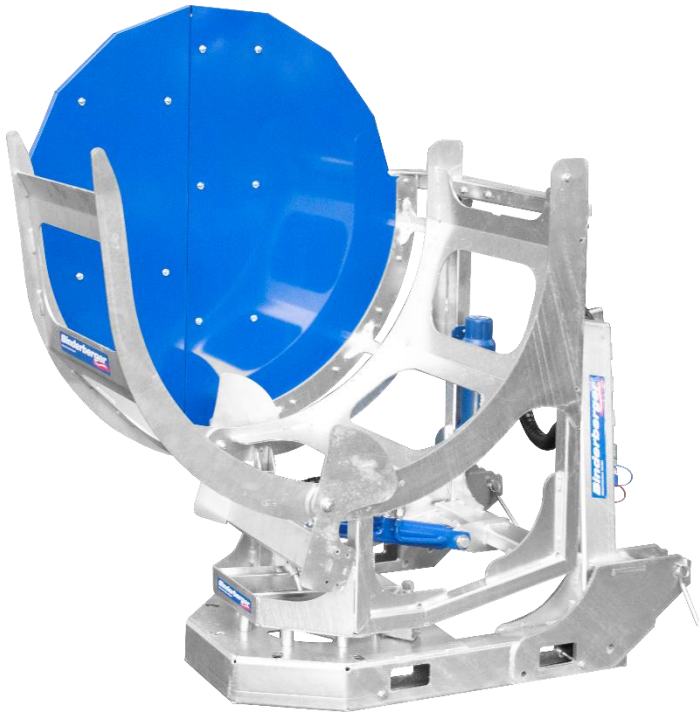


Bundling device



Original Operator's Manual Copyright by Binderberger GmbH



Read the operating instructions carefully before
commissioning the machine!

This manual is valid for:

Model	Article number
Bundling device ECO 1.0m	MS-Z3B-7
Bundling device ECO 1.4m	MS-Z3B-8
Bundling device PRO 1.0m	MS-Z3B-1
Bundling device PRO 1.4m	MS-Z3B-2

Version of this manual: 3.0

Creation date: 2021-05

Table of Content

1	EC Declaration of Conformity	4
2	Safety instructions	5
2.1	Explanation of symbols	5
2.2	Pictograms and their meaning	6
2.3	General safety instructions	7
2.4	Intended use	7
2.5	Operator requirements	7
2.6	Modifications to the machine	8
2.7	Misuse and residual risks	8
3	Description of the machine	9
3.1	How it works	9
3.2	Overview	10
3.3	Parts declaration	10
3.4	Technical data	11
4	Transport of the machine	12
4.1	Safety instructions during transport	12
4.2	Transport journeys and journeys in public roads	12
4.3	Transportation with a tractor	13
4.4	Transport with the forklift	14
4.5	Set aside	14
5	Set up of the machine	15
5.1	Safety instructions for set up	15
5.2	Duties before starting work	16
5.3	Attachment to the tractor	16

5.4	Bundle device with log splitter	17
5.5	Connecting the hydraulic hoses.....	17
6	Operation	18
6.1	Safety instructions during operation	18
6.2	Important instructions during operation.....	19
6.3	Daily inspection.....	19
6.4	Functionality of the bundling device	20
7	Shut down	21
7.1	Safety instructions for decommissioning	21
7.2	Disconnect the hydraulic hoses	22
7.3	Unhitching the bundling device from the tractor.....	22
8	Maintenance	23
8.1	Safety instructions during maintenance	23
8.2	Notes when working on hydraulic equipment	25
8.3	Cleaning	25
8.4	Changing the hydraulic hoses	25
8.5	Maintenance scheme.....	26
8.6	Lubricating the bundling device.....	26
8.7	Duties before finishing work.....	27
9	Help in case of malfunctions.....	28
9.1	Safety instructions	28
10	Guarantee and Warranty	29
11	Conduct when dealing with accidents	30

1 EC Declaration of Conformity

We hereby declare that the various technical versions of the machine:

Designation: Bundling device
Type: BG 1,0 rm / BG 1,4 rm
Serial number: _____

comply with the provisions of the Machinery Directive 2006/42 / EC and the other related standards.

