

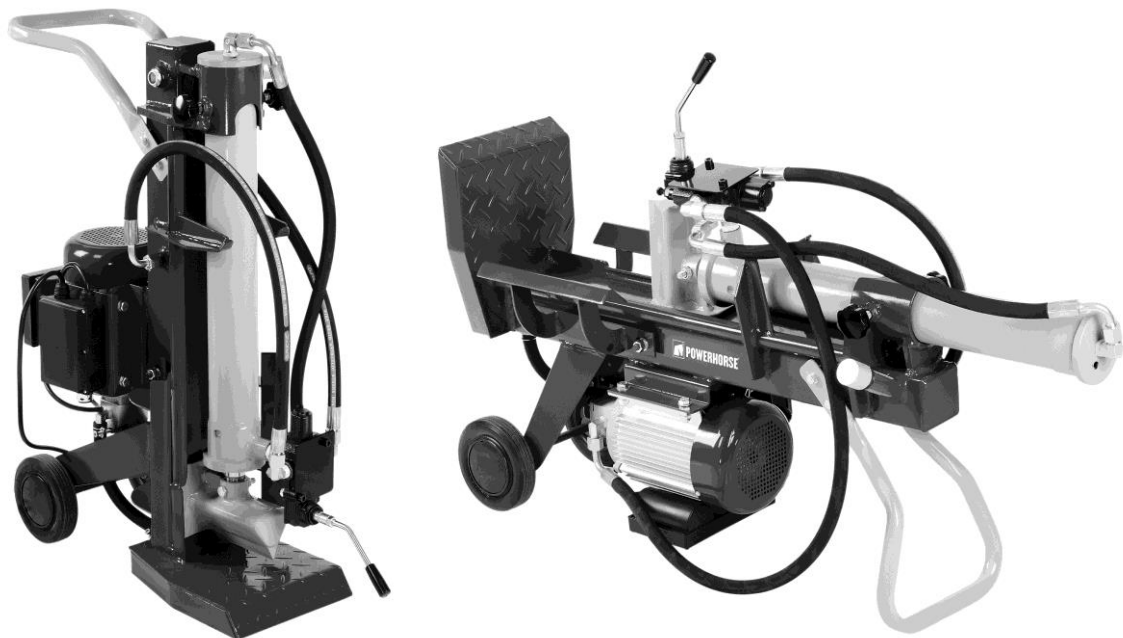


POWERHORSE®

8-Ton Vertical/Horizontal

Electric Log Splitter

Owner's Manual



⚠ WARNING: Read carefully and understand all ASSEMBLY AND OPERATION INSTRUCTIONS before operating. Failure to follow the safety rules and other basic safety precautions may result in serious personal injury.

Item #66716

READ & SAVE THESE INSTRUCTIONS

Thank you very much for choosing a Powerhorse™ product!

For future reference, please complete the owner's record below:

Serial Number/Lot Date Code: _____

Purchase Date: _____

Save the receipt, warranty, and this manual. It is important that you read the entire manual to become familiar with this product before you begin using it.

This electric log splitter is designed for certain applications only. Northern Tool and Equipment is not responsible for issues arising from modification or improper use of this product such as an application for which it was not designed. We strongly recommend that this product not be modified and/or used for any application other than that for which it was designed.

For technical questions, please call **1-800-222-5381**.

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Intended Use

The Powerhorse 8-Ton Vertical/Horizontal Electric Log Splitter is used for splitting logs. Its smart design is ideal for home use. Meanwhile, it has feature of horizontal use and vertical use, more convenient for your different usage.

Packaging Contents

- Log guiding plate
- Splitting wedge
- Operating handle assembly
- Wheel and frame
- Cylinder
- Electrical motor switch
- Electrical motor assembly
- Carrying handle
- Main body
- Bottom plate
- Small hardware bag
- Owner's Manual

Technical Specifications

Property	Specification
Motor	120V / 15 Amp / 3 HP
Maximum Force	8 Ton
Log Size	20.5" x 12"
Capacity	2"-12" (diameter)
Ram Travel	18.7"
Ram Diameter	1.37"
Hydraulic Oil	0.77 Gallon
Overall	35.43" (length) x 11.02" (width) x 21.65" (height)
Net Weight	154 lb.

