USER'S MANUAL

Carefully read entire manual before operating the log splitter!

- Set-up
- Use
- Maintenance
- Accessories

UNIVERSAL LOG SPLITTER MODELS

USP 13 - 6, USP 16 - 2, USP 22-2

CE

We manufacture in Germany

TÜV International Certification
TÜV THÜRINGEN CERT
ISO 9001:2008
15 100 63645
TIC

BGU maschinen

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CONTENT

1. INTRODUCTION

Dear customer,
thank you very much for your trust and preference in choosing our equipment and joining the number of our best customers in the world. We are confident that our equipment will be up to all your expectations and assure you a long lasting quality and performance.

Our range of hydraulic log splitters includes various different models of different splitting force:

USP 13 H - 6
USP 13 HZ - 6
USP 13 HE - 6
USP 13 HZE - 6
USP 16 HZ - 2
USP 16 HZE - 2
USP 22 HZ - 2

1.1 About the manual

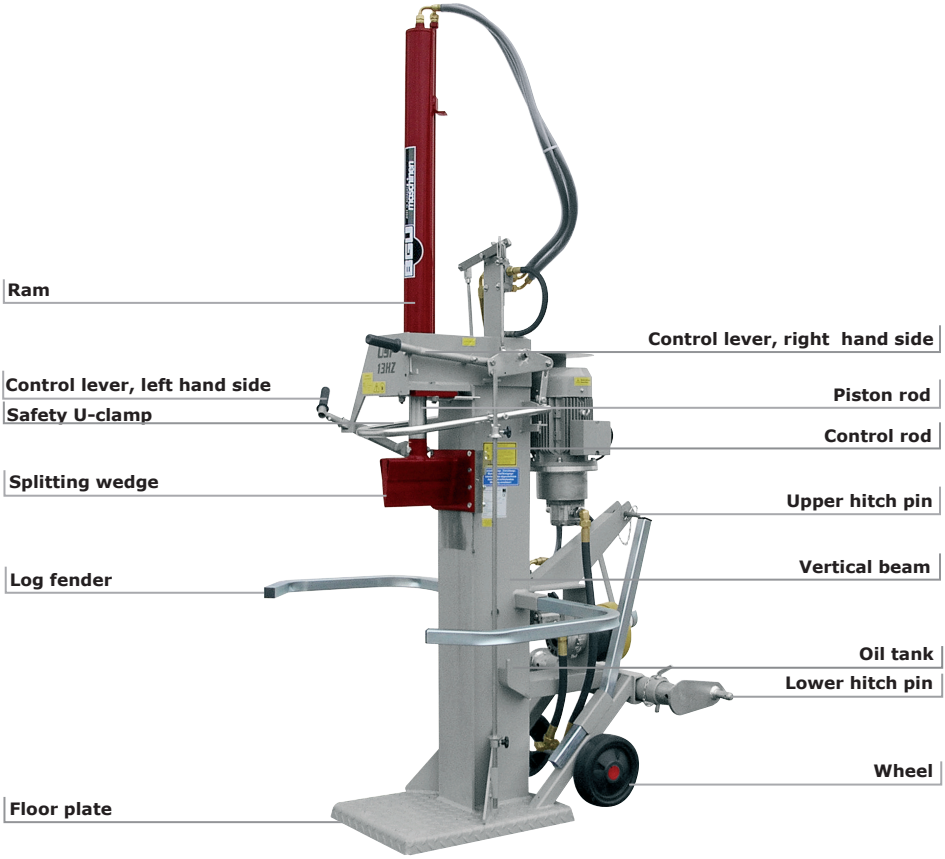
Please take time to read this manual and learn to how operate and maintain the splitter safely. For your easier reading this manual is laid out in several sections. The sections are progressively numbered and listed on the "content" page. The information, pictures and technical data in this document reflect current or planned product features, functions, and characteristics as of the publication date. Because of on-going product improvements and feature additions, information in this document is subject to change without notice. If you are experiencing a problem or functional trouble on your machine, please read the "trouble-shooting" section 9 to identify possible causes and remedies. If the problem or functional trouble is not listed in the troubleshooting chart contained in this manual, ask your Authorized Service Centre for service. When you order parts maintenance or repair services, your Authorized Service Centre, your dealer or eventually the manufacturer need your machine serial number and engine serial number. These are the numbers that you have recorded on the product identification label of the manufacturer on the machine.

1.2 Delivery and transport claims

Upon delivery of the machine please check for visual machine damages such as damaged packing or scratched buckled parts. If so, make a remark on all copies of the delivery bill before signing for acceptance. Also have the truck driver sign all copies of the delivery bill.

Also have the truck driver sign al copies of the delivery bill.
Should your shipper or the truck driver refuse to accept your claim, fully reject delivery and make sure to inform us (the manufacturer) immediately. No claims shall be taken into account by the shipper or by the insurance company, if a reservation note is not made on the delivery bill.
All transport damages must be notified within latest 2 days from delivery. Therefore delivery must be collected and inspected within this term. Later claims shall be disregarded. In case of assumed but not visually clear transport damages, make sure to mark the following sentence on the delivery bill: **„Reserved delivery due to assumed transportation damages."**
Insurance and shipping companies act with extreme caution in case of transport damages and sometimes refuse to accept responsibility. Please make sure to provide clear and exhaustive evidence (photos) of the claimed damages.
Thank you in advance for your help and attention to this matter.

