

OWNER'S MANUAL

Assembly & Operating Instructions

Horizontal/Vertical 35 Ton Petrol Log Splitter

MODEL NO. TW-LS-35T



To The Owner

Thank You!

Thank you for purchasing our 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 Owner'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.

All the power testing information used to establish the power rating of the engine equipped on these machines can be found at the engine manufacturer's manual or website. If you have any problems or questions concerning the machine, phone an authorized service dealer or contact us directly.

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

Customer Support

Please do NOT return the machine to the retailer or dealer without first contacting the Customer Support Department at bbt@bbta.com.au.

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 authorized service dealer.

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IMPORTANT SAFETY INFORMATION



WARNING: 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.



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.

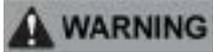


DANGER! This machine was built to be operated according to the safe operation practices in this manual. As with any type of power equipment, carelessness or error on the part of the operator can result in serious injury. This machine is capable of amputating hands and feet and throwing debris. Failure 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 followed, 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 important information about the proper use of your machine. Failure to follow this instruction could result in damage to your machine or property.



IMPORTANT SAFETY INFORMATION

SAFETY DECALS

Make sure that all safety warning decals are in good condition and readable. Always replace missing or defaced decals. Contact us for replacement decals.

OPERATING INSTRUCTIONS		CAUTION!	WARNING!	WARNING!	WARNING!
<p>3 POSITIONS OF CONTROL HANDLE</p> <p>FORWARD NEUTRAL REVERSE</p> <ul style="list-style-type: none"> Place log splitter on flat dry solid ground and block wheels. Lock the beams in either the horizontal or vertical position. Start the engine as instructed in the Engine Operator's manual included. Grab the sides of the log to load the log 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 right hand to split the log. Remove your left hand when 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 discharge the log. 		<ul style="list-style-type: none"> Read and understand safety and operating instructions in 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 splitter on clear, level, dry and solid ground. Keep off slopes and slippery surfaces. Always block the wheels. Do not leave the engine running unattended. Only split wood in the direction of the grain. 	<ul style="list-style-type: none"> 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 specified by manufacturer during operation. Keep work area clear of split wood, debris, and other obstacles. Do not operate log splitter under the influence of alcohol or drugs. Do not stand on or reach over log splitter. 	<ul style="list-style-type: none"> Keep hands, feet and all body parts away from splitting wedge, and 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 penetrating skin which could result in blood poisoning. NEVER use your hands to dislodge a log from the wedge. This log splitter is equipped with log dislodge; lodged log will be removed automatically when wedge is fully retracted. 	<ul style="list-style-type: none"> Do not refill hydraulic oil while engine are hot or running. Do not refuel a hot or running engine. Allow the engine to cool at least 10 minutes before refueling. Never run an engine indoors or in a poorly ventilated area. Engine exhaust contains carbon monoxide, an odorless and deadly gas. Engine parts, especially the muffler, become extremely hot during operation. Do not touch.

Part #: 410-188

WARNING!

To minimize risk of serious injury or death to you or others, when towing this log splitter:

- Read instruction manual for how to properly attach coupler to hitch ball and how to tow safely.
- Never attempt to move this machine over uneven or hilly terrain without a tow vehicle or adequate help.
- Use the ball of correct size.
- Do not exceed weight capacity of ball or load limits of coupler.
- Always use safety chains.
- Never exceed 45 mph.
- Avoid sharp turns and steep angles.
- Make sure of the coupler tightness each time before towing and after towing 50 miles.
- Replace damaged ball or coupler immediately.

Part #: 410-249

Part #: 410-249

DANGER!

- Do not use your hands to dislodge log from wedge.
- Keep hands away from wedge, end plate, partially split wood and moving parts.
- If wedge moves FORWARD when control handle released, STOP USE IMMEDIATELY! Valve may be damaged.

DANGER

KEEP HANDS AND FEET AWAY!

Part #: 410-237

Part #: 410-237

KEEP HANDS / FEET AWAY!

- Do not use your hands to dislodge log from wedge.
- Keep hands away from wedge, end plate, partially split wood and moving parts.
- If wedge moves FORWARD when control handle released, STOP USE IMMEDIATELY! Valve may be damaged.

DANGER!

Part #: 410-233

Part #: 410-233

NOTICE

DIPSTICK

- Maintain oil level within the range specified on dipstick. Check before each use when oil is cold. DO NOT OVERFILL! Never run the log splitter without sufficient oil. The hydraulic pump could be ruined.
- Change hydraulic oil every 100 hours of use. AW32 universal Hydraulic oil is recommended. Dextron II transmission fluid can be used as a substitute should AW32 oil not be available. Do NOT mix AW32 hydraulic oil with Dextron II transmission fluid. Drain the reservoir if you wish to use Dextron II.
- Use only the filter of original equipment manufacturer's (O.E.M.).

Part #: 410-647

Part #: 410-647



IMPORTANT SAFETY INFORMATION

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 OWNER'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, or a face shield when operating this product as well as ear protection.
	WARNING—MOVING WEDGE Keep hands away from wedge, moving part, end plate, and partially split wood.
	BYSTANDERS Keep bystanders, helpers and children at least 10 metre 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—PETROL IS FLAMMABLE Allow the engine to cool at least ten minutes before refueling.
	WARNING—CARBON MONOXIDE Never run an engine indoors or in a poorly ventilated area. Engine exhaust contains carbon monoxide, an odorless and deadly petrol.
	WARNING—HOT SURFACE Engine parts, especially the muffler, become extremely hot during operation. Allow engine and muffler to cool before touching.



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!



IMPORTANT SAFETY INFORMATION

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.
3. 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.
5. Many accidents occur when more than one person operates the machine. No helper is allowed to assist in stacking logs.
6. Keep bystanders, pets, and children at least 10 metre from the machine while it is in operation.
7. Never allow anyone to ride on this machine.
8. 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 engine and relieve hydraulic system pressure by cycling the valve control lever from forward to reverse several times while engine is not running. Return to neutral before repairing or adjusting fittings, hoses, tubing, or other system components.
 - d. Do not adjust the pressure settings of the pump or valve.
10. Leaks can be detected by passing cardboard or wood over the suspected areas. Always wear protective gloves and safety glasses when checking. Look for discolouration 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. If your machine is equipped with an internal combustion engine and is intended for use near any unimproved forest, brush, or grass covered land, the engine exhaust should be equipped with a spark arrestor. Make sure you comply with applicable local, state, and federal codes. Take appropriate firefighting equipment with you.



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.



IMPORTANT SAFETY INFORMATION

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 jewellery 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 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** block wheels to prevent unintended movement.
9. **ALWAYS** lock beam in either the horizontal or vertical position.
10. **ALWAYS** keep the work area clean. Remove split wood from around the log splitter immediately so that you don't stumble over it.
11. Check all nuts, bolts and hydraulic fittings are tight to be sure the equipment is in a safe working condition.
12. 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 635mm in length. Uneven logs (e.g. knotted, curved, etc.) should not be used.
13. **ALWAYS** check the oil level before you start the log splitter. **See Page 30.**
14. 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 too. 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.



IMPORTANT SAFETY INFORMATION

OPERATION

1. **BEFORE** starting this machine, review the safe instructions in the manual. Failure to follow these rules may result in serious injury to the operator or bystanders.
2. **NEVER** leave this machine unattended with the 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.
5. **ALWAYS** operate this machine with all safety equipment in place and working. Make sure all controls are operating properly for safe operation.
6. 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 controls.
WARNING! When stabilizing log with left hand, remove your hand when the wedge begins to contact 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.
 - b. 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 from 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.
18. **NEVER** touch the muffler and other hot areas of the engine during operation. Wait until the engine cools down.
19. **NEVER** tamper with the engine to run it at excessive speeds. The maximum engine speed is preset by the manufacturer and is within safety limits. Refer to the engine owner's manual for your particular log splitter.
20. **NEVER** move the log splitter while the engine is running. Shut off the engine if you are leaving the log splitter, even for a short period of time.
21. **ALWAYS** be careful when moving or lifting the log splitter. Get assistance if it feels too heavy to move by yourself.