Important Safety Information

⚠WARNING

- Read and understand all instructions. Failure to follow all instructions may result in serious injury or property damage.
- The warnings, cautions, and instructions in this manual cannot cover all possible conditions or situations that could occur. Exercise common sense and caution when using this tool. Always be aware of the environment and ensure that the tool is used in a safe and responsible manner.
- Do not allow persons to operate or assemble the product until they have read this manual and have developed a thorough understanding of how it works.
- Do not modify this product in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the product. There are specific applications for which the product was designed.
- Use the right tool for the job. DO NOT attempt to force small equipment to do the work of larger industrial equipment. There are certain applications for which this equipment was designed. This

product will be safer and do a better job at the capacity for which it was intended. DO NOT use this equipment for a purpose for which it was not intended.

- Industrial or commercial applications must follow OSHA requirements.

⚠️WARNING

WORK AREA SAFETY

- Inspect the work area before each use. Keep work area clean, dry, free of clutter, and well-lit. Cluttered, wet, or dark work areas can result in injury. Using the product in confined work areas may put you dangerously close to cutting tools and rotating parts.
- Do not use the product where there is a risk of causing a fire or an explosion; e.g., in the presence of flammable liquids, gases, or dust. The product can create sparks, which may ignite the flammable liquids, gases, or dust.
- Do not allow the product to come into contact with an electrical source. The tool is not insulated and contact will cause electrical shock.
- Keep children and bystanders away from the work area while operating the tool. Do not allow children to handle the product.
- Be aware of all power lines, electrical circuits, water pipes, and other mechanical hazards in your work area. Some of these hazards may be hidden from your view and may cause personal injury and/or property damage if contacted.

⚠️WARNING

PERSONAL SAFETY

- Stay alert, watch what you are doing, and use common sense when operating the tool. Do not use the tool while you are tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating the tool may result in serious personal injury.
- Dress properly. Do not wear loose clothing, dangling objects, or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry, or long hair can be caught in moving parts. Air vents on the tool often cover moving parts and should be avoided.
- Wear the proper personal protective equipment when necessary. Use ANSI Z87.1 compliant safety goggles (not safety glasses) with side shields, or when needed, a face shield. Use a dust mask in dusty work conditions. Also use non-skid safety shoes, hardhat, gloves, dust collection systems, and hearing protection when appropriate. This applies to all persons in the work area.
- Do not overreach. Keep proper footing and balance at all times.

⚠️CAUTION

LOG SPLITTER USE AND CARE

- Do not force the log splitter. Products are safer and do a better job when used in the manner for which they are designed. Plan your work, and use the correct product for the job.

- Check for damaged parts before each use. Carefully check that the product will operate properly and perform its intended function. Replace damaged or worn parts immediately. Never operate the product with a damaged part.
- Do not use a product with a malfunctioning switch. Any power tool that cannot be controlled with the power switch is dangerous and must be repaired by an authorized service representative before using.
- Disconnect the power/air supply from the product and place the switch in the locked or off position before making any adjustments, changing accessories, or storing the tool. Such preventive safety measures reduce the risk of starting the tool accidentally.
- Store the product when it is not in use. Store it in a dry, secure place out of the reach of children. Inspect the tool for good working condition prior to storage and before re-use.
- Use only accessories that are recommended by the manufacturer for use with your product. Accessories that may be suitable for one product may create a risk of injury when used with another tool. Never use an accessory that has a lower operating speed or operating pressure than the tool itself.
- Keep guards in place and in working order. Never operate the product without the guards in place.
- Do not leave the tool running unattended.

