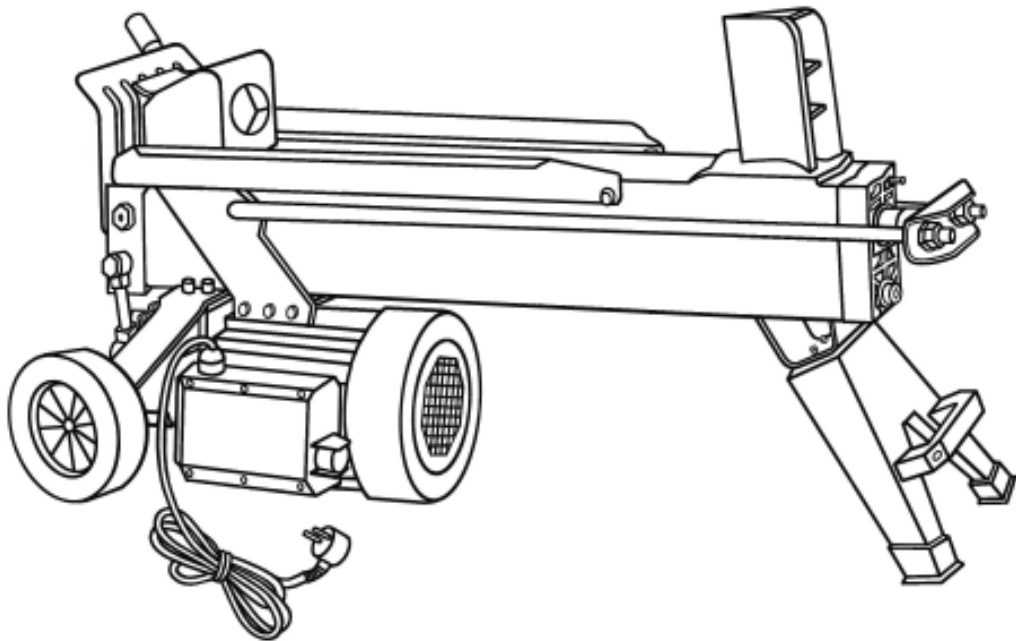




# 5 TON ELECTRIC/HYDRAULIC LOG SPLITTER



**MODEL NO. 40100500**

## **Owner's Manual**

### **ASSEMBLY & OPERATING INSTRUCTIONS**



*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.*



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# IMPORTANT SAFETY INFORMATION



***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 1-800-525-8322 to address these concerns.

*Si no entiende ingles, se prefiere que busque alguien que interprete las instrucciones para usted.*

## INTENDED USE

**NEVER** use this log splitter for any other purposes than splitting wood. It is designed for this use **only**. Any other use can cause serious injury or death.

## PERSONAL PROTECTIVE EQUIPMENT



**BEFORE** operating this log splitter make sure that you wear safety gear such as goggles or safety glasses, steel toed shoes and tight fitting gloves (without loose cuffs or draw strings). Always wear a protective hearing device when operating this log splitter.

**NEVER** 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.

## GENERAL SAFETY

***Failure to follow these instructions may result in serious injury or death.***

**NEVER** allow children to operate this log splitter. **NEVER** allow adults lacking proper instructions and understanding to operate this log splitter.

**KEEP** all people and pets a minimum of 10 feet away from your work area when operating this log splitter. Only the operator is to be near the log splitter during use.

If a helper is assisting in loading logs, **NEVER** actuate the control until the helper is clear of the work area.

**NEVER** operate the log splitter when under the influence of alcohol, drugs or medication.

**NEVER** allow a person who is tired or otherwise not alert to use your log splitter.

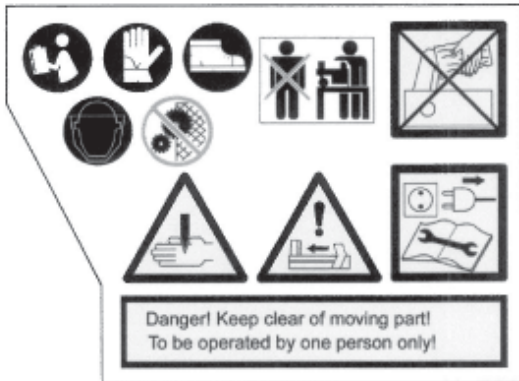
**ALWAYS** unplug your log splitter when finished. Do not pull on power supply cable to unplug your log splitter.



