

Foreword

Thank you for using the Losotech pallet system which includes operating the Losotech pallet machine. This manual describes how to use the pallet machine correctly. It introduces you into safe handling and shows you how to properly service the unit. Anyone who is going to operate the pallet machine (operator, service assistant, safety officer, etc.) must have read and understood this manual. This is the only way to take full advantage of the Losotech Pallet machine and system. In addition to the cases governed by law, Losotech is not responsible for any errors arising from the use of the pallet machine or its accessories, or any other defects or any other damage that may have occurred due to the use of the machine. If you still have any questions after reading this manual, please contact your dealer or contact us.

LS&T GROUP AB – LOSOTECH Skogsrydsvägen 83 A – 506 49 Borås Sweden Info@losotech.com

Due to the constant revision of design and technology, differences between the descriptions and the parts installed in the pallet machine can occur. Also on the basis of special customer wishes it could come to a deviation of the built-in parts. If this is the case, please contact us. This manual is part of the product. Keep it for future reference.

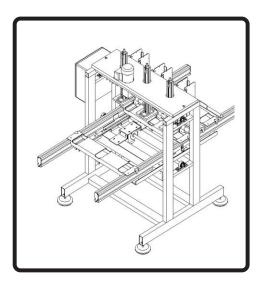
Models and description

Model - AZOBE

Art No - 3000

Description – AUTOMATIC PALLET MACHINE

Classification - CONFORM CE DECLARATION



EU-Declaration of Conformity

Manufacturer:

LS&T GROUP AB Skogsrydsvägen 83 A SE-506 49 Borås, Sweden Tel: +46-735-212471 www.losotech.com

Product:

Azobe BN3xxx AP AUTOMATIC PALLETMACHINE

The above given product is in accordance with the following directives of the European Union:

2006/42/EC Machinery directive 2004/108/EC Electromagnetic Compatibility (EMC) directive 2006/95/EC Low Voltage Equipment directive

The basis on which conformity is being declared

The manufacturer hereby declares under his sole responsibility that the product identified above comply with the protection requirements of the above directives and with the essential health and safety requirements of the Machinery directive.

The technical documentation required to demonstrate that the products meet the requirements of the relevant directives has been compiled and is available for inspection by the relevant enforcement authorities at the above address.

The CE mark was first applied in 2013.

Responsible:

LS&T GROUP AB SE-506 49 Borås SWEDEN www.losotech.com

Date: 2015-02-20

Birger Nielsen Technical Director

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Warning signs and mandatory signs

The symbols below are used in this manual to alert you to the dangers, special features and safety regulations.







Attention, warning, dangers, safety instructions

This type symbol indicates that a danger is represented by a corresponding symbol, which is explained in more detail in the accompanying text.



Indication

This type symbol indicates the special features of the machine. Tips and hints are also given which increase the efficiency of the machine or prolong the service life

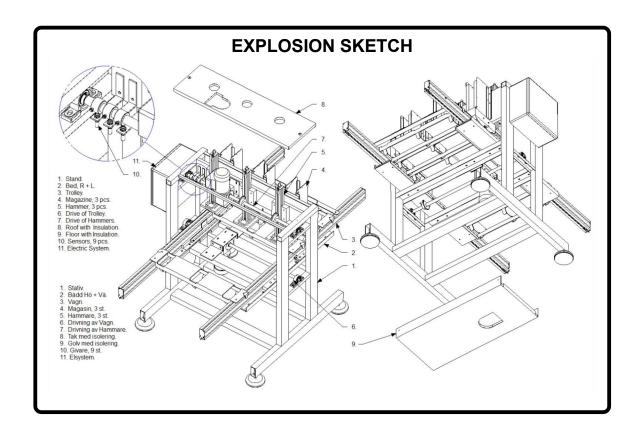


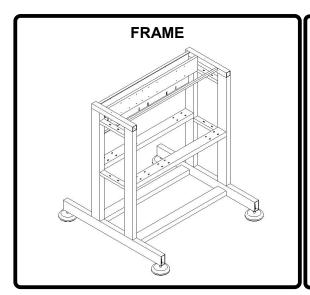


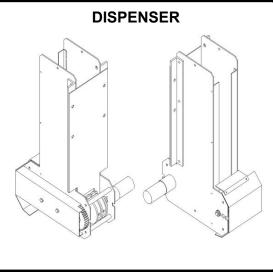
Protective clothing, protective measures

This type symbol indicates the special protective equipment you need when handling the machine, the corrugated sheets or the pallet feet

