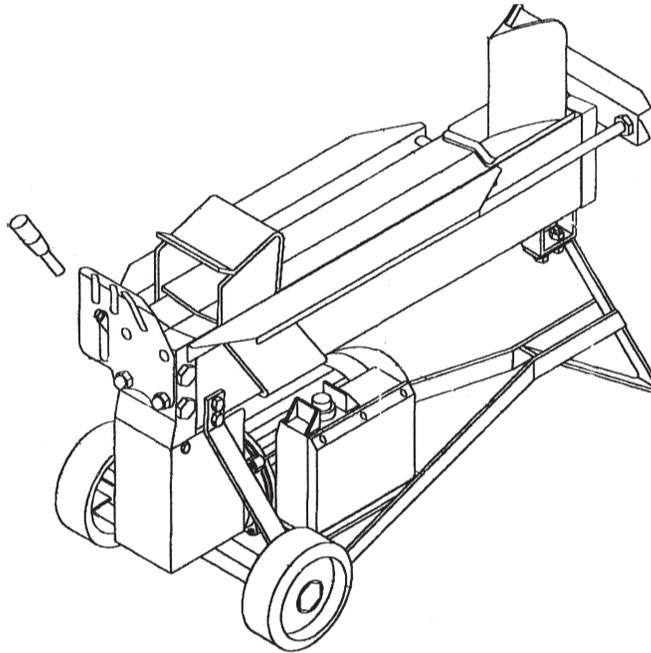


CENTRAL MACHINERY®

4 Ton Electric Log Splitter

Model 40318

Assembly & Operating Instructions



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For technical questions and replacement parts, please call 1-800-444-3353.

Rev 03/04

SPECIFICATIONS MODEL # 40318 LOG SPLITTER

Electric Motor:	2 Horsepower 115 Volts, 10 Amps, 1150 Watts 1 Phase, 60 Hertz, 3450 RPM
Power Cord:	AWG14, 2', UL approved, 3-prong
Measured Amperage:	5.5 with no load 6.0 with load 20 at start-up
Maximum Force:	4 Tons (8,000 Lbs.)
Log Size Capacity:	14-1/2"L x 12" diameter
Ram Travel:	12"
Ram Diameter:	1.175"
Hydraulic Oil Capacity:	2.6 Liters
Overall Dimensions:	30-1/2"L x 12"W x 19-1/4" H
Net Weight:	83 Lbs.

FEATURES OF THIS LOG SPLITTER

1. **Portable.** Small size, light weight and built-in wheels make it easy to deliver this powerful tool to the work site.
2. **Powerful.** 4-ton power delivered by a beefy 1.175" hydraulic ram will make short work of your log splitting task.
3. **Electric Powered.** Convenient and reliable electric powered hydraulic system avoids the expense and hassle of maintaining a small gas engine. Just plug it in and start splitting.
4. **Hydraulic Ram.** Powerful hydraulic ram splits logs in a safe controlled manner, without axes, sledge hammers or wedges.
5. **2-Hand Safety Control.** Built-in safety design keeps your hands away from the log and splitter during operation.
6. **Durable Steel Construction.** Welded steel construction, and enclosed hydraulic ram make this a tough, durable tool you'll use for years.

SAVE THIS MANUAL

You will need this manual for the safety warnings and cautions, assembly instructions, operating procedures, maintenance procedures, trouble shooting, parts list, and diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep both this manual and your invoice in a safe, dry place for future reference.

NOTICE

The Warnings, Cautions, and Instructions discussed in this instruction manual cannot cover all possible conditions and 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, but must be supplied by the operator.

SAFETY WARNING & CAUTIONS

WARNING: When using powered equipment, basic safety precautions should always be followed to reduce the risk of personal injury and hazards.

READ ALL INSTRUCTIONS BEFORE USING THIS TOOL!