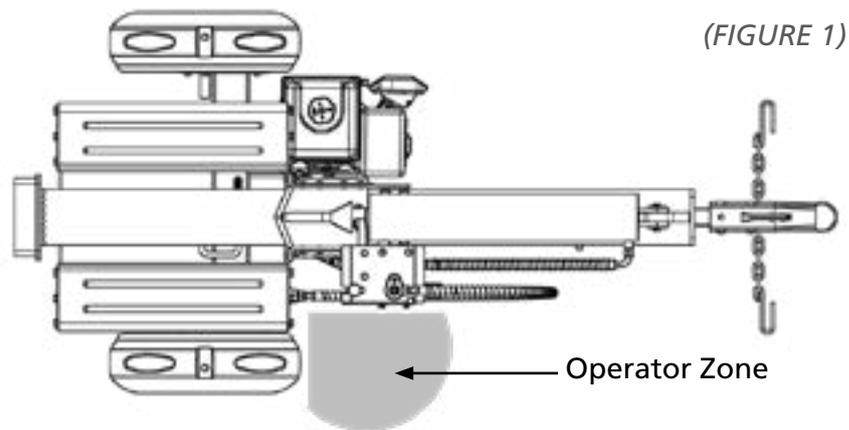


IMPORTANT SAFETY INFORMATION

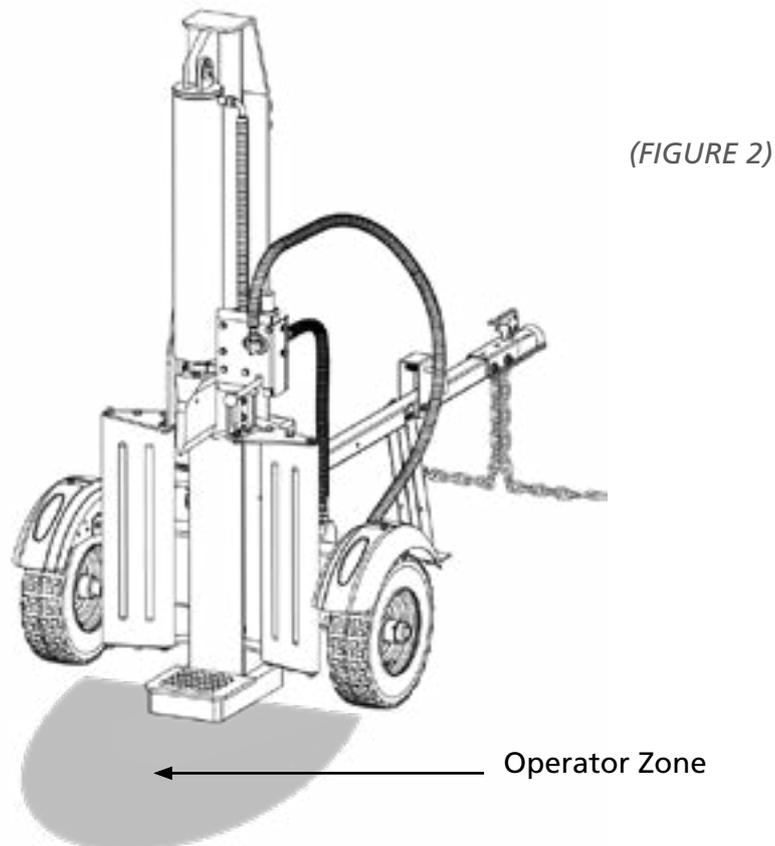
OPERATOR ZONE

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 if needed. See FIGURE 1.



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





IMPORTANT SAFETY INFORMATION

MAINTENANCE SAFETY

1. Stop the engine, disconnect the spark plug and ground it against the engine before cleaning, or inspecting the machine.
NEVER perform any service or repair on your log splitter without first removing the spark plug wire.
2. Stop the engine and relieve hydraulic system pressure by cycling the valve control lever from forward to reverse several times while engine is not running. Return 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** check the level of hydraulic oil and engine oil before operation.
5. **ALWAYS** periodically check that all nuts, bolts, screws, hydraulic fittings and hose clamps are tight to be sure equipment is in safe working condition.
6. **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.
7. 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.
8. **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 area and looking for discoloration.
9. **NEVER** remove the cap from the hydraulic tank or reservoir while the log splitter is running. The tank could contain hot oil under pressure which could result in serious injury.
10. **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.
11. **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.
12. **ALWAYS** be sure to relieve all pressure by shutting off the engine and moving the valve control handle back and forth should it become necessary to loosen or remove any hydraulic fitting.



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

According to the Consumer Products Safety Commission (CPSC) and the U.S. Environmental Protection Agency (EPA), this product has an Average Useful Life of seven (7) years, or 130 hours of operation. At the end of the Average Useful Life have the machine inspected annually by an authorized service dealer to ensure that all mechanical and safety systems are working properly and not worn excessively. Failure to do so can result in accidents, injuries or death.



IMPORTANT SAFETY INFORMATION

FIRE PREVENTION

1. **ALWAYS** take a Class B fire extinguisher with you when operating this log splitter in dry areas.
2. **NEVER** operate your log splitter near a flame or spark or smoke during operation. Extinguish all cigarettes, cigars, pipes, and other sources of ignition. Hydraulic oil and petrol are flammable and can explode.
3. To avoid personal injury or property damage use extreme care in handling petrololine. Petrol is extremely flammable and the vapours are explosive.
4. **ALWAYS** store petrol in an approved, tightly sealed container and keep away from heating appliances. Store the container in a cool, dry place.
5. When petrol is spilled on yourself or your clothes wash your skin and change clothes immediately.
6. **NEVER** refuel the petrol tank while the engine is hot or running. Allow the engine to cool before refueling.
7. **ONLY** refuel your log splitter in a clear area with no petrol fumes or spilled petrol. Never fuel machine indoors.
8. Never overfill the fuel tank. Fill tank to no more than 15 mm below bottom of filler neck to provide space for fuel expansion.
9. If petrol is spilled out, wipe it off the engine and equipment, and move machine to another area. Wait five (5) minutes before starting the engine.
10. **ALWAYS** replace the petrol cap securely. Never remove petrol cap while the engine is hot or running.
11. To prevent fires, clean debris and chaff from the engine and muffler areas.
12. Allow machine to cool at least ten (10) minutes before storing.
13. **ALWAYS** drain the fuel tank prior to storage to avoid the potential fire hazard.
14. Never store the machine or fuel container inside where there is an open flame, spark or pilot light as on a water heater, space heater, furnace, clothes dryer or other petrol appliances.
15. If the engine is equipped with a spark arrester muffler, clean and inspect it regularly according to manufacturer's instructions. Replace if damaged.



SPARK ARRESTOR

WARNING!

This log splitter is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-covered or grass-covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark arrester is used, it should be maintained in effective working order by the operator. Always follow Federal laws that apply on federal lands. A spark arrester muffler is optional and available as an accessory at your nearest engine dealer. Always check the legal requirements in your area.



IMPORTANT SAFETY INFORMATION

TOWING SAFETY

1. **NEVER** carry any cargo or wood on your log splitter.
2. **NEVER** allow anyone to sit or ride on your log splitter.
3. **ALWAYS** turn the fuel shut off valve on the engine to the "OFF" position before towing the log splitter. Failure to do so may result in flooding the engine.
4. **ALWAYS** check to make sure the low coupler is adjusted properly each time before towing and after towing 80 km.
5. **ALWAYS** check before towing to make sure that the log splitter is correctly and securely attached to the towing vehicle and that the safety chains are secured to the hitch or bumper of the vehicle with enough slack to allow turning. Always use a Class I, 2" ball with this log splitter.
6. **NEVER** exceed weight capacity of ball or load limits of coupler. ALWAYS replace ball or coupler if damaged.
7. **NEVER exceed 60 km/h when towing your log splitter.** Towing the log splitter at speeds higher than 60 km/h could result in loss of control, damage to the equipment, or serious injury or death. Adjust towing speed for terrain and conditions.
8. **ALWAYS** be careful when backing up with your log splitter in tow. It could jackknife.
9. **ALWAYS** allow for added length of your log splitter when turning, parking and crossing intersections and in all driving situations.
10. **ALWAYS use safety chains when towing your log splitter.**
11. Be extra cautious when towing over rough terrain, especially railroad crossings, and avoid sharp turns and steep angles when towing your log splitter.
12. Never attempt to move this machine over hilly or uneven terrain without a tow vehicle or adequate help.
13. **ALWAYS** disconnect your log splitter from the towing vehicle before operating it.
14. **ALWAYS** check all local and state regulations regarding towing, licensing and lights before towing your log splitter. This machine should not be towed on any street, highway or public road without checking the existing federal, state, or local vehicle requirements. Any licensing or modifications such as taillights, etc., needed to comply, is the sole responsibility of the purchaser. If a "Statement of Origin" is required in your state, see your local dealer.
15. See Transporting the Log Splitter section in this manual for proper towing instructions once all federal, local, or state requirements are met.

SAVE THESE INSTRUCTIONS



ASSEMBLY & SETUP INSTRUCTIONS

UNPACKING THE CONTAINER



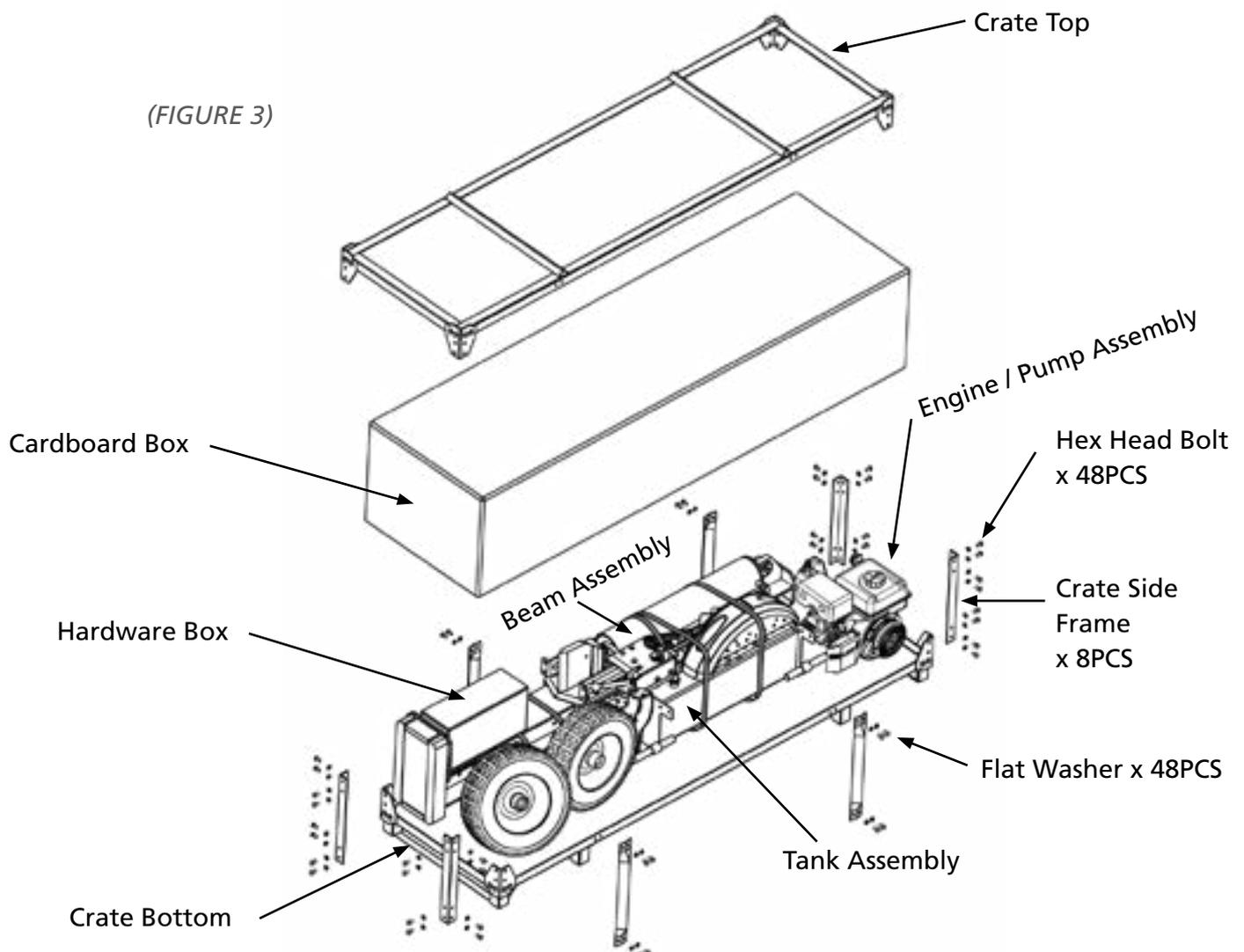
WARNING! Use extreme caution unpacking this machine. Some components are very heavy and will require additional people or mechanical handling equipment.