The machine mentioned meets the requirements of the EMC Directive 2004/108 / EC and the Low Voltage Directive 2006/95 / EC.

The accompanying safety regulations and operating instructions apply to these machines.

The machines must not be modified. If changes are made to the machine that have not been agreed with us, this declaration becomes invalid.

The following named place

- has carried out the type examination. The product has received the EC type examination under the number _____.
- has carried out the EC type-examination procedure specified in Annex IX of 2006/42 / EC.

Notified checkplace for type examination according to Annex IX

The following is the name and address of the person authorized to compile the technical documentation.

CEO Karl Binderberger
Binderberger Maschinenbau GmbH
Fillmannsbach 9
AT-5144 St. Georgen am Fillmannsbach


2 Safety instructions


2.1 Explanation of symbols

Please pay attention to the meaning of the following symbolic explanations and instructions description. They are divided into levels of risk and classified in accordance with ISO 3864- 2

DANGER	
	<i>Indicates an immediate threat of danger. If the information is not followed, death or serious bodily injury (invalidity) is the result.</i>

WARNING	
	<i>Indicates a potentially dangerous situation. If the information is not followed, death or serious bodily injury (disability) are the result</i>

CAUTION	
	<i>Indicates a potentially dangerous situation. If the information is not followed, material damage as well as minor or moderate physical injuries are the result.</i>

NOTICE	
	<i>Indicates general instructions, useful operator instructions and working recommendations that have no influence on the safety and health of personnel.</i>

2.2 Pictograms and their meaning

	<p>Read the operating instructions carefully before commissioning!</p> <p>Earmuffs and safety goggles must be worn during operation!</p> <p>Wear safety shoes (with steel toecap) during operation!</p> <p>Gloves must be worn during operation.</p> <p>Warning of hot media</p> <p>Warning against rotating parts</p> <p>Warning against drawing in</p> <p>Warning of danger of crushing</p>
	<p>Switch off the machine before maintenance work and secure it against being switched on again.</p> <p>Machine may only be serviced by one person</p> <p>Let the machine cool down before maintenance work</p>
	<p>Lubrication point</p>

2.3 General safety instructions

The machine may only be operated by people who are trained, instructed and authorised for its use. These people must know the operating instructions and act in accordance with them. The respective competences of the operating personnel are clearly defined.

Operating personnel undergoing training may only initially work with the machine under the supervision of an experienced person. The completed and successful instruction is to be confirmed in writing.

2.4 Intended use

The bundling unit is designed exclusively for bundling firewood.

All other forms of usage do not comply with the intended use. The manufacturer is not responsible for any personal injury or material damage that originates from non-compliant usage, but rather the operator of the machine is!

The reading of this manual as well as the observance of all instructions contained within it, particularly the safety instructions, also comply with the intended use. Also included is the fact that all inspection and servicing work is to be conducted in the prescribed time intervals.

2.5 Operator requirements

No special knowledge of mechanical or electrical engineering is required to operate the machine. However, the operator must be at least **18 years** old. The operator must be trained and instructed accordingly by the operator of the machine before starting work for the first time (see General safety regulations). Protective shoes and close-fitting clothing must be worn when operating the machine.

If the operator carries out maintenance and servicing work, he must have the necessary specialist knowledge.

2.6 Modifications to the machine

For safety reasons, no unauthorised modifications may be made to the machine; this applies in particular to welding work on load-bearing parts.

Only use original spare parts / original wear parts / original accessories - these parts are specially designed for the machine. In the case of externally sourced parts, there is no guarantee that they are designed and manufactured to withstand stress and safety.

Parts and special equipment not supplied by us are also not approved by us for use on the machine.

