



5-Ton Electric Log Splitter



MODEL # 100481

Operation Manual



This safety alert symbol identifies important safety messages in this manual. Failure to follow this important safety information may result in serious injury or death.

Part # 100350 Rev A

Designed & Engineered in Colorado, USA



Assembled with Foreign & Domestic Components

For Service or Questions

Call 1-877-487-8275

720-287-5182

www.dirtyhandtools.com

Dirty Hand Tools is a brand of



FrictionlessWorld

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Important Safety Information



WARNING

WARNING: Read and thoroughly understand all instructions and safety information before assembling or operating this log splitter. Failure to do so may cause serious injury or death. Do not allow anyone to operate this log splitter who has not read this manual. As with all power equipment, a log splitter can be dangerous if assembled or used improperly. Do not operate this log splitter if you have doubts or questions concerning safe operation.

Call our customer service department at **720-287-5182**, **1-877-487-8275**, or visit www.dirtyhandtools.com if you have any questions or concerns about the safe operation of this equipment.



DANGER

INTENDED USE

Do Not Use the log splitter for any purpose other than splitting wood, for which it was designed. Any other use is unauthorized and may result in serious injury or death.

PERSONAL PROTECTIVE EQUIPMENT

When operating this log splitter it is essential that you wear safety gear including goggles or safety glasses, steel toed shoes and tight fitting gloves (no loose cuffs or draw strings). Always wear ear plugs or sound deafening headphones to protect against hearing loss when operating this log splitter.



CAUTION

Do Not wear loose clothing or jewelry that can be caught by moving parts of the log splitter. Keep clothing and hair away from all moving parts when operating this log splitter.



Important Safety Information



DANGER

GENERAL SAFETY

Failure to follow warnings, cautions, assembly and operation instructions in the Operation Manual may result in serious injury or death.

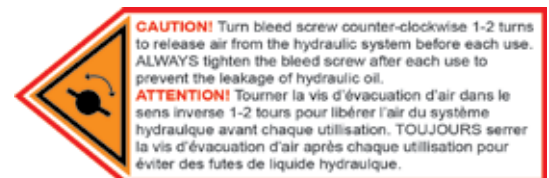
Read the Operation Manual before operation.

- **Do not** permit children to operate this equipment at any time. Do not permit others that have not read and understood the complete Operation Manual to operate this equipment.
- Keep all people and pets a minimum of 10 feet away from the work area when operating this log splitter. Only the operator is to be near the log splitter during use.
- **Do not** operate the log splitter when under the influence of alcohol, drugs or medication.
- **Do not** allow a person who is tired or otherwise impaired or not completely alert to operate the log splitter.

UNPLUG THE LOG SPLITTER WHEN NOT IN USE. Do not pull on power supply cable to unplug your log splitter.

SAFETY DECALS

Make sure all safety warning decals are attached and in readable condition. Replace missing or defaced decals. Contact Dirty Hand Tools at **1-877-487-8275** for replacement decals.



Operation

PREPARATION OF THE LOG

Both ends of the log should be cut as square as possible to prevent the log from rotating out of the splitter during operation.

Do not split logs greater than 20 in. in length.



DANGER

WORK AREA

- **Do not** operate the log splitter on icy, wet, muddy or otherwise slippery ground. **ONLY** operate your log splitter on level ground. **Operating on a slope could cause the log splitter to roll over or logs to fall off of the equipment, which could result in injury.**
- **Do not** operate your log splitter in a damp or rainy environment to avoid electric shock or short circuits.
- Use a tire chock or block on the wheels to prevent movement of the log splitter while in operation.
- Operate the log splitter in daylight or under good artificial light.
- Keep the work area free of clutter. Remove split wood from around the log splitter immediately after each use to avoid potential tripping.

OPERATION OF THE LOG SPLITTER

- **Make sure the power switch is in the OFF position before plugging in the cord to avoid unintentional starting.**
- Ensure the motor is properly grounded or apply protection device. Only use rubber-jacketed cable of sufficient lead cross section as an extension cable.
- Split wood in the direction of the grain only.
- Hold the sides of the log when loading it on the splitter.
- **Make sure the operator knows how to stop and disengage the controls before operating.**



DANGER

- **Do not place hands or feet between the log and splitting wedge during forward or reverse stroke. Serious injury or death could result.**
- Keep hands away from the ram, wedge and partly split logs.