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 13mm
2. Scissors or knife
3. Pry bar or claw hammer

Step 1: Use a 13mm wrench to remove all the bolts and washers securing the side frames on the metal crate, put aside the side frames and hardware just removed, then lift away the crate top and the cardboard box. See FIGURE 3.



Step 2: Remove all loose parts included in the container, e.g. wheels and hardware box.

Step 3: Use scissors or a knife to cut and remove the straps securing the parts to the beam or tank assembly, including fenders, tongue assembly, log tray & log dislodger assemblies, then put aside these parts for assembly.

NOTE: DO NOT remove the strap securing the hydraulic hoses assemblies to the beam at this time, until you do the assembly procedure of the hoses.

Step 4: Use scissors or a knife to cut and remove the straps securing the engine / pump assembly to the crate bottom, and then place aside carefully for assembly.

Step 5: Use a pry bar or claw hammer to remove the plywood splinters securing the beam and tank assemblies on the crate bottom. Take out the two heavy assemblies.

NOTE: Due to the weight / size of the two assemblies, it's recommended two or more adults to assist lifting and moving the two assemblies. Lifting tools as hoist, crane, jack, etc. are recommended too.

Step 6: Inspect all component assemblies, parts and accessories according to the packing list attached in this manual (Page 36). 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 for assistance.

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

ASSEMBLY & SETUP INSTRUCTIONS

ASSEMBLING

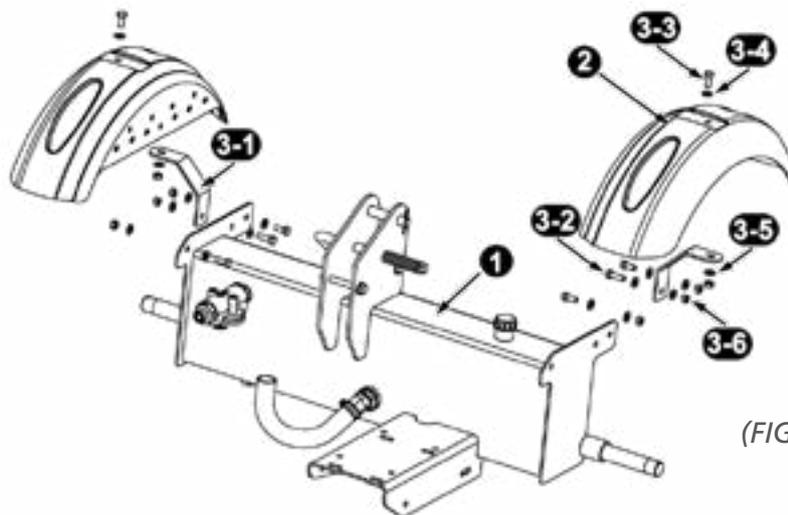
NOTE: Due to the weight / size of the log splitter, it's recommended that two or more adults be present to assist with the assembling. Some lifting tools such as hoist, crane, jack, etc. are recommended too.

Assembling tools needed:

1. Wrench 13mm x 2
2. Wrench 14mm x 2
3. Wrench 16, 17, 18, 19, 27, 32 mm one each
4. Wrench 1 / 2" x 1
5. Adjustable wrench x 1
6. Needle nose pliers x 1
7. Allen wrench 3mm x 1
8. Flat head screwdriver x 1
9. Soft faced hammer x 1
10. Thread locking compound x 1

STEP 1: Install the fenders. See FIGURE 4.

1. Loosely secure the fender to the fender support, and then loosely secure fender support to the reservoir assembly as shown using the hardware in the Hardware Kit #1.
2. Tighten the hardware using two 13mm wrenches.

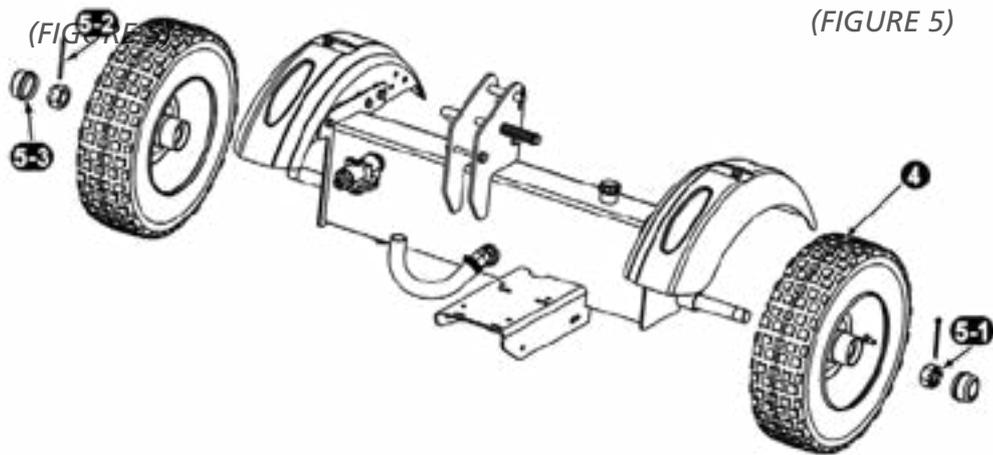


(FIGURE 4)

REF. NO.	DESCRIPTION	QTY.
1	Reservoir tank assembly	1
2	Fender	2
3	Hardware Kit #1, including:	1
3-1	Fender support	2
3-2	Hex head bolt / M8 x 25	2
3-3	Hex head bolt / M8 x 20	6
3-4	Flat washer / Ø9 x Ø24 x 1.5	2
3-5	Flat washer / M8	14
3-6	Lock nut / M8	8

STEP 2: Install the two wheels. See FIGURE 5.

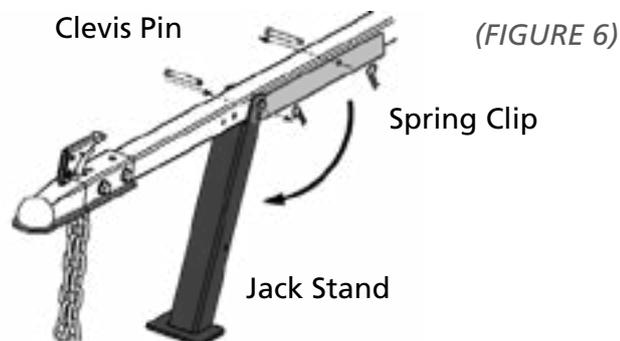
1. Raise the reservoir tank assembly off the ground on some blocks before mounting. Remove the plastic shipping caps from the wheels and position the wheels onto the wheel axels.
2. Screw the castle nuts onto the axels and tighten with an adjustable wrench to seat the bearings. Then back the castle nuts off one half turn and snug them up to the bearings by hand, so they line up with the hole in the axel.
3. Insert the split pin into the slot of castle nut and the hole in the axel, then bend the ends of the pin with needle nose pliers keeping it close to the castle nut so the dust cap fits over it.
4. Tap the dust caps onto the wheel using a soft faced hammer.



REF. NO.	DESCRIPTION	QTY.
4	D.O.T. Road-speed tire / Wheel	2
5	Hardware Kit #2, including:	1
5-1	Castle nut / 1-14	2
5-2	Split pin / Ø4 x 50	2
5-3	Dust cap	2

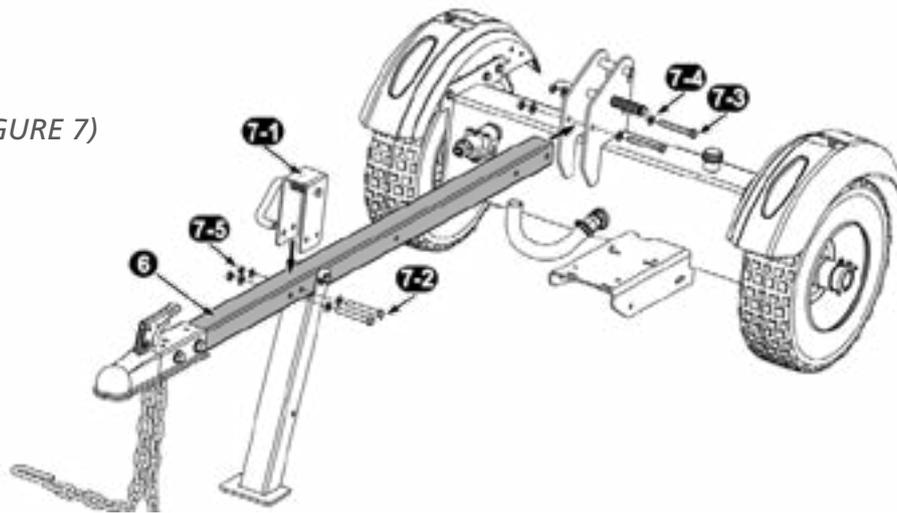
STEP 3: Install the tongue and jack stand assembly.