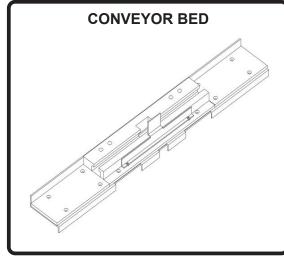
Introduction of machine parts and names

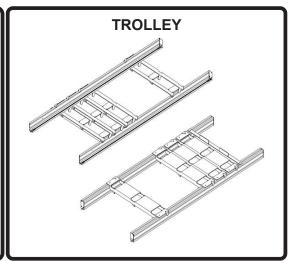


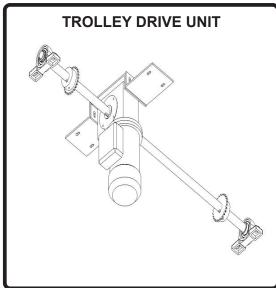


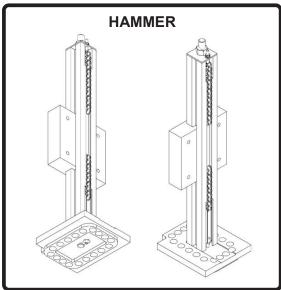


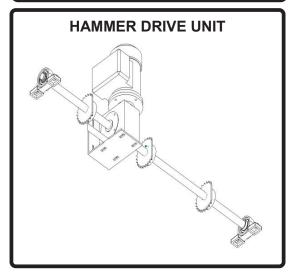
Introduction of machine parts and names











Before use of the pallet system

Carefully inspect the area where the machine is to be used and remove any objects in the way, such as corrugated boxes, pallet racking etc.

Define the area with safety marking. It should not be placed in a position where the operator or the machine could be smashed, injured or crashed by other appliance.

Before moving the machine, manually, drive the trolley so that it is centered. Lower the hammers manually so that they are lying on the trolley table. You can grab the machine with the forklift from all sides to move it.



CE

YEAR 2016

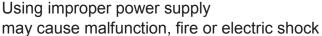
Read all the instructions, all the safety instructions and all the warning labels on the equipment prior to start using the pallet machine. Save these instructions for future reference.

Make sure that the power cord is plugged into an electrical outlet that meets the specified voltage and current requirements.

Power requirements are listed in the lower left corner of the nameplate on the machine control system.



Do not use an extension cord or adapter to connect other devices to the same power outlet to which the machine is connected. Using improper power supply



Familiarize yourself with the controls on the machine and how to use them. Never allow anyone who has not received appropriate instruction to use the machine.





Always wear safety gloves when handling corrugated sheets. When using the pallet machine for longer period of time we recommend to use hearing protection. Wear appropriate clothing. Don't wear loose-fitting clothing or jewelry or the like, as these can get caught in moving parts.

YPE Azobe BN 3006 AP

Weight 310 kg

V 230 Hz 50 kW 0,2

General Information and important notes

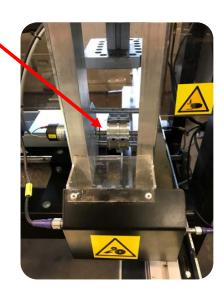
- Only trained and authorized persons are allowed to operate the pallet machine
- Before starting work, make sure all devices on the machine are intact
- Always be alert and careful when working with the machine. Take care of your environment and avoid dangerous situations, accidents and near-accidents by careful handling of the machine.
- As soon as malfunctions occur, call for appropriately trained service personnel to serve the machine.
- It is absolutely forbidden to put your hand into machine compartment openings while the machine is operating a pallet—risk of serious personal injury



• To enter the machine compartment. Disconnect the power supply, secure the hammer shank with the safety knob and remove the safety guard before entering.



- It is absolutely forbidden to put your hand into the pallet feet dispensers while the machine is turned on—risk of serious personal injury.
- Pay extra attention to the down feeding cylinders which are placed into the pallet feet dispenser. Do not operate on them before disconnecting the power supply
- To enter the pallet feet dispenser, disconnect the power supply.
- Always press the stop button and be sure that the machine is turned off and remain behind operating position until all moving parts have come to a complete standstill before attempting to adjust or clean the machine compartment.



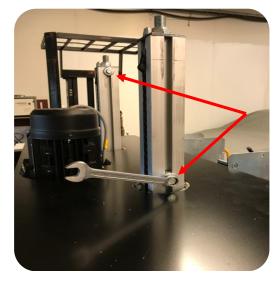
- Do not allow tools or other equipment to lay loose on the machine after executed operation. This may cause injury on the operator or damage the machine.
- Never use the machine when you are tired or under the influence of drugs, alcohol or medication.
- Never use the pallet machine as a seat.

