

# Splitters for Short Logs

English translation of the original operating instructions

Copyright by Binderberger GmbH



**Carefully read these operating instructions  
before starting up the machine!**

These operating instructions are valid for:

Type	Article number
H6 E	KH-M6-1
H8 E	KH-M8-1
H8 EZ	KH-M8-2
H8 K Z	KH-M8K-1
H8 K E	KH-M8K-2
H8 K EZ	KH-M8K-3

Type	Article number
SP8 Z	KH-MSP-1
SP8 E	KH-MSP-2
SP8 EZ	KH-MSP-3

Version of this operating manual: Short Log Splitter 1.0

Release date:

2017-12

## Table of Content

1	Declaration of EC Conformity .....	6
2	Safety instructions .....	7
2.1	Meaning of symbols and hints.....	7
2.2	Meaning of icons .....	8
2.3	General safety instructions.....	10
2.4	Proper use .....	10
2.5	Required operator qualification .....	11
2.6	Technical modifications to the machine .....	11
3	Description of the machine .....	12
3.1	Operating mode.....	12
3.2	Overview.....	13
3.3	Technical data.....	15
4	Transporting the machine .....	16
4.1	Safety instructions concerning transport .....	16
4.2	Transport and driving on public roads.....	16
4.3	Manual transport.....	17
5	Installing the machine .....	18
5.1	Safety instructions concerning machine installation .....	18
5.2	Duties before starting operation .....	19
5.3	Electric supply (splitter types E and E-Z) .....	20
5.4	Check the motor's turning direction (E and E-Z types) ....	20
5.5	Coupling the PTO shaft drive (E and E-Z drives) .....	21

5.6	Prepare the SP8 type .....	22
5.7	Change the H8K type for processing meter logs .....	23
6	Operation.....	24
6.1	Safety instructions concerning operation .....	24
6.2	Important instructions concerning operation .....	26
6.3	Function of the two-hand safety handling .....	27
6.4	The movement range setting .....	27
6.5	Movement range setting for SP8 type .....	28
6.6	The splitting process (H6, H8, H8K types) .....	28
6.7	The splitting process (SP8 type) .....	29
6.8	Splitting process for meter logs (H 8 K type) .....	30
6.9	Daily inspection .....	30
7	Machine shutdown.....	31
7.1	Safety instructions concerning shutdown .....	31
7.2	Shutting down the log splitter .....	32
8	Servicing.....	33
8.1	Safety instructions concerning servicing .....	33
8.2	Important instructions concerning servicing.....	35
8.3	Instructions for working on electric equipment.....	36
8.4	Instructions for working on hydraulic equipment.....	36
8.5	Duties before ending the servicing work.....	37
9	Maintenance.....	38
9.1	Safety instructions concerning maintenance .....	38
9.2	Cleaning .....	39

9.3	Replacing the hydraulic oil .....	40
9.4	Lubrication and cleaning .....	41
9.5	Oil change at the transmission gearbox .....	41
9.6	Replacing the hydraulic hoses .....	41
9.7	Maintenance schedule .....	42
10	Help in case of breakdowns.....	43
10.1	Safety instructions .....	43
10.2	Troubleshooting .....	44
11	Guarantee, warranty .....	45
12	Proper reaction in case of accidents .....	46
13	Notes .....	47

## 1 Declaration of EC Conformity

We hereby declare that this machine

Identification      **Short Logs Splitter**

Types                **H6 E, H8 E, H8 EZ, H8 K Z, H8 K E, H8 K EZ,  
SP8 Z, SP8 E, SP8 EZ**

in all its available technical versions, complies with the regulations of Machine Directive 2006/42/EG, with EN 1870-6 and with all directly connected standards.

The safety instructions and operating instructions delivered here are valid for this machine.

This machine may not be changed technically. Any change that has not been coordinated with us will make this declaration invalid.

Name, address and signature of the person authorized to compose the technical documentation:

Karl Binderberger  
CEO / Geschäftsführer  
Fillmannsbach 9  
AT-5144 St. Georgen am Fillmannsbach


St. Georgen am Fillmannsbach, 20/05/2017


  
Signature


## 2 Safety instructions


### 2.1 Meaning of symbols and hints

Please observe the meaning of the symbols and hints illustrated hereafter. They are classified according to danger levels and comply with ISO 3864-2.

<b>DANGER</b>	
	<p><i>Points to an immediately threatening danger.</i></p> <p><i>Disregarding this information may lead to death or to most severe injuries (invalidity).</i></p>

<b>WARNING</b>	
	<p><i>Points to a possible danger situation.</i></p> <p><i>Disregarding this information may lead to death or to most severe injuries (invalidity).</i></p>

<b>ATTENTION</b>	
	<p><i>Points to a possible danger situation.</i></p> <p><i>Disregarding this information may lead to death or to small / medium injuries.</i></p>

<b>ADVICE</b>	
	<p><i>Points to general information, useful operating instructions and handling recommendations, which however do not influence the safety and health of the personnel).</i></p>