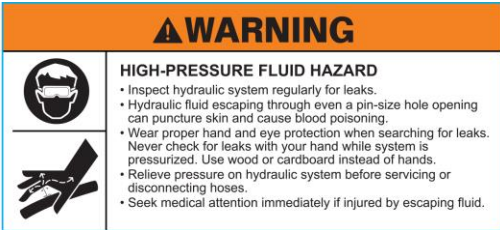

Specific Operation Warnings

⚠WARNING


- Always wear the proper protective equipment including ANSI Z87.1 compliant eye protection, steel toed boots, and snug fitting gloves without drawstrings or loose cuffs.
- Do not wear loose fitting or dangling clothing.
- Crush Hazard. Keep hands away from wedge, endplate/ram, and partly spit logs.
- Only one person should operate the log splitter. If an assistant is helping to load logs, the operator should not actuate the controls until the assistant is at least 10 ft away.
- Stay in the designated OPERATOR POSITON while actuating the controls.
- Spit wood in direction of the grain only.
- Hold bark side of logs when loading.
- Operate log splitter on a hard, level surface.
- Never split the logs bigger than the specified log size capacity.
- Never split more than one log at the same time.
- Check logs for and remove nails or other debris before splitting.
- Remove all branches from the log before splitting
- Never put the log vertically onto the log splitter.
- Do not operate the log splitter in rain or wet areas.

Safety and Product Labels

Reference	Description	Quantity
1	High Pressure Fluid Hazard Warning Decal	1
2	Pinch Point Warning Decal	1
3	Spec Decal	1
4	Logo Decal	1
5	Operation Instructions Decal	1
6	Split Control Lever Operation Decal	1

1.  **WARNING**
HIGH-PRESSURE FLUID HAZARD


- Inspect hydraulic system regularly for leaks.
- Hydraulic fluid escaping through even a pin-size hole opening can puncture skin and cause blood poisoning.
- Wear proper hand and eye protection when searching for leaks. Never check for leaks with your hand while system is pressurized. Use wood or cardboard instead of hands.
- Relieve pressure on hydraulic system before servicing or disconnecting hoses.
- Seek medical attention immediately if injured by escaping fluid.

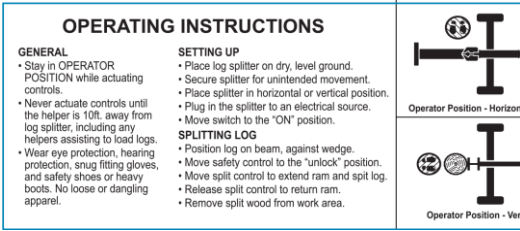


2.  **WARNING**

Pinch point.
Keep hands clear during operation.

3.  **8-TON VERTICAL/HORIZONTAL ELECTRIC LOG SPLITTER**
 ITEM# 66716
 MOTOR: 15A, 120V AC, 3 HP
 8-TON SPLITTING FORCE
 20 1/2IN. L X 12IN. DIA. LOG SIZE
 SERIAL # _____ MADE IN CHINA

4.  **POWERHORSE®**

5.  **OPERATING INSTRUCTIONS**
GENERAL



- Stay in OPERATOR POSITION while actuating controls.
- Never actuate controls until the helper is 10ft. away from log splitter, including any helpers assisting to load logs.
- Wear eye protection, hearing protection, snug fitting gloves, and safety shoes or heavy boots. No loose or dangling apparel.

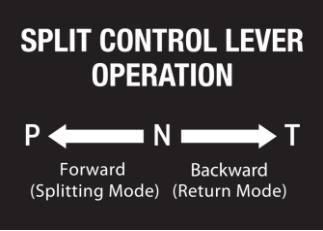
SETTING UP

- Place log splitter on dry, level ground.
- Secure splitter for unintended movement.
- Place splitter in horizontal or vertical position.
- Plug in the splitter to an electrical source.
- Move switch to the "ON" position.