Operation

OPERATION OF THE LOG SPLITTER *(Continued)*



DANGER

- **Do not** straddle or step over the log splitter during operation.
- **Do not** reach or bend over the log splitter to pick up a log.
- **Do not** attempt to split two logs on top of each other.
- **Do not** attempt to cross split a log.
- **Do not** attempt to load your log splitter when the ram or wedge is in motion.
- Use your hand to operate the control lever. Do not use your foot, a rope or any extension device.
- **Do not** move the log splitter while the engine is running.
- **Never leave the equipment unattended while the engine is running.** Shut off the engine even if you are leaving the log splitter for a short period of time.
- **ALWAYS** operate this log splitter from the “operator zone.” This is the area behind the wheels and control handle.
- **ALWAYS** check for damaged parts before operation. Do not operate until it is repaired.
- **Do not** use an extension cord longer than 25 feet. Minimum cord gage must be 16. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating
- **Do not** allow one person to operate the valve while another is positioning the log.
- **Do not** attempt to load your log splitter when the ram is in motion.
- **Do not** use this product for anything other than splitting wood.
- **Do not** use improper accessories with this log splitter. Check owner’s manual for recommended accessories.
- **Do not** modify the plug provided if it will not fit the outlet. Have the proper outlet installed by a qualified electrician.
- **ALWAYS** use a 3-wire extension cord with 3-prong grounded plugs and a 3-pole receptacles that accept this plug.
- **Do not** loosen or remove the hydraulic fittings or the cap of the hydraulic tank while the log splitter is running.

Repair and Maintenance



WARNING

- **Do not operate the log splitter when it is in poor mechanical condition or in need of repair.** Frequently check that all nuts, bolts, screws, hydraulic fittings and hose clamps are tight.
- **ALWAYS** unplug the power cable before performing any maintenance and repair.
- **Do not** alter the log splitter in any manner. Any alteration will void the warranty and could cause the log splitter to be unsafe to operate.
- **Do not** tamper with the engine to run it at excessive speeds. The maximum engine speed is preset by the manufacturer and is within safety limits.
- **NEVER adjust the hydraulic valve.** The system is preset at the factory and is within safety limits.
- **ALWAYS check the level of hydraulic oil before operation.**
- **ALL replacement parts must meet manufacturer's specifications.**
- **ALWAYS repair or replace a damaged power cord immediately.**

HYDRAULIC SAFETY

The hydraulic system of the log splitter requires careful inspection along with the mechanical parts. Be sure to replace frayed, kinked, cracked or otherwise damaged hydraulic hoses or hydraulic components.

- **Check for hydraulic fluid leaks** by passing a piece of paper or cardboard underneath or over the area of the leak. **Do not check for leaks with your hand.** *Fluid escaping from the smallest hole, under pressure, can have enough force to penetrate the skin causing serious injury or death.*
- **Seek professional medical attention immediately if injured by escaping hydraulic fluid.** Serious infection or reaction can develop if medical treatment is not administered immediately.
- Relieve all pressure by shutting off the engine and moving the valve control handle back and forth should it become necessary to loosen or remove any hydraulic fitting.
- **Do not** remove the cap from the hydraulic tank or reservoir while the log splitter is running. *The tank could contain hot oil under pressure which could result in serious injury.*
- **Do not** adjust the hydraulic valve. The pressure relief valve on the log splitter is preset at the factory. *Only a qualified service technician should perform this adjustment.*

Precautions

FIRE PREVENTION



CAUTION

- **DO NOT** operate the log splitter near an open flame or spark.
Hydraulic oil is flammable and can explode.
- Keep a Class B fire extinguisher on hand when operating this log splitter in dry areas as a precautionary measure against possible flying sparks.