Safety devices

In case of technical modifications of the machine, the machine loses all warranty claims and the declaration of conformity becomes invalid

The protection glass is a safety devise that should never be bypassed or disabled during operating the machine, as this can lead to a risk of personal injury. Safety devices must be fitted correctly and function properly





A safety knob device are placed on each hammer shank. To enter the machine compartment. Secure the hammer shank with the safety knob and remove the safety guard before entering.

The safety guard for the machine compartment consists of four units, one for each side and they are removable. None of them may be removed before the hammers are secured.

Never modify the safety devices in any way. Regularly check that all safety devices are place and are function properly according to these instruction

If the machine has additional attachments or other retrofitted features produced by other manufacturers, then the corresponding manual of the respective manufacturer must be observed

Improper use of the pallet machine (other than as described here) can lead to accidents and / or injuries. Always adhere to the prescribed operating instructions

Maintenance

- Only carry out repairs by qualified personnel
- Worn or defective parts can lead to increased danger for the operator or lead to machine wreckage. Replace worn or defective parts
- If the pallet machine is not used properly, manipulated or not properly repaired, or if
 incorrect spare parts are used, injuries to the operator and damage
 to the equipment and the goods may occur.
- Only use original Losotech spare parts
- Safety devices are always designed to protect the user and the machine never attempt to manipulate them in any way.
- The Losotech pallet machine was designed for flat, firm floors and is unsuitable for uneven floors.
- Check all bolted joints regularly, and retighten if necessary.
- Regularly check the machine visually for damage
- Disconnect the power supply from the unit before cleaning and maintenance.
- Never clean the electrical components of the pallet machine with water. Use compressed air or a lightly moistened cloth for surfaces. Do not touch live parts. Disconnect the appliance from the mains before cleaning
- A certain electrical hazard is caused by the pallet machine. If the
 pallet machine is not used properly, manipulated or not properly
 repaired, or if incorrect spare parts are used, the operator may be
 injured and damage to the appliance and the goods may occur.



Be careful not to expose the appliance to moisture. If the unit gets
wet, disconnect the power from the unit and dry it appropriately. Do not use the
appliance until it is completely dried.

By incorrect execution or wrong treatment of the pallet machine, components can become excessively hot during operation. In this case immediately stop the work, disconnect the power supply, and have the pallet machine checked by a qualified service technician before reuse.

Intended Use

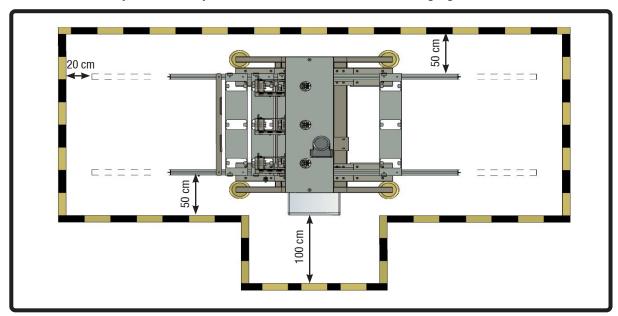
Use the pallet machine only for manufacturing pallets at your warehouse. The pallet machine should only be operating in dry rooms and keep the pallet machine away from moisture. Prerequisite for taking the machine in operation is that the user has been familiarized with all important and necessary instructions laid down in the user manual safety sheet or other.

Incorrect use

- It is forbidden to produce any other product than the Losotech pallet.
- It is forbidden to ignore the safety instructions
- It is forbidden to sit, lie or stand on the machine.

Installation

Place the machine on a suitable spot in the warehouse and mark the area with safety marking. The pallet machine is designed for flat, firm floors and is unsuitable for uneven floors. It should not be placed in a position where the operator or machine could be smashed or crashed by other appliances. If the machine has to be moved to another area, corresponding safety instructions have to be observed to end operation of the machine and then it could easily be taken by a hand lift truck or fork lift for bringing to the other area.