## 2.2 Meaning of icons

	<ul style="list-style-type: none"> <li>• Carefully read the operating instructions before starting up the machine!</li> <li>• Always wear ear protection and eye protection during operation!</li> <li>• Always wear steel-toed safety shoes during operation!</li> <li>• Always wear working gloves during operation!</li> <li>• The machine may be operated by a single person only!</li> <li>• Beware of hot materials!</li> <li>• Beware of rotating elements!</li> <li>• Beware of getting caught and dragged in!</li> <li>• Beware of crushing hazards!</li> </ul>
	<ul style="list-style-type: none"> <li>• Before maintenance work turn the machine off and protect it against inadvertent restart!</li> <li>• The machine may be maintained by a single person only!</li> <li>• Let the machine cool down sufficiently before starting maintenance activities!</li> </ul>



	<p><b>Danger of injury from stumbling / tripping</b></p>
	<p><b>Danger of injury from slipping</b></p>
	<p><b>Lubrication spots</b></p>
	<p><b>Before starting work tighten the hand wheel bolts!</b></p>
	<p><b>Load hook with attachment</b></p>

## 2.3 General safety instructions

This machine may only be operated by persons who have been trained, instructed and authorized. These persons must be familiar with the operating instructions and must act accordingly. The competences of the operating personnel must be determined clearly.

Apprentice personnel may only start working with the machine while being supervised by an experienced person. The completion of successful instruction must be confirmed in writing.

## 2.4 Proper use

The splitter has been designed and built exclusively for splitting logs.

Any use beyond this purpose is not permitted. In case of any personal injuries and damages resulting from improper use, the responsibility lies with the operator of the machine, not with the producer!

Proper use also includes reading this operating manual and adhering to all information contained here, especially adhering to the safety instructions. Proper use also includes the execution of all inspection and maintenance tasks within the prescribed time intervals.

## 2.5 Required operator qualification

Operating this machine does not require special knowledge from the fields of machine engineering or electric engineering. The operator must however be at least **18 years** old. Before his first use of the machine, the owner of the machine must train and instruct him accordingly. For working with the machine, protecting shoes and tightly fitting clothes are required.

If the operator wants to execute maintenance and repair work, he must have the required technical knowledge.

## 2.6 Technical modifications to the machine

For safety reasons, the operator is not authorized to carry out technical modifications to the machine. This is also true for welding work on supporting parts. All planned technical changes must be authorized beforehand in writing by manufacturer Binderberger GmbH.

Only use original spare parts / original wear parts / original accessory parts – these parts have been designed especially for the machine. Using parts from other sources will not guarantee that they have been designed and manufactured according to the occurring stress and the required safety level.

Parts and optional equipment which have not been delivered by us also have no approval from our side for use with the machine.

## 3 Description of the machine

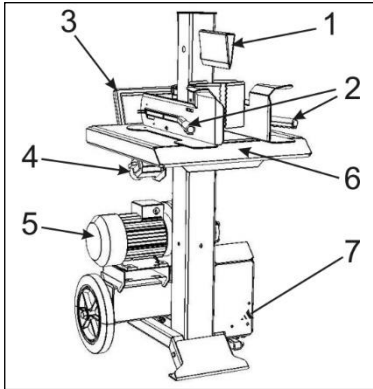
### 3.1 Operating mode

The firewood splitter is driven hydraulically. The hydraulic circuit is propelled either by an electric motor or a combustion motor, or by a PTO shaft pump or by the tractor's hydraulic system.

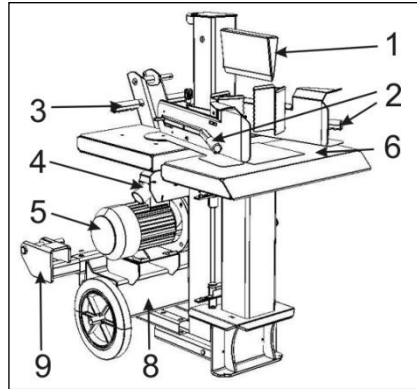
To operate the splitter, the two-hand safety handling must be started. To start the splitting operation, both hand levers must be held in DOWN position. As soon as one or both hand levers are released, the splitting tool will stop moving. By releasing both hand levers, the splitting tool will return to its initial position.

The firewood splitter machine may only be operated, maintained and repaired by persons who are familiar with it and which have been instructed about the dangers.

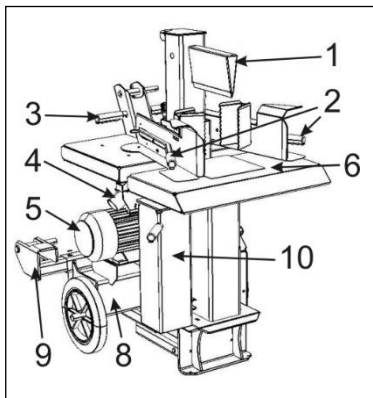
**3.2 Overview**



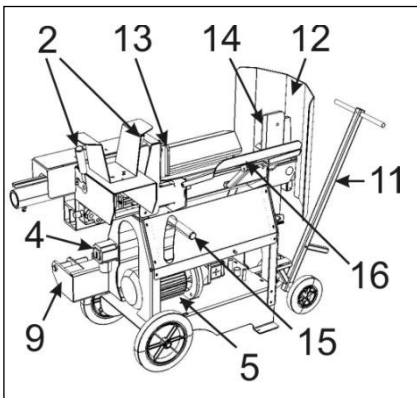
H6



H8



H8 K



SP 8


Position	Description
1	Splitting knife
2	Two-hand safety operation
3	Transport handle
4	Socket
5	Electric motor
6	Splitting pan
7	Control valve
8	Hydraulic oil tank
9	Three-point adapter
10	Splitting table for meter logs
11	Transport cart
12	Deposit table
13	Pusher
14	Splitting knife
15	Height adjustment for splitting knife
16	Foldable log deposit table