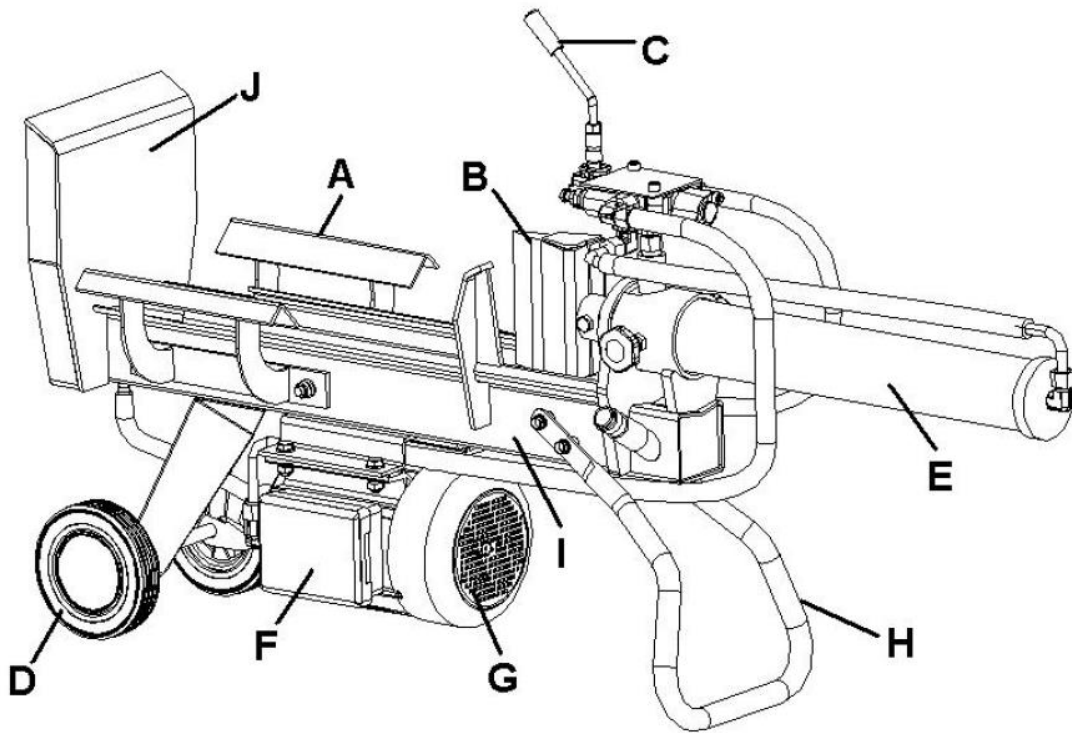
SPLITTING LOG

- Position log on beam, against wedge.
- Move safety control to the "unlock" position.
- Move split control to extend ram and spit log.
- Release split control to return ram.
- Remove split wood from work area.


 Operator Position - Horizontal

 Operator Position - Vert

6.  **SPLIT CONTROL LEVER OPERATION**
 P ← N → T
 Forward (Splitting Mode) Backward (Return Mode)

Main Parts of Log Splitter



Part #	Description	Qty.	Part #	Description	Qty.
A	Log guiding plate	2	F	Electrical motor switch	1
B	Splitting wedge	1	G	Electrical motor assembly	1
C	Operating handle assembly	1	H	Carrying handle	1
D	Wheel and frame	1	I	Main body	1
E	Cylinder	1	J	Bottom plate	1

Assembly Instructions

Remove all contents from the carton and ensure you have all the parts. Check for any transit damage to each part before assembly. Have damaged parts replaced.

We recommend the use of the following hydraulic oil for the hydraulic ram:

- Shell Tellus T22
- Aral Vitam Gf22
- Mobil Dtell or equivalent oils

Do not use other kinds of oil.

1. Assemble wheels and operate handle as shown.



Figure 1

2. Loosen the bolt and pull the cylinder out to the end position, then tighten the bolt.



Figure 2

3. Open the oil tank cap and inject the appropriate type of hydraulic oil. (See page 8.)



Figure 3

4. The log splitter is ready for use.



Figure 4

Before Each Use

⚠WARNING

- Always wear the proper protective equipment including ANSI Z87.1 compliant eye protection, steel toed boots, and snug fitting gloves without drawstrings or loose cuffs.
- Do not wear loose fitting or dangling clothing.