# IMPORTANT SAFETY INFORMATION

## SAFETY DECALS

Make sure that all safety warning decals are in good condition and readable. Always replace missing or defaced decals. Write us or call 1-800-525-8322 and they will be sent to you at no charge.



LOCATION: SIDE OF BEAM, WEDGE END  
PART NUMBER: 52036900



LOCATION: FRONT END OF LOG SPLITTER  
PART NUMBER: 52061900



LOCATION: FRONT END OF LOG SPLITTER  
PART NUMBER: 52062000



Read the manual carefully before assembly, operation and maintenance.



Wear safety gloves.



Wear safety shoes or heavy boots.



Wear a protection mask or protective eye wear.



Don't touch rotating parts.



Allow only one person to operate this machine on the workbench or stand. Keep bystanders away.



Caution: Pinch Point



Warning: Moving parts. Never place body between log and ram during forward or reverse stroke. Serious injury or death could result.



Never remove a stuck log or clean the knife bare-handed.



Never perform maintenance, adjustment or installation of this machine until the power supply is disconnected. See instructions in the manual.



# IMPORTANT SAFETY INFORMATION

## PREPARATION OF THE LOG

Both ends of the log should be cut as square as possible to help prevent the log from riding out of the splitter during operation. Do not split logs greater than 21 in. in length.

## WORK AREA

**NEVER** operate the log splitter on slippery, wet, muddy or icy ground.

**ONLY** operate your log splitter on a level surface. Operating on a slope could cause the log splitter to roll over or logs to fall off.

**ALWAYS** keep children away from the log splitter. All visitors should be kept a safe distance from the work area.

**NEVER** operate your log splitter in a damp or rainy environment to avoid electric shock or short circuit.

**ALWAYS** block the wheels to prevent movement of the log splitter while in operation.

**ONLY** operate your log splitter in daylight or under good artificial light.

**ALWAYS** keep the work area clean. Remove split wood around your log splitter immediately so that you don't stumble over it. Cluttered areas and benches invite accidents.

## OPERATION OF THE LOG SPLITTER

**ALWAYS** make sure the power switch is in the OFF position before plugging in the cord to avoid unintentional starting.

**ALWAYS** ensure the motor is properly grounded or apply protection device. Only use rubber-jacketed cable of sufficient lead cross section as an extension cable.

**ALWAYS** split wood in the direction of the grain only.

**ALWAYS** hold the sides of the log when loading it on the splitter.

**KNOW** how to stop the log splitter and disengage the controls before operating it.

**NEVER** place hands, feet or any body part between the ram and splitting wedge during forward or reverse stroke. Serious injury or death could result.

**ALWAYS** keep hands away from the ram, wedge and partly split logs.

**NEVER** straddle or step over the log splitter during operation.

**NEVER** move the log splitter while the motor is running. Shut off the motor even if you are leaving the log splitter for a short period of time.

**NEVER** leave the machine unattended during operation. Turn power off and wait until it comes to a complete stop.

**ALWAYS** operate this log splitter from the "operator zone." This is the area behind the wheels and control handle.



# IMPORTANT SAFETY INFORMATION

**ALWAYS** check for damaged parts before operation. Do not operate until it is repaired.

**NEVER** 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.

**NEVER** stand or ride on the log splitter. Serious injury could result if the unit is tipped over or if the cutting wedge is contacted.

**ALWAYS** keep guards in place. Do not remove.

**NEVER** force or push the log when splitting. It will do a better and safer job at the rate for which it was designed.

**ALWAYS** wear safety glasses when operating this log splitter.

**ALWAYS** use the tow handle to move the log splitter around.

**NEVER** reach or bend over the log splitter to pick up a log.

**NEVER** try to split two logs on top of each other. Keep proper footing and balance at all times.

**NEVER** try to cross split a second log.

**NEVER** allow one person to operate the valve while another is positioning the log.

**NEVER** attempt to load your log splitter when the ram is in motion.

**ALWAYS** use your hand to operate the control lever and the switch. **NEVER** use your foot, a rope or any extension device.

