

# HORIZONTAL / VERTICAL 3-POINT HITCH 22 TON LOG SPLITTER



# MODEL NO. 3PT22T25 Owner's Manual

### **ASSEMBLY & OPERATING INSTRUCTIONS**

Purchase Date	Model NO	Serial NO
Dealer		

**Boss Industrial, Inc.** · 123 Ambassador Drive, Suite 123 · Naperville, IL 60540 · USA Phone: (800) 780-BOSS (2677) · Fax (331) 472-2976

### To The Owner

Thank You!

Thank you for purchasing a BOSS Log Splitter. It was carefully engineered to provide excellent performance when properly operated and maintained.

Please read this entire manual prior to operating the equipment. It instructs you how to safely and easily set up, operate and maintain your machine. Please be sure that you, and any other persons who will operate the machine, carefully follow the recommended safety practices at all times. Failure to do so could result in personal injury or property damage.

All information in this manual is relative to the most recent product information available at the time of printing. Review this manual frequently to familiarize yourself with the machine, its features and operation. Please be aware that this Operator's Manual may cover a range of product specifications for various models. Characteristics and features discussed and/or illustrated in this manual may not be applicable to all models. We reserve the right to change product specifications, designs and equipment without notice and without incurring obligation.

The 3-Point Hitch log splitter is designed for CAT 1 and CAT 2 tractors that ideally produce the hydraulic flow of 8 – 15 GPM at the pressure ratings of 1500 to 2500 PSI. DO NOT exceed 3200 PSI. The tractor pressure ratings can be found at the tractor manufacturer's manual. If you have any problems or questions concerning the machine, phone an authorized service dealer or contact us directly. Boss Industrial's customer support phone number, website and mailing address can be found on this page. We want to ensure your complete satisfaction at all times.

Boss Industrial reserves the right to discontinue, change, and improve its products at any time without notice or obligation to the purchaser. The description and specifications contained in the manual were in effect at printing. Equipment described within this manual may be optional. Some illustrations may not be applicable to your machine.

Throughout this manual, all references to right and left side of the machine are observed from the operating position. The tractor manufacturer is responsible for all tractor-related issues with regards to performance, power-rating, specifications, warranty and service. Please refer to the tractor manufacturer's Owner's/Operator's Manual for more information.

### **Customer Support**

# Please do NOT return the machine to the retailer or dealer without first contacting the Customer Support Department.

If you have difficulty assembling this product or have any questions regarding the controls, operation, or maintenance of this machine, you can seek help from the experts. Choose from the options below:

- Visit us on the web at www.boss-industrial.com
- Call a Customer Support Representative at (800) 780-2677 or (331) 457-5670
- Write to Boss Industrial, Inc., 123 Ambassador Drive, Suite 123, Naperville, IL 60540

### **Table of Contents**

	Page(s)
Important Safety Information	1-9
General Safety Alert Signals	. 1
Safety Decals	2
Safety Symbols	. 3
Training	. 4
Pre-operation	. 5
Operation	. 6
Operator Zone	7
Maintenance Safety	8
Transportation Safety	9
Assembly & Set-up Instructions	. 10-17
Unpacking the Container	10-11
Assembling and Set-up	. 12-16
Know Controls & Features	. 17
Operation Instructions	18-21
Know Your Tractor	18
Operating Positions	18
Lubricate Beam and Wedge	. 18
Using Control Handle	. 19
Splitting the Wood	20
Remove Partially Split Wood	. 21
Operation Tips	21
Maintenance & Adjustments	. 22
Troubleshooting	23
Specifications	24
Exploded Diagram & Parts List	25-26
Packing List	27
Warranty Service Information	. 29







<u>WARNING:</u> Read and thoroughly understand all instructions in this manual and on safety decals 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 any questions concerning safe operation. To get answers to any questions, call our customer service department at 1-800-780-2677.

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



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.



**DANGER!** This machine was built to be operated according to the safe operation practices in this manual. As with any type of power equipment, carelessness or error on the part of the operator can result in serious injury. This machine is capable of amputating hands and feet and throwing debris. Failure to observe the following safety instructions could result in serious injury or death.

The following signal words and meanings are intended to explain the levels of risk associated with this product.



DANGER indicates a hazardous situation which, if not avoided, will result in serious injury or death.



WARNING indicates a hazardous situation which, if not avoided, could result in serious injury or death.



CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.



NOTICE is used to address practices not related to personal injury.



### **SAFETY DECALS**

Make sure that all safety warning decals are in good condition and readable. Always replace missing or defaced decals. Contact BOSS at 1-800-780-2677 for replacement decals.

#### **OPERATING INSTRUCTIONS**

FORWARD NEUTRAL REVERSE



- Place log splitter on flat dry solid ground.
   Lock the beam in either the Horizontal or Vertical position.
   Start the Tractor engine, set the throttle to power the hydraulics of log splitter.
   Move control handle several cycles to

- bleed residual air.

  Grab the sides of the log to load it onto the beam against the end plate.

  If necessary, stabilize the log with your left hand on its sides, NEVER on the ends or the top.

  Move the control handle to the FORWARD position with your left hand vhen the wedge just contacts the log.

  Release the control handle to stop the wedge movement.

  Move the control handle to the REVERSE position to return the wedge and disloge the log.

### **⚠** CAUTION!





- Read and understand safety and operating instructions in this and Tractor owner's manual completely. Failure to do so may result in serious injury or death.

  Always wear safety glasses, safety shoes, protective hearing devices, and tight fitting gloves during operation.

  Set up log spilter on clear, level, dry and soild ground. Keep off slopes and slippery surfaces.

- Do not leave machine running unattended.
   Only split wood in the direction of the grain.

#### **WARNING!**





- No one under the age of 18 should operate log splitter.

  Only one person is permitted to load logs and operate controls. Keep bystanders, children, pets and helpers at least 25 ft. away.

  Always stay in operator zone spec

### **⚠ WARNING!**





- Keep hands, feet and all body parts away from splitting wedge, end plate, partially split wood, and moving parts.
   Never check for leaks with your hands during operation. High pressure fluid can escape from small holes and cause serious injury by puncturing skin which could result in blood poleculors.
- polisoning.

  NEVER use your hands to dislodge a log from the wedge. This log splitter is equipped with log dislodger, lodged log will be removed automatically when wedge is fully retracted.

Part #: 410-146



Part #: 410-237



Part #: 410-233



22 Ton Log Splitter 3PT22T25

Max. splitting force: 22 Ton Max. splitting length: 25 inch Max. splitting diameter: 15.5 inch

Net weight: 442 lbs

Serial NO ·

Meets ANSI B71.7-1985 Safety Standard

#### Boss Industrial, Inc.

123 Ambassador Drive, Suite 123, Naperville, IL 60540 www.boss-industrial.com, 1-800-780-2677

Part #: 410-528

Part #: 410-528



### **SAFETY SYMBOLS**

This page depicts and describes safety symbols that may appear on this product. Read, understand, and follow all instructions on the machine before attempting to assemble and operate.

