

Owner's Manual

Instructions for Assembly, Testing, Operation, Servicing, & Storage

WARNING

READ and UNDERSTAND this manual completely before using log splitter.

All operators of this equipment must read and completely understand all safety information, operating instructions, maintenance and storage instructions. Failure to properly operate and maintain the log splitter could result in serious injury to the operator and bystanders from moving parts that can crush or cut, flying objects, burns, fire or explosion, escaping high pressure hydraulic fluid, or carbon monoxide poisoning in particular, be aware of the following hazards.

Crush and Cut Hazards

Moving parts can crush and cut hands and fingers. Keep hands clear of endplate, wedge, logs, and log strippers while splitting.

High Pressure Hydraulic Fluid Hazards

High fluid pressures and temperatures are developed in hydraulic log splitters. Hydraulic fluid escaping through even a pin-size hole opening can puncture skin and cause severe blood poisoning. Inspect hydraulic system regularly for possible leaks. Never check for leaks with your hand while the system is pressurized. Seek medical attention immediately if injured by escaping fluid.

Fire Hazards

- If your log splitter is intended for use near an ignitable forest, brush, or grassy covered land, the engine exhaust should be equipped with a spark arrestor. See the "Specifications" section of this manual to determine if your splitter already has a spark arrestor. If not equipped, call your dealer for ordering information.
- Keep a fire extinguisher with you that is rated for ordinary combustibles and flammable liquids.

STOP!

ADD OIL TO ENGINE BEFORE USING: Engine is shipped without oil. DO NOT start log splitter without first adding oil.

ADD HYDRAULIC OIL: Your log splitter was shipped without hydraulic oil. Refer to Periodic Maintenance section of this manual for instructions on filling the hydraulic reservoir

INSPECT COMPONENTS: Closely inspect to make sure no components are missing or damaged.

See Initial Unpacking & Set-up for instructions and for whom to contact to report missing or damaged parts.

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About Your Log Splitter

About Your Log Splitter:

This log splitter is a machine designed to split wood logs using a hydraulically powered moving wedge. The log splitter's gasoline engine is used to pressurize the hydraulic system.

This log splitter is designed to split logs *lengthwise with the grain only*.

Your splitter can be used in either a vertical or horizontal splitting position:

- When the splitter is set up to operate in the horizontal splitting position, a log is placed on the horizontal beam and the wedge moves horizontally into the end of the log to split it.
- When the splitter is set up to operate in the vertical splitting position, the log is placed on the endplate, upright on its end, and the wedge moves down into the top of the log to split it.

The horizontal splitting position is used for lighter logs that can be easily loaded onto the beam. The vertical splitting position is used for heavier logs that are difficult to load onto the beam.

The technical specifications for your log splitter are provided in the Specifications section of this manual.

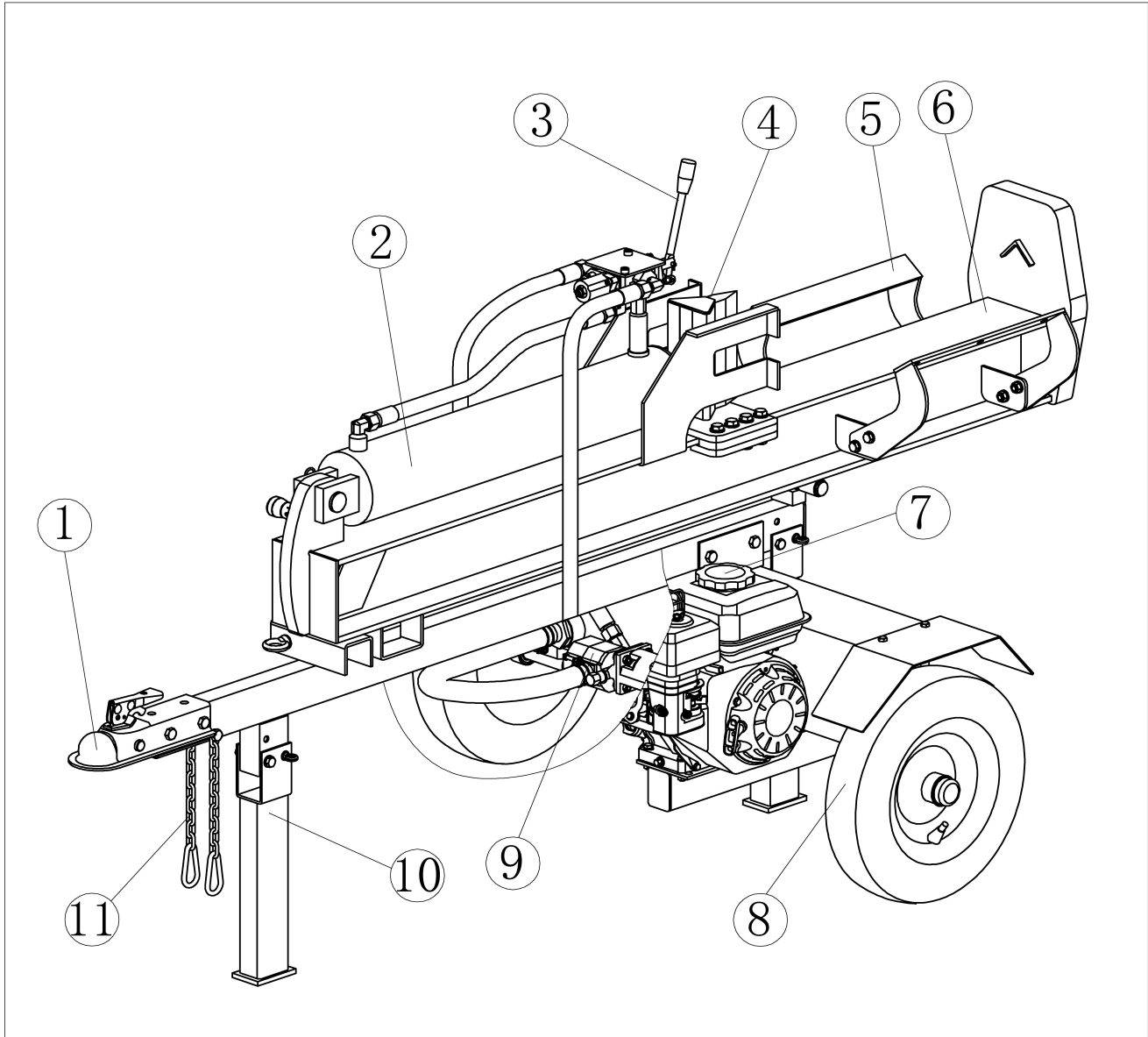
WARNING

This log splitter uses a high-pressure hydraulic system to generate a very strong splitting force.

Read the manual completely before using the machine to understand how to safely operate and maintain it.

Follow all safety precautions presented throughout this manual. A summary of important safety information can be found at the end of this manual.

Machine Component Identification



Ref #	Description
1	2"/50mm Ball Coupler
2	Hydraulic Cylinder
3	Control Valve Handle
4	Wedge
5	Log Cradle
6	Beam
7	Engine
8	Wheel
9	Gear Pump
10	Outrigger Leg


Ref #	Description
11	Safety Chain

Initial Set-Up

IMPORTANT!

Engine is shipped without oil. DO NOT start the engine before adding oil.

See Assembly Instructions section of this manual to assemble the log splitter before set-up.

<p><u>Step One:</u> Inspect Log Splitter Components.</p>	<p>Closely inspect all log splitter components. (See Machine Components section of this manual for diagram of components.)</p> <ul style="list-style-type: none"> • If you have missing components, contact your local dealer • If you have damaged components, contact the Freight Company that delivered the unit and file a claim.
<p><u>Step Two:</u> Add Oil to Engine</p>	<p>Add oil to the engine. See engine Owner's Manual for oil capacity and location of fill cap.</p>
<p><u>Step Three:</u> Add Hydraulic Oil to Reservoir</p>	<p>⚠ WARNING: High fluid pressures and temperatures are developed in hydraulic log splitters. Hydraulic fluid escaping through a pin hole sized opening can burn or puncture skin, resulting in wounds that could cause blood poisoning, infection, disability, gangrene, amputation, or death. Therefore, the following instructions should be heeded at all times when inspecting or servicing the hydraulic components of the log splitter.</p> <ul style="list-style-type: none"> • NEVER check for leaks with your hand. Leaks can be located by holding a piece of cardboard or wood (at least two feet long) with your hand at one end and passing the other end over the suspected area (wear eye protection). Look for discoloration of the cardboard or wood. • NEVER adjust the pressure of the pump or valve. • If injured by escaping fluid, no matter how small the wound is, see a doctor at once. A typical injection injury may be a small wound that does not look serious. However, severe infection or reaction can result if proper medical treatment is not administered immediately by a doctor who is familiar with injection injuries. <ol style="list-style-type: none"> 1. Remove hydraulic oil tank cover. 2. Refer to the Specifications section for approximate hydraulic oil capacity. 3. Fill reservoir with 10 wt AW32, ASLE H-150, or ISO 32 oil. Use a funnel 4. Make sure the oil is at least up to the middle lever of oil monitor. Replace hydraulic oil tank. 5. Start engine and use control valve handle to extend and retract wedge 5 (five) times to remove air from the high pressure lines. 6. With wedge retracted, check oil level again. Make sure the oil at least at the middle level of the monitor <div data-bbox="602 1675 1149 1944">  </div>

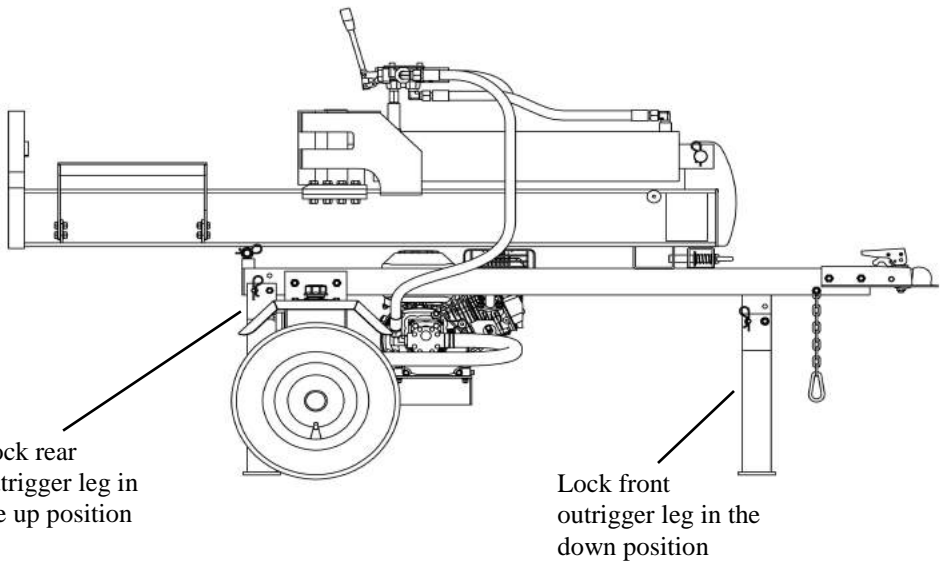
Moving and Towing to the Job Site

WARNING

The log splitter is heavy. It can crush and cause serious injury if it rolls out of control or tips over.