### 3.3 Technical data

Type	H6	H8 E / Z	H8K E / Z	SP8 E / Z
Splitting force (tons)	6	8	8	8
Max log length in cm	55	55	55/110	55
Gross weight in kg	160	230	240	215
Electric motor output kW	2,2	4,0	4,0	4,0
Working speed rpm	1500	1400	1400	1400
PTO speed rpm	-	440	440	440
Combustion motor output kW	-	-	4,0	7,7
Hydraulic oil liters	6	9	9	12
Required min tractor hydraulics l/min	-	-	20	-
Splitting speed cm/s	7	7 / 10	7 / 10	9 / 11
Return speed cm/s	31	39 / 54	39/54	13 / 15
Dimensions cm	84x48x100	160x67x115	160x67x115	160x67x115
Max.operating noise level	70 dB (A)			

## 4 Transporting the machine

### 4.1 Safety instructions concerning transport

<b>WARNING</b>	
	<p style="text-align: center;"><b><u>Danger of injury during transport!</u></b></p> <ul style="list-style-type: none"><li>• Make sure that no persons stay within the danger zone and that a sufficient safety distance is kept at all times!</li><li>• If the machine is transported in a slanting position, lubricants may escape! Direct skin contact will cause chemical burns!</li><li>• The machine may only be lifted using the designed suspension points!</li></ul>

### 4.2 Transport and driving on public roads

Before starting to transport the machine, all steps for machine shutdown must be executed carefully.

When driving on public roads, you must comply with all legal requirements!

If you want to transport the splitter while attached to the rear of the tractor, make sure beforehand that no objects remain on the machine which might fall down. The splitter must be attached properly to the 3-point linkage of the tractor.

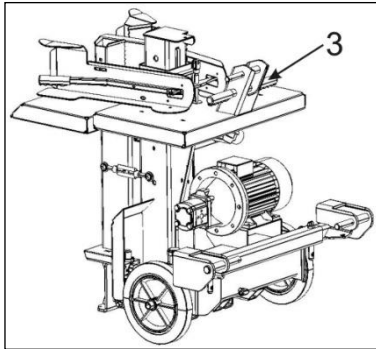
After you have attached the splitter, you must verify whether the bolts of the upper and lower linkages are secured with cotter pins.

The tractor must be suitable to carry the total weight of the machine.

Always select your driving speed according to the road conditions. It is essential to protect the splitter from hard shocks and percussions, because they are likely to damage the linkage system.

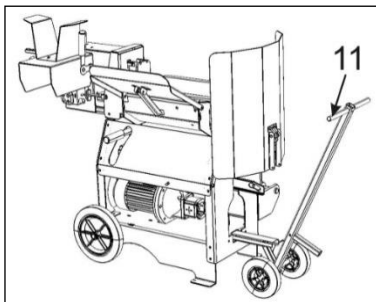


### 4.3 Manual transport



#### Activities BEFORE starting manual transport of the "H" types:


- Uncouple the machine from the tractor drive or disconnect the power supply.
- Release the machine from the 3-point linkage.
- Remove any tripping hazards (objects) from the transport path and establish a stable position for the machine.
- Nob grab the splitter by the rear handle (3) and tilt it towards the body.
- In this condition, you can move the splitter to any other location.



Because of its higher weight, the "SP 8" type splitter can not be tilted for transporting. A transport cart (11) is available, which can be attached to the front side and enables easy manoeuvring.

## 5 Installing the machine

### 5.1 Safety instructions concerning machine installation

<b>WARNING</b>	
	<p style="text-align: center;"><b><u>Danger of injury from improper installation of the machine!</u></b></p> <ul style="list-style-type: none"><li>• Always check the machine for transport damage before installing it!</li><li>• Position the machine on levelled and solid ground only!</li><li>• Apply the machine's support feet!</li><li>• Make sure that no persons can be endangered by installing the machine!</li><li>• When installing machine connections, cables, hoses and pipes, make sure not to create any tripping points!</li><li>• The machine may only be operated while in technically immaculate condition!</li><li>• Never couple or uncouple pipes and hoses which are under pressure!</li><li>• Pipes and hoses which are under pressure may not be installed inside the operator's cab! If this cannot be avoided, you must take proper precautions to protect the operator from injury in case a hose or pipe will burst!</li><li>• Secure the PTO drive shaft protection against rotation!</li><li>• Make sure that no persons stay between the machine and the tractor!</li></ul>

## ATTENTION



### Danger of injury from rotating PTO drive shaft!

- Secure the PTO drive shaft protection against rotation.