Symbol	Description
	READ THE OPERATOR'S MANUAL(S) Read, understand, and follow all instructions in the manual(s) before attempting to assemble and operate.
	FACE PROTECTION Always wear safety goggles or safety glasses with side shields, earplugs and a face shield when operating this product.
	WARNING— MOVING WEDGE Keep hands away from wedge, moving part, end plate, and partially split wood.
	BYSTANDERS Keep bystanders, helpers and children at least 25 feet away.
	SINGLE OPERATOR Only one person should operate the machine at a time. The adult who loads and stabilizes the log must be the person who operates control handle.
	WARNING— PRESSURIZED FLUID  Never check for hose leaks with your hands. High pressure fluid can escape through a pin hole leak and cause serious injury by puncturing the skin and causing blood poisoning.
	WEAR GLOVES Always wear nonslip, heavy-duty protective gloves when operating this product.
	WEAR SAFETY FOOTWEAR Always wear nonslip steel-toed safety footwear when operating this product.
	WARNING— CARBON MONOXIDE
	Never run the splitter on tractor indoors or in a poorly ventilated area. Tractor engine exhaust contains carbon monoxide, an odorless and deadly gas.



**WARNING!** Your Responsibility—Restrict the use of this power machine to persons who read, understand and follow the warnings and instructions in this manual and on the machine.

#### **SAVE THESE INSTRUCTIONS!**



### **TRAINING**

- 1. Read, understand, and follow all instructions on the machine and in the manual(s) before attempting to assemble and operate. Keep this manual in a safe place for future and regular reference and for ordering replacement parts.
- 2. Be familiar with all controls and their proper operation. Know how to stop the machine and disengage them quickly.
- Never allow children under 18 years of age to operate this machine. Children 16 and over should read and
  understand the instructions and safe operation practices in this manual and on the machine and be trained and
  supervised by an adult.
- 4. Never allow adults to operate this machine without proper instruction.
- Many accidents occur when more than one person operates the machine. No helper is allowed to assist in stacking logs.
- Keep bystanders, pets, and children at least 25 feet from the machine while it is in operation. Be alert and turn the Tractor off if children or pets enter the work area.
- 7. Never allow anyone to ride on this machine.
- Never transport cargo on this machine.
- 9. Hydraulic log splitters develop high fluid pressures during operation. Fluid escaping through a pin hole opening can penetrate your skin and cause blood poisoning, gangrene, or death. Give attention to the following instructions at all times:
  - a. Do not check for leaks with your hand.
  - b. Do not operate machine with frayed, kinked, cracked, or damaged hoses, fittings, or tubing.
  - c. Stop the tractor engine and relieve hydraulic system pressure by cycling the valve control lever from forward to reverse several times while tractor engine is not running; returning to neutral before repairing or adjusting fittings, hoses, tubing, or other system components.
  - d. Do not adjust the pressure settings of the valve.
- 10. Leaks can be detected by passing cardboard or wood, while wearing protective gloves and safety glasses, over the suspected area. Look for discoloration of cardboard or wood.
- 11. If injured by escaping fluid, see a doctor immediately. Serious infection or reaction can develop if proper medical treatment is not administered immediately.
- 12. Keep the operator zone and adjacent area clear for safe, secure footing.
- 13. Do not operate the log splitter on tractor in an enclosed area. Exhaust fumes from the tractor engine contains carbon monoxide which can be harmful or deadly when inhaled.



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



### **PRE-OPERATION**

- 1. **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.
- 2. **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.
- 3. Check all safety guards and shields to be sure they are in the proper position. Never operate with safety guards, shields, or other protective features removed.
- 4. Make sure machine is on a flat, dry, solid ground before operating.
- 5. **ALWAYS** operate your log splitter attached on the Tractor in an open area. (Exhaust fumes contain carbon monoxide which can be deadly when inhaled.)
- 6. **ALWAYS** operate your log splitter in daylight or under good artificial light.
- 7. **ALWAYS** operate your log splitter on level ground. (Operating on a slope could cause the log splitter to roll over or logs to fall off.)
- 8. **ALWAYS** lock beam in either the horizontal or vertical position.
- ALWAYS keep the work area clean. Remove split wood around the log splitter immediately so that you don't stumble over it.
- 10. Check all nuts, bolts and hydraulic fittings are tight to be sure the equipment is in a safe working condition.
- 11. 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 25 inches in length. Uneven logs (e.g. knotted, curved, etc.) should not be used.
- 12. Do not allow familiarity with tools to make you careless. Remember that a careless fraction of a second is sufficient to inflict serious injury.



### **WARNING:**



The operation of any power tool can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Before beginning power tool operation, always wear safety goggles or safety glasses with side shields and, when needed, wear a full face shield and earplugs. We recommend a Wide Vision Safety Mask for use over eyeglasses or standard safety glasses with side shields. Always use eye protection which is marked to comply with ANSI Z87.1.



#### **OPERATION**

- BEFORE starting this machine, review the safe instructions in this manual and Tractor Owner's Manual. Failure to follow these rules may result in serious injury to the operator or bystanders.
- NEVER leave this machine unattended with the tractor engine running.
- 3. **DO NOT** operate machine while under the influence of alcohol, drugs, or medication.
- 4. **NEVER** allow anyone to operate this machine without proper instruction.
- ALWAYS operate this machine with all safety equipment in place and working. Make sure all controls are operating properly for safe operation.
- When loading a log, always place your hands on the side of the log, not on the ends, and never use your foot to help stabilize a log. Failure to do so, may result in crushed or amputated fingers, toes, hand, or foot.
- 7. **NEVER** use your foot, a rope or any extension device to operate the control lever on the valve. Only use hand.
- 8. Use only your right hand to operate the control handle.
  - **WARNING!** When stabilizing log with left hand, remove your hand when the wedge just contacts the log or serious injury may occur.
- 9. For logs which are not cut square, the least square end of the log should be placed toward the beam and wedge, and the square end placed toward the end plate.
- 10. When splitting in the vertical position, stabilize the log before moving the control handle. Split as follows:
  - a. Place log on the end plate and turn until it leans against the beam and is stable.
  - When splitting extra-large or uneven logs, the log must be stabilized with wooden shims or split wood placed between the log and end plate or ground
- 11. **NEVER** place hands or feet between the log and splitting wedge during forward or reverse stroke as this could result in serious injury or death. NEVER attempt to load the log splitter when the ram or wedge is in motion.
- 12. **ALWAYS** keep fingers away from any cracks that open in the log while splitting. They can quickly close and pinch or amputate your fingers.
- 13. Keep your work area clean. Immediately remove split wood around the machine so you do not stumble over it.
- 14. **NEVER** straddle or step over the log splitter during operation.
- 15. **NEVER** reach or bend over the log splitter to pick up a log.
- 16. NEVER try to split two logs on top of each other. NEVER try to cross split a log.
- 17. **NEVER** operate your log splitter when it is in poor mechanical condition or in need of repair.



#### **WARNING:**

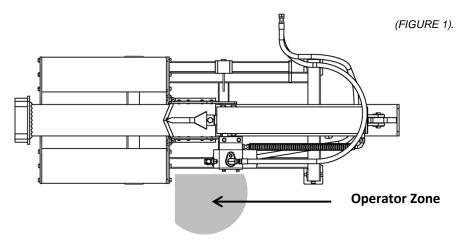
The 3-Point Hitch Log Splitter is designed for tractors with pressure ratings that are under 3200 PSI. Exceeding the recommended pressure rating will void the warranty and damage the equipment.



