



Operating Instructions

SpaltFix S-360

D1010473 - V001



English

Manufacturer

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Please be sure to fill this in before starting. Then you can be sure that this document relates to your machine, so if you have any queries you will be given the correct information.

Machine number:.....

Serial number:.....

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1 Foreword

Thank you for buying our product.

This machine has been built in conformity with applicable European standards and regulations.

These operating instructions explain how to operate the machine safely and efficiently and how to maintain it.

Any person entrusted with the transport, installation, commissioning, operation or maintenance of the machine must have read and understood:

- the operating instructions
- the safety instructions
- the safety information given in the individual chapters.

To avoid operator error and ensure problem-free operation, the operating instructions must be available to the operating personnel at all times.

1.1 Copyright notice

All documents are protected by the law of copyright.

Documents including excerpts thereof may not be distributed or reproduced nor may their content be communicated without express permission.

1.2 Liability for defects

Read these operating instructions through carefully before putting the machine into operation.

We accept no liability for damage or disruptions caused by failure to observe the operating instructions.

Claims for liability must be reported as soon as the defect is identified.

Claims are null and void for example in the following cases:

- improper use
- faulty attachments and drives not supplied with the machine
- failure to use original spare parts and accessories
- conversions or modifications, where not agreed with us in writing

We are not liable for defects of wearing parts.

1.3 Reservations

Technical data, dimensions, illustrations of the machine and safety standards are subject to continual change and are therefore not in any circumstances binding in relation to the supplied machine.

We accept no liability for printing and typesetting errors.

1.4 Definitions

Operator

The operator is the party which operates the machine and uses it for its intended purpose or causes it to be operated by suitable, trained personnel.

Operating personnel

The operating personnel (operators) are those entrusted by the operator to operate the machine.

Technical personnel

Technical personnel are persons entrusted by the operator of the machine with special tasks such as installation, set-up, maintenance and troubleshooting.

Electrician

An electrician is a person who, by virtue of his specialist training, has knowledge of electrical systems, standards and regulations and is able to identify and prevent possible hazards.

Machine

The term machine replaces the commercial designation of the object to which these operating instructions relate (see cover sheet).

1.5 Operating instructions

This manual is a "translation of the original operating manual"

2 Safety information

2.1 Explanation of symbols

The following symbols and instructions in this manual provide warnings about possible personal injury or property damage or give useful information about working with the machine.



DANGER

Warning about danger zones

Instruction regarding safe working, where non-compliance entails the risk of serious or fatal injury.

Always observe these instructions and ensure that you work with particular caution and care.



DANGER

Warning of dangerous electrical voltage

Contact with live parts can result in immediate death.

Protective covers and enclosures marked with this sign may only be opened by qualified electricians after the electricity supply has been turned off.



DANGER

Laser radiation - class 2 (EN 60825-1)

Risk of injury to the eyes by staring into the laser beam.



DANGER

Crushing hazard

Risk of injury through upper limbs getting trapped.



DANGER

Danger of cut injuries

Risk of injury from cuts to limbs.



NOTICE

Instruction

Symbol for proper use of the machine.

Non-observance can result in malfunctions by or damage to the machine.

Noise



Symbol for an area where noise levels can exceed 85 dB(A).
Non-observance can cause hearing problems or deafness.



Further information

Symbol for further information relating to a bought-in part.



Information

Action-related information.

2.2 General safety information



The machine may only be operated by persons who are familiar with the machine's operation and hazards and with the user manual.

- It is the operator's responsibility to provide appropriate staff training.

Persons under the influence of alcohol, drugs or pharmaceutical products that impair responsiveness must not operate the machine or carry out maintenance work on it.

The machine may only be operated if it is in perfect working condition.

If faults occur on the machine, work must be stopped immediately.

Ensure the machine is stable before starting it.

Minimum age of operative: 18 years.

Only one person may operate the machine at a time.

Take regular breaks to ensure concentration.

Ensure that your workplace is adequately illuminated as poor lighting can significantly increase the risk of injury.

Never work without the protective guards in place.

Only carry out repair, set-up, maintenance and cleaning work when the drive is switched off and the tool is stationary.

- If the machine has a PTO drive, the universal joint shaft must be removed from the tractor.
- The electric motor must be switched off and the power cable disconnected.

Never leave the machine running unattended.

Switch off the machine's drive unit before carrying out any adjustments.

Only use original - POSCH - spare parts.

Do not modify or tamper with the machine.

Work on electrical equipment must only be carried out by qualified electricians.

Never use damaged cables.

Machines with electric motors must not be used in the rain as this can lead to a malfunction of the switch or the motor.

Never stare into the laser beam.

For further information, please consult the supplied laser sensor user guide.



2.3 Safety instructions for cut-splitters

Prior to starting up the machine, the machine operator must agree the safety provisions with the operator for wood manipulation (crane, forklift, front-end loader, etc.) and must observe these safety provisions and the safety instructions from the wood manipulation operator.

- This may mean that the machine operator is required to leave the place of operation while the wood feed is loaded, in order to comply with the necessary safety distances.

These measures must be observed irrespective of how the wood feed takes place (roller, chain, cross or step conveyor), for both stationary and mobile use.

Do not hold the log in your hand while sawing.

Do not remove offcuts or other parts of the workpiece from the cutting area while the machine is running.

Never reach towards the rotating saw blade with gloves.

Only use the machine outdoors.

- Should the machine be used indoors, however, a local extractor unit (extraction at source) is required.

The machine must always be properly maintained and must be kept free of waste material such as chips and sawn-off pieces of wood.

Wear goggles or a face mask while working.

Use respiratory protection to reduce the risk of inhaling harmful dust.



Wear safety shoes and close-fitting clothes when working with this device.

Only use saw blades that are designed to reduce noise.

Do not use damaged or deformed saw blades.

Minimum saw blade diameter	Maximum saw blade diameter	Bore
890 mm	900 mm	40 mm



Only saw blades conforming to the EN 847-1 standard may be used.

When turning off the machine, always be careful of the tool runout until the machine has come to a standstill.

The working pressure of the hydraulic system must not exceed 230 bar.

2.4 Safety instructions for conveyor belts



Persons must keep clear of the danger zone.

It must be expected that material will be ejected at high speed to any position within this area.

Never reach into the hopper or touch the conveyor belt when the machine is running.

Shut the drive down before removing any jammed pieces of wood.

The machine must not be started up without a conveyor belt (must be fitted) as an item of protective equipment separating it from the splitting area (in line with EN ISO 13857-1).

Wear safety shoes and close-fitting clothes when working with this device.

Only use the machine outdoors.





Wear protective gloves.

The working pressure of the hydraulic system must not exceed 230 bar.

2.5 Noise

The workplace-related, A-rated emission sound pressure level is

- 87 dB(A) when idling or
- 94 dB(A) when sawing,

measured at the operative's ear.

In the case of machines with a PTO drive, the noise level depends on the noise of the tractor.

Ear protection is therefore necessary.



The stated values are emissions values, and thus do not necessarily represent reliable values for the work area. Although there is a correlation between emission and pollutant levels, it is not possible to deduce reliably from that whether or not additional precautionary measures are necessary. Factors that influence the level of pollutants present in the work area include the individual nature of the work area, other sources of noise, e.g. the number of machines and other work operations being carried out in the vicinity. Equally, permissible values for a work area may vary between different countries. However, this information should enable the user to estimate the dangers and risks more accurately.

2.6 Remaining risks

Even if all safety precautions are observed and the machine is used in accordance with the instructions, some risks still remain:

- Touching of revolving parts or tools.
- Injury caused by flying logs or log pieces.
- Risk of burns if the engine is not properly ventilated.
- Hearing loss if ear protection is not worn when working.
- Human error (e.g. due to excessive physical exertion, mental strain, etc.)



With every machine, some risks still remain. Therefore you should always be very careful when working. It is up to the operating personnel to ensure that work is carried out safely.

2.7 Proper use

The SpaltFix S-360 is a cutting and splitting machine for logs with a diameter of 7 - 35 cm. Using pre-split firewood can lead to a lower level of firewood quality and decreased performance of the machine.

The machine splits logs with a splitting force of 12 t into 2, 4, 6 or 8 sections. The section length is adjustable from 20 - 50 cm.

The machine may only be used to process firewood.

2.8 Incorrect use

Any incorrect use or use other than that specified under "Proper use" is expressly forbidden.

3 General

3.1 Scope

This user manual applies to the following machines:

Machine type

Article no. *	Designation - Type	Drive
M3857	SpaltFix S-360 - Z	PTO
M3877	SpaltFix S-360 - ZE22D	PTO/Electric motor

*The article number is stamped on the machine's rating plate.

Models

Special equipment

.....C	With oil cooler
.....F15	Conveyor belt 1.5 m, hydraulic drive
.....KF4	4 m sliding conveyor belt, hydraulic drive
.....KF5	5 m sliding conveyor belt, hydraulic drive
SO577	VolumeControl

Additional equipment

F0003458	Feed extension
F0002952	Chips - 100 mm extractor connection
F0001898	Tank heating
F0003485	SawControl
F0001826	6-billet splitting blade
F0001832	8-billet splitting blade
F0002955	Lighting unit
F0002251	Hour counter for machines with PTO drive
F0002942	Timber support block with lifting device
Longitudinal conveyors	are available in lengths of 2, 3 and 4 m
Cross conveyors	are available in lengths of 2.2 / 3.2 and 4.2 m - with 2 to 4 chain strands

3.2 Description

The SpaltFix S-360 machine is a firewood processing machine which is used to cut and then split firewood.

The log is cut in a horizontal position and is held in place with the claw while being cut.

The log is then cut to length by the hydraulically advanced saw blade.

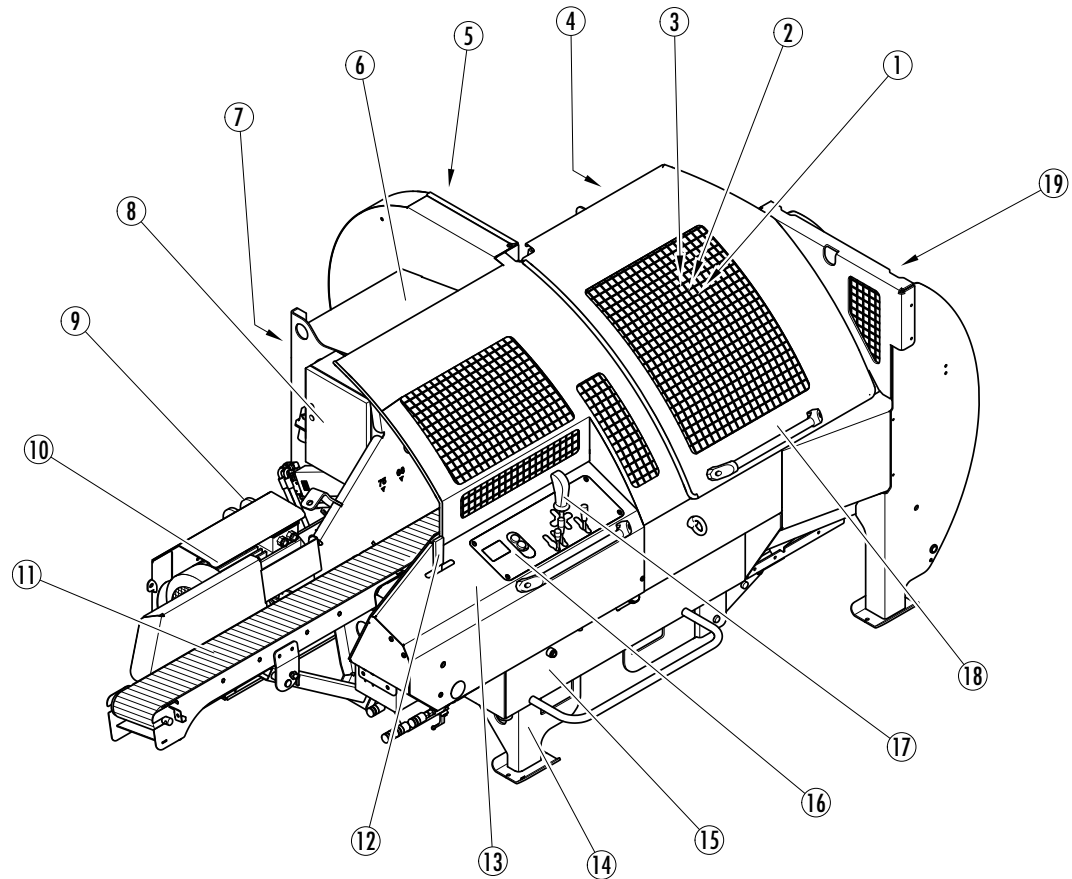
Once the log has been sawn through, it drops into the splitting trough.

The ram of the hydraulic splitter advances and presses the log against the splitting knife.

The hydraulically height-adjustable splitting knife allows the optimum setting to be achieved in any operating situation.

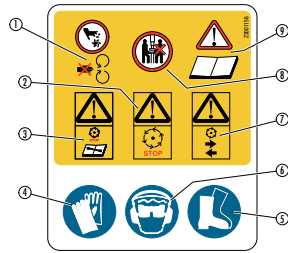
A choice of options is available for discharging the split logs, e.g. via a conveyor belt.
 The cutting and splitting tool is hydraulically driven.
 The machine is driven by an electric motor or a pto.

3.3 Major machine components



1	Hold-down device	11	Feed
2	Splitter	12	Operation - splitter
3	Saw unit	13	Front guard plate
4	Rating plate	14	Frame
5	Rear safety guard	15	Hydraulic tank
6	Cover - V-belt	16	Control box
7	Drive – PTO shaft	17	Operation
8	Switch/plug	18	Safety guard
9	Three-point linkage	19	Splitting blade
10	Electric motor		

3.4 Stickers and their meaning



- 1 Only operate with all guards and protective equipment in place
Do not open or remove guards or protective equipment while the machine is in operation
- 2 Caution, tool runs on
- 3 Only carry out repair, set-up, maintenance and cleaning work when the drive is switched off and the tool is stationary.
- 4 Wear protective gloves
- 5 Wear safety shoes
- 6 Wear goggles and ear defenders
- 7 Caution, moving tools
- 8 Only one person may operate the machine at a time
- 9 Always read the user manual before operating the machine



Laser radiation – do not look into the beam!



