

**Bäumr-AG®**



# **ELECTRIC LOG SPLITTER – 20 TON**

## **USER MANUAL**

**RETAIN THIS MANUAL FOR FUTURE REFERENCE**

**PLEASE READ THIS MANUAL CAREFULLY BEFORE USE**

# TABLE OF CONTENTS

<b>SAFETY</b> .....	<b>1</b>
<b>CONTROLS AND FEATURES IDENTIFICATION</b> .....	<b>2</b>
<b>SET-UP</b> .....	<b>3</b>
Step 1: Cylinder Cover Assembly .....	4
Step 2: Double Handle Assembly .....	4
Step 3: Wheel Assembly .....	5
Step 4: Attach Beam to the Wheel Stand.....	5
Step 5: Attach Front Support Leg and Handle Bar to the Beam .....	6
Step 6: Attach the Electric Motor .....	6
Step 7: Attach the Switch .....	7
Step 8: Attach the Pipe.....	7
Step 9: Attach the Log Cradle.....	8
Step 10: Add Hydraulic Oil .....	9
<b>OPERATION</b> .....	<b>10</b>
Using Your Log Splitter.....	10
<b>MAINTENANCE</b> .....	<b>13</b>
<b>STORAGE</b> .....	<b>13</b>
<b>TROUBLESHOOTING</b> .....	<b>14</b>
<b>TECHNICAL SPECIFICATIONS</b> .....	<b>15</b>

# SAFETY

## READ and UNDERSTAND this manual completely before using the 20 Ton Log Splitter.

- Operator must read and understand all safety and warning information, operating instructions, maintenance and storage instructions before operating this equipment. Failure to properly operate and maintain the log splitter could result in serious injury to the operator or bystanders.

### Operation Warnings

- Do not at any time carry passengers, sit or stand on the log splitter.
- Do not allow children to play on, stand upon or climb on the log splitter.
- Always inspect the log splitter before using to assure it is in good working condition.
- Replace or repair damaged or worn parts immediately.
- Always check and tighten hardware and assembled parts before operation.
- Do not exceed equipment maximum load capacity of 20 tons.
- Avoid large holes and ditches when towing the equipment.
- Always operate the log splitter on clear and level ground.
- Do not operate the log splitter at night, only during daylight hours.
- Always tow at reduce speed in rough terrain, along creeks, ditches and on hillsides.
- To avoid personal injury and/or equipment damage **DO NOT EXCEED 8 KPH.**
- Always refer to the vehicle owner's manual for proper towing.
- Always secure and lock the log splitter to the vehicle hitch before towing.

### Crush and Cut Hazards

- Always keep hands and feet clear from moving parts while operating the equipment.
- Always clear and keep work area clean and free of debris when operating.
- Always wear safety gear, eye protection, gloves and work boots when operating the log splitter.

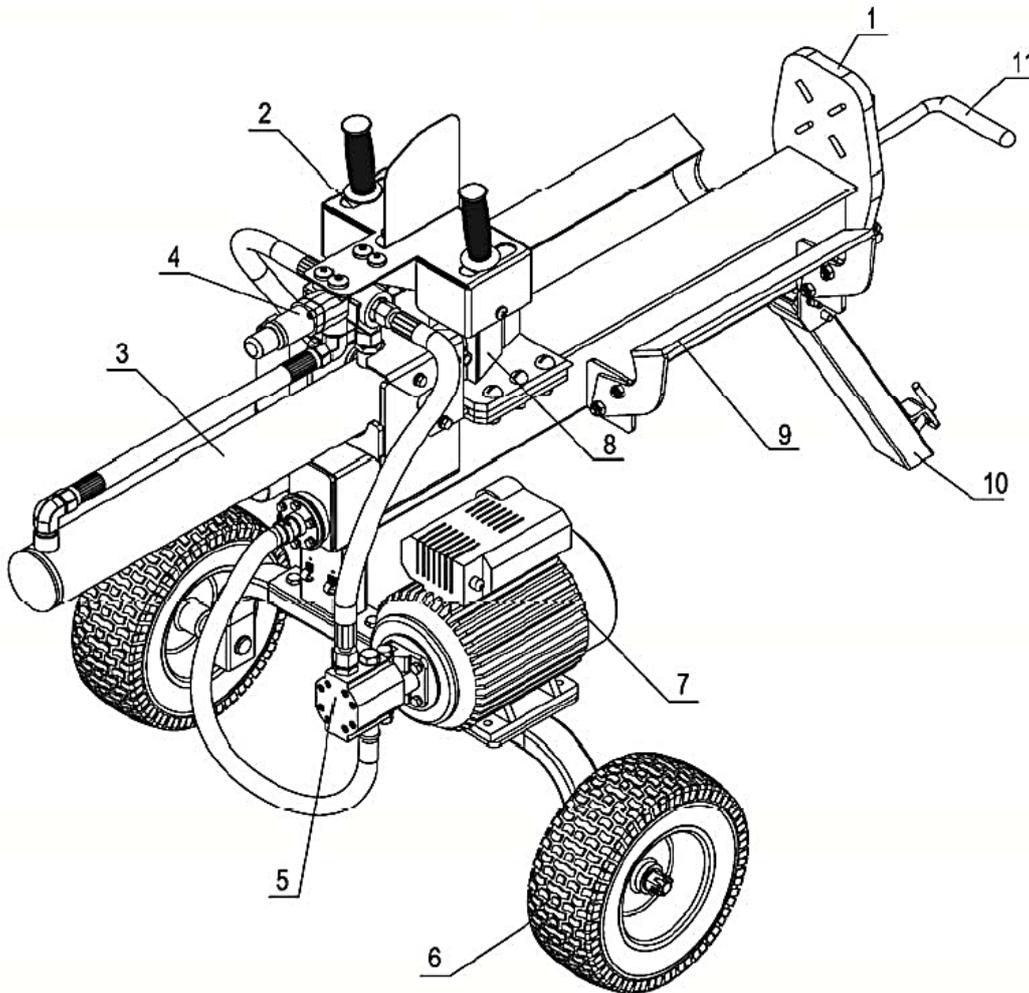
### Assembly Is Required

This product requires assembly before use. See "[Set-Up](#)" section for instructions. Because of the weight and/or size of the log splitter, it is recommended that another adult be present to assist with the assembly. **INSPECT ALL COMPONENTS** closely upon receipt to make sure no components are missing or damaged.