- Check logs for and remove nails or other debris before splitting.
- Remove all branches from the log before splitting.
- Check for any damaged parts before use.

Operating Instructions

⚠WARNING

- Always wear the proper protective equipment including ANSI Z87.1 compliant eye protection, steel toed boots, and snug fitting gloves without drawstrings or loose cuffs.
- Do not wear loose fitting or dangling clothing.
- Crush Hazard. Keep hands away from wedge, endplate/ram, and partly spit logs.
- Only one person should operate the log splitter. If an assistant is helping to load logs, the operator should not actuate the controls until the assistant is at least 10 ft away.
- Stay in the designated OPERATOR POSITION while actuating the controls.
- Spit wood in direction of the grain only.
- Hold bark side of logs when loading.
- Operate log splitter on a hard, level surface.
- Never split the logs bigger than the specified log size capacity.
- Never split more than one log at the same time.
- Never put the log vertically onto the log splitter.
- Do not operate the log splitter in rain or wet areas.

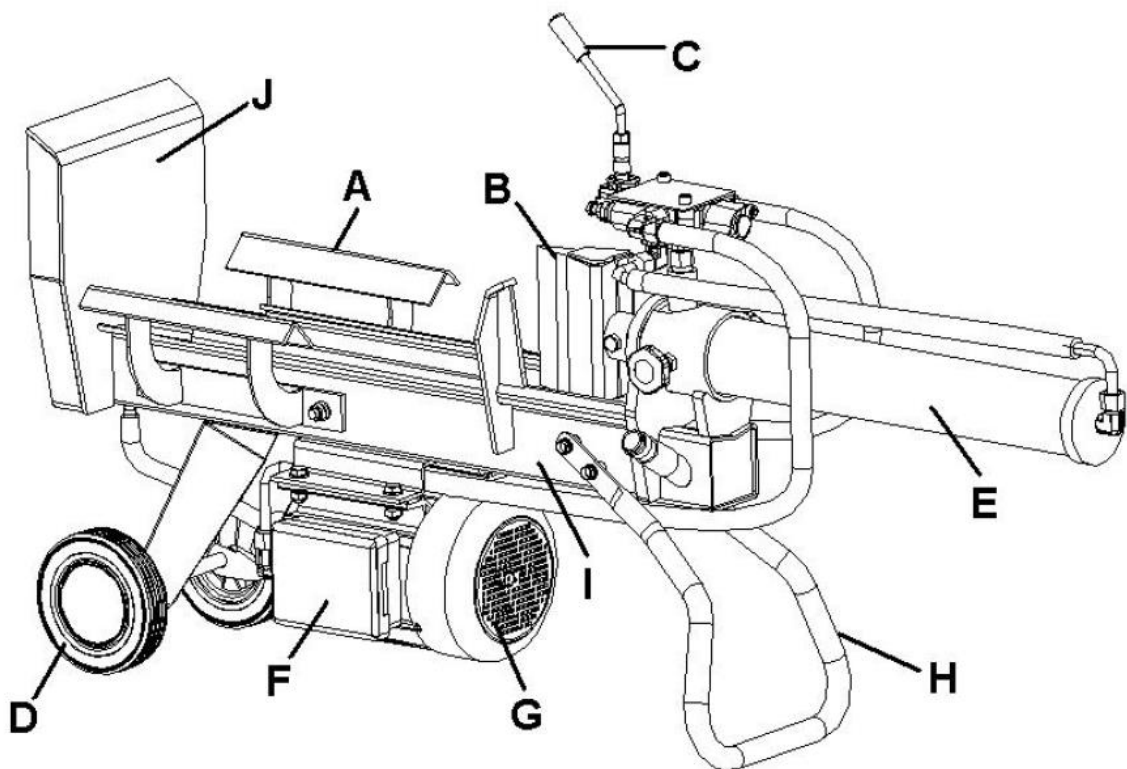
⚠WARNING

HIGH-PRESSURE FLUID HAZARD

- Inspect hydraulic system regularly for leaks.
- Hydraulic fluid escaping through even a pin-size hole opening can puncture skin and cause blood poisoning.
- Wear proper hand and eye protection when searching for leaks. Never check for leaks with your hand while system is pressurized. Use wood or cardboard instead of hands.
- Relieve pressure on hydraulic system before servicing or disconnecting hoses.
- Seek medical attention immediately if injured by escaping fluid.