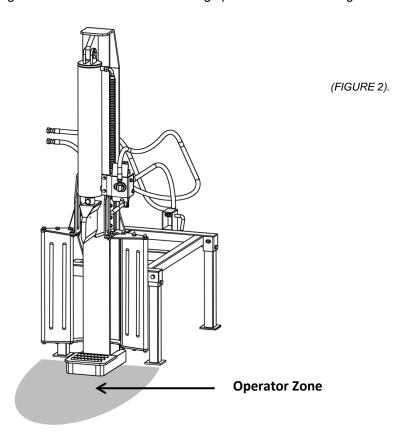
### **OPERATOR ZONE**

**ONLY** operate the log splitter from the operator zone as shown in the diagrams below. The operator has the safest and most efficient access to the control valve and the beam in this location. Operating the log splitter in another location can result in serious injury or death.

a. Horizontal Operating Position: Stand on the control lever side of the log splitter and stabilize log as shown, if needed. See FIGURE 1.



b. Vertical Operating Position: Stand in front of the log splitter and stabilize log as shown, if needed. See FIGURE 2.





#### **MAINTENANCE SAFETY**

- 1. Before cleaning, inspecting or any maintenance procedure on the machine, stop the tractor engine, set the brake and remove the key, disengage hydraulic hoses, wait 10 minutes to allow all parts to cool down.
  - **NEVER** perform any service or repair on your log splitter without stopping the tractor engine.
- 2. Stop the tractor and relieve hydraulic system pressure by cycling the valve control lever from forward to reverse several times; returning to neutral before repairing or adjusting fittings, hoses, tubing, or other system components.
- 3. ALWAYS perform all recommended maintenance procedures before using your log splitter.
- 4. **ALWAYS** periodically check that all nuts, bolts, screws, hydraulic fittings and hose clamps are tight to be sure equipment is in safe working condition.
- ALWAYS replace all damaged or worn parts immediately with original equipment manufacturer's (O.E.M.) parts only.
   Use of parts which do not meet the original equipment specifications may lead to improper performance and compromise safety.
- 6. 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 hoses or hydraulic components.
- 7. 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 INJURY or even DEATH. Leaks can be safely detected by passing a piece of cardboard over the suspected leak and looking for discoloration.
- 8. **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.
- 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.



**NEVER** alter your log splitter in any manner. Such alterations may cause your log splitter to be unsafe and will void the warranty.



#### TRANSPORTATION SAFETY

- 1. ALWAYS lift the Splitter to the full height of the 3-Point Hitch range carefully for safely transport.
- 2. **ALWAYS** shut off your tractor hydraulic controls, disengage hydraulic hoses, and set your splitter controls to the "Neutral" position before moving the log splitter on your tractor. Failure to do so may lead to improper performance and compromise safety.
- 3. **NEVER** carry any cargo or wood on your log splitter when moving around on your tractor.
- 4. **NEVER** allow anyone to sit or ride on your log splitter.
- 5. **ALWAYS** check before moving to make sure that the log splitter is correctly and securely attached to the three point hitches, and the hydraulic hoses to the pressure ports of tractor pump.
- 6. **ALWAYS** be careful when backing up with your log splitter behind your tractor. It could jackknife.
- 7. **NEVER** attempt to move this machine on your tractor over hilly or uneven terrain without a tow vehicle or adequate help.

### SAVE THESE INSTRUCTIONS

# **ASSEMBLY & SET-UP INSTRUCTIONS**

### **UNPACKING THE CONTAINER**



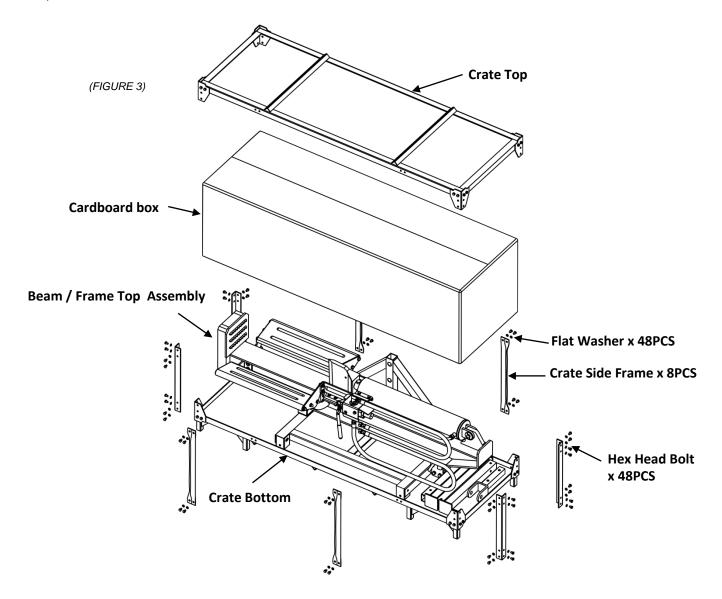
**WARNING!** Use extreme caution unpacking this machine. Some components are very heavy and will require additional people or mechanical handling equipment.

**NOTE:** All references in this manual to the left or right side and front or back of the log splitter are from the operating position only. Exceptions, if any, will be specified.

#### Unpacking tools needed:

- 1. Wrench 14mm
- 2. Scissors or knife
- 3. Pry bar or claw hammer

<u>Step 1:</u> Use a 14mm wrench to remove all the bolts and washers on the metal crate, put aside the packing top and side frames, then remove the cardboard box. See FIGURE 3.



<u>Step 2:</u> Remove all loose parts included in the container, e.g. operator's manual, four frame legs, U-shape mounting bracket bar, and hardware kits.

<u>Step 3:</u>. Use a pry bar or claw hammer to remove the plywood splinters securing the beam / frame top assembly on the crate bottom.

**NOTE: DO NOT** remove the strap securing the hydraulic hoses to the beam at this time, until you do all the assembly procedures.

**Step 4:** Inspect all component assemblies, parts and accessories according to the packing list attached in this manual (Page 27). Make sure all items listed in the packing list are included, and of no shipping damage.

If any parts are damaged or missing, please call our customer service department at 1-800-780-2677 for assistance.

**NOTE:** DO NOT discard the packing materials until you have carefully inspected and satisfactorily operated the tool.

## **ASSEMBLY & SET-UP INSTRUCTIONS**

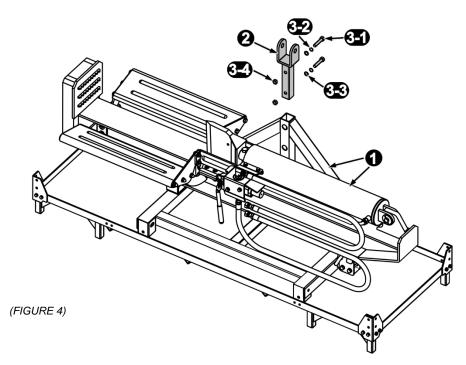
### **ASSEMBLY AND SET-UP**

**NOTE:** Due to the weight / size of the log splitter, and needs to coordinate the tractor controls for assembling and set-up the 3-Point Hitch log splitter to the tractor, it's recommended that two or more adults be present to assist with the assembling and set-up.