1. **KEEP WORK AREA CLEAN.** Cluttered areas invite injuries.
2. **OBSERVE WORK AREA CONDITIONS.** Do not use tools in damp, wet, or poorly lit locations. Don't expose to rain. Keep work area well lit. Do not use electrically powered equipment in the presence of flammable gases or liquids.
3. **KEEP CHILDREN AWAY.** Children must never be allowed in the work area. Do not let them handle machines, tools, or equipment.
4. **STORE IDLE EQUIPMENT.** When not in use, tools must be locked up in a dry location to inhibit rust. Always lock up tools and keep out of reach of children.
5. **DO NOT FORCE THE TOOL.** It will do the job better and more safely at the rate for which it was intended. Do not use inappropriate attachments in an attempt to exceed the tool's capacities.
6. **USE THE RIGHT TOOL FOR THE JOB.** Do not use a tool for a purpose for which it was not intended.
7. **DRESS PROPERLY** Do not wear loose clothing or jewelry, as they can be caught in moving parts. Non-skid footwear is recommended. Wear restrictive hair covering to contain long hair. Always wear appropriate work clothing.
8. **USE EYE, EAR AND BREATHING PROTECTION.** Always wear ANSI approved impact safety goggles if you are producing metal filings or wood chips. Wear an ANSI approved dust mask or respirator when working around metal, wood, and chemical dusts and mists. Use ANSI approved ear protection when working in a loud or noisy environment.
9. **DO NOT ABUSE THE POWER CORD.** Protect the power cord from damage, either from impacts, pulling or corrosive materials. Do not yank machine's cord to disconnect it from the receptacle.
10. **DO NOT OVERREACH.** Keep proper footing and balance at all times. Do not reach over or across running machines.
11. **MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect power cord periodically and, if damaged, have it repaired by an authorized technician. Inspect all hydraulic seals for leaks prior to use. Control handle and power switch must be kept clean, dry, and free from oil and grease at all times.

12. REMOVE ADJUSTING KEYS AND WRENCHES. Be sure that keys and adjusting wrenches are removed from the tool or machine work surface before operation.

13. AVOID UNINTENTIONAL STARTING. Be sure that you are prepared to begin work before turning the start switch on.

14. STAY ALERT. Watch what you are doing. Do not operate this machine when you are tired.

15. DO NOT OPERATE THIS MACHINE WHILE UNDER THE INFLUENCE OF ALCOHOL, DRUGS, OR PRESCRIPTION MEDICINES.

16. CHECK FOR DAMAGED PARTS. Before using any tool, any part that appears damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment and binding of moving parts, any broken parts or mounting fixtures, and any other condition that may affect proper operation. Any part that is damaged should be properly repaired or replaced by a qualified technician. Do not use the tool if any switch does not turn on and off properly.

17. REPLACEMENT PARTS AND ACCESSORIES. When servicing, use only identical replacement parts. Use of any other parts will void the warranty. Only use parts and accessories intended for use with this tool, which are available from Harbor Freight Tools.

SPECIAL WARNINGS WHEN USING THIS LOG SPLITTER

Using this powerful tool may create special hazards.

Take particular care to safeguard yourself and those around you.

Hydraulic systems. *Never operate this tool if there is a hazard presented by hydraulic fluid.*

Before using the splitter, check for hydraulic leaks. Be sure the tool and your work area are clean and free of oil spills. Hydraulic fluid can create hazards, causing you to slip and fall, your hands to slip while using the machine, or fire hazard.

Electrical Safety. *Never operate this tool if there is an electrical hazard.* Never operate an electrical tool in wet conditions. Never operate this tool with an improper electrical cord or extension cord.

Never operate this tool unless you are plugged into a properly grounded outlet, which supplies 110-120Volts, and is protected by a 30 Amp circuit breaker.

Physical Hazards. *Log Splitting creates special physical hazards.* Never operate this tool unless you are wearing proper safety gloves, hard-toed shoes and ANSI-approved eye protection. Be careful of the splinters that will be produced, to avoid puncture injury and potential jamming of the tool.