Major Components

- A. Log guiding plates
- B. Splitting wedge
- C. Operating handle assembly
- D. Wheel and frame
- E. Cylinder
- F. Electrical motor switch
- G. Electrical motor assembly
- H. Carrying handle
- I. Main body
- J. Bottom plate



- Place log onto the splitter lengthwise, lying flat on the main body. The log should lie flat on the splitter and be cradled by the log guiding plates (A). **Note:** Never attempt to split a log at an angle. Be sure the wedge (B) and log pusher (C) will contact the log squarely on the ends.
- Press the electric motor start switch and wait a few seconds as the motor spins and creates pressure in the hydraulic pump. When it's safe to do so, depress the operating handle (C). The split wedge (B) will compress the log, pushing it against the wedge (J) and splitting the log. Once the log is split, push the handle back and the split wedge will return.

Note: If the log does not split immediately, do not force it by maintaining the thrust for more than a few seconds. This can damage the tool. It is better to try repositioning the log on the splitter, or setting the log aside

Freeing a Jammed Log

1. Release both controls so the LOG PUSHER (position B) will be fully retracted.
2. Insert a triangular wedge of wood under the log and activate the log pusher to push the wedge under the jammed log.
3. Repeat this process using progressively larger wedges until the jammed log is free.

Sharpening the Wedge

After long periods of operation, sharpen the wedge using a fine-toothed file. Carefully remove any burrs or rough areas that may have developed on the edge.

After Each Use

⚠WARNING

- Do not store the log splitter in a wet environment.

1. Pull the plug.
2. Clean up the log splitter after splitting logs. Make sure it's free of jams for future use.
3. Store the log splitter in a dry area to prevent corrosion.

Maintenance

⚠WARNING

- Unplug power cord before servicing the log splitter.