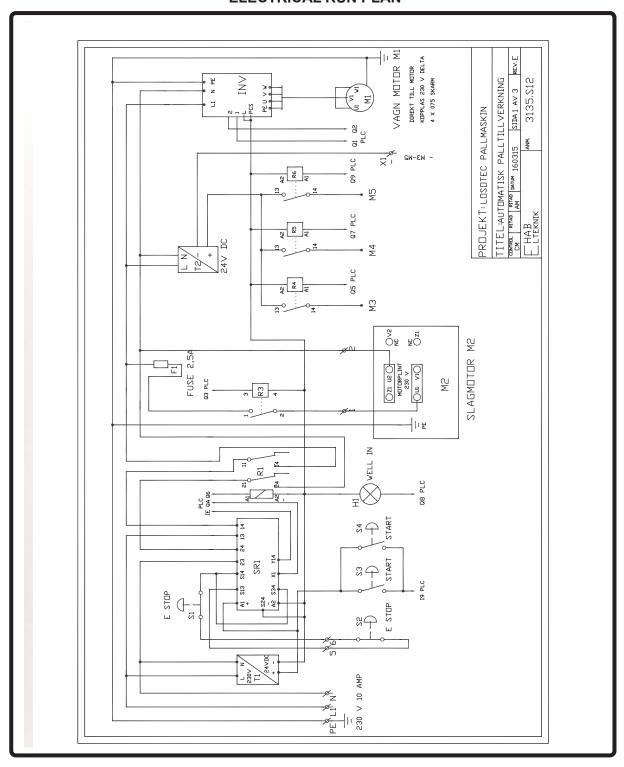
Power connection

The pallet machine of the Azobe 3XXX-series require a 230V / 10A power connection. Make sure that all cables are placed in such way that they do not become a risk of stumbling in the working area. Damage caused by cables placed incorrectly is not covered by warranty. Make sure that the power cord is plugged into an electrical outlet that meets the specified voltage and current requirements. Do not use an extension cord or adapter to connect other devices to the same power outlet to which the machine is connected. Before starting work, make sure that all devices on the machine are intact.

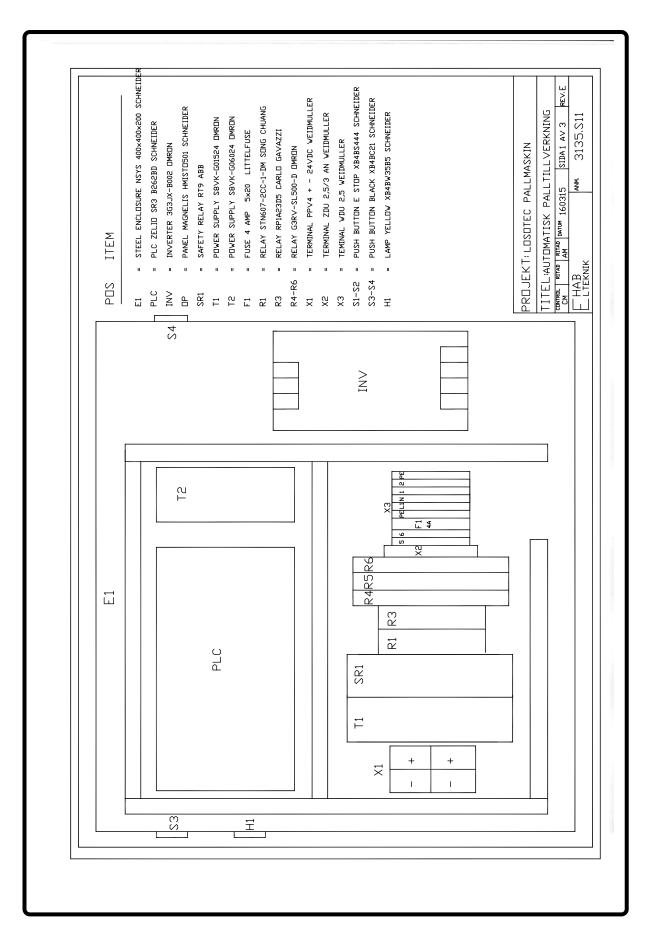


The Cables should not be run over and also persons should not step upon the cables. This could lead to damages inside the cable and could cause by this considerable source of danger for accidents with electricity