**NEVER** use this product for anything other than splitting wood.

**NEVER** use improper accessories with this log splitter. Check owner's manual for recommended accessories.

**NEVER** 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.

**NEVER** loosen or remove the hydraulic fittings or the cap of the hydraulic tank while the log splitter is running.

## REPAIR AND MAINTENANCE SAFETY

**NEVER** operate your log splitter when it is in poor mechanical condition or in need of repair.

**ALWAYS** unplug the power cable before performing any maintenance and repair.

Periodically check that all nuts, bolts, screws, hydraulic fittings and hose clamps are tightened.

**NEVER** alter your log splitter in any manner such as adding a rope or extension to the control lever or adding to the width or height of the wedge. Such alterations may cause your log splitter to be unsafe and will void the warranty.

Perform all recommended maintenance procedures before using your log splitter.

Replace all damaged or worn parts immediately with the original equipment manufacturer's parts only.

**NEVER** tamper with the motor to run it at excessive speeds. The maximum motor 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.



# IMPORTANT SAFETY INFORMATION

## HYDRAULIC SAFETY

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

**NEVER** check for leaks of hydraulic fluid with your hand. Fluid escaping from a small hole can be almost invisible. Escaping fluid under pressure can have sufficient force to penetrate skin causing serious personal injury or even death. Leaks can be detected by passing a piece of cardboard over the suspected leak and looking for discoloration.

**ALWAYS** seek professional medical attention immediately if injured by escaping hydraulic fluid. Serious infection or reaction can develop if proper medical treatment is not administered immediately.

**ALWAYS** be sure to 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.

**NEVER** remove the cap from the hydraulic tank or reservoir while the log splitter is running. Hot oil under pressure could result in serious injury.

**NEVER** adjust the hydraulic valve. The pressure relief valve on your log splitter is preset at the factory. Only a qualified service technician should perform this adjustment.

## FIRE PREVENTION

**NEVER** operate your log splitter near a flame or spark. Hydraulic oil is flammable and can explode.

**ALWAYS** take a Class B fire extinguisher with you when operating this log splitter in dry areas as a precautionary measure against possible flying sparks.

## TRANSPORTATION

**NEVER** move this log splitter while the motor is running.

**NEVER** carry any cargo or wood on your log splitter.

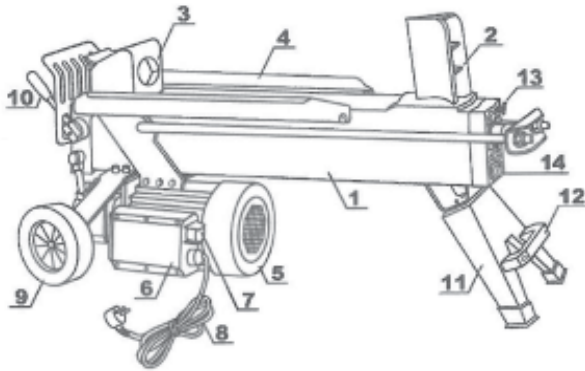
**NEVER** allow anyone to sit or ride on your log splitter.

Be careful when moving your log splitter on rugged and rough terrain. Keep your log splitter upright.



## ASSEMBLY INSTRUCTIONS

**NOTE:** This log splitter was completely assembled at the factory. Refer to the drawing and parts list should it become necessary to disassemble the unit for repair or replacement of parts.



1. Hydraulic tank
2. Wedge
3. Ram
4. Log cradle
5. Electric motor
6. Connecting box
7. Switch
8. Power cable and plug
9. Wheel
10. Control handle
11. Front frame
12. Towing handle
13. Vent plug
14. Oil dipstick

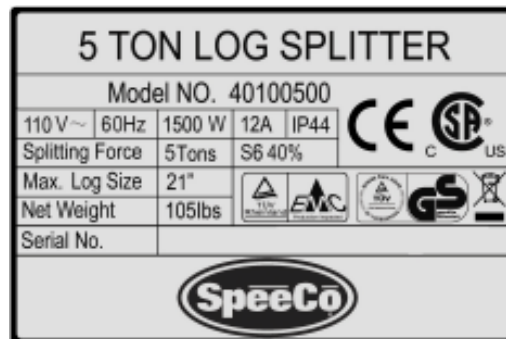
### Accessories



1. Hex wrench x 1
2. Copper seal for dipstick x 1

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

**STEP 1:** Remove all the components from the crate. Inspect each piece for shipping damage. If any part is damaged, contact your dealer or delivering carrier.