TRANSPORTATION

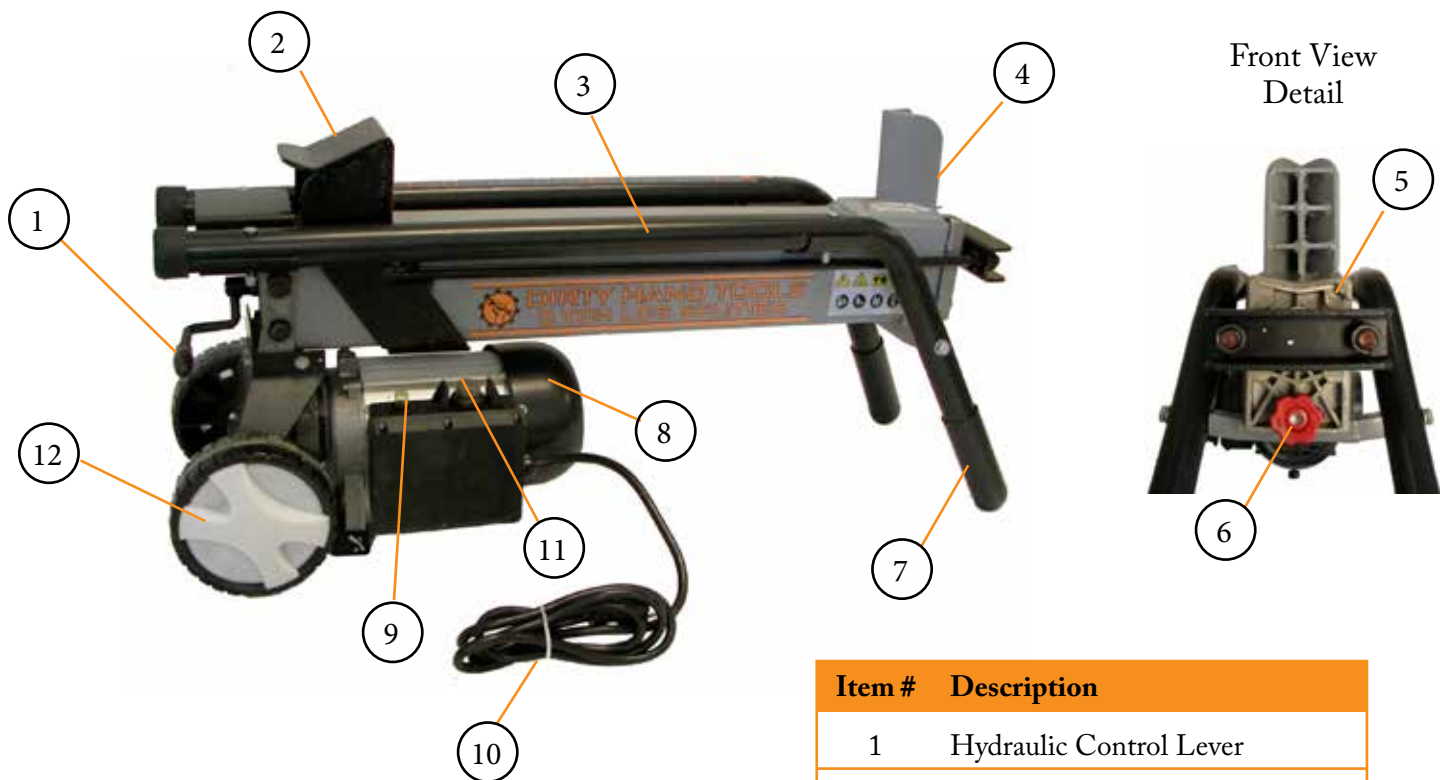
- **DO NOT** move this log splitter while the motor is running.
- **DO NOT** carry any cargo or wood on the log splitter.
- **DO NOT** not allow anyone to sit or ride on the log splitter.

Be careful when moving the log splitter on rugged and rough terrain. Keep the log splitter in an upright position.

Assembly Instructions

This log splitter was completely assembled at the factory. The product has been filled with hydraulic oil at the factory.

Refer to the photo and parts list should it become necessary to disassemble the unit for repair or replacement of parts. Remove the log splitter from the shipping container. Inspect it for shipping damage. If anything is damaged, contact your dealer or carrier.



Item #	Description
1	Hydraulic Control Lever
2	Push Plate
3	Work Table Guards
4	Wedge
5	Bleed Screw
6	Fluid Drain Knob w/ Dipstick
7	Lift Handles
8	Motor Housing
9	Circuit Breaker
10	Power Cord
11	ON/OFF Push Button
12	Rear Wheels

Operating Instructions

NOTE: This machine is only intended for homeowners and non-commercial users to split firewood as detailed in the instructions and not for any other purpose.

NOTE: Ensure the power supply is not connected while preparing the log splitter for use.



WARNING

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Call our customer service department at **720-287-5182**, **1-877-487-8275**, or visit www.dirtyhandtools.com if you have any questions or concerns about the safe operation of this equipment.