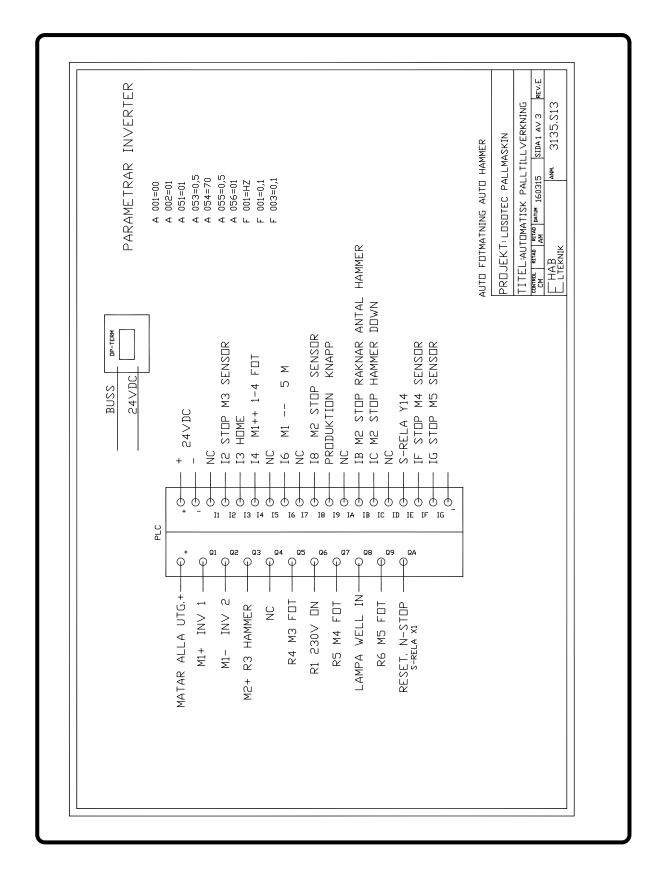
ELECTRICAL RUN PLAN



ELECTRICAL CIRCUIT DIAGRAM



PARAMETER INVERTER



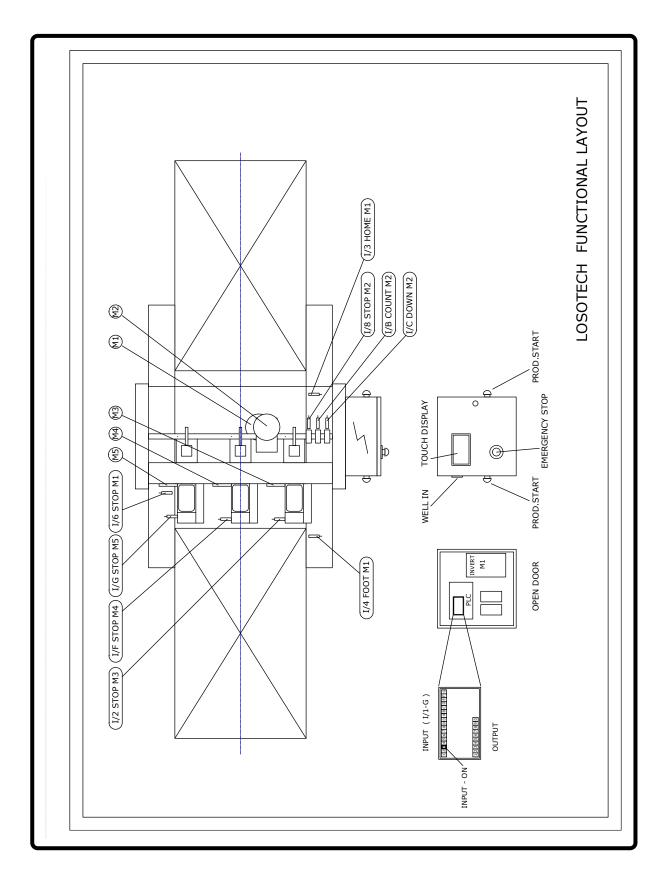
Technical specification

Azobe – Automatic Pallet machine

1	Quantity of manufactured pallets	About	60	Per Hour
2	Effective time of manufacturing a pallet	About	14	Seconds
3	Dimension	Length	2100	mm
		Width	1600	mm
		Height	1700	mm
4	Machine weight	About	310	KG
5		Model	ML 630-4 05	
	Percussion Engine	Power	0,18	KW
		Rev	1350	rpm
		Α	1,17	
		IP	55	
		Motor	230	V
6	Percussion gear	Model		WP 059906B5
7		Model	MS 63 B-4	
		Power	0,18	KW
	Trolley conveyor engin	Rev	1350	rpm
		Α	1,17	
		IP	55	
		Motor	230	V
8	Trolley Conveyor gear	Model		SB 050 371b14h25

Electronic components and control unit from Siemens/ Schneider.

