

# Log splitter vertical



**Original Operator's Manual** Copyright by Binderberger GmbH



**Read the operating instructions carefully before  
commissioning the machine!**

**This manual is valid for:**

| <b>Model</b> | <b>Article number</b> |
|--------------|-----------------------|
| H12 Z Eco    | MS-M12E-1             |
| H12 E Eco    | MS-M12E-2             |
| H12 EZ Eco   | MS-M12E-3             |
| H20 Z Eco    | MS-M20E-1             |
| H20 E Eco    | MS-M20E-2             |
| H20 EZ Eco   | MS-M20E-3             |
| H27 Z Eco    | MS-M27E-1             |
| H27 E Eco    | MS-M27E-2             |
| H27 EZ Eco   | MS-M27E-3             |

| <b>Model</b>       | <b>Article number</b> |
|--------------------|-----------------------|
| H12 Z Super Speed  | MS-M12S-1             |
| H12 E Super Speed  | MS-M12S-2             |
| H12 EZ Super Speed | MS-M12S-3             |
| H20 Z Super Speed  | MS-M20S-1             |
| H20 E Super Speed  | MS-M20S-2             |
| H20 EZ Super Speed | MS-M20S-3             |
| H27 Z Super Speed  | MS-M27S-1             |
| H27 E Super Speed  | MS-M27S-2             |
| H27 EZ Super Speed | MS-M27S-3             |

**Version of this manual:** **10.0**

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## **1 EC Declaration of Conformity**

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

Designation: Short log splitter  
Type: H12 / H20 / H27  
Serial number: \_\_\_\_\_

comply with the provisions of the Machinery Directive 2006/42 / EC, the EN609-1 and the other related standards.

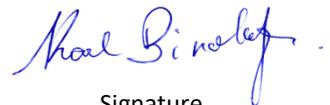
The accompanying safety regulations and operating instructions apply to these machines.

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 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

St. Georgen am Fill., 20.05.2015  
Place, Date

  
Signature

## 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

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

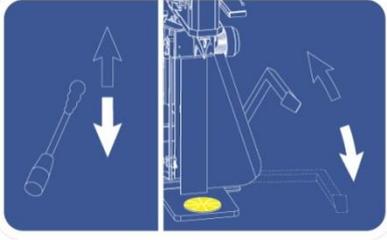
| <b>WARNING</b>  |  |
|---|--|
|  | <i>Indicates a potentially dangerous situation.<br/>If the information is not followed, death or serious bodily injury (disability) are the result</i> |

| <b>CAUTION</b>  |  |
|---|--|
|  | <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> |

| <b>NOTICE</b>   |   |
|---|---|
|  | <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>The machine may only be operated by one person</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>Risk of injury due to tripping</p>                 |
|   | <p>Risk of injury due to slipping</p>                 |
|   | <p>Lubrication points</p>                             |
|  <p><b>Vor Arbeitsbeginn Griffschrauben festziehen!</b><br/> <b>Before starting work tighten the handwheel bolts!</b></p> | <p>Tighten the handle screws before starting work</p> |
|   | <p>Load hook attachment</p>                           |
|    | <p>Function of the hydraulic log lifter</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 splitter is designed exclusively for splitting 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 firewood splitter is hydraulically driven. The hydraulic circuit is driven by an electric motor or power take-off pump.

The log splitter is started by operating the safety two-hand control. To start the splitting process, both hand levers must be pulled down. As soon as one or even both handles are released, the splitting tool stops. If both handles are pressed upwards until they engage, the splitting tool moves back to its starting position.