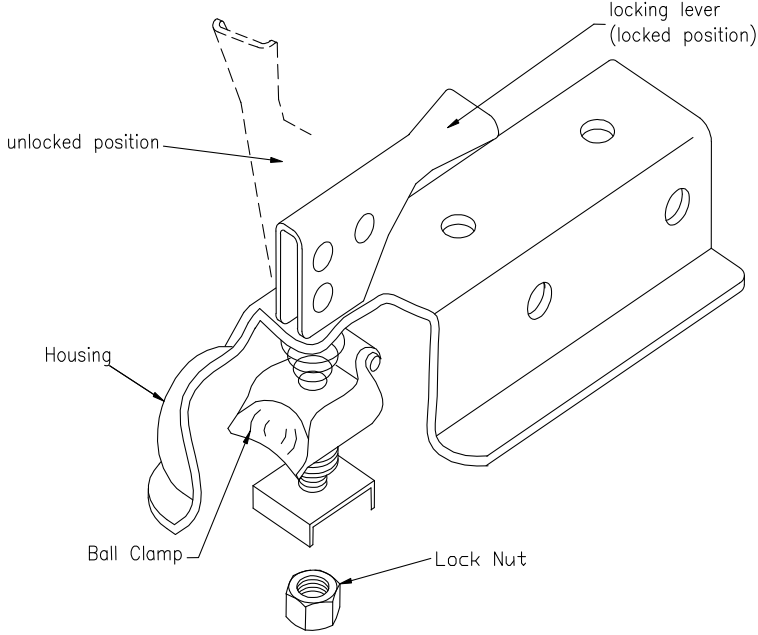
Follow the instructions below for safely moving and towing the log splitter.

Moving the log splitter:

1. Place in Horizontal position	<p>Make sure the log splitter is locked in the horizontal position with hitch pin before moving.</p> <p>NEVER move log splitter when it is in vertical configuration because it will be unstable and could tip.</p>
2. Engine off.	<p>IMPORTANT: Make sure log splitter engine is off.</p> <p>Never move the log splitter with its engine running.</p>
3. Fuel valve off (if equipped)	<p>Turn fuel valve off to prevent carburetor flooding and reduce the chance of fuel leakage. Refer to Engine owner's manual for fuel valve location.</p>
4. Lock: <ul style="list-style-type: none"> • Front <u>outrigger leg</u> DOWN • Rear <u>outrigger leg</u> UP 	<p>Lock the front <u>outrigger leg</u> in the "DOWN" position and the rear <u>support leg</u> in the "UP" position before you move the log splitter.</p>  <p>Lock rear outrigger leg in the up position</p> <p>Lock front outrigger leg in the down position</p>
5. Move log splitter to work site or tow hitch	<p>Move log splitter by hand either directly to chosen work site or to vehicle hitch for towing.</p> <p>(See Before Each Use: Step Three: instructions on selecting a work site)</p> <p><u>Important Safety Instructions:</u></p> <ul style="list-style-type: none"> • Hills. Do not move the log splitter up or down hills by hand—use a towing vehicle. • No riding. Never allow anyone to sit or ride on the log splitter. • No cargo. Never transport cargo or wood on the log splitter.

Moving and Towing to the Job Site

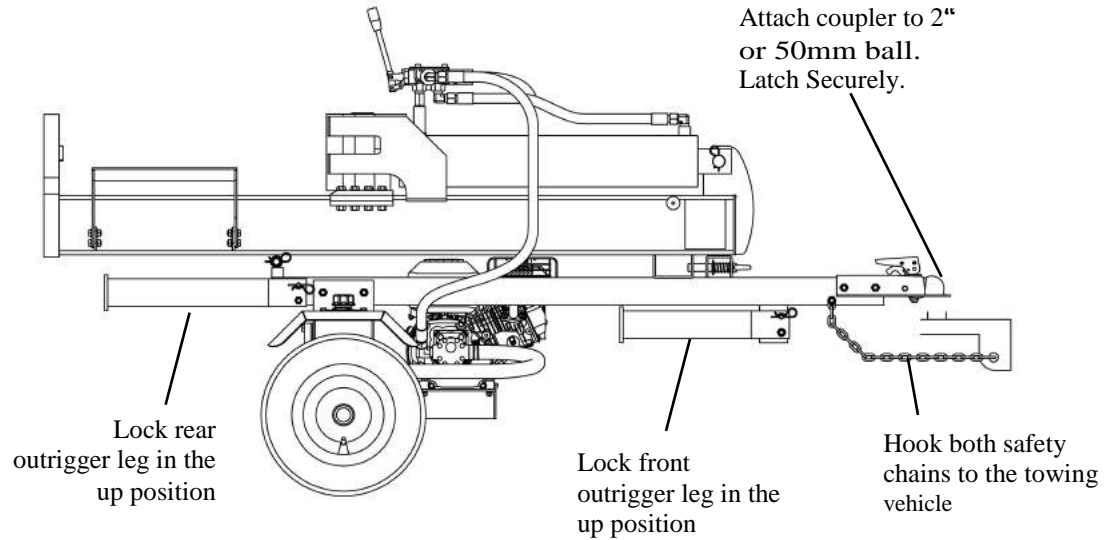
Towing:

1. Read instructions	Review towing safety instructions in your vehicle manual.
2. Check tires	<p>Make sure tires are fully inflated and in good repair.</p> <p>⚠️WARNING:</p> <ul style="list-style-type: none"> Do not over-inflate tires. Serious injury can occur if tire explodes. When seating a bead after repair, do not exceed 30 PSI. Pressures higher than 30 PSI can cause the tire and wheel to rupture and explode.
3. Attach to hitch (2" or 50mm ball)	<p>Attach log splitter to vehicle hitch</p> <ol style="list-style-type: none"> Attach log splitter's coupler to a hitch with 2" or 50mm ball Adjust coupler to ball by raising locking lever and turning lock nut with fingers. Proper adjustment is obtained when coupler is as tight as possible on ball and locking lever can still be opened and closed. Lock lever closed to secure the attachment. An optional locking pin or padlock may be inserted in the locking lever hole for extra security. 
4. Attach safety chains	<p>Attach safety chains.</p> <ol style="list-style-type: none"> Two safety chains must be used while towing. Cross safety chains under the coupler allowing only enough slack for vehicle turns.

Moving and Towing to the Job Site

5. Put front outrigger leg UP

Move the **front outrigger leg** to the "UP" position and lock. (Both outrigger legs must remain in the up position during towing.)



6. Tow to desired location

Tow log splitter carefully to desired work site.
(See Before Each Use section on selecting an appropriate work site)

Important safety instructions:

- **Added length.** Be aware of the added length of the splitter.
- **Speed limit.** Never tow this log splitter over 45 mph. Faster speeds may result in loss of control.
- **Rough terrain.** Drive slowly and take extra caution when traveling over rough terrain.
- **On public roads.** If towing on a public road, make sure to comply with all local, state, and federal towing requirements. It is the sole responsibility of the purchaser to obtain licensing, trailer lights, safety chains or signage, as needed to comply.
- **Unattended.** Turn off the towing vehicle before leaving the splitter unattended.
- **Under the influence.** Never tow or operate this splitter while under the influence of alcohol, drugs, or medication.

7. Lock front outrigger leg down & unhitch

Lock front outrigger leg in the DOWN position and disconnect from vehicle.
NEVER operate log splitter while it is attached to the vehicle.

Before Each Use-Inspection / Maintenance

Step One: Inspect and maintain log splitter before each use

If the log splitter has been used previously, it must be inspected and maintained BEFORE EACH SUBSEQUENT USE.

WARNING

ALWAYS shut off the engine, disconnect the spark plug, and relieve system pressure before inspecting, cleaning, adjusting, or repairing the splitter. Relieve system pressure by moving Split Control Lever back and forth several times.

IMPORTANT:

If a part needs replacement, only use parts that meet the manufacturer's specifications. Replacement parts that do not meet specifications may result in a safety hazard or poor operation of the log splitter.

1. Engine off / relieve pressure	Perform all inspections/repairs with the engine off and hydraulic system pressure relieved. <ol style="list-style-type: none"> 1. Make sure engine is off and cool. 2. Disconnect the spark plug 3. Relieve all hydraulic system pressure by moving the Split Control Lever back and forth several times.
2. Remove debris	Remove debris from engine, muffler, and moving parts. <ol style="list-style-type: none"> 1. <u>Engine debris.</u> Debris on a hot engine can be a fire hazard. Clean debris and chaff from engine cylinder head, cylinder head fins, blower housing rotating screen, and muffler areas. Avoid contact with hot muffler. 2. <u>Other debris.</u> Debris on moving parts can cause excess wear. Clear debris from the slide beam, wedge, and endplate.
3. Fuel tank / lines	Check fuel tank and fuel lines for leaks. Any fuel leak is a fire hazard. Fix any fuel leaks before starting engine.
4. Mechanical parts	Check to be sure that all nuts and bolts are tight to make sure the log splitter is in safe working condition.

Before Each Use-Inspection / Maintenance



5. Hydraulic system	<p>Check the hydraulic system carefully:</p> <ol style="list-style-type: none"> 1. Visually inspect all hoses, tubing, clamps/fittings, pump, and cylinder for cracks, fraying, kinks, or other damage. 2. Check all components for oily residue, which may indicate a leak. <p>Do NOT operate the log splitter if there is any indication of damage or oily residue. Small leaks in hydraulic lines can cause severe injuries and can also be an indication of catastrophic failure in the near future. The life of hydraulic hoses may be from a few months to a few years, depending on use and storage patterns.</p> <p>⚠ WARNING: High fluid pressures and temperatures are developed in hydraulic log splitters. Hydraulic fluid escaping through a pin hole sized opening can burn or puncture skin, resulting in wounds that could cause blood poisoning, infection, disability, gangrene, amputation, or death. Therefore, the following instructions should be heeded at all times when inspecting or servicing the hydraulic components of the log splitter:</p> <ul style="list-style-type: none"> • Stop the engine, disconnect the spark plug, and move all control valve handles back and forth to relieve pressure before changing or adjusting hydraulic system components such as hoses, tubing, fittings or other components. • NEVER check for leaks with your hand. Leaks can be located by holding a piece of cardboard or wood (at least two feet long) with your hand at one end and passing the other end over the suspected area (wear eye protection). Look for discoloration of the cardboard or wood. • NEVER adjust the pressure setting of the pump or valve. • If injured by escaping fluid, no matter how small the wound is, see a doctor at once. A typical injection injury may be a small puncture wound that does not look serious. However, severe infection or reaction can result if proper medical treatment is not administered immediately by a doctor who is familiar with injection injuries.
6. Hydraulic oil level	<p>Check the hydraulic oil level by the oil monitor.</p> <p>Fill if the oil level is under the middle of the monitor.</p>
7. Engine	<p>Inspect and perform engine maintenance as directed in the engine manual.</p>
8. Spark arrestor muffler	<p>If the engine is equipped with a spark arrestor muffler, clean and inspect it regularly (follow spark arrestor manufacturer's service instructions).</p> <p>Replace if damaged.</p>
9. Tires	<p>Make sure tires are fully inflated and in good repair if you will be towing the splitter.</p> <p>See tire sidewall for recommended tire pressure.</p> <p>⚠ WARNING:</p> <ul style="list-style-type: none"> • Do not over-inflate tires. Serious injury can occur if tire explodes. • When seating a bead after repair, do not exceed 30 PSI. Pressures higher than 30 PSI can cause the tire and wheel to rupture and explode.
10. Shields / guards	<p>Replace all guards and shields after servicing the log splitter.</p>

Before Each Use - Fueling

Step Two: Fueling

WARNING

Gasoline is highly flammable and explosive. You can be burned or seriously injured when handling fuel. Use extreme care when handling gasoline.

