

Owner's Manual

Log Splitter: Outdoor product that splits wood logs for use as fuel in a fireplace or a woodstove.



⚠ WARNING

Read this manual.

Serious injury or death can result if safety instructions are not followed.



Engine is shipped without oil.

- Before starting engine, fill with SAE10W-30 motor oil.
- See engine manual for engine oil capacity.

Hydraulic reservoir is shipped without oil.

- When add oil, verify oil level is 1 from top of hydraulic reservoir (not including fill neck).

Closely inspect all log splitter components.

- If you have damaged components then: Contact the freight company that delivered the unit and file a claim.

Hazard Signal Word Definitions

	This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.
	DANGER (red) indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
	WARNING (orange) indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
	CAUTION (yellow) indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.
	CAUTION (yellow) used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

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▲ Important Safety Rules

▲ WARNING



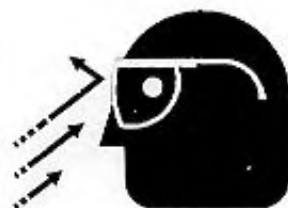
1.) Read this manual completely.

Serious injury or death can result if safety instructions are not followed. Everyone who operates the log splitter must read and completely understand all safety rules, operating instructions, and maintenance instructions. You must be 16 or older to operate this machine. Keep untrained people away.
-Shut engine off before leaving logsplitter unattended.



2.) Crush hazard.

Wedge can cut through skin and break bones. Keep both hands away from wedge and endplate.
-Serious accidents can happen when other people are allowed inside the work zone. Keep everyone else out of the work zone while operating control valve.
-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.



3.) Flying objects.

Pieces of log may fly out while splitting. Wear safety glasses. Serious eye injury can occur.



4.) Skin injection hazard.

High pressure fluid can inject under skin resulting in serious injury including amputation.
-Make sure all fittings are tight before applying pressure. Relieve system pressure before servicing.
-Do not check for leaks with hand. Instead, use a piece of cardboard to check for leaks.
-If skin injection happens, seek immediate "Surgical Treatment".



5.) Towing hazards.

Serious injury or death can occur if towing safety rules are not followed.
-Review towing safety warnings in your towing vehicle manual.
-Drive safely. Be aware of the added length of the log splitter.
-Never ride or transport cargo on the log splitter.
-Drive the vehicle with the log splitter securely attached.
-Turn off the vehicle before leaving the log splitter unattended.
-Choose a level surface to operate the log splitter.
-Block the log splitter wheels to prevent unintended movement.
-Never tow or operate this splitter while under the influence of alcohol, drugs, or medication.

Save These Instructions

⚠ Important Safety Rules

⚠ WARNING



6.) Risk of fire and explosion.

Hot exhaust fumes from engine can cause fire. Gasoline is highly flammable and explosive. You can be burned or seriously injured when handling fuel.

-Position muffler at least 7 feet from combustible objects.

-Before adding fuel, stop the engine and keep heat, sparks, and flame away. Do not add fuel when engine is running or still hot. No smoking near engine.

-Do not pump fuel directly into engine at gas station. Static charge can build and ignite fuel. Use a UL approved fuel container to transfer gas to the engine. Wipe up fuel spills immediately.



-Only store and handle fuel outdoors. Gasoline vapors can ignite if they collect inside an enclosure. Explosion can result.

-Do not change or add to exhaust system. Fire can result.

-Do not change or add fuel tanks or fuel lines. Fire can result.

-Before each use, check fuel tank and fuel lines for leaks. Any fuel leak is a fire hazard. Fix any fuel leaks before starting engine.

-During transportation take precautions to make sure machine will not tip over and cause a fuel leak fire hazard.



7.) Breathing hazard.

Poisonous fumes from engine can kill you. Do not operate indoors even if ventilated. For outdoor use only.

⚠ CAUTION



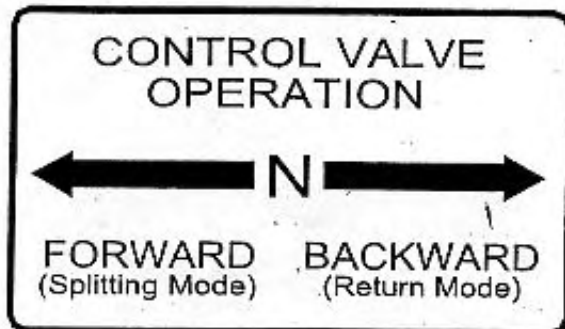
1.) Hot muffler.

You can be burned by muffler.