2.7 Misuse and residual risks

Despite correct application of all safety instructions for the machine, residual risks can still occur. These usually result from misuse of the machine.

- Touching rotating or moving components
- Injury from falling wooden or machine parts.
- Fire hazard due to inadequate ventilation of the engine
- Hearing damage from working without hearing protection
- Human error:
 - Mental overload
 - Excessive physical exertion
 - Entering a danger zone
 - Distractions
 - Neglected control activities

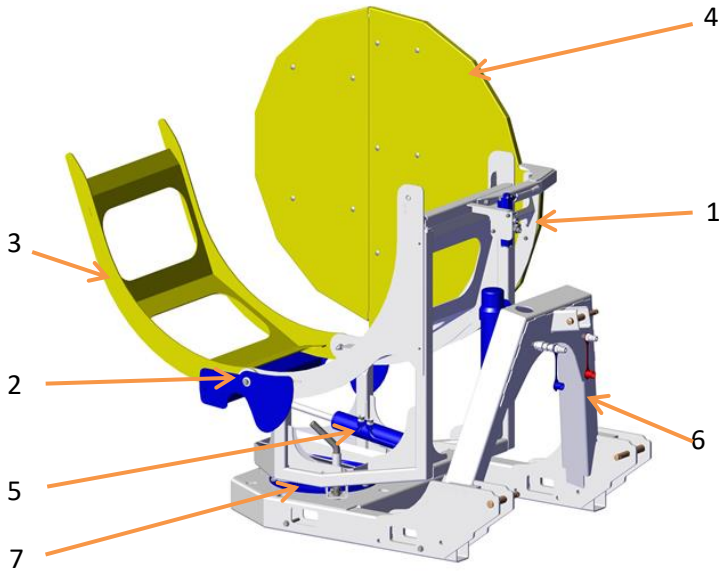
3 Description of the machine

3.1 How it works

The bundling device is used for bundling metre-long logs. The dumping mechanism is hydraulic. The hydraulic circuit can be driven either by the tractor hydraulics or the hydraulics on the splitter.

The bundling device may only be used, serviced or maintained by persons who are familiar with it and have been informed about the dangers.

3.2 Overview



3.3 Parts declaration

Number	Description
1	Basic frame
2	Joint
3	Swivel arm
4	Wood stopping plate
5	Cylinder
6	Three-point hitch
7	Turntable (Pro machines only)

3.4 Technical data


Type	Eco 1,0m	Eco 1,4m	Pro 1,0m	Pro 1,4m
Weight*	240 kg	250 kg	250 kg	260 kg
Bundle size*	Ø1,2m ≈ 0,8fm**	Ø1,4m ≈ 1fm**	Ø1,2m ≈ 0,8fm**	Ø1,4m ≈ 1fm**
Transport	Three-point hitch			
Rotation range	Not turn able		180°	
Drive	Tractor hydraulics			
Max. operating pressure	190 bar			
Working dimensions L x W x H*	228x96x180 cm	228x96x198 cm	201x96x180 cm	201x96x198 cm

*... the dimensions and weights given are approximate values

** ...fm = Solid cubic metres

4 Transport of the machine

4.1 Safety instructions during transport

WARNING	
	<p style="text-align: center;"><u>Risk of injury during transport!</u></p> <ul style="list-style-type: none">• Make sure that there are no persons in the danger zone and that a sufficient safety distance is kept!• Lubricants may have leaked out due to inclined positions during transport; there is a risk of chemical burns in case of direct contact with the skin!• The machine may only be lifted at the intended holding points!

4.2 Transport journeys and journeys in public roads

Before transporting the machine, all points of decommissioning must be carried out.