1. Remove the spring clip (Ø3) and clevis pin (Ø6 x 50) which hold jack stand on the tongue, and then pivot the jack stand towards the ground. Secure the jack stand in position with the clevis pin and spring clip just removed. See FIGURE 6.



2. Install the horizontal beam lock onto the tongue using the M10 hardware, then attach the tongue to the reservoir assembly. Tighten the hardware using a 16mm wrench for bolts and a 17mm wrench for the lock nuts. See FIGURE 7.

(FIGURE 7)

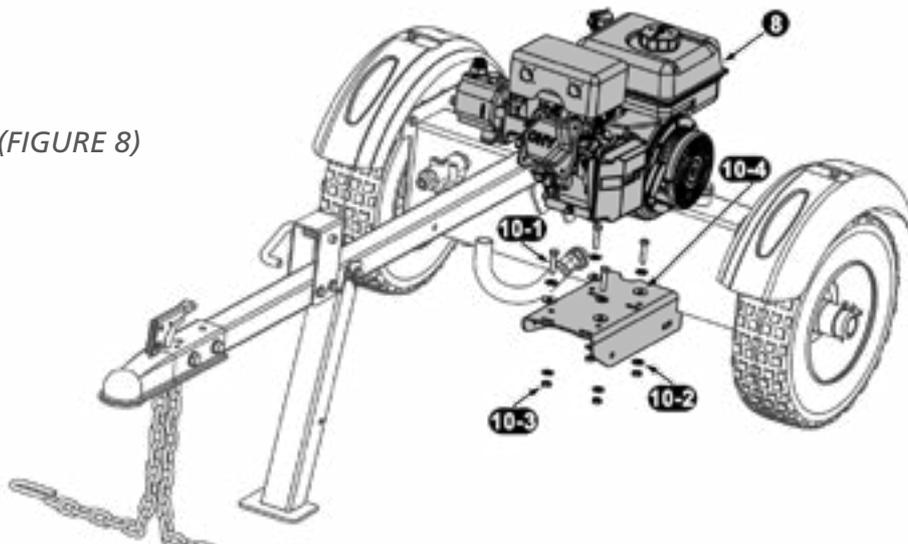


REF. NO.	DESCRIPTION	QTY.
6	Tongue & Jack stand assembly	1
7	Hardware Kit #3, including:	1
7-1	Horizontal beam lock	1
7-2	Hex head bolt / M10 x 70	2
7-3	Hex head bolt / M10 x 75	2
7-4	Flat washer / M10	8
7-5	Lock nut / M10	4

STEP 4: Install the engine / pump assembly to the engine mount plate on the reservoir assembly. See FIGURE 8.

1. Insert vibration isolator between the engine and the mount plate at each of the four mounting hole positions.
2. Secure the engine with the hardware, then tighten the hardware using two 13mm wrenches for 22 ton / 28 ton model, or 16mm wrench on bolts, 17mm wrench on lock nuts for 35 ton model.

(FIGURE 8)

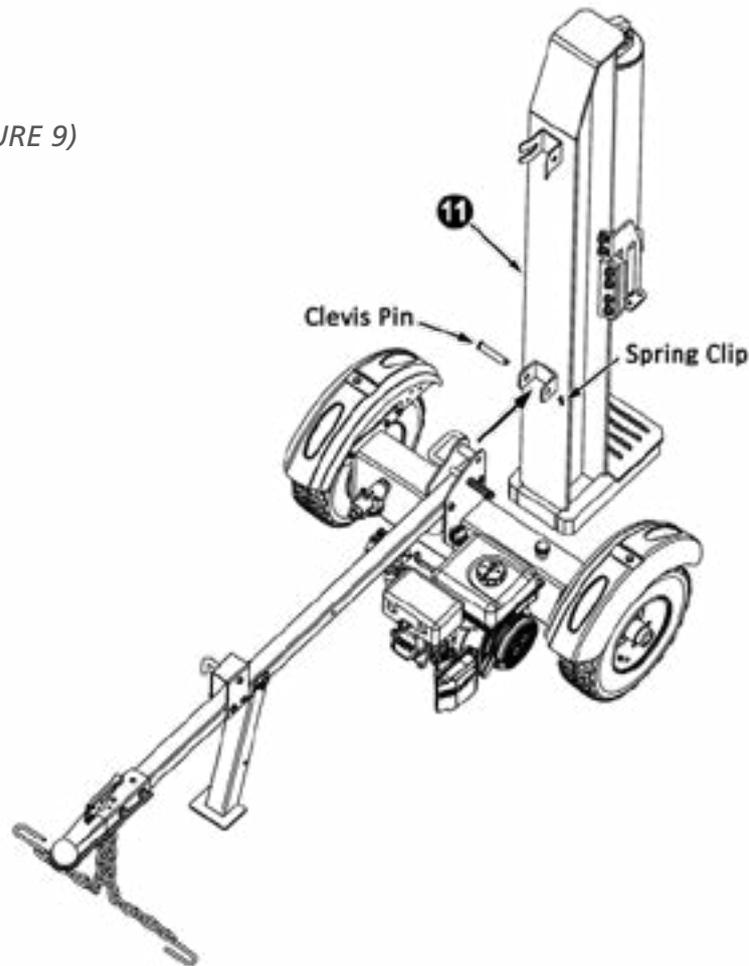


REF. NO.	DESCRIPTION	QTY.
8	Engine / Pump assembly	1
10	Hardware kit # 5-1 (22 / 28T) or # 5-2 (35T), including:	1
10-1	Hex head bolt / M8 x 40 (22 / 28T) or M10 x 40 (35T)	4
10-2	Flat washer / M8 (22 / 28T) or M10 (35T)	8
10-3	Lock nut / M8 (22 / 28T) or M10 (35T)	4
10-4	Vibration isolater Ø9 (22 / 28T) or Ø11 (35T)	4

STEP 5: Install the beam assembly. See FIGURE 9.

1. Stand the beam upright on a flat level. Two or more people are recommended to assist with raising and lowering the beam as it is very heavy. Have a helper support the beam as you perform the following steps. Be sure to keep hands away from any possible pinch points.
2. Remove the clevis pin and spring clip from the beam support bracket on the tank. Position the tongue / tank assembly so that the beam support bracket is in between the two tabs on the beam.
3. Slide the clevis pin through the aligned holes and secure with the spring clip. You may need another helper to lift up the tongue for the holes to align.
4. Leave the beam in the vertical position for continual assembling steps.

(FIGURE 9)



REF. NO	DESCRIPTION	QTY
11	Beam assembly	1

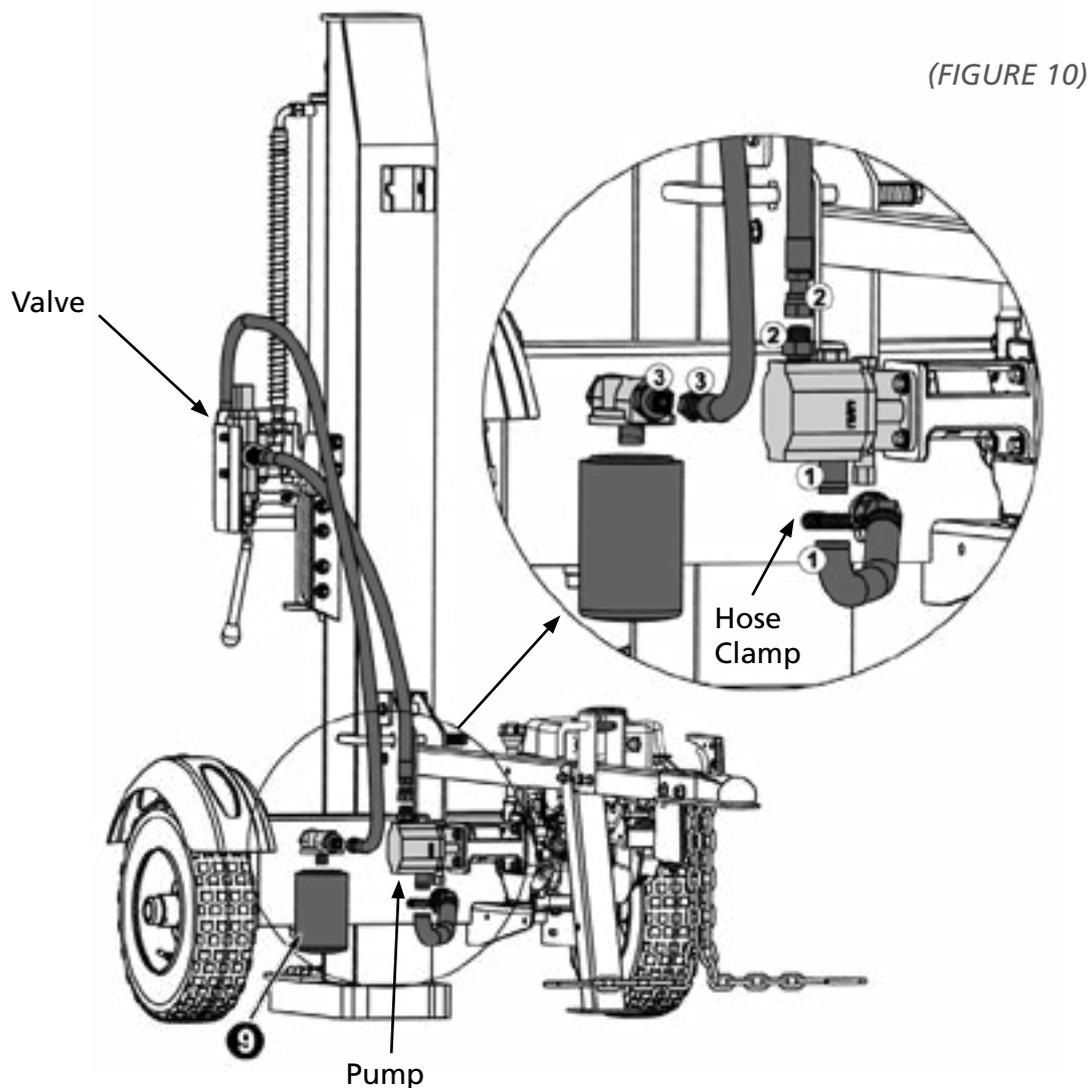


WARNING! Take extra care when raising and lowering the beam as it is fairly heavy. Having a second person assist with raising or lowering the beam is recommended. Be sure to keep hands away from any possible pinch points.