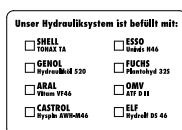
Note the direction of rotation of the motor. The pump will be damaged if rotation is in the wrong direction.



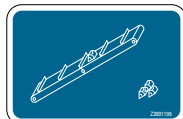
Caution, tool runs on



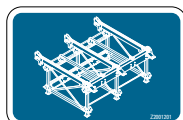
Lift here



Our hydraulic system is filled with:



Connection: Conveyor belt



Connection: Cross conveyors



Pressure measurement point



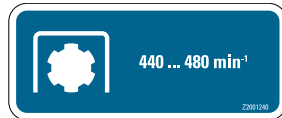
Rotational direction of motor



Rotational direction of PTO



Rotational direction of saw blade



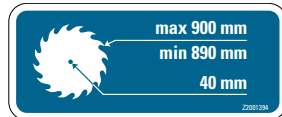
PTO speed



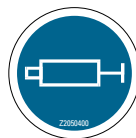
Lifting point for forklift



Oil level



Maximum saw blade diameter

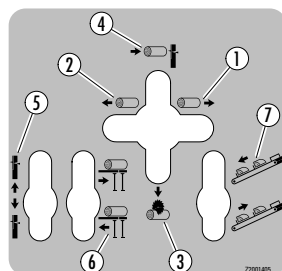


Lubrication point

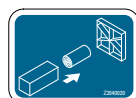
Stickers on controls



Stop



- 1 Feed (forwards)
- 2 Feed (backwards)
- 3 Saw
- 4 Split
- 5 Splitting knife (up / down)
- 6 Cross conveyor (forwards / backwards)
- 7 Conveyor belt (forwards / backwards)



Split

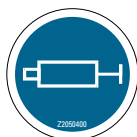
Stickers on belt conveyor



Danger zone



Maximum angle (on conveyor belt)



Lubrication point

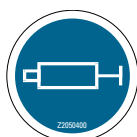
Stickers on longitudinal conveyor



Danger zone



Caution, moving tools

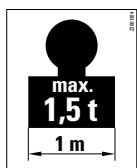


Lubrication point

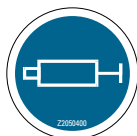
Stickers on the cross-conveyor



Danger zone



Maximum weight load



Lubrication point

4 Set-up



Ensure the machine is stable before starting it.

Set up the machine on a level, firm and clear work surface.

The machine must be placed directly on the ground. Do not place wooden boards, flat pieces of metal etc. underneath it.

The machine must not be set up under an overhead electrical power line.

4.1 Folding down the feed

See Feed [→ 22]

4.2 Conveyor belt

- Move the conveyer belt to the working position.

See Conveyor belt [→ 42]

5 Start-up



Before starting to operate the machine, please check that the protective and safety systems are working and also the hydraulic hoses and oil level.



Before each start-up, the condition of the electrical cables must be checked.

Check that the saw blade is firmly seated before each use.

If a fault occurs during operation, the machine must be shut down immediately and secured so it cannot be switched on accidentally or started-up by unauthorised persons.

5.1 Driven by electric motor (type E)

5.1.1 Machines with 400 V motor

The machine must only be operated on electric circuits equipped with 30 mA FI fault current protection or a Portable Residual Current Device (PRCD).

Work on electrical equipment must only be carried out by qualified electricians.



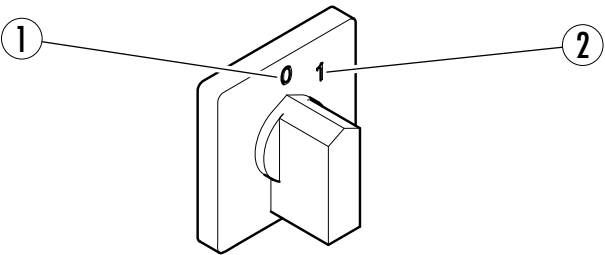
Type E22

Connect the machine to the mains:

- Mains voltage 400 V (50 Hz)
- Circuit-breaker 32 A (tripping characteristic C)
- For the feed, a cable cross-section of at least 10 mm² must be used.

👉 This cable cross-section is only a minimum specification. In the event of a lengthy supply cable, its size must be determined by an electrician.

- Turn the switch to the ON position.

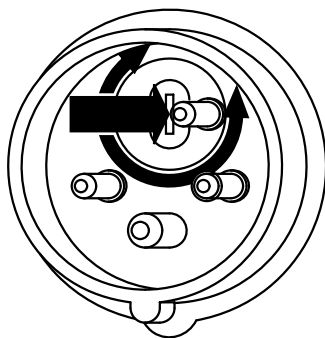


1	Neutral position	2	On position
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Note the rotation direction of the electric motor (see arrow on motor).

If the motor is rotating in the wrong direction:

A phase inverter in the plug controls the direction of rotation of the motor (press in the disc in the plug with a screwdriver and turn 180°).



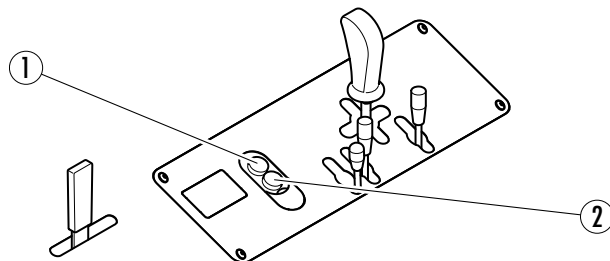
A tight plug connection can rip the CEE plug out of the switch housing.

- This can be remedied using standard plugs and a silicone spray.

☞ Any such damage to the switch is not covered by the guarantee.

5.1.2 Control box

5.1.2.1 Functions on the control box



1	Button (green) – Start system	2	Button (red) – Stop system
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There are two buttons on the control box.

Switching on the electrical system:

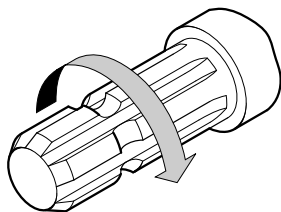
- Press the green button (System start).

Switching off the electrical system:

- Press the red button (System stop).

5.2 Driven by tractor via cardan shaft (type Z)

- Assemble the machine on the three-point linkage of the tractor.
- Attach the universal joint shaft and secure with the safety chain.



- Clockwise rotation of the tractor PTO shaft.
- Turn the tractor's manual throttle to minimum.

- Slowly engage the tractor PTO shaft and allow the machine to start moving.
- Set the required PTO shaft speed using the manual throttle.

Maximum PTO shaft speed:

- 480 rpm



The maximum PTO shaft speed must on no account be exceeded, otherwise the oil will become too hot. This leads to premature wear and leaks in the pump, cylinder and hydraulic pipes.

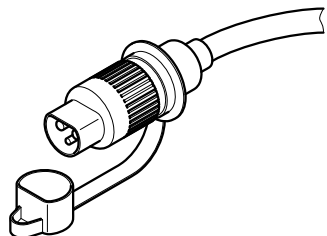
Before disengaging the universal joint shaft, set the manual throttle of the tractor to minimum.

The universal joint shaft must be stored in the universal joint shaft linkage when it is disconnected.

5.2.1 Connecting the power supply

If you use an oil cooler, VolumeControl or SawControl with your machine with Z-drive, an additional power supply will be required.

- Connect the 3-pin continuous current plug to the tractor.



Supply voltage 12 V

16 A Continuous current

👉 Remember to unplug the continuous current plug at the end of work, otherwise the tractor battery may be drained.

If you do not have a 3-pole continuous current connection on the tractor, as an alternative you can connect the 7-pole plug (brown + to 58L blue - to 31).

👉 However, ensure that the aforementioned power ratings are available, as malfunctions may otherwise occur.

6 Operation

☞ At outdoor temperatures below 0°C, let the machine idle for approximately five minutes to allow the hydraulic system to reach the correct operating temperature (the hydraulic pipes will then be warm to the touch).

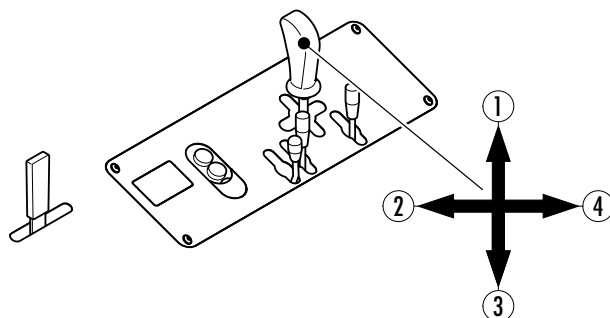
6.1 Work operation



Only one person may operate the machine at a time.
Ensure that no other people are in the vicinity of the machine.

- Start the machine.
See Start-up [→ 17]
- Place the wood on the feed.

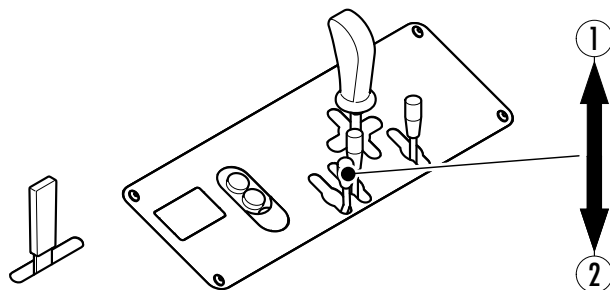
6.1.1 Operating the feed, saw and splitter



1	Split	3	Saw
2	Feed - backwards	4	Feed - forwards

- Using the control lever (Infeed - advance) move the log as far as the log stop.
- Pull the control lever (sawing) forwards and saw through the wood.
- Hold the lever towards you until the log has been completely sawn through.
- Use the control lever (Split) to start a splitting stroke (push the lever briefly away from you).

The splitting knife can be adjusted (to set the split centre point).



1	Splitting blade – up	2	Splitting blade - down
---	----------------------	---	------------------------

- Adjust the centre of the splitting knife using the control lever (Splitting knife – up / down).

6.1.1.1 Notes on sawing



The drive must always be switched off before clearing a blockage.

6.1.1.2 Notes on splitting



Only use logs up to a diameter of 7 - 35 cm.

Logs must be pushed longitudinally towards the splitting blade.

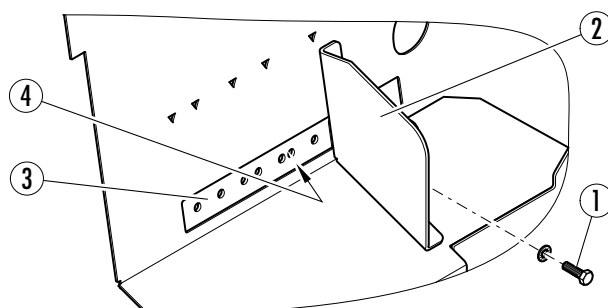
- If necessary, correct the positioning and only then start the splitting process.

Remove jammed wood from the splitting blade with a striking tool.

6.1.2 Stop function

- If the safety guards are opened during work, the splitter will stop and the saw will return to its home position.
 - After closing the safety guards the splitting process will continue from where it was interrupted.

6.1.3 Adjusting the log length

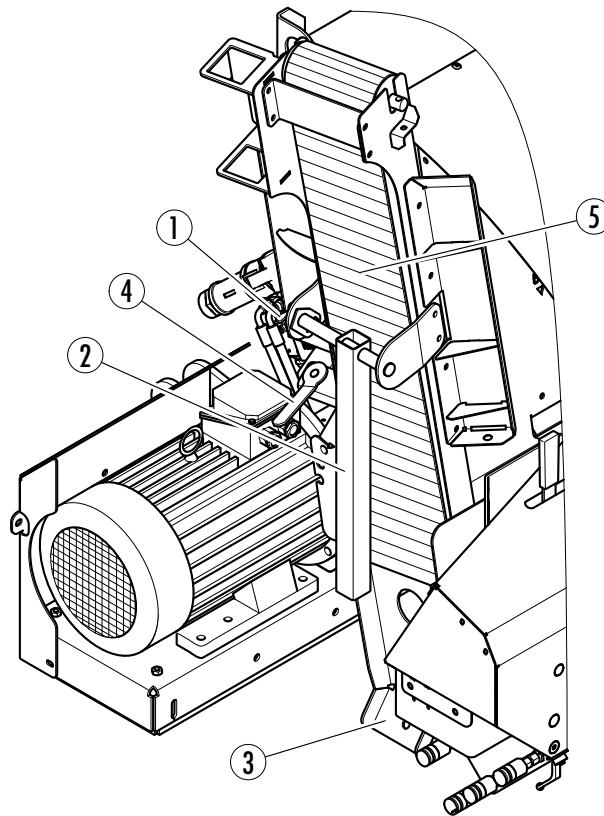


1	Fastening screw	3	Stop support
2	Stop	4	Threaded hole

The log length can be adjusted to 20, 25, 30, 33, 40, 45 or 50 cm using the stop.

1. Undo the fastening screw and remove the stop.
 - On the stop support there are threaded holes for adjusting the cut length required.
2. Select the desired length and retighten the fastening screws.

6.2 Feed



1	Snap-in lock	4	Cotter pin
2	Stabiliser foot	5	Feed
3	Support holder		

Working position:

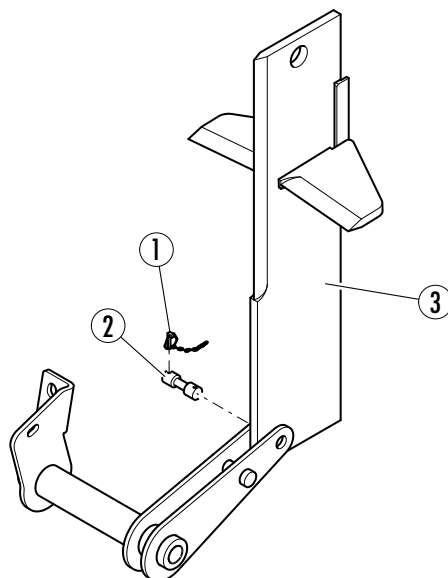
- Open the snap-in lock by turning it.
- Unlock and remove the connecting pin.
- Fold down the feed.
 - Make sure the support foot fits in the support foot holder.
 - Ensure that the feed belt is centred to prevent it being damaged.
- Pull out the feed extension (optional).

Transport position:

- Proceed as above but in the reverse order.