## ATTENTION



### Use suitable PTO drive shafts only!

- Use BG4 type drive shafts only.

## 5.2 Duties before starting operation

## ADVICE



### Before starting operation, you must execute these steps:

- The splitter installation and all coupling activities must be performed according to the directives.
- Before every new start of operation, you must check all hoses, couplings, bolts and screw connections for tight fit.
- In case of ambient temperatures below 0° C / 32° F, let the machine run for some 10 minutes in idle operation, without material.
- Secure the PTO drive shaft protection against rotation.

### 5.3 Electric supply (splitter types E and E-Z)

The fuse and the dimension of the electric supply line must be determined according to national standards and according to the cable length by a skilled electrician!

Plug the five-poles, 400 V / 16 A CEE cable into the machine socket.

The splitter must be connected to a mains supply which is secured by a 30 mA ground fault circuit interrupter.

**Work on electric devices is only permitted to persons with the required professional competence!**

### 5.4 Check the motor's turning direction (E and E-Z types)



Start the motor just for an instant, and check the turning direction by watching the fan blade of the motor - see the instruction label on the fan cover.

If the rotation direction is not correct, you must disconnect the power supply cable from the splitter.



The socket is equipped with a phase changing switch for changing the motor's rotation direction.

Use a slotted screwdriver to push the switch inside and to rotate it 180°, then release the switch.

## 5.5 Coupling the PTO shaft drive (E and E-Z drives)

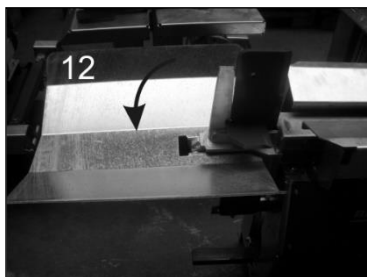
- Position the tractor close to the splitter.
- Couple the splitter to the 3-point linkage of the tractor.
- Turn the tractor's engine OFF.
- Now connect the splitter's PTO shaft drive to the tractor.

### ATTENTION

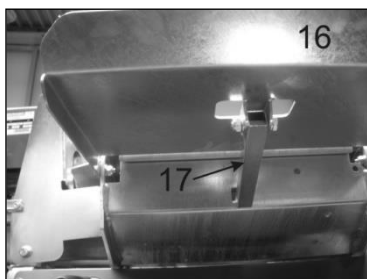


- Use BG4 type drive shafts only.
- Secure the PTO drive shaft protection against rotation.

## 5.6 Prepare the SP8 type



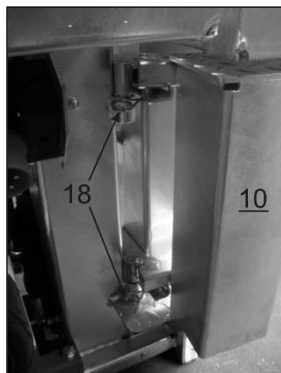
- First of all, bring **splitting pan (12)** into working position. You can flap it downwards without using any tools.



- Afterwards you flap the lateral **log deposit table (16)** upwards. Secure it with the **square pipe (17)** to the machine, establishing a right angle towards the machine.

## 5.7 Change the H8K type for processing meter logs

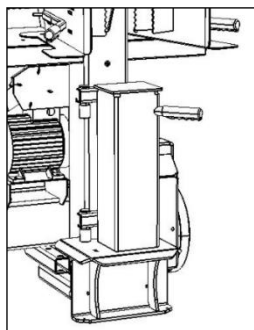
To change the H8K type from processing short wood to processing meter logs, you simply need to remove the splitting table.



- First of all, unhinge the small table. Start with extracting both **cotter pins (18)**, then pull out the table upwards.




- Now release the **rear screw (21)** from the splitting table's securing.




- Now you can lift the **large splitting table (6)** off the rotating points and put it apart. Deposit the cotter pin together with the table, to keep them available for the next use.
- Finally, you hinge the small splitting table into the intake slots.

## 6 Operation

### 6.1 Safety instructions concerning operation

<b>DANGER</b>	
	<p style="text-align: center;"><b><u>Danger of injury from getting caught or dragged in by moving machine components!</u></b></p> <ul style="list-style-type: none"><li>• Always keep a sufficient safety distance towards moving machine components!</li></ul>

<b>WARNING</b>	
	<p style="text-align: center;"><b><u>Danger of injury during operation!</u></b></p> <ul style="list-style-type: none"><li>• Make sure that only the operator is present at the control panel!</li><li>• No other persons are allowed within the danger zone – a safety distance of at least 25 meters must be kept at all times!</li><li>• Get familiar with the operating elements for the splitter before using it!</li><li>• The machine must be placed on even and solid ground!</li><li>• Make sure that no persons are staying between the crane and the tractor!</li></ul>



**ATTENTION****Stumbling / tripping on objects lying about!**

- Remove all objects that are not part of the machine from its vicinity.

**ATTENTION****Danger of injury from missing personal protecting equipment!**

- Always wear protecting gloves and steel-toed safety shoes.

**ATTENTION****Danger of injury during operation!**

- The machine must be operated by a single person only!
- Make sure that no further persons stay within the machine area.
- During the splitting process, it is strictly forbidden to reach into the splitting area!