Model Plate

## 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.

### Preparation



**WARNING:** Read and thoroughly understand all instructions and safety information before 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 1-800-525-8322 to address these concerns.

*Si no entiende ingles, se prefiere que busque alguien que interprete las instrucciones para usted.*



**CAUTION:**

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

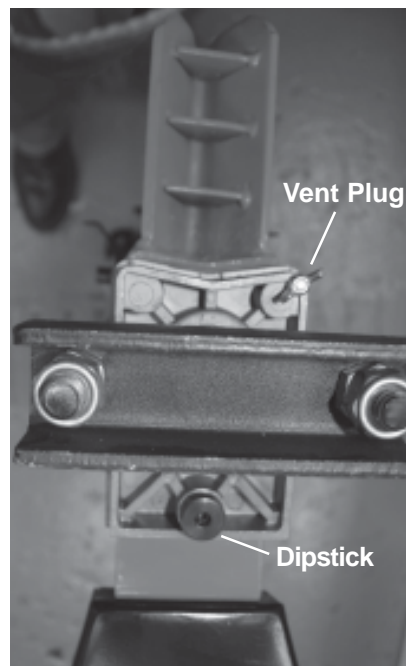
**NOTE:** If hydraulic oil is difficult to obtain, Dextron automatic transmission fluid can be substituted. Use only clean oil and take care to prevent dirt from entering the hydraulic reservoir. Do not mix AW32 hydraulic fluid with Dextron transmission fluid. Log splitter is shipped with AW32 hydraulic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



**WARNING:**

Before operating this log splitter loosen the vent plug (wing nut) by turning it counterclockwise a minimum of four rotations. This will allow air to pass into and out of the hydraulic tank during operation. The vent plug is located on the front, top end of the log splitter as shown in the diagram on page 7 and below. If you intend to move the log splitter, retighten the vent cap to prevent the oil from leaking. Do not overtighten.

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



## **OPERATION**



**WARNING:**

*ALWAYS WEAR SAFETY GLASSES, SAFETY GLOVES, SAFETY SHOES AND SUITABLE WORK CLOTHING WHEN OPERATING THIS LOG SPLITTER. NEVER WEAR JEWELRY, NECKTIES OR OTHER LOOSE CLOTHING WHICH COULD GET CAUGHT IN MOVING PARTS.*



**DANGER:**

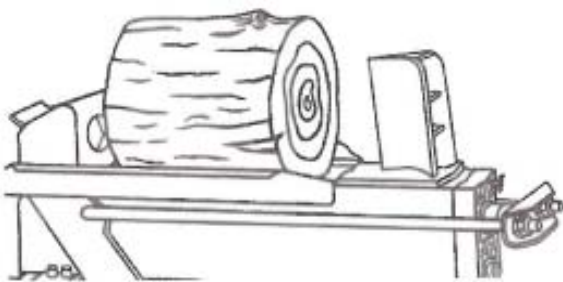
*KEEP HANDS AND FEET CLEAR OF RAM AND WEDGE AT ALL TIMES.*



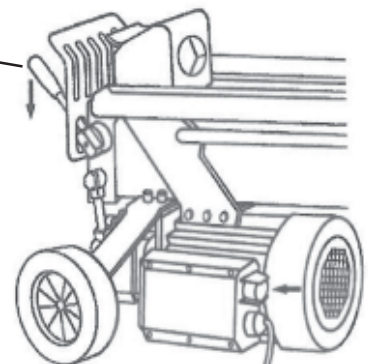
**WARNING:**

*KEEP AWAY FROM FLAMMABLE LIQUIDS AND GASES BEFORE STARTING MACHINE*

- 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 (or "Technical Specifications" in this manual).
- 6) Plug in the power cable and switch on the motor. NEVER use an extension cord longer than 25 feet. Minimum cord gage 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 ram. Make sure that the log is securely on the beam and up against the ram. 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. See illustration below.