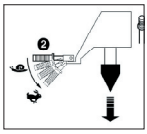
2. PRODUCT OVERVIEW (MODEL USP 13 HZE-6)



3. WARNING LABELS AND SAFETY DECALS

1. Machine safety label
„Before setting-up, servicing, maintaining and cleaning the machine, disengage power and stop the engine. Lock the tool and secure it against accidental start."
This safety label reminds users of a pinched hands danger.

2. Machine safety label
„Read, understand, and follow all instructions in this manual and on the splitter before starting!"
Keep at safe distance from machine moving parts!



3. Operation safety label „ADJUSTING THE SPLITTING SPEED"
This label shows how to operate the control levers

4. Operation safety label „max p 240 bar"
This label shows the max admissible operating pressure.

5. Operation safety label "Pinched hands danger!"
Keep your hands off all moving machine parts! Pinched hands hazard in the wedge dangerous area.

6. Maintenance label „Lubricate every 10 h"

7. Machine safety label „Direction arrow"
The motor must be turning in the same direction as shown by this arrow.

8. Machine safety label „Mind this direction arrow"
The motor must turn in the same direction as shown by this arrow.

9. Warning label (only on PTO powered version) max. 520 Rev./min.

This label shows the max admissible number of PTO shaft revolutions.

10. Production label „Product identification“

This label shows the company details of the manufacturer and the main machine technical data.

11. Identification label “BGU-maschinen” manufacturer’s logo

12. Personal safety label „Wear suitable protective cloths and boots“

13. Personal safety label

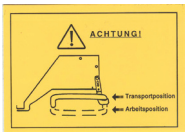
“WARNING! Always wear safety gloves” Wearing safety gloves.

14. Safety-alert symbol

„Danger: beware in this area!“

15. Personal protection sign

Mind these instructions for safe operation!



16. Position safety bar

This label indicates the position of the safety strap:
Transport position / working position

4. SAFETY

Strictly perform installation, set-up, maintenance, cleaning and transportation with the motor switched off and the machine firmly secured against accidental operation. Immediately disconnect power off the machine in case of any eventual fault or trouble.

Users shall strictly comply with these operation, set-up, maintenance, repair and trouble-shooting instructions in order to assure safe operation and no damages to the equipment. Moreover we recommend to let the machine be run only and strictly by trained and skilled staff who must be familiar with the applicable occupational safety and health administration rules as well as applicable transportation rules. Incorrect use of the saw can cause serious injury or death.

No person under school leaving age should operate a log splitting machine. Those who have reached school leaving age but are below the age of 18 may operate a circular saw if supervised by a competent person of 18 years or over. The machine shall be installed and kept in a suitable location selected by the customer for safest operation.

Machine instability can result in injury or severe damages. To ensure stability during operation make sure to choose a flat, dry floor free from any tall grass, brush or other interferences. The working area around the machine must be kept as clear as possible from surrounding tripping obstacles and slippery foundation floors should be duly treated (do not use saw dust or wood ash for this purpose).

Make sure that the equipment stands on a safe stable foundation.

- Due and proper illumination of the working site must be provided at all times.
- Ensure that a wide but confined area is available around the machine and assure maximum working freedom
- A skilled licensed electrician must be asked for any repair of the electric system
- Operators must wear steel toe safety shoes and snug-fitting tear resistant work cloths
- No additional customised protections or tools should be provided on board of the machine, other than the ones designed and supplied by the manufacturer
- NEVER leave the machine unattended with the running motor

Compliance to the applicable occupational safety and health administration rules as well as applicable transportation rules must be assured at all times.

Operator‘s hearing protection, safety glasses, safety shoes and gloves, close fitting cloths and other adequate protection means are strongly recommended. Make sure that all access ways are properly maintained so that wood can be safely delivered, loaded and shipped.

4.1 Mandatory application field

The log splitter is strictly designed for one-man operation. Never allow more than one person approach and work on the machine at the same time.
This splitter is conceived for splitting short and long logs for firewood preparation only. BEWARE: no crossgrain splitting is permitted. Always split grain-wise and never split one log on top of the other. Make sure to load your logs firmly on the floor plate against the vertical beam.

Any other use or splitting method is considered by the manufacturer as "misuse". In case of misuse the manufacturer will not be liable for any injuries or damages and the operator will be held entirely responsible.

Please make sure to comply with these set-up, operation and maintenance/repair instructions in order to avoid happening of any injury or dangerous condition.

5. ABOUT THE MACHINE

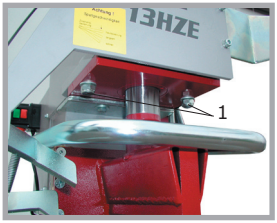


Fig. 1

The log splitter is equipped with two-hands safety control.
This professional upright log splitter has own inbuilt hydraulic system with pump and and oil reservoire into the vertical beam. The machine comes from the factory with a first oil fill. A special level gauge on one side of the beam provides for convenient oil level checkup.

The manufacturer performs default setting of main control valve before shipment so that no more adjustment is required on site.
This splitter is available in different versions with different power drive systems to match with any operating requirement and condition of the customers.