STEP 6: Connect hydraulic hoses and screw on the oil filter. See FIGURE 10.

There are three hydraulic hoses listed below, each of them has one end fixed on the log splitter by manufacturer, and the other open end still needs to be attached. The hoses are labeled on the ends for easy installation.

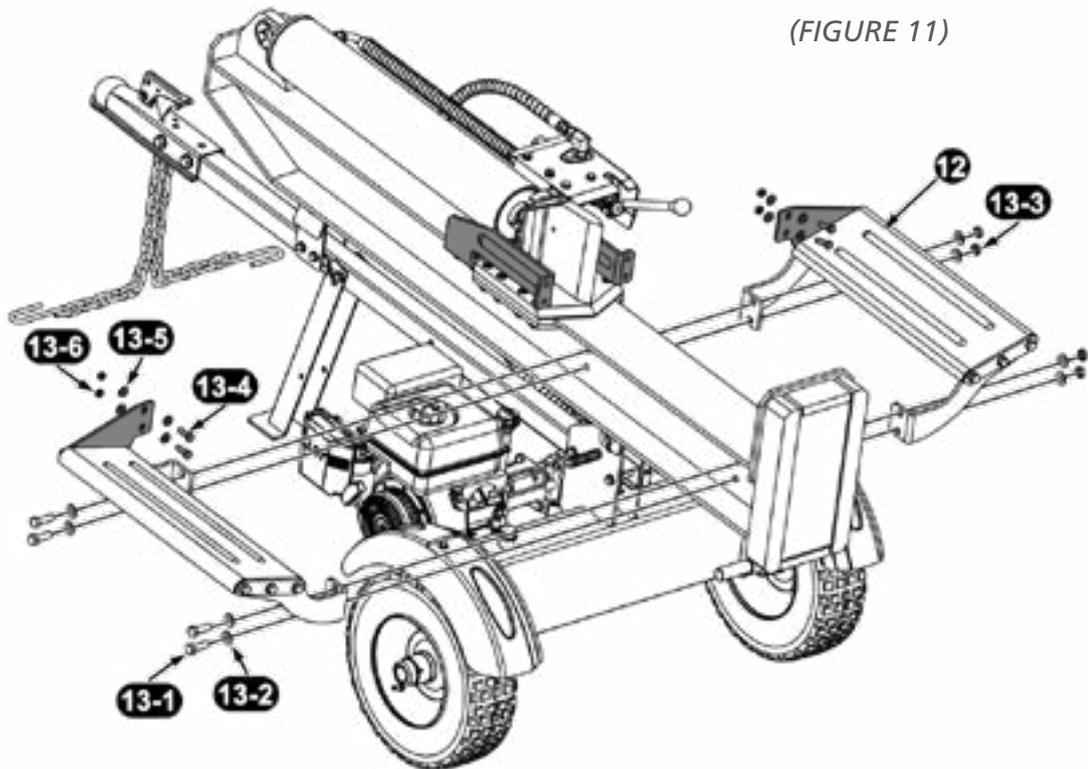
1. Oil suction hose $\frac{3}{4}$ " , labeled as ①, comes from the bottom of the reservoir.
2. Loosen the hose clamp on the open end of this hose using a flat head screwdriver, then connect the hose to the fitting on the bottom of the pump, which is also labeled as ①. Tighten the hose clamp.
3. Pump / Valve connecting hose $\frac{1}{2}$ " , labeled as ②, comes from the bottom of the valve on the beam assembly. Screw the open end of this hose onto the fitting on top of the pump, which is also labeled as ②. Tighten using a 27mm wrench or an adjustable wrench.
4. Oil return hose $\frac{3}{4}$ " , labeled as ③, comes from the top of the valve on the beam assembly.
5. Screw the open end of this hose onto the fitting on the oil filter housing, which is also labeled as ③. Tighten the hose using a 32mm wrench or an adjustable wrench.
6. Screw on the oil filter onto the bottom of the filter housing.



REF. NO.	DESCRIPTION	QTY.
9	Oil filter	1

STEP 7: Install the log tray / dislodger assemblies. See FIGURE 11.

1. Lower the beam to horizontal position. Please refer to “Beam Operating Positions” section in Page 26.
2. Position the log tray frames onto the beam as shown and secure with the M12 hardware loosely.
3. Loosely secure the log dislodgers onto its support plate with the M10 hardware.
4. Tighten the M12 hardware using an 18mm wrench on the bolts, and a 19mm wrench on the lock nuts.
5. Tighten the M10 hardware using an 16mm wrench on the bolts, and a 17mm wrench on the lock nuts



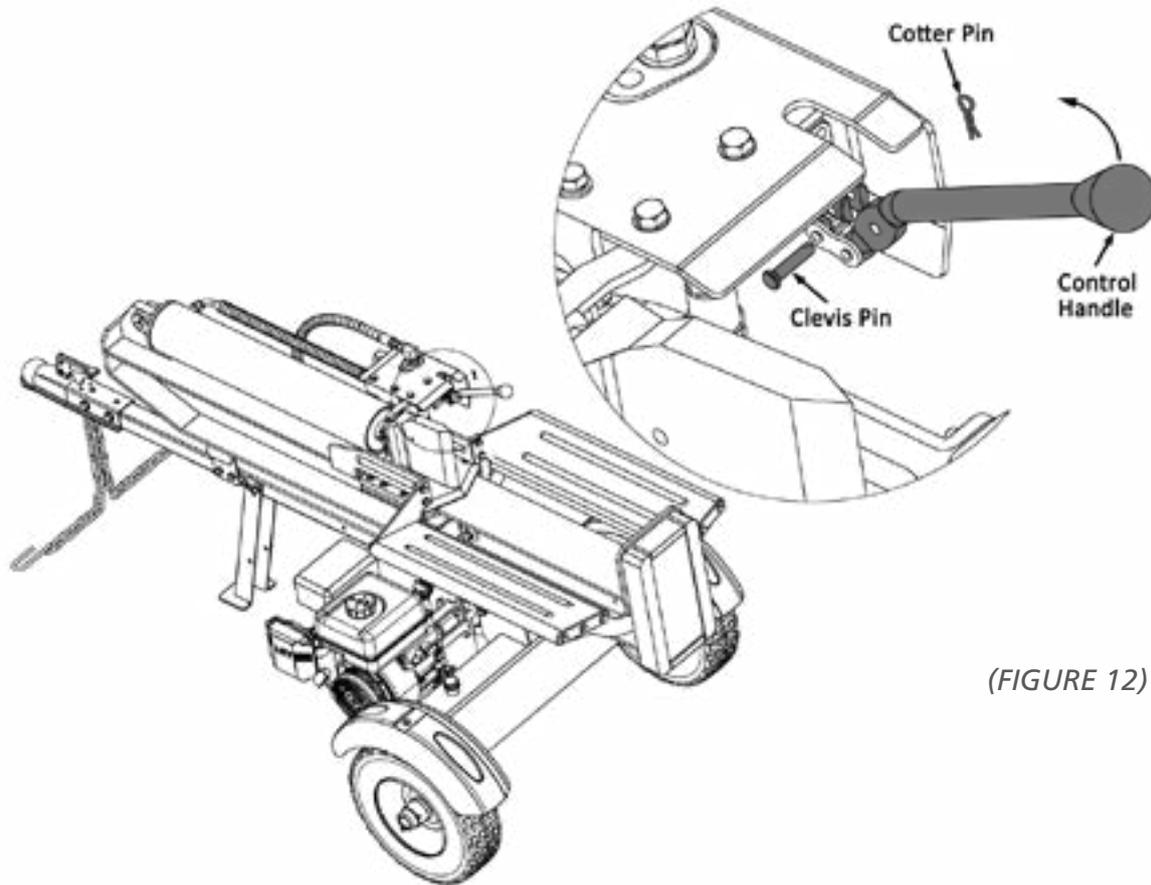
(FIGURE 11)

REF. NO.	DESCRIPTION	QTY.
12	Log tray & Log dislodger assembly	2
13	Hardware Kit #6, including:	1
13-1	Hex head bolt / M12 x 45	4
13-2	Flat washer / M12	8
13-3	Lock nut / M12	4
13-4	Hex head bolt / M10 x 25	4
13-5	Flat washer / M10	8
13-6	Lock nut / M10	4

STEP 8: Assemble the control handle. See FIGURE 12.

The control handle is shipped hanging from the valve on the handle link.

1. Remove the clevis pin and bow-tie cotter pin from the valve.
2. Rotate the control handle up into the operating position and secure with the clevis pin and cotter pin just removed.



(FIGURE 12)

ASSEMBLY & SETUP INSTRUCTIONS

SET-UP

Petrol and Oil Fill-Up

Service the engine with petrol and engine oil as instructed in the engine manual packed with your log splitter. Read the instructions carefully.



WARNING! Use extreme care when handling petrololine. Petrol is extremely flammable and the vapours are explosive. Never fuel the machine indoors or while the engine is hot or running.