### Get your tractor prepared for assembly:

- 1. This 3-Point Hitch log splitter is designed for tractors with pressure ratings that are under 3200 PSI (Category 1 or Category 2's power). Review the Tractor Owner's Manual to make sure your tractor meets the specifications of the 3-Point Hitch log splitter.
- 2. Check the three Hitch Pins are available for your log splitter.
- 3. Different tractor needs different types and sizes of Tractor Hydraulic Connectors. For this reason, the Splitter Hoses do not have Connectors on the ends. You need to prepare the correct type / size connectors for your application. The Splitter Hose Threads are 1 / 2" NTP Male.

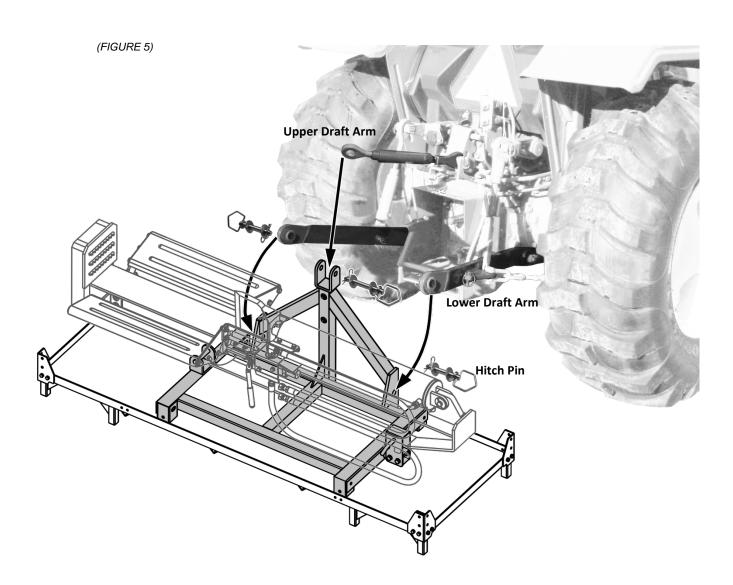
<u>STEP 1:</u> Insert the U-shape Mounting Bracket Bar into the frame top, secure with the hardware in Hardware Kit # 11. See FIGURE 4.



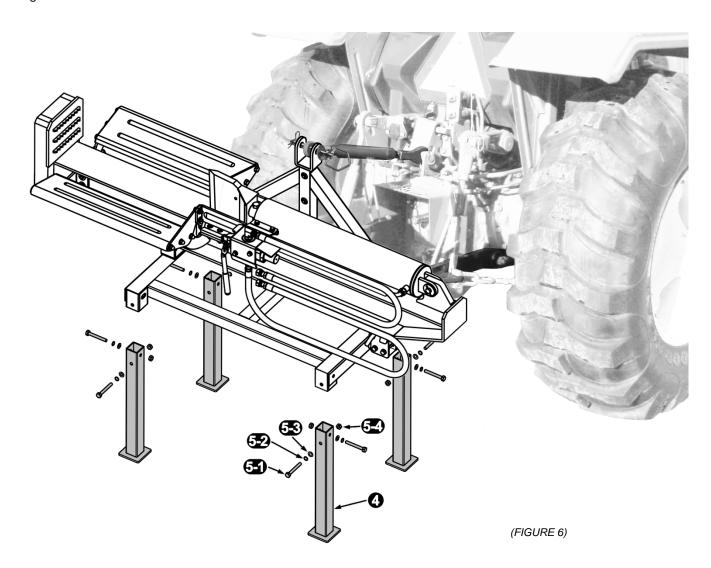
REF. NO.	DECSRIPTION	QTY.
1 2	Beam / Frame top assembly U-shape mounting bracket bar	1 1
3	Hardware kit #11(not shown) Including:	1
3-1	Hex head bolt / M12 x 60	2
3-2	Spring washer / M12	2
3-3	Flat washer / M12	2
3-4	Lock nut / M12	2

<u>STEP 2:</u> Position the beam / frame top assembly behind the 3-Point Hitch of your tractor, where the tractor three point hitch arms can be adjusted to aid attachment. See FIGURE 5.

- 1. Position the Lower Draft Arms outside of lower Frame Hookup bracket, align with the Mounting Bracket holes and secure with the Tractor Hitch Pins.
- 2. Position the Upper Draft Arm inside of U-shape Mounting bracket, align with the Mounting Bracket holes, insert the Tractor Hitch Pin and secure.



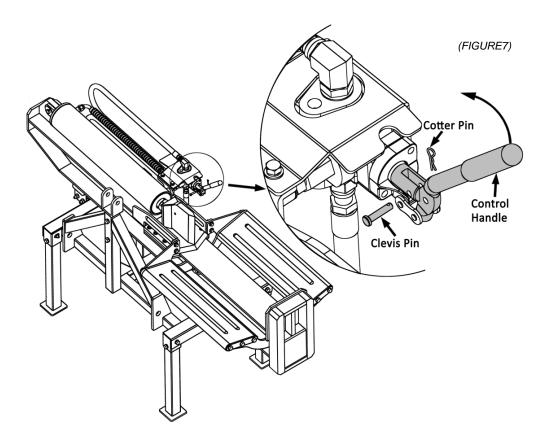
**STEP 3:** Lift the beam / frame top assembly no less than 20 in. off the ground, move the Crate Bottom away, and then assemble four Frame Legs. After the Frame Legs installed and tightened, lower down the Splitter, and allow it standing firmly on the ground. See FIGURE 6.



REF. NO.	DECSRIPTION	QTY.
4	Frame leg	4
5	Hardware Kit #12 (not shown) Including:	1
5-1	Hex head bolt / M10 x 80	8
5-2	Spring washer / M10	8
5-3	Flat washer / M10	8
5-4	Nut / M10	8

**STEP 4:** Install the control handle. The control handle is shipped hanging from the valve on the handle link. See FIGURE 7.

- 1. Remove the clevis pin and bow-tie cotter pin from the control handle.
- 2. Rotate the control handle into the operating position and secure with the clevis pin and bow-tie cotter pin removed in step above.



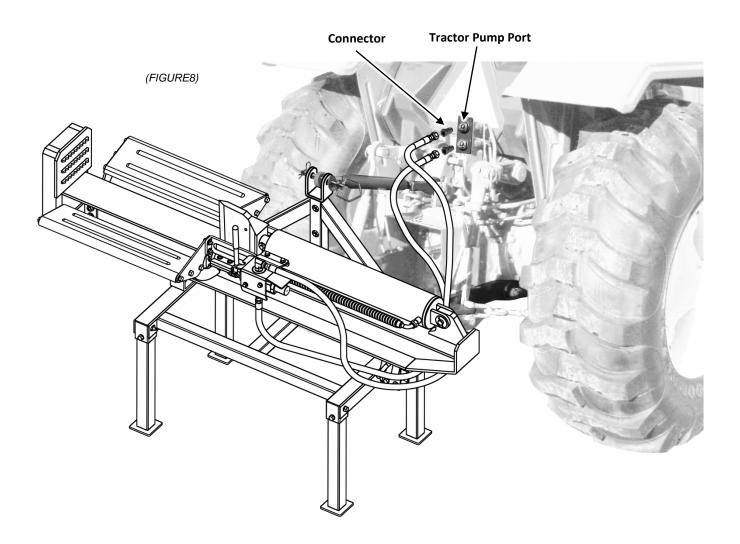
STEP5: Attach both hoses to the Tractor. See FIGURE 8.