1. Engine off / cool	<p>The engine must be off and allowed to cool at least two minutes before adding fuel.</p> <p> WARNING: A running engine is hot enough to ignite fuel. Never add fuel or remove gas cap if engine is running or still hot.</p>
2. Outdoor location	<p>Fill fuel tank outdoors – never indoors.</p> <p> WARNING: Gasoline vapors can ignite if they collect inside an enclosure. Explosion can result.</p>
3. Remove gas cap	Remove engine gas cap.
4. Add gasoline/ Diesel	Add gasoline/diesel according to the engine user's manual requirements.
5. Spills / splashes	<p>Clean up fuel spills /splashes immediately.</p> <ol style="list-style-type: none"> 1. Move the log splitter away from spilled fuel on the ground. 2. Wipe fuel off engine and wait 5 minutes for excess fuel to evaporate before starting engine. 3. Gas soaked rags are flammable and should be disposed of properly. 4. If gasoline is spilled on your skin or clothes, change clothes and wash skin immediately.
6. Replace gas cap	Replace gas cap securely before starting engine.

Before Each Use – Work Site Selection and Set-up

Step Three: Work site selection and log splitter set-up

WARNING

It is important to select an appropriate work site and properly set up the log splitter in order to minimize the risk of slips and falls, equipment rolling or tipping over, carbon monoxide poisoning, and accidental fires.

1. Select location

Select an appropriate location for operating the log splitter.

Requirements:

1. Dry-level surface with good footing. Stay clear of areas with mud, ice, tall grass, weeds, brush, or snow.
2. Outdoors, away from air intakes.



WARNING: The running engine gives off carbon monoxide, a poisonous gas that can kill you. You CANNOT smell it, see it, or taste it.

- ONLY run log splitter **OUTDOORS** and away from air intakes. NEVER run log splitter inside homes, garages, sheds, or other buildings or semi-enclosed spaces. These spaces can trap poisonous gases, EVEN if you run a fan or open windows.
- If you start to feel sick, dizzy, or weak while using the log splitter, shut off the engine and get to fresh air **RIGHT AWAY**. See a doctor. You may have carbon monoxide poisoning.

2. Fire precautions

Take the following precautions against fire:

1. **IMPORTANT:** If your splitter will be used near any unimproved forest, brush, or grassy covered land, *then engine must be equipped with a spark arrestor.*

(See the "Specifications" section of this manual to determine if your splitter already has a spark arrestor. Contact your dealer for information obtaining a spark arrestor for your log splitter if it is unequipped.)

2. Make sure you comply with applicable local, state and federal codes.
3. Keep a fire extinguisher available (classified for both ordinary combustibles & flammable liquids) as a precautionary measure when operating the log splitter in dry areas.

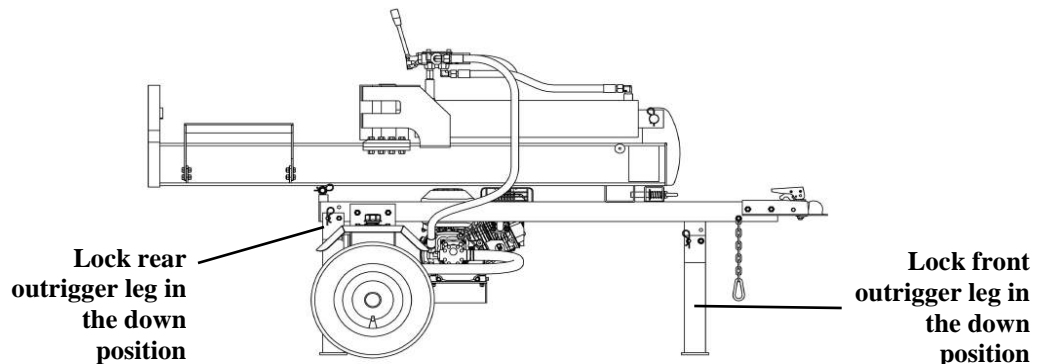
3. Position splitter 7' from any combustibles or flammable liquids

Position muffler at least 7 ft. from combustible objects during operation.

Hot exhaust fumes from engine could cause fire. Also, hydraulic oil leaking or spraying on hot engine can ignite.

4. Lock both outrigger legs DOWN

Lock both the outrigger legs in the "DOWN" position.



5. Block wheels

Block the wheels to prevent unintended movement of the log splitter.

Splitting Operation

WARNING

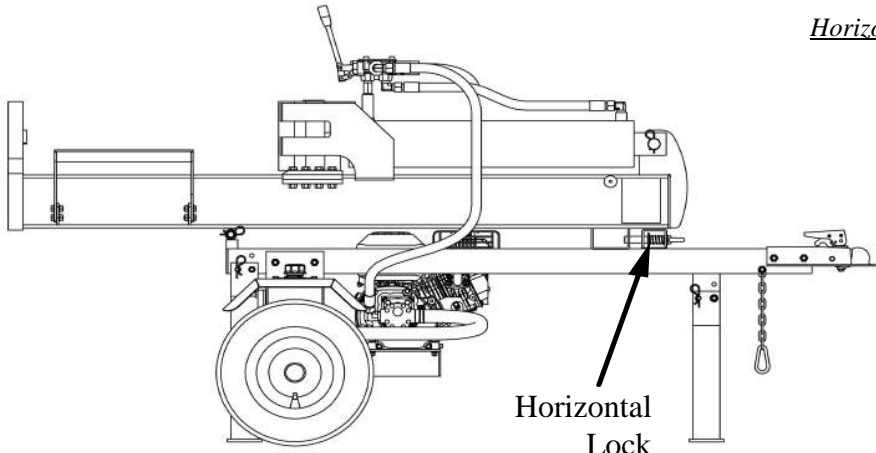
Before starting this log splitter, review the following instructions and safety information for safe operation of the log splitter.

Failure to follow these rules may result in serious injury to the operator or bystanders from moving parts that crush, cut, or entangle from flying objects, burns, fire, falling or tripping, or from carbon monoxide poisoning.

General safety information:

- **Read manual.** Do not allow anyone to operate the log splitter who has not read the Owner's Manual or has not been instructed on the safe use of the splitter. The log splitter owner should instruct all operators in safe log splitter operation.
- **Age restrictions.** Never allow anyone under 16 years old to operate the log splitter. Anyone 16 years and older must be trained and supervised by a trained adult.
- **Intended use.** Log splitters should only be used for splitting wood logs, lengthwise with the grain. Do not use for other purposes as unforeseen hazards may result.
- **Modifications.** Never modify or alter the log splitter in any way. Modifications can create serious safety hazards and will void the warranty:
- **Attachments.** Never add attachments to the splitter, except for authorized accessories supplied by the manufacturer with instructions for safe installation and use.
- **Engine speed.** The maximum engine speed is preset at a safe limit. Never attempt to modify the engine speed setting to run at a higher speed.
- **Fuel/exhaust system.** NEVER modify or add to the exhaust system, fuel tanks, or fuel lines. Fire can result.
- **Remote control.** NEVER attach a rope, cable, or other remote device to the splitting control.
- **Splitting wedge.** NEVER attempt to change the height or speed of the splitting wedge.
- **Pressure setting.** NEVER increase the pressure setting of the pump or control valve.
- **Safety equipment / controls.** Always operate the log splitter with all safety equipment in place and in good working order, and all controls properly adjusted for safe operation.
- **Know how to stop.** Be thoroughly familiar with all controls and with the proper use of the equipment. Know how to stop the log splitter and relieve system pressures quickly if needed.
- **Operating speed.** Always operate the log splitter at the manufacturer's recommended speed. The maximum speed of the engine pump and wedge are preset within safe limits.
- **Daylight only.** Only use the log splitter in daylight so you can see what you are doing.
- **Smoking / sparks.** Never smoke while operating the log splitter, and never operate near sources of sparks or flames.
- **Under the influence.** Never operate, or let anyone else operate, the log splitter while under the influence of alcohol, drugs, or medication.
- **Unattended.** Never leave the machine unattended while the engine is running.
- **Refueling.** Never refuel the engine until it has cooled at least two minutes.
- **Adjusting / repairing.** Always make sure the engine is off before cleaning, repairing or adjusting the splitter, except as recommended by the manufacturer. In addition, disconnect the spark plug and move all control handles back and forth to relieve system pressure *before changing or adjusting hydraulic system components* such as hoses, tubing, fittings or other components.