**WARNING!** The warnings, cautions, and instructions outlined in this instruction manual cannot cover all possible conditions or situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product and must be supplied by the operator.

## CONTROLS AND FEATURES IDENTIFICATION

Read this owner's manual before operating the equipment. Familiarize yourself with the location and function of the controls and features. Save this manual for future reference.



1. Beam – 4.7"
2. Double Handle
3. Hydraulic Cylinder – 3.1" bore and 19.1" stroke, rated to 3600 psi.
4. Control Valve Lever – Controls the forward and backward movement of splitting wedge
5. Gear Pump – The gear pump makes the hydraulic oil flow through the system.
6. Tyres - Maximum rated towing speed is 8 KPH.
7. Electric Motor-240V
8. 5.5" Wedge - Features wedge wings and tapered ends making splitting easier.
9. Log Cradle-Keeps the log on the beam without operator assistance.
10. Support Leg- Supports the log splitter while operating.
11. Handle Bar

## **SET-UP**

**CAUTION!** Read and follow all instructions for assembly and operation. Failure to properly assemble this equipment could result in serious injury to the user or bystanders, or cause equipment damage.

### **Hydraulic Oil Tank is shipped without Oil.**

- When adding oil, verify the oil level using the oil filler/dipstick on the top of hydraulic oil tank. Fill to the maximum level indicator.

### **Inspect all Log Splitter Components.**

- If you have damaged components: Contact the manufacturer.

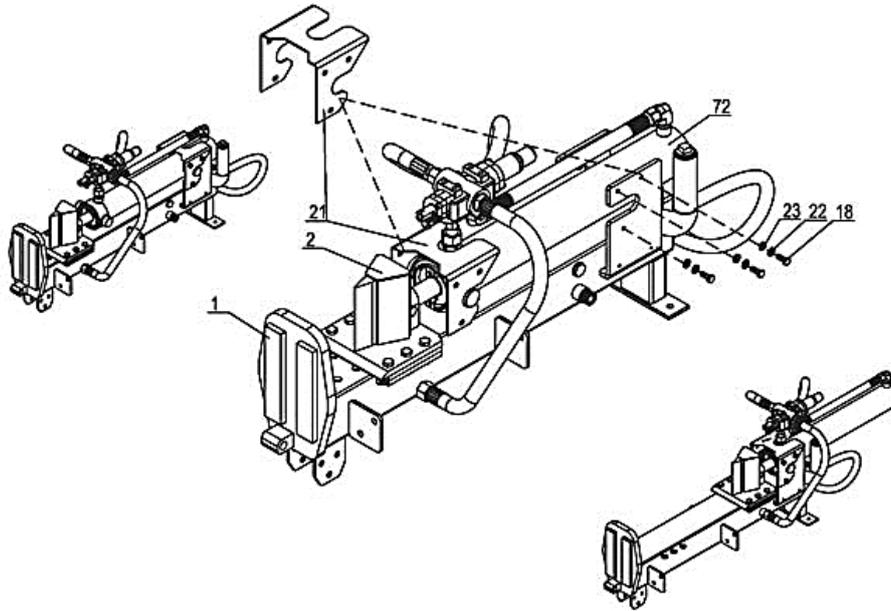
Set the shipping crate on a solid flat surface and carefully remove the lid. Use two people and take all parts out of the shipping crate and inspect the components to ensure there are no missing pieces before starting to assemble the machine.

### **TOOLS REQUIRED**

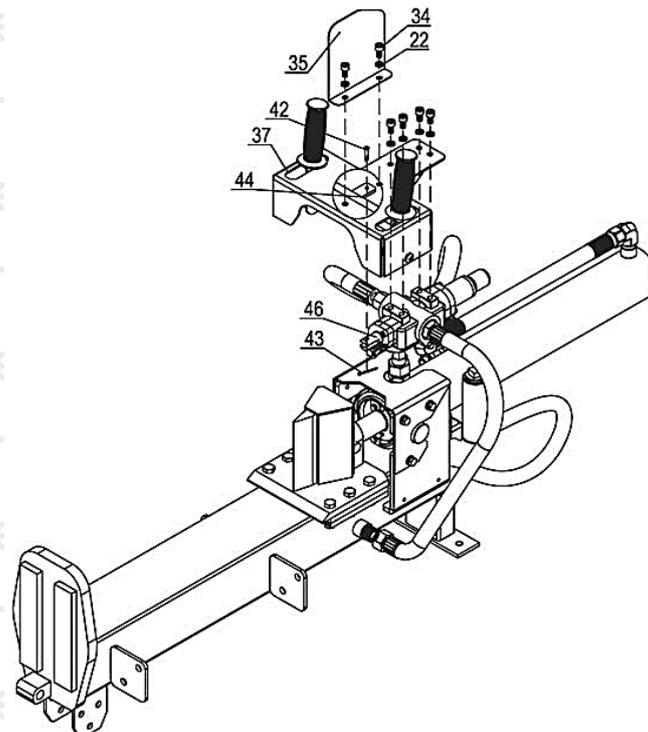
- Rubber or Wooden Hammer
- 10mm, 13mm, 16mm, 17mm, 18mm, 19mm, 23mm Wrenches
- 6mm Allen Wrench
- Large Adjustable Wrench
- Phillips Screwdriver
- Pliers

**STEP 1: CYLINDER COVER ASSEMBLY**

1. Take off the cylinder cover (#21) from beam, then put the cylinder cover (#21) between cylinder (#72) and wedge (#2)
2. Pull the cylinder (#72) back to the beam, screw with hex bolt M8x20 (#18), flat washer Ø8 (#23) and lock washer Ø8 (#22).