- 1. Cut the strap securing the Hoses to the Beam, release both hoses.
- 2. Remove Protective Caps from the open end of both hoses, screw on the Connectors to both hoses.

**NOTE:** Different tractor needs different types and sizes of Tractor Hydraulic Connectors. For this reason, the Splitter Hoses do not have Connectors on the ends. You need to prepare the correct type / size connectors for your application. The Splitter Hose Threads are 1 / 2" NTP Male.

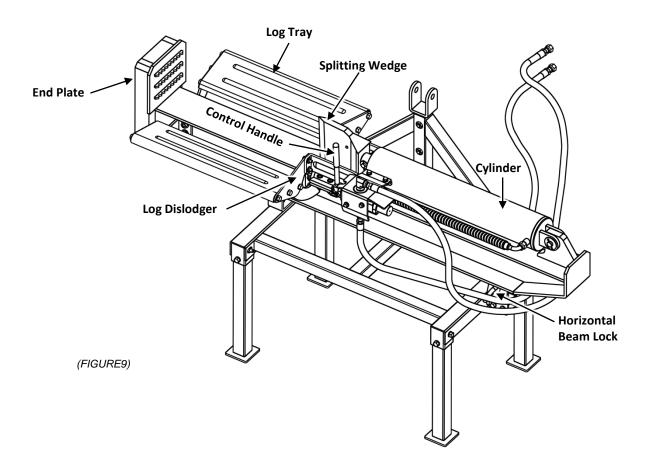
3. Route the hoses down the underside of the Beam to the rear, and plug the connectors into the Tractor Pump ports.

**NOTE:** Refer to your Tractor Owner's Manual, or tractor supplier before attaching or removing the connectors to / from tractor pump. If the hoses are attached to the wrong ports of the Tractor Pump, the splitter won't work when you operate the control handle lever. Simply swap the hoses to the correct ports.



## **ASSEMBLY & SET-UP INSTRUCTIONS**

### **KNOW CONTROLS & FEATURES**



#### **Tractor Engine Controls**

See the tractor Owner's Manual for the location and function of the controls on the engine.

#### **Horizontal Beam Locks**

The lock, as its name suggests, is used to secure the beam in the horizontal position. The horizontal beam lock is located on the beam support latch bracket.

#### **Control Handle**

The control handle has three positions; Forward, Neutral and Reverse. See the Operation section for instructions.

#### Log Dislodger

The log dislodger is designed to remove any partially split wood from the wedge. This may occur while splitting large diameter wood or freshly cut wood.

#### **Log Tray**

The log tray is designed to catch the log after it is split.

#### **Splitting Wedge**

The wedge is used to split the wood.

### **End Plate**

The end plate holds the log in place while the wedge splits the log.

### **KNOW YOUR TRACTOR**

Refer to the Tractor Owner's manual for instructions on how to start and stop the Tractor engine, and how to set throttle and power the hydraulics to the Splitter.

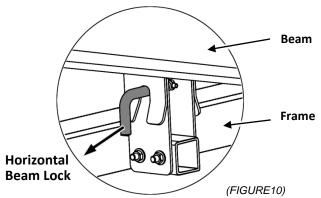
### **OPERATING POSITIONS**

1. Place the beam in either the horizontal or vertical position. Always use the log splitter in the vertical position when splitting heavy logs.



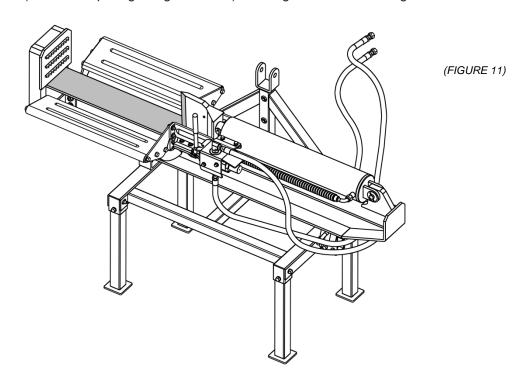
**WARNING!** Take extra care when raising and lowering the beam as it is fairly heavy. Having a second person assist with raising or lowering the beam is recommended. Be sure to keep hands away from any possible pinch points.

- 2. How to place the beam in the *Vertical Position:* Pull the horizontal beam lock out to release the beam and pivot the beam to the vertical position. See FIGURE 10
- 3. How to place the beam in the Horizontal Position: Pivot the beam to the horizontal position. The horizontal beam lock is self-locking. The spring loaded lock will snap into place when the beam is lowered into position.



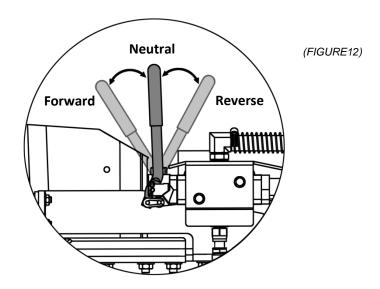
#### **LUBRICATE BEAM AND WEDGE**

Lubricate the beam area (where the splitting wedge will slide) with engine oil. Do not use grease. See FIGURE 11.



### **USING CONTROL HANDLE**

The control handle has three positions. See FIGURE 12.



- **FORWARD** To split wood. Move the control handle to the FORWARD position to move wedge toward the log to split. **NOTE:** The control handle will return to the NEUTRAL position as soon as the handle is released (FORWARD position only), and the wedge stops moving forward.
- NEUTRAL To stop wedge. Release the control handle or move the lever to the NEUTRAL position to stop the wedge
  movement.
- **REVERSE** To return the wedge. Move the control handle to the REVERSE position, the wedge returns automatically toward the cylinder. When the wedge is fully retracted, the control handle returns to the NEUTRAL position automatically. Do not hold the handle in the REVERSE position when fully retracted.

**NOTE:** The REVERSE position may also be moved back to the NEUTRAL position manually, if necessary.



**WARNING!** If the control handle on your log splitter is not functioning properly, STOP USE IMMEDIATELY and contact an authorized service dealer.



WARNING! Do not attempt to service, repair or replace control valve. Contact an authorized service dealer.



**WARNING!** Do not attempt to adjust or modify the control valve or the hydraulic system from its original settings or manufacturer in any way.

### **SPLITTING THE WOOD**

- 1. Start the tractor, make sure the tractor is in neutral and the Emergency Brake is set.
- 2. Set throttle and power the hydraulics to the Splitter.
- 3. Operate the control lever, make the Splitting Wedge travel all the way to the end of stroke several cycles, to bleed the residual air in the hoses.
- 4. Place the log against the end plate. See FIGURE 13.
- 5. To stabilize the log, place your left hand on the side of the log opposite the beam as shown in FIGURE 13.