Splitting Operation

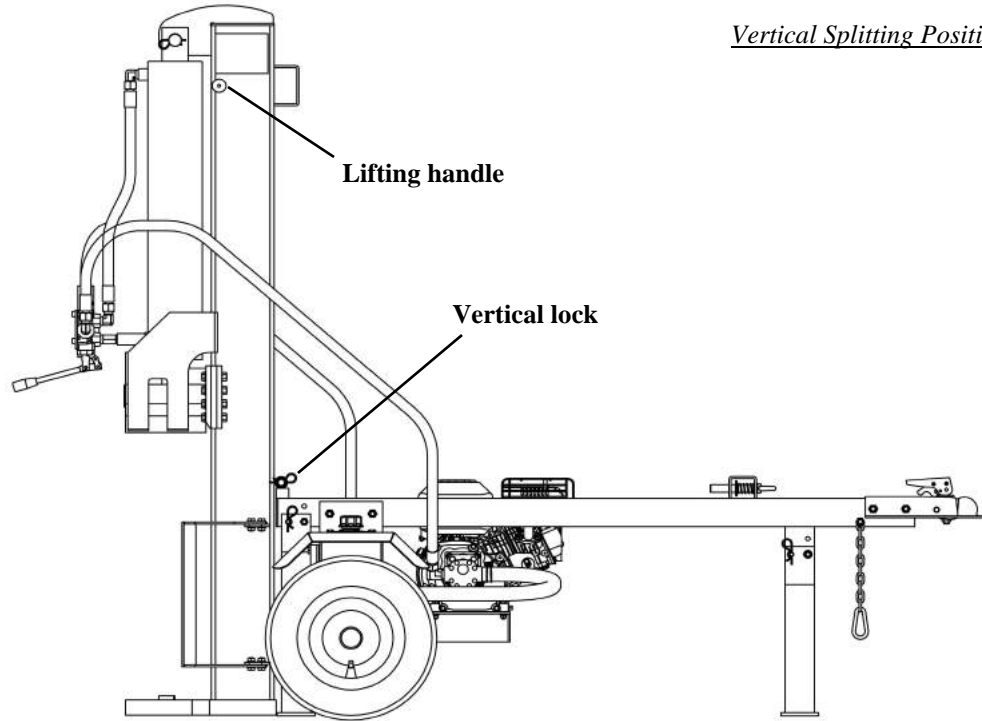
<p>1. Put on protective clothing / gear</p>	<p>Wear the following protective clothing and safety gear:</p> <ol style="list-style-type: none"> 1) Eye protection. Always wear safety glasses or goggles when operating the machine. Pieces of log may fly out and serious eye injury can occur. 2) Boots. Falling logs can crush feet. Always wear safety shoes or heavy boots when operating or helping to load logs. 3) Gloves. Wear snug fitting gloves without drawstrings or loose cuffs. 4) Hearing protection. The use of earplugs or other hearing protection device is recommended. 5) No Loose / dangling. Loose or dangling apparel can become entangled in moving parts. Never wear jewelry or loose-fitting clothing.
<p>2. Lock & block</p>	<p>Block the wheels to prevent unintended movement of the log splitter. Check that:</p> <ol style="list-style-type: none"> 1) The outrigger legs are <u>both</u> locked in the DOWN position. 2) The wheels are blocked.
<p>3. Set to horizontal or vertical:</p> <p>a) <u>Set to Horizontal position</u></p>	<p>Set log splitter into either the horizontal or vertical splitting position</p> <p>The <u>HORIZONTAL</u> splitting position is used for lighter logs that can be easily loaded onto the beam. The <u>VERTICAL</u> splitting position is used for light logs as well as heavy logs that are difficult to load onto the beam.</p> <p>Note:</p> <p>Musculoskeletal injury can result from lifting logs onto the log splitter if proper lifting techniques are not used or the logs are too heavy for a person's size, weight, or strength. In some cases, logs as small as 8" in diameter and 14" in length may be heavier than what some persons should be repeatedly lifting onto the splitter.</p> <p>The use of the vertical splitting position can greatly reduce the need to lift logs onto the splitter. Employers are advised to consider NIOSH lifting guidelines when assigning employees to log splitting tasks for an extended period of time.</p> <p>⚠ WARNING: NEVER change splitting positions with the engine running. You may contact the muffler and receive serious burns.</p> <p>Make sure beam is locked securely in the horizontal position by checking the horizontal lock. Rear outrigger leg must be locked in horizontal splitting position.</p> <div style="text-align: right;"><u>Horizontal Splitting Position</u></div> 

Splitting Operation

b) Set to
Vertical
position

- 1) Lock rear outrigger leg in down position.
- 2) Pull out horizontal lock catch pin, grasp lifting handle and lift beam until it rotates into vertical position.

⚠ WARNING: Crush hazard. The beam is heavy – do not let it just drop. It could crush fingers or cause damage to the splitter.



- 3) Lock in vertical position using catch pin through the vertical lock.
- 4) To return to horizontal position, unlock vertical position, grasp lifting handle and lower beam carefully in a controlled manner until it rests on the tow bar, lock beam in the horizontal position with catch pin.

4. Start engine

Start the engine.

See the engine owner's manual for engine starting instructions

NOTE:

- a) Make sure the hydraulic oil is above 10°F before starting the engine. Cold hydraulic oil can damage the hydraulic pump.
- b) If outdoor air temperature is below 32°F, allow log splitter to warm up by extending and returning the wedge several times before splitting wood.

⚠ WARNING:

Burns. To avoid burns, stay clear of hot muffler if you are starting a warm engine.

Carbon monoxide. The running engine gives off carbon monoxide, a poisonous gas that can kill you. You CANNOT smell it, see it, or taste it. If you start to feel sick, dizzy, or weak while using the log splitter, shut off the engine and get to fresh air RIGHT AWAY. See a doctor. You may have carbon monoxide poisoning.

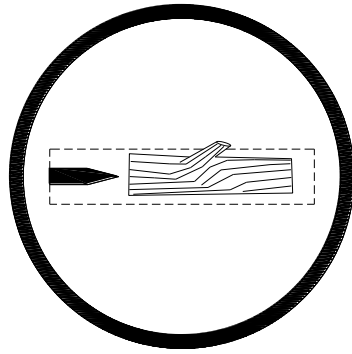
Splitting Operation

5. Load log

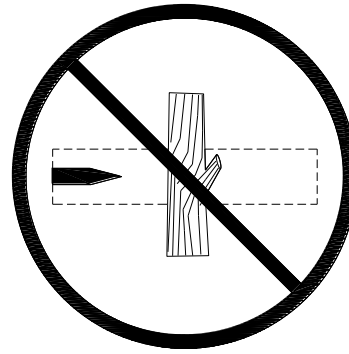
Load log onto beam with a cut end against the endplate – positioned for a lengthwise cut.

Notes:

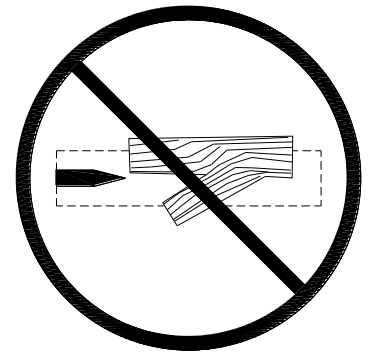
- a) The log splitter is designed only for cutting lengthwise with the grain, NOT for cutting across the grain.



Correct Log Orientation



Incorrect Log Orientation



⚠ WARNING: ALWAYS keep hands and feet away from the endplate, wedge, and partially split logs while loading, operating and unloading the log splitter.

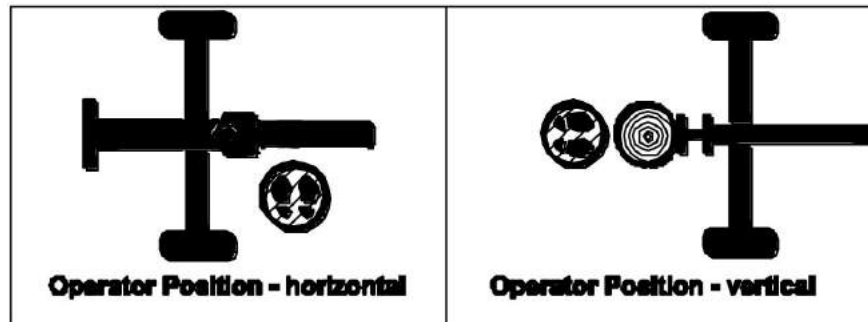
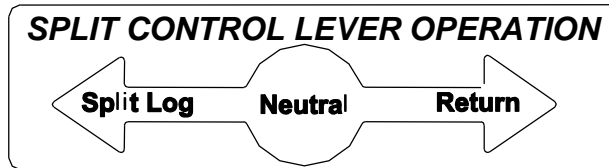
Important safety instructions:

- **Hold bark side.** Hold the bark side of logs when loading or positioning, never the ends. Never place your hands or any part of your body between a log and any part of the log splitter.
- **NOTE for vertical position loading:** Place the log on the endplate and turn it until it leans against the beam and is stable. If the log is too big or oddly shaped, stabilize the log with wooden shims between the log and endplate or ground. **DO NOT** use your leg or knee to stabilize the log. **NEVER** stabilize the log by placing your hand on top of the log.
- **Wedge moving.** NEVER load or unload logs while the wedge is moving.
- **Straddling / reaching across.** Never straddle, reach across, or step over the beam while the engine is running and the log splitter is in the horizontal position. You could trip, actuate the controls, and get seriously injured.
- **Unsplit log pile.** Do not pile logs to be split in a place that will make you reach across the log splitter in order to load them.
- **Square log ends.** Logs that are not cut square can slide out while splitting and become a safety hazard or cause excessive force to log splitter components. Use a chainsaw to cut logs square on each end before attempting to split them.
- **Single log.** Never attempt to split more than one log at a time. Pieces of log can unexpectedly be thrown from the machine causing serious injury.
- **Split along grain.** Do not use the log splitter to split logs across the grain. Doing so will damage the log splitter and could also cause pieces of log to be thrown, injuring the operator or bystanders.
- **Forked logs.** Splitting forked logs can cause damage the log splitter. Trim the forked log with a chain saw prior to splitting the log.
- **Changing splitting position.** Do not change splitting positions (horizontal/vertical) with the engine running. You may contact the muffler and receive serious burns. Be careful to avoid contact with hot muffler even after the engine is turned off.

Splitting Operation

6. Extend wedge

Move Split Control Lever toward endplate to extend wedge and split log.



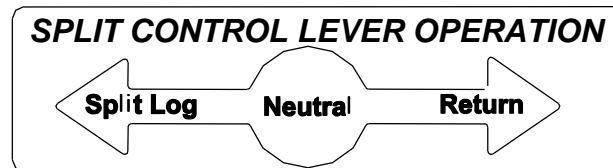
Important safety instructions:

- **Operator position.** ALWAYS operate the log splitter from the manufacturer's indicated OPERATOR POSITION. (See diagram above.) Other positions are unsafe because they can increase the risk of injury from crushing, cutting, flying objects, or burns.
- **Remove hands.** Remove both hands from log before activating Split Control Lever.
- **Hand activate.** Use only your hand to operate the Split Control Lever. Never use any other body part, or a rope, cable, or other remote device to actuate the control.
- **Second person.** Many accidents occur when there is more than one person involved in loading and operating the log splitter. Only one person should operate the controls. If a second person is assisting in loading logs, the operator must NEVER actuate the Split Control Lever until the assistant and all bystanders are at least 10 feet away. NEVER allow an assistant to hold the log in place while the operator actuates the Split Control Lever.

7. Stop wedge

Release Split Control Lever to stop wedge movement when log is split.

⚠ WARNING: Cracks in logs can close quickly and pinch fingers. Keep fingers away from any cracks that open in partially split logs.



8. Important STUCK LOG procedure

If a log does not split completely and becomes stuck on the wedge, follow the instructions below to remove the log.
A log can become stuck to the wedge if the wedge becomes embedded in the log and the log doesn't split and separate. This can happen if the log is too stringy or tough to split completely. A stuck log will move back with the wedge on the initial attempt to retract the wedge. If this happens, retract the wedge completely to allow the splitter to strip the log from the wedge. Keep hands clear of log and wedge while wedge is retracting.