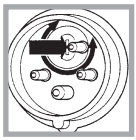
Make sure to secure the hydraulic ram to the beam, before you start-up the splitter. The ram has an hydraulic cylinder with a flange that must be secured on the respective upper plate of the beam using the special fixation bolts. When doing this mind for the nuts (1) that must be removed before bolting. (fig. 1)

To operate the machine, raise the ram all the way up and make sure that the bolts keep showing through the flange. At this point hold the wedge up and secure the assembly by tightening the special hex nuts.

When transporting the machine from one place to the other (or when you are to store the machine inside) it may be convenient for you to slide the ram all the way back down to fit into the splitter profile thus saving a lot of space. When doing this make sure to first remove power from the splitter disconnecting all power sources (that is disconnecting the driveshaft or the power cord).

6. OPERATING INSTRUCTIONS

Locate your splitter only on firm, level ground. Site must be free of slippery surfaces and tripping obstacles. The location you choose should be flat, dry, and free from any interference. Slippery foundation floors should be duly treated. For increased stability and safety, make sure to always load chunks on their flat sawcut face.



Electrical specifications:
Before starting to work, quickly switch the 400V motor on and off to check that rotation is performed in the direction shown by the arrow on the motor casing. Should rotation be performed in the opposite direction, immediately stop the motor and use a phase inverter to switch the polarity in the plug of main power cord using a phase changer. Operating the splitter while the motor turns in the wrong direction may cause major, even permanent damages of the hydraulic pump!

Correct placement of the log on the pressure (floor) plate is a mandatory condition for safe and efficient splitting. Be sure that the body of the log is lying firmly against the vertical beam of the log splitter and the end of the log is well supported by the pressure plate. If the log tends to wobble, reposition it by turning it. Before loading the next log on the machine and start a new cycle, clean eventual residual chips and splinters away from the pressure plate.

6.1 Adjusting the ram stroke length

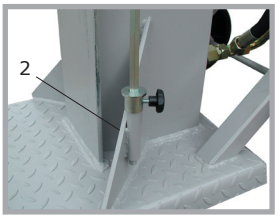


Fig. 2

The ram travel is factory set to the maximum log capacity before shipment. You just need to start the motor and the ram will slide automatically up to the maximum travel stroke.
In order to avoid dangerous hitting of the wedge against the pressure plate on the floor, lift the lower stop-bush (2) up. (Fig. 2) The control rod is duly scaled in order to facilitate a precise setting of the stroke. BEWARE: the wedge will only travel down to the position set by the stop-bush on the control rod.
For splitting full cord logs, slide the lower stop-bush (2) all the way down so that the ram can slide over the entire stroke through the log.

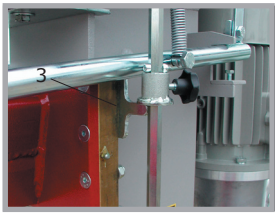


Fig. 3

If you move the upper stop-bush (3) down, the ram will no loger raise all the way up and will stop as it reaches the position of the upper stop-bush. (Fig. 3).

Use the upper handle located on the left-hand side of the beam to secure the log central under the wedge. At the same time push the handle on the righthand side down to activate the cylinder valve and operate the splitter. In this situation, the splitter will stop and the wedge will come to an immediate stop, if just one of the handles is released.

6.2 Two-speeds operating mode

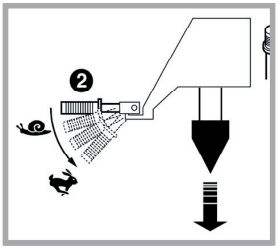


Fig. 4

Press the control handle completely down to drive the ram down at its fast-speed. If no throuhg-splitting is required, the ram must be operated at its slow speed (=more power). In order to do so, slightly release one of the two levers (preferably the right-hand one). When doing so, the main control valve will switch over to max-power mode instead of fast-speed mode. (Fig. 4).

Normal splitter operation will require the fast-speed mode. Just in case of a tough or very irregular log not being able to be split, you may set the machine to slow-speed in order to gain power and perform throuhgsplitting of the log.
If both handles (3 and 4) are released at once, the ram will slide automatically back to the initial position (Fig. 5), the control valve will switch off and return to its neutral setting as soon as the ram reaches its highest position.
Never place your hands on top of the log and never reach within the splitting area on the machine, while the wedge is being operated.

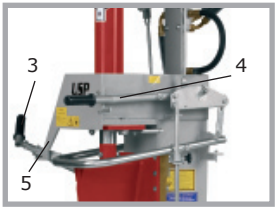


Fig. 5

Should any emergency arise and stopping be required, simply set the control handles free from your grip. When doing this, the ram will immediately travel all the way back up.
If a log is jammed on the wedge, it will hit against the safety U-clamp as the wedge slides up. This will make the control valve switch to neutral position preventing further operation and consequent possible damaging the splitter.
Logs that cannot be split through their entire length will jam to the wedge and be lifted up, as the wedge slides up. BEWARE: check for the clamping claw on the right-hand handle to avoid tearing.

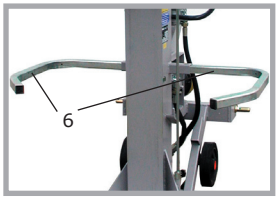


Fig. 6

On each side of the splitter vertical beam there are two log fenders (6) specifically designed to avoid tipping over of the log sticks while splitting is being completed (Fig.6).

6.3 Function of the safety bracket

Called by the safety bar, (see Figure 1, point 2), it is possible that one without a second person the splitter or vice versa brings the transport position into the working position.

Before the operating levers are operated for splitting, must first of Safety bar unlocked - being released (see Figure 7).