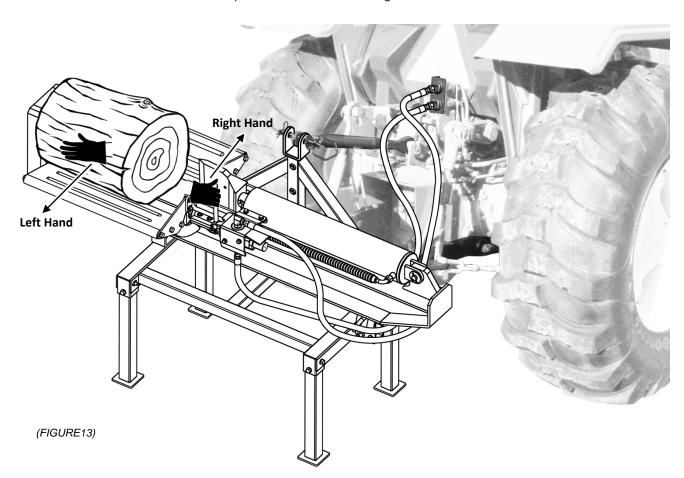


**WARNING!** Never place a hand on the ends of the log, between the log and the end plate or the log and the splitting wedge.



**WARNING!** Only one operator permitted. The adult who loads and stabilizes the log, must be the person who operates the control handle.

- 6. Move the control handle to the forward position to split the wood. Remove left hand from the side of the log once wedge just contacts the log. Continue moving control handle forward to split the log.
- 7. Release the control handle to stop the wedge movement.
- 8. Move the control handle to the reverse position to return the wedge.



### **REMOVE PARTIALLY SPLIT WOOD**

- 1. Move the control handle to the REVERSE position until the wedge is fully retracted to allow split wood portion to contact the log dislodger.
- 2. Never remove partially split wood from the wedge with your hands. Fingers may become trapped between the split wood.
- 3. Once removed from the wedge with the log dislodger, split the wood from the opposite end or in another location.

### **OPERATION TIPS**

#### Always:

1	Follow the Checklist below each time you use your log splitter for optimum performance.
	[ ] Check the general condition of the log splitters, e.g.: bolts, nuts, welds, clamps, hoses, etc.
	[ ] Check hydraulic level in your tractor and fill as needed.
	[ ] Check hydraulic hoses for cracks or wear.

- [ ] Check the frame for stability.
- [ ] Check the wedge for tightness, nicks and wear.
- 2. Bleed the air out of the hoses before operating.
- 3. Be alert and turn the Tractor off if children or pets enter the work area.
- Use "pipe dope" on all hydraulic fittings.
- Split wood along the grain (lengthwise) only.

#### Never:

- Use when fluid is below 20° F or above 150° F.
- Operate through relief valve for more than 5 seconds.
- 4. Attempt to adjust the unloading or relief valve settings.
- 5. Operate with air in hydraulic system.
- 6. Attempt to cut wood across the grain.
- 7. Attempt to remove partially split wood from the wedge with your hands. Fully retract the wedge to dislodge wood with log dislodger.
- 8. Never allow children to operate the log splitter.

#### Important:

- 1. Move the control handle to Forward position to extend the cylinder to split. If the log has not completely split after the cylinder extending to the end of its stroke, move the control handle to the reverse position to retract the cylinder.
- 2. Leaving the valve in the "accurate" position at the end of the cylinder stroke may damage the pump. To extend the life of hydraulic system, please conform with industry safety standards, the wedge stops 2 inches from the end of the stroke.

### **MAINTENANCE & ADJUSTMENTS**



**WARNING!** Do not make any adjustments without first stopping the tractor engine, setting the brake, removing the key, disconnecting the hoses from the tractor hydraulic ports. Wait 10 minutes to allow all parts to cool down. Always wear safety glasses during operation or while performing any adjustments or repairs.

### Beam and Splitting Wedge

Lubricate top, sides and bottom of the beam and where it comes into contact with the splitting wedge with engine oil before each use.

If the wedge becomes dull or nicked, it can be sharpened.

### Moving around



**WARNING!** ALWAYS shut off your tractor hydraulic controls and your splitter controls to the "Neutral" position before moving the log splitter on your tractor. Failure to do so may lead to improper performance and compromise safety.



**WARNING!** Never attempt to move this machine on your tractor over hilly or uneven terrain without a tow vehicle or adequate help.

- 1. Set the splitter beam to its horizontal position. Make certain the beam is locked securely with the horizontal beam lock.
- 2. **ALWAYS** check before moving to make sure that the log splitter is correctly and securely attached to the three point hitches, and the hydraulic hoses to the pressure ports of tractor pump.
- 2. Lift the tractor 3-Point Hitch Arms to lift the log splitter the full height of the 3-Point Hitch range carefully for safely transport.
- 3. **ALWAYS** be careful when backing up with your log splitter behind your tractor. It could jackknife.

### Off-Season Storage

If the log splitter will not be used for more than 30 days, prepare it for storage as follows:



**WARNING!** Never store the machine attached to the Tractor.

1. Clean the log splitter thoroughly.

**NOTE:** The use of pressure washers or a garden hose to clean the splitter is not recommended. They may cause damage to the bearings. The use of water will result in a shortened life and reduce serviceability.

- 2. Wipe the machine with an oiled rag to prevent rust, especially on the wedge and the beam.
- Store the log splitter in a clean, dry area. Do not store it next to corrosive materials, such as fertilizer.

**NOTE:** If storing in an unventilated or metal storage shed, be certain to rustproof the equipment by coating it with a light oil or silicone.

### **TROUBLESHOOTING**

Most problems are easy to fix. Consult the trouble shooting Table below for common problems and their solutions. If you continual to experience problems, contact us at <a href="https://www.boss-industrial.com">www.boss-industrial.com</a>, or call toll-free (800) 780 2677 for support.

If the machine should start making an unusual noise or vibration, shut down the tractor engine, wait 5 minutes for machine to cool down, then inspect for damage. Vibration is generally a warning of trouble. Check for damaged parts and clean, repair and / or replace as necessary.