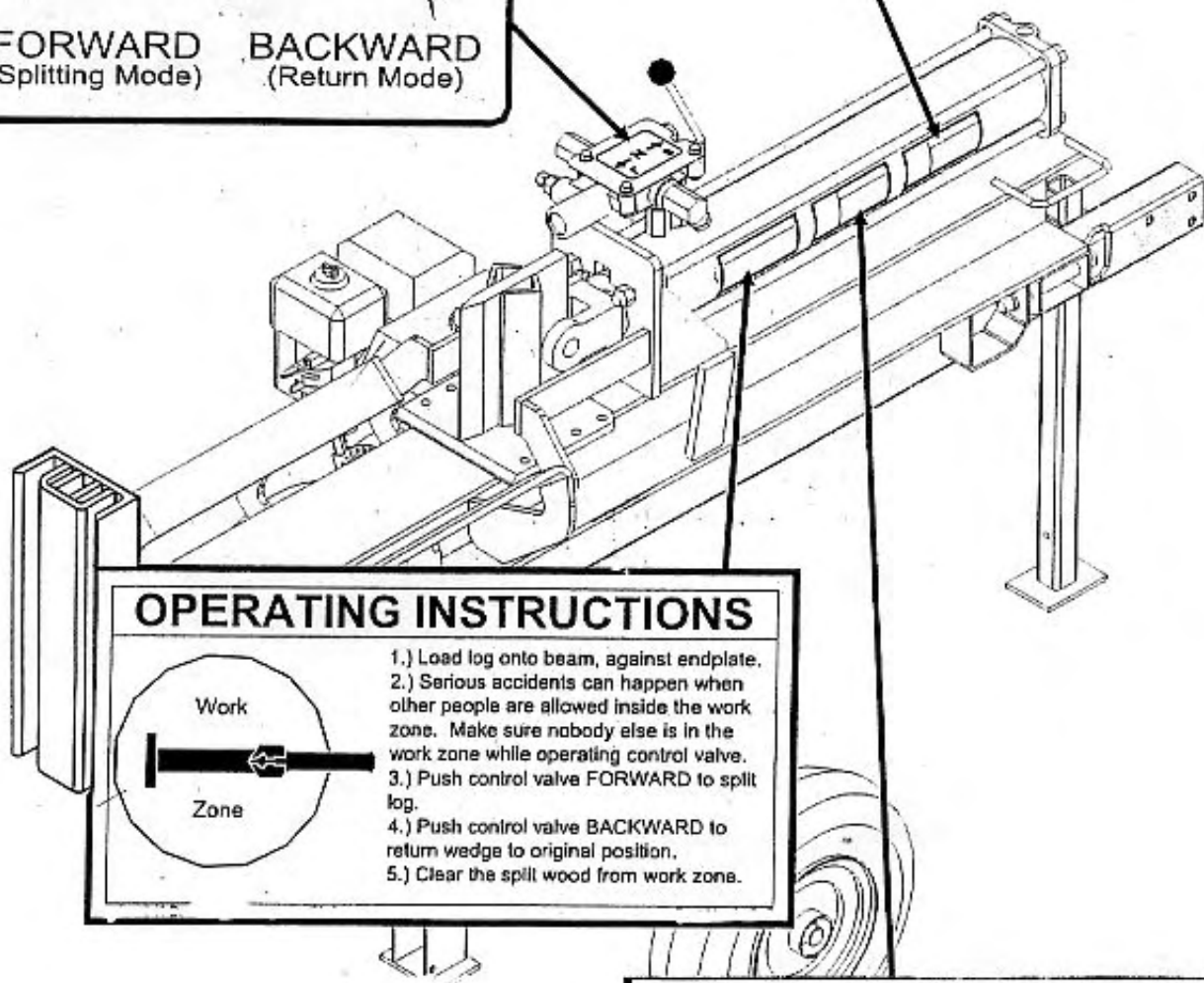
Do not touch.

Save These Instructions

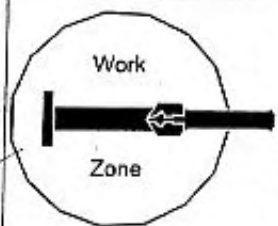
▲ Warning Label Locations



▲ WARNING	
	1.) Breathing hazard. Poisonous fumes from engine can kill you. Do not operate the log splitter in enclosed areas even if ventilated.
	2.) Read owner's manual completely. Serious injury or death can result if safety instructions are not followed.