Control  
handle



- 8) Depress the control handle so that the cylinder will drive the ram into the log. Extend the cylinder until the log splits or to the end of its stroke. If the log has not completely split after the cylinder has reached the end of its extension, retract the cylinder.
- 9) When the log has split, retract the ram for loading the next log.



**CAUTION:** *ALWAYS SPLIT THE LOG ALONG ITS GRAIN. IF SPLIT ACROSS THE GRAIN SOME TYPES OF WOOD MAY BURST OR FLY OUT RESULTING IN INJURY.*



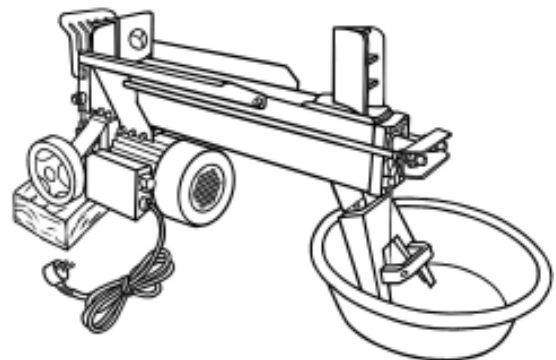
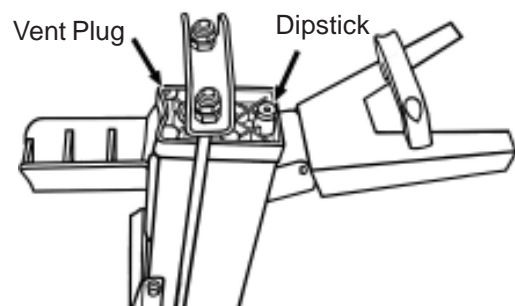
**CAUTION:** *IF THE LOG IS STUCK ON THE WEDGE, RELEASE BOTH HANDS AND UNPLUG THE POWER CABLE IMMEDIATELY. KNOCK OFF THE LOG WITH A HAMMER. DO NOT USE YOUR HANDS.*

- 10) When finished splitting the log, switch the motor off and unplug the power cable.

**NOTE:** Switch off and unplug the power cable quickly if the machine is acting abnormal. Contact our customer service department at 1-800-525-8322 to address these concerns.

### DIRECTIONS FOR FILLING HYDRAULIC SYSTEM

- 1) Disconnect the control hand bar from its linkage part and take off the cushions from the front frame.
- 2) Lift the towing handle and keep the tank in the vertical position.
- 3) Disconnect the vent plug and dipstick from the front cylinder cover.
- 4) Put the front frame of the unit in some container; raise the wheels 2 in. off the ground on blocks, and drain the hydraulic tank.
- 5) Refill the tank within the marked range on the dipstick.
- 6) After refilling, insert and tighten the vent plug and dipstick.
- 7) Start the motor and operate the log splitter fully extended for several cycles to repel air out of the reservoir.



Fill the hydraulic reservoir with at least 3 quarts of hydraulic fluid. After the hydraulic reservoir is filled with oil, start the motor. The hydraulic pump should prime itself. With the motor running, move the hydraulic valve lever toward the wedge. This will cause the cylinder to extend and expel air. When the cylinder is fully extended, retract it. Repeat this procedure several times. An erratic movement of the cylinder indicates that there is still air in the system. More oil should then be added to bring the fluid level up to the marked range on the dipstick. Total hydraulic capacity is 3.3 quarts. **NOTE:** If the tank is overfilled, it will tend to expel oil from the breather cap when the cylinder is retracted. After adding more oil to the tank, cycle the cylinder again until it has a constant speed indicating that all oil has been expelled. Check the oil level in the reservoir again to make sure it is in the marked range on the dipstick.

### 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.

Store this log splitter where children can not start it.