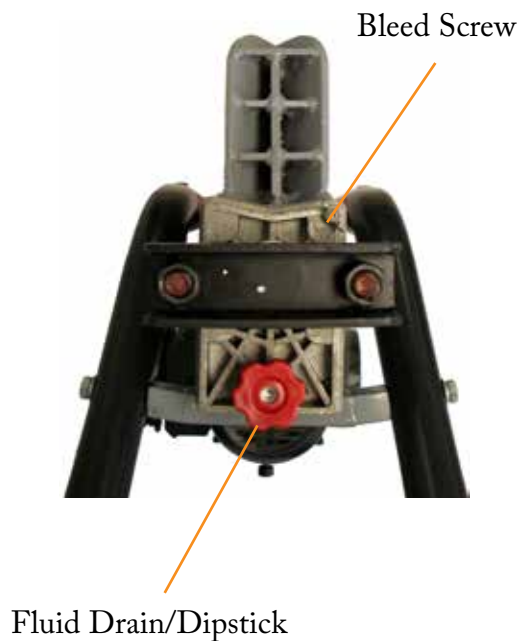
NEVER START OR RUN THE LOG SPLITTER WITHOUT OIL IN THE HYDRAULIC RESERVOIR. ALWAYS CHECK THE LEVEL OF THE HYDRAULIC RESERVOIR BEFORE OPERATION.

NOTE: If hydraulic oil is difficult to obtain, Dextron automatic transmission fluid can be substituted. Use only clean oil and take care to prevent dirt from entering the hydraulic reservoir. Do not mix AW32 hydraulic fluid with Dextron transmission fluid. Log splitter is shipped with AW32 hydraulic oil. Drain the system if you wish to use Dextron transmission fluid.

Operating Instructions

IMPORTANT: Before operating the log splitter turn the bleed screw as shown below one or two turns to allow air to be released from the hydraulic system. A flow of air through the bleed screw should be detectable while the log splitter is in use. Close the bleed screw after operation. Make sure that the bleed screw is closed before and during moving. Hydraulic fluid may leak through the bleed screw opening if the bleed screw is not fully tightened.

Failure to loosen the bleed screw will cause pressure to build up in the hydraulic tank and could damage the seals and affect the operation of the log splitter.



Operating Instructions



WARNING

Always wear safety glasses, safety shoes, and suitable work clothes when operating the log splitter. Do not wear neckties, scarfs or other loose clothing that could get caught in moving parts.

Keep hands and feet clear of the ram and wedge at all times.

Keep away from flammable liquids and gases before starting.

- 1) Place the log splitter on a sturdy, level surface. Block the wheels to prevent movement of the log splitter during operation.
- 2) Make sure the handle is free of oil, grease and resins.
- 3) Oil the wedge and the top of the beam for smoother operation.
- 4) Ensure the equipment is in safe working condition. Operate the unit without loading to make sure it is working normally. Check all nuts, bolts and hydraulic fittings are tight. Check the switch, power cable and plug for damage to avoid electric shock. Check that all safety shields are in proper position.
- 5) Check that the outlet's main voltage and frequency match the data stated on the model plate.
- 6) Plug in the power cable and switch on the motor. NEVER use an extension cord longer than 25 feet. Minimum cord gauge must be 16. The power supply for this log splitter must have a protection device (circuit breaker) for over or under voltage.
- 7) Place a log on the beam against the push plate. Make sure that the log is securely on the beam and up against the push plate. Logs should be cut with square ends and to a maximum length of 20 in. in advance. Always use extra care when splitting logs with unsquare ends.
- 8) Two controls must be activated to operate the log splitter. The hydraulic control lever and the ON/OFF push button must be held during the splitting process. If either control is released, the log splitter will stop operating.
- 9) Loosen the bleed screw one or two turns if necessary.
- 10) Depress and hold the ON/OFF push button with your right hand and allow the motor to cycle up to speed.
- 11) Push down on the hydraulic control lever.
- 12) Release the ON/OFF button and the control lever when the log is split. The push rod will then retract.

Operating Instructions



WARNING

Always split the log along the grain of the wood. Splitting across the grain may cause some types of wood to burst or splinter resulting in possible injury.

If a log becomes stuck on the wedge, remove both hands, unplug the log splitter from the power source and knock the log off of the wedge with a hammer. Do not attempt to dislodge the log with your hands.

When finished splitting the logs, switch the motor off and unplug the power cable.

DIRECTIONS FOR REPLACING HYDRAULIC FLUID

- 1) Place a large pan under the motor end of the log splitter.
- 2) Use the included hex wrench to loosen the fluid drain bolt and remove the bolt with the attached dipstick.
- 3) Raise the motor end of the log splitter to allow the fluid to drain in to a pan. Lower the splitter when it is empty. (See Fig A.)
- 4) Dispose of the used fluid properly.
- 5) Raise the splitting wedge end of the splitter and make sure it is secure.
- 6) Pour approximately 3.2 liters of approved hydraulic fluid into the tank.
- 7) Check the fluid level of the dipstick. Add more fluid if needed. (See Fig B.)
- 8) Replace the fluid drain bolt and tighten securely.
- 9) Lower the log splitter.