**ATTENTION****Danger of injury from rotating PTO drive shaft!**

- Secure the PTO drive shaft protection against rotation.

## 6.2 Important instructions concerning operation

### ADVICE



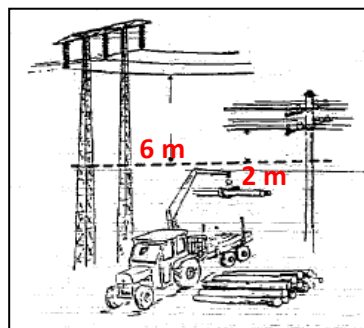
- The operator always has to take care that no unauthorized persons stay within the working area of the machine.
- Get information about the proper measures in case of malfunctions before you start up the machine.
- Execute all tasks listed in chapter “Duties before starting operation” before you start up the machine.
- After turning the machine off, always execute the tasks listed in the next chapter “Machine shutdown”.
- Before the operator leaves the machine unattended, he must turn it off and secure it against inadvertent restart.

#### Operation underneath power supply lines:

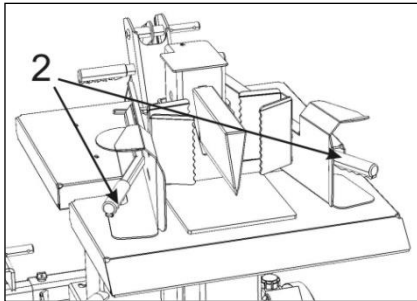
It is mandatory to keep the safety distances during work underneath power supply lines. No part of the machine may ever get closer to power lines than indicated below.

Underneath low voltage lines:  
at least 2 meters

Underneath high voltage lines:  
at least 6 meters

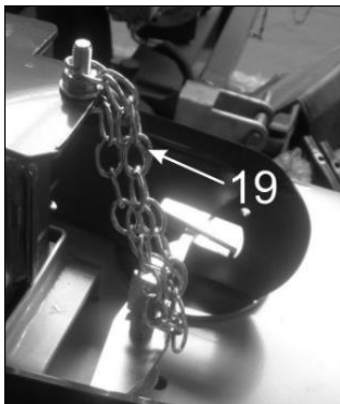


### 6.3 Function of the two-hand safety handling



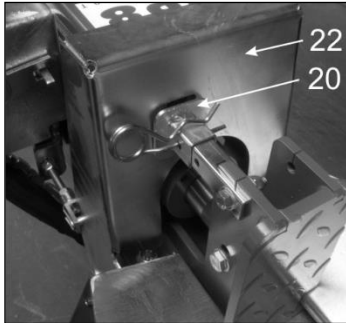
- The splitting movement will only start when **BOTH hand levers (2)** are held in **DOWN** position, or are pulled forward at the SP8 model.
- Actuating only one hand lever will not cause a movement.
- As soon as one hand lever is released, the movement will stop.
- As soon as you release one hand lever only, the splitting knife will stop at the current position.
- To return the splitting knife to starting position, you must release both hand levers: The knife automatically returns to its initial position, and the cylinder is stopped there by the movement range setting.

### 6.4 The movement range setting



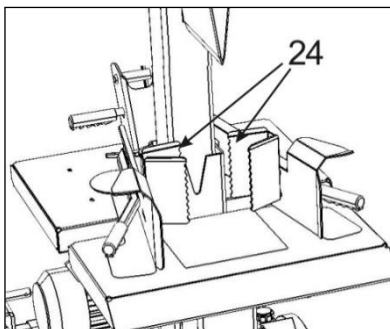
- Use both hand levers to bring the splitting knife to the desired starting height.
- Release one of the hand levers: The knife stops in the current position.
- With your free hand you hook the chain (19) in tensioned mode to the splitting knife. Now the splitter will always stop at this height setting.

## 6.5 Movement range setting for SP8 type



- Use both hand levers to bring the splitting knife to the desired starting height.
- Release one of the hand levers: The knife stops in the current position.
- With your free hand you push the small square pipe (20) backwards on the switch-off rod, then secure the pipe with a cotter pin as illustrated on the left: The square pipe contacts the switch-off plate (22). As soon as the square pipe presses against the switch-off plate during the knife's return movement, the control valve will be shut.

## 6.6 The splitting process (H6, H8, H8K types)

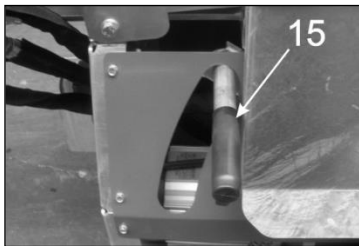


- Put the log onto the splitting table and align it according to the wood fibre flow and the desired splitting size.
- Hold both hand levers down to start the log splitting process.
- As soon as the log has been split in 2 parts, you release both hand levers.
- The splitting knife will return automatically to initial position.

If a log will not remain in upright position on the splitting table, but rather topple, proceed in these steps:

- Move one hand lever protector towards the splitting knife.
- Position the log with the other hand on the table, in a way that it will lean on the log claw (24).
- Now move the second log claw onto the log, in order to clamp it.
- Finally actuate both hand levers: the log will be split properly.