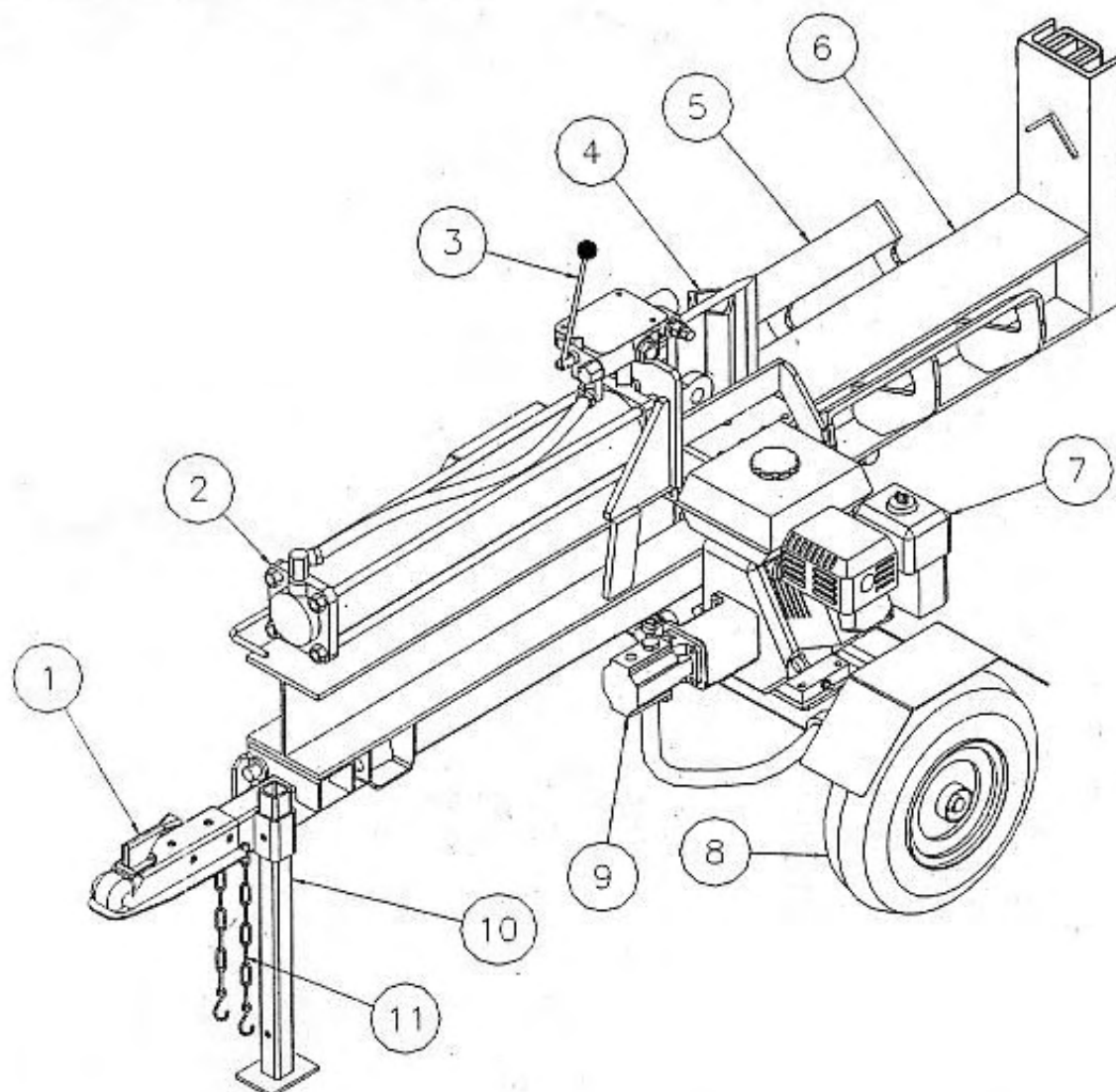
OPERATING INSTRUCTIONS



1.) Load log onto beam, against endplate.
2.) Serious accidents can happen when other people are allowed inside the work zone. Make sure nobody else is in the work zone while operating control valve.
3.) Push control valve FORWARD to split log.
4.) Push control valve BACKWARD to return wedge to original position.
5.) Clear the split wood from work zone.

▲ WARNING	
	1.) Crush hazard. Wedge can cut through skin and break bones. Keep hands away from wedge and endplate.
	2.) Flying objects. Pieces of log can fly out while splitting. Serious eye injury can occur. Wear safety glasses.

Machine Component Definitions

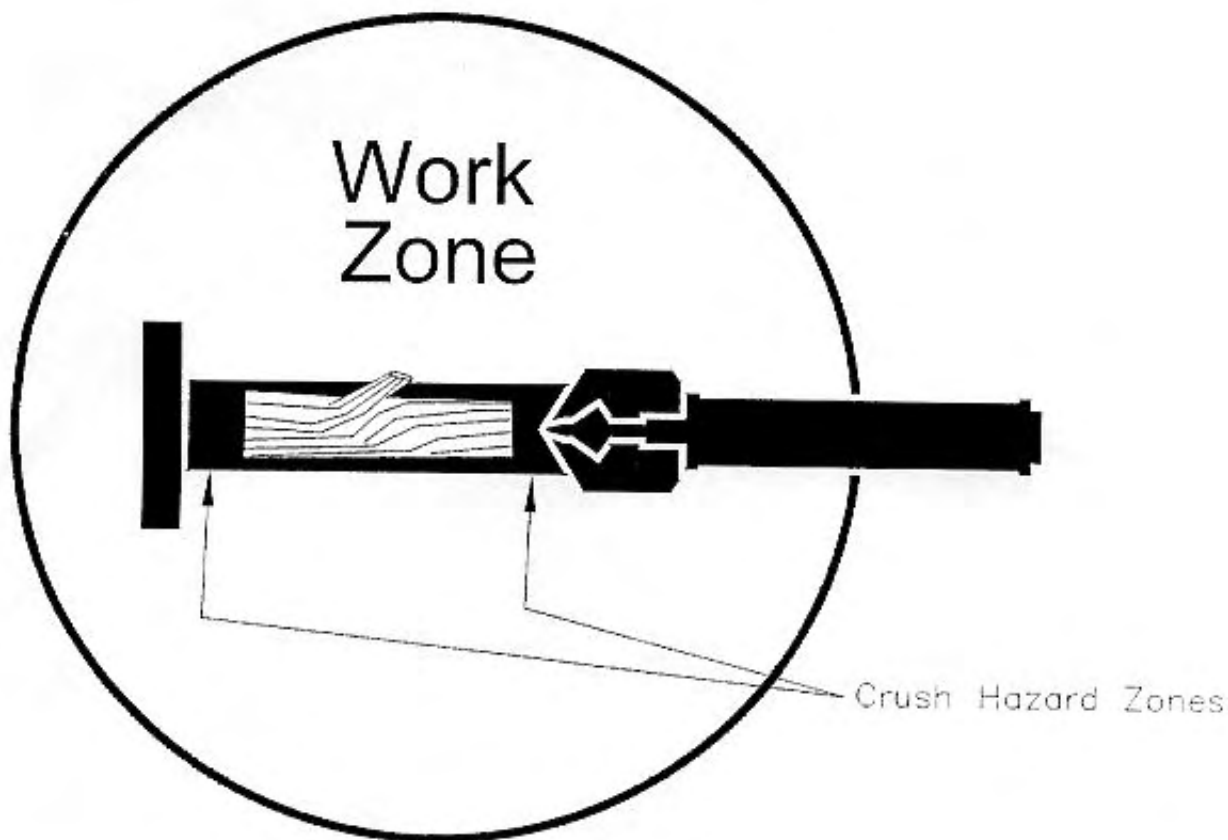


- 1.) **2" Coupler.** Attaches the log splitter to your vehicle. Fits only 2" hitch balls.
- 2.) **Hydraulic Cylinder.** The hydraulic cylinder has a 4.5" bore and a 24" stroke. It is rated to 3000 psi.
- 3.) **Control Valve Handle.** Use the control valve handle to move the beam slide forward and backward.
- 4.) **Wedge.** The wedge features wedge wings and a taper that makes splitting easier.
- 5.) **Log Cradle.** Keeps the log on the beam without operator assistance.
- 6.) **Beam.** The beam is made of 6" wide flange beam (also called I-Beam). A one foot section of this beam weighs 20 lb.
- 7.) **Engine.** The air cooled engine powers the hydraulic pump.
- 8.) **Tires.** Maximum rated speed is 12 mile per hour.
- 9.) **Hydraulic Pump.** The hydraulic pump makes the hydraulic oil flow through the system.
- 10.) **Leg.** The leg supports the log splitter while operating. The leg should be raised while towing (see Operation Instructions).
- 11.) **Safety Chains.** A safety feature to prevent loss of log splitter while towing.