STORAGE

Store the log splitter switched off and unplugged. Allow the log splitter to cool for 5 minutes after use before storing. Protect the power supply cable from heat, sunshine, aggressive liquids and sharp edges. Store unit in a clean, dry area. Don't store it unprotected outdoors, next to corrosive materials or in a damp environment.

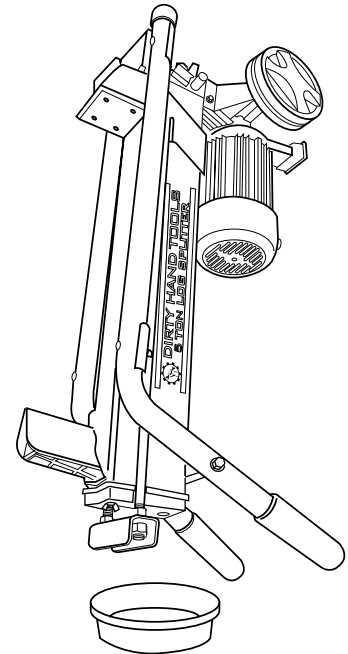


Fig. A

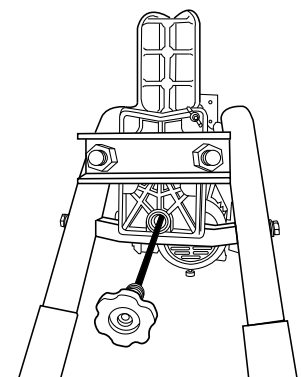


Fig. B

Operating Instructions

MAINTENANCE

- 1) Switch off and unplug power cable before performing any maintenance, adjustment or repair. Make sure to remove any tools and accessories from the work area when done.
- 2) Always check the oil level of the hydraulic reservoir before operation. Operating the log splitter without an adequate oil supply will cause severe damage to the pump.
- 3) Wipe the unit after use with an oiled rag to prevent rust.
- 4) The hydraulic system is preset at the factory. Do not adjust the valve.
- 5) If the ram moves slowly or erratically, there may be air in the system or insufficient hydraulic oil. Check the level of the hydraulic oil with the dipstick.
- 6) For other hydraulic and motor problems not addressed in this manual, please contact a qualified specialist.
- 7) If the wedge becomes dull or nicked, it can be sharpened. ALWAYS wear safety gloves while handling the wedge.
- 8) See also Repair and Maintenance Safety in the Safety Information section of this manual on page 5 of this manual.
- 5) All replacement parts must meet manufacturer's specifications.

NOTE: If the motor is overloaded for a long time, the thermal protector will disconnect the power of the motor. Switch off and unplug the power cord to cool down the motor for 30 minutes. Restart the motor and the log splitter should operate again.

Warranty & Specifications

IMPORTANT NOTICE

We, the manufacturer, reserve the right to change the product and/or specifications in this manual without notification. The manual is for information usage only and the pictures and drawings depicted herein are for reference only.

Warranty Repair and Service

Do not return this product to the store for warranty issues or repair. Call our customer service department at **720-287-5182, 1-877-487-8275**, or visit www.dirtyhandtools.com for the location of the nearest service center.

Record the information below for future reference.

Model No. _____

Serial No. _____

Date of Purchase _____

Place of Purchase _____

Specifications

SKU/Part No.	100481
Description	Horizontal Log Splitter
Maximum Splitting Force	5 Tons*
Motor	120V, 60Hz, 15A, 2HP (3,400 RPM)
Hydraulic Capacity	2.8 quarts
Power Cord	6 ft grounded, 3 prong connection
Maximum Log Length	20.5"
Cycle Time	25 Seconds, Down and Back*
Cylinder	2-1/4" Diameter x 15.2" Stroke
Maximum PSI	2,300
Pump	1 Stage
Wedge	4-1/2" High Heat-Treated Steel
Beam	3-1/4" x 5-1/4"
Valve	Auto Return
Wheels	6-1/2" O.D. Tires
Working Height	14-1/2"
Shipping Weight	106 Lbs with Fluids
Warranty	2 Year Limited Warranty

*Tonnage and cycle times may vary dependent upon mechanical and environmental conditions.

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