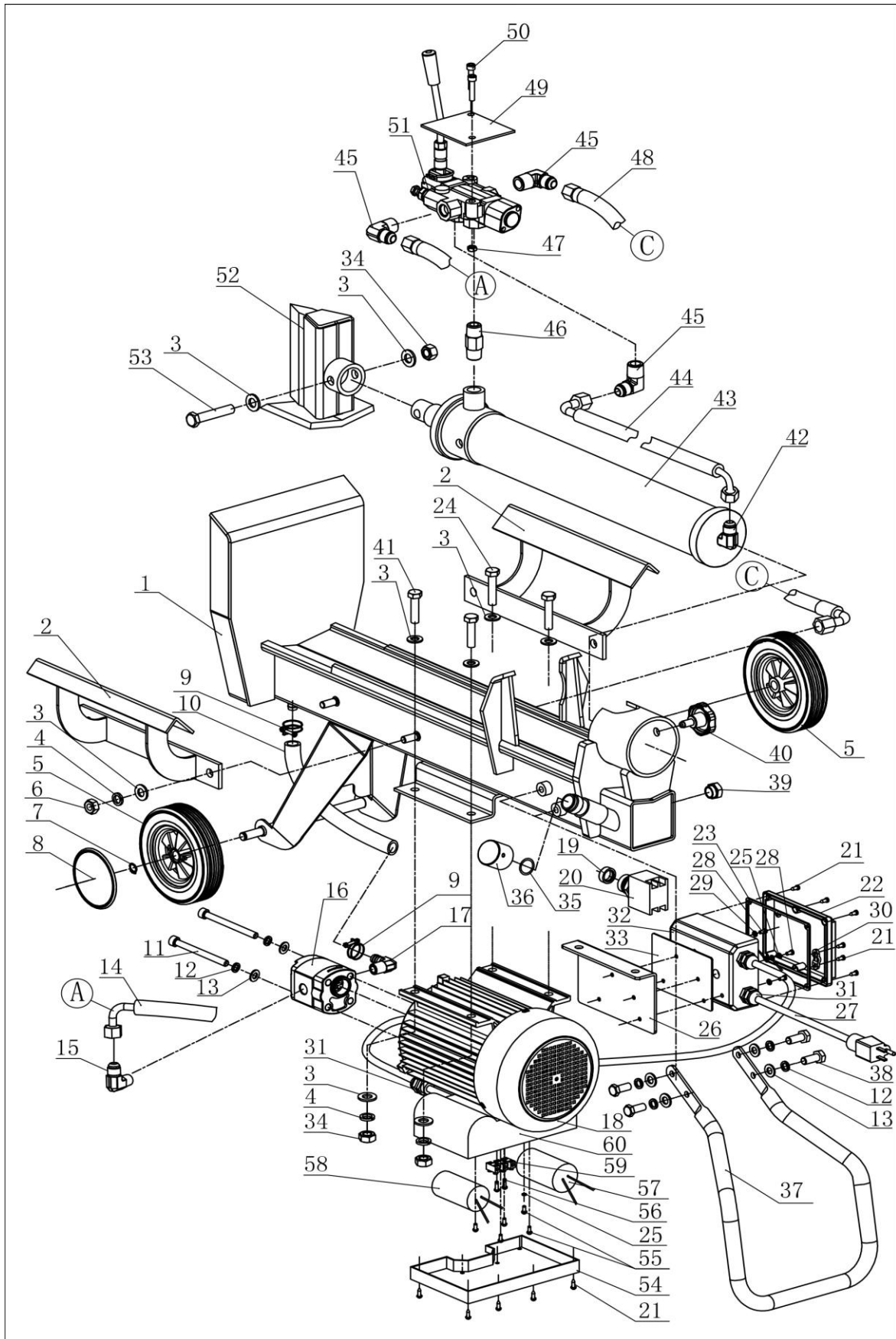
1. Clean the log splitter after each use. Debris may affect future operation.
2. Frequently check all parts for proper working condition.

Troubleshooting

Failure	Possible Cause	Corrective Action
Log fails to split.	Incorrect positioning of the log.	Position the log correctly.
	Log exceeds recommended dimensions or the wood is too hard for the capacity of the machine.	Try to cut a small part or use other means to reduce the size of the log.
	Wedge does not cut.	Sharpen the wedge. Check for burrs or nicks and file if necessary.

Failure	Possible Cause	Corrective Action
	Oil is leaking.	Locate the leak using a piece of cardboard or wood.
	Hydraulic pressure is too low.	Contact a technician.
Log advances jerkily or with strong upward vibrations.	Air is in the circuit.	Check oil level. Fill oil if necessary.
		If problem remains, contact a technician.

Parts Diagram



Parts List

Part#	Description	Quantity	Part#	Description	Quantity
1	Beam	1	31	Faucet	3
2	Log Guiding Plate	2	32	Switch case	1
3	Gasket $\Phi 10 \times \phi 20 \times 2$	16	33	Waterproof Seal for Switch Case	1
4	Spring Washer $\Phi 10$	10	34	Nut M10	5
5	Wheel	2	35	O-ring Oil Seal 25x3.55	1
6	Hexagonal Nut M10	6	36	Oil Tank Cap	1
7	Gasket for Axle 13	2	37	Carrying Handle	1
8	Axle Cover	2	38	Hex Bolt M8x12	4
9	Hoop	2	39	Oil Indicator	1
10	Suction Pipe	1	40	Lock Nut	1
11	Screw m8x85	2	41	Hex Bolt M10x30	2
12	Spring Washer $\phi 8$	6	42	1/2-M18x1.5 Connector	1
13	Flat Washer $\Phi 8 \times \phi 16 \times 1.5$	6	43	Cylinder	1
14	Oil Hose a	1	44	Oil Hose b	1
15	Pope Joint 3/8-M18x1.5	1	45	3/8-Mx1.5 Connector	3
16	Gear Pump	1	46	Pope Joint	1
17	Inlet Oil Hose Connector	1	47	Lock Nut M8	2
18	Electric Motor	1	48	Oil Hose C	1
19	Switch Dust Shield	1	49	Nameplate	1
20	Switch	1	50	Screw M8x40	2
21	Nut ST4x16	8+8	51	Control Valve	1
22	Switch Case Cover	1	52	Wedge	1
23	Waterproof Seal for Switch Case	1	53	Hex Bolt M10x65	1
24	Hex Bolt M10x35	2	54	Capacitance Cover	1
25	Washer 4	2	55	Philips Screw M4x8	5
26	Switch Plate	1	56	Philips Screw M4x16	2
27	Cord	1	57	Staring Capacitance	1
28	Philips Screw M4x10	4	58	Working Capacitance	1
29	Gasket 4	3	59	Wiring Terminal	1
30	Cord Pressed Plate	1	60	Capacitance box	1