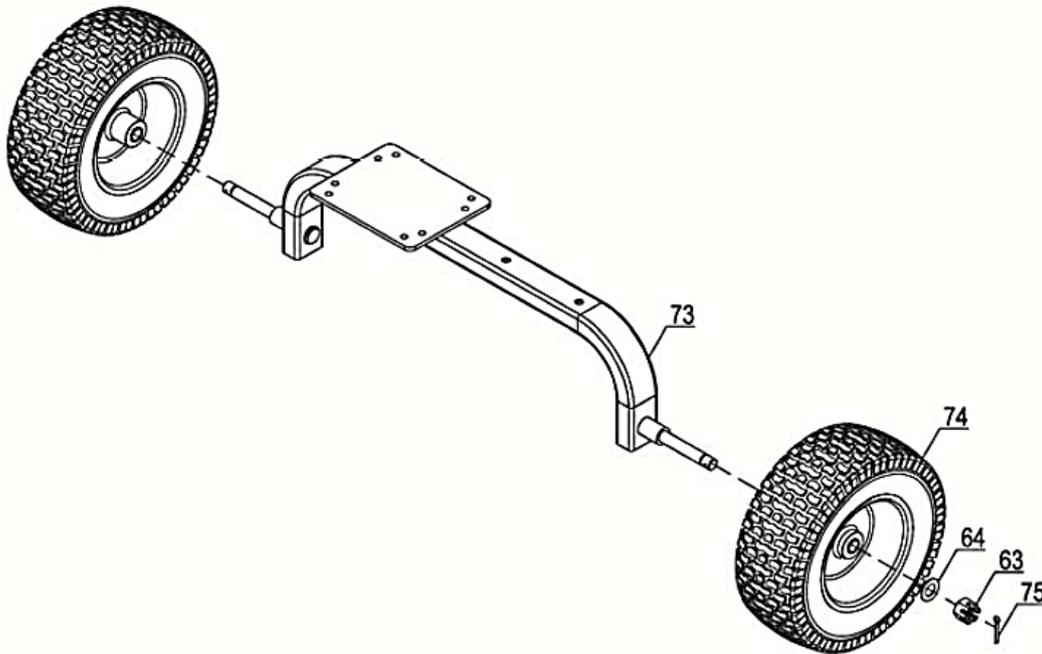
**STEP 2: DOUBLE HANDLE ASSEMBLY**

1. Put the connecting tube (#44) onto the channel of the control valve (#46), lock with pin Ø5x26 (#42) and cotter pin Ø2x10 (#43), then fixed with pliers.
2. Attach frame (#37) to the control valve (#46) using inner hex screw M8x16 (#34) and lock washer Ø8 (#22).
3. Attach spacer plate (#35) to the frame (#37) using inner hex screw M8x16 (#34) and lock washer Ø8 (#22).

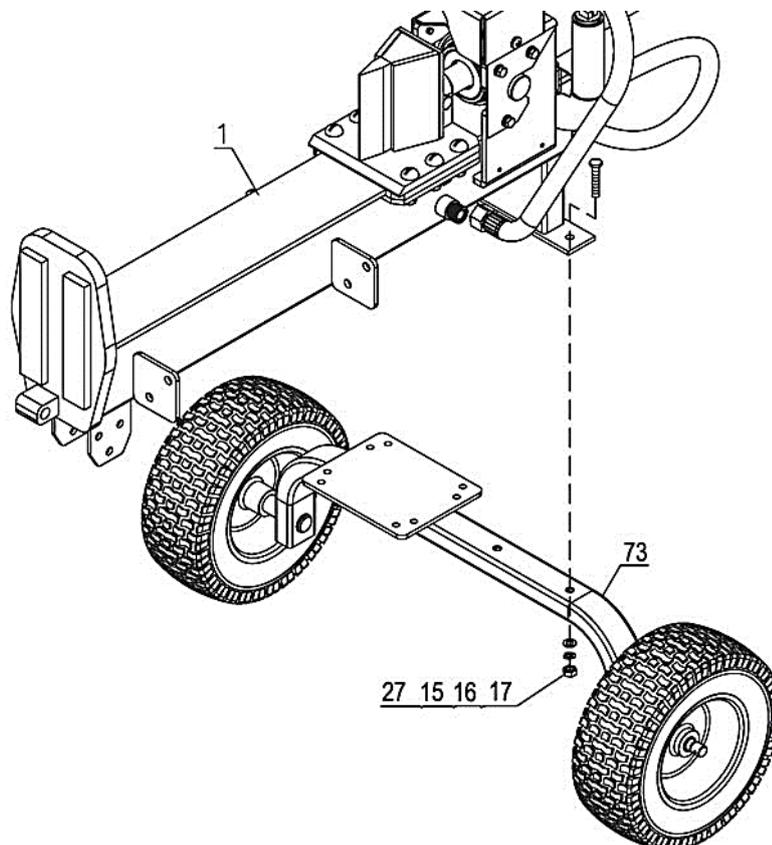


**STEP 3: WHEEL ASSEMBLY**

1. Attach the wheels (#74) to the wheel stand (#73) secure using flat washer Ø16 (#64), thin hex slotted nut M16 (#63) and cotter pin Ø4x30 (#75).