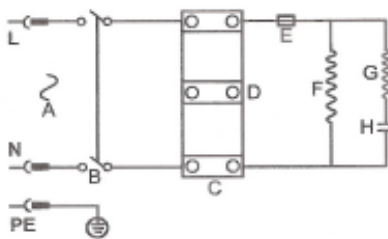
## **MAINTENANCE**

- 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.

**NOTE:** Switch off and unplug the power cable quickly if the machine is acting abnormal. Contact our customer service department at 1-800-525-8322 to address these concerns.

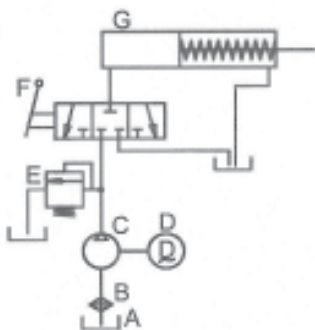
### **Electric Circuit Diagram**



- A. Power cable
- B. Switch
- C. Wiring board
- D. Motor lead wire
- E. Thermal protector
- F. Main winding
- G. Auxilliary winder
- H. Capacitor

**Note:** The main conection must have maximum 16A fuse.

### **Hydraulic Circuit Diagram**

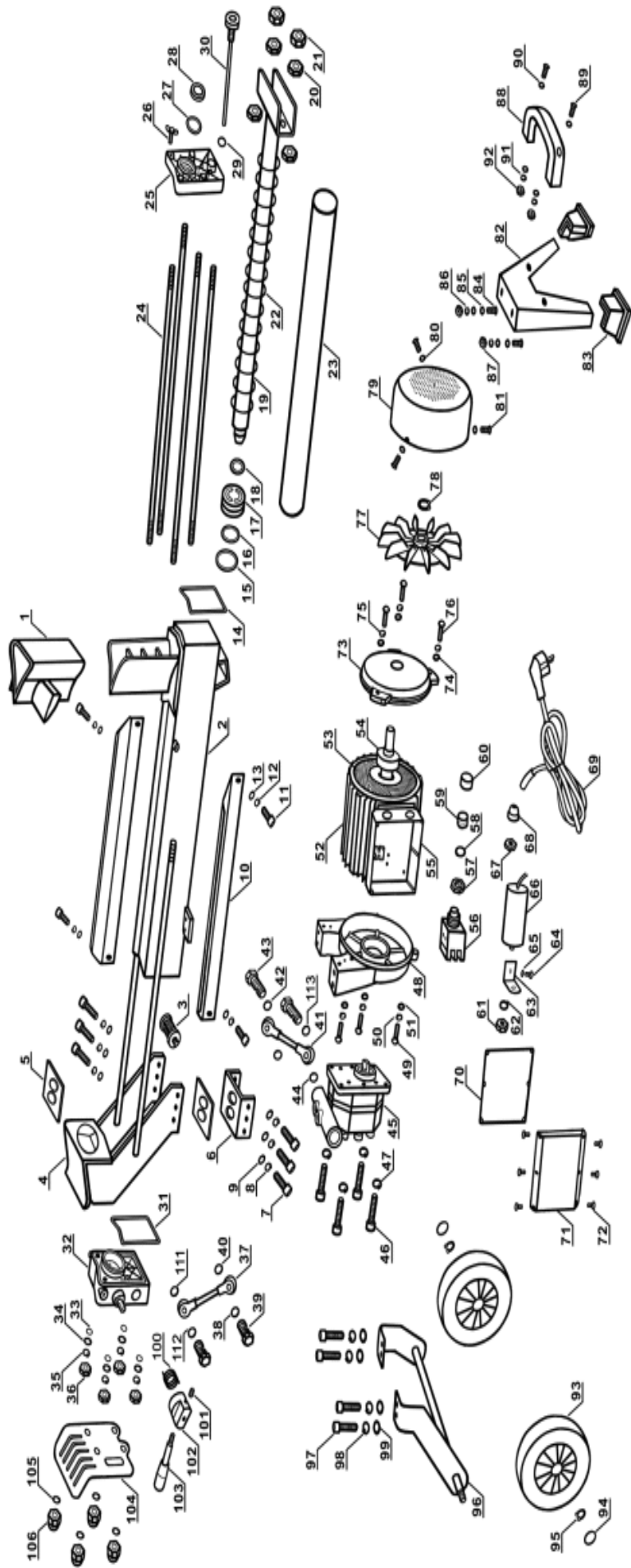


- A. Hydraulic tank
- B. Oil filter
- C. Oil pump
- D. Electric motor
- E. Relief valve
- F. Control handle
- G. Cylinder