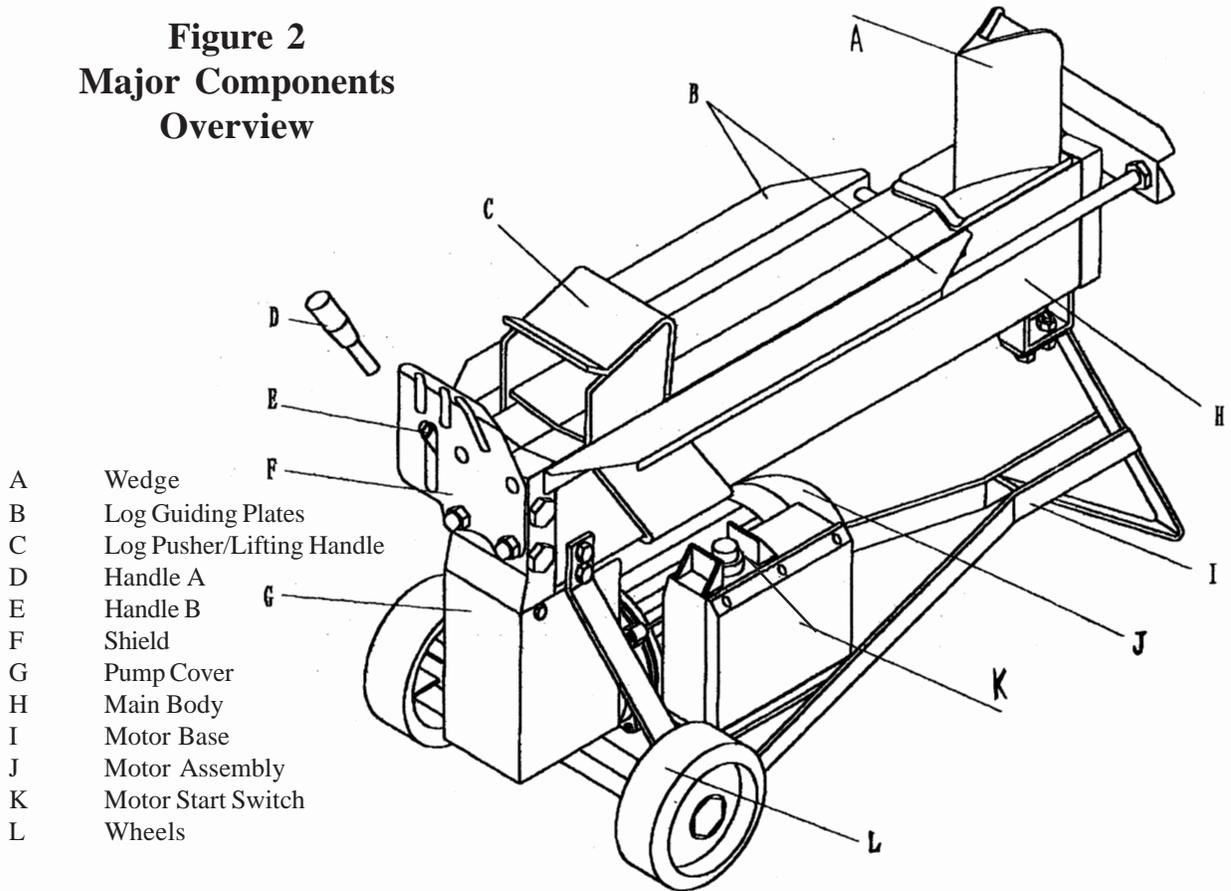
Never try to split logs which are too large or small to fit properly within the tool. Never attempt to split logs containing nails, wire or other debris. Clean up as you work; accumulated split wood and wood chips can create a hazardous work environment. Never continue to work in a cluttered work area which may cause you to slip, trip or fall. Keep onlookers away from this tool, and never allow unauthorized persons to operate this tool.

NOTICE: No list of warnings can be all inclusive. The operator must supply common sense, and operate this tool in a safe manner.

ASSEMBLY

The only assembly required is as follows: Screw Handle A (D Below) into Handle B (E Below). The Log Splitter is ready for use, after reading and adhering to all Safety Warnings and Cautions, and Operation and Maintenance instructions provided in this manual.