Replacement Parts

- For replacement parts and technical questions, please call Customer Service at **1-800-222-5381**.
- Not all product components are available for replacement. The illustrations provided are a convenient reference to the location and position of parts in the assembly sequence.
- When ordering parts, the following information will be required: item description, item model number, item serial number/item lot date code, and the replacement part reference number.
- The distributor reserves the rights to make design changes and improvements to product lines and manuals without notice.

Limited Warranty

Northern Tool and Equipment Company, Inc. ("We" or "Us") warrants to the original purchaser only ("You" or "Your") that the Powerhorse product purchased will be free from material defects in both materials and workmanship, normal wear and tear excepted, for a period of two years from date of purchase. The foregoing warranty is valid only if the installation and use of the product is strictly in accordance with product instructions. There are no other warranties, express or implied, including the warranty of merchantability or fitness for a particular purpose. If the product does not comply with this limited warranty, Your sole and exclusive remedy is that We will, at our sole option and within a commercially reasonable time, either replace the product or product component without charge to You or refund the purchase price (less shipping). This limited warranty is not transferable.

Limitations on the Warranty

This limited warranty does not cover: (a) normal wear and tear; (b) damage through abuse, neglect, misuse, or as a result of any accident or in any other manner; (c) damage from misapplication, overloading, or improper installation; (d) improper maintenance and repair; and (e) product alteration in any manner by anyone other than Us, with the sole exception of alterations made pursuant to product instructions and in a workmanlike manner.

Obligations of Purchaser

You must retain Your product purchase receipt to verify date of purchase and that You are the original purchaser. To make a warranty claim, contact Us at 1-800-222-5381, identify the product by make and model number, and follow the claim instructions that will be provided. The product and the purchase receipt must be provided to Us in order to process Your warranty claim. Any returned product that is replaced or refunded by Us becomes our property. You will be responsible for return shipping costs or costs related to Your return visit to a retail store.

Remedy Limits

Product replacement or a refund of the purchase price is Your sole remedy under this limited warranty or any other warranty related to the product. We shall not be liable for: service or labor charges or damage to Your property incurred in removing or replacing the product; any damages, including, without limitation, damages to tangible personal property or personal injury, related to Your improper use, installation, or maintenance of the product or product component; or any indirect, incidental or consequential damages of any kind for any reason.

Assumption of Risk

You acknowledge and agree that any use of the product for any purpose other than the specified use(s) stated in the product instructions is at Your own risk.

Governing Law

This limited warranty gives You specific legal rights, and You also may have other rights which vary from state to state. Some states do not allow limitations or exclusions on implied warranties or incidental or consequential damages, so the above limitations may not apply to You. This limited warranty is governed by the laws of the State of Minnesota, without regard to rules pertaining to conflicts of law. The state courts located in Dakota County, Minnesota shall have exclusive jurisdiction for any disputes relating to this warranty.



POWERHORSE[®]

Distributed by:

Northern Tool & Equipment Company, Inc.

Burnsville, Minnesota 55306

www.northerntool.com

Made in China