## PARTS BREAKDOWN FOR 40100500 LOG SPLITTER

REFERENCE NO.	SPEECO NO. *	DESCRIPTION
2		Tank with wedge
3		Oil filter
4, 6-9	39064700	Ram assembly
5	39064200	Nylon wear plate (2 each)
10	39064800	Log cradle
10-13		Log cradle assembly
14		Front paper seal ring
15-18		Piston and seals
19-21		Piston shaft
22		Retracting spring
23		Hydraulic cylinder
24		Two end long bolt
25		Front cylinder cover
26	39064900	Vent plug
27		Seal ring
28		Dust proof ring
29	39064000	Dipstick sealing washer
29-30	39064600	Dipstick assembly
31	39063800	Front/rear gasket kit
33		Rubber seal ring Ø14
32,33	39063700	Valve repair kit
32-36		Hydraulic valve assembly
37-40, 111, 112		Oil tube assembly (valve/pump)
38		Copper seal ring Ø16
38, 40, 42, 44	39063900	Connection tube seals (2 each)
111, 112, 113		
40, 44		Rubber seal ring Ø20x1.9
41-44, 113		Oil tube assembly (tank/pump)
42		Copper seal ring Ø14 (2 each)
45	39063100	Pump
45-47		Hydraulic pump assembly
48-51		Motor plate assembly
52		Motor shell
53		Stator
54		Rotator
55, 70-72		Connecting box assembly
56-60	39063200	Keyswitch assembly
61-66		Capacitor assembly
66	39069300	Capacitor
67-68		Cable fastener assembly
69	39063200	Power cable
73-76		Motor front plate assembly
77-78		Fan assembly
79-81		Fan cover assembly
82-83	39062700	Foot piece and bumpers
83	39062800	Bumper (2 each)
82-87		Front frame assembly
88	39062600	Plastic handle
88-92		Towing handle assembly
93-95	39064100	Wheel assembly (2 each)
96	39363600	Axle assembly
96-99		Wheel frame assembly
100-102	39064500	Handle block assembly
100-103	39064400	Handle
104	39064300	Handle guard
104-106		Shield assembly
111		Rubber seal ring Ø18x1.9
112		Copper seal ring Ø14
113		Copper seal ring Ø16
	39069400	Silicon glue for seals

\* Available replacement parts are listed with SpeeCo part numbers.



**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**

This log splitter is guaranteed to be free from defects for one full year from the date of purchase.

***Do not return this product to the store for warranty issues or repair. Call 1-800-525-8322 for the location of the nearest service center.***

**===== NOTES =====**

Record the information below for future reference.

Model No. \_\_\_\_\_

Serial No. \_\_\_\_\_

Date of Purchase \_\_\_\_\_

Place of Purchase \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



# TECHNICAL SPECIFICATIONS

MAXIMUM SPLITTING FORCE*	5 Tons
ELECTRICAL REQUIREMENT	110V/60hZ
POWER OUTPUT	1500W
RATED CURRENT	12A
MOTOR SPEED	3400 RPM
POWER CABLE	SJTW 14AWG (2.08MM2)
HYDRAULIC CAPACITY	3.3 Quarts
CYCLE TIME*	16 seconds
MAXIMUM LOG LENGTH	21"
MAXIMUM LOG DIAMETER	9"
HYDRAULIC PRESSURE	20MPa
MAXIMUM CYLINDER STROKE	20-1/2"
TIRE SIZE	7"
MACHINE DIMENSIONS (LXWXH)	38-1/4" x 11" x 18"
NET WEIGHT	105 lbs.

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



*A brand of Special Products Co.*  
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303-279-5544 Toll Free USA 800-525-8322 Fax 303-278-3432  
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