Problem	Cause	Remedy		
Cylinder rod will not move	<ol> <li>Shipping plugs left in hydraulic hoses.</li> <li>Damaged relief valve.</li> <li>Hydraulic lines blocked.</li> <li>Incorrect oil level of your tractor.</li> <li>Damaged control valve.</li> <li>Blocked control valve.</li> <li>Hoses connected to the wrong ports.</li> </ol>	<ol> <li>Disconnect hydraulic hoses, remove shipping plugs, and reconnect hoses.</li> <li>See authorized service dealer.</li> <li>Flush and clean hydraulic system.</li> <li>Check oil level.</li> <li>See authorized service dealer.</li> <li>Flush and clean hydraulic system</li> <li>Swap hose connections.</li> </ol>		
Slow cylinder shaft speed while extending and retracting	<ol> <li>Damaged relief valve.</li> <li>Incorrect oil level of your tractor.</li> <li>Contaminated oil.</li> <li>Control valve leaking internally.</li> <li>Internally damaged cylinder.</li> <li>Excessive air in the hoses.</li> </ol>	<ol> <li>See authorized service dealer.</li> <li>Check oil level.</li> <li>Drain oil, clean reservoir and refill.</li> <li>See authorized service dealer.</li> <li>See authorized service dealer</li> <li>Operate the control handle several times to repel the air.</li> </ol>		
Leaking Cylinder	Worn seals.     Scored cylinder.	See authorized service dealer.     See authorized service dealer.		
Wood will not split or wood splits too slowly	<ol> <li>Tractor throttle set too low.</li> <li>Incorrect oil level of your tractor.</li> <li>Contaminated oil.</li> <li>Control valve leaking internally.</li> <li>Overloaded cylinder.</li> <li>Internally damaged cylinder.</li> <li>Excessive air in the hoses.</li> </ol>	<ol> <li>Adjust Tractor throttle.</li> <li>Check oil level.</li> <li>Drain oil, clean reservoir and refill.</li> <li>See authorized service dealer.</li> <li>Do not attempt to split wood against the grain.</li> <li>See authorized service dealer.</li> <li>Operate the control handle several times to repel the air.</li> </ol>		
Wedge continues to move forward when control handle is released	Damaged control valve	See authorized service dealer.		
Control handle does not return to neutral when released from forward position	<ol> <li>Hydraulic fluid too cold.</li> <li>Hydraulic fluid too thick.</li> <li>Hydraulic fluid contaminated.</li> <li>Damaged control valve.</li> </ol>	Warm up engine.     Replace hydraulic fluid.     Replace hydraulic fluid.     See authorized service dealer.		

### **SPECIFICATIONS**

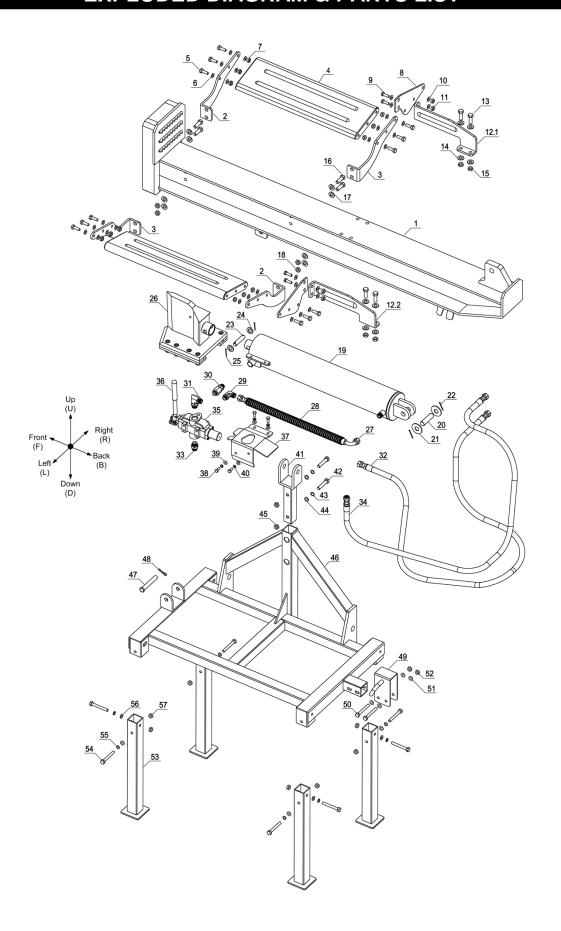
Model		3PT22T25	
Engine		Tractor dependent	
Tractor Requirements		Category 1 or Category 2 (1500 to 2500 PSI)	
Cylinder (Bore x Stroke	e)	4 in. x 24 in.	
Maximum Splitting Ford	ce	22 Tons*	
Maximum Log Length		25 in.	
Wedge Height		8 in.	
Cycle Time	Forward	8 Seconds*	
Syste Time	Reverse	5 Seconds*	
Height (Horizontal / Vertical Position)		41.8 / 72.3 in.	
Length (Horizontal / Vertical Position)		72.3 / 54.6 in.	
Width		24 in.	
Net Weight		442 lbs	

<sup>\*</sup>Splitting force is determined by Splitter cylinder size and Tractor PSI. Cycle time depends on Splitter cylinder size and GPM that Tractor produces. Mechanical and environmental conditions could also influence the splitting force and cycle time.



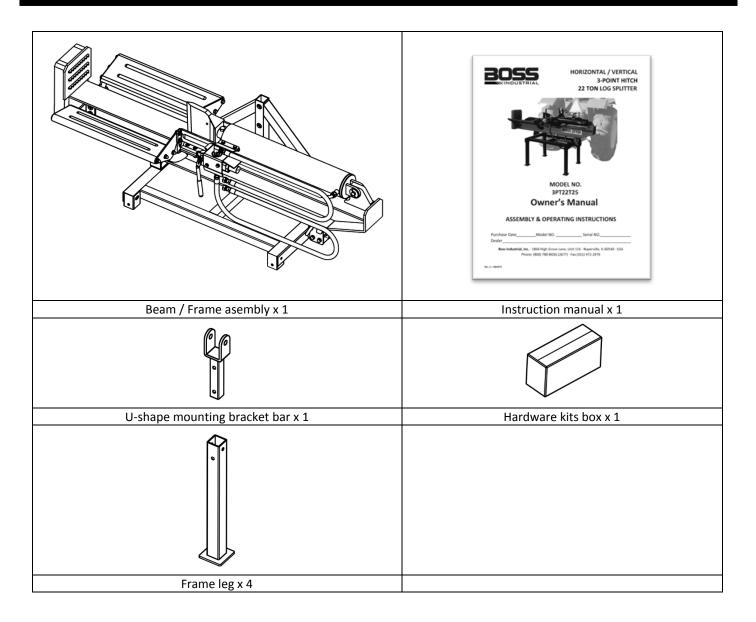
**WARNING!** Before purchasing this 3-Point Hitch log splitter, make sure your Tractor ideally produces the hydraulic flow of 8 – 15 GPM at the pressure ratings of 1500 to 2500 PSI. **DO NOT exceed 3200 PSI**. The tractor pressure ratings can be found at the tractor manufacturer's manual. Exceeding the recommended pressure rating will damage the equipment, and void the warranty.