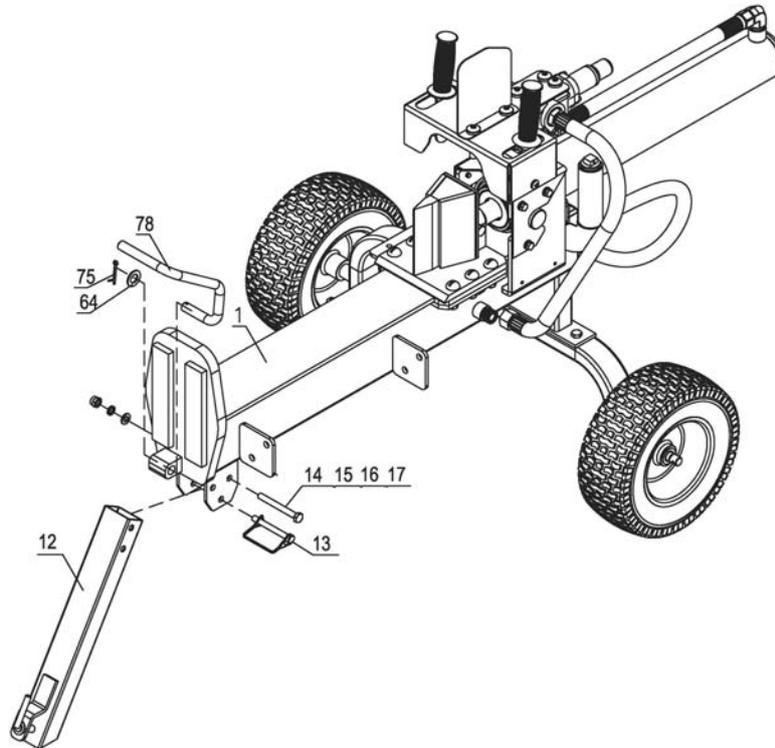
**STEP 4: ATTACH BEAM TO THE WHEEL STAND**

1. Attach the beam (#1) to the wheel stand (#73) secure using hex bolt M10x55 (#27), flat washer Ø10 (#15), lock washer Ø10 (#16) and nylon lock nut M10 (#17).

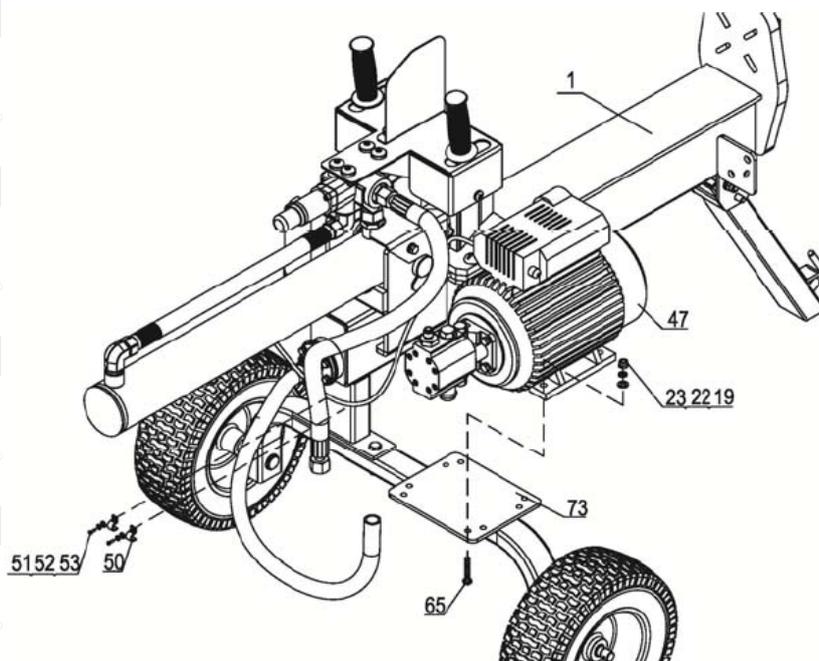


**STEP 5: ATTACH FRONT SUPPORT LEG AND HANDLE BAR TO THE BEAM**

1. Attach the front support leg (#12) to the beam (#1) secure using hex bolt M10x90 (#14), flat washer Ø10 (#15), lock washer Ø10 (#16) and nylon lock nut M10 (#17). Then fix the lock pin (#13).
2. Attach the handle bar (#78) to the beam (#1) using flat washer Ø16 (#64) and cotter pin Ø4x30 (#75).