⚠ Operation Instructions

Proper Operation of the Log Splitter

- 1.) Load a log onto the beam and against the endplate.
- 2.) Serious accidents can happen when other people are allowed inside the work zone. Keep everyone else out of the work zone while operating control valve.
- 3.) Make sure hands are clear of crush hazard zones.
- 4.) Push control valve handle FORWARD to split log.
- 5.) Push control valve handle BACKWARD to return wedge to its original position.
- 6.) Clear the split wood from the work zone.



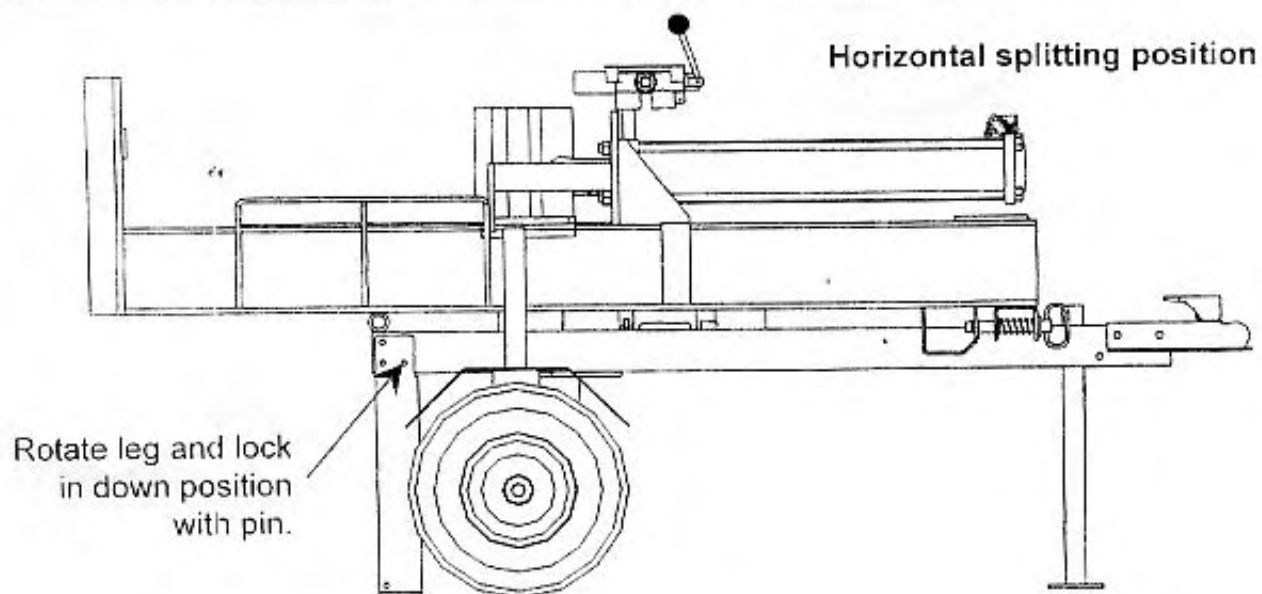
⚠ WARNING

Crush hazard.

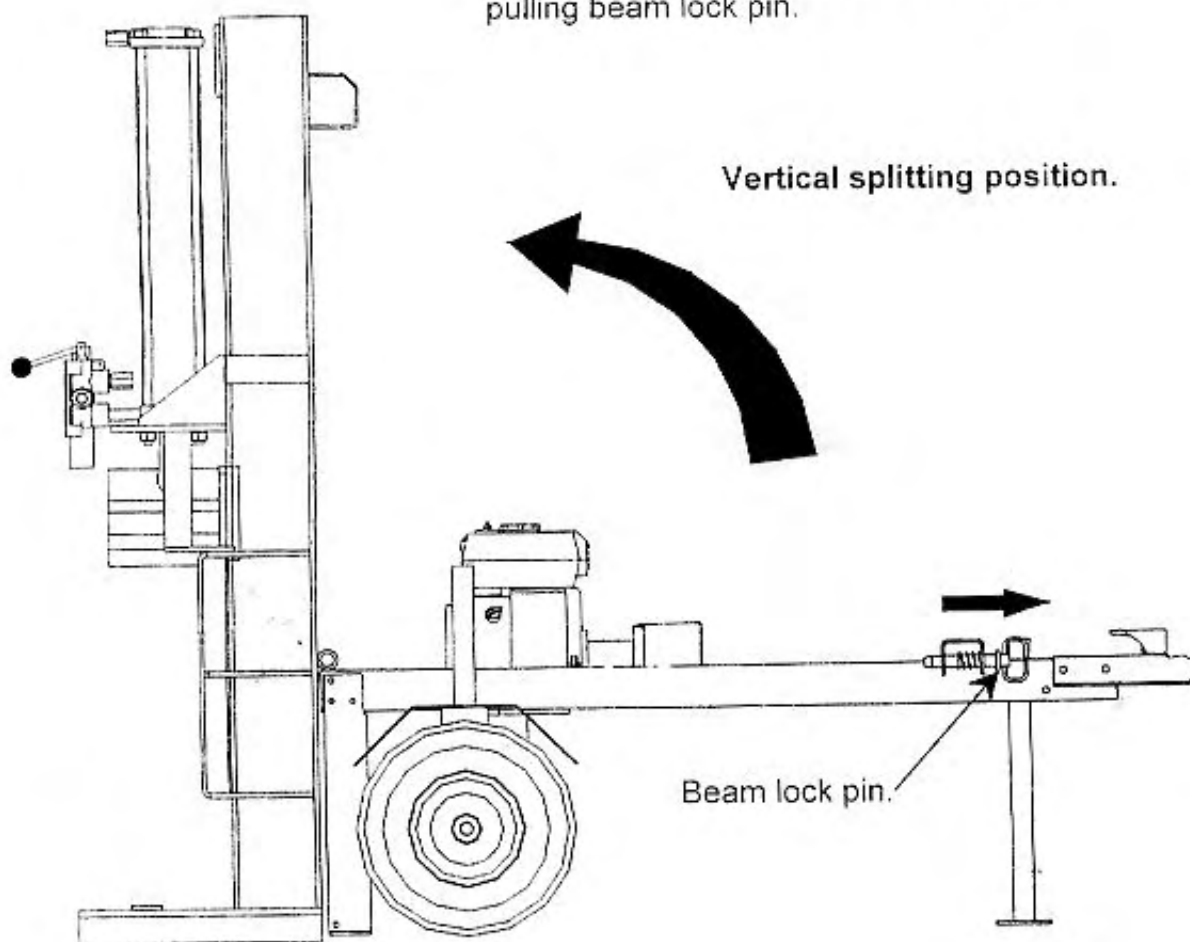
Wedge can cut through skin and break bones. Keep both hands away from wedge and beam slide.