SENSORS INDICATION



Description of display commands MENY Menu

OPERATÖR / OPERATOR

Selection to use when to operate the machine. After making selection you will be directed to the start meny

INSTÄLLNING / ADJUSTMENT

Selection to use when you want to change number of feet or the size of the pallet

SERVICE / SERVICE

Selection to use when to operate the machine manually when there has been operating mistake



Descriptions of display commands Start Menu

STARTAD / STARTED

Use this command to start manufacturing pallets then press the start button on the right side of the control unit

RESET / RESET

Use this command when restarting the machine. Press the reset command until the light will stop flashing then press start

MENY / MENU

Use this command to get access to all other functions



Description of display commands Service Menu

M1 VAGN HEM / M1 TROLLEY HOME MODE

Use this command to drive the trolley manually to home mode

(Driving Right)

M1 VAGNBORT / M1 TROLLEY AWAY MODE

Use this command to drive the trolley manually to away mode

(Driving Left)

M2 HAMMER / M2 HAMMER

Use this command to lift the hammers manually. For start position check that the hammer sensor is lit.

M 3-5 FOT FRAMÅT / M 3-5 FOOT FORWARD

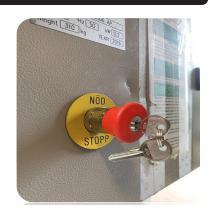
Use this command to drive the feeding cylinders on the dispensers manually to let out a load of pallet feet



Description of control devices

Emergency switch/button

There are two emergency switches. One key switch placed on the control unit that you can use to lock and stop the machine. The other one is placed on the machine roof on the opposite side of the control unit and is just used for interrupting the power supply. When pressing the emergency stop button the switch engages in a recessed position. Turn it clockwise to reactivate the circuit. The switch jumps back to its normal position from its sunk position.



Start buttons

There are two start buttons on the control unit that you are using when manufacturing pallets, one placed on each side. Press the "Production Start" button on the right side to start the trolley running for the loading activity of the machine. When the loading activity of the pallet feet is finished a yellow light is lighting on the left side of the control unit named "well in". Place a corrugated sheet into the machine and press the "Production Start" button on the



same side as the yellow light. When the production cycle is finished take out the readymade pallet at the end of the machine.





Main Switch

The Main (Master) switch is placed bellow the control unit and is used to turn the machine on and off.



TO OPERATE THE PALLET MACHINE

Before start of manufacturing pallets

STEP 1 Turn on the MAIN POWER SWITCH placed under the control unit



STEP 3 Make sure the **DISPENSERS** are loaded with pallet feet



STEP 5 Start the MANUFACTURING PROCESS of pallets by PRESSING the START BUTTON located on the right side of the control unit



STEP 7 Finish up the manufacturing process by **PRESSING** the **START BUTTON** located on the left side of the control unit



STEP 2 Enter the display and press **OPERATOR**, then press **RESET** and **STARTAD**, the reset command should stop flashing



STEP 4

TO START MANUFACTURING PALLETS

STEP 6 When the trolley is loaded with pallet feet PUT IN THE CORRUGATED SHEET and use the FEEDING FENCE STOPPERS for placing the sheet in the right position



STEP 8 When the manufacturing process is completed, REMOVE THE READY PALLET and RESTART the machine to start the manufacturing process of the next pallet by using the START BUTTON located on the right side of the control unit



CHANGING SIZES OF PALLETS ON THE PALLET MACHINE

Executed only when the trolley is in home mode

STEP 1 Enter the display and select MENY, then select INSTÄLLNING

Schneider

MENY

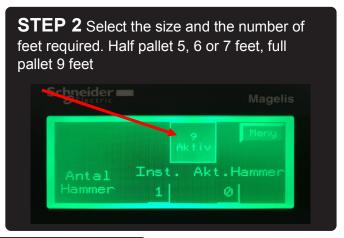
Operatör

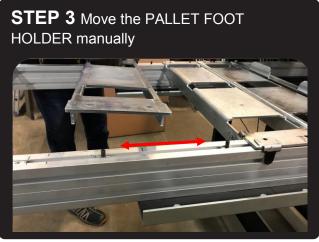
Språk

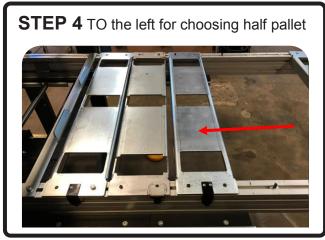
Alarm

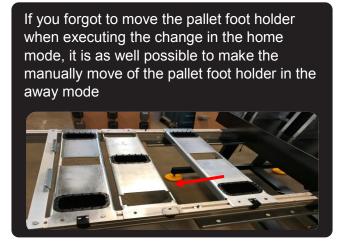
Service

System













Problems and solutions

- When you start the machine the first time of the day and the reset button flashes.
 Action/Solution: Make sure both emergency stop buttons (even the one on the other side) are in free mode.
- 2. To load the pallet foot dispensers. **Action/Solution**: Grab a complete row of pallet feet (37 pcs) from the box and load the dispensers from above.
 - 3. If the hammers get stuck during operation.