NOTE: Your log splitter may be shipped without engine oil. You **MUST** check the oil level before operating. Be careful not to overfill. Petrol can be added to the engine when the log splitter is in either the horizontal or vertical position. However, it may be easier when the splitter is in the vertical position.

Adjust Handle Release Lever

Your log splitter is equipped with an external pressure release system which is attached under the valve bracket. When you set up the machine and try it, you will see the back of the wedge hits the handle release lever when the wedge is fully retracted. The control handle is then kicked back from reverse position to the neutral position automatically.

The lever may need to be adjusted if the wedge is fully retracted and the control lever does not automatically kick into neutral.

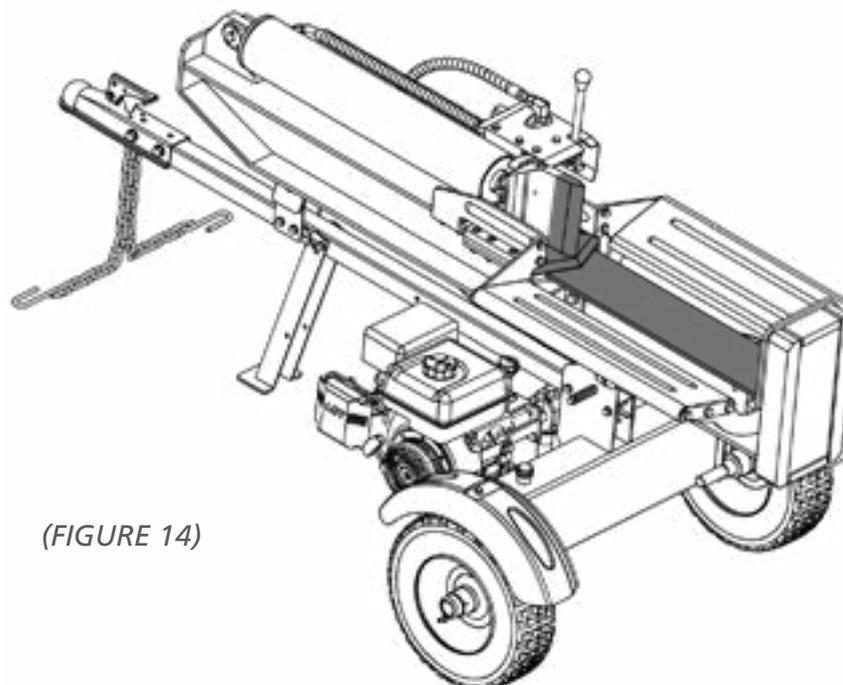
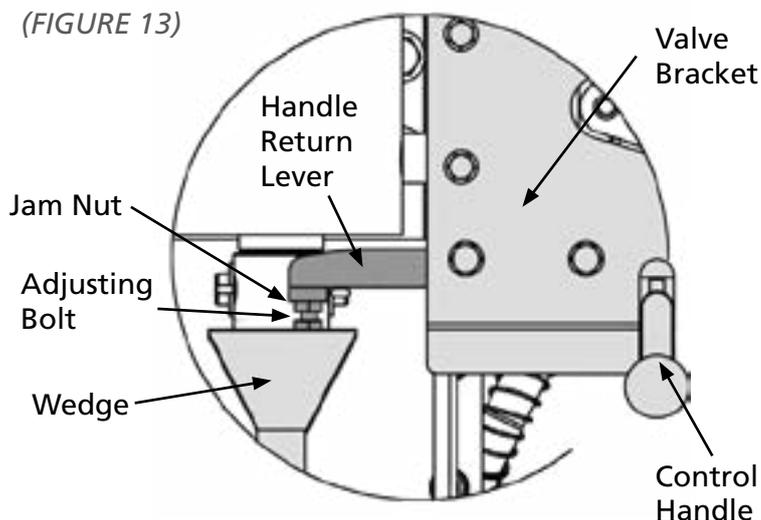
To adjust the handle release lever, See FIGURE 13

1. Loosen the Jam nut using a 14mm wrench.
2. Screw the adjusting nut counter clockwise to allow it contact with the wedge as soon as the wedge is fully retracted.
3. Tighten the jam nut after adjusting.

Lubricate the Beam

Lubricate the beam area (where the splitting wedge will slide) with engine oil. Do not use grease. See FIGURE 14.

(FIGURE 13)

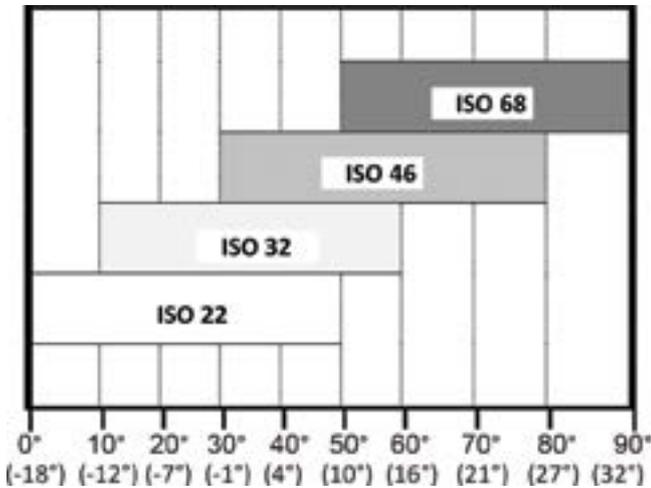


(FIGURE 14)

Fill hydraulic oil

The log splitter is shipped without hydraulic fluid in the reservoir. Fill the reservoir before your initial use.

1. Remove the vented reservoir dipstick, which is located next to the engine on top of the reservoir tank. See FIGURE 15.



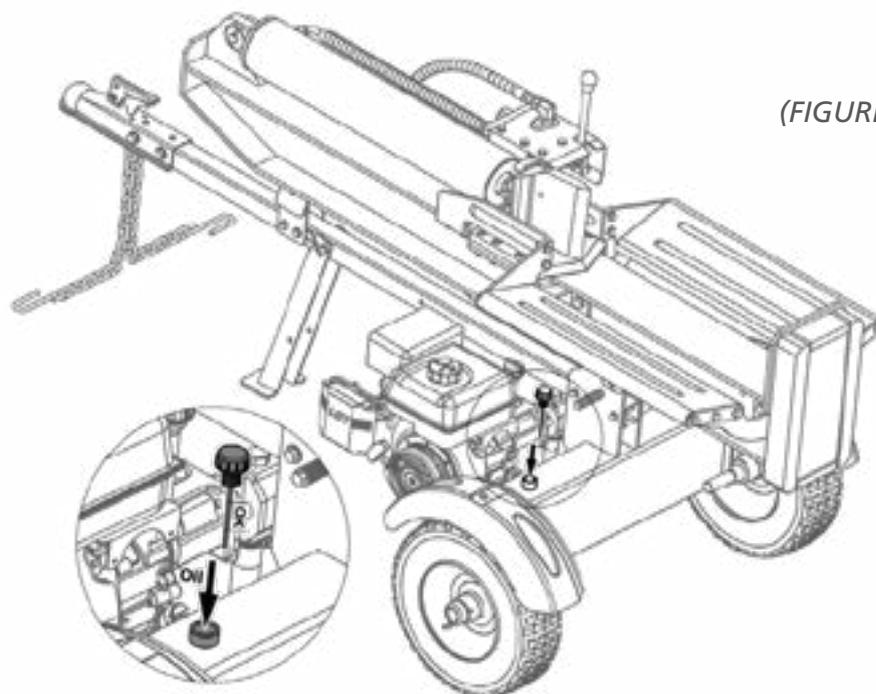
Please select the oil based on the outside temperature range the log splitter will be used in. Refer to the chart provided to select the appropriate hydraulic oil.

Approved fluids include Shell Tellus® S2 M 32 Hydraulic Fluid, Dexron® III / Mercon® automatic transmission fluid, Pro-Select™ AW-32 Hydraulic Oil or 10WAW-ISO viscosity grade 32 hydraulic oil. It is not recommended that fluids be mixed, to top off the reservoir tank during initial set-up use Shell Tellus® S2 M 32 Hydraulic Fluid only.

2. Slowly fill the reservoir tank with the recommended hydraulic oil until oil level reach the maximum line on the dipstick.
3. Replace the vented dipstick in the reservoir.
4. Start the engine, and use the control handle to engage the wedge to the farthest extended position and then retract. Repeat this operation for 12 cycles. Much of the fluid will be drawn into the cylinder and hoses. Stop the engine, and check the oil level as instructed below.