- Serious accidents can happen when other people are allowed inside the work zone. Keep everyone else out of the work zone while operating control valve.
- 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.

▲ Operation Instructions

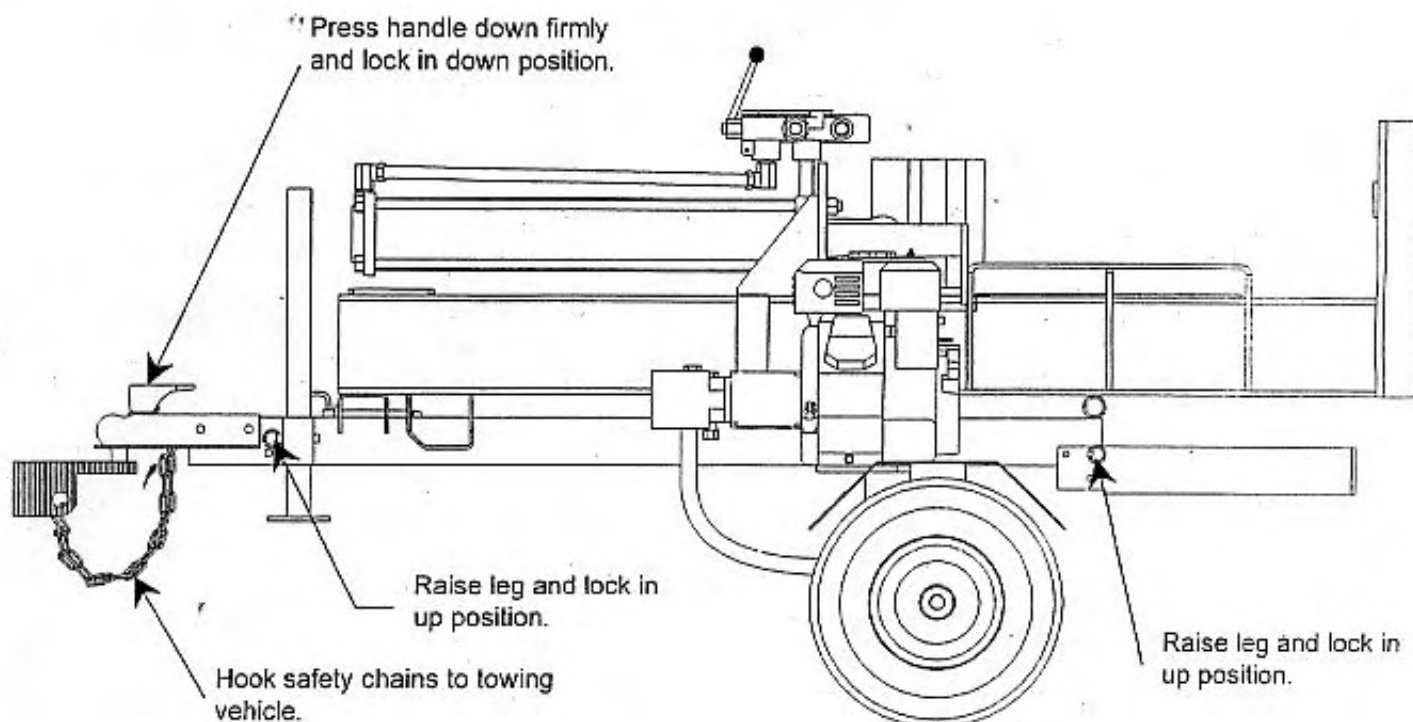


To change from horizontal to vertical splitting position lift end of beam while pulling beam lock pin.



▲ Operation Instructions

Driving Position



▲ WARNING



Towing hazards.

Serious injury or death can occur if towing safety rules are not followed.

- Review towing safety warnings in your towing vehicle manual.
- Drive safely. Be aware of the added length of the log splitter.
- Never ride or transport cargo on the log splitter.
- Drive the vehicle with the log splitter securely attached.
- Turn off the vehicle before leaving the log splitter unattended.
- Choose a level surface to operate the log splitter.
- Block the log splitter wheels to prevent unintended movement.
- Never tow or operate this log splitter while under the influence of alcohol, drugs, or medication.

▲ Maintenance and Storage

- ▲** Before performing maintenance, the log splitter must be placed in maintenance mode.
- 1.) Turn off engine.
 - 2.) Disconnect spark plug wire.
 - 3.) Move the control valve handle forward and backward to relieve hydraulic pressure.
- ▲** After performing maintenance, make sure all guards, shields, and safety features are put back in place. Failure to follow this warning can result in serious injury.

Refer to the engine owner's manual for engine maintenance.

What	When	How
Hoses	Each Use	Inspect for exposed wire mesh and leaks. Replace all worn or damaged hoses before starting engine
Hydraulic Fittings	Each Use	Inspect for cracks and leaks. Replace all damaged fittings before starting engine
Nuts and Bolts	Each Use	Check for loose bolts
Beam	Each Use	Apply grease to beam surface
Moving Parts	Each Use	Clear debris



▲ WARNING

Skin injection hazard.

High pressure fluid can inject under skin resulting in serious injury including amputation.

-Make sure all fittings are tight before applying pressure. Relieve system pressure before servicing.

-Do not check for leaks with hand. Instead, use a piece of cardboard to check for leaks.