Splitting Operation

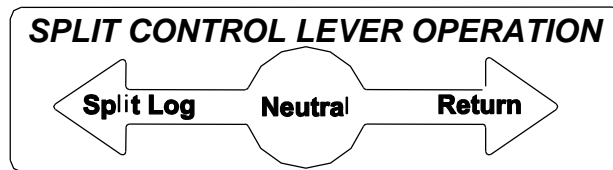
- ⚠ WARNING: NEVER** attempt to remove a stuck log by:
- Modifying the splitter.
 - Adding attachments to the splitter.

Personal injury could result from log or metal pieces flying out at high speed toward the operator or bystanders, or the splitter could become damaged.

9. Return wedge

Move Split Control Lever away from end plate to return wedge.

Once the control valve is actuated in the return direction, the wedge is designed to keep returning by itself completely and then stop automatically.



⚠ WARNING:

Stay clear while the wedge is returning. It is still powerful enough on the return stroke to cause serious injury.

10. Remove split wood

Remove split wood from area.

Move each log away from log splitter after it is split. Split logs left near the log splitter are a trip hazard.

11. After use

1. Turn off engine.

2. Remove engine debris.

Debris on a hot engine can be a fire hazard. After the engine is off, clean debris and chaff from engine cylinder head, cylinder head fins, blower housing rotating screen, and muffler areas.

⚠ WARNING: Avoid contact with hot muffler.

3. Return to horizontal position.



If in the vertical position, return log splitter to the horizontal position for greater stability and to prepare for transportation. Avoid contact with hot muffler.

Storage

WARNING

Gasoline vapors can ignite and cause a fire. Select a well-ventilated storage away from sources of heat, flame, or sparks.

Follow the instructions below for storing your log splitter between uses.

1. Retract wedge	Retract the wedge completely to keep the rod protected from corrosion.
2. Cool	Allow the machine to cool 5 minutes before storing.  WARNING: A hot engine can be a fire hazard.
3. Wipe with oily rag	Wipe the beam and wedge with an oily rag to prevent corrosion.
4. Engine manual	Refer to the engine manual for proper engine storage instructions. CAUTION: Gasoline will oxidize and deteriorate in storage. Old gasoline in the engine will cause hard starting and leave gum deposits that can clog the fuel systems. Deterioration problems may occur within a few months, or even less if gasoline was not fresh when you filled the tank. <u>Short-Term Storage:</u> <ol style="list-style-type: none"> 1. Consider adding a fuel stabilizer to extend fuel storage life. 2. Leave the fuel valve lever in the OFF position to reduce the possibility of fuel leakage. <u>Long-Term Storage:</u> (between infrequent uses and at end of season) Drain the fuel tank and carburetor as instructed in the engine owner's manual. <u>Important Safety Instructions</u> <ul style="list-style-type: none"> • Always drain fuel from tank in outdoor, well-ventilated area. • Stay away from sources of heat, flame, or sparks while handling fuel. • Clean up fuel spills/splashes immediately.
5. Splitter storage location	Store the log splitter in a location away from corrosive material, sources of heat, open flames, sparks or pilot lights.  WARNING: Never store log splitter inside where there is a source of heat or an open flame, spark or pilot light – such as water heaters, space heaters, furnaces, clothes dryers, or other gas appliances – EVEN IF the log splitter's gas tank is empty, residual gasoline vapors could ignite. <u>NOTE:</u> Do not store the log splitter near fertilizer or any other corrosive material.

Periodic Maintenance


In addition to the maintenance performed with each use, periodic maintenance should also be performed according to the following schedule.

WARNING

ALWAYS shut off the engine, disconnect the spark plug, and relieve system pressure before cleaning, adjusting, or repairing the splitter. Relieve system pressure by moving Split Control Lever back and forth several times.

IMPORTANT:

If a part needs replacement only use parts that meets the manufacturer's specifications. Replacement parts that do not meet specifications may result in a safety hazard or poor operation of the log splitter.

1. Engine maintenance	Perform engine maintenance as specified in engine owner's manual.
2. Hydraulic Oil Change	<p> WARNING: High fluid pressures and temperatures are developed in hydraulic log splitters. Hydraulic fluid escaping through a pin hole sized opening can burn or puncture skin, resulting in wounds that could cause blood poisoning, infection, disability, gangrene, amputation, or death. Therefore, the following instructions should be heeded at all times when inspecting or servicing the hydraulic components of the log splitter.</p> <ul style="list-style-type: none"> • NEVER check for leaks with your hand. Leaks can be located by holding a piece of cardboard or wood (at least two feet long) with your hand at one end and passing the other end over the suspected area (wear eye protection). Look for discoloration of the cardboard or wood. • NEVER adjust the pressure of the pump or valve. • If injured by escaping fluid, no matter how small the wound is, see a doctor at once. A typical injection injury may be a small wound that does not look serious. However, severe infection or reaction can result if proper medical treatment is not administered immediately by a doctor who is familiar with injection injuries. <ol style="list-style-type: none"> 1. Use 10wt AW32, ASLE H-150, or ISO32 oil. 2. Relieve hydraulic system pressure by moving Split Control Lever back and forth several times. 3. Remove hydraulic oil tank cover. 4. Remove the drain plug from the hydraulic tank to drain the hydraulic oil into a 10 gallon pan. 5. Remove suction strainer and wipe off debris with a dry cloth. 6. Fill the hydraulic tank with wedge retracted. 7. Dispose of used oil at an oil-recycling center. Used hydraulic oil is hazardous waste. 8. Extend and retract wedge 5 (five) times to purge air from the system. 9. Check hydraulic oil level and fill if necessary. Note: Do not thread in the oil dipstick when checking the hydraulic oil level.
3. Nuts and Bolts	Make sure all nuts and bolts are tightend

Troubleshooting

WARNING

Before troubleshooting or attempting to service, read the following safety instructions to avoid serious injury to the operator or bystanders from moving parts that can crush or cut, burns, fire or explosion, or escaping high pressure hydraulic fluid.

Important Safety Instructions:

1. **Engine off.** Always make sure the engine is off before cleaning, repairing or adjusting the splitter, except as recommended by the manufacturer.
2. **Hydraulic safety.** High fluid pressures and temperatures are developed in the hydraulic log splitters. Hydraulic fluid escaping through a pin hole sized opening can burn or puncture skin, resulting in wounds that could cause blood poisoning, infection, disability, gangrene, amputation, or death. Therefore, the following instructions should be heeded at all times when inspecting or servicing the hydraulic components of the log splitter:
 - Stop the engine, disconnect the spark plug, and move all control valve handles back and forth to relieve pressure before changing or adjusting hydraulic components such as hoses, tubing, fittings, or other components.
 - Do not remove the hydraulic oil fill cap when the engine is running. Hot oil can escape causing severe burns. Allow the log splitter to cool completely before removing the hydraulic oil fill cap.
 - Do not adjust the pressure setting to the pump or valve.
 - Do not check for leaks with your hands. Leaks can be located by holding a piece of cardboard or wood (at least 2 feet long) with your hand at one end and passing the other end suspected area (wear eye protection). Look for discoloration of the cardboard or wood.
 - If injured by escaping fluid, no matter how small the wound is, see a doctor at once. A typical injection injury may be a small puncture that does not look serious. However, severe infection or reaction can result if proper medical treatment is not administered immediately by a doctor who is familiar with injection injuries.

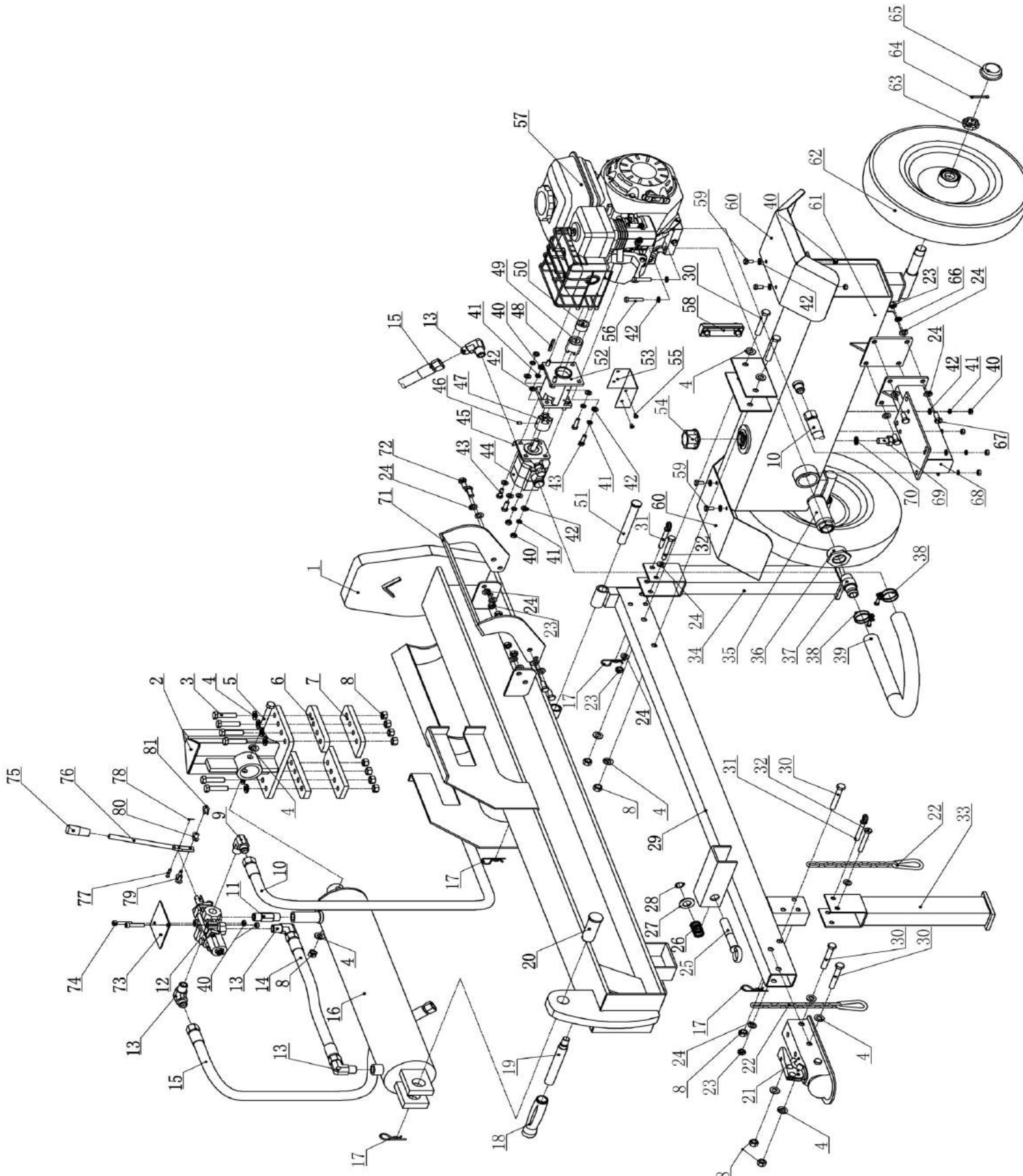
Problem	
Wedge will not move	Solution: A,D,E,H,J
Slow wedge speed when extending or retracting	Solution: A,B,C,H,I,K
Wood will not split or splits extremely slow	Solution: A,B,C,F,I,K
Engine bogs down during splitting	Solution: G
Engine stalls under low load condition	Solution: D,E
Cause	Solution
A- Insufficient oil to pump	Check oil level in reservoir
B- Air in oil	Check oil level in reservoir, check for leaks in the suction line
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

Specifications

Maximum Pressure.....	3500 psi
Maximum Flow	11gpm/16gpm/ 18gpm
Hydraulic Fluid Capacity	3.5 gallons/ 22T 4 gallons/ 30T 5 gallons/ 35T 5 gallons/ 40T 5 gallons/ 45T
Hydraulic Fluid Type	10wt AW32, ASLE H-150, or ISO32
Coupler Size	2" Ball / 50mm Ball
Maximum Towing Speed.....	55MPH
Maximum Log Length	25 "
Hydraulic Cylinder Bore	4" /22T, 4.5"/30T, 5"35T, 5"/40T, 5.5"/45T
Hydraulic Cylinder Stroke	23.6 "
Maximum Log Diameter	18 "/19"/20"/25"/25"

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.