### **EXPLODED DIAGRAM & PARTS LIST**



REF#	PART #	PART NAME	SPECIFICATIONS	QTY PER UNIT
1	310-632	Beam incl. End Plate	22T	1
2	320-930	Log Tray Frame FR (BL)		2
3	320-931	Log Tray Frame FL (BR)		2
4	320-938	Log Tray Plate		2
5	710-518	Hex Head Bolt	Zinc, M10*30	12
6	750-525	Flat Washer	M10	24
7	720-120	Lock Nut	M10	12
8	320-925	Log Dislodger	7	2
9	710-518	Hex Head Bolt	Zinc, M10*30	4
10	750-525	Flat Washer	M10	8
11	720-120	Lock Nut	M10	4
12.1	320-929	Log Dislodger Support R		1
12.2	320-928	Log Dislodger Support L		1
13	710-511	Hex Head Bolt	Zinc, M12*45	4
14	750-621	Flat Washer	M12	8
15	720-536	Lock Nut	M12	4
16	710-511	Hex Head Bolt	Zinc, M12*45	4
17	750-621	Flat Washer	M12	8
18	720-536	Lock Nut	M12	4
19	530-465	Cylinder	4"	1
20	760-112	Pin	Black Oxide, Ø20*72	1
21	750-423	Flat Washer	M20	2
22	760-734	Split Pin	Zinc, Ø4*35	2
23	760-118	Pin	Black Oxide, Ø16*69	1
24	750-642	Flat Washer	Zinc, M16	2
25	760-734	Split Pin	Zinc, Ø4*35	2
26	530-427	Splitting Wedge w/ Guides		1
27	560-422	Hydraulic Hose for A-Capacity	1/2"*572	1
28	560-377	Protective Spring	Ø27*540*Ø1.5	1
29	510-339	Hydraulic Adaptor for A-Capacity		1
30	510-467	Hydraulic Adapter for B-Capacity		1
31	510-334	Hydraulic Adapter for Oil Return Hose		1
32	560-478	Oil Return Hose	1/2"*2540	1
33	510-455	Hydraulic Adapter for Oil Suction Hose		1
34	560-478	Oil Suction Hose	1/2"*2540	1
35	520-799	Hydraulic Valve		1
36	520-452	Control Handle	Ø16*210	1
37	350-226	Valve Cover		1
38	710-637	Hex Head Bolt	Zinc, M8*20	4
39	750-638	Flat Washer	M8	4
40	750-834	Spring Washer	M8	4
41	320-623	U-shape mounting bracket bar		1
42	710-573	Hex Head Bolt	Zinc, M12*60	2
43	750-834	Spring Washer	M12	2
44	750-621	Flat Washer	M12	2
45	720-359	Nut	M12	2
46	320-839	Frame Top		1
47	760-253	Clevis Pin	Zinc, Ø16*110	1
48	760-688	Spring Clip	Ø2.5	1
49	320-843	Horizontal Beam Lock		1
50	710-535	Hex Head Bolt	Zinc, M10*80	2
51	750-525	Flat Washer	M10	4
52	720-120	Lock Nut	M10	2
53	320-874	Frame Leg		4
54	710-535	Hex Head Nut	Zinc, M10*80	8
55	750-401	Spring Washer	M10	8
56	750-525	Flat Washer	M10	8
57	720-124	Nut	M10	8

### **PACKING LIST**



### WARRANTY

#### LIMITED WARRANTY STATEMENT

Boss Industrial, Inc., ("Boss Industrial") warrants to the original retail purchaser that this BOSS brand outdoor product is free from defect in material and workmanship and agrees to repair or replace, at Boss Industrial's, discretion, any defective product free of charge within these time periods from the date of purchase.

- Two years for all models if used for personal, family, or household use;
- 180 days for any unit used for other purposes, such as rental or commercial.

This warranty extends to the original retail purchaser only and commences on the date of the original retail purchase.

Any part of the this product manufactured or supplied by Boss Industrial and found in the reasonable judgment of Boss Industrial to be defective in material or workmanship will be repaired or replaced without charge for parts and labor by a Boss Industrial authorized service center. How to process a warranty claim? You must first call the BOSS INDUSTRIAL service hotline 1 800 780 2677. Our technical team will guide you in trouble shooting, repairing, or returning a defective part or machine. Any unauthorized repair or return without a valid Return Authorization Number from Boss Industrial will invalidate this warranty. The expense of delivering the product to the dealer for warranty work and the expense of returning it back to the owner after repair or replacement will be paid by the owner. Boss Industrial's responsibility in respect to claims is limited to making the required repairs or replacements and no claim of breach of warranty shall be cause for cancellation or rescission of the contract of sale of any BOSS brand product. Proof of purchase will be required by the dealer to substantiate any warranty claim. All warranty work must be performed by a Boss Industrial authorized service center.

This warranty is limited to one hundred eighty (180) days from the date of original retail purchase for any Boss Industrial brand product that is used for rental or commercial purposes, or any other income-producing purpose.

This warranty does not cover any BOSS brand product that has been subject to misuse, neglect, negligence, or accident, or that has been operated in any way contrary to the operating instructions as specified in this operator's manual. This warranty does not apply to any damage to the product that is the result of improper maintenance or to any product that has been altered or modified. The warranty does not extend to repairs made necessary by normal wear or by the use of parts or accessories which are either incompatible with the BOSS brand product or adversely affect its operation, performance, or durability. In addition, this warranty does not cover:

- A. Tune-ups Spark Plugs, Carburetors, Adjustments, Ignition, Filters
- B. Wear items Tires, nylon liners, rubber seals, hydraulic oil, etc...
- C. Gas Engines as they are covered under the Engine Manufacturers' Warranty.

Boss Industrial reserves the right to change or improve the design of any BOSS brand product without assuming any obligation to modify any product previously manufactured.

ALL IMPLIED WARRANTIES ARE LIMITED IN DURATION TO THE STATED WARRANTY PERIOD. ACCORDINGLY, ANY SUCH IMPLIED WARRANTIES INCLUDING MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OTHERWISE, ARE DISCLAIMED IN THEIR ENTIRETY AFTER THE EXPIRATION OF THE APPROPRIATE TWO-YEAR, ONE-YEAR, OR NINETY-DAY WARRANTY PERIOD. BOSS INDUSTRIAL'S OBLIGATION UNDER THIS WARRANTY IS STRICTLY AND EXCLUSIVELY LIMITED TO THE REPAIR OR REPLACEMENT OF DEFECTIVE PARTS AND BOSS INDUSTRIAL DOES NOT ASSUME OR AUTHORIZE ANYONE TO ASSUME FOR THEM ANY OTHER OBLIGATION. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. BOSS INDUSTRIAL ASSUMES NO RESPONSIBILITY FOR INCIDENTAL, CONSEQUENTIAL, OR OTHER DAMAGES INCLUDING, BUT NOT LIMITED TO, EXPENSE OF RETURNING THE PRODUCT TO AN AUTHORIZED BOSS INDUSTRIAL SERVICE CENTER AND EXPENSE OF DELIVERING IT BACK TO THE OWNER, MECHANIC'S TRAVEL TIME, TELEPHONE OR TELEGRAM CHARGES, RENTAL OF A LIKE PRODUCT DURING THE TIME WARRANTY SERVICE IS BEING PERFORMED, TRAVEL, LOSS OR DAMAGE TO PERSONAL PROPERTY, LOSS OF REVENUE, LOSS OF USE OF THE PRODUCT, LOSS OF TIME, OR INCONVENIENCE. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. This warranty applies to all BOSS brand products manufactured by or for Boss Industrial and sold in the United States.



Boss Industrial, Inc. • 123 Ambassador Drive, Suite 123 • Naperville, IL 60540 • USA

Phone: (800) 780-BOSS (2677) • Fax (331) 472-2976 www.boss-industrial.com