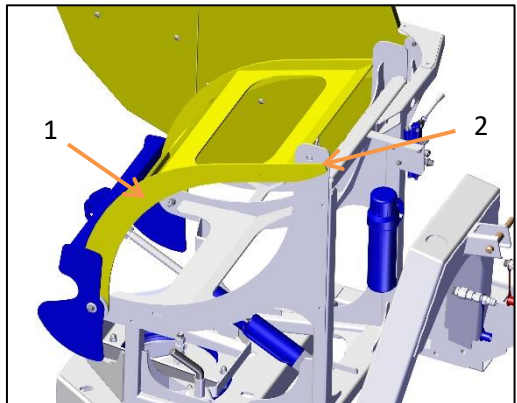
When driving on public roads, the national legal regulations must be observed!

When driving the vehicle, the driving speed must be adapted to the ground conditions. In this way you protect the bundling machine from strong vibrations which have an unfavourable effect on the connections.

4.3 Transportation with a tractor

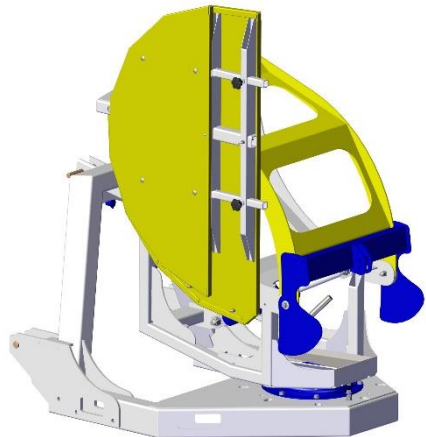
If the bundling device is hitched to the tractor and you also want to transport it with it, make sure that there are no parts on the machine that could fall down. Check that the bundling device is properly attached to the tractor's 3-point linkage.

After each hitching operation, check that the upper or lower link pins are secured with a cotter pin. In addition, the tractor must be designed for the total weight of the machine. Ensure that the swivel arm (1) is secured against folding down by the spring bolt (2).



When mounting on the splitter, select the following transport position:

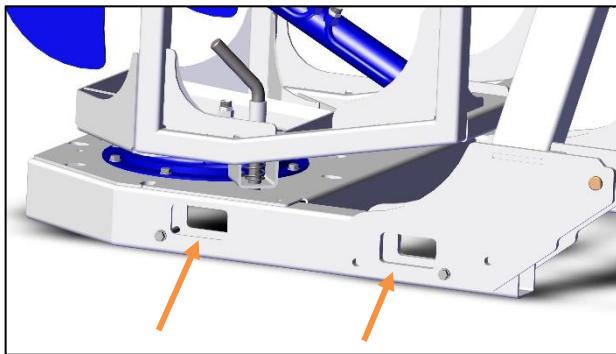
1. Retract the cylinder to the stop
2. Secure the swivel arms (1) with the spring lock (2).
3. Turn the removable rear panel by 180° and reattach it as shown in the picture.



4.4 Transport with the forklift

To lift the bundling device, insert the forks of the forklift under the two shaped tubes.

It is regulation to use these points and you must take into account the weight of the machine depending on the model. A suitable vehicle must therefore be used for lifting.




4.5 Set aside


- If the machine is not used for a longer period of time, all hydraulic cylinders must be retracted. Otherwise, there is a risk of flash rust.
- The bundling device should be cleaned and any damage to the paintwork repaired before the machine is parked.
- All lubrication points should be lubricated.
- Apply a thin layer of lubricant to areas that cannot be spot painted or lubricated.
- Clean and dry the hoses.
- Lower the pressure in the cylinders.
- The parking place should be cool and dry.

5 Set up of the machine

5.1 Safety instructions for set up

<h1 style="margin: 0;">WARNING</h1>	
	<p><u>Risk of injury if the machine is not set up correctly!</u></p> <ul style="list-style-type: none">• Always check the machine for transport damage before setting it up!• Set up the machine on a level and firm surface!• Ensure that no persons are endangered by the installation!• Lay the machine connections and hoses in such a way that there are no tripping hazards!• The machine may only be operated when in perfect condition!• Do not connect or disconnect pressurised hoses!• Hoses under pressure must not be routed into the operator's cab! If this is not possible, it must be ensured that the operator cannot be injured if the hose bursts!• Ensure that there are no persons between the machine and the tractor!