6.4 Setting the machine ready to work

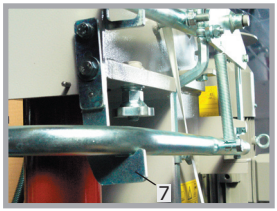


Abb. 7

To convert the machine from transport to splitting asset :

1. Engage the safety U-clamp → Hook up the clamp to its catch (Pos.7, Fig. 7)
2. Remove (unscrew) both pommel grips (Pos. 8, Fig.8)
3. Perform power connection (electric or PTO)
4. Operate the left handle, pushing and holding it all the way down. Press and hold the right handle down → to rive the ram all the way up

Keep carefully rising the ram up all the way against the flange of the upper cylinder casing. During operation of the safety bar must be i m m e r hang out!

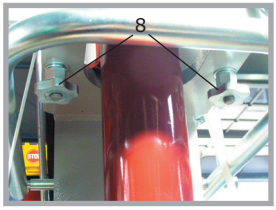


Abb. 8

5. Tighten both pommel grips (Fig. 8) again,
   Release the U-clamp from its catch
   → the splitter wedge moves up:
   → the splitting position is now achieved.

To set the splitter ready for transportation after completing the work:

1. Secure the U-clamp (Fig. 7) → hook up the clamp in its catch.
2. Operate both handles → let the wedge move down onto a wooden block purposely located on the floor plate (approximately a 200 mm thick block to use as safety seating during transportation) → release both handles.
3. Remove (unscrew) the pommel grips (Fig. 8)
4. Push the left handle down
5. Release the U-clamp, cautiously settle the left handle back into start position → let the ram move down and when it reaches its lowest position push and maintain the handle
6. Secure the C-clamp → hook up
7. Disconnect power
8. Screw knob handles back

6.5 Operating temperature

At low ambient temperature the oil in the hydraulic circuit will thicken. In this case, it is recommended to avoid sudden start-up (splitting without warming the motor up) that could result into damages and trouble of the hydraulic system. To assure trouble free operation of the hydraulic system at low ambient temperature, let the motor run idle and cycle the unit several times till the oil in the hydraulic loop warms up.

6.6 Working with the intermediate table

With hinged intermediate table (accessory) the lower switching jack ust solved and in the middle hole of the control rod be attached. Then unhook the safety bar, now can be cleaved. After the operation, the cylinder is moved upwards, the Abschaltbuchse the control rod back into the lower hole of the Attached control rod and then removed the table. The splitter can be brought back into the transport position.

6.7 Temperature

At low temperatures, the oil in the hydraulic system is still very viscous. Instant work (columns) at such temperatures can cause damage to the hydraulic system. The flawless To ensure operation of the hydraulic system, should the Only operated splitter at low temperatures some idle time be to allow the hydraulic oil may heat up.

7. TRANSPORTATION

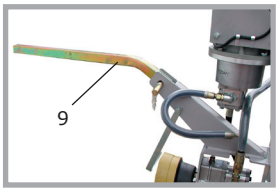


Abb. 9

This machine is conceived for very ergonomic, easy handling thanks to the special wheel arrangement in the rear bottom part of the machine. For long distance transportation, the machine can be conveniently handled on the three-point linkage of your tractor.
To perform handling by rolling on its own wheels, first plug the pull-rod (9) in the upper 3-point hitch and firmly secure it by means of the pin. At this stage, find safe handling asset by leaning the splitter back on the wheels till the wheels hit against the ground.

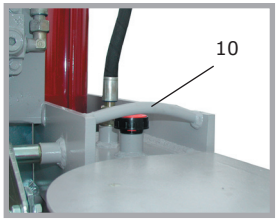


Abb. 10

Alternatively lift the splitter using a crane or any equivalent lifting equipment hooking the special lift bow (10) as shown on figure 10.

To perform transportation on the tractor, first lift the splitter at least 20 cm above the ground while holding it straight up. Disconnect power or remove the driveshaft and make sure that the machine does not infringe the tractor profile nor blinds tractor lights and signal lights (stop lights, tail lamps, etc...) during transportation.
For road transportation compliance to the traffic rules of your country is mandatory.

7.1 Attaching the splitter to the adjustable three-point linkage

Before transporting the splitter on the three-point hitch of your tractor, check for the correct position of the upper (11) and lower hitch pin (12) that must be lined up to each other. Accurate fitting of the pins in the respective holes and precise line-up of their position (Figure 11 and 12) is mandatory to assure trouble-free hitching. Wrong pins installation and misalignement (see figure 13 and 14) may cause dangerous strain of the machine which will void the warranty and release the manufacturer from any liability.