6.3 Splitting knife

6.3.1 Changing the splitting knife



1	Clip pin	3	Splitting knife
2	Splitting knife pin		

Removing:

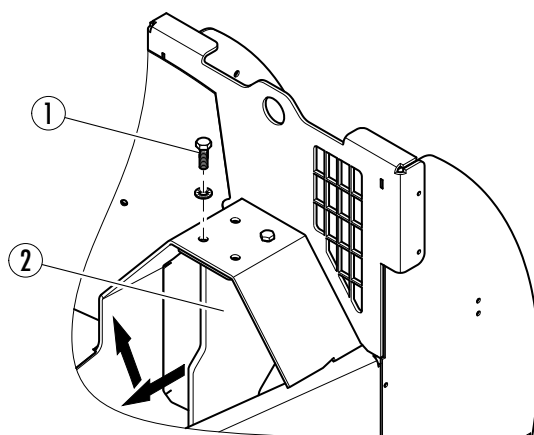
- Remove the clip pin.
- Support the splitting knife to prevent it from falling down.
- Pull out the splitting knife pin.
- Lift the splitting knife clear.

Installing:

- Proceed as above but in the reverse order.

👉 Grease the splitting blade before refitting it.

6.3.2 Splitting knife support



1	Hexagon bolt	2	Splitting knife support
---	--------------	---	-------------------------

Removing:

- Undo the four hexagon bolts.
- Tilt the splitting knife support forwards and pull it out upwards.

Installing:

- Proceed as above but in the reverse order.

7 Put out of operation

☞ Before switching off the machine, depressurise all hydraulic functions by placing all control levers in the neutral position.

7.1 Switching off the machine

Driven by electric motor (Type E)

Type E22

- Move the switch to the **0 position**.

Driven by tractor via universal joint shaft (type PZG)

- Disengage the universal joint shaft on the tractor.
 - Before disengaging, turn the manual throttle to minimum.

8 Transport



Before transport, it is vital to switch off the drive and secure it so it cannot be switched on accidentally or started-up by unauthorised persons.

Disconnect the machine from the mains.

- In addition, pull out the plug of the device.
- Disengage the universal joint shaft on the tractor.
 - Before disengaging, turn the manual throttle to minimum.

When turning off the machine, always be careful of the saw blade runout until the machine has come to a standstill.

8.1 Transporting by three-point linkage on the tractor



No one is permitted to stand in the area between the tractor and the machine during the raising or lowering process.

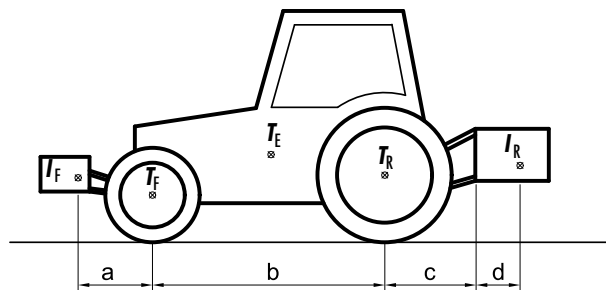
- Attach the machine to the three-point linkage and use the tractor hydraulics to raise it.

If the tractor's rear lights are obscured, a light must be fitted to the rear of the machine (e.g. magnetic holder, clip-on light, etc.)

Due to the weight of the machine, the tractor-machine combination can become unstable.

In order to test the overall stability, the following formula can be used to calculate the minimum weight on the front side $I_{F,min}$ with a minimum front axle load of 20% of the empty weight of the tractor:

$$I_{F,min} = \frac{(I_R \times (c + d)) - (T_F \times b) + (0,2 \times T_E \times b)}{a + b}$$



T_E	(kg)	Empty weight of the tractor	*
T_F	(kg)	Front axle load of the empty tractor	*
T_R	(kg)	Rear axle load of the empty tractor	*
I_R	(kg)	Total weight of the machine	**
I_F	(kg)	Total weight of the front load	
a	(m)	Distance between front load's centre of gravity and centre of the front axle	***
b	(m)	Wheelbase of the tractor	***
c	(m)	Distance between centre of the rear axle and centre of the lower link balls	***
d	(m)	Distance between centre of the lower link balls and the machine's centre of gravity	***

*..... see tractor operating instructions

**..... see "Technical Data" (It is vital to ensure that the weight of any additional equipment on the machine is taken into account)

***..... take measurement

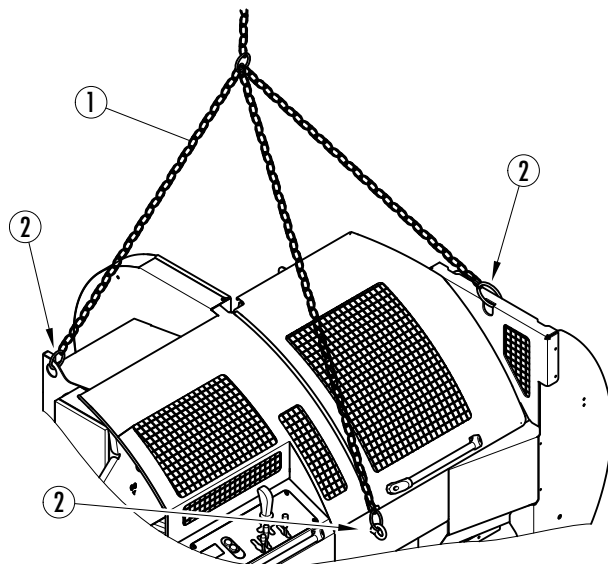


Observe the road traffic regulations when driving on public highways.

Maximum transport speed: 25 km/h

👉 When the machine is uncoupled from the tractor, it must be placed on a firm, level surface.

8.2 Lifting with a crane



1	Lifting gear	2	Lifting eye
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When using a crane, only lift the machine by the lifting eyes.

Only lifting gear with the permitted load capacity may be used.

9 Checks



Before control work on the machine, it is vital to switch off the drive and secure it so it cannot be switched on accidentally or started-up by unauthorised persons.

Disconnect the machine from the mains.

- In addition, pull out the plug of the device.
- Disengage the universal joint shaft on the tractor.
 - Before disengaging, turn the manual throttle to minimum.
- Remove the universal joint shaft from the tractor.

When turning off the machine, always be careful of the saw blade runout until the machine has come to a standstill.

9.1 Protective guards



All the protective guards (covers, safety grilles, etc.) must be in place on the machine at all times!

9.2 Screw fittings



Tighten all screws and nuts after the first hour of operation.

Tighten the screws and nuts after every 100 hours of operation.

- Replace missing screws and nuts.

9.3 Electrical equipment



Before each start-up, the condition of the electrical cables must be checked.

- Damaged cables must be replaced immediately.

A regular test of the electrical equipment should be carried out by an electrical specialist in line with the statutory requirements, but at least every three years, with the test results being recorded. As a minimum, the test should cover the following points:

- Visual inspection of correct condition
- Protective measures to prevent direct contact (basic protection)
- Protective measures to prevent indirect contact (fault protection)
- Where appropriate, protective measures providing additional protection
- Where appropriate, recording of the temperature of relevant electrical operating resources.

In the case of moveable electrical operating resources, the tests must cover the following, as a minimum:

- Visual inspection of correct condition
- Function test
- Where appropriate, test of the earth conductor and measurement of the earth conductor current
- Where appropriate, measurement of the insulation resistance.

Work on electrical equipment must only be carried out by qualified electricians.



9.4 Hydraulic lines



After the first hour of operation, check that all hydraulic connections are secure and are not leaking.

Check that all hydraulic connections are secure and are not leaking after every further 100 hours of operation.

- Damaged hydraulic lines must be replaced immediately.

9.5 Saw blade

Check that the saw blade is firmly seated before each use.

Check the saw blade for wear and damage before each use. Sharpen or replace it if necessary.

9.6 V-belt tension

The V-belts must be tensioned so that they deflect about 8 mm in the middle when thumb pressure is applied.

- See: Changing the V-belt [→ 36]

9.7 Oil level

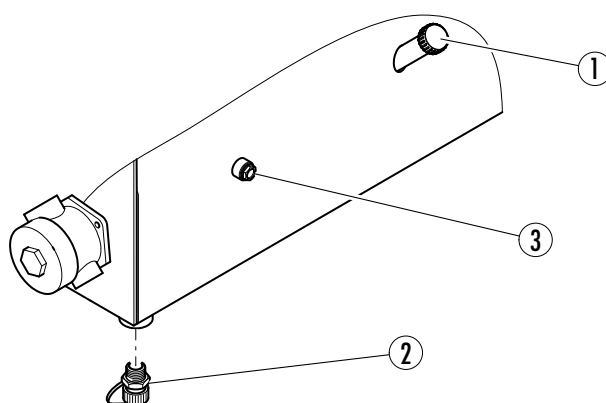
To check the oil level place the machine on an even surface.

☞ Check the oil level with the pusher retracted.

9.7.1 Hydraulic oil level

When the oil sight glass is filled above halfway, the oil level is at its maximum.

When the oil level is towards the bottom of the oil sight glass, the oil level is at its minimum.



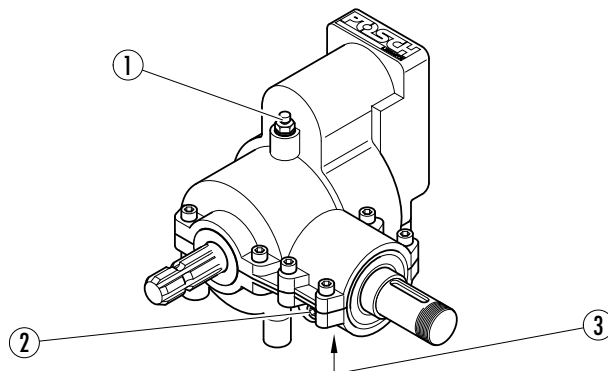
1	Oil inlet screw	3	Oil sight glass
2	Oil drain screw		

If this is the case, the hydraulic oil must be topped up immediately.

- See: Changing the hydraulic oil [→ 32]

☞ The oil filter only needs to be checked when the oil is changed.

9.7.2 Transmission oil level



1	Oil inlet screw	3	Oil drain screw
2	Oil level screw		

If the oil seeps out of the hole of the oil level screw when the machine is on level ground, the maximum oil level has been reached.

If the oil level is below the hole, this is the minimum oil level.

If this is the case, the transmission oil must be topped up immediately.

- See: Changing the transmission oil [→ 33]

10 Maintenance



Before maintenance work on the machine, it is vital to switch off the drive and secure it so it cannot be switched on accidentally or started-up by unauthorised persons.

Disconnect the machine from the mains.

- In addition, pull out the plug of the device.
- Disengage the universal joint shaft on the tractor.
 - Before disengaging, turn the manual throttle to minimum.
- Remove the universal joint shaft from the tractor.



Work on electrical equipment must only be carried out by qualified electricians.

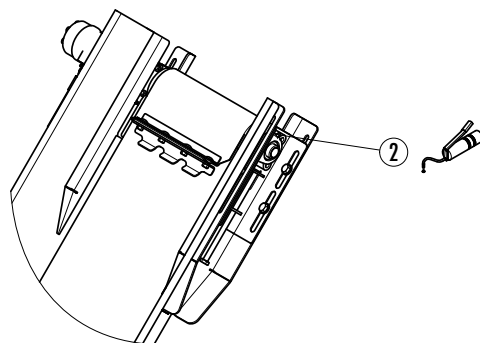
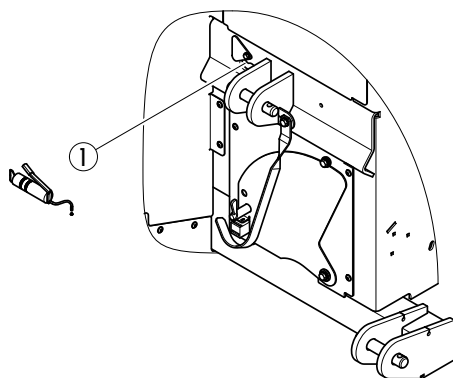
Never work without the protective guards in place.

Only use original - POSCH - spare parts.

10.1 Lubrication

Dispose of oily and greasy parts and oil residues in accordance with legal regulations.

10.1.1 Lubrication schedule



Lubrication intervals	Item	What/where
Weekly (every 40 operating hours - or fewer depending on use)	1	On the back of the central lubrication point - for the saw shaft
Monthly (every 160 operating hours - or fewer depending on use)	2	On conveyor belt, top housing bearing

 The lubrication points are marked with the lubricate symbol.

Recommended lubricating greases:

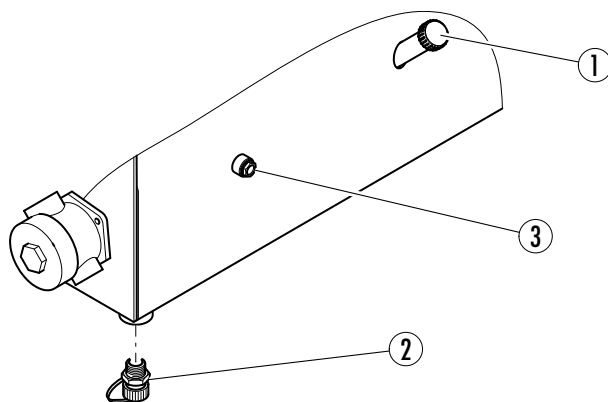
Manufacturer	Type
Genol	Multi-purpose grease
Fuchs	Multi-purpose grease 5028

10.2 Oil changing

Old oil must be disposed of in an environment-friendly manner. Find out about the environmental regulations in your country.

10.2.1 Changing the hydraulic oil

The first oil change should be carried out after 500 operating hours, all further oil changes should then be carried out after every 1000 operating hours or annually.



1	Oil inlet screw	3	Oil sight glass
2	Oil drain screw		

- Retract the pusher before changing the oil.
- Remove the oil filling screw.
- Open the oil drain screw.

👉 The oil drain screw is located on the base of the oil tank.

- Drain the old hydraulic oil into a container.
- Screw the oil drain screw back into the tank and fill with new hydraulic oil through the filler screw opening.
- Screw the oil filling screw into the tank.
- Turn on the machine and allow it to run for a short while.
- Check the oil level and top up hydraulic oil if necessary.

Total filling capacity of the hydraulic system:

Quantity
60 litre

👉 Please note that the information here concerns initial oil filling. Depending on the type and variant, the refill quantity may be slightly less (as some of the hydraulic components are not empty).

Our hydraulic system is filled with high-quality OMV ATF II transmission fluid.

- This oil has an extremely high viscosity index, exhibits excellent foaming and aging characteristics and excellent flow properties at low temperatures and protects reliably against wear and corrosion.
- Viscosity class ISO VG 46.

This high-quality oil comes highly recommended when changing the oil.

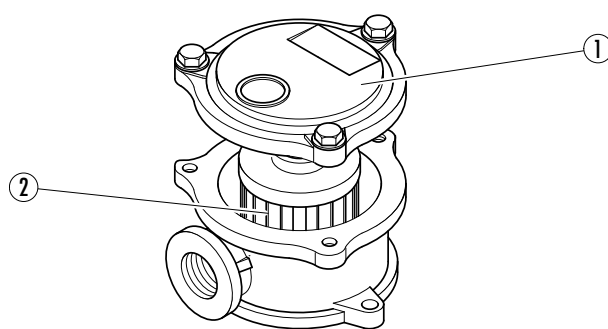
A mixture of products of the same quality poses no problem.

Recommended hydraulic oils

Manufacturer	Oil specification
OMV	ATF II
SHELL	Donax TA
ELF	Hydrelf DS 46
ESSO	Univis N46
CASTROL	Hyspin AWH-M 46
ARAL	Vitam VF46
GENOL	Hydraulic oil 520
FUCHS	Plantohyd 32S * / Renolin B46 HVI

*.....biological hydraulic oils

10.2.2 Oil filter



1	Filter cover	2	Filter insert
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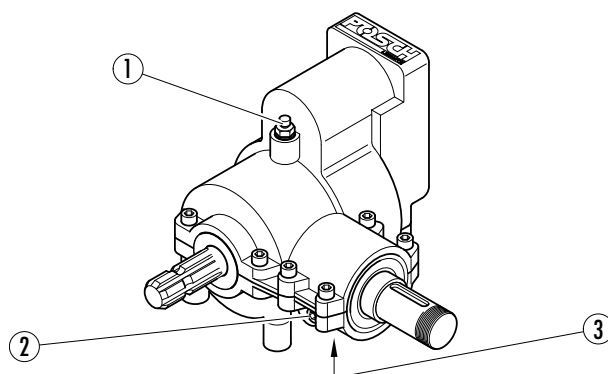
The filter insert should be changed every time the oil is changed.

Any aluminium particles can be disregarded, as these occur when the pump is running in.

Do not wash out the filter insert with petrol or paraffin products, as these damage it.

10.2.3 Changing the transmission oil

The first oil change should be carried out after 100 operating hours, further oil changes should then be carried out every 500 operating hours or yearly.



1	Oil inlet screw	3	Oil drain screw
2	Oil level screw		

- Unscrew the oil inlet and oil drain screw.
- Let the old oil drain out, then replace the oil drain screw.
- Add the new transmission oil.
- Check the oil level and top up transmission oil if necessary.
- Replace the oil filling screw.

Total filling capacity
0.8 litres

Recommended transmission oils

Manufacturer	Oil specification
OMV	Gear Oil MP SAE 85W-90
GENOL	Gear oil MP 90
FUCHS	Titan Gear Hypoid SAE 90

☞ Any other transmission oil can be used, so long as it is in viscosity class SAE 90.

10.3 Saw blade

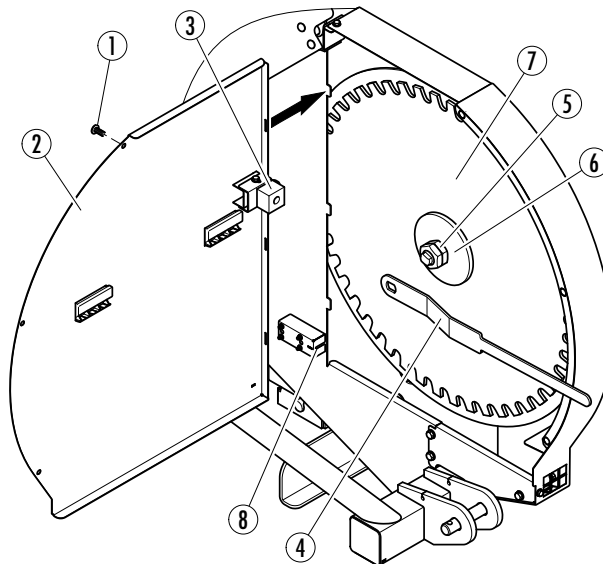


Always wear protective gloves when handling saw blades.

Only strengthened POSCH saw blades may be used. Standard saw blades are too weak and pose a safety risk.

Observe the maximum saw blade speed specified by the manufacturer.

10.3.1 Changing the saw blade



1	Hexagon bolt	5	Clamping nut
2	Rear safety guard	6	Spring flange
3	Wood insert	7	Saw blade
4	Circular saw wrench	8	Limit switch

- Undo the hexagon bolts of the safety guards and open the safety guards.

- Hold the circular saw shaft with the spring flange wrench and undo the clamping nut with the circular saw wrench.
- Remove the spring flange and the saw blade.
- Put the new blade in and secure it.



The clamping nut must be screwed back on as it was before.

☞ Position the saw blade in such a way that the saw blade teeth are pointing in the direction of rotation (see arrow).

- Fasten the wood insert about 2 mm away from the saw blade.
- Close the safety guards and secure them again.

☞ Ensure that all chips are removed from around the limit switch.

The tongue of the limit switch must slip easily into the limit switch when closing.

Recommended saw blade

Item no.	Diameter	Hole	Teeth	Type
Z1300130	900 mm	40 mm	96	Carbide (widia)



Only saw blades conforming to the EN 847-1 standard may be used.

Safety of the saw blade

In accordance with the EN 1870-6 standard, the saw blade is secured with Aluminium inserts.

These are subject to wear and should be replaced **as soon as they are worn out**.

10.3.2 Sharpening the saw blade

☞ Saw blades should only be resharpened by a specialist company.

Carbide saw blade

Usage tips for carbide saw blades



Carbide tipped circular saw blades have a long service life. These blades are high precision machine tools, so must always be correctly handled and used.

- The hardness of the carbide tips means they must be protected from nicks.
 - Incorrect storage can result in damage to the tips of the teeth. Place the circular saw blade on foam rubber or a similar surface.
 - Do not attempt to cut any nails, metal brackets or anything similar that may be in the wood.
 - The circular saw blade must not be subjected to any impacts or knocks.
- Before starting up the motor, check the free-running of the circular saw blade and ensure that the direction of rotation is correct.
- Running down circular saw blades must not be slowed by external means.
- Feed slowly and continuously, avoid any jerky cutting movements.
- Clean the circular saw blade regularly with a resin removing agent.
- In no-load operation the carbide circular saw blade generates less noise. When cutting the noise level depends on the type of wood being cut.

☞ Incorrect use will invalidate any warranty claims. Resin-coated blades are excluded from the warranty exchange service.

10.4 Changing the V-belt

10.4.1 Tips on changing the V-belt



If one V-belt is being changed, then all V-belts must be changed!

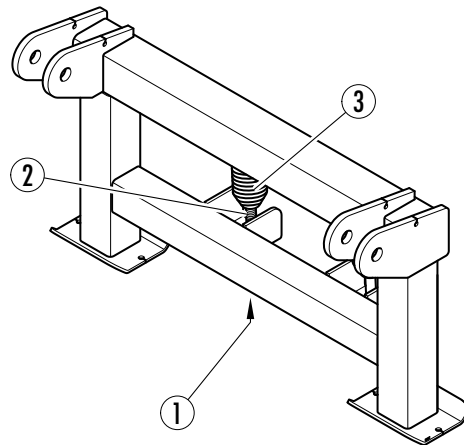
The V-belts must be fitted loose. If they are "forced" onto the V-belt pulley, they may be damaged and quickly tear.

☞ The V-belts must be tensioned so that they deflect about 8 mm in the middle when thumb pressure is applied.

V-belt types

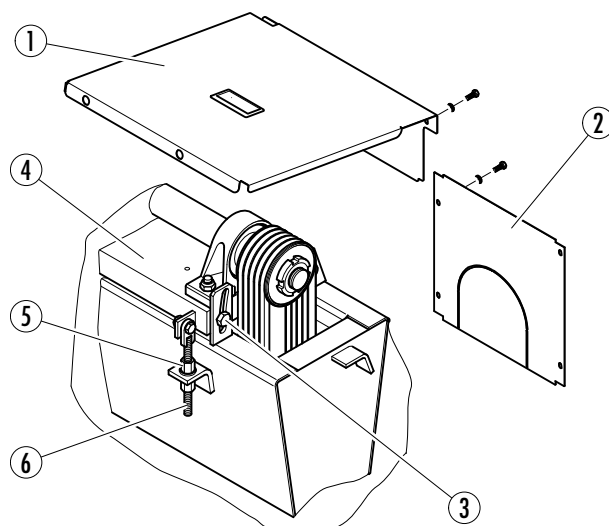
Machine type	Belt	Number (pcs.)	Item no.
Z	XPA 1285 Lw	4	Z1940086
ZE22D	XPA 1285 Lw	4	Z1940086

10.4.2 Changing the V-belts on PTO drives



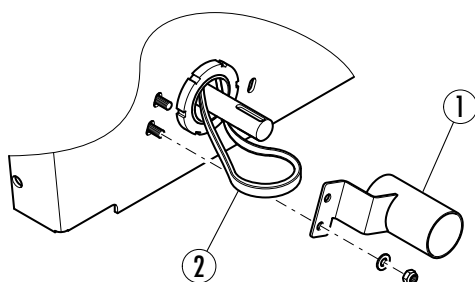
1	Lock nut	3	Tension spring
2	Tensioning screw		

- Loosen the lock nuts on both tensioning screws.
- Remove both tension springs from the saw feed completely.



1	Cover - V-belt	4	Adjustment plate
2	PTO shaft cover	5	Lock nut - tensioning screw
3	Hexagon bolt - adjustment plate	6	Tensioning screw

- Remove the cover for the V-belt and the PTO shaft cover.
- Undo the four hexagon bolts of the adjustment plate.
- Undo the lock nuts of both tensioning screws, so that the adjustment plate is lowered.

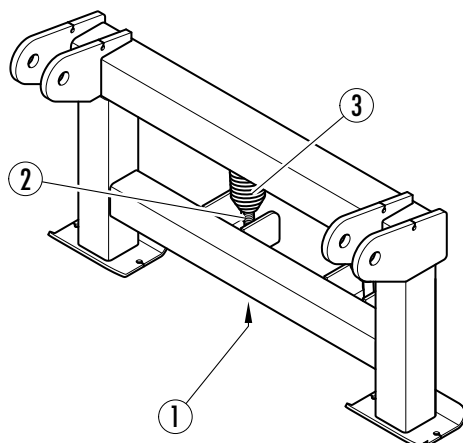


1	Shaft guard	2	V-belt
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- Remove the shaft guard.
- Remove the old V-belts.
- Unthread the V-belt through the hole.
- Fit the new V-belts.
- Fit the shaft guard.
- Tension the V-belts.
- Lock the lock nuts on both tensioning screws.
- Tighten the four hexagon bolts of the adjustment plate.
- Tighten both tension springs on the saw feed, as they were before they were undone.
- Lock the lock nuts on both tensioning screws.
- Fit the cover for the V-belt and the PTO shaft cover.

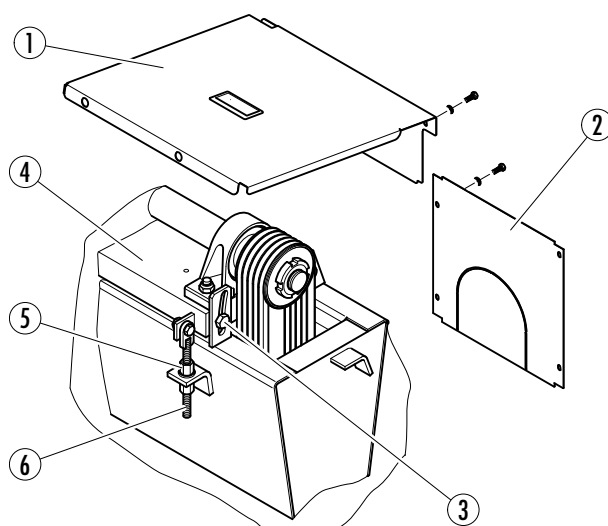
Before operating, all protective guards must be attached to the machine.

10.4.3 Changing the V-belts on PTO/electric drives



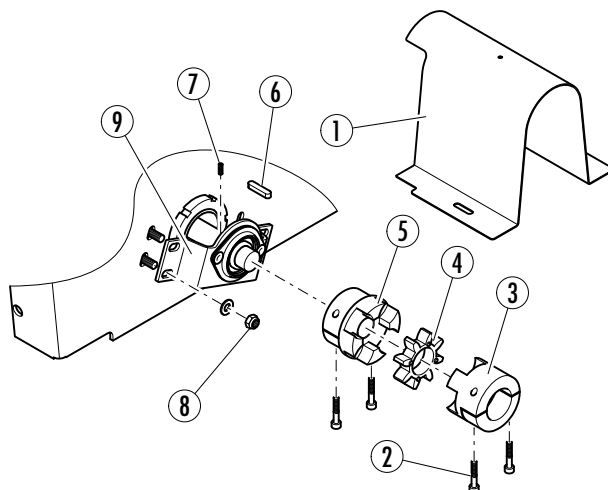
1	Lock nut	3	Tension spring
2	Tensioning screw		

- Loosen the lock nuts on both tensioning screws.
- Remove both tension springs from the saw feed completely.



1	Cover - V-belt	4	Adjustment plate
2	PTO shaft cover	5	Lock nut - tensioning screw
3	Hexagon bolt - adjustment plate	6	Tensioning screw

- Remove the cover for the V-belt and the PTO shaft cover.
- Undo the four hexagon bolts of the adjustment plate.
- Undo the lock nuts of both tensioning screws, so that the adjustment plate is lowered.

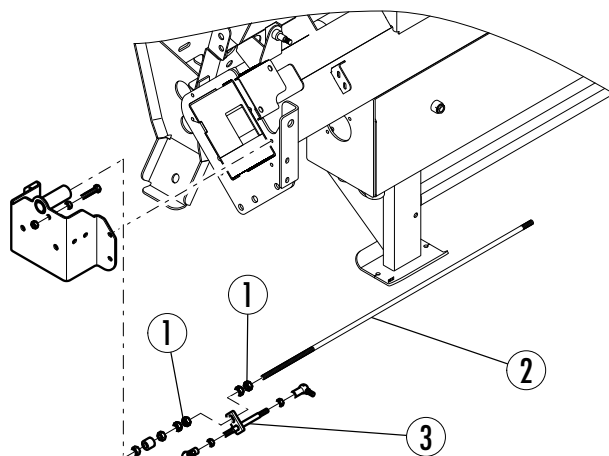


1	Guard plate	6	Parallel key
2	Allen screw	7	Threaded pin
3	Coupling part – electric motor	8	Hexagon nut
4	Coupling hub	9	Bearing flange
5	Coupling part - transmission		

- Undo the hexagon bolts of the guard plate and remove the plate.
- Loosen the Allen screws from the coupling parts.
- Remove the coupling part from the electric motor.
- Remove the coupling hub.
- Remove the coupling part from the transmission.
- Remove the parallel key.
- Unscrew both threaded pins from the plate flange bearing.
- Loosen the hexagon nut from the bearing flange and pull out the bearing flange.
- Remove the old V-belts.
- Unthread the V-belt through the hole.
- Fit the new V-belts.
- Fit the bearing flange.
- Screw in both threaded pins of the plate flange bearing and secure them (Loctite 242 threadlocker).
- Fit the parallel key.
- Fit both coupling parts using the coupling hub.
 - Tightening torque of the Allen screws: 70 Nm
- Attach the guard plate.
- Tension the V-belts.
- Lock the lock nuts on both tensioning screws.
- Tighten the four hexagon bolts of the adjustment plate.
- Tighten both tension springs on the saw feed, as they were before they were undone.
- Lock the lock nuts on both tensioning screws.
- Fit the cover for the V-belt and the PTO shaft cover.

Before operating, all protective guards must be attached to the machine.

10.5 Splitting



1	Lock nut	3	Valve shut-off rod
2	Shut-off rod		

If the splitter pusher does not automatically retract, proceed as follows:

- Remove the front control panel and guard plate.
- Undo the lock nuts and turn inwards slightly - the shut-off rod will be shortened slightly.
- Lock the nuts in this new position.

Ensure a play of approx. 1 - 2 mm between the nuts and the valve shut-off rod (3).

- Switch on the machine and carry out a work cycle with no wood.
- Switch on the machine and carry out a work cycle with no wood.

👉 Repeat points 1-4 until the splitter is working correctly.

10.6 Limit switch

If the motor will not start on machines with a PTO/electric drive, the limit switch may be dirty, incorrectly adjusted or defective.

- Limit switch dirty.
 - Clean all dirt from the limit switch (using compressed air if necessary).
- Limit switch incorrectly adjusted:
 - Readjust limit switch or limit switch tongue.
- Limit switch defective:
 - Replace limit switch.

10.7 Feed belt

10.7.1 Notes regarding the conveyor belt

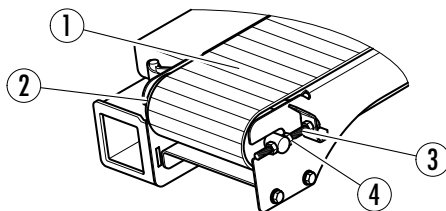


Check that the belt runs centrally. It must not run off centre.

- If this happens, centre the belt by adjusting the drive pulley or return drum.

👉 From time to time remove the material that drops down underneath the conveyor belt, otherwise the belt may be damaged.

10.7.2 Conveyor belt - ensuring the machine is running centrally



1	Conveyor belt	3	Tensioning screw
2	Return drum	4	Lock nut

If the conveyor belt is not running centrally on the drive and/or return drum, it is possible to adjust the direction of travel.

- Loosen the lock nuts on both tensioning screws.
- Align the return drum by tightening both tensioning screws evenly.
- Lock the lock nuts on both tensioning screws.

10.7.3 Tensioning the belt

The conveyor belt may become slack over time as a result of wear and tear. If this happens, the belt must be retensioned.

- Loosen the lock nuts on both tensioning screws.
- Tension the conveyor belt by tightening both tensioning screws evenly.
- Tension the conveyor belt sufficiently (underside of belt must not sag).
- Lock the lock nuts on both tensioning screws.

10.8 Cleaning



Before cleaning work on the machine, it is vital to switch off the drive and secure it so it cannot be switched on accidentally or started-up by unauthorised persons.

Disconnect the machine from the mains.

- In addition, pull out the plug of the device.
- Disengage the universal joint shaft on the tractor.
 - Before disengaging, turn the manual throttle to minimum.
- Remove the universal joint shaft from the tractor.

Clean the machine regularly to ensure proper operation.

Only wash new machines (during the first 3 months) with a sponge.

- The paint is not yet completely set, so cleaning with a high pressure cleaner may damage the finish.

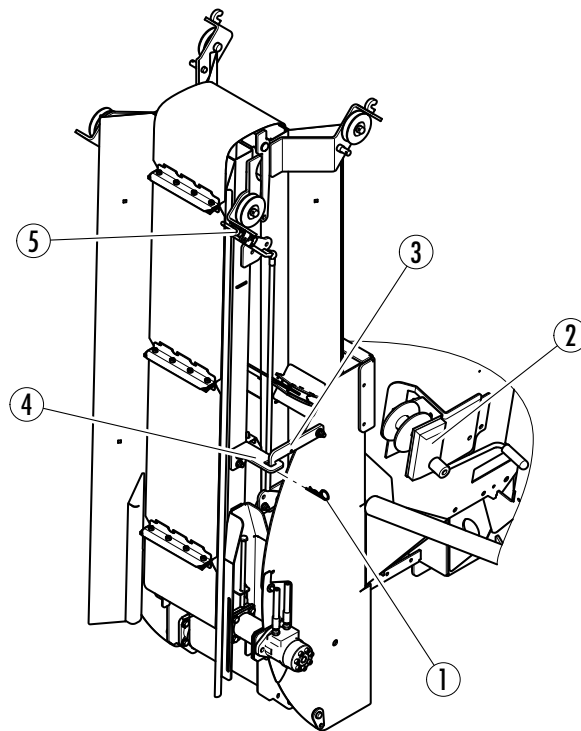
11 Special equipment

11.1 Conveyor belt

11.1.1 Conveyor belt types

Conveyor belt type	Conveyor belt length	Conveyor height	Belt width
F15	150 cm	100 cm	30 cm
KF4	400 cm	250 cm	30 cm
KF5	500 cm	300 cm	30 cm

11.1.2 Set up conveyor belt



1	Spring cotter	4	Tab
2	Rope winch	5	Eccentric lock
3	Securing hook		

Working position:

- Pull out the spring pin.
- Gently tension the rope winch, so that the securing hook can be pulled out of the tab.
- Fold out the conveyor belt completely using the rope winch, until the rope becomes slack and the conveyor belt is stretched out.
- Use the cam-type closure to secure the upper and lower parts of the conveyor belt.

Setting the conveyor belt angle:

- Crank the conveyor belt to the desired height using the rope winch.
- Mount the chain on both sides in this position.
 - The smallest angle is achieved with the whole chain length.
 - A steeper angle can be achieved by attaching the chain shorter on the fixing hook.

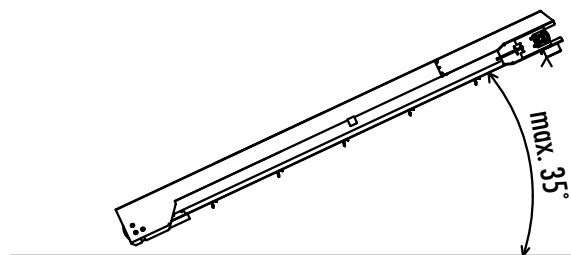


Ensure that the chain is correctly attached to the fixing hook.

Never hook the chain onto the point of the hook.

- Release the rope again so that it is slack.

The angle of the conveyor belt may not exceed 35° or it will be destroyed during splitting.



Transport position:

- Proceed as above but in the reverse order.

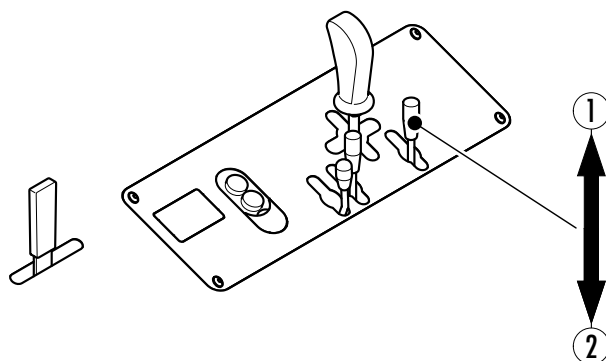
11.1.3 Connection - conveyor belt

- Connect the hydraulic hoses of the conveyor belt to the machine.
 - Connect the hydraulic hoses to the hydraulic sleeves. Ensure that colours match; blue dust caps (flow) and yellow dust caps (return) go with one another.



If the conveyor belt is not connected, the dust caps must be put on the connectors and sleeves to protect them from dust and dirt.

11.1.4 Operation - conveyor belt



1	Conveyor belt - forwards	2	Conveyor belt - return
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- Switch on the conveyor belt using the control lever (conveyor belt on).

11.1.5 Maintenance - conveyor belt

11.1.5.1 Notes regarding the conveyor belt

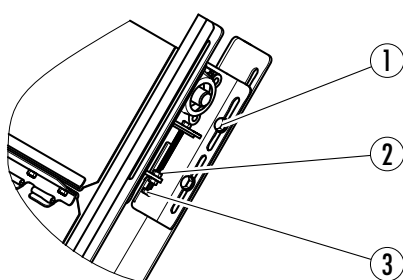


Check that the belt is running centrally. The belt drive dogs must not move.

- If they do, the belt must be corrected so it runs centrally by adjusting the drive pulley or return drum.

👉 From time to time remove the material that drops down underneath the conveyor belt to prevent damage to the belt drive dogs.

11.1.5.2 Conveyor belt - set central running



1	Fastening screw	3	Tensioning screw
2	Lock nut		

If the conveyor belt is not running centrally on the drive and/or tail pulleys, it is possible to adjust the direction of travel.

- Slightly loosen the fastening screws on each side of the conveyor belt.
- Loosen the lock nuts on both tensioning screws.
- Align the return drum by tightening both tensioning screws evenly.
- Tighten the lock nuts again.
- Tighten the fastening screws on both sides.

11.1.5.3 Tension conveyor belt

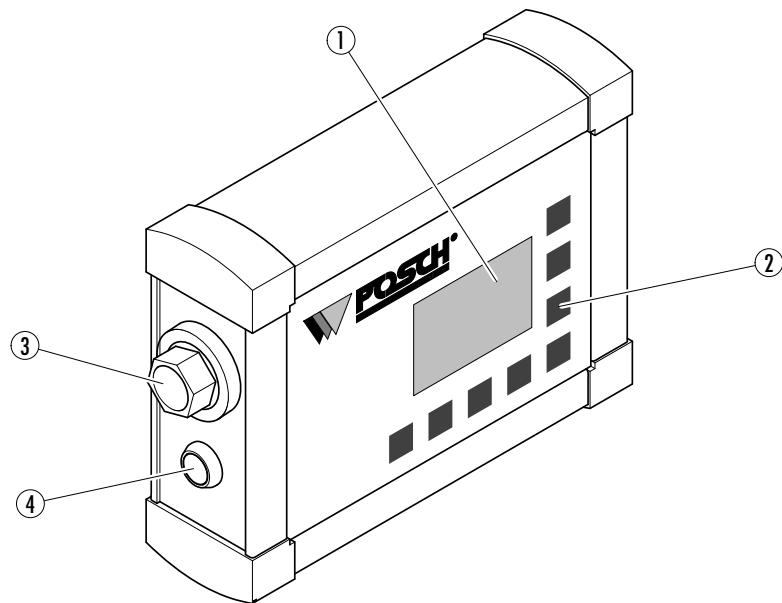
The conveyor belt may become slack over time as a result of wear and tear. If this happens, the belt must be retensioned.

- Move the conveyor belt to the working position.
- Slightly loosen the fastening screws on each side of the conveyor belt.
- Loosen the lock nuts on both tensioning screws.
- Tension the upper part of the conveyor belt by tightening both tensioning screws evenly.
- After the belt has been tensioned sufficiently, lock the tensioning screws again using the lock nuts.
- Tighten the fastening screws on both sides.

11.2 “VolumeControl”

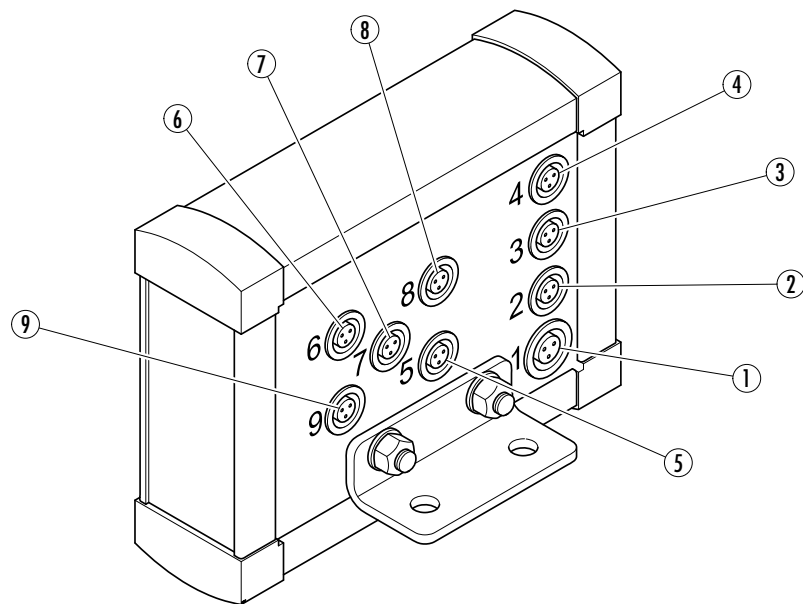
The “VolumeControl” control unit is used to detect the volume of wood that has been processed.

Front:



1	Display	3	USB socket with cover
2	Control buttons	4	Update button

Rear:



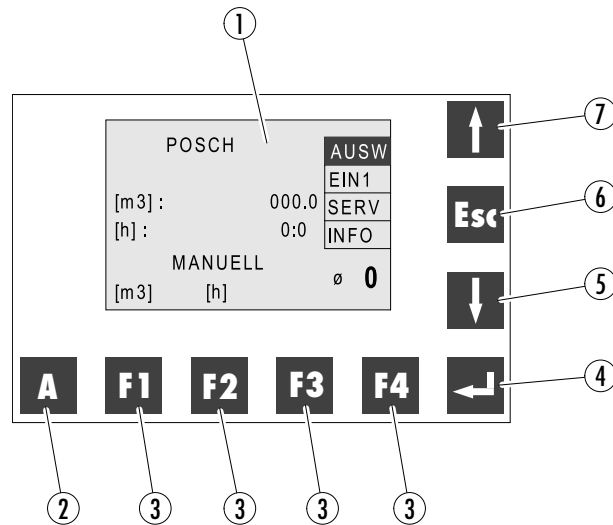
Connections:

1	No. 1 – Supply voltage SS1	6	not assigned
2	No. 2 – Rope hoist sensor SS8	7	No. 7 Pressure sensor SS6
3	not assigned	8	No. 8 Log diameter laser SS7
4	not assigned	9	not assigned
5	not assigned		

Description of function

When the machine is started up, voltage is automatically supplied to the control unit (10 - 30 V - DC), there is no additional On/Off button on the device.

Significance of the keys and the display:



1	Basic display after switch-on
2	not assigned
3	Function keys F1 – F2 (F3 – F4 not assigned)
4	Enter key (confirm)
5	Arrow key (down)
6	Escape key (cancel/exit)
7	Arrow key (up)

F1 - Switch between daily and total volume counter “m³ FIXED COUNTER” (reset the daily volume counter by holding down the key)

F2 - Switch between daily and total hour counter (reset the daily hour counter by holding down the key)

General note:

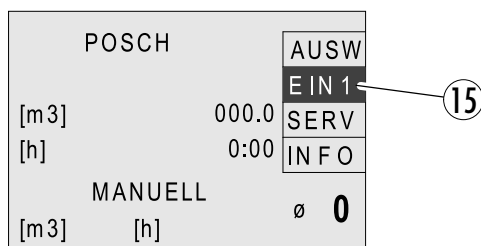
👉 With second splitting operations, care must be taken to ensure that the wood is not positioned below the laser beam again, as an excessively large volume of wood will be calculated otherwise.

User settings

In principle, the values are set to an optimum level and should not be changed.

However, the user can change some settings if necessary.

- Using the arrow key [down], navigate to the [EIN1] field (15) and select [Client Menu] with the [Enter key].



- Using the arrow key [up / down], select the desired adjustment.
- Press the [Enter key] and change the value using the arrow key [up/down].
- Confirm the new value with the [Enter key].



[Load relieving:]	not assigned
[Tolerance pressure:]	Difference in pressure when length measurement is activated. Factory setting: 5 bar
[Log deviation:]	not assigned
[Volume no ø-value:]	If no log section is found under the log diameter laser sensor when triggering the splitting process (wood too short, transverse, etc.), a selection can be made as to whether the last log diameter is included in the volume calculation (ON) or not (OFF). Factory setting: ON
[Splitter release:]	not assigned
[Language:]	Menu language (German, English, French) Factory setting: German
[Display:]	Light/dark - mode Factory setting: Day
[Contrast:]	Display contrast Factory setting: 22
[Log file:]	Creating a record → see Creating a log file Factory setting: OFF
[Flash Disk ready]	USB stick connected and ready
[V2.00]	Version number

- Using the arrow key [up], return to the [START] field (16) and return to the start menu using the [Enter key].

Creating a log file:

- Open the USB socket cover at the side of the housing.
- Connect the USB stick (FAT32 compatible) to the USB port.
- Navigate to the [Client menu] (see "User settings" for description).
- Using the arrow key [up], navigate to the [Log file: / OFF] field and press the [Enter key].
- Using the arrow key [up / down], set the value to [ON].
- Press the [Enter key].
- Using the arrow key [up], navigate to the [NEW] field and press the [Enter key] → The log file will be saved, increasing the number of log files by 1.
 - Each time the [Enter key] is pressed, the number of log files will increase by 1, which makes it possible to create a new log file for each volume unit (packing unit).

👉 Wait approximately another 15 secs after the last splitting process.

- Using the arrow key [up], return to the [START] field and return to the start menu using the [Enter key].
- Disconnect the USB stick at the side of the housing.
- Close the cover of the USB socket again.

Operating information

This is where the operating conditions of the machine are displayed.

- Using the arrow key [up / down], navigate to the [INFO] field (17) and press the [Enter key].

POSCH		AUSW
[m3]	000.0	EIN 1
[h]	0:00	SERV
MANUELL		INFO (17)
[m3]	[h]	Ø 0

- Using the arrow key [up / down], navigate to the desired row.

Info Menü	START (16)
Aktivierungen:	0003
Spalthübe:	0000
Maximaldrücke:	
0-100:	00000
101-200:	00000
201-300:	00000

↓

201-300:	00000
Aufgetretene Ø:	%
0-150:	00000 0
150-250:	00000 0
250-350:	00000 0
350-450:	00000 0
450-650:	00000 0

[Activation:] Number of activation processes
 [Splitting strokes:] not assigned
 [Maximum pressures:] not assigned
 [Occurrences Ø %:] Percentage of processed log diameters

- Using the arrow key [up], return to the [START] field (16) and return to the start menu using the [Enter key].

Error messages

In the event of faulty wires or sensors, an error message (18) is displayed.

Sekti Nennø	START
1: 15 35-50cm	USB
2: 6 13-35cm	
Störung N 15 / 15 (18)	
Leitung Lasersens	
5: 0 0-0cm	Offset:
6: 0 0-0cm	193mm

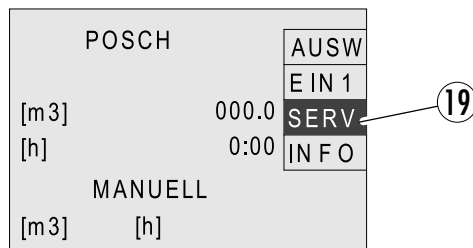
- Delete this message by pressing the [Enter key] or [Esc key].
 - Please contact Posch Service if necessary.

Notification	Cause	Rectification
"Diameter too large"	log too large	remove log that is too large

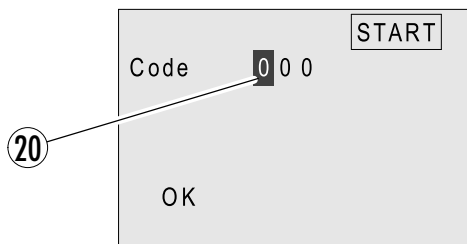
System settings

When a machine or individual control is delivered, the basic settings are already pre-set and should not be changed without consulting with Posch Service.

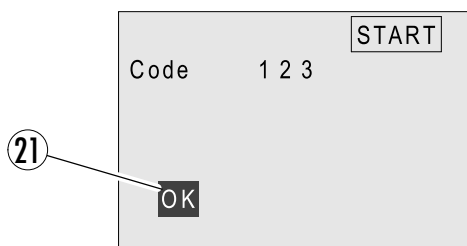
- Using the arrow key [up / down], navigate to the **[SERV]** field (19) and press the [Enter key].



- Using the arrow key [up / down], navigate to the first digit (20) in the line [Code].



- Press the [Enter key] and enter the value **1** using the arrow key [up/down].
- Confirm the value **1** with the [Enter key].
- Using the arrow key [up / down], navigate to the second digit.
- Press the [Enter key] and enter the value **2** using the arrow key [up/down].
- Confirm the value **2** with the [Enter key].
- Using the arrow key [up / down], navigate to the third digit.
- Press the [Enter key] and enter the value **3** using the arrow key [up/down].
- Confirm the value **3** with the [Enter key].
- Using the arrow key [down], navigate to the line [OK] (21) and navigate to the system menu with the [Enter key].



- Using the arrow key [up / down], select the desired adjustment.
- Press the [Enter key] and change the value using the arrow key [up/down].
- Confirm the new value with the [Enter key].

Posch Menü		START 22
maximaler Hub:	500mm	
Wannenwinkel:	120°	
Sensorhöhe:	830mm	
Laser øwert	Kalibrieren	
900	0mm	
Funktion:	Automatik	

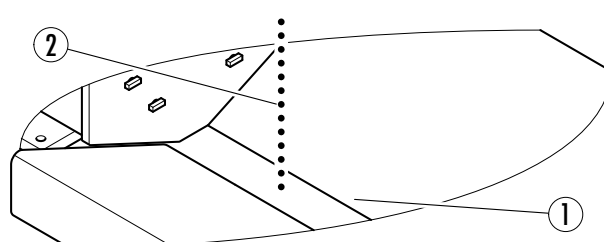
↓

Laser øwert	Kalibrieren
900	0mm
Funktion:	Automatik
Nenndruck:	200bar
Max.Holzlänge:	500mm
Max.Holzdurchm:	550mm
Spaltauslös.-S-400	AUS

[maximum stroke:]	not assigned
[Trough angle:]	Angle of the splitting trough
[Sensor height:]	Distance of the "log diameter" laser sensor from the centre of the splitting trough (displayed on the sensor) See Calibration function (in accordance with the table)
[Laser ø value]	Displayed internal value (cannot be changed, is only displayed)
[Calibrate]	The "log diameter" laser sensor is calibrated See Calibration function (in accordance with the table)
[Function:]	Automatic: Knife adjustment and volume measurement Measurement operation: volume measurement only (e.g. for S-360)
[Nominal pressure:]	not assigned
[Max. log length:]	Maximum length of the sawn piece of wood
[Max. log diameter:]	Maximum applicable log diameter
[Splitter S-400]	not assigned

Calibration function:

- To set the sensor height, place the supplied angle plate (a solid sheet of paper) in the splitting trough so that the laser beam hits the centre.



1	Splitting trough	2	Laser beam
---	------------------	---	------------



Never stare into the laser beam.

For further information, please consult the supplied laser sensor user guide.

- Read the value off the laser sensor and enter in the [Sensor height] field.
- Using the arrow key [up / down], return to the [Calibrate] field and confirm with the [Enter key].

Using the calibration function, any possible transmission discrepancy between the laser sensor and control is offset.

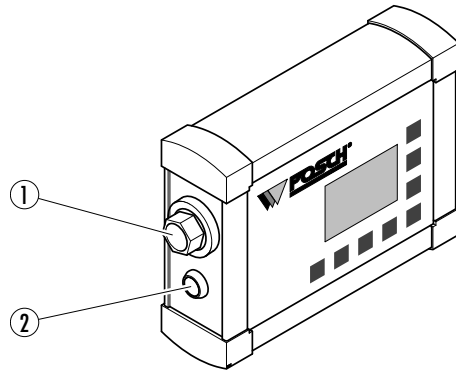
- Using the arrow key [up], return to the [START] field (22) and return to the start menu using the [Enter key].

Software update

It is possible to install new operating software using a USB stick (FAT32 compatible).

This software is provided by POSCH.

After loading the new software, all system settings and counter values are retained.



Update procedure:

- Disconnect the device from the electricity supply.
 - Pull out the supply plug on the rear or switch off the machine.
- Open the USB socket cover at the side of the housing.
- Connect the USB stick to the USB socket (1) and press/hold down the Update key (2).
- Restore the power supply.
- Once the display begins to flash blue, release the Update key.
 - The display continues to flash for approximately 30 seconds and then glows blue continuously → loading is complete.
- Disconnect the device from the electricity supply and remove the USB stick.
- Close the cover of the USB socket again.
- Restore the power supply.
 - The update procedure is complete and the new software has been loaded.

👉 Pressing the Update key at another time or in another operating mode does not have any effect.

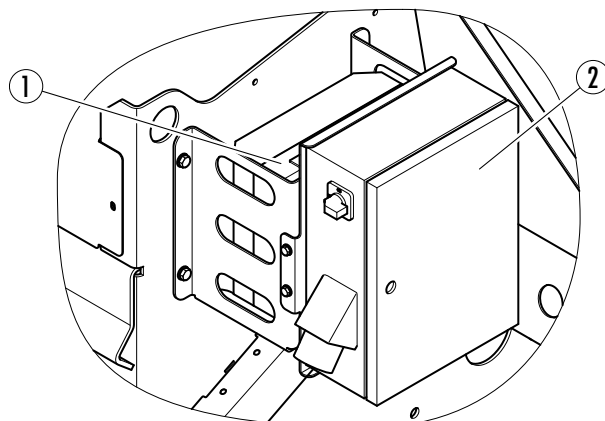
External voltage



If work is to be carried out on the machine with an external voltage source (e.g. welding equipment, external start-up aid in the case of a combustion motor, etc.), it is vital that the voltage supply to control is interrupted.

- Remove the plug for the voltage supply at the rear.

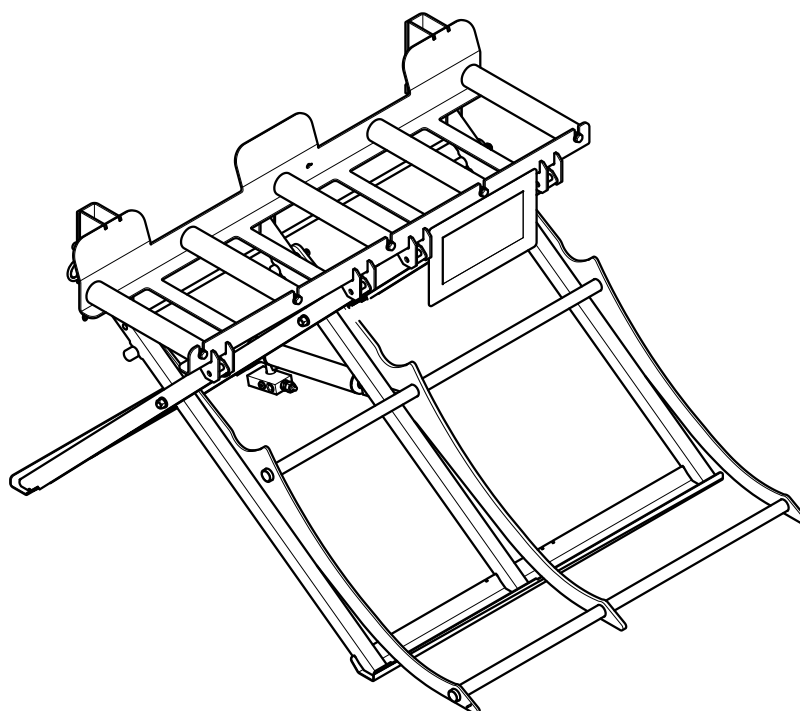
11.3 Oil cooler



1	Oil cooler	2	Switchgear cabinet
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The oil cooler protects the hydraulic system against high temperatures and hence the need for frequent maintenance.

11.4 Lifting device

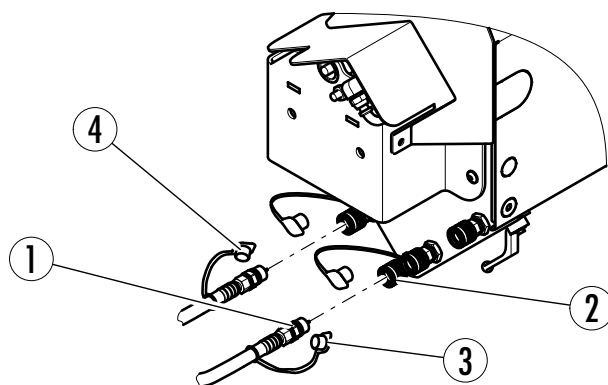


The log can easily be raised with the hydraulic lifting device.

11.4.1 Setting up the lifting device

Position the lifting device so it is aligned with the machine.

11.4.2 Connecting the lifting device



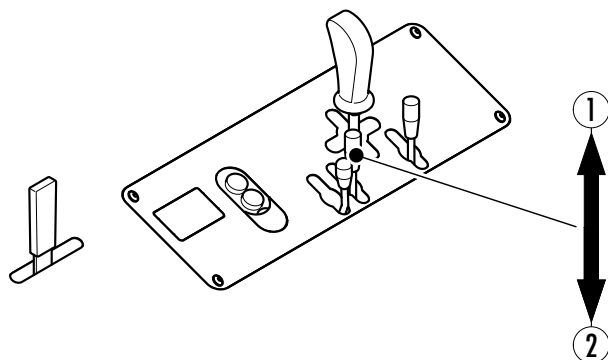
1	Hydraulic connector	3	Dust cap - blue
2	Hydraulic sleeve	4	Dust cap - yellow

- Connect the hydraulic hoses of the lifting device to the machine.
 - Connect the hydraulic connectors to the hydraulic sleeves. Ensure that colours match; blue dust caps (flow) and yellow dust caps (return) go with one another.



If the transverse feeder is not connected, the dust caps must be put on the connectors and sleeves to protect the latter from dust and dirt.

11.4.3 Operation - lifting device

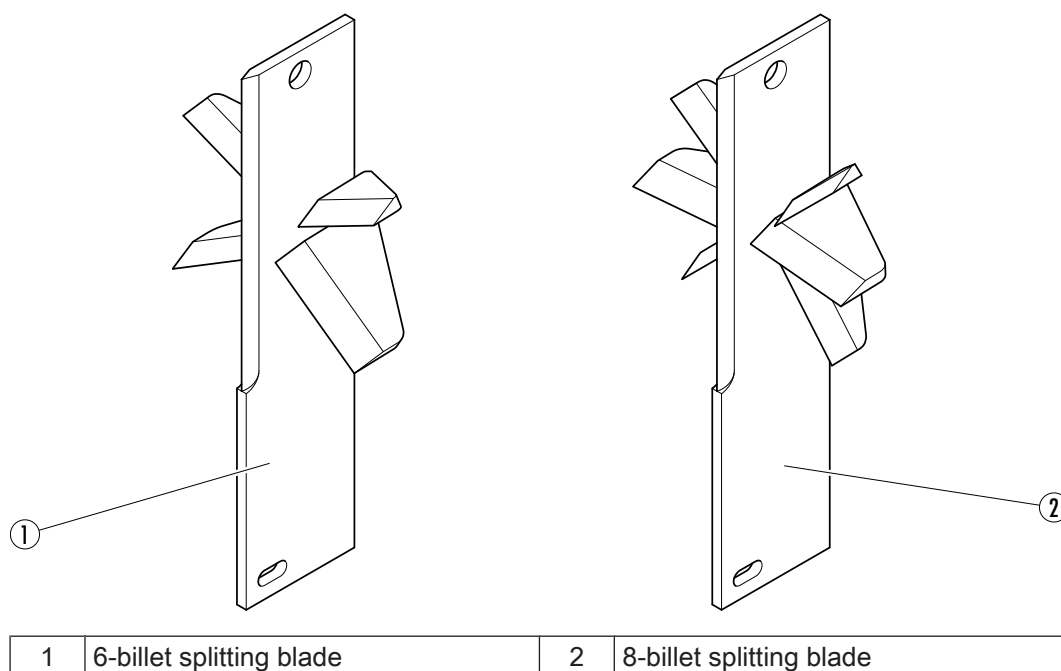


1	Lifting device – up	2	Lifting device - down
---	---------------------	---	-----------------------

- Lift the log with the control lever (lifting device - up).

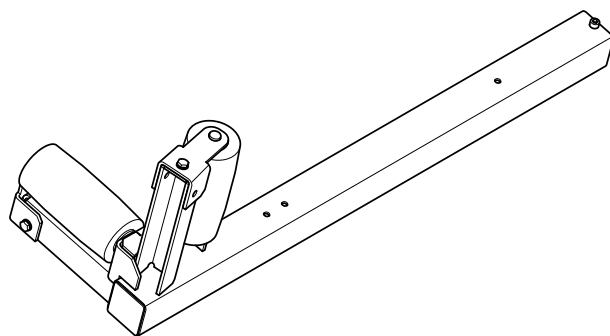
12 Additional equipment

12.1 Splitting blade variants



The log is split into 4, 6 or 8 pieces (billets) in one splitting process.

12.2 Feed extension



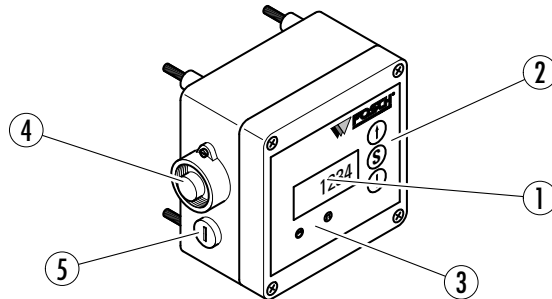
This allows longer logs to be laid and supported on the feed conveyor belt.

12.3 “SawControl”

During operation, the “SawControl” control unit monitors the speed of the saw blade and thereby regulates the feed.

As a result, power peaks and/or saw overloads are avoided.

The hour counter that is included records the operating hours.

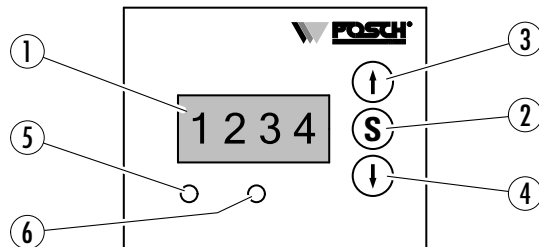


1	Display	4	Sensor connector
2	Control buttons	5	Fuse
3	LED display		

Description of function

When the machine is started up, voltage is automatically supplied to the control unit (10 - 30 V - DC), there is no additional On/Off button on the device.

Significance of the keys and the display:



1	Basic display after switch-on
2	S-key (select and/or save key)
3	Arrow key (up)
4	Arrow key (down)
5	LED (operation)
6	LED (pulse)

Operating information

Operating mode

The LED (operation) is lit when the voltage supply is present.

The LED (pulse) flashes/is lit when the saw blade is running.

Hour counter

When the machine is in operation, the operating hours can be read off.

- Briefly press the S-key.
 - The operating hours are displayed.

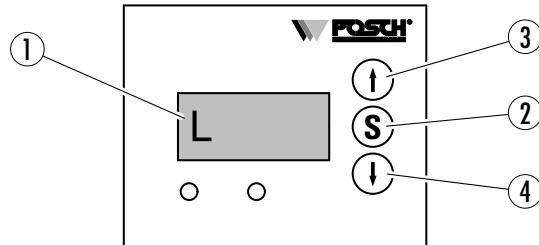
The operating hours cannot be deleted.

Display

When the machine is in operation, the speed of the saw blade will be shown on the display.

System settings

When a machine or individual control is delivered, the basic settings are already pre-set and should not be changed without consulting with Posch Service.



- Start the machine by simultaneously pressing the S-key:
 - Electric motor driven: Press “Machine start”
 - PTO driven: Connect the 3-pin continuous current plug to the tractor.
- Hold down the S-key until [L] is shown on the display.
- Release the S-key.
- Using the arrow key [up / down], select the required minimum speed.
- Press the S-key once, [n] is shown on the display.
- Using the arrow key [up / down], select the required target speed.
- Press the S-key, [H] is shown on the display.
- Using the arrow key [up / down], select the required maximum speed.
- Press the S-key, [ret] is shown on the display.
- Enter “0000” using the arrow key [up / down] (automatic mode).
- Press the S-key, [IPU] is shown on the display.
- Enter “1” using the arrow key [up / down] (sensor disc has a pulse).
- Press the S-key, [out1] is shown on the display.
- Enter “etr” using the arrow key [up / down] (solenoid valve 1 on).
- Press the S-key, [out2] is shown on the display.
- Enter “etr” using the arrow key [up / down] (solenoid valve 2 on).
- Press the S-key.

[L]	Minimum speed Factory setting: P15
[n]	Target speed Factory setting: 1450
[H]	Maximum speed Factory setting: 1700
[ret]	Restart speed Factory setting: 0000
[IPU]	Pulse per rotation Factory setting: 1
[out1]	Output 1 Factory setting: etr
[out2]	Output 2 Factory setting: etr

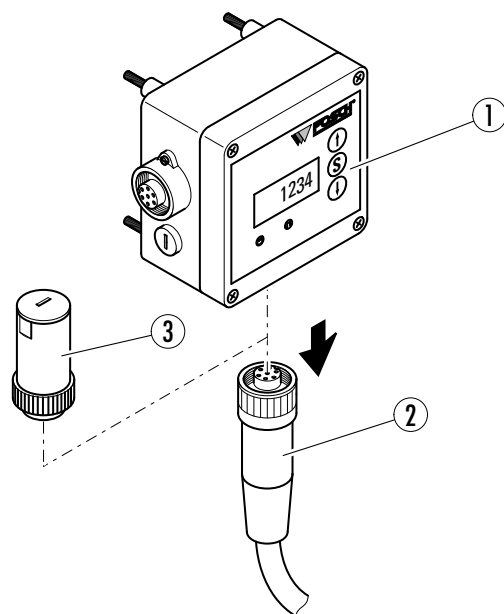
☞ If no key is pressed for a certain time during programming, the control unit switches to normal operating mode and the data set most recently is saved.

If a parameter is skipped during programming (S-key pressed too often), the setting process must be recommenced from the beginning.

Faults on the control unit

Fault	Cause	Rectification
LED (operation) is not lit	Fuse faulty (Glass tube 5x20 - 250V T 8A)	Check the fuse on the control unit/tractor
	with PTO drive: no power supply	Connect the 3-pin continuous current plug to the tractor
	Faulty power supply cable	Have the cable examined by a specialist
LED (pulse) is not lit	Distance - sensor to sensor disc	Check/set distance, distance 2 – 3 mm
	faulty sensor cable	Have the sensor cable examined by a specialist
	Sensor defective	Replace the sensor
Sensor does not regulate, or does so incorrectly	modified or incorrect parameters	Check/re-enter parameters
	faulty cables to the control valves	Have the cable examined by a specialist

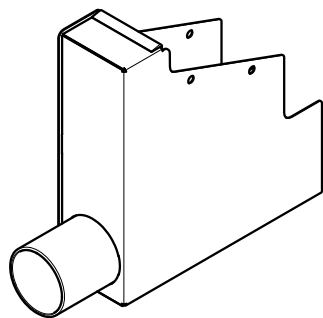
☞ If the faults cannot be eliminated immediately, you can bypass the control unit using the emergency operation plug provided and continue working with the machine. However, this means that the saw feed control is not operational.



1	Control unit	3	Emergency operation plug
2	Supply plug		

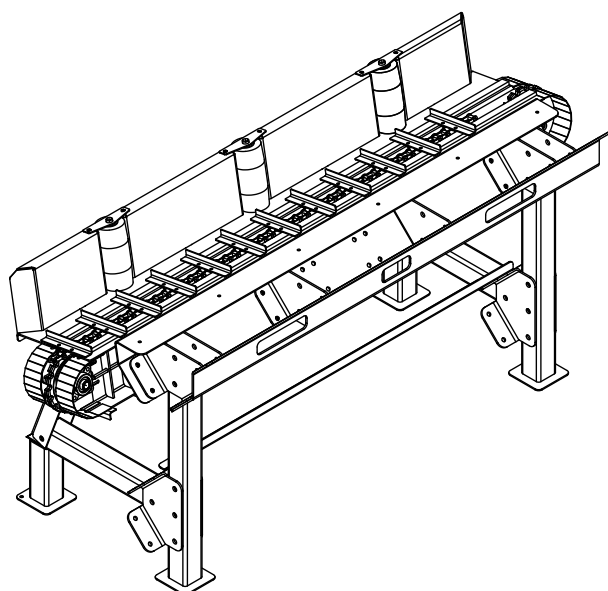
- Unscrew the supply plug from the control unit and disconnect it.
- Connect the emergency operation plug to the supply plug and screw it on.

12.4 Chip extractor connection



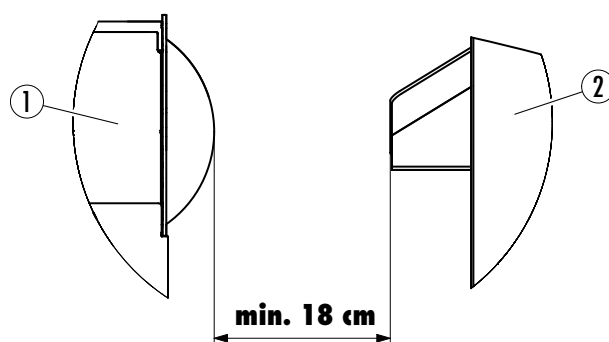
Connection for the extraction of chips.

12.5 Longitudinal conveyor



The logs are laid on the longitudinal conveyor and fed hydraulically into the machine.

12.5.1 Setting up the longitudinal conveyor

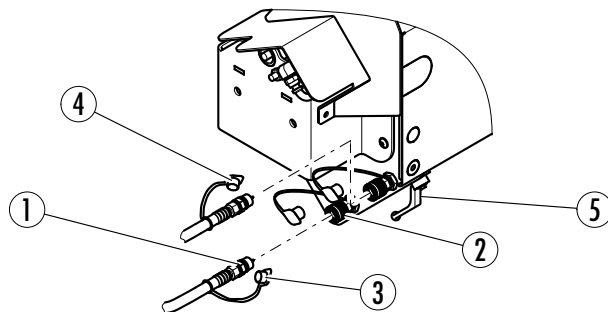


1	Longitudinal conveyor	2	Machine
---	-----------------------	---	---------

Position the longitudinal conveyor so it is aligned with the machine feed.

- The conveyor must be kept at a lateral distance of at least 18 cm from the machine (in accordance with "EN 349 Minimum gaps to avoid crushing of parts of the human body")

12.5.2 Connection - longitudinal conveyor



1	Hydraulic connector	4	Dust cap - red
2	Hydraulic sleeve	5	Ball valve
3	Dust cap - green		

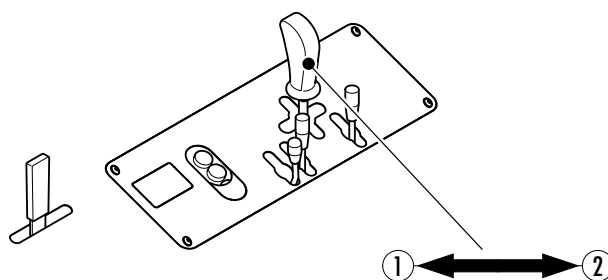
- Position the longitudinal conveyor so it is aligned with the machine.
- Connect the hydraulic hoses of the longitudinal conveyor to the machine.
 - Connect the hydraulic connectors to the hydraulic sleeves. Ensure that colours match; green dust caps (flow) and red dust caps (return) go with one another.
- The ball cock is used to turn the longitudinal conveyor on or off.
 - If the lever is horizontal, then the longitudinal conveyor is turned on, if vertical, then it is off.



If the longitudinal conveyor is not connected, the ball cock must be put in a vertical position before turning the machine on and the dust caps must be put on the connectors and sleeves to protect the latter from dirt and dust.

Ensure that the chain is always adequately tensioned.

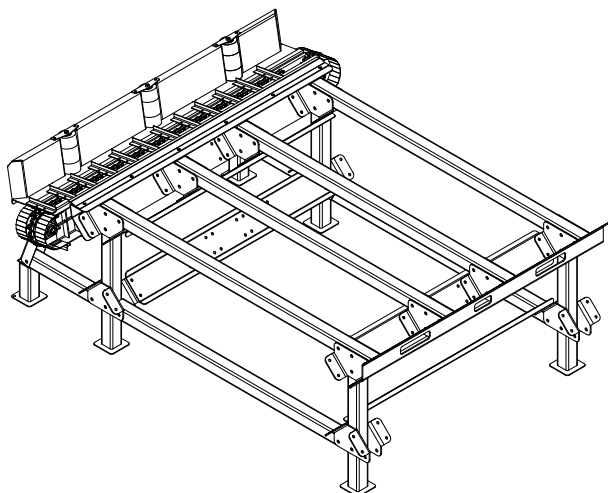
12.5.3 Operation - longitudinal conveyor



1	Longitudinal conveyor chain - backwards	2	Longitudinal conveyor chain - forwards
---	---	---	--

- Using the control lever (longitudinal conveyor chain - forwards) move the log up to the feed.

12.6 Transverse feeder

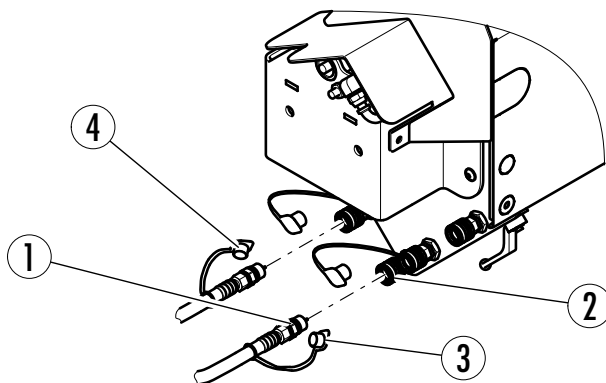


The logs are laid on the cross conveyor and fed hydraulically to the longitudinal or roller conveyor.

12.6.1 Setting up the cross conveyor

- Position the cross conveyor so it is aligned with the longitudinal or roller conveyor.

12.6.2 Connection - transverse feeder



1	Hydraulic connector	3	Dust cap - blue
2	Hydraulic sleeve	4	Dust cap - yellow

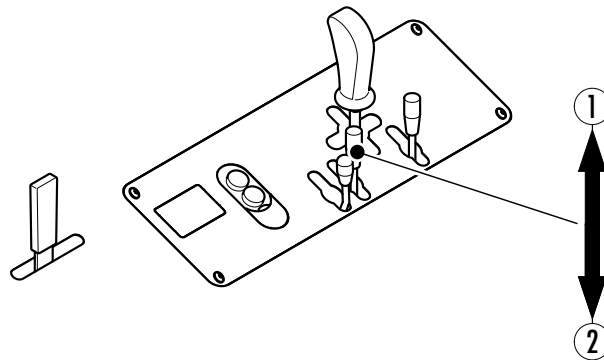
- Connect the hydraulic hoses of the transverse feeder to the machine.
 - Connect the hydraulic connectors to the hydraulic sleeves. Ensure that colours match; blue dust caps (flow) and yellow dust caps (return) go with one another.

If the transverse feeder is not connected, the dust caps must be put on the connectors and sleeves to protect the latter from dust and dirt.

Ensure that the chain is always adequately tensioned.



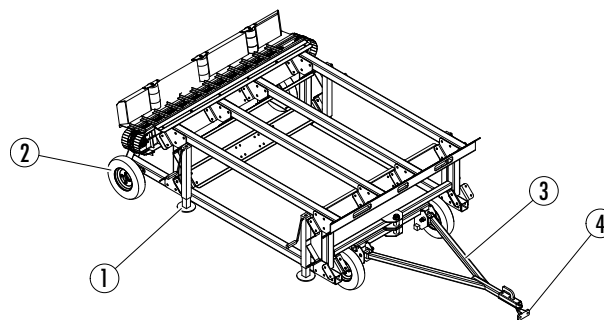
12.6.3 Operation - cross-conveyor



1	Cross-conveyor chain - forwards	2	Transverse feeder chain - backwards
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Using the control lever (cross-conveyor chain - forwards) move the log up to the longitudinal or roller conveyor.

12.6.4 Transverse feeder with tractor travel gear



1	Support foot	3	Towbar
2	Wheel	4	Spherical coupling

Before beginning work, the four support feet must be cranked fully downwards until there is no load on the wheels.

For transport, the timber support block is attached to the spherical coupling on the machine using the towbar.

During transport the support feet must be fully retracted and secured.

13 Troubleshooting



Before rectifying faults on the machine, it is vital to switch off the drive and secure it so it cannot be switched on accidentally or started-up by unauthorised persons.

Disconnect the machine from the mains.

- In addition, pull out the plug of the device.
- Disengage the universal joint shaft on the tractor.
 - Before disengaging, turn the manual throttle to minimum.
- Remove the universal joint shaft from the tractor.



Work on electrical equipment must only be carried out by qualified electricians.

Fault	Possible cause	Remedy	See page
Electric motor fails to start or switches off frequently	Faulty power supply cable	Have the cable examined by a specialist	See [→ 17]
	Fuses keep tripping - incorrectly rated fuse for power supply cable	Use correctly-rated fuses	
	Motor circuit breaker tripped	Use stronger power supply cable	
	Direction of rotation wrong	Swap over two phases	
Electric motor fails to start	Limit switch not closed, incorrectly adjusted or defective	Close, adjust or change limit switch	
Switch does not work	Faulty power supply cable	Have the cable examined by a specialist	See [→ 17]
	Fuses keep tripping - incorrectly rated fuse for power supply cable	Use correctly-rated fuses	
	Contactor or motor circuit breaker faulty	Have switch checked or send it in	
Pusher does not extend	Switch elements jammed	Check switch elements	
	Not enough hydraulic oil in hydraulic system	Change hydraulic oil	See [→ 32]
Pusher does not extend	PTO shaft rotates in wrong direction	Change PTO shaft rotation direction	See [→ 18]
Hydraulic oil getting too hot	Not enough hydraulic oil in hydraulic system	Check hydraulic oil level	See [→ 29]
	Poor quality hydraulic oil	Change hydraulic oil	See [→ 32]
	Oil filter unclean or blocked	Change filter insert	See [→ 33]
Machine loses power	Hydraulic oil getting too hot	See "Hydraulic oil getting too hot"	
	Not enough hydraulic oil in hydraulic system	Check hydraulic oil level	See [→ 32]
Sawing requires great amount of power	Saw blade is blunt	Sharpening the saw blade	See [→ 34]
	Loose saw blade	Tighten the hexagon nut on the drive shaft	See [→ 34]
	Saw disc is coated in resin	Clean saw blade with a resin removing agent	
Machine is noisy	PTO shaft running too fast	Adhere to specified speed	See [→ 18]

Machine is noisy	Oil filter unclean or blocked	Change filter insert	See [→ 33]
Feed belt jerks or does not move	Not enough hydraulic oil in hydraulic system	Check hydraulic oil level	See [→ 29]
	Poor quality hydraulic oil	Change hydraulic oil	See [→ 31]
	Conveyor belt too slack	Tensioning the belt	See [→ 40]
Hydraulic cylinder leaking	Sealing sleeve worn	Renew sealing sleeves	
	Piston rod guide loose	Retighten piston rod guide	
	Piston rod damaged	Renew piston rod	
Conveyor belt jerks or does not move	Not enough hydraulic oil in hydraulic system	Check hydraulic oil level	See [→ 29]
	Poor quality hydraulic oil	Change hydraulic oil	See [→ 32]

13.1 Disposal



Disposal must be carried out in accordance with the relevant national applicable regulations and/or guidelines.

Dispose of recyclable materials separately ensuring they are clean for recycling.

14 Technical data

Type		Z	ZE22D
Drive			
Drive type		PTO	PTO/Electric motor
Output	kW	27	27 / 22 S6 **
Voltage	V	-	400
Fusing	A	-	32
Motor speed	rpm	-	1450
PTO shaft speed	rpm	480	480
Hydraulic system			
Splitting force	t	12	12
Max. pressure	bar	230	230
Log length	cm	50	50
Log diameter	cm	35	35
Advance speed	cm/s	47	47
Retraction speed	cm/s	42	42
Saw blade			
Saw blade diameter	mm	900	900
Cut diameter	cm	35	35
Dimensions *			
Length	cm	370	370
Width	cm	190	190
Height	cm	160	160
Weight	kg	1180	1260

*.....The stated dimensions and weights are for guidance purposes and apply to the basic equipment.

**.....Power rating S6: continuous-operation periodic duty with related load changes – the percentage value is shown on the rating plate.

15 Service

POSCH- Product

To order spare parts for your machine please contact your local dealer directly.

👉 If you require a replacement parts list for your machine, you can download this at any time by entering the serial number at the following link:

www.posch.com/download

EC Declaration of Conformity

We hereby declare that the following machine, its design and manufacture, comply with the health and safety requirements of the EC Machinery Directive 2006/42/EC.

The machine furthermore complies with the EC Low Voltage Directive 2006/95/EC and the EC Electromagnetic Compatibility (EMC) Directive 2004/108/EC.

This Declaration is not valid for any modifications to the machine which are not approved by us.

Splitting knife - SpaltFix S-360

Item no.: M3857 , M3877
Serial no.: from 1,301,001A

To implement the health and safety requirements mentioned in the EC Directives, the following standards are applied:

- EN ISO 12100 Safety of machinery - Basic concepts, general principles for design
- EN ISO 4254-1 Agricultural machinery – Safety - General requirements
- EN ISO 13857 Safety distances to prevent hazard zones being reached by upper and lower limbs
- EN 349 Minimum gaps to avoid crushing of parts of the human body
- EN 60204-1 Electrical equipment of machines
- EN 1870-6 Circular sawing machines
- EN 847-1 Safety requirements - circular saw blades
- EN 609-1 Safety of log splitters
- EN ISO 4413 Safety requirements - Hydraulics
- EN 620 Continuous handling equipment and systems

Internal measures ensure that this series of devices always complies with the requirements of the EC Directives and the applied standards.

The following notified body

„PZ.LSV“ (Prüf- und Zertifizierungsstelle des Spitzenverbandes der landwirtschaftlichen Sozialversicherung [Testing and Certification Centre of the Central Association of the Agricultural Social Security Fund], Weißenstraße 70 – 72, 34131 Kassel), notified under registration number 2157,

carried out the EC type examination procedure mentioned in Annex IX of 2006/42/EC.

The product is identical to the type-tested model that, under the number

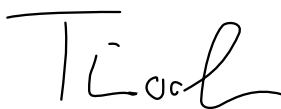
- LSV-EG-2011/116

holds an EC type-examination certificate, and under the number

- LSV-GS-2011/124

has received a certificate for occupational safety.

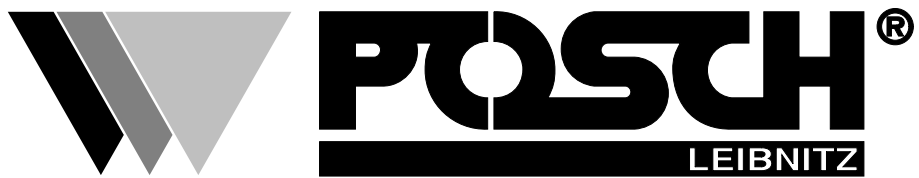
Below is the name and address of the person who signs the above EC Declaration of Conformity and is authorised to compile the technical documentation.

Leibnitz, date:
07.01.2013


Ing. Johann Tinnacher
Managing Director



Posch
Gesellschaft m. b. H.
Paul-Anton-Kellerstrasse 40
8430 Leibnitz, Austria



Your Posch-Dealer