Exploded View



Part List

Part No.	Description	Qty	Part No.	Description	Qty
1	I Beam	1	43	Bolt M8x30	8
2	Wedge	1	44	Hydraulic Gear Pump	1
3	Bolt M12x50	8	45	Woodruff Key	1
4	Washer ϕ 12	18	46	Hexagon Socket Set Screws M6x10	1
5	Bolt M12x75	1	47	Gear Pump Coupling	1
6	Liner plate	2	48	Ordinary Flat Key	1
7	Track Slab	2	49	Engine Coupling	1
8	Lock Nut M12	14	50	Engine Bushing	1
9	1/2" -22x1.5 Corner Connector	1	51	Hinge Pin	1
10	Hydraulic pipe B	1	52	Coupling Block	1
11	Pipe Connector	1	53	Coupling Cover	1
12	Control Valve	1	54	Hydraulic Oil Tank Cover	1
13	1/2" -1/2" Corner Connector	4	55	Phillips Pan Head Screws M5x8	4
14	Hydraulic pipe C	1	56	Bolt M8x40	4
15	Hydraulic pipe A	1	57	Engine	1
16	Hydraulic Cylinder	1	58	Hydraulic Oil Monitor	1
17	R Pin	4	59	Bolt M8x16	4
18	Handle Grip	1	60	Wheel Guard	2
19	Handle	1	61	Hydraulic Oil Tank	1
20	Cylinder Lock Pin	1	62	Wheel 16"	2
21	Hitch Coupler 2inch/50mm	1	63	Thin Slotted Nut M24x2	2
22	Safety Chain	2	64	Cotter Pin ϕ 4x36	2
23	Lock Nut M10	14	65	Dust Cover	2
24	Washer ϕ 10	28	66	Spring Washer ϕ 10	4
25	I Beam Lock Pin (Rear)	1	67	Bolt M10x30	4
26	Return Spring	1	68	Engine Block	1
27	Washer ϕ 20	1	69	Oil Drain Plug M16x1.5	1
28	Shaft Circlip ϕ 19	1	70	Groupware Washer ϕ 16	1
29	Tow Bar	1	71	Log Cradle	2
30	Bolt M12x80	5	72	Bolt M10x25	8
31	Catch Pin	2	73	Control Valve Operating instruction Plate	1
32	Bolt M10x75	2	74	Hexagon Socket Head Cap Screws M8x40	2
33	Outrigger Leg (Rear)	1	75	Control Valve Handle Grip	1
34	Outrigger Leg (Front)	1	76	Control Valve Handle	1
35	Net Type Oil Filter 40x180-J	1	77	Pin Axis 5x25B	1
36	Oil Filter Core ZG1 1/2	1	78	Cotter Pin ϕ 1.6x10	1
37	Inlet Pipe Fitting G1	1	79	Roller Chain	1
38	Hoop	2	80	Chain Plate	1
39	Suction Pipe	1	81	Lock	1
40	Lock Nut M8	14	82		
41	Spring Washer ϕ 8	12	83		
42	Washer ϕ 8	24	84		

Assembly Instructions

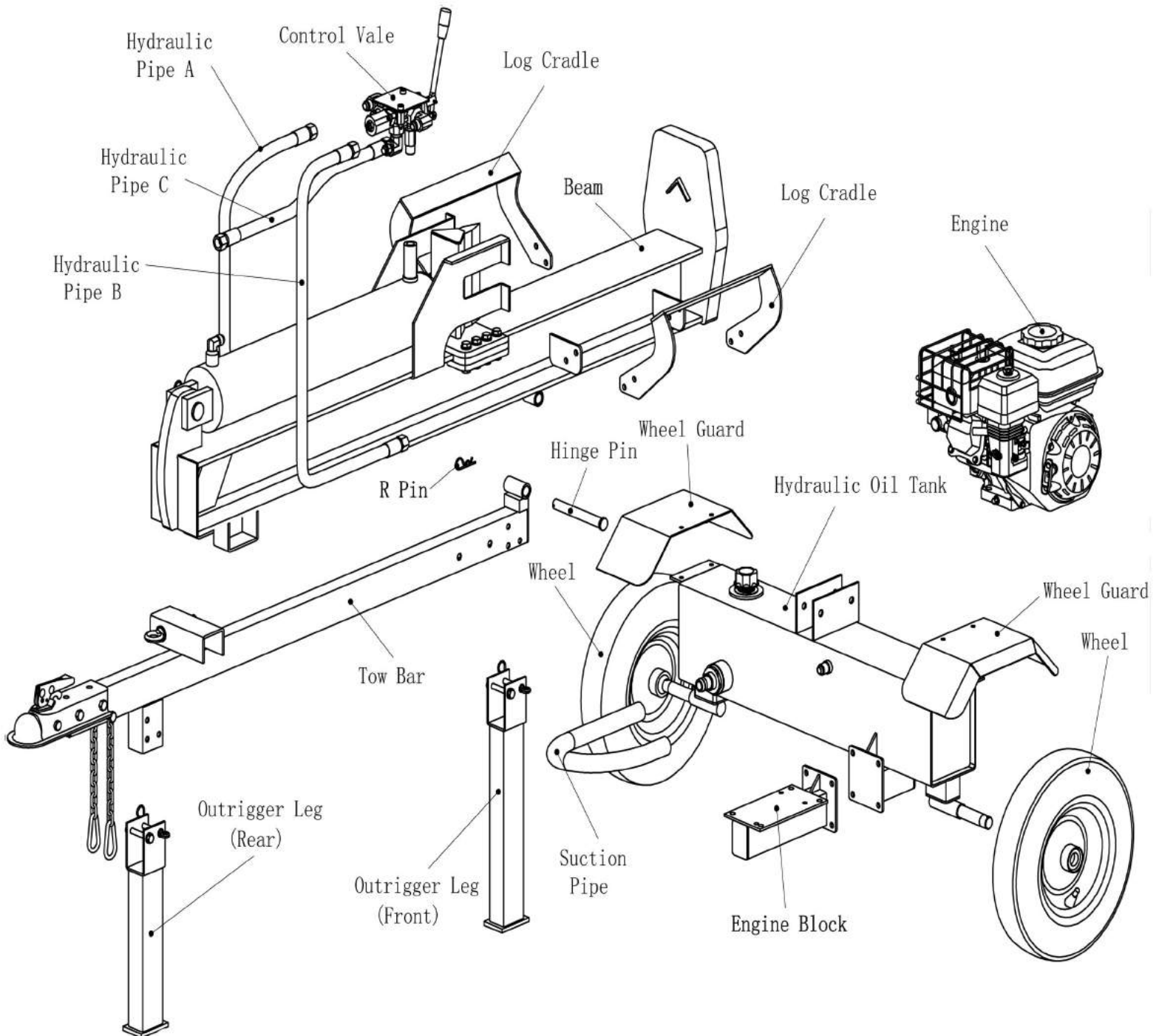
Closely inspect all log splitter components.

If you have missing components, please contact your local dealer

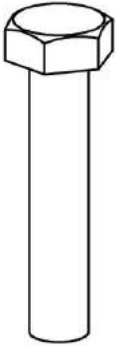
If you have damaged components, contact the Freight Company that delivered the unit and file a claim.

CAUTION! Heavy lifting required. Some of the components in these assembly instructions are heavy and cannot be lifted by one person safely. Please plan on assembling this product when another person can be available to help out.

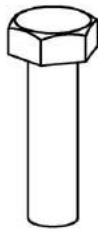
Tools needed: Adjustable wrenches Torque Wrench, Soft Faced Mallet, Flat Blade Screw Driver