RIGHT PIN POSITION

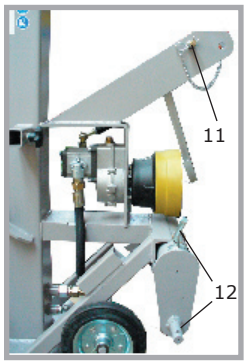


Fig. 11

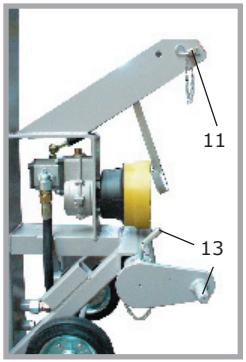


Fig. 12

WRONG PIN POSITION

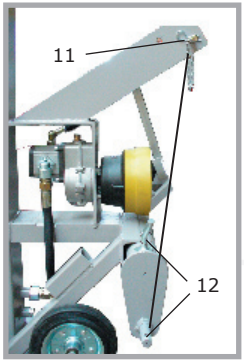


Fig. 13

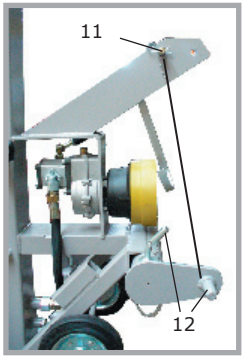


Fig. 14

8. START-UP

Before first use, make sure that the log splitter is in good conditions and that there are no visual damages. Should any trouble or unusual behaviour be detected, do not start splitting wood until these have been fixed. First stop the machine, remove the cause of the trouble and if required let skilled personnel perform a chekup before you start working again.
For transportation purposes the ram is retracted within the splitter profile alongside of the vertical beam. Before operating the splitter, raise the ram up (Chapter 5 - About the splitter) in the initial operating position.
Periodically check the oil level inside the hydraulic oil tank and fill-up if necessary. The splitter can be PTO powered by means of a driveline or powered by tractor hydraulics by the hydraulic pump of your tractor or by own electric motor depending on the version.

8.1 Electric power mode

Before attempting to operate the log splitter, make sure to duly connect it to a power supply network of conformant safety specifications . Do not switch the motor off till the splitting wedge reaches its upper start-position.

8.2 Three-point hitch mode

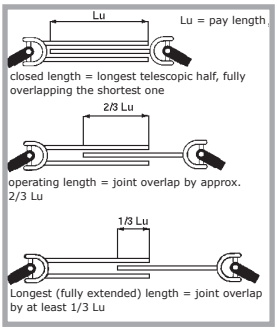


Fig. 15

PTO splitter versions must be connected by means of a driveshaft to the power take off of your tractor. Connection of the driveshaft should have no bigger play than 10 cm.

The PTO-driven version is equipped with a three-point linkage to fit on the one available on your tractor. The drive shaft is going to act as linkage and driving element between the tractor and the splitter and should be therefore duly mounted and secured by the special pins available on the machine.
For increased safety make sure that a minimum wrapping of 1/3 of the total useful length is achieved (see figure 15 on the side).
Do not perform any repair, adjustment, cleaning or maintenance work whatsoever while the machine is running (disconnect PTO-drive or switch the tractor off)!

Never use a PTO driveline without safety shield or with a damaged guard and make sure that the shield is of the correct size and length for the drive shaft. Driveshaft must be of an approved type and installed in compliance with the instructions of the manufacturer.
PTO-versions are ground-driven, 3-point hitch implements. Lower the machine to the "field" position when you are ready to use it.
During operation of a PTO powered splitter version, make sure that the splitter is firmly secured to the three-point hitch of your tractor throughout the entire cycle!

8.3 Tractor drive (PTO)

Before uncoupling the processor, make sure to stop the tractor engine in order to avoid damaging the tractor power drive.c

8.4 Direct connection to tractor hydraulics

Connect pressure to the coupling hose with a red mark and return flow to the coupling hose with a green mark.

9. REPAIRS AND MAINTENANCE

Make sure that the machine is fully disconnected and all moving parts are secured before performing any maintenance/repair work on the machine. In the event of any malfunctioning, switch the machine off before trouble-shooting.

9.1 Ordinary maintenance

Make maintenance a regular part of daily operation. The daily maintenance routine needs to include:

• Cleaning of the machine and clearing of all parts from residual wood debris, chips, dust, bark pieces and eventual other waste.
• Greasing of the sliding pads inside the splitter stand.
• Hydraulic oil check and (in case of leakage) hydraulic hose and fittings check-up to detect eventual oil leaks.
• Lubrication of all moving parts.

Oil or grease the wedge slinding pads after every 10 operation hours.

9.2 Recommended oil types:

Periodically check the oil level inside the hydraulic oil tank. When doing so, accurately avoid contaminating the tank with dirt, wood chips, sow dust etc...Make sure that the splitter never runs without oil or with a low oil level. When this happens, air is likely to reach inside the hydraulic loop. Failure to maintain due oil level may cause poor running and irregular splitter operation (very rough, back/forth or up/down motions) as well as major pump damages. Please schedule your first oil change after approximately 25-30 operation hours and later ones at least once a year. Make sure to accurately clean the suction filter at each oil change.

Recommended oil types:
DEA HD B 46, Shell Tellus 10-46, Esso Nuto H 46.
After each new oil fill, operate the splitter and let it run for 2 or 3 complete cycles before plugging the tank. This operation will help bleeding all residual air out of the hysdraulic line. No parts or components of this rugged splitter construction are likely to get damaged during compliant use and handling. However always check all hydraulic hoses, fittings and couplings to detect and repair eventual oil leaks. Do not check for leaks with your hand.

When operating the splitter after a long storage time, it is possible that the ram performs slow, jerky travel. If so, the suction filter may be dirty. Change the hydraulic oil and clean it before starting again.
Oil or grease the wedge slinding pads after every 10 operation hours.
Replace the oil filter in the hydraulic system after the first 150 operation hours and then every time when a new oil fill is done. Regularly check the oil level using the special gauge on one side of the vertical beam.
For PTO versions, regularly check the oil level in the gears and provide a full oil change at least once a year.