-If skin injection happens, seek immediate "Surgical Treatment".

Troubleshooting

Problem	
Cylinder rod will not move	SOLUTION: A,D,E,H,J
Slow cylinder shaft speed when extending or retracting	SOLUTION: A,B,C,H,I,K,L
Wood will not split or splits extremely slowly	SOLUTION: A,B,C,F,I,K
Engine bogs down during splitting	SOLUTION: G,L
Engine stalls under low load condition	SOLUTION: D,E,L,M
Cause	Solution
A- Insufficient oil to pump	Check oil level in reservoir
B- Air in oil	Check oil level in reservoir
C- Excessive pump inlet vacuum	Check pump inlet hose for blockage or kinks
D- Blocked hydraulic lines	Flush and clean the splitter hydraulic system
E- Blocked control valve	Flush and clean the splitter hydraulic system
F- Low control valve setting	Adjust control valve with a pressure gauge
G- High control valve setting	Adjust control valve with a pressure gauge
H- Damaged control valve	Return control valve for authorized repair
I- Internal control valve leak	Return control valve for authorized repair
J- Damaged cylinder piston	Return cylinder for authorized repair
K- Internally damaged cylinder	Return cylinder for authorized repair
L- Engine Control out of adjustment	Adjust idle control nuts
M- Engine is loaded during idle down mode	Use shorter log length (24" or less) to allow engine to speed up before contact.

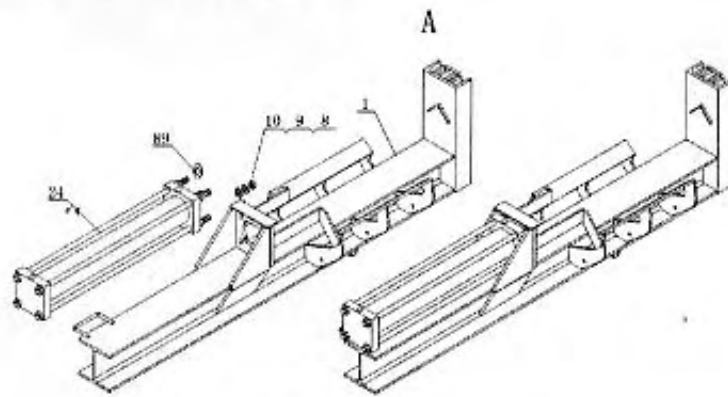
Specifications

Maximum Pressure	3000 psi
Maximum Flow	8 gpm
Hydraulic Fluid Capacity.....	2.5 gallons or 1" from top of hydraulic reservoir (not including fill neck).
Hydraulic Fluid Type	10wt AW32, ASLE H-150, or ISO32
Coupler Size	2" Ball
Maximum Towing Speed.....	12 MPH
Maximum Log Length	24 in
Maximum Log Weight	100 lb
Pressure Relief Setting	3000 psi
Hydraulic Cylinder Bore	4.5 in
Hydraulic Cylinder Stroke	24 in
Overall Dimensions	88" L x 40" W x 45" H
Dry Weight	560 lb

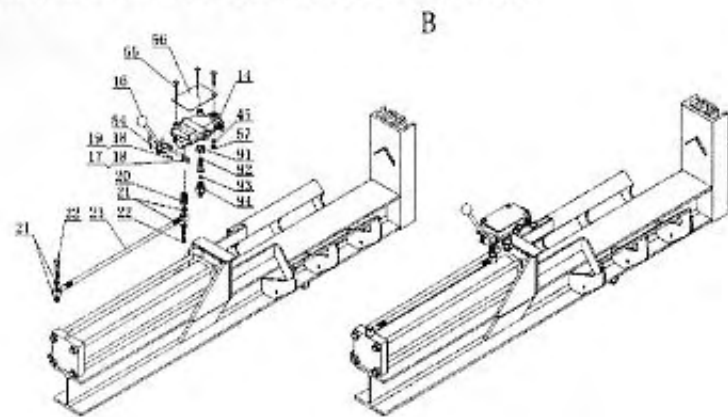
The manufacturer reserves the right to make improvements in design and/or changes in specifications at any time without incurring any obligation to install them on units previously sold.

