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Originalfassung

DE BETRIEBSANLEITUNG

Übersetzung / Translation

EN USER MANUAL

FR MODE D'EMPLOI

HOLZSPALTER

LOG SPLITTERS

FENDEUR DE BOIS



ZI-HS8TN

EAN: 9120039234236



ACHTUNG: Betriebsmittel kontrollieren!



ATTENTION: Check Oil!

ATTENTION : Contrôler les fluides d'exploitation !



**YOUR
JOB.
OUR
TOOLS.**



12 PREFACE (EN)

Dear Customer!

This operating manual contains information and important notes for safe commissioning and handling of the the log splitter ZI-HS8TN, hereinafter referred to as "machine".



The manual is an integral part of the machine and must not be removed. Keep it for later use in a suitable place, easily accessible to users (operators), protected from dust and moisture, and enclose it with the machine if it is passed on to third parties!

Please pay special attention to the chapter Safety!

Before first use read this manual carefully. It eases the correct use of the machine and prevents misunderstanding and damages of machine.

Due to constant advancements in product design, construction, illustrations and contents may deviate slightly. If you notice any errors, please inform us.

We reserve the right to make technical changes!

Check the goods immediately after receipt and note any complaints on the consignment note when taking over the goods from the deliverer!

Transport damage must be reported to us separately to us within 24 hours.

ZIPPER MASCHINEN GmbH cannot accept any liability for transport damage that has not been reported.

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The place of jurisdiction is the regional court Linz or the court responsible for 4707 Schlüsslberg is valid.

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13 SAFETY

This section contains information and important notes on the safe commissioning and handling of the machine.



For your safety, read this manual carefully before commissioning. This will enable you to handle the machine safely and thus prevent misunderstandings as well as personal injury and damage to property. Pay special attention to the symbols and pictograms used on the machine as well as the safety information and danger warnings!

13.1 Intended use of the machine

The machinery is intended exclusively for the following activities: *Sweep of paved areas and paths; with mounted snow blade also for removing snow from private path in the specified limits.*

NOTICE



ZIPPER MASCHINEN GmbH assumes no responsibility or warranty for any other use or use beyond this and for any resulting damage to property or injury.

13.1.1 Technical restrictions

The machine is intended for use under the following ambient conditions:

Relative humidity:	max. 50 %
Temperature (for operation):	+5° C to +40° C
Temperature (Storage, Transport):	-20° C to +50° C
Altitude above sea level	up to 1.000 m

13.1.2 Prohibited Use / Hazardous misapplications

- Operation of the machine without adequate physical and mental aptitude
- Operating the machine without knowledge of the operating instructions
- Changes in the design of the machine
- Operating the machine under explosive conditions
- Operating the machine outside the specified power range
- Remove the safety markings attached to the machine.
- Modify, circumvent or disable the safety devices of the machine.

The improper use or disregard of the versions and instructions described in this manual will result in the voiding of all warranty and compensation claims against Zipper Maschinen GmbH.

13.2 User requirements

The machine is designed for operation by one person. The physical and mental aptitude as well as knowledge and understanding of the operating instructions are prerequisites for operating the machine. Persons who, because of their physical, sensory or mental abilities or their inexperience or ignorance, are unable to operate the machinery safely must not use it without supervision or instruction from a responsible person.

Please note that local laws and regulations may determine the minimum age of the operator and restrict the use of this machine!

Work on electrical components or equipment may only be carried out by a qualified electrician or under the instruction and supervision of a qualified electrician.

Put on your personal protective equipment before working on the machine.

13.3 General safety instructions

To avoid malfunctions, damage and health hazards when working with the machine, the following points must be observed in addition to the general rules for safe working:

- Check the machine for completeness and function before commissioning. Only use the machine if the guards and other protective devices required for the work are in place, in good working condition and correctly maintained.
- Select a level, vibration-free, non-slip surface as the installation site.



- Ensure that there is sufficient space around the machine!
- Ensure sufficient lighting conditions at the workplace to avoid stroboscopic effects.
- Ensure a clean working environment
- Use only defect-free tools that are free of cracks and other defects (e.g. deformation).
- Keep the area around the machine free from obstacles (e.g. dust, chips, cut-off workpiece parts, etc.).
- Check the connections of the machine for strength before each use.
- Never leave the running machine unattended. Switch off the machine before leaving the working area and secure it against unintentional or unauthorised restarting.
- The machine may only be operated, maintained or repaired by persons who are familiar with it and who have been informed about the hazards that can occur during work.
- Ensure that unauthorised persons maintain an appropriate safety distance from the machine, and in particular keep children away from the machine.
- Never wear loose jewellery, loose clothing, ties or long, loose hair when working on the machine.
- Hide long hair under hair protection.
- Wear close-fitting protective work clothing and suitable protective equipment (eye protection, dust mask, ear protection; gloves only when handling tools).
- Always work carefully and with the necessary caution and never use excessive force.
- Do not overload the machine!
- Switch off the machine and disconnect it from the power supply before adjusting, converting, cleaning, servicing or maintenance work etc. Before starting work on the machine, wait until all tools or machine parts have come to a complete standstill and secure the machine against unintentional restart.
- Do not work on the machine if you are tired, unconcentrated or under the influence of medication, alcohol or drugs!
- Do not use the machine in areas where vapours from paints, solvents or flammable liquids pose a potential danger (risk of fire or explosion!).

13.4 Electrical safety

- Make sure that the machine is grounded.
- Only use suitable extension cables.
- A damaged or tangled cable increases the risk of electric shock. Handle the cable with care. Never use the cable to carry, pull or disconnect the power tool. Keep the cable away from heat, oil, sharp edges or moving parts.
- Proper plugs and outlets reduce the risk of electric shock.
- Water entry into the machine increases the risk of electric shock. Do not expose the machine to rain or moisture.
- The machine may only be used if the power source is protected by a residual current circuit breaker.
- Use the machine only when the ON-OFF switch is in good working order.
- Before connecting the machine always make sure that it is switches off.

13.5 Special safety advice for these machines

- Do not split wet wood.
- Only split the wood upright in the direction of the grain!
- Do not split wood containing foreign bodies such as nails, cables etc.
- Never operate the machine outdoors in the rain.
- Select a level, vibration-free, non-slip surface for installation.
- Ensure sufficient light conditions at the workplace.
- Although it is possible that several operators could work on the machine (e.g. for loading and unloading), only one person may carry out the splitting operation any one time.
- Keep your hands away from splits and cracks that open in the log.
- Do not reach into the splitting area.

13.6 Residual risks

Despite proper use, certain residual risks remain. Due to the design and construction of the machine, hazardous situations may occur which are indicated as follows in these operating instructions:

**DANGER**

A safety instruction designed in this way indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

Such a safety instruction indicates a potentially hazardous situation which, if not avoided, may result in serious injury or even death.

CAUTION

A safety instruction designed in this way indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

NOTICE

A safety notice designed in this way indicates a potentially hazardous situation which, if not avoided, may result in property damage.

Irrespective of all safety regulations, your common sense and corresponding technical suitability and/or training remain the most important safety factor for fault-free operation of the machine. **Safe working depends on you!**

14 TRANSPORT**WARNING**

Damaged or insufficiently strong hoisting devices and load slings can result in serious injuries or even death. Therefore, check hoists and load slings for sufficient load capacity and perfect condition before use. Attach the loads carefully. Never stand under suspended loads!

For proper transport, please also observe the instructions and information on the transport packaging regarding the centre of gravity, attachment points, weight, means of transport to be used and the prescribed transport position, etc.

Transport the machine in its packaging to the installation site. To manoeuvre the machine inside the packaging, you can use a pallet truck or a forklift with the appropriate lifting capacity. Ensure that the selected lifting equipment (crane, forklift, pallet truck, load sling, etc.) is in perfect condition.

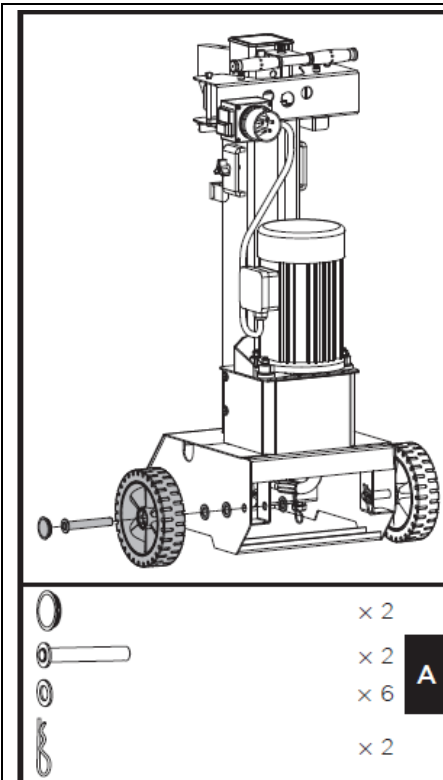
For easier transport over short distances the machine has two wheels and a transport handle, the machine is heavy to avoid injury or damage, please note the following points:

- Hold the machine with both hands on the transport handle.
- Pay attention to the weight of the machine. If you are not able to hold the weight of the machine during transport, please ask for help.
- Only move the machine on firm and level ground to prevent it from tilting sideways or tipping completely over.

For transport, lower the cylinder, tighten the oil filler plug/air venting device, tilt the machine slightly backwards and move the machine on wheels using the handle.

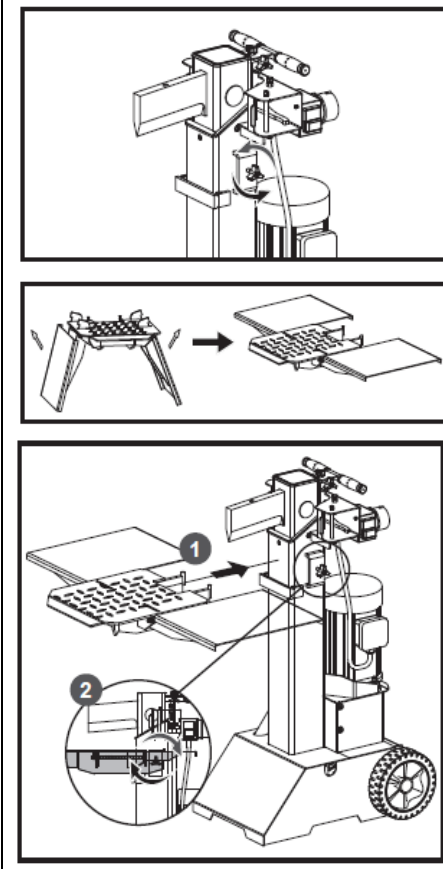


15 ASSEMBLY



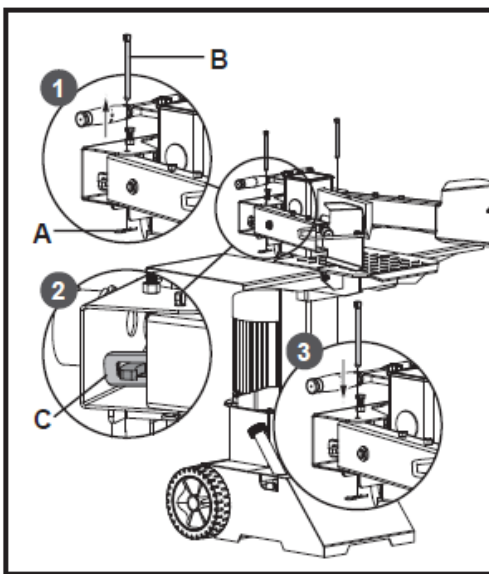
1. Assemble the wheels

Pass the axle through the wheel from the outside and put two washers on it as shown in the picture. Slide the axle into the two holes at the base of the log splitter and secure it with another washer and an R-pin from the inside. Put on the wheel cap.



2. Assemble working table

- Before mounting, loosen the star knob by turning it anticlockwise.
- Unfold the log support table and make sure that the three parts are on the same surface level.
- Insert the hooks of the log support table into the brackets.
- Tighten the star knob



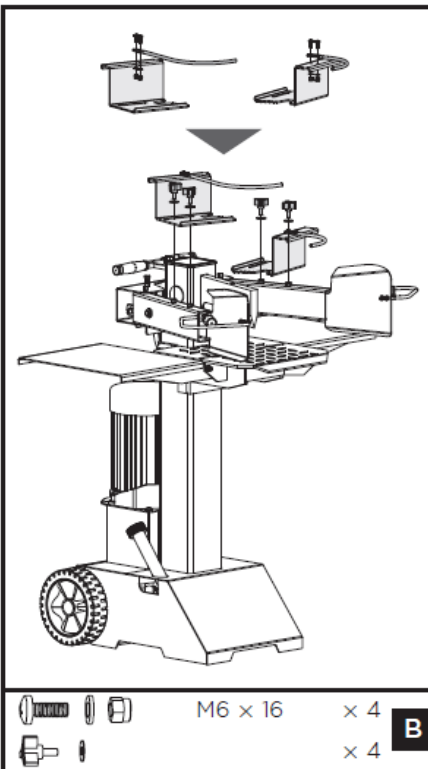
3. Assemble control lever

Pull the spring pin (A) to remove the locking pin (B). Apply a thin layer of grease to both surfaces of the operating lever guard (see figure). Insert the control lever and guard and make sure that the end of the control lever fits into the slot of the connecting bracket (C). Lock the control lever and the guard with the locking pin (B) and the spring pin (A) downwards. Follow the same steps to mount the control lever and the guard on the other side.

NOTICE

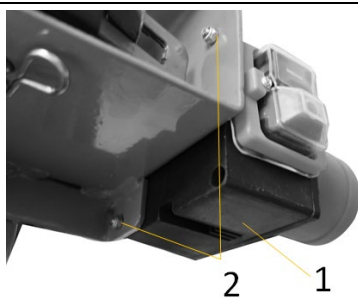


Check both sides after assembly. The operating levers must be inserted in the slots of the connection brackets



4. Assemble adjustable log holder

Align the holes and assemble holder 1 and holder 2 on the log clamps. Pay attention to the direction of the holders as shown in the following figure. Secure the joint with M6x16 screws, washers and nuts. Secure the log clamps on the arm guards with star knobs and flat washers



5. Assemble plug-ON-OFF switch unit

Fix the unit(1) by means of 2 screws and nuts (2).



16 OPERATION

16.1 Preparatory activities

16.1.1 Installation site

Place the log splitter on a flat and solid surface, which can bear the weight of the machine + load. Fix the log splitter to the ground through the two holes in the frame.

16.1.2 Greasing the ram / splitting wedge surface

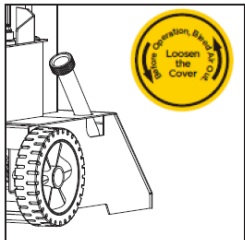
Apply a thin layer of grease to the surface of the ram of your log splitter before starting work. This will prolong the life of the tool.

16.1.3 Bleeding the hydraulic system

NOTICE



Never forget to loosen the oil tank cap! Otherwise the air in the system will be compressed and released again and again, which will destroy the seals of the hydraulic circuit and make the log splitter unusable.



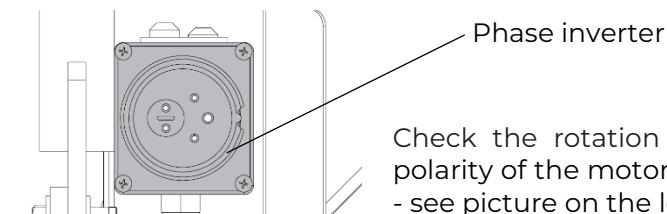
Vent the hydraulic system before starting the log splitter. To do this, loosen the cover of the hydraulic oil tank by a few turns until the air can flow in and out gently. The air flow through the oil tank should be visible during operation. *To prevent oil from leaking out, the oil tank cover must be tightly closed before each transport!*

16.1.4 Checking the rotation direction of the motor

NOTICE



Never run the motor in the wrong rotation direction. This will damage the pump and void the warranty.



Check the rotation direction of the motor. If necessary reverse the polarity of the motor using a screwdriver (phase inverter inside the plug - see picture on the left).

16.1.5 Check two-hand operation

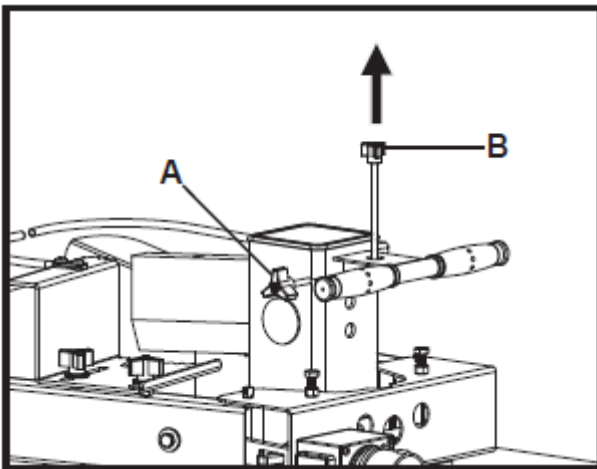
Before using the machine for the first time, make sure that the two-hand control is working properly by following the steps below:

- (1) Lower both control levers, the splitting wedge lowers to 5 cm above the highest table position.
- (2) Release one of the two levers, the splitting wedge should be in original position
- (3) Release both levers, the ram should automatically rise to the highest position.



16.2 Operating

16.21 Adjust the wedge ram stroke



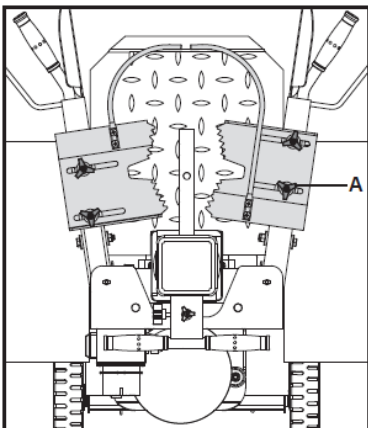
To set the return stroke position of the cylinder, proceed as follows:

- (1) Move the splitting wedge to the desired position. The upper position of the splitting wedge should be about 3~5cm above the logs to be split.
- (2) Release a control lever or switch off the motor.
- (3) Loosen the adjusting screw (A). Lift the adjusting rod (B) until the adjusting rod (B) is stopped by the spring inside. Tighten the adjusting screw (A).
- (4) Release both control levers or switch on the motor.
- (5) Check the upper position of the splitting wedge.

16.22 Positioning the log

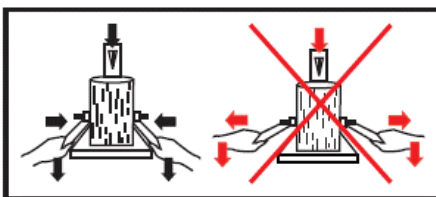
Place the log vertically and flat on the support table. Make sure that the splitting wedge and the support table touch the log at right angles at the ends. Never try to split a log at an angle.

16.23 Adjusting the log holder



Adjust the log holders (A) according to the diameter of the log to obtain the most comfortable angle of the control lever

16.24 Splitting



Hold the log with clamps. Press the levers down to start splitting. Releasing one of the two levers stops the movement of the splitting wedge. Release both levers to move the splitting wedge back to the upper position.

16.25 Free a jammed log

Stack as you work. This will provide a safer work area, by keeping it uncluttered, and avoid the danger of tripping, or damaging the power cord.

17 CLEANING, MAINTENANCE, STORAGE, DISPOSAL

WARNING



Before carrying out any maintenance work, ensure that moving parts are stationary, that the machine is disconnected from the mains supply.



17.1 Cleaning

Clean the machine and the working attachment from soil, dust, grass, chips, and small twigs, etc.

NOTICE



The use of solvents, harsh chemicals or abrasive cleaners leads to damage to the machine!

Therefore: When cleaning, use only mild detergent.

The use of high pressure cleaners is not recommended. It shortens the service life and reduces the operational integrity. (Water can get into the gear!)

Impregnate bare surfaces of the machine against corrosion (e.g., anti-rust WD40).

17.2 Maintenance

The machine does not require extensive maintenance. If malfunctions and defects occur, let it be serviced by trained persons only.

NOTICE



Only a properly maintained equipment may be a satisfactory tool. Care and maintenance deficiencies can cause unpredictable accidents and injuries.

Repairs should be performed only by authorized service centers.

Improper operation may damage the equipment or endanger your safety.

17.3 Maintenance plan

Grease / cleaning the ram	After each use
Check oil level	After each oil change or every 8 operating hours
Change hydraulic oil	1 x per year

17.4 Hydraulic oil change

NOTICE



Check the oil level regularly. Change the hydraulic oil completely at least once a year. Always dispose of used oil correctly and never throw it into household waste or sewage!

The hydraulic system of the log splitter is a closed system with oil tank, oil pump and control valve. The oil should be changed completely once a year.

The following hydraulic oils are recommended for the hydraulic transmission system of the log splitter:

- Shell Tellus 22
- Mobil DTE 11
- Aral Vitam GF 22 or
- BP Energol HLP-HM 2

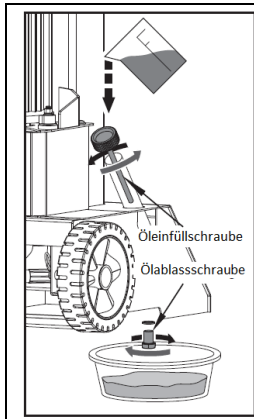
	<p>If the oil level is too low, the oil pump can be damaged, whereas overfilling can lead to overheating of the hydraulic system. Therefore check the oil level regularly with the dipstick - see picture on the left!</p>
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NOTICE



Hydraulic oils are toxic and must not be released into the environment!

Follow the manufacturer's instructions and contact your local authorities for information on proper disposal.



Change the hydraulic oil:

- Remove the oil drain plug to drain the oil from the hydraulic system.
- Use a drip pan to collect waste oil and particles.
- Inspect the oil for metal chips. (Metal chips in the oil are an indication of increased wear.)
- After the oil has been completely drained from the machine, reinstall the drain plug.
- Top up the recommended fresh hydraulic oil via the oil filler plug.
- After changing the oil, actuate the wood splitter several times without actually splitting any wood.
- Use a dipstick to check the oil level.

17.5 Sharpening Wedge

This log splitter is equipped with reinforced splitting wedge which blade is specially treated. After long periods of operation, and when required, sharpen the wedge using a fine toothed file removing any burrs or flat spots on the edge.

18 DISPOSAL



Observe the national waste disposal regulations. Never dispose of the machine, machine components or equipment in residual waste. If necessary, contact your local authorities for information on the disposal options available.

If you buy a new machine or an equivalent device from your specialist dealer, he is obliged in certain countries to dispose of your old machine properly.

19 TROUBLESHOOTING

WARNING



Danger due to electrical voltage!

Handling the machine with connected power supply may result in serious injury or death.

- Always disconnect the machine from the power supply before maintenance or repair work and secure it against unintentional reconnection.

Many possible sources of error can be excluded in advance if the machine is properly connected to the mains. If you are unable to carry out necessary repairs properly and/or do not have the required training, always consult a specialist to solve the problem.

PROBLEM	PROBABLE CAUSE	REMEDY SUGGESTED
Motor does not start	<ul style="list-style-type: none"> • Switch is Off 	<ul style="list-style-type: none"> • Set switch to On
Incorrect motor rotation direction	<ul style="list-style-type: none"> • Incorrect connection 	<ul style="list-style-type: none"> • Use the phase inverter to change the polarity of one of the phases on the motor.
Log Splitter does not work while motor running	<ul style="list-style-type: none"> • Valve is not opened owing to the connection parts loosening 	<ul style="list-style-type: none"> • Check and tighten the parts
	<ul style="list-style-type: none"> • Control Levers or connection parts bent 	<ul style="list-style-type: none"> • Repair the bent parts
	<ul style="list-style-type: none"> • Lower hydraulic oil level 	<ul style="list-style-type: none"> • Check and refill hydraulic oil
Log Splitter works with abnormal vibration and noise	<ul style="list-style-type: none"> • Lower hydraulic oil level 	<ul style="list-style-type: none"> • Check and refill hydraulic oil