Recommended oil types: Viscosity class CLP/CC 150 (ISO 150) (SAE 90)

Changing fluid (hydraulic oil) in the reservoir

WARNING: Before performing any new oil fill, be sure to remove all pressure by shutting off the engine or disconnecting power from the machine!

• Remove the plug from the hydraulic tank or reservoir (underneath the tank). When changing the oil, never let used oil drop down on the ground, rather collect whole of it in a sealed container for due disposal.
• Oil disposal containers should be of at least 40 l capacity. If you are using smaller containers, make sure to drain the tank in more than one round to avoid spilling old oil out on the ground.
• After completely draining the oil out of the tank, fit the drain plug back on the tank and clean the suction filter.
• Remove the oil filler and fill approximately 36 l (7.9 gal) new oil in
• After filling, screw the filler and the plug back into place and the splitter is ready to be used again.

Used oil is very polluting and should be disposed in accordance with local rules! Do not spill nor dispose used oil with other domestic waste!

10. DISMOUNTING/DISPOSING OF AN OBSOLETE MACHINE

When the splitter is fully obsolete and cannot be of any longer use, it should be duly dismounted ahead of discarding. Certain components need deactivation and dismantling in order to assure that no further use is made by other parties and that no worn out parts are recycled-for other applications.

During dismantle be alert for possible recyclable materials and components that belong to differentiated waste collection procedures applicable in your country.

The manufacturer is not liable and undertakes no responsibility for personal injuries or damages that may result from the recycling of worn out machine parts for eventual reuse in other applications different than originally stated in this manual.

Dismantling procedure:
Take good note please: each and every dismantling task must be performed by authorized service centres or trained skilled staff only!

- Pull the machine down into single components
- Deliver each single component only to authorized waste management facilities
- Drain oil and fuel out of respective tanks and lines before disposal of the machine
- Please dispose of rubber and plastic parts of your log splitter at approved recycling centers

Deactivated, clamped moving/driving parts and components are of no further risk and danger.

Electric components must be separately collected to avoid substantial environmental threat. In the event of the fire on the electric deployment system of the machine, use of an explosion-proof extinguish system is required (for example powder fire extinguishers).

11. TECHNICAL DATA

TECHNICAL DATA	Unit of measurement	USP 13 H-6	USP 13 HZ-6	USP 13 HE-6	USP13 HZE-6
Splitting power *	t	13	13	13	13
Motor power P1	kW			5,5	5,5
Motor speed	RPM			2845	2845
Max. operating pressure	bar	240	240	240	240
Max. log capacity	mm	1100	1100	1100	1100
Height of the pressure plate (table)	mm	510	510	510	510
Ram speed 1	s	Depending on tractor hydraulic specs	9	25	9 or 25
Ram speed 2	s		5	14	5 or 25
Return speed of the wedge	s		4,5	12	4,5 or 12
Max. number of driveline rev.	RPM		520		520
Total machine height (riser up)	mm	2800	2800	2800	2800
Total machine height (riser down)	mm	2000	2000	2000	2000
Machine width	mm	800	800	800	800
Weight	kg	325	364	390	404

* The actual splitting force may vary ± 10% of the nominal rating

11.1 Noise emessions

Noise emissions were measured in accordance with the European directives for the measurement of noise emissions on the workplace. The measurement was performed by external authorized certification bodies in compliance to the applicable Standards based on applicable rules for agricultural and forestry equipment.

The detected noise level was below 85 dB(A). NO MANDATORY HEARING PROTECTION.

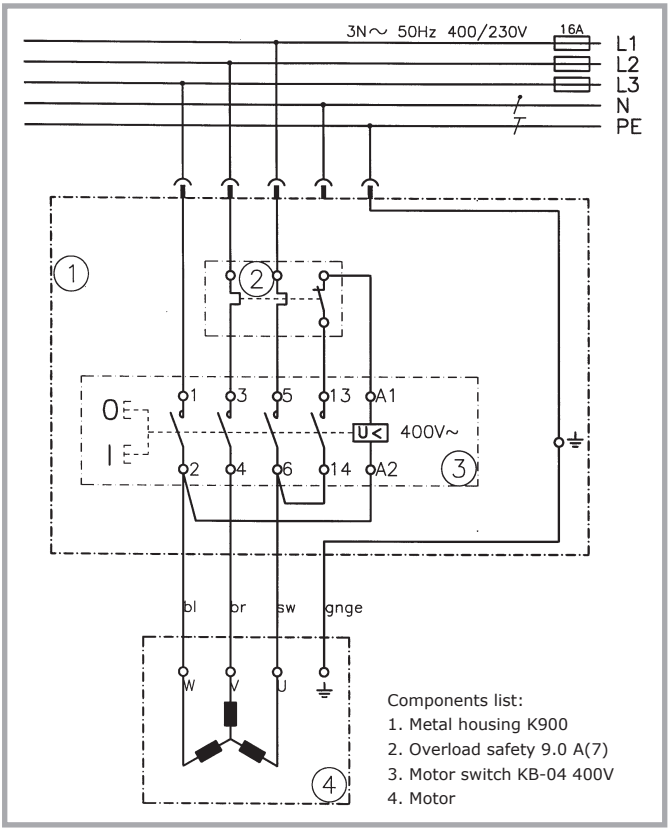
TECHNICAL DATA	Unit of measurement	USP 16 HZ-2	USP 16 HZE-62	USP 22 HZ-2
Splitting power *	t	16	16	22
Tractor power requirements	KW/PS	20/27	20/27	20/27
Motor power P1	kW		5,5	
Motor speed	RPM		2845	
Max. operating pressure	bar	240	220	240
Max. log capacity	mm	1100	1100	1100
Height of the pressure plate (table)	mm	505	505	505
Ram speed 1	s/mm	12/1050	12/1050	13/1050
Ram speed 2	s/mm	6/1050	6/1050	6/1050
Return speed of the wedge	s/mm	7/1050	7/1050	8/1050
Max. number of driveline rev.	RPM	540	540	540
Total machine height (riser up)	mm	2540	2540	2600
Total machine height (riser down)	mm	1980	1980	2008
Machine width	mm	800	800	800
Weight	kg	325	364	390
Tiefe	mm	1200	1200	1200
Gewicht	kg	443	480	445