Figure 2
Major Components
Overview



OPERATION

Please Refer to Figure 2 on page 5 in following these instructions

- 1. Plan your work site.** Work safely and save effort by planning your work before hand. Have your logs positioned where they can be easily reached. Have a site located to stack the split wood or load it onto a nearby truck or other carrier.
- 2. Prepare the logs for splitting.** This splitter accomodates logs up to 14-1/2” in length. When cutting up limbs and large sections, do not cut sections any longer than 14”. Do not attempt to split green logs. Dry, seasoned logs split much more easily, and will not jam as frequently as green wood.
- 3. Route the power cord.** Locate an appropriate power outlet, and secure an adequate extension cord, if needed. Route the cord from the splitter to the power source in a way that safeguards against tripping on the cord, or the cord becoming damaged during the work session. Be sure to avoid wet conditions.
- 4. Position Splitter Securely.** Be sure the Splitter is positioned firmly on level, solid ground. If necessary, block the Wheels (#25) with wedges to prevent them from rolling.
- 5. Open the Air Bleed.** Loosen the Bleed Screw (#14) - [located on the Front Cover (#15)] 3-4 turns whenever the splitter is being used. Retighten this screw when you are finished.
- 6. Place log onto Splitter.** Place the log onto the splitter, lengthwise and lying flat on the Main Body (#47).
The log should lie flat on the Splitter, and be cradled by the Guide (#46). *Never attempt to split a log at an angle.* Be sure the Wedge and Log Pusher (#49) will contact the log squarely on the ends.
- 7. Two hand operation.** When it is safe to do so, depress the Switch (#36) with one hand. Wait a few seconds as the motor spins up and creates pressure in the Hydraulic pump. Then, when it is safe to do so, depress the Handle A (#60). The Log Pusher (#49) will compress the log, pushing it against the Wedge, splitting the log. Once the log is split, release both the Switch (#36) and Handle A (#60); this will allow the Log Pusher (#49) to retract.
Warning: 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.
- 8. 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.
- 9. Remember to retighten the Bleed Screw (#14) when you are finished.**

GROUNDING / VOLTAGE WARNING

Common household current is 110-120 volts. As long as the outlet used with this tool is rated from 110-120V there will be no complications using it with household receptacles. Plug the tool into a 110-120V properly grounded outlet protected by a 30-Amp., dual element time delay or circuit breaker.

NEVER try to plug a 110-120V tool into a 220-240V circuit or serious complications and possible injury to the operator may occur. The plugs have different shapes to prevent this.

This tool has a three-prong plug. The third (round) prong is the ground. Cutting off the ground will result in a safety hazard and void the warranty.

If the outlet you are planning to use is the two-prong type, do not remove or alter the grounding prong in any manner. Use an adapter and always connect the grounding lug to a known grounding source. It is recommended that you have a qualified electrician replace the two-prong outlet with a properly grounded three- prong outlet.

EXTENSION CORDS

Your tool has a three-prong plug, therefore you must use a three-prong extension cord. Only use rounded jacket extension cords listed by the Underwriters Laboratories (UL). Improper use of extension cords may cause inefficient operation of your tool which can result in overheating. Be sure your extension cord is rated to allow sufficient current flow to the motor.

If you are using the tool outdoors, use an extension cord rated for outdoor use (signified by “WA” on the jacket).

The extension cord must have a minimum wire size depending on the amperage of the tool and the length of the extension cord. This size is determined by its AWG (American Wire Gauge) rating. The smaller the gauge, the greater the cable’s capacity. The amount of cords used does not matter: Total length determines the minimum AWG rating. Every cord must meet the AWG rating. Use the chart below to determine what AWG rating is required for your situation. Cord length is rated in feet. **Harbor Freight Tools can supply UL listed and outdoor rated cords in multiple AWG ratings if needed.**

AWG RATING CHART

CORD LENGTH	25’	50’	75’	100’	125’	150’	175’	200’
AMPS	AWG	AWG	AWG	AWG	AWG	AWG	AWG	AWG
0-10.0	18	18	16	16	14	14	12	12
10.1-13.0	16	16	14	14	14	12	12	12
13.1-15	14	14	12	12	12	12	12	—
15-18	14	12	12	12	12	12	—	—

Do not modify your plug in any way. If you have any doubt, call a qualified electrician.

MAINTENANCE

WARNING: Before Performing Any Maintenance, Unplug the Tool from the Power Source!

Changing the Hydraulic Oil

Please refer to Figure 3 on this page, and Parts Diagram on page 10.

1. Make sure the LOG PUSHER (#49) is fully retracted.
2. Carefully unscrew the OIL GAUGE (#10) and remove it completely.
3. Position a container under the log splitter that will hold at least 8 quarts of oil. Then tilt the machine to empty the oil into the container.
4. Tilt the Log Splitter the other way, with the Oil Fill / Drain Port up. Using a clean funnel, pour in 3 quarts of Hydraulic Oil. (*Be sure to use only clean, high quality hydraulic oil specifically made for this purpose.*)
5. Clean the OIL GAUGE (#10), and carefully insert it to make sure the oil level is between the two marks on the dipstick.
6. Clean the OIL GAUGE (#10), OIL SEAL (#12), and O RING OIL SEAL (#11) thoroughly, and re-install. Be careful not to damage the threads of the aluminum FRONT COVER (#15).