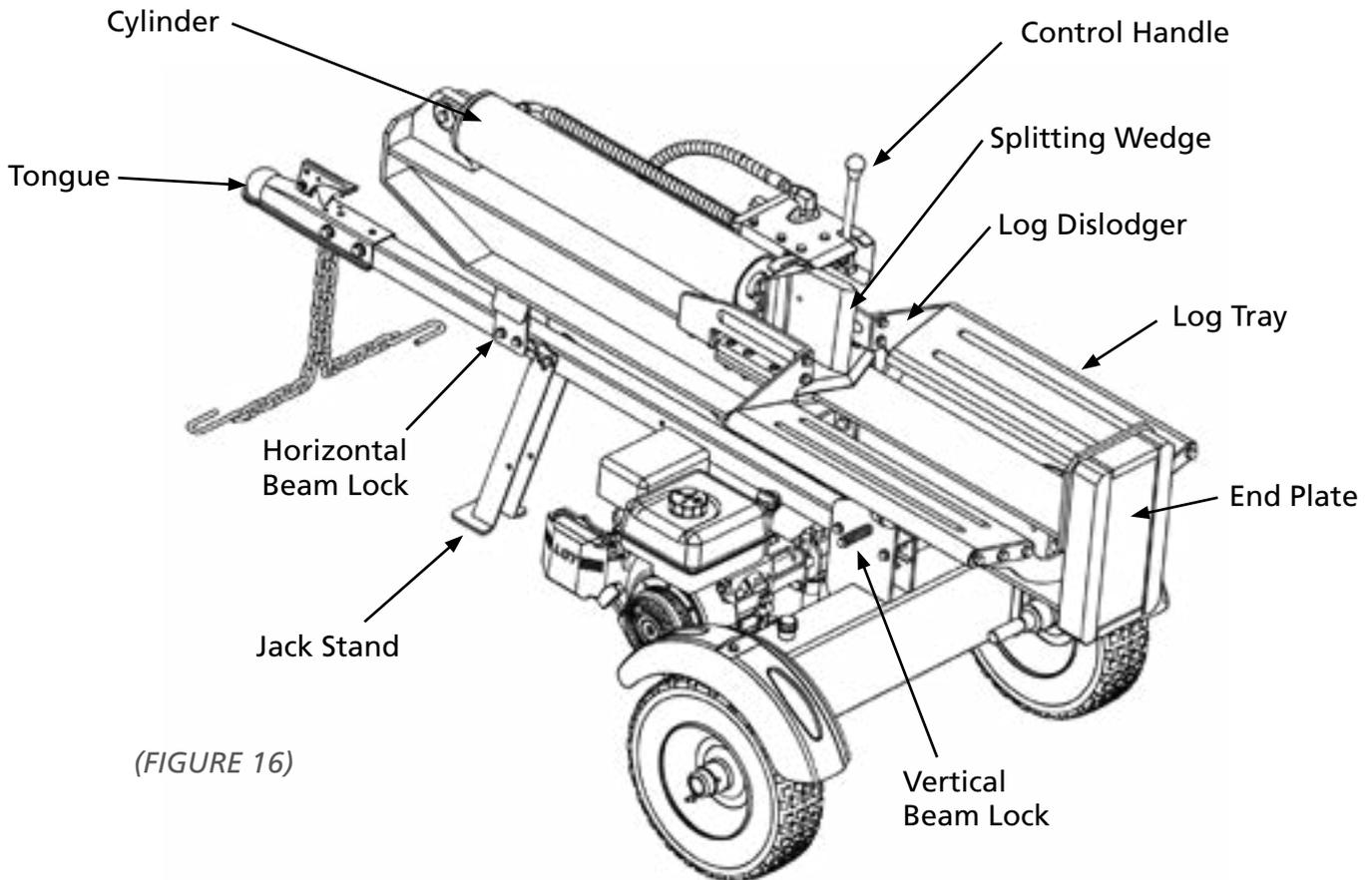
NOTE: Make sure the oil level is above the bottom line on the dipstick. If not, refill the reservoir to prevent damage to the hydraulic pump. **DO NOT overfill.** Some fluid may overflow from the vent plug as the system builds heat and the fluid expands and seeks a balanced level.

5. However, you **MUST** check the fluid level before each operating. If not filled, proceed with above steps.



(FIGURE 15)

Know Controls and Features



NOTE: This Owner's Manual covers several models. Log splitter features may vary by model. Not all features in this manual are applicable to all log splitter models and the log splitter depicted may differ from yours.

Engine Controls

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

Beam Locks

These two locks, as their name suggests, are used to secure the beam in the horizontal or the vertical position. The vertical beam lock is located next to the engine. 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.

Splitting Wedge

The wedge is used to split the wood.

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.

Tongue

The tongue is used to attach to a towing vehicle for transportation.

End Plate

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

OPERATION INSTRUCTIONS

STARTING & STOPPING THE ENGINE

Refer to the Engine Owner's manual packed with your log splitter for instructions on starting and stopping the engine.

BEAM OPERATING POSITIONS

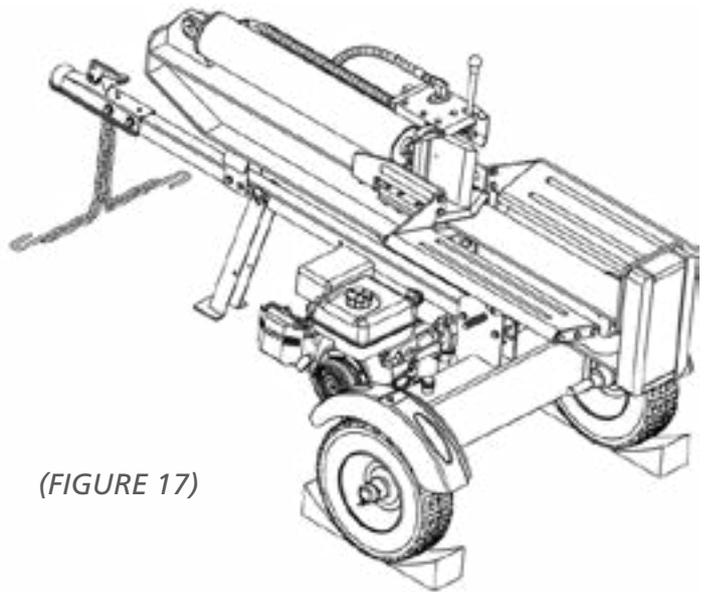
1. Place the log splitter on flat, dry, solid ground.
2. Block both wheels to prevent your log splitter from moving during operation. See FIGURE 17.
3. Place the beam in either the horizontal or vertical position and lock into place.



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.



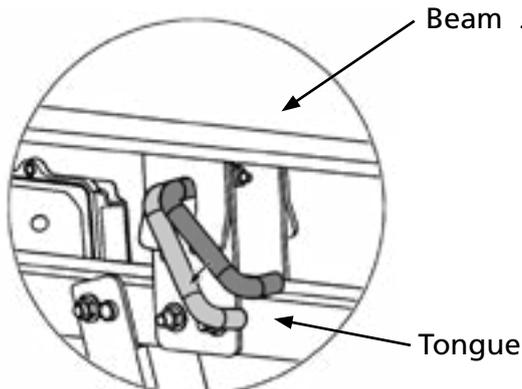
WARNING! Always use the log splitter in the vertical position when splitting heavy logs.



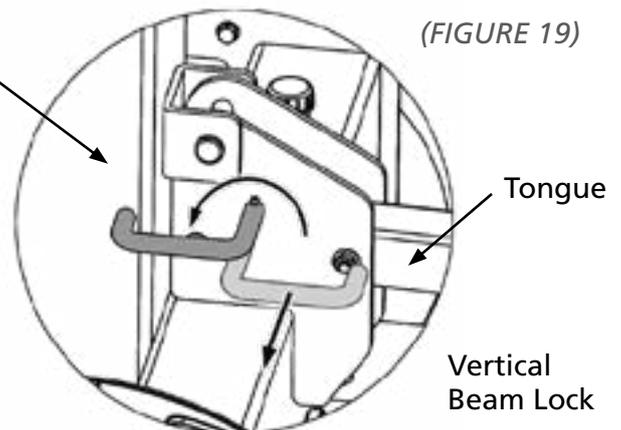
(FIGURE 17)

4. To place the beam in the Vertical Position proceed as follows:
 - i. Pull the horizontal beam lock lever out and rotate it downward, so it rests against the side of the lock and remains unlocked. See FIGURE 18.
 - ii. Use both your hands to lift up the beam, and flip it over to the vertical position, then rotate the horizontal lock lever back up to release the lock.
 - iii. To lock the beam in the vertical position, pull out the vertical beam lock and rotate it up to secure with the beam. See FIGURE 19.
5. To place the beam in the Horizontal Position proceed as follows:
 - i. Pull the vertical beam lock out and rotate it down to unlock the beam. Pivot the beam to the horizontal position. See FIGURE 19.
 - ii. The horizontal beam lock is self-locking. The spring loaded lock will snap into place when the beam is lowered into position.

(FIGURE 18)



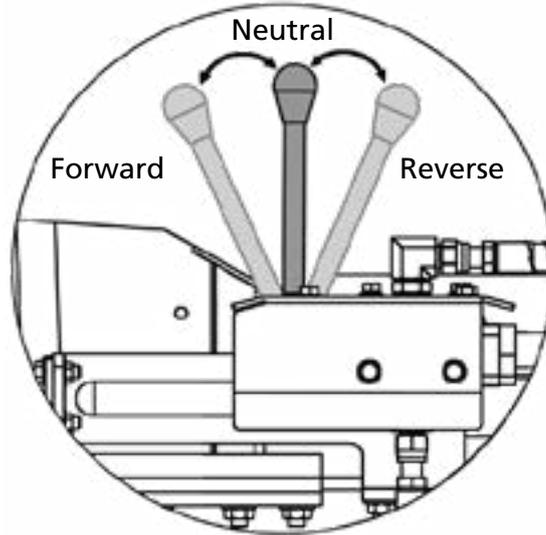
(FIGURE 19)



OPERATION INSTRUCTIONS

USING CONTROL HANDLE

The control handle has three positions. See FIGURE 20.



(FIGURE 20)

- **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 will automatically return toward the cylinder. When the wedge is fully retracted and contacts the handle release lever, the control handle will return to the NEUTRAL position automatically.

Do not hold the handle in the REVERSE position when fully retracted. Let it kick back to the NEUTRAL position.



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.

OPERATION INSTRUCTIONS

SPLITTING THE WOOD

1. Start the engine as instructed in the Engine Owner's manual included with the log splitter.
2. Grasp the log on the sides and place it on top of the beam against the end plate. Always split the wood in the direction of the grain. See FIGURE 21.
3. To stabilize the log, place your left hand on the side of the log. See FIGURE 21.