12. WIRING DIAGRAM

BEWARE: only let expert skilled staff do electric repair/maintenance works!

As for all electric tools and equipment we strongly recommend use a portable residual current device(PRCD),
unless you already have a residual current device (RCD) in your house assuring safety and protection up to max 0.03A nominal fault current.

Fig. 16 Wiring diagram



13. OTHER AREAS OF POSSIBLE DANGER

13.1 Mechanical dangers

The special two-hand control mechanism minimises risks and dangers related to moving parts on the machine. An additional safety is provided on the machine in order to prevent working with only one handle while the other one is being engaged (held down) by some mechanical tool or system.
DO NOT EVER ATTEMPT to remove or by-pass the two-hand control! Danger: operating the splitter without the safety two-hand control will increase your risk of having your hands pinched during the splitting cycle. Do not remove any other safety and protection device from the machine.

WARNING: splitting without due safety devices will void the warranty and might result into serious injures to the operator or the other person around the workplace.

13.2 Electrical dangers

All machine parts staying under voltage are duly insulated or sealed inside a fixed casing to avoid accidental contact. For safety reasons all fixed casings can be only removed using special tools and equipment.
WARNING: removing a fixed protection casing when the machine is running or without having priory cut the power off, may result into major danger of electrical shock!

14. ATTACHMENTS

14.1 Radio-controlled winch FSW 750 D (Optional Art. Nr. 96010)

A 12 V power outlet is required for operating an hydraulic forestry winch model FSW 750 D. The winch is supplied with integrated sender and belt clip.
The winch has a pull-force of 750 kg and a 30 m long rope. Oil is supplied from the splitter through the special pressure outlet.

Before attaching and operating a forestry winch, be sure to check that the rope is free of defects and faults. Completely replace the rope, if any incipient crack or breakpoint is detected. When replacing the rope, please mind for the following minimum requirements :
- **Rope length : 30 m**
- **Rope diameter : 5 mm**
- **Min failure load : 1,6 t**

14.2 Tow bar with steering wheel (Optional Art. Nr. 94757)

Fig. 17

- User-friendly transportation/handling
- Must be handled on compacted, flat court grounds

14.3 Hydraulic log lifter (Optional Art. Nr. 94721)

Fig. 18

- A separate valve is required for lifting/lowering
- Oil is supplied from the machine
- Pressure outlet is required

14.4 Intermediate table (Optional)

Fig. 19

- Only for short-logs splitting (max. 70 cm long chunks)
- Easy to install and hookup

14.5 Snap-in 4-ways wedge (Optional rt. Nr. 94716)

Fig. 20

- 4-ways wedge, easy fitting on the existing standard wedge of your splitter to perform cutting of a log into 4 pieces.
- To install a 4-ways wedge, simply fit it and push it on the existing standard wedge and secure it by tightening the special fixation screw on top.
- During installation, be sure that the 4-ways wedge is pushed all the way down onto the existing standard wedge.