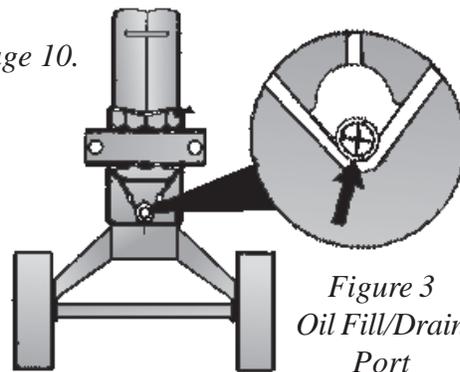


Figure 3
Oil Fill/Drain
Port

Warning: Be sure to dispose of the dirty oil properly. Take it to your local waste oil recycling center. Never dump it on the ground or mix it with trash.

Refilling the Hydraulic Oil

1. Periodically check the level of the oil. It must be between the two notches on the Dip Stick. If the oil level is low, refill using a recommended oil.

Sharpening the Wedge

1. After long periods of operation, and when required; sharpen the wedge using a fine-toothed file and carefully removing any burrs or flat spots on the edge.

HOW TO FREE A JAMMED LOG

1. Release both controls, so that the LOG PUSHER (#49) 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 freed.

Warning: Never hammer on the jammed log, or place your hands near the log when attempting to free it.

PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER NOR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

MODEL # 40318 LOG SPLITTER PARTS LIST

Parts no.	Description	Q'ty	Parts no.	Description	Q'ty
1	Nut M14 Self-lock	2	41	Water-proof Rubber Cover	1
2	Hex Nut M14	4	42	Outlet Box Cover	1
3	Piston Flan	1	43	Outlet Box	1
4	Spring	1	44	Motor	1
5	O Ring Oil Seal 25x3.55	1	45	Hex Bolt M8 x 10	2
6	Piston	1	46	Guide	2
7	O Ring Oil Seal 43.5x3.5	1	47	Main Body	1
8	Oil Seal	1	48	ABS Support Plate	2
9	Cylinder	1	49	Log Pusher	1
10	Oil Gauge	1	50	Pump Cover	1
11	O Ring Oil Seal 10.6x1.8	1	51	Hex Bolt M6 x 14	2
12	Oil Seal	1	52	Flat Washer	2
13	O Ring Oil Seal 30x2.65	1	53	Strengthened Bolt M8x 30	3
14	Bleed Screw	1	54	O Ring Oil Seal 55 x 31	1
15	Front Cover	1	55	Pump Cover Connector	1
16	Two Head Bolt	2	56	O Ring Oil Seal 10x 2.65	2
17	Long Two Head Bolt	2	57	Inner Hex Screw M6 x 10	1
18	Screw M3	7	58	Torque Spring	1
19	Flat Washer 8	19	59	Handle Seat	1
20	Spring Washer 8	13	60	Handle A	1
21	Hex Bolt M8x25	6	61	Handle B	1
22	Wheel Stand	1	62	Handle Sleeve	1
23	Wheel side cover	2	63	Valve	1
24	Bushing	2	64	Copper Washer	4
25	Wheel	2	65	Compound Cap Screw M10	4
26	Hex Bolt	6	66	Nut M10	2
27	Electric Cord	1	67	Shield	1
28	Bushing	1	68	Flat Washer	2
29	Bushing Screw	1	69	Spin Pin 2.5 x 4	2
30	Cord Clamp	1	70	O Ring Seal 46.2 x 1.8	2
31	Cross Screw	8	71	Gear Box	1
32	Capacitor Stand	1	72	Round Pin 8 x 25	2
33	Cross Screw	1	73	Bushing	2
34	Wire Pole	1	74	Gear Shaft	1
35	Cross Screw M4 X 12	2	75	Spin Ball 2.5	1
36	Switch	1	76	Gear	2
37	Switch Holder	1	77	Oil Pump Sleeve	4
38	Water-proof Cover	1	78	Oil Pump Cover	1
39	Lock Washer	1	79	Strengthened Bolt M8x 55	6
40	Capacitor	1	80	Oil Pipe Assembly	2

MODEL # 40318 LOG SPLITTER PARTS DIAGRAM

Note: Some parts are listed and shown for illustration purposes only and are not available individually as replacement parts.