## 6.7 The splitting process (SP8 type)



- Put the log into the splitting channel.
- Use lever (15) on the right side of the two-hand actuation to adjust the height of the splitting knife.
- You can move it completely down, to split the log centrally into 2 parts, or to split it into 4 parts during one splitting process.
- Pull both hand levers to initiate the splitting process – the log will be pushed through the splitting knife.

As soon as the log has been split, you may release both hand levers. The pusher will return the knife into initial position. After this process, the log parts rest in the pan, and they can be taken out easily. You may also put a wheelbarrow underneath: the log parts will be collected automatically, no need to touch them again.



***If a log had been cut slanted on one end, this end must always face the splitting knife!***  
***Otherwise, the log will suddenly slide out under the high pressure of the pusher, and may cause severe injuries!***

## 6.8 Splitting process for meter logs (H 8 K type)

To be able to split meter logs, the height adjustment must be set to maximum height. Please proceed as described in chapter “Movement range adjustment (H6, H8, H8K types)”.

- Turn the small swivel table to the side, so you can put the meter logs onto the bottom stand.
- Then press both hand levers, and split the log as far as possible.
- In case the log has not been split completely, it will be transported upwards with the splitting knife as soon as you release the hand levers.
- Once the splitting knife has reached the upper end position, move the small swivel table into working position again.
- Press both hand levers again: the knife will move down and the meter log will be split until the end.


## 6.9 Daily inspection


Make a visual inspection of the complete machine. Especially examine malfunctions and defects which may influence operator and machine safety. Any faults and defects must be remedied before the next use of the machine.


- Make sure that the complete hydraulic system is free from leaks.
- Make sure that all hydraulic hoses are undamaged.

## 7 Machine shutdown

### 7.1 Safety instructions concerning shutdown

<b>DANGER</b>	
	<p style="text-align: center;"><u><b>Danger of injury from getting caught or dragged in by moving machine components!</b></u></p> <ul style="list-style-type: none"><li>• After turning the machine OFF, wait until all moving components have come to a standstill!</li><li>• Always keep a sufficient safety distance towards moving machine components!</li></ul>

<b>WARNING</b>	
	<p style="text-align: center;"><u><b>Danger of injury during shutdown!</b></u></p> <ul style="list-style-type: none"><li>• The operator always has to take care that no unauthorized persons stay within the working area of the machine, and that a sufficient safety distance from the moving machine components is kept!</li><li>• Never stay underneath floating loads, as they might fall down!</li><li>• Make sure that no persons stay between the machine and the tractor!</li></ul>

<b>WARNING</b>	
	<p style="text-align: center;"><u><b>Danger of injury from machine start by unauthorized persons!</b></u></p> <ul style="list-style-type: none"><li>• After shutdown, secure the machine against unauthorized restart!</li><li>• Before leaving the machine unattended for a longer period, the energy supply must be disconnected!</li></ul>


## 7.2 Shutting down the log splitter


- Release the hand levers to bring the splitting knife into initial position.
- Disconnect the machine from its energy supply.
- Bring all the tables of the splitter into an upright position.




## 8 Servicing

### 8.1 Safety instructions concerning servicing

<b>DANGER</b>	
	<p style="text-align: center;"><b><u>Danger of severe injury by starting the drive during repair work!</u></b></p> <ul style="list-style-type: none"><li>• Turn the machine OFF!</li><li>• Secure the machine against restart!</li></ul>

<b>ATTENTION</b>	
	<p style="text-align: center;"><b><u>Danger of slipping because of oil residue during servicing work (oil exchange)!</u></b></p> <ul style="list-style-type: none"><li>• Use a suitable collecting bin.</li><li>• Remove spilled oil immediately!</li></ul>

<b>ATTENTION</b>	
	<p style="text-align: center;"><b><u>Danger of injury: Scalding on hot machine components and media!</u></b></p> <ul style="list-style-type: none"><li>• Before starting any servicing work, let the machine cool down to ambient temperature!</li></ul>

## ATTENTION



**Danger of chemical burns from contact with lubricants!**

- Avoid skin and eye contact!
- Do not swallow or aspirate!
- Use proper protecting equipment (protecting gloves, eye protection).

## ATTENTION



**Danger of injury: Getting caught by the rotating joint shaft!**

- Secure the shaft protection against rotating!

## 8.2 Important instructions concerning servicing

### ADVICE



- Immediately replace all faulty machine parts.
- Use original spare parts only.
- Make sure that suitable collecting bins are available for any groundwater endangering media (oils, cooling agents).
- Use the specified operating media only.
- Self-securing bolts and nuts must always be replaced.
- All operating media which cannot be reused must be disposed according to the valid environmental regulations.
- Severe damage to the machine can result when installing wrong spare parts or wear parts.
- Welding work causes fire hazard. Always have a fire extinguisher at hand.
- Improperly installed cables may cause cable meltdown and cable fire.
- Never release the machine for operation without all safety installations provided by the manufacturer available.
- It is strictly forbidden to remove safety instructions and safety installations from the machine.
- If an information label on the machine is no longer legible you must replace it.
- Always observe the warning instructions attached to the machine. They help avoiding danger situations.
- Do not execute servicing work if you do not possess the required qualification.