Action/Solution: Stop the machine with the emergency stop, check which hammer shank is blocked. Shake the hammer shank until it unlocks. If it still is blocked, manually rotate the engine with an insect wrench until it unlocks. Loosen up or tighten up the small nut (about 2 turns) that is located at the top of the hammer shank to avoid further deadlocks.

4. Trolley is not running

Action/Solution: Open the hatch of the control unit and check the inverter display, if it is signing E05 disconnect the power for 10 seconds then restart the machine. Enter the display on the control unit and check that no commands are flashing (RESET etc). Select SERVICE and drive the trolley to home mode, if the trolley still does not respond on commands, contact your qualified service technician.

5. The dispenser is not dispensing feet.

Action/Solution: When the machine is stopped, select SERVICE and run the FEET button. All three dispensers should then dispense feet after this has been done. Run the operation a couple of times. Drive the trolley to home mode and clean it from pallet feet. Enter the display and select OPERATOR then START. Then, start the machine with the black start button located on the side of the control unit. If the dispensers or the machine still does not respond on commands, contact your qualified service technician.

- 6. Motor of the hammer is not running **Action/Solution:** See paragraph no 3. If that is not the problem contact your qualified service technician.
- 7. Motor of the trolley is not running **Action/Solution:** See paragraph no 4.
- 8. Control unit is not showing signs in display **Action/Solution:** Touch the display with your finger, if display still not showing signs contact your qualified service technician.

Remark: Only qualified service technicians are allowed to execute repair work.

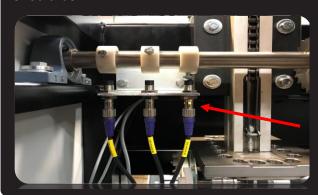
MOST COMMON OPERATING MISTAKE

Forgot to put the corrugated sheet into the pallet machine

STEP 1 PRESS the **EMERGENCY STOP** placed on top of the control unit



STEP 3 Check the **HAMMER SENSOR**, it should be **LIT**



STEP 5

If the sensor is still **NOT LIT**, call for a **TECHNICIAN**

STEP 6

To **PROCEED** if the sensor is **LIT**

STEP 8 EMPTY the TROLLEY from PALLET FEET



STEP 2 ENTER the display and press **OPERATÖR** then press **RESET** and **START**



STEP 4 If the hammer sensor is not **LIT**, enter the display and select **SERVICE**, then press commando **M2 HAMMER**, hold the command until the hammer stops itself. Then check that the hammer sensor is **LIT**.



STEP 7 Enter the display and press the command **M1 VAGNHEM**, keep pressing it until the trolley stops by itself in the **HOME MODE**



STEP 9 RESTART the pallet machine to manufacture a NEW PALLET by using the START BUTTON located on the RIGHT SIDE of the CONTROL UNIT



MOST COMMON OPERATING MISTAKE

Forgot to load the dispensers with pallet feet

When the **TROLLEY** arrives in the **POSITION: PUT IN THE CORRUGATED SHEET,** and it is **MISSING** some pallet feet in the loaded trolley



STEP 2 When the trolley is loaded with pallet feet **PUT IN THE CORRUGATED SHEET** and complete the manufacturing process of the pallet



STEP 1 Manually TAKE PALLET FEET from the DISPENSERS and PLACE them in the trolley where it is MISSING

STEP 3 PICK UP new pallet feet from the pallet feet box and **LOAD** the dispensers completely



STEP 4 When the manufacturing process is **COMPLETED** and the **DISPENSERS RELOADED**, **REMOVE** the ready pallet and restart the machine, to start the manufacturing process of the next pallet by using the **START BUTTON** located on the **RIGHT SIDE** of the **CONTROL UNIT**



MOST COMMON OPERATING MISTAKE

Forgot to remove the ready pallet

STEP 1 Press the **EMERGENCY STOPP**



STEP 3 Enter the display and press MENY, SERVICE, then press command M1 VAGN HEM, keep pressing it until the trolley stops by itself in the HOME MODE



STEP 2 Enter the display and press **OPERATÖR**, then press **RESET** and **START**