ASSEMBLY PROCEDURE

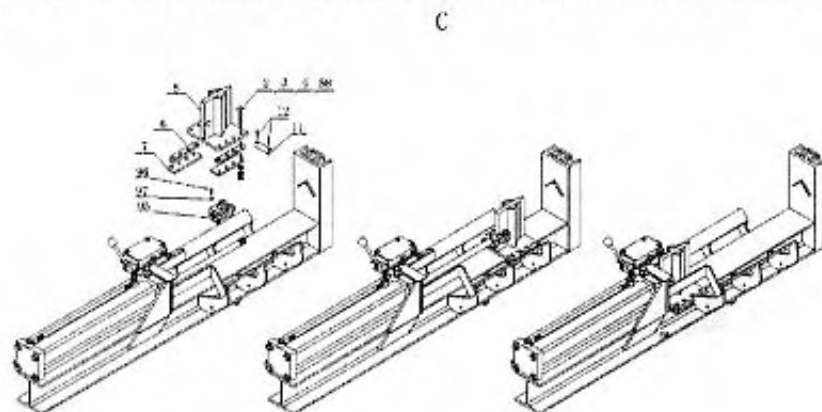
A:ASSEMBLY THE CYLINDER



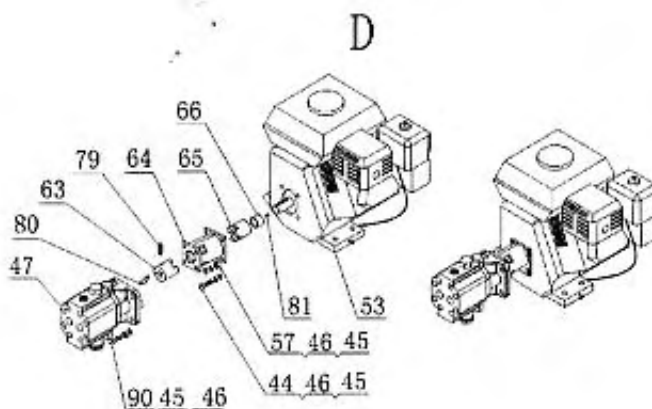
B:ASSEMBLY THE CONTROL VALVE



C:ASSEMBLY THE CONNECTER FOR PISTON-ROD &WEDGE SLIDE

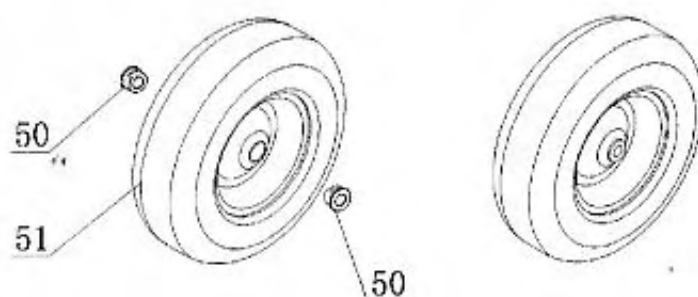


D:ASSEMBLY THE GEAR PUMP



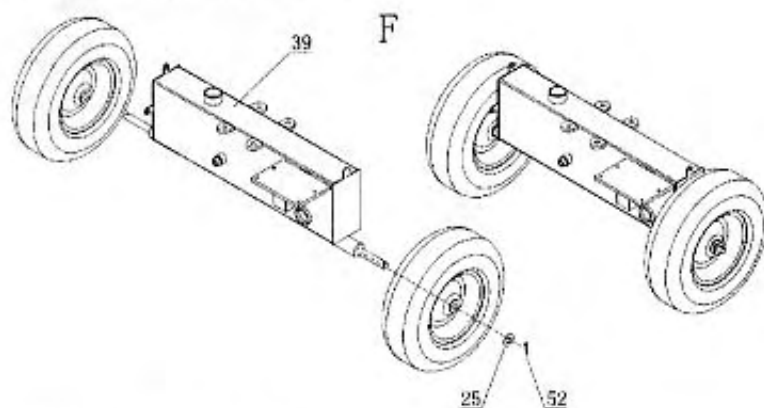
E:ASSEMBLY FILTER

E



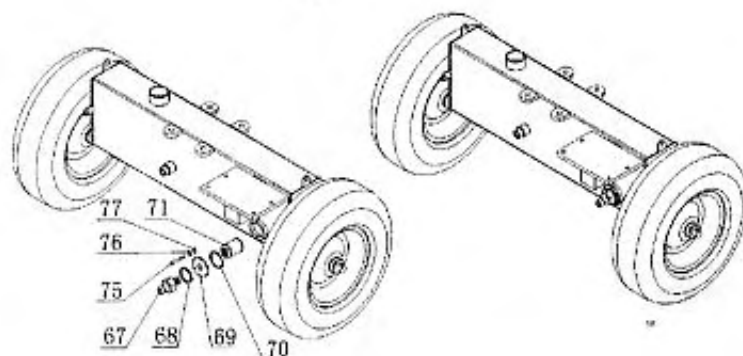
F:ASSEMBLY AXLE BUSH

F



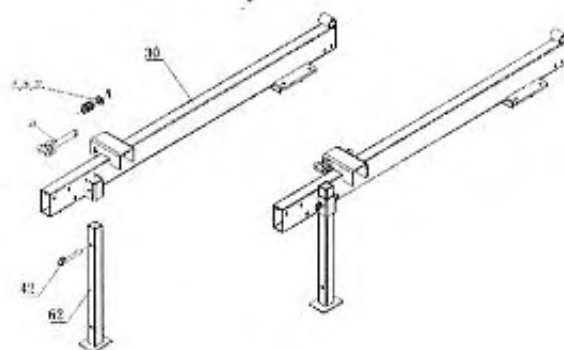
G:ASSEMBLY WHEEL

G



H:ASSEMBLY FRONT SUPPORT LEG & HITCH PIN

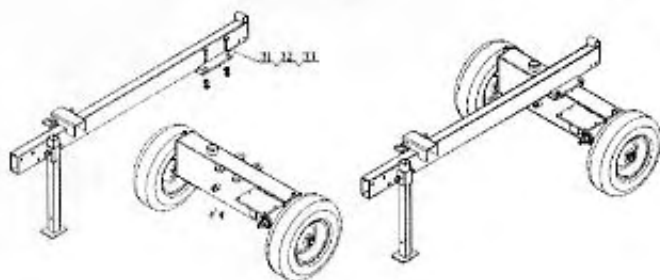
H



Attach hitch pin(#29) to the hole on tow bar (#30),put on spring (#27),flat washer Ø20 (#25) scurry out from the hole on the other side,then put R pin (#26) into the hole on hitch pin (#29) Attach front support leg (#62) to the U type hole on tow bar (#30),then fix on the pin (#42).

I:ASSEMBLY TOW BAR

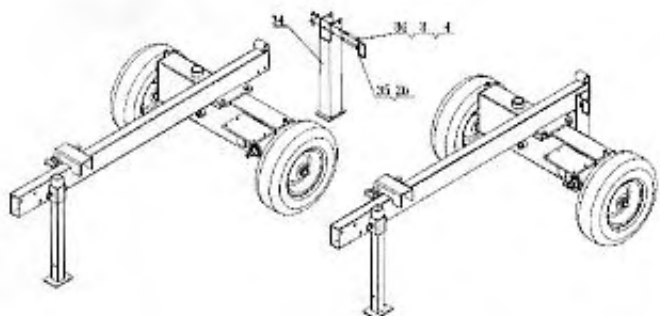
I



Attach tow bar (#30) & front support leg (#62) to Subframe (#39) using bolts M12x40 (#31), nuts M12 (#33) and flat washer Ø12 (#32).