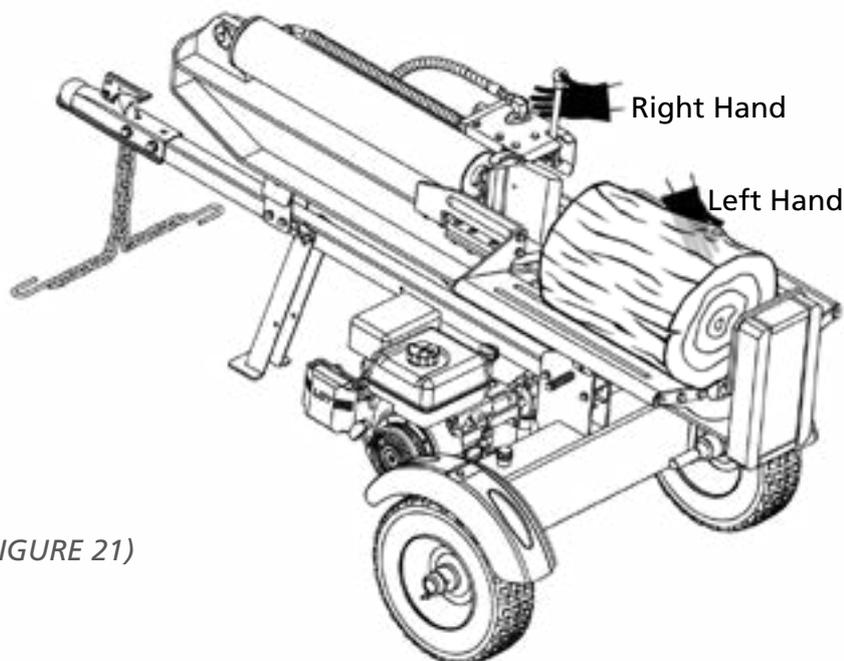


WARNING! Never place a hand on the ends of the log, between the log and the end plate or the log and the splitting wedge.



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

4. Use your right hand to push the control handle lever to the forward position to split the wood.
5. Remove left hand from the log once the wedge begins to contact with the log. Continue holding the control handle in the forward position until the log splits.
6. Release the control handle to stop the wedge movement at any point in the splitting process if you feel an unsafe splitting condition is occurring. **NEVER** reach forward and attempt to catch a falling piece of wood—let it fall.
7. Once the log split or the wedge fully extended, move the control handle to the reverse position to return the wedge.
8. Remove partially split wood from wedge.



(FIGURE 21)

- i. Move the control handle to the REVERSE position until the wedge is fully retracted to allow the partially split wood to contact the log dislodger.



WARNING! Never remove partially split wood from the wedge with your hands. Fingers may become trapped between the split wood.

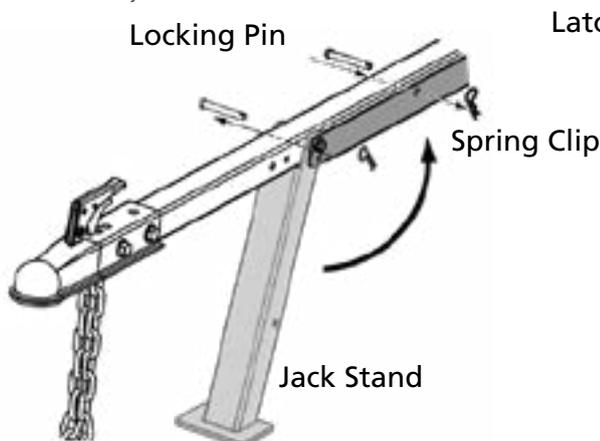
- ii. Once removed from the wedge with the log dislodger, split the wood from the opposite end or in another location.

OPERATION INSTRUCTIONS

TRANSPORTING THE LOG SPLITTER

1. Lower the beam to its horizontal position. Make certain the beam is locked securely with the horizontal beam lock.
2. Change the jack stand to transporting position. See FIGURE 22.
 - i. Remove the spring clip and clevis pin from the jack stand.
 - ii. Have a helper to support the tongue, or use a wheeled trailer jack to raising the tongue (optional accessory from the manufacturer), then pivot the jack stand up against the tongue.
 - iii. Secure with the spring clip and clevis pin previously removed.

(FIGURE 22)



Latch Assembly

Hitch Coupler

Safety Chain

(FIGURE 23)

3. Pull the latch on the hitch coupler up, position the coupler over onto the tow ball behind your towing vehicle, and then close the latch to lock the ball securely. See FIGURE 23
 - i. If the coupler hitch is too tight and does not fit onto the ball, turn the adjustment nut one turn counter-clockwise.
 - ii. If the coupler hitch is too loose on the ball, turn the adjustment nut one turn clockwise, then recheck and adjust accordingly.
4. Attach the safety chains to the towing vehicle crossing each other under the tow ball, ensuring there is enough slack for turning.
5. Insert the locking pin into the hole in the latch assembly and lock with the spring clip.



WARNING! Do not tow faster than 60 km/h and check the local, state and federal requirements before towing on any public road.

NOTE: Use caution when backing up. Using a spotter outside the vehicle is recommended.

MAINTENANCE & ADJUSTMENTS

Regular maintenance is the way to ensure the best performance and long life of your machine. Please refer to this manual and the engine manufacturer's owner's manual for maintenance procedures.



WARNING! Do not make any adjustments without first stopping the engine, disconnecting the spark plug wire and grounding it against the engine. Always wear safety glasses during operation or while performing any adjustments or repairs.

Engine

Refer to the Engine Owner's manual packed in the hardware kit box of your log splitter for all engine maintenance e.g. how to check and change the engine oil.

NOTE: When draining oil from the engine on this log splitter, shield the hoses from any oil that may run down the frame and drip onto the hoses. Thoroughly wipe any residual oil off the log splitter and hoses after completing service.

Tire Pressure

The tires coming with your log splitter are D.O.T. certified off-road pneumatic tires. The max recommended operating pressure is 30 psi. Do not, under any circumstances, exceed the manufacturer's recommended psi. Maintain equal pressure on both tires.



WARNING! Excessive pressure when seating beads may cause the tire/rim assembly to burst with force sufficient to cause serious injury.

Hydraulic Filter

Change the hydraulic filter every 50 hours of operation. Use only a 10 micron hydraulic spin-on filter which is available through an authorized dealer. Order part # 51 in Exploded Diagram.

Flexible Pump Coupler

The flexible pump coupler, located between the pump and the engine shaft, has a nylon "spider" insert. Over time, the insert will harden and deteriorate. If you detect vibration or noise coming from the area between the engine and the pump, contact an authorized dealer. Make sure to change a new coupler spider immediately when the spider coupler fails, or you will experience a loss of hydraulic power.

Hydraulic Fluid

Check the hydraulic fluid level in the log splitter reservoir tank before each use. Maintain the fluid level within the range specified on the dipstick at all times.

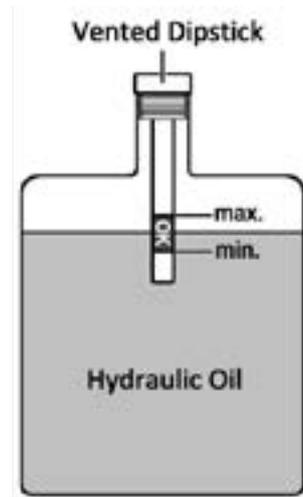
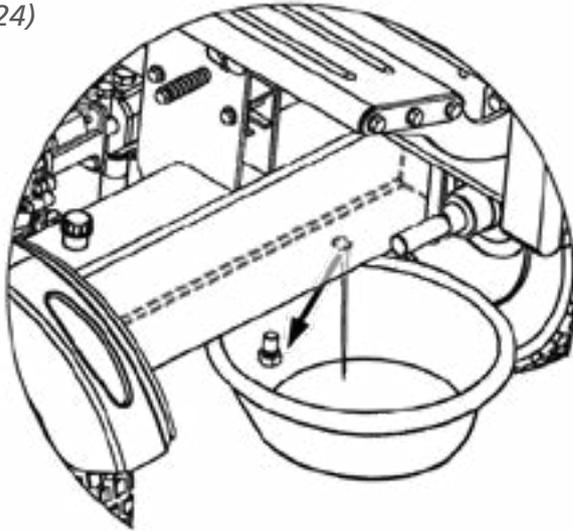
Change the hydraulic fluid in the reservoir every 100 hours of operation. The filter should also be changed with each hydraulic fluid change. Follow the steps below:

1. Place a suitable oil collection container under the tank.
2. Disconnect the oil drain plug from the bottom of the reservoir tank. See FIGURE 24.
3. Allow the fluid to drain into the container.

NOTE: The reservoir tank has a capacity of 19 litres of hydraulic fluid for HVG34T640.

4. After draining, put the oil drain plug back in and tighten.

(FIGURE 24)



(FIGURE 25)

5. Refill the reservoir tank (Please follow the steps in Page 24 to fill the tank, and repel the air in the tank).
6. Maintain the fluid level within the range specified on the dipstick at all times. See FIGURE 25.

NOTE: When checking the fluid, always make sure to push the dipstick all the way down to make sure you are getting an accurate reading.

NOTE: Always dispose of any used hydraulic fluid and engine oil at approved oil recycling centres only. Contaminants in the fluid may damage the hydraulic components. Flushing the reservoir tank and hoses with kerosene whenever service is performed on the tank, hydraulic pump or valve is recommended.

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.

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 with fuel in the fuel tank inside of building where fumes may reach an open flame or spark, or an ignition source such as hot water or space heaters, furnaces, clothes dryers, stoves, electric motors, etc.

1. Refer to the Engine Owner's manual packed with your log splitter for information on the off-season storage of the engine.
2. 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 or the engine. The use of water will result in a shortened life and reduce serviceability.

3. Wipe the machine with an oiled rag to prevent rust, especially on the wedge and the beam.
4. 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. A log splitter cover from the manufacturer is recommended.

TROUBLESHOOTING

Most problems are easy to fix. Consult the trouble shooting Table below for common problems and their solutions. If you continue to experience problems, contact us for support.

If the machine should start making an unusual noise or vibration, shut down the 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 style="list-style-type: none"> 1. Broken drive shaft. 2. Shipping plugs left in hydraulic hoses. 3. Set screws in coupling not adjusted properly