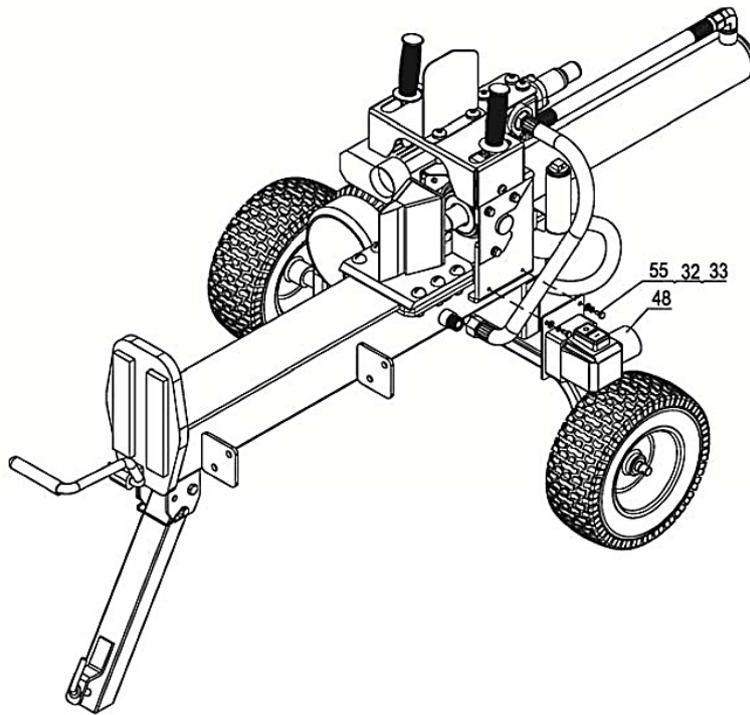
**STEP 6: ATTACH THE ELECTRIC MOTOR**

1. Attach the electric motor (#47) to the wheel stand using hex bolt M8x35 (#65), flat washer Ø8 (#23), lock washer Ø8 (#22) and nylon lock nut M8 (#19).
2. Fix the power line of the switch to the beam using screw M3x10 (#51), lock washer Ø3 (#52), flat washer Ø3 (#53) and plastic clip (#50).

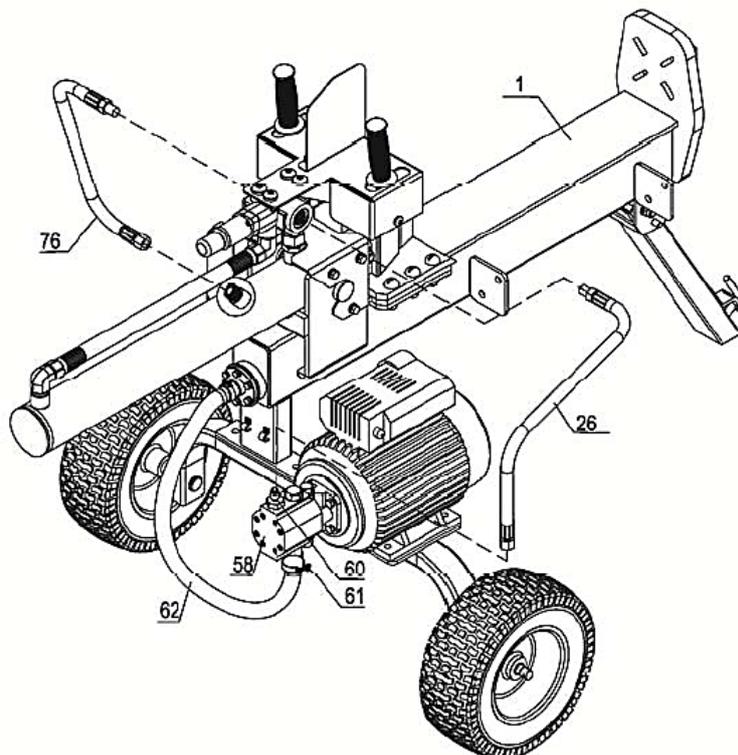


**STEP 7: ATTACH THE SWITCH**

1. Attach switch (#48) to the mounting plate using Screw M6x12 (#55), lock washer Ø6 (#32) and flat washer Ø6 (#33).

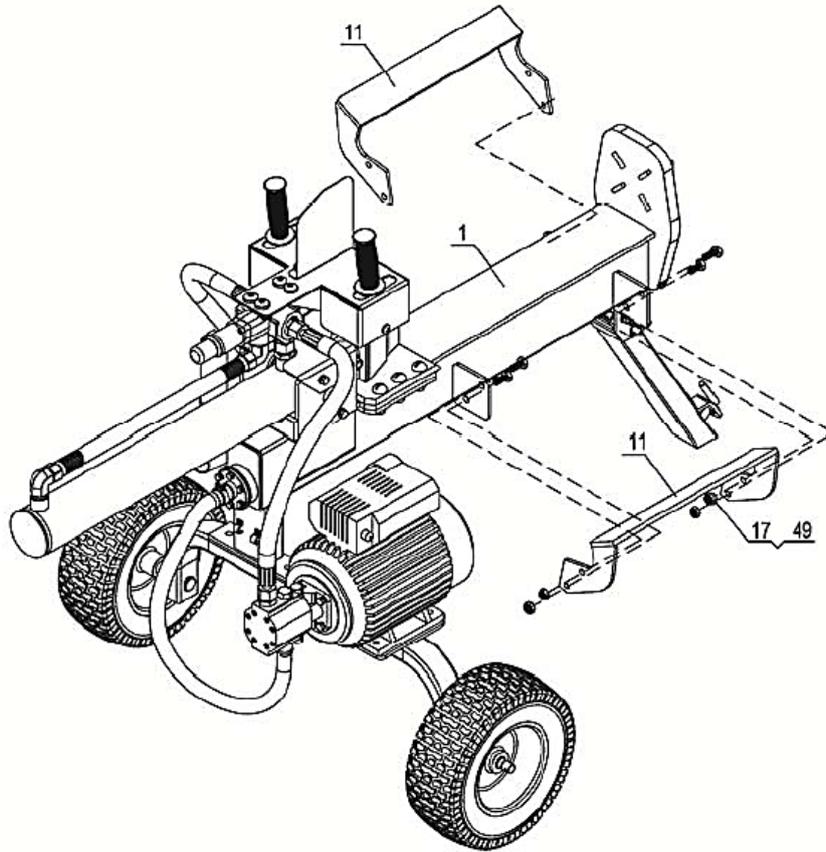
**STEP 8: ATTACH THE PIPE**

1. Connect the oil inlet pipe (#26) to the connector Z 1/2"-M14\*1.5(#60).
2. Connect the oil return pipe (#76) to the oil return connector of beam.
3. Connect the oil pipe (#62) to the gear pump using clamp (#61).