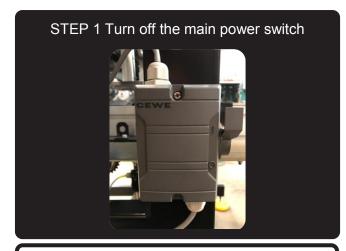
STEP 4 Continue at the display and select and press the command M3-5 FOT FRAMÂT once. The DISPENSERS will then kick out a pallet foot each and set itself into START MODE



STEP 5 REMOVE the ready pallet and restart the machine for manufacturing a new pallet by using the **START BUTTON** located on the **RIGHT SIDE** of the **CONTROL UNIT**



To check if the cylinders are synchronized on the dispensers



STEP 3 Retighten the screws so the gearwheel won't come off the dispenser



STEP 5 Insert the template tool into the slit on the cylinder and dispenser frame



STEP 2 Unscrew the protection shields of the dispenser



STEP 4 Turn the front cylinder so it is synchronized with the slit in the dispenser frame



STEP 6 Go to the back of the dispenser and check if the cylinders are synchronized, the template tool should fit into the slit on the cylinder and dispenser frame just as on the front cylinder.



STEP 7 If the template tool does not fit into the slit you have to adjust the cylinders. See description of adjustment of cylinders

Adjustment of cylinders

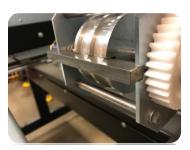
STEP 1 Remove the template tool



STEP 3 Unscrew the screws slightly



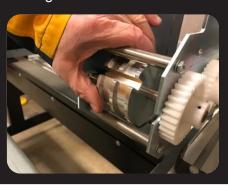
STEP 5 Adjust the loose front cylinder manually into position and insert the template tool into the slit of the cylinder and dispenser frame



Step 7 Retighten the screws on the front cylinder



STEP 2 Rotate the front cylinders manually so that you can get access to the screws.



STEP 4 Rotate the rear cylinder into position and insert the template tool into the slit of the cylinder and dispenser frame



STEP 6 Remove the template tool and turn the cylinders using the gearwheels on the outside to a position so that you can get access to the screws on the cylinder



STEP 8 Now, both cylinders should be synchronized. Make the test by inserting the tool templates into the slit on both the front and rear cylinder and dispenser frame at the same time.

If the template tools fits in both slits everything should be ok, please reattach the protection shields then make a try-out. Enter the display and select INSTÄLLNING then press M3-5 FOT FRAMÅT.

Guarantee

In every aspect you have to use original parts from Losotech for the machine in case of need. Also spare parts which have not been checked and released by Losotech cannot be used. In case you are not following such rules, Losotech rejects all liability for damages and/ or injuries which might arise in connection with not taking the correct parts or in general, when parts of the machine is handled improperly. Further it is not allowed that third-party manufacturers use their parts for the machine without having released the parts by Losotech. Also in case of non-observance this there is no guarantee /liability.

Disposal

In general you have to observe the official and local rules, policies and procedures regarding all kind of material in connection with the machine or the pallet which has to be disposed. In case of uncertainty please contact a waste- disposal company.

Closing remark

We are sure that you have made a good choice when deciding for the Losotech pallet system and we wish you a continuous good and safe production of Losotech pallets to the benefit of your company. Should you have any more questions or recommendations for us, please let us know.



LS&T Group AB

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Version 1 (English)

Date and place 2018-02-06 Borås, Sweden

INSTRUCTIONS AND IMPORTANT NOTES

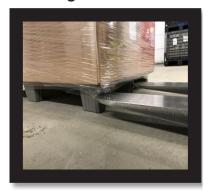
Only trained persons are **ALLOWED** to work with and at the pallet machine

NEVER try to repair or change the machine yourself if any defects occur. Always inform the supervisor / team leader immediately

Do not **USE** pallets with loose feet or damaged corrugated board. In case of doubt, show it to the supervisor or team leader and ask him, what to do



DO NOT PUSH the finished packed pallet with the forklift-forks over the ground of the truck. Also ensure that the pallet is properly LIFTED when loading it into the truck so that the pallet feet are not breaking off.





LOSOTEC

When loading packed products onto pallet, always place a wooden board on the front face of the pallet, to be able to stand on the pallet. DO NOT STAND ON THE PALLET WITHOUT A WOODEN BOARD



Only handle corrugated cardboard sheets with **SAFETY GLOVES**



If a machine breakdown occurs, immediately inform the TECHNICAL TEAM in person or by telephone