J:ASSEMBLY REAR SUPPORT LEG

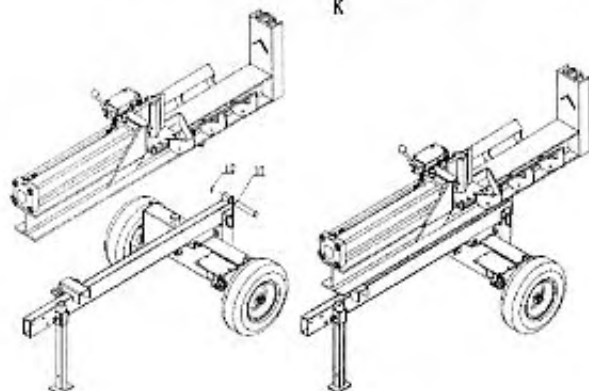
J



Connect rear support leg (#34) with tow bar (#30) using bolts M10x75 (#36), nuts M10 (#4) flat washer Ø10 (#3), plug in the hitch pin (#35) then attach the R pin (#26) into the hole on hitch pin (#35).

K:ASSEMBLY BEAM WELDMENT

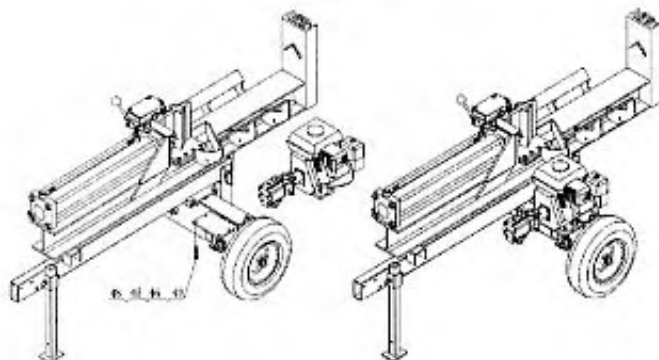
K



Attach beam weldment, cylinder, valve and wedge slide to tow bar, using hinge pin (#37) to connect, then attach split pin (#12) to the hole on hinge pin (#37).

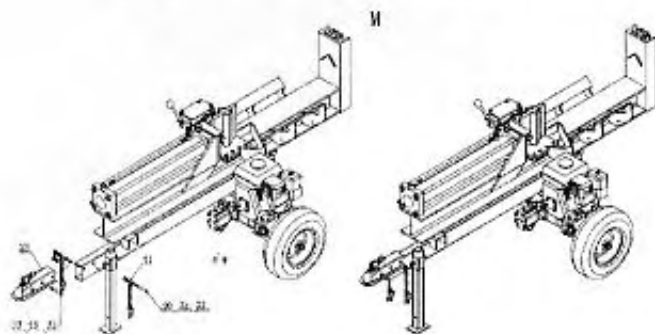
L:ASSEMBLY ENGINE

L



Attach the engine to Subframe using bolts M8x45 (#48), nuts M8 (#49), flat washer Ø8 (#45) and lock washer Ø8 (#46).

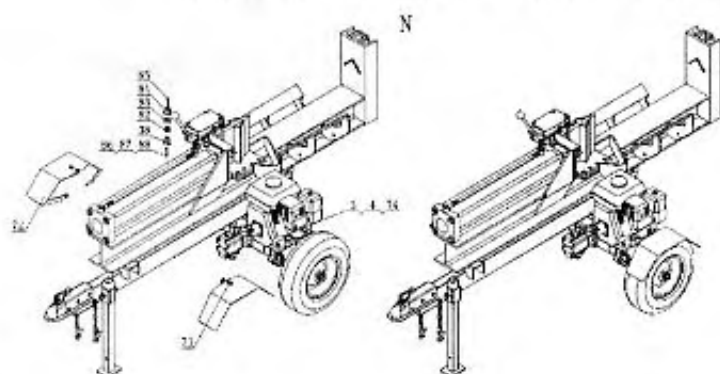
M:ASSEMBLY COUPLER & CHAIN



Attach the coupler (#28) to tow bar using bolts M12x80 (#43), nut M12 (#33) and lock washers Ø8 (#46).

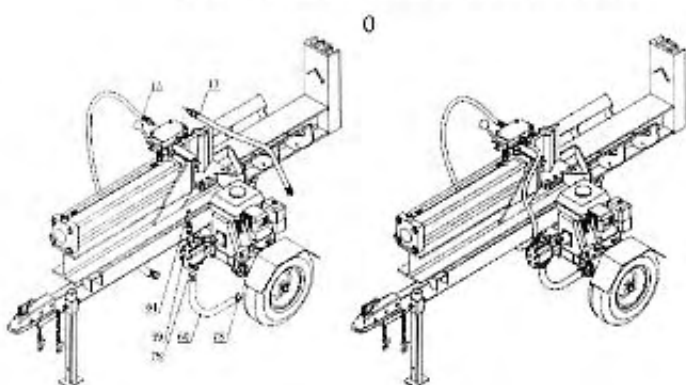
Attach two chains (#41) to tow bar using bolts M12x90 (#40), nuts M12 (#33) and flat washers Ø12 (#32).

N:ASSEMBLY PROTECTION CUP FOR WHEEL & OIL CAP



Attach two protection cup(#72) to Subframe using bolts M10x25 (#73), nut M10 (#10), flat washer Ø10(#3) and lock washer Ø10(#58). Put together with oil (#84), sponge (#83), oil cap bearing (#82), breather cap (#38) us screw M4x12 (#85), nut (#86), flat washer Ø4 (#87) and lock washer Ø4 (#88), then attach them to the greaser on the subframe.

O:CONNECT HYDRAULIC HOSE



Attached the outlet connector of pump (#59) to the outlet of gear pump, then attach O ring (#61) to the groove on the gear pump connector, using the end of taper thread for hose (#13) to join with the oil inlet of control valve, then tighten the nut of hose on the connector for the gear pump.

Using the end of taper thread for hose (#15) to join with the oil outlet of control valve, attach the O ring (#61) to the groove for O ring on the hose of subframe, then tighten the nut of hose on the connector for the gear pump.