## STEP 9: ATTACH THE LOG CRADLE

1. Attach the log cradle (#11) to the beam using hex bolt M10x25 (#49) and nylon lock nut M10 (#17).



## STEP 10: ADD HYDRAULIC OIL

1. The log splitter needs to be on a flat, level surface before adding the hydraulic oil.
2. Remove the oil cap from the hydraulic oil tank.
3. Add approximately 1.37 gallons of hydraulic oil, 10W-AW, AW-32, ASLE H-150, ISO 32 Universal Hydraulic Fluid or Dexron III Transmission Fluid.
4. Check the hydraulic oil level.
5. Start machine and use the control lever to extend and retract the ram several times to remove any air from the hydraulic system.
6. With the ram fully retracted, check hydraulic oil level again and fill if necessary.

### WARNING!

- DO NOT remove the hydraulic oil fill cap when the machine is running or has just been used. Hot oil can escape, causing severe burns. Always allow the log splitter to cool completely before removing the hydraulic oil cap.
- High fluid pressure and temperatures are created in the hydraulic log splitters. Hydraulic fluid will escape through a pin-size hole opening and can puncture skin and cause severe blood poisoning.
- Inspect hydraulic system regularly for possible leaks. **Never check for leaks with your hand while the system is pressurized. Seek medical attention immediately if injured by escaping fluid.**
- Make sure all fittings are tight and secure before applying pressure. Relieve system pressure before servicing.
- Make sure the hydraulic hoses do not touch any hot surfaces or cutting areas.
- Hoses need to be positioned where they are clear from the engine and cutting wedge. To avoid serious bodily injury always inspect the hoses before operating the log splitter.

## OPERATION

### WARNING!

Before operating or using the log splitter, review the instructions below and all safety information. Failure to follow these instructions may result in property damage or injury to the operator or bystanders.

- **ALWAYS** use the log splitter for its intended use.
- **ONLY** use the log splitter to split wood logs, length wise with the grain.
- **NEVER** modify, alter or change the log splitter in anyway, modifications will void the warranty.
- **NEVER** attach a rope, cable or other device to the control lever on the log splitter.
- **ONLY** operate the log splitter in daylight.
- **NEVER** leave the log splitter unattended while it is running.
- **ALWAYS** make sure the beam is in the locked position.
- **DO NOT** let the beam drop as it could crush fingers or cause damage to the log splitter.
- **NEVER** operate or let anyone else operate, the log splitter while under the influence of alcohol, drugs, or medication.

## USING YOUR LOG SPLITTER

1. DO NOT at any time carry passengers, sit or stand on the log splitter.
2. Check the hydraulic oil level and visually inspect all hoses and attachments for problems.
3. Before towing the log splitter the tyres need to be fully inflated.

### TYRE WARNING!

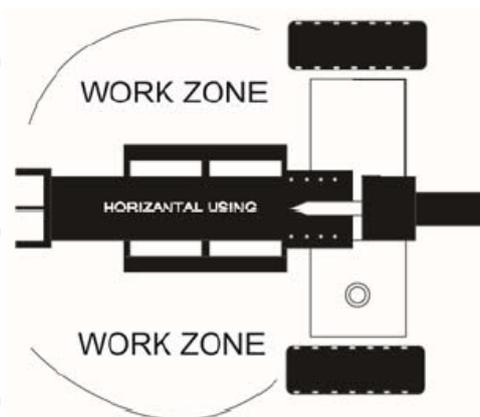
- DO NOT over inflate tires. Serious injury can result if tires explode
- DO NOT tow the log splitter if the tires are worn or will not hold air.
- DO NOT exceed the maximum 8 KPH towing speed.

5. Refer to the vehicle owner's manual for proper safety and towing instructions.

### TOWING WARNING!

- Serious injury or death can occur if towing safety rules are not followed.
- Always check the ball coupler and wheels to make sure all hardware is secure before towing.
- Before towing a long distance check to make sure the axle nuts and pins are tight and securely in place.
- Always use safety chains, secure and lock the log splitter to the vehicle hitch before moving.
- Drive safely. Be aware of the added length of the log splitter.
- Never exceed the maximum travel speed of 8 KPH.
- Never ride or transport cargo on the log splitter.
- Turn off the vehicle before leaving the log splitter unattended.
- Block the log splitter wheels to prevent unintended movement.

6. The log splitter must have at least seven feet of clearance from combustible material. It needs to be on a dry and level surface with good footing. Do not work on mud, ice, brush or snow. When using the log splitter the work zone must be maintained at all times.



**NOTE: Serious accidents can happen when other people are allowed inside the work zone. Keep everyone else outside the work zone while operating the control lever.**

7. Always wear safety gear, eye protection, gloves and work boots when operating the log splitter.  
8. Start the engine and make sure the log splitter is on level ground before operating.

