters that can be used to adjust the discs according to log size. Increase and decrease the size of the opening with larger and smaller logs respectively. Figure 3.
- ❑ When loading logs onto the deck with a loader, ensure that the logs are straight and move freely on both bearers. If this is not the case, you must reload the logs.
- ❑ The logs must be loaded in such a way that the distance the log runs over the bearer is equal on both sides.
- ❑ Note! Do not feed logs into the firewood processor at the same time that logs are being deposited on the deck with a loader.
- ❑ The distance between the deck's feed rollers and the feed belt depends on the length of the log to be sawn. The distance between the log being fed and the feed belt must be at least 20 cm when the discs roll the log to the feed rollers.

6.2 Connection to the firewood processor



Figure 4. Hydraulic hoses



Figure 5. Example image of the machine's quick connectors

- ❑ When connected correctly, the feed rollers rotate in the same direction simultaneously with the firewood processor's feed belt (3/8" quick connectors, male + female, Figure 4 A).
- ❑ The dosing discs can be rotated forward and backward with the accessory valve on the firewood processor (1/2" quick connectors, male + male, Figure 4 B).
- ❑ Connect the 3/8" male + female quick connectors (Figure 4 A) between the hose loop and the 1/2" male + male quick connectors (Figure 4 B) to the machine's quick connectors.
- ❑ Figure 5 shows the quick connectors of Palax KS 43 as an example.

6.3 Operation description

1. Use the in-feed discs (driven by the firewood processor's accessory valve) to roll the log onto the log deck.
2. Feed the log to the firewood processor by running the feed belt. When connected correctly, the belt and deck feed roller rotate in the same direction and at the same speed.
3. NOTE! Do not begin to feed in a new log with the in-feed discs before the previous log is entirely in the firewood processor's splitting chute.

7 Maintenance table

Target	Task	Daily	Interval 100 h	Interval 500 h	Interval 1,000 h	Substance/accessory item
Machine	Clean	X				
Bearer chains	Lubrication		X			Vaseline spray
Bearer/feed roller bearings	Grease nipple lubrication		X			Vaseline

8 Failures and remedial measures

Failure	Cause	Remedial measure
The feed roller does not move.	1. The connectors between the machines are disconnected.	1. Connect the connectors.
The in-feed discs do not move.	1. The connectors between the machines are disconnected. 2. The hydraulic motors are incorrectly connected.	1. Connect the connectors. 2. Check the motor connections with the manual.
The feed rollers rotate in the wrong direction.	1. The direction of the motor hoses is incorrect.	1. Reverse the hoses.
The logs are jammed on the deck.	1. The deck has been loaded incorrectly.	1. Load the deck again.