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



### 3.2 Technical data

| Type                            | H12 Eco   | H20 Eco | H27 Eco | H12 Super Speed | H20 Super Speed | H27 Super Speed |
|---------------------------------|-----------|---------|---------|-----------------|-----------------|-----------------|
| Splitting pressure [t]          | 12 t      | 20 t    | 20 t    | 12 t            | 20 t            | 27 t            |
| Weight [kg]                     | 320kg     | 550kg   | 600kg   | 350kg           | 550kg           | 650kg           |
| Tractor power [kW]              | 20 kW     | 30 kW   | 30 kW   | 20 kW           | 30 kW           | 30 kW           |
| E-motor power [kW]              | 5,5kW     |         |         | 5,5kW           | 5,5kW           | 9,2kW           |
| Voltage [V]                     | 380V      |         |         | 380V            |                 |                 |
| Current [A]                     | 16A       |         |         | 16A             | 16A             | 32A             |
| Noise level                     | 70 dB (A) |         |         |                 |                 |                 |
| Max Log length                  | 1150 mm   |         |         |                 |                 |                 |
| Min. log diameter               | 100 mm    |         |         |                 |                 |                 |
| Max. log diameter               | 1000 mm   |         |         |                 |                 |                 |
| Engine speed<br>E-Motor [U/min] | 1450 rpm  |         |         |                 |                 |                 |
| PTO shaft speed [rpm]           | 540 rpm   |         |         |                 |                 |                 |

## 4 Transport of the machine

### 4.1 Safety instructions during transport

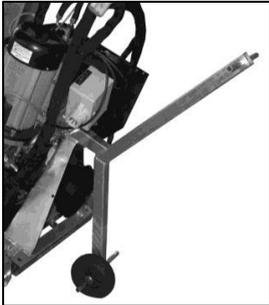
| <b>WARNING</b>  |  |
|---|--|
|  | <p style="text-align: center;"><u><b>Risk of injury during transport!</b></u></p> <ul style="list-style-type: none"><li>• Make sure that there are no persons in the danger zone and that a sufficient safety distance is kept!</li><li>• Lubricants may have leaked out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

## 4.2 Transport journeys and journeys in public roads

For the time being, follow the instructions for decommissioning.

- If you want to transport the log splitter, make sure that it is properly fastened and secured to your vehicle.
- Make sure that your vehicle is designed for the total weight of the splitter.
- When driving on public roads, the legal regulations must be observed!
- Make sure that all locks are properly attached.
- When driving the vehicle, the driving speed must be adapted to the ground conditions. In this way, the splitter is protected from strong vibrations, which can have an unfavourable effect on the joints.
- Be aware of reduced steerability due to the heavy weight.
- Pay attention to the total height when passing under bridges.

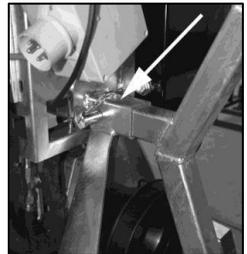
### 4.3 Manual transport H12 (only Super Speed Z, E, EZ)



For manual transport, the log splitter must first be disconnected from the tractor. Remove all tripping hazards from the transport area and ensure that the machine is in a good position.

For manual transport, the transport cart available as an accessory is also required.

For assembly, the adjustment bolt of the top link must be removed and the top link pulled out. Instead of the top link, the transport carriage is now fixed in the 3-point frame and secured with the bolt. Now you only have to take the log splitter by the handles and tilt it backwards. Now you can move it to any point.



#### 4.4 Transport with the transport eyelet

Transport using the transport eye is only intended for short transport distances or small changes of location.

For transport over longer distances, use the three-point.



If you want to lift the splitter by the drawbar, use a proper chain hanger or strap. The minimum load capacity must be 300kg higher than the dead weight of the entire log splitter with accessories.

For transport, hook the load lifting device to the transport eye.

Make sure that nobody is in the area of the log splitter when transporting it.

Make sure that there is not a strong swinging behaviour.