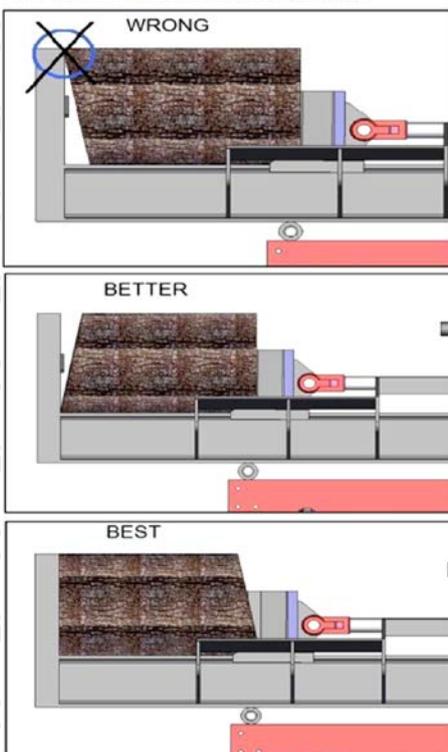
**NOTE: The hydraulic oil needs to be above 10°F (-12C°) before starting the engine. Cold hydraulic oil can damage the hydraulic pump. If outdoor air temperature is below 32°F (0C°) allow the log splitter to warm up by extending and returning the wedge several times before splitting wood.**

9. Put both support legs in the down position to prevent the log splitter from moving during operation and block both tires.  
10. Set the log splitter in horizontal position.

**NOTE: HORIZONTAL position is used for lighter logs that can easily be loaded onto the beam. Back injury can result from lifting logs onto the log splitter if proper lifting techniques are not used.**

11. Load a log onto the beam against the endplate (Max Log Length:- 540mm).

HOW TO SPLITE THE LOG WITH SLANT SURFACE



12. Make sure hands are clear from the wedge and crush hazard areas.

**CRUSH WARNING!**

- Wedge can cut through skin and break bones. Keep both hands away from wedge and beam slide.
- Serious accidents can happen when other people are allowed inside the work zone. Keep everyone else out of the work zone while operating control lever.
- DO NOT wear loose clothing. It can get tangled in moving parts of log splitter.
- Only use the log splitter in daylight so you can see what you are doing.

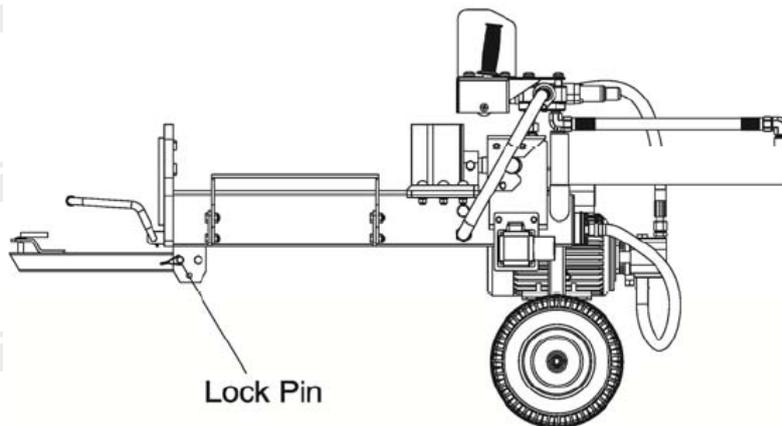
13. Push control lever FORWARD by one hand to split the log.

14. Push control lever BACKWARD by one hand to return wedge to its original position.

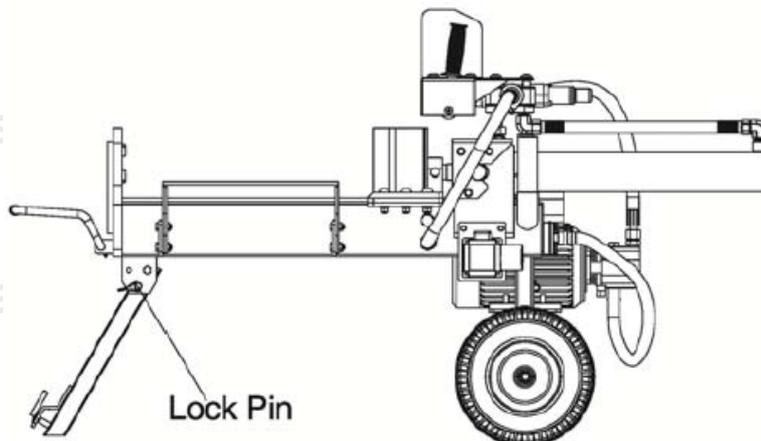
**CAUTION!**

- If a log gets stuck, embedded or will not split completely, push the control lever in the reverse direction and allow the splitter to strip the log from the wedge.
- If the log still remains stuck, embedded or will not split, turn the machine off and use a sledge hammer and crow bar to remove the log.
- ALWAYS keep hands clear of the log and wedge while it is retracting.

15. Always keep work zone clean and free of split wood and debris.



While towing, connect the hitch tongue to your vehicle and raise the front support leg. Note, the Lock Pin should be in the upper hole.



When operating, please connect the Front Support Leg to the lower hole with LOCK PIN and make sure the leg support the floor while operating.

## MAINTENANCE

**WARNING!** Improper maintenance and storage of the log splitter may void your warranty.

- Before performing maintenance, the log splitter must be placed in maintenance mode. Turn off the engine and move the control lever forward and backwards to relieve the hydraulic pressure.
- After performing any maintenance, make sure all guards, shields and safety features are put back in place before operating the log splitter.
- Before operating make sure the tires have the **RECOMMENDED TYRE PRESSURE**.
- Regularly grease axle and wheel bearing area or when needed.
- After the wheel bearings have been greased make sure the axle nuts and pins are in place and secure.
- Periodically check all fasteners and hoses for tightness and leaks.
- Annually clean and lightly lubricate all moving parts or when needed.
- Use a glossy enamel spray paint to touch up scratched or worn painted metal surfaces.
- Never exceed load capacity rating of 20 tons it will damage the log splitter.