5.2 Duties before starting work

<h1>NOTICE</h1>	
	<p><u>Carry out the following activities before starting work:</u></p> <ul style="list-style-type: none">• Assembly and connection must be carried out according to the instructions.• Check all hoses, couplings, bolts and screw connections for tightness before starting work.

5.3 Attachment to the tractor

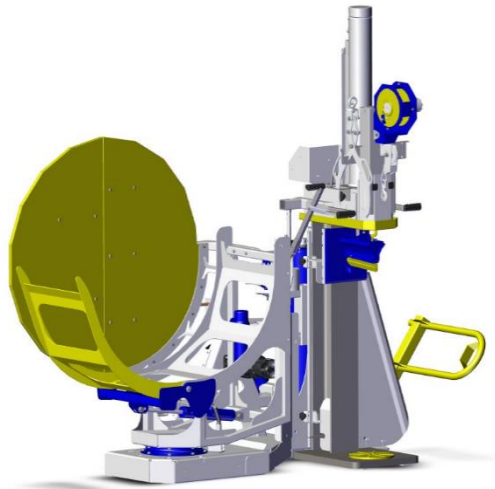


Reverse the tractor to the bundling device and hitch it to the three-point linkage. Check that the pins are secured with a cotter pin.

5.4 Bundle device with log splitter

Wooden bundle units that are delivered together with a splitting unit are connected to each other by a special receptacle. On the back, in the middle of the two units, is the three-point attachment.

In this case, follow the instructions for the wood bundler as well as those for the respective log splitter.



5.5 Connecting the hydraulic hoses


(Bundling device hydraulic)


Connect the line of the bundling device to a double-acting control unit on the tractor.


Use only the hoses supplied with the bundling device.

6 Operation


6.1 Safety instructions during operation

DANGER	
	<p><u>Risk of injury from being caught or pulled in on moving machine parts!</u></p> <ul style="list-style-type: none">• Keep a sufficient safety distance from moving machine parts!

WARNING	
	<p><u>Risk of injury when operating!</u></p> <ul style="list-style-type: none">• Make sure that only the operator is at the control panel.• That no other persons are in the danger zone and that a sufficient safety distance is maintained!• Ensure that the machine is in a safe position!• Ensure that there are no persons between the machine and the tractor!

CAUTION	
	<p><u>Risk of injury</u></p> <ul style="list-style-type: none">• Wear protective gloves and safety shoes with steel toecaps.• Remove all parts that do not belong to the machine from its surroundings. (risk of tripping)

6.2 Important instructions during operation

<h1>NOTICE</h1>	
	<ul style="list-style-type: none">• The operating personnel must ensure that no unauthorised persons are in the working area of the machine.• Before switching on the machine, inform yourself about the correct behaviour in case of malfunctions.• Before switching on the machine, carry out the points listed in the chapter "Duties before starting work".• After switching off the machine, always carry out the work steps in the following chapter "Decommissioning".• If the operator leaves the machine unattended, it must be shut down and secured against unauthorised restarting.

6.3 Daily inspection

Visually inspect the unit. Look for faults and defects that could have an influence on safety. Any faults and defects must be rectified.

- Make sure that there are no leaks in the hydraulics.
- Make sure that there are no damaged hoses or cables
- Look for cracks and damage in the base frame.

6.4 Functionality of the bundling device


The log bundler is operated hydraulically via a double-acting control unit of the tractor or the hydraulic circuit of the splitter. The metre logs are stacked and bundled between the base frame and the swivel arms. The stack can then be hydraulically lowered to the ground.