### **8.3 Instructions for working on electric equipment**

As a matter of principle, any work on electric equipment may only be carried out by skilled electricians.

- Review electric equipment at regular intervals.
- Fasten any loose connections.
- Replace damaged cables and wires immediately.
- Never clean electric equipment with water or other liquids!

### **8.4 Instructions for working on hydraulic equipment**

Work on the hydraulic equipment of the machine may on principle be executed by skilled technicians for hydraulic systems only.

- Before starting any work on hydraulic systems, relieve the pressure from the hydraulic system and all its components.
- Make sure that suitable collecting bins are available for any groundwater endangering media (oils, cooling agents).


## 8.5 Duties before ending the servicing work


After the servicing steps have been executed and before machine restart, these tasks must be observed:


- Verify whether all bolt connections loosened before have been retightened properly.
- Verify whether all protecting devices, covers, container lids etc. have been installed properly again.
- Make sure that all used tools, materials and further equipment has been removed from the working area again.
- Clean the working area and remove / clean up any spilled liquids and similar materials.
- Make sure that all safety devices of the machine are in perfect operating status again.
- Verify the function of all safety devices. Never release the machine for operation as long as any safety device is not functioning properly.
- Execute a test operation run with a functional control of all repaired components.
- As long as you have not finished the repair work, you must secure the machine against inadvertent restart.
- The use of open flames and smoking is prohibited.

## 9 Maintenance

### 9.1 Safety instructions concerning maintenance

<b>DANGER</b>	
	<p style="text-align: center;"><b><u>Danger of severe injury</u></b> <b><u>by starting the drive during maintenance work!</u></b></p> <ul style="list-style-type: none"><li>• Turn the machine OFF!</li><li>• Secure the machine against restart!</li><li>• Disconnect the machine from the energy supply!</li></ul>

<b>ATTENTION</b>	
	<p style="text-align: center;"><b><u>Danger of slipping because of oil residue during</u></b> <b><u>maintenance work (oil exchange)!</u></b></p> <ul style="list-style-type: none"><li>• Use suitable collecting bins.</li><li>• Remove spilled oil immediately!</li></ul>

<b>ATTENTION</b>	
	<p style="text-align: center;"><b><u>Danger of injury: Scalding on hot machine</u></b> <b><u>components and media!</u></b></p> <ul style="list-style-type: none"><li>• Before starting any repair work, let the machine cool down to ambient temperature!</li><li>• Keep easily flammable materials away from hot surfaces!</li></ul>

## ATTENTION



**Danger of chemical burns from contact  
with lubricants!**

- Avoid skin and eye contact!
- Do not swallow or aspirate!
- Use proper protecting equipment (protecting gloves, eye protection).

## ATTENTION



**Danger for the environment!**

- Make sure that no oil can escape into the environment.
- Spilled oil will contaminate surface water and ground water!

## 9.2 Cleaning

Remove all dirt and residue from the machine after every operation run and before maintenance work!

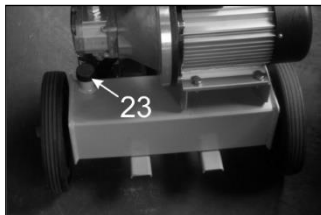
After you cleaned the machine with water, you must regrease it!

### 9.3 Replacing the hydraulic oil

The oil change is due after every 250 operating hours or once a year. The required quantity of oil for your specific log splitter is indicated at the “Technical Data” section.

Use hydraulic oil of **class HLP 32** or equal quality only.

- Make sure to use a suitable collecting vessel with sufficient capacity.
- To dump the hydraulic oil completely you must disconnect one of the hydraulic hoses from the tank (front or rear side).
- You can tilt the splitting machine slightly, to make sure that all oil will escape from the tank.
- After the tank is empty, you connect the hydraulic hose tightly again to the hydraulic tank.
- Refill the tank with the required type and quantity of new oil, using filling neck (23).
- The tank should be filled up to about 2/3 of its height.



- After filling, you must start up the splitter and move the splitting knife completely up and down (without splitting logs).
- Bring the knife into its top position, then check the oil level again.
- Refill some more new oil if necessary.



## 9.4 Lubrication and cleaning

Clean the machine from all dirt and residue at regular intervals.

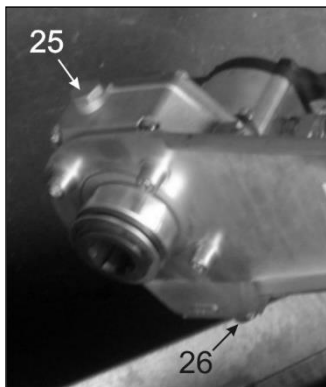
H6, H8 and H8K types: Regrease the knife rods slightly after cleaning.

## 9.5 Oil change at the transmission gearbox

(only valid for log splitters driven by PTO drive shafts)

The first gear oil change is due after 100 operating hours. Afterwards you must keep an interval of 500 operating hours or annually.

Use gear oil of viscosity class SAE 90 only. One filling demands ca. 0.2 liters.