WHAT	WHEN	HOW
Hoses	Each Use	Inspect hoses for exposed wire mesh and leaks. Replace all worn or damaged hoses before starting the engine.
Hydraulic Fittings	Each Use	Inspect fittings for cracks and leaks. Replace all damaged fittings before starting the engine.
Nuts and Bolts	Each Use	Check for loose bolts, tighten before operating.
Beam	Each Use	Apply grease to beam surface.
Moving Parts	Each Use	Clear debris from log splitter.

**IMPORTANT:** If a part needs replacement, only use parts that meet the manufacturer's specifications. Replacement parts that do not meet specifications may result in a safety hazard or poor operations.

## STORAGE

- Before storing make sure the log splitter is clean and dry for years of trouble free service.
- Lightly lubricate all log splitter surfaces and moving parts to prevent rust.
- Store indoors or protected area during severe weather and winter months.

## TROUBLESHOOTING

### PROBLEM

Cylinder rod will not move	SOLUTION: A,D,E,H,J
Slow cylinder rod speed when extending or retracting	SOLUTION: A,B,C,H,I,K
Wood will not split or splits extremely slowly	SOLUTION: A,B,C,F,I,K
Motor bogs down during splitting	SOLUTION: G
Engine stalls under low load condition	SOLUTION: D,E

### CAUSE

### SOLUTION

<b>A</b> – Insufficient oil to pump	Check oil level in reservoir.
<b>B</b> – Air in oil	Check oil level in reservoir.
<b>C</b> – Excessive pump inlet vacuum	Check pump inlet hose for blockage or kinks.
<b>D</b> – Blocked hydraulic lines	Flush and clean the splitter hydraulic system.
<b>E</b> – Blocked control valve	Flush and clean the splitter hydraulic system.
<b>F</b> – Low control valve setting	Adjust control valve with a pressure gauge.
<b>G</b> – High control valve setting	Adjust control valve with a pressure gauge.
<b>H</b> – Damaged control valve	Return control valve for authorized repair.
<b>I</b> – Internal control valve leak	Return control valve for authorized repair.
<b>J</b> – Internal cylinder leak	Return cylinder for authorized repair.
<b>K</b> – Internally damaged cylinder	Return cylinder for authorized repair.

## TECHNICAL SPECIFICATIONS

<b>MODEL</b>	HPS4500E
<b>MAX. SPLITTING FORCE</b>	20 Tonnes
<b>POWER</b>	3100W
<b>VOLTAGE</b>	240VAC / 50Hz
<b>PROTECTION DEGREE</b>	IP54
<b>MAX. SPLITTING LOG LENGTH</b>	540mm
<b>LENGTH OF RAM</b>	485mm
<b>DIAMETER OF RAM</b>	90mm
<b>MAX. RAM TRAVEL</b>	485mm
<b>WEDGE</b>	150mm hardened steel
<b>LOG DIAMETER</b>	50-300mm (species dependent)
<b>CYCLE TIME</b>	16 sec (Feed: 9 sec / Retract: 7 sec)
<b>HYDRAULIC OIL CAPACITY</b>	5.2L
<b>HYDRAULIC OIL TYPE</b>	10W-AW, AW-32, ASLE H-150, ISO 32, Universal Hydraulic Fluid, Dexron III Transmission Fluid
<b>HYDRAULIC SEAL</b>	Patented Baumr-AG Sure-Seal™ system.
<b>SAFETY SYSTEM</b>	Dual Redundancy
<b>TYRES</b>	12 Inch Pneumatic

*Runs off a 10 Amp plug.*

*For more information about selecting the right log splitter view the [Buying Guide](#).*

*Note: Shipped in a high-quality crate (assembly required).*



**Some experts believe the incorrect or prolonged use of almost any product could cause serious injury or death. For information that may reduce your risk of serious injury or death consult the points below and additionally, the information available at [www.datastreamserver.com/safety](http://www.datastreamserver.com/safety)**

- Consult all documentation, packaging and product labelling before use. Note that some products feature online documentation which should be printed and kept with the product.
- Check product for loose / broken / damaged / missing parts, wear or leaks (if applicable) before each use. Never use a product with loose / broken / damaged / missing parts, wear or leaks (if applicable).
- Products must be inspected and serviced (if applicable) by a qualified specialist every 6 months assuming average residential use by a person of average weight and strength, above average technical aptitude, on a property matching average metropolitan specification. Intended use outside these guidelines could indicate the product is not suitable for intended use or may require more regular inspection or servicing.
- Ensure all possible users of the product have completed an industry recognised training course before being given access to the product.

- The product has been supplied by a general merchandise retailer that may not be familiar with your specific application or your description of the application. Be sure to attain third party approval for your application from a qualified specialist before use regardless of prior assurances by the retailer or its representatives.
- This product is not intended for use where fail-safe operation is required. As with any product (take an automobile, aircraft, computer or ball point pen for example) there is always a small chance of a technical issue that needs to be repaired or may require replacement of the product or a part. If the possibility of such failure and the associated time it takes to rectify could in any situation inconvenience the user, business or employee or could financially affect the user, business or employee then the product is not suitable for your requirements. This product is not for use where incorrect operation or a failure of any kind, including but not limited to a condition requiring product return, replacement, service by a technician or replacement of parts could cause a financial loss, loss of employee time or an inconvenience requiring compensation.
- If this item has been purchased in error considering the points above simply contact the retailer directly for details of their returns policies if required.

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