14.6 Mechanical log lifter (Optional Art. Nr. 94711)

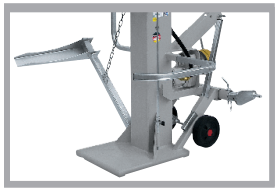


Fig. 21

- Attachment according to installation instructions

15. LEGAL WARRANTY

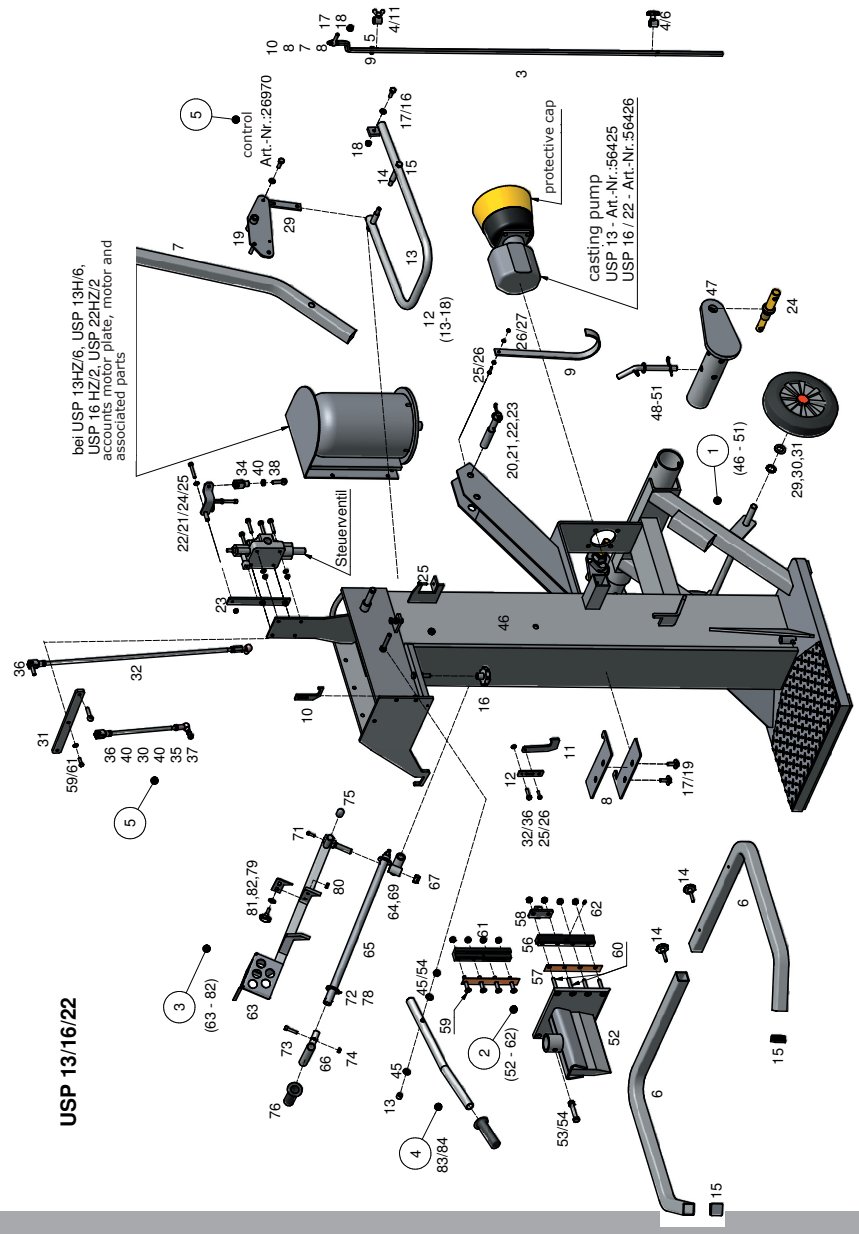
All our machines are covered with legal warranty. Customers should promptly notify eventual material, production or workmanship claims on their detection. While asking for warranty service, customers should show copy of their purchase invoice or receipt. The warranty does not cover for faults due to natural wear, temperature or weather agents as well as misuse, faulty installation or improper lubrication. No warranty will be given on parts damaged by improper handling or wrong connections. No warranty applies for cases of major force or of misuse (for example modifications of the machine or customized installations done by the customers or unauthorized thirds). No warranty is given in case of machine overload.

Consumable parts (pads, wedges and general materials) as well as adjustment and/or setting and retrofitting services are not included in this warranty.

16. EXTENDED WARRANTY

All SŰMA consumer products are covered with 24 or 12 months total warranty from the date of purchase for private/industrial users and rentals. This warranty extension does not substitute nor void the legal warranty. Customers should promptly notify eventual material, production or workmanship claims on their detection. While asking for warranty service, customers should show copy of their purchase invoice or receipt. Buyer's address and type/model of equipment must be clearly stated in the case of industrial users/contractors/dealers. All claims related to material or production failures during the total warranty time, shallbe repaired notwithstanding eventual user's faulty/ wrong operation or maintenance.

17. ERSATZTEILLISTE



18. EC-STATEMENT OF COMPLIANCE

to EC Machines Directive No. 2006/42/EG and EMV 108/2004 CEE

We hereby declare that the equipment described in this manual responds in full to the actual version brought on the market. We, the manufacturer further declare that this equipment was duly designed and manufactured in accordance with the actual European Safety and Health Standards settled by the relevant EEC directives as well as the latest electromagnetic standards issued by the European Council of 3.5.89 and later enforcedby all member states.
This statement of compliance does not apply to customer modifications of the equipment without manufacturer's written approval. The manufacturer shall not be responsible for such modified equipment and machines.

Machine type:	**Universal log splitter**
Models:	**USP 13 H -6 ,** **USP 13 HZ -6 ,** **USP 13 HE -6 ,** **USP 13 HZE-6** **USP 16 HZ - 2** **USP 16 HZE- 2** **USP 22 HZ - 2**
Production number:	See model label
Applicable European Standards:	EC Machine Directive Nr. 2006/42/EG and further additions and modifications EEC Low Voltage Directive (EC 93/68 EWG) 2006/95/EG EC EMV 2004/108
Other Standards:	To assure full compliance with law requirements, due considerations was equally taken for the following harmonized rules: DIN EN 55014-1: 2006 DIN EN 50014-2 : 1997 + A1 : 2001 DIN EN 50104 DIN EN 61000-3-2 DIN EN 61000-3-3EN 609-1
Dokumentationsbevollmächtigter:	René Pareis (Geschäftsführung)

15.07.2017

Date

René Pareis (CEO)

Official user language: german

English (User's release)

Subject to changes without notice

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Form: 2130.15.07.2011 - Rev. A
Form: 2135.15.07.2011 - Rev. A
Form: 2136.15.07.2011 - Rev. A
Form: 2137.15.07.2011 - Rev. A