1. Place the bundling device in working position on a level and firm surface.
2. Pile the split metre-long wood into the bundling device until it is full.
3. Place two tension belts around the bundle. (Distance to the outer edge min. 15cm).
4. Now close the tensioning belts and tighten them using the ratchet.
5. Operate the double-acting control unit on the machine and swing the arms down.
6. Remove the bundle of wood next to the machine.
7. Return the arms to their original position.




7 Shut down

7.1 Safety instructions for decommissioning

DANGER	
	<p><u>Risk of injury from being caught or pulled in on moving machine parts!</u></p> <ul style="list-style-type: none">• After parking, wait until all moving machine parts have come to a standstill!• Keep a sufficient safety distance from moving machine parts!

WARNING	
	<p><u>Risk of injury when shutting down</u></p> <ul style="list-style-type: none">• Make sure that there are no persons in the danger zone and that a sufficient safety distance is kept!• Do not stand under suspended loads, they may fall down!• Make sure that there are no persons between the machine and the tractor!

<h2 style="margin: 0;">WARNING</h2>	
	<p><u>Risk of injury when switching on the machine by unauthorised persons!</u></p> <ul style="list-style-type: none">• Secure the machine after operation against unauthorised switching on!• When leaving the workplace of the machine for a longer period of time, disconnect the power source.

7.2 Disconnect the hydraulic hoses

When you have finished the work, switch off the tractor.

Switch on the double-acting valve on the tractor so that the lines are depressurised. Now you can disconnect the hoses of the bundling device.

7.3 Unhitching the bundling device from the tractor


Park the bundling device on a level and firm surface.


Park the tractor and remove the three-point linkage pins.

Now drive the tractor away from the bundling device.

8 Maintenance

8.1 Safety instructions during maintenance

<h1>DANGER</h1>	
	<p><u>Serious risk of injury from switching on the drive during maintenance work!</u></p> <ul style="list-style-type: none">• Switch off the machine!• Secure against being switched on again!• Disconnect from power source

<h1>CAUTION</h1>	
	<p><u>Caution: Lubricant!</u></p> <ul style="list-style-type: none">• Use suitable collection containers.• Remove spilled oil immediately.• Avoid contact with skin and eyes.• Do not swallow or inhale.• Use suitable protective equipment (gloves, goggles).• Take care that no oil gets into the environment.• Spilled oil pollutes water bodies and groundwater.

HINWEIS



- Replace all machine parts that are not in perfect working order immediately.
- Only use original spare parts.
- Ensure that suitable collection containers are available for all substances hazardous to groundwater (oils, coolants, etc.).
- Use only the specified operating materials.
- Self-locking bolts and nuts must always be renewed.
- All operating materials and lubricants that are not reused must be disposed of in an environmentally friendly manner.
- Installing the wrong spare parts or wearing parts can cause serious damage to the machine.
- There is a risk of fire during welding work. Keep fire extinguishers ready.
- Improperly routed cables can cause braising and cable fires.
- Never release the machine for operation without the factory-provided safety devices.
- It is strictly forbidden to remove safety notices affixed to the machine.
- Replace the information stickers on the machine if they are no longer legible.
- Always observe the warning notices located on the machine. They help to avoid hazards.
- Do not carry out any repairs if you do not have the necessary qualifications.

8.2 Notes when working on hydraulic equipment

All work on the hydraulic equipment of the machine may only be carried out by trained specialists.

- Depressurise all hydraulic systems and parts before starting work.
- Before starting work, ensure that suitable collection containers are available for all substances hazardous to groundwater (oils, coolants, etc.).

8.3 Cleaning

After each operation and before each maintenance, the machine must be cleaned of dirt!

After each cleaning with water, the log splitter must be lubricated!

8.4 Changing the hydraulic hoses

All hydraulic hoses must be replaced after 5 years.

Otherwise, damage to the hoses can cause serious injuries.

8.5 Maintenance scheme

Regular maintenance is the best guarantee that your machine will work effectively and economically. The belt conveyor has already been carefully tested and adjusted at the factory.

8.6 Lubricating the bundling device

It is more expedient to lubricate more often instead of using a lot of lubricant at once. Damaged grease nipples should be replaced.

There are grease nipples on the turn table that should be lubricated every 50 hours.

It is also recommended to lubricate the moving parts such as the swivel arm, joint and cylinder.

Warning!

If, for example, the lubrication channel of an axle journal or bearing housing becomes clogged and the grease therefore cannot penetrate, stop operation and clean the lubrication channel.


8.7 Duties before finishing work


After completing the maintenance work and before starting the machine, observe the following points:


- Check all previously loosened screw connections for tightness.
- Check that all previously removed guards, covers, container lids, are properly reinstalled.
- Make sure that all tools, materials and other equipment used have been removed from the work area.
- Cleaning the work area
- Ensure that all safety devices of the machine are working properly again.
- Check the function of the safety devices. Do not release the machine for use if the safety devices are not functioning properly.
- Carry out a test run with a function check of the repaired components.
- Secure the machine against unauthorised switching on if you have not completed the work.
- Do not handle naked flames or smoke.

9 Help in case of malfunctions

9.1 Safety instructions

DANGER	
	<p><u>Serious risk of injury from switching on the drive in the event of a malfunction!</u></p> <ul style="list-style-type: none">• Switch off the machine!• Secure against being switched on again!

CAUTION	
	<p style="text-align: center;"><u>Crushing hazard</u></p> <ul style="list-style-type: none">• There is a crushing hazard at various points on the machine

CAUTION	
	<p><u>Danger of burns due to contact with lubricants!</u></p> <ul style="list-style-type: none">• Avoid skin and eye contact.• Do not swallow or inhale.• Use suitable protective equipment (gloves, goggles).

If faults cannot be eliminated, please contact your specialist dealer! He will be happy to help you.

10 Guarantee and Warranty

Guarantee Terms 950601:

The Binderberger Maschinenbau GmbH company provides a guarantee for a period of two years on parts that fail to fulfil their intended purpose as the result of material defects or production errors.

A one-year guarantee is provided by our suppliers on goods procured by us, such as cylinders, hoses and valves. The guarantee comes into force with the delivery date.

The guarantee does not cover failures that are due to normal wear, inattentiveness, incorrect use and incorrect assembly. Hydraulic hoses and couplings are excluded from the guarantee.

Costs that originate within the scope of the guarantee procedure for detaching, assembly and delivery are not refunded. The fault should be repaired upon the mutual arrangement of the customer, the appointed dealer and the Binderberger company. The fault should be repaired following a mutual arrangement between the customer, the appointed dealer and the Binderberger company.

For this, the model of the machine, the production number, the delivery date and the name of the owner, as well as the address, must be indicated. For this, the model of the machine, the production number, the delivery date and the name of the owner as well as the address must be presented.

The guarantee is invalid if the machine deviates from the original implementation, e.g., due to changes, set-up, additional constructions or the replacement of parts that have not been delivered by us. Otherwise, the NL92 delivery regulations are valid

11 Conduct when dealing with accidents

Routinely find out at regular intervals what first aid facilities are available. Inform your supervisor immediately - after the initial treatment of injured persons - in the event of accidents involving personal injury, damage to equipment or damage to buildings.

State the severity of personal injury and property damage for the targeted deployment of rescue vehicles.

In the event of a disaster (fire, ...), leave the machine immediately.

Note

In the pursuit of technical advancement, Binderberger Maschinenbau GmbH continually works to improve its products. We reserve the right to make changes from the illustrations and descriptions in this operating manual/replacement parts list. This cannot give rise to any claim to changes on machines that have been already delivered. The technical data, dimensions and weights are not binding.

Errors excepted.

Dealer's stamp

Name plate:



Maschinenbau GmbH
Fillmannsbach 9
A-5144 St. Georgen am Fillmannsbach
Phone: +43 / 7748 / 8620
Fax: +43 / 7748 / 8620 – 20
office@binderberger.com
www.binderberger.com