- Open drain screw (26) at the bottom of the gearbox, then wait until the oil has escaped.
- When reinstalling drain screw (26), do not use too much torque, because the thread inside the aluminium housing might be destroyed.
- Open venting screw (25) on top of the gearbox, then refill the gearbox with the required type and quantity of new oil.
- After filling, tighten the venting screw (25) with sensitive torque as well.

## 9.6 Replacing the hydraulic hoses

Replace all hydraulic hoses not later than after 5 years of use.

If a hydraulic hose shows evident damage, it must be replaced immediately, because otherwise it may cause severe injuries and grave damage!


## 9.7 Maintenance schedule


Regular maintenance is the best way to achieve efficient and economic operation of your splitting machine. The machine has already been tested and adjusted carefully by the manufacturer.


	After 10 hours	New machine after 50 hours	Every 250 hours, at least once a year
I-shape beam	Regrease slightly		<b>x</b>
Oil change		<b>x</b>	<b>x</b>

## 10 Help in case of breakdowns

### 10.1 Safety instructions

<b>DANGER</b>	
	<p style="text-align: center;"><u><b>Danger to life by starting the drive after a breakdown occurred!</b></u></p> <ul style="list-style-type: none"><li>• Turn the machine OFF!</li><li>• Secure the machine against restart!</li></ul>

<b>ATTENTION</b>	
	<p style="text-align: center;"><u><b>Danger of injury: Scalding on hot machine components and media!</b></u></p> <ul style="list-style-type: none"><li>• Before starting any repair work, let the machine cool down to ambient temperature!</li></ul>

<b>ATTENTION</b>	
	<p style="text-align: center;"><u><b>Danger of chemical burns from contact with lubricants!</b></u></p> <ul style="list-style-type: none"><li>• Avoid skin and eye contact!</li><li>• Do not swallow or aspirate!</li><li>• Use proper protecting equipment (protecting gloves, eye protection).</li></ul>

## 10.2 Troubleshooting

Fault	Possible causes	Remedy measures	
Splitting knife does not move	Wrong motor rotation direction (electric motor only)	Switch the phase inverter in the socket	
	Not enough hydraulic oil inside the system	Check / correct the oil level	
Motor does not run or turns off frequently	Fuse blown	Apply a suitable fuse (16 A delay-action)	
	Motor protection switch has responded	Supply cable too weak (at least 5 x 2.5 mm <sup>2</sup> )	
	Motor protection responds (buzzing noise from motor)	Only 2 phases existing	A plug is disconnected at the phase inverter
		Faulty supply cable	Cable inspection by a skilled electrician
	Faulty contactor or motor protection of the switch	Switch inspection by a skilled electrician	
	Motor is covered or heavily soiled	Uncover / clean the motor <b>(ATTENTION: Never use water for cleaning!)</b>	
Motor becomes hot, has bad performance	Only 2 phases connected	Cable inspection by a skilled electrician	
Splitting knife jammed	Log is too knotty, gnarly	Reposition the log Split the log with half the knife length only	
	Leaking seal kit (only after many operating hours)	Replace the seal kit	
Hydraulic pipes become hot	Not enough oil present	Control the oil level	
	Worn out oil in the system	Replace the oil	
	Limiting chain is too long	Hook the chain shorter	
	Pump breakdown	Replace the pump	
Hydraulic cylinder is leaking	Sealing collar is worn out	Replace the sealing collar	
	Piston rod is damaged	Replace the piston rod	

If a malfunction cannot be repaired with the measures above:  
Please contact your dealer, he will organize further assistance!

## 11 Guarantee, warranty

### Terms of guarantee 950601:

Manufacturer Binderberger Maschinenbau GmbH extends its warranty to a period of 2 years for parts which do not perform properly because of material deficiencies or faulty manufacturing.

Components we have purchased before, like tyres, axles and valves, are subject to a one-year warranty issued by our suppliers.

The warranty period comes into effect on the day of delivery to the buyer.

The warranty does not cover faults and breakdowns which were caused by normal wear, carelessness, faulty operation or faulty assembly. Hydraulic hoses and hydraulic couplings are exempt from warranty.

Costs arising during warranty processing, like disassembly work and shipping expenses, will not be reimbursed. Warranty is granted under the condition that the warranty claim has been declared directly to manufacturer Binderberger GmbH. Faults must be remedied according to a joint consultation between buyer, authorized dealer and manufacturer Binderberger GmbH.

If the manufacturer considers it appropriate, the device or the concerned device components must be sent in to the manufacturer for warranty measures. These data must be included with the shipment: Type of the device, serial number, date of delivery, name and address of the owner.

Warranty becomes void if the machine differs from the original model, e.g. because of technical alteration, change of settings, additional attachments or integration of parts which have not been delivered by the manufacturer.

Furthermore, our terms of delivery NL92 apply.

## 12 Proper reaction in case of accidents

Take care of a periodic information update concerning the available facilities and means for First Aid.

In case of an accident including injured persons, damage to machines or to buildings / structures you must first provide initial treatment for the injured person, then inform the person in charge as soon as possible.

To alarm the proper ambulance emergency resources, you must pass information about the severity of personal injuries and of damage.

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



Dealer's stamp:

Type label:



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