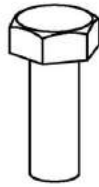
Assembly Instructions



Bolt
M12x80 2PCS



Bolt
M10x30 4PCS



Bolt
M10x25 8PCS



Bolt
M8x40 4PCS



Bolt
M8x16 4PCS



Washer
φ 8 12PCS



Spring Washer
φ 8 4PCS



Washer
φ 10 24PCS



Spring Washer
φ 10 4PCS



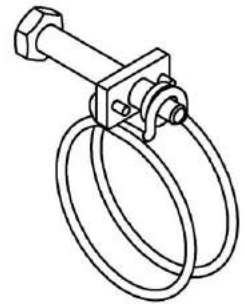
Lock Nut
M8 8PCS



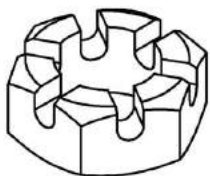
Lock Nut
M10 12PCS



Lock Nut
M12 2PCS



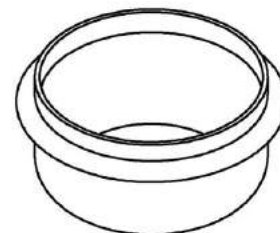
Hoop 2PCS



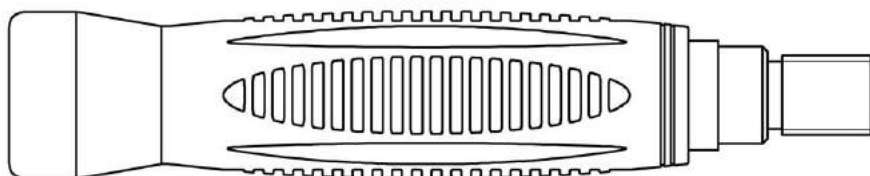
Thin Slotted Nut
M24x2 2PCS



Cotter Pin
φ 4x36 2PCS



Dust Cap 2PCS

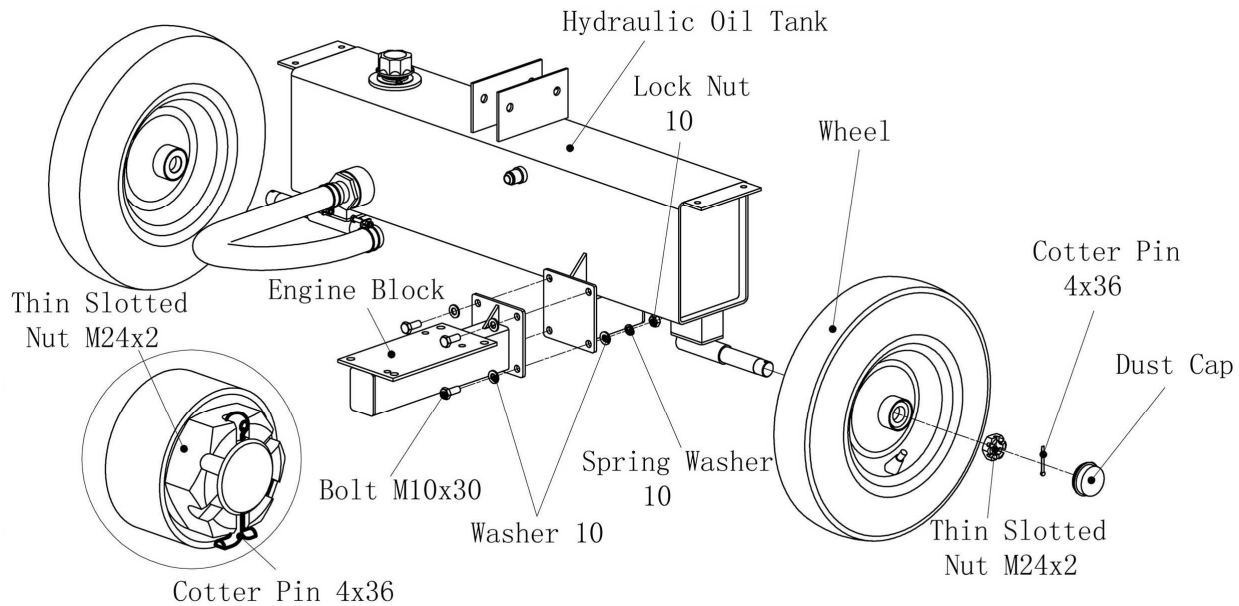


Handle 1PC

Assembly Instructions

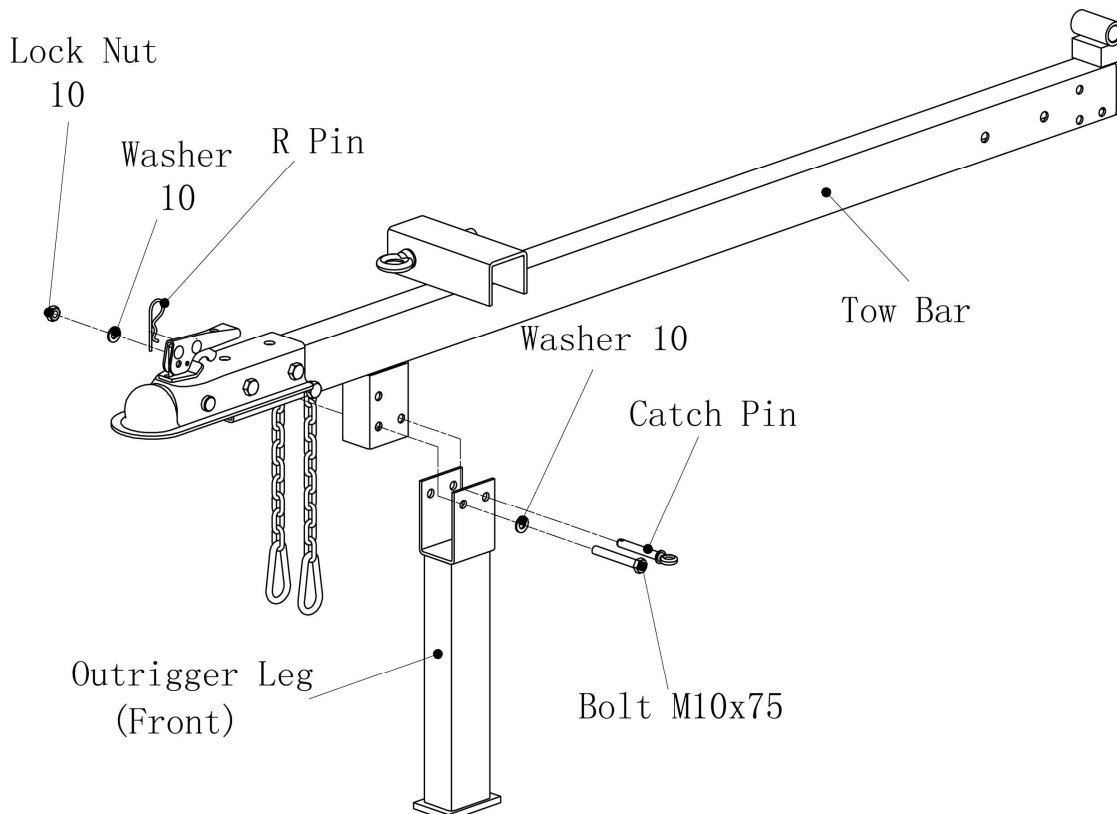
Step 1:

- Take all the components from the shipping box.
- Slide the wheel onto the axle.
- Slide the thin slotted onto the axle and fix with cotter pin
- Put the dust cap on the the wheel
- Mount the engine block onto the hydraulic oil tank
- Put the bolt with washer through the engine block holes, fix by lock nut with washer and spring washer



Step 2:

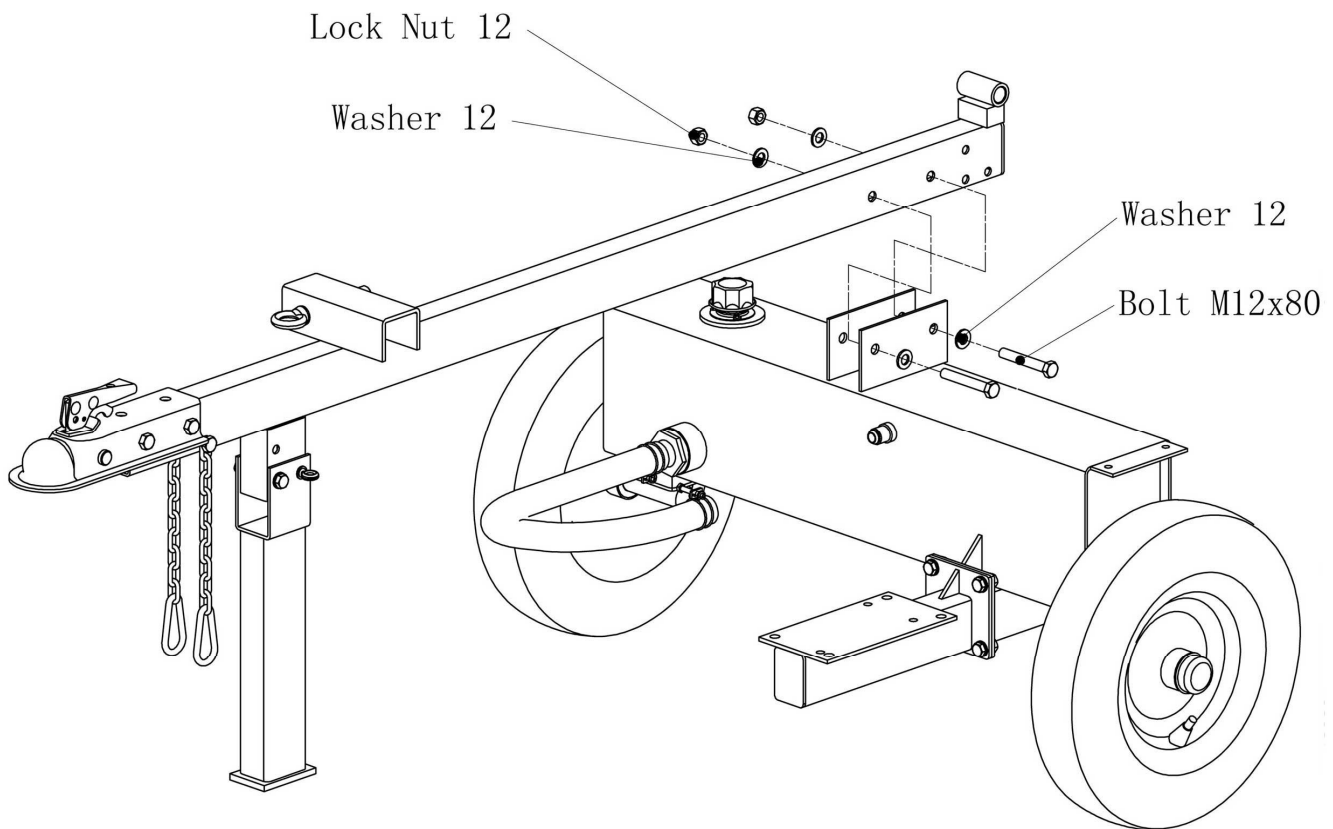
- Mount the front outrigger leg onto tow bar
- Put the bolt and catch pin through the leg hole and fix by lock nut with washer and R pin



Assembly Instructions

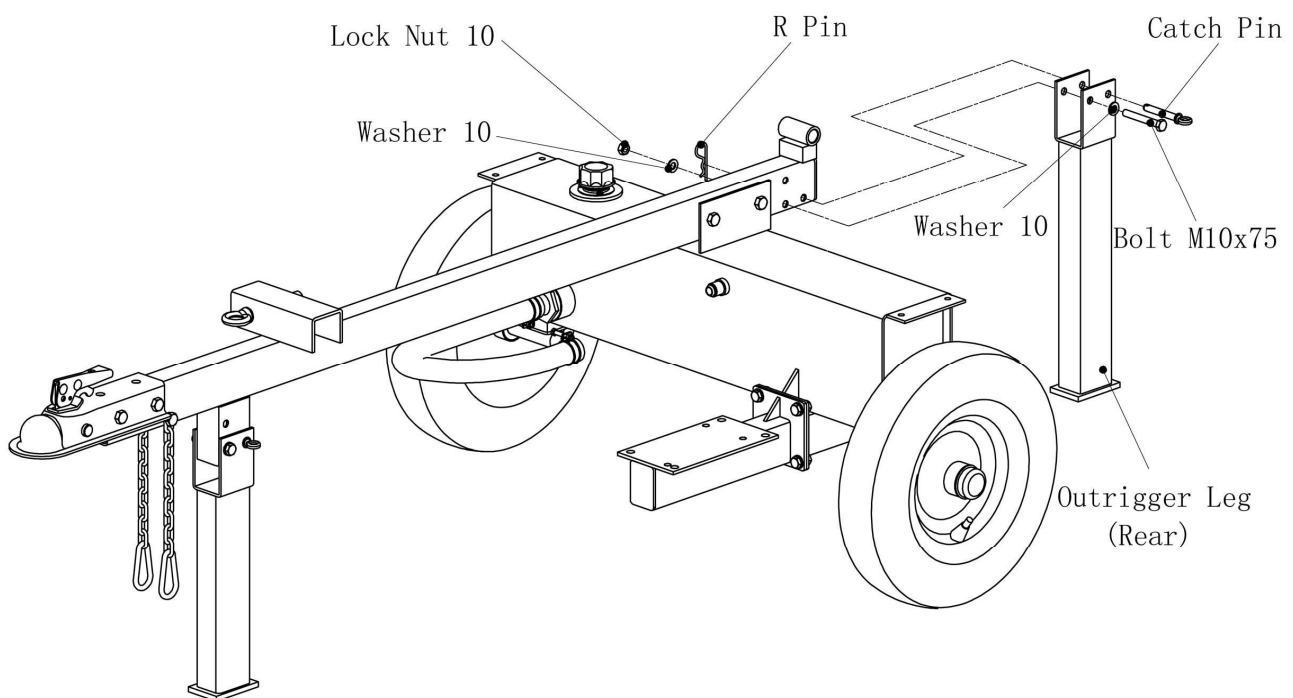
Step 3:

- Mount the tow bar onto hydraulic oil tank,
- Put the bolt with washer through the hole, and fix by lock nut with washer



Step 4:

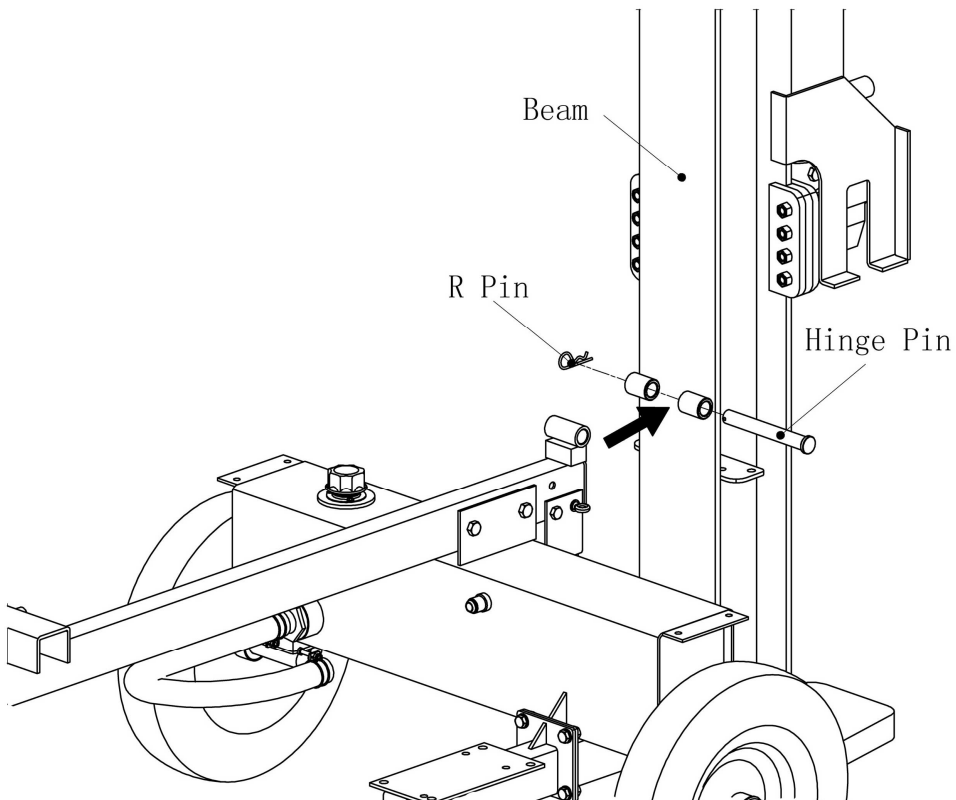
- Mount the rear outrigger leg onto the tow bar
- Put the bolt and catch pin through the leg hole and fix by lock nut with washer and R pin



Assembly Instructions

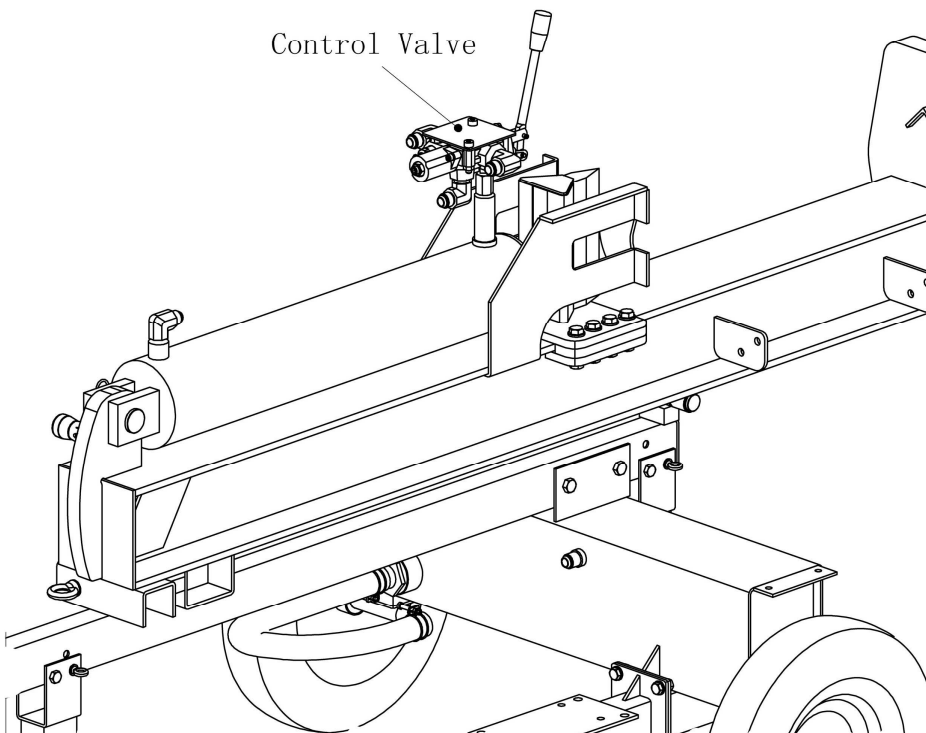
Step 5:

- Put the tow bar end into the middle hole on the beam
- Put the hinge pin through the hole and fix by R pin



Step 6:

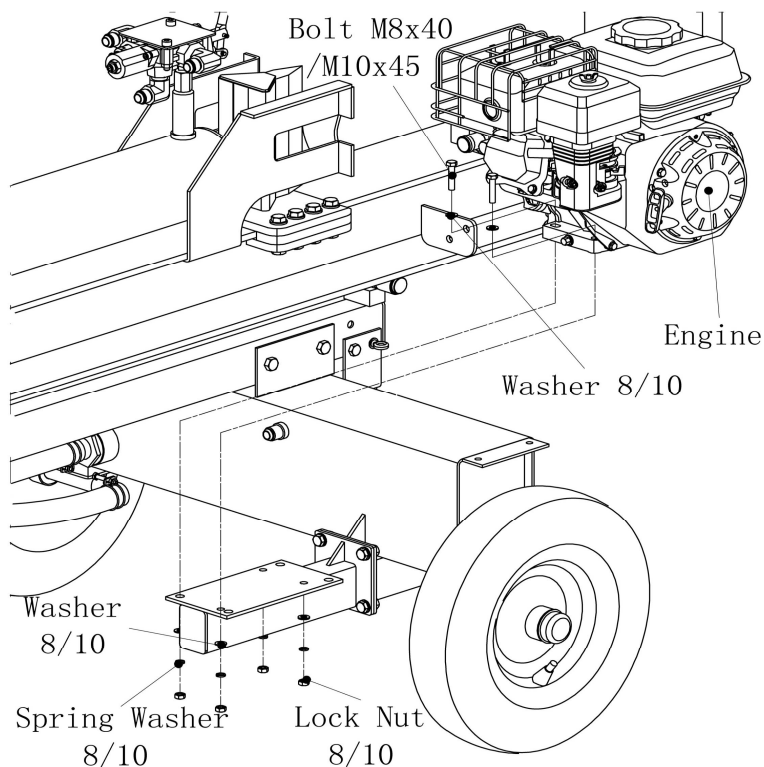
- Mount the control valve onto the hydraulic cylinder



Assembly Instructions

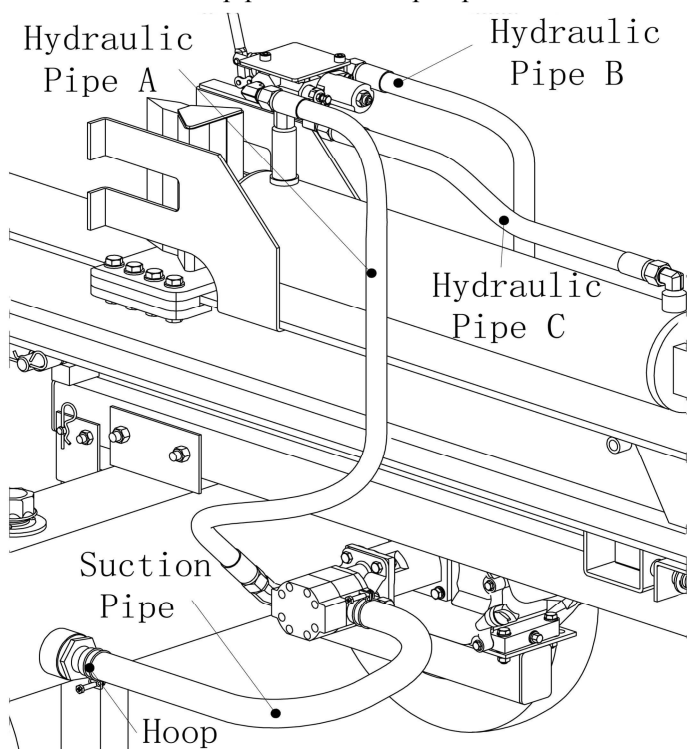
Step 7:

- Put the engine onto the engine block
 - Put the bolt with washer through the hole and fix by lock nut with washer and spring washer
- Please note the Bolt M8x40, Washer 8, Spring Washer 8 and Lock Nut 8 for 6.5HP engine
And Bolt M10x45, Washer 10, Spring Washer 10 and Lock Nut 10 for 9HP, 13HP and 15HP engine



Step 8:

- Mount the hydraulic pipe A one side on pump and another side on control valve, make sure tightened
- Mount the hydraulic pipe B one side on control valve and another side on hydraulic oil tank, make sure tightened
- Mount the hydraulic pipe C one side on control valve and another side on hydraulic cylinder, make sure tightened
- Mount the suction pipe one side on pump and another side on hydraulic cylinder, tighten with hoop



Assembly Instructions

Step 9:

- Mount the log cradle onto both side of beam, Put bolt with washer through the hole and fix by log nut with washer
- Mount the wheel guard onto both side of hydraulic oil tank, and tighten with bolt and lock nut.