**Do not use damaged chain slings or belts.**

## 5 Set up of the machine

### 5.1 Safety instructions for set up

| <h1 style="margin: 0;">WARNING</h1>   |   |
|---|---|
|  | <p><b><u>Risk of injury if the machine is not set up correctly!</u></b></p> <ul style="list-style-type: none"><li>• Always check the machine for transport damage before setting it up!</li><li>• Set up the machine on a level and firm surface!</li><li>• Ensure that no persons are endangered by the installation!</li><li>• Lay machine connections and cables in such a way that there are no tripping hazards!</li><li>• The machine may only be operated when in perfect condition!</li><li>• Do not connect or disconnect pressurised hoses!</li><li>• Secure the PTO shaft guard against rotation</li><li>• Ensure that there are no persons between the machine and the tractor!</li><li>• Only work under sufficient lighting!</li><li>• In the event of a thunderstorm (possible lightning strike) do not use the machine under any circumstances!</li><li>• Before working with the log lifter or winch, the splitter must be properly attached to the tractor's three-point linkage.</li></ul> |

| <b>CAUTION</b>  |  |
|---|--|
|  | <p style="text-align: center;"><u><b>Cardan shaft</b></u></p> <ul style="list-style-type: none"><li>• Secure the PTO shaft guard against rotation</li><li>• A cardan shaft with type BG4 must be used.</li></ul> |

## 5.2 Duties before starting work

| <b>NOTICE</b>   |  |
|---|--|
|  | <p><u><b>Carry out the following steps before starting work:</b></u></p> <ul style="list-style-type: none"><li>• Assembly and connection must be carried out according to the instructions.</li><li>• Check all hoses, couplings, bolts and screw connections for tightness before starting work.</li><li>• If the outside temperature is below 0° Celsius, allow the machine to idle for approx. 10 minutes without load.</li></ul> |

### 5.3 Connecting the PTO shaft

(Log splitter Z and E-Z)

Drive the tractor in front of the log splitter and hitch it to the tractor's three-point linkage.

Park the tractor. Now you can connect the splitter and the tractor to the PTO shaft.

It is recommended to operate the machine with a PTO speed of 440 rpm.



**A cardan shaft of type BG4 must be used.**

**The PTO shaft guard must be secured against rotation.**

### 5.4 Electrical supply line

(Log splitter E and E-Z)

The fuse and dimensioning of the electrical supply line must be selected by a qualified electrician in accordance with national standards and depending on the length of the line!

Connect the 5-pole CEE 400V/16A supply cable to the plug.

**Never carry out work on electrical equipment if you do not have the necessary expertise!**

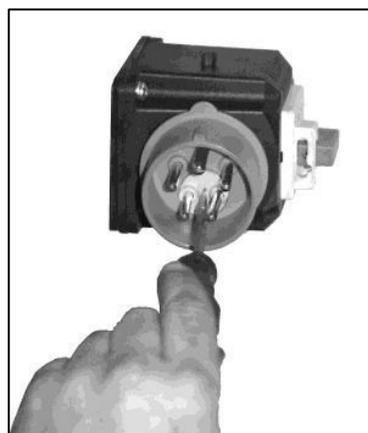
### 5.5 Check direction of rotation of motor

(Log splitter E and E-Z)

Switch on the motor only briefly and check the direction of rotation on the fan blades of the motor. The correct direction of rotation is indicated by the sticker on the fan cover of the motor. If the direction of rotation is not correct, disconnect the supply line to the log splitter.



There is a phase inverter in the plug with which you can change the direction of rotation of the motor (press the disc in the plug in with a screwdriver and turn it 180°).



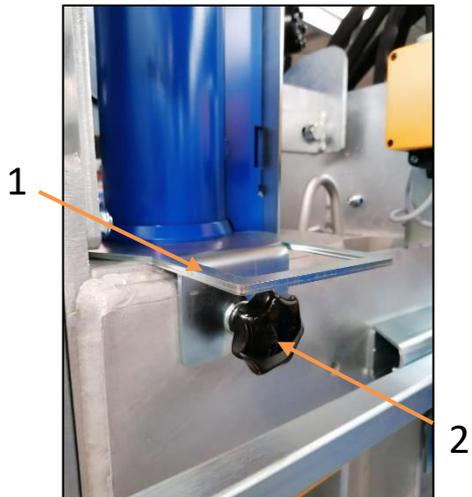
## 5.6 Move cylinder to working position

To reduce the height, the metre splitters are built in such a way that you can retract the entire cylinder (transport position).

To convert to the working position, start the machine and extend the cylinder. To extend the cylinder, pull both hand levers down. As soon as the cylinder approaches its end position, slacken one lever slightly to reduce the cylinder speed and facilitate the cylinder's run-in into its centring.

When the cylinder has reached its end position, the retaining plates (1) can be inserted and fastened with the handle screws (2).

Now the splitting cylinder can be retracted again.



## 6 Operation

### 6.1 Safety instructions during operation

| <b>DANGER</b>   |   |
|---|---|
|  | <p><b><u>Risk of injury from being caught or pulled in on moving machine parts!</u></b></p> <ul style="list-style-type: none"><li>• Keep a sufficient safety distance from moving machine parts!</li><li>• Do not reach into the splitting area during the splitting process.</li></ul> |

| <b>WARNING</b>  |  |
|---|--|
|  | <p><b><u>Risk of injury when operating!</u></b></p> <ul style="list-style-type: none"><li>• Make sure that only the operator is at the control panel.</li><li>• Familiarise yourself with the controls of the log splitter!</li><li>• Ensure that the machine is in a safe position!</li><li>• Ensure that there are no persons between the machine and the tractor!</li><li>• Before working with the log lifter or the cable winch, the splitter must be properly attached to the three-point linkage of the tractor.</li><li>• All parts that do not belong to the machine must be removed from its vicinity.</li><li>• Wear protective gloves and safety shoes with steel toecaps.</li></ul> |

## 6.2 Important notes during operation

| <h1>NOTICE</h1>   |  |
|---|--|
|  | <ul style="list-style-type: none"><li>• The operating personnel must ensure that no unauthorised persons are in the working area of the machine.</li><li>• Before switching on the machine, inform yourself about the correct behaviour in case of malfunctions.</li><li>• Before switching on the machine, carry out the points listed in the chapter "Duties before starting work".</li><li>• After switching off the machine, always carry out the work steps in the following chapter "Shut down".</li><li>• If the operator leaves the machine unattended, it must be switched off and secured against unauthorised restarting.</li><li>• Pay strict attention to the safety distance when working under power lines. No part of the machine may come closer than the specified safety distances:<ul style="list-style-type: none"><li>• For low-voltage lines: min. 2 metres</li><li>• For high-voltage lines: min. 6 metres</li></ul></li></ul> |

### 6.3 Functioning of the safety two-hand control

The splitting process can only be triggered by pressing both hand levers down. If only one hand lever is pressed down, no movement takes place. The same applies if one hand lever is released during the splitting process. The log splitters are equipped with 2 splitting speeds. However, it is not necessary to switch these with the hand levers, because the log splitters are equipped with Speed Control. This control automatically ensures that the fastest possible speed is used.

When the hand levers are released, the splitting wedge remains in its position. To return to the starting position, both hand levers must be pushed upwards, where they engage. The splitting wedge moves to its starting position and switches off upwards via the stroke length adjustment.



### 6.4 Stroke length adjustment

To adjust the splitting length of the log splitter, move the splitting wedge to the desired height by pressing the two hand levers. As soon as you have reached this height, release the hand levers. The splitting wedge remains in this position and you can adjust the stroke height setting on the left-hand side.

To do this, loosen the handle screw, move the switch-off angle up to the blade and tighten the handle screw again. Now the log splitter always switches off at this height position.



### 6.5 Splitting process for metre logs

Place the wood on the base plate and align it according to the desired split size.

By pressing the two hand levers, the splitting process is triggered and the wood is split.

As soon as the wood is split, both hand levers can be released. In order for the splitting wedge to move upwards again, both hand levers must be pressed upwards until they engage.

If the wood does not stop on the base plate by itself, turn it so that the wood falls towards the support.

In addition, it is possible to push the wood with momentum against the serrated edge below the blade. This fixes the wood against falling over. The splitting process can then be triggered. Should the case arise that a log cannot be split and it gets stuck, switch off the drive of the log splitter and remove the log. You can then try to split the log with half the blade length. This applies a higher splitting force to the wood.



### 6.6 Splitting process for short logs

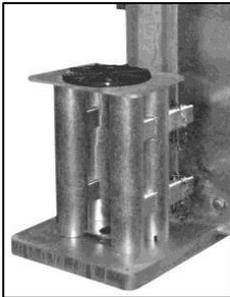
For short log splitting, a splitting table is required, which is available as an option for the log splitter. Fix the splitting table as shown in the following chapter.

Adjust the lower stroke length setting so that the knife cannot press on the splitting table.

Now the wood can be split in the usual way. Press both hand levers to start the splitting process and press both upwards to bring the knife into its starting position.

### 6.7 Attach splitting table for short logs (optional)

First remove the turntable from the base plate. This is easily done by placing a screwdriver on the edge of the turntable and lifting it up. Now it can be lifted out easily.

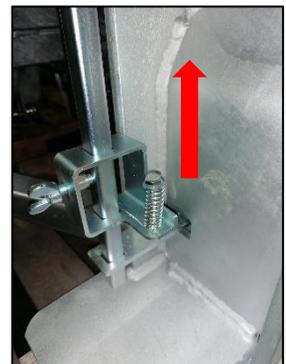


Then place the table on the base plate and hook it onto the left-hand side of the support. Then, on the right-hand side, insert the two fixing form tubes into the corresponding table openings and fix them with the enclosed bolt. The previously removed turntable can now be inserted into the hole in the splitting table.



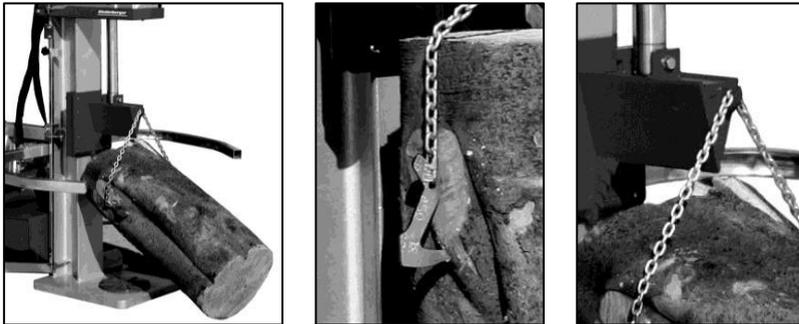
### **DANGER!**

Before splitting can begin, it is essential to adjust the lower lift height setting so that the splitting wedge cannot hit the table.



## 6.8 Log raising with a chain

In order to be able to place large pieces of wood effortlessly, it is possible to lift up the wood by means of the chain.



Move the cutter down far enough so that you can attach the log without any problems. The log must always lie at right angles to the machine and be hooked on the side close to the machine. To do this, the hooks on the left and right must be driven into the wood. The chain is then hooked onto the lowered blade.

For this purpose, there is a small hook on the front of the knife to which the chain is attached in the middle.

**The chain is only intended for setting up logs, lifting logs is prohibited.**

## 6.9 Mechanical log lifter

Larger logs can be easily lifted with the help of the side log lifter. To do this, the blade must be fully lowered. There is a screwed hook on the right side of the splitting wedge.

The chain link of the log lifter must be hooked onto this. Now all that remains is to roll the log onto the log-lifting arm and push the two hand levers upwards so that the blade, and thus the log, moves upwards.

If the log lifter is not needed, the chain link can be hooked into the middle section of the beam. This stops the log-lifting arm moving up and down with the blade.



### 6.10 Hydraulic log lifter (optional)

Large logs are very convenient to set up with the hydraulic log lifter. There are 2 variants available. Either the variant via the tractor's hydraulic system or via the power take-off shaft, where all functions of the log splitter are driven via the PTO shaft.

If the log splitter is driven via the tractor's hydraulics, a supply and a pressureless return line are required on the tractor side. With both variants, the log lifter is operated via its own control unit, which is mounted on the right-hand side of the log splitter above the 2-hand control.

When using the log lifter, it is only necessary to move the log lifting arm downwards via the control unit. The log is then rolled onto the log lifting arm and lifted via the control unit.

Make sure that the splitting wedge is in the uppermost position so that it does not collide with the log.



### 6.11 Cable winch (optional)

The winch can be used to pull large logs without any problems.

There are two variants to choose from:  
manual control via a separate control unit  
control via radio remote control

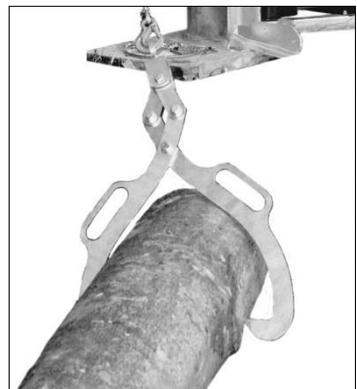
Note: For the cable winch with radio control, it is necessary to connect the electrical supply cable to the tractor!



It is absolutely necessary to check the cable for damage. Never work with a kinked or damaged cable!

To be able to pull out the cable, it is only necessary to briefly switch on the winch return. This disengages the drive and the cable can be pulled out without further ado. The winch is equipped as standard with a timber clamp. This is applied to the timber and the winch is switched to forward motion.

Special care must be taken to ensure that neither you nor other people are in the area of the rope. A sufficiently large safety distance must also be maintained.

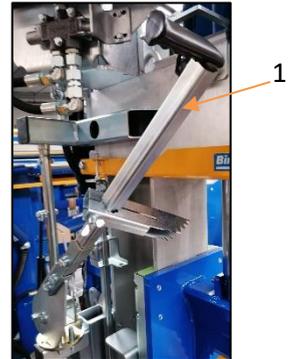


### 6.12 Working with the comfort control

To be able to hold the log in a set-up position without putting your own hand in the danger zone, a fixing lever (1) is fitted on the left side of the machine. The serrated tips provide a better grip on the wood.

When the lever is released, it automatically moves up again.

To trigger the splitting process, the fixing lever **MUST** press on the wood.



### 6.13 Clamping device

If you have a metre log splitter with a clamping device, this can be released via the small lever.

The splitting wedge drops down into the wood to be split. In this way, the firewood can be fixed in position.

The clamping device resets automatically during the splitting process.



### 6.14 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.

## 7 Shutdown

### 7.1 Safety instructions for decommissioning

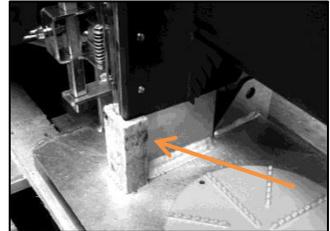
| <b>DANGER</b>   |   |
|---|---|
|  | <p><b><u>Risk of injury from being caught or pulled in on moving machine parts!</u></b></p> <ul style="list-style-type: none"><li>• After parking, wait until all moving machine parts have come to a standstill!</li><li>• Keep a sufficient safety distance</li></ul>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

| <b>WARNING</b>   |  |
|--|--|
|  | <p><b><u>Risk of injury when taking out of operation!</u></b></p> <ul style="list-style-type: none"><li>• Ensure that there are no persons in the danger zone and that a sufficient safety distance is maintained!</li><li>• Ensure that there are no persons between the machine and the tractor!</li><li>• Secure the machine after operation against unauthorised switching on!</li><li>• When leaving the workplace of the machine for a longer period of time, disconnect it from the power source.</li></ul> |

## 7.2 Move cylinder into transport position

To lower the cylinder for transport, you need a short piece of wood approx. 20 cm long. Place this next to the support of the log splitter.

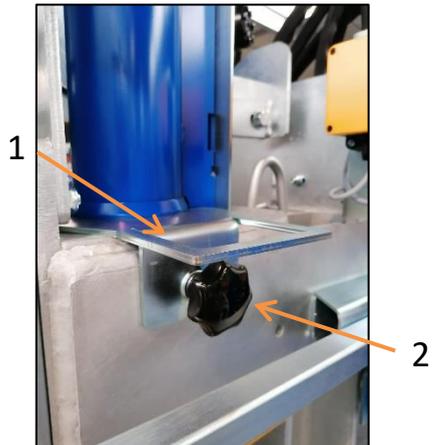
Then operate the two-hand control of the log splitter so that the splitting wedge moves downwards. As soon as the splitting wedge is supported by the piece of wood, you can release the hand levers.



Now remove the two handle screws (2) on the left and right of the cylinder and also the two-cylinder plates (1).

Push the two hand levers upwards. The cylinder retracts and thus lowers. As soon as the cylinder has reached its lowest point, stop the splitter with one of the hand levers and switch off the drive.

Now replace the two-cylinder plates and tighten the two handle screws.



## 8 Maintenance

### 8.1 Safety instructions during maintenance

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

| <h1>CAUTION</h1>  |   |
|---|---|
|  | <p><b><u>Risk of injury! Scalding by hot machine components and media!</u></b></p> <ul style="list-style-type: none"><li>• Allow the machine to cool down to ambient temperature before carrying out any maintenance work.</li><li>• Keep easily flammable material away from hot surfaces.</li></ul> |

| <h1>CAUTION</h1>  |  |
|---|--|
|  | <p style="text-align: center;"><b><u>Lubricants!</u></b></p> <ul style="list-style-type: none"><li>• Use suitable collection containers.</li><li>• Remove spilled oil immediately.</li><li>• Avoid contact with skin and eyes.</li><li>• Do not swallow or inhale.</li><li>• Use suitable protective equipment (gloves, goggles).</li><li>• Take care that no oil gets into the environment.</li></ul> |

## **8.2 Notes when working on electrical equipment**

All work on the electrical equipment of the machine may only be carried out by trained electricians.

- Check electrical equipment regularly.
- Reattach loose connections.
- Replace damaged lines or cables immediately.
- Never clean electrical equipment with water or similar liquids.

## **8.3 Notes when working on hydraulic equipment**

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

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

## 8.4 Cleaning

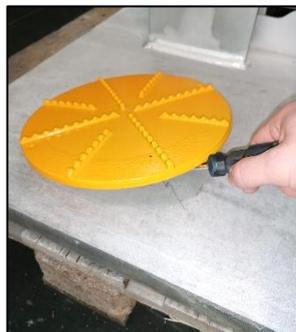
After each operation and before each maintenance, the machine must be cleaned of dirt!

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

### 8.4.1 Cleaning the turntable

At regular intervals it is necessary to clean and re-lubricate the turntable. To do this, you need a flat-blade screwdriver, which you place on the lower edge of the turntable and lift it with it. Now you can remove the turntable and clean it. The base plate should also be cleaned at the same time.

To lubricate it, spread some grease on the base plate with a brush and return the turntable to its bearing point.



## 8.5 Change hydraulic oil

The first oil change must be carried out after 50 operating hours.

Thereafter, the oil should be changed every 250 operating hours or at least once a year.

Use HLP 32, or equivalent hydraulic oil.

Make sure that a sufficiently large collection container is available.

To drain the hydraulic oil, unscrew the drain plug on the underside of the cylindrical tank and drain the oil. Once the oil has been drained, screw the drain plug back in using a new sealing ring. Now fill the tank with new hydraulic oil via the filler opening up to the upper third of the sight glass. After filling, start the log splitter and run the blade up and down a few times without wood. When the blade is in its upper position, check the oil level again at the sight glass and top up with more hydraulic oil if necessary.

## 8.6 Changing the oil filter

The oil filter on the log splitter is located at the top of the hydraulic valve. The filter must be changed for the first time after 50 operating hours. After that, the oil filter should be changed every 250 operating hours or at least once a year.

To do this:

1. Unscrew the outer filter sleeve
2. Replace filter cartridge
3. Check seal and replace if damaged
4. Screw the filter sleeve back on.
5. Check for leaks



### 8.7 Changing the hydraulic hoses

All hydraulic hoses must be replaced after 5 years.

Otherwise, damage to the hoses can cause serious injuries.

### 8.8 Maintenance time scheme

Regular maintenance is the best guarantee that your splitter will work effectively and economically.

|                   | 50h            | 1.st time after 50h | Thereafter every 250h or 1 time per year |
|-------------------|----------------|---------------------|--|
| I-Beam            | Lightly grease |                     |  |
| Turntable         | Lightly grease |                     |  |
| Oil change        |                | x                   | x  |
| Oil filter change |                | x                   | x  |

### **8.9 Duties before finishing maintenance**

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.
- Clean the work area and remove any spilled liquids and similar substances.
- Ensure that all safety devices of the machine are working properly again.
- Check the operation 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

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

| <b>CAUTION</b>  |   |
|---|---|
|  | <p><b><u>Risk of injury! Scalding by hot machine components and media!</u></b></p> <ul style="list-style-type: none"><li>• Allow the machine to cool down to ambient temperature before carrying out any troubleshooting.</li></ul> |

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

**9.2 Troubleshooting**

| <b>Error</b>   | <b>Cause</b>   | <b>Error correction</b>                                  |
|--|--|--|
| Splitting wedge does not extend  | Incorrect direction of motor rotation (electric drive)             | Change the direction of rotation with the phase inverter |
|  | Too little hydraulic oil in the system                             | Check oil level  |
| Engine does not run or switches off often  | Motor protection responds  | Supply line too weak                                     |
|  | Motor protection responds (motor hums)                             | Only two phases  |
|  |  | A plug has come loose on the phase inverter              |
|  | Faulty supply line   | Have the supply cable checked by a specialist            |
|  | Contactor or motor protection of the switch defective              | Have switch checked                                      |
| Motor covered or heavily soiled  | Clear or Clean motor ( <b>ATTENTION!!</b> Do not clean with water) |  |
| Engine gets hot and has no power   | Only two phases connected  | Have the supply cable checked by a specialist            |
| Splitting wedge blocked  | Wood too knotty  | Turn the wood  |
|  |  | Only split the wood half the length of the blade         |
|  | Gasket set leaking (only with very high operating hours)           | Replace gasket set                                       |
| Hydraulic hoses get hot  | Too little oil in the system                                       | Check oil level  |
|  | Old oil in the system  | Change the oil   |
| Hydraulic cylinder leaking   | Sealing sleeves worn   | Replace gasket set                                       |
|  | Piston rod damaged   | Replace piston rod                                       |
| <b>If the malfunctions cannot be eliminated according to the above instructions. Please contact your dealer! He will be happy to help you.</b> |  |  |

## **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 wheels, pumps 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**

As a matter of routine, ensure you have up-to-date information about available first aid options.

After the initial care of injured people, immediately inform your supervisor of any personal injuries, damage to the machine or material damages.

In the event of the specific use of emergency vehicles, state the severity of the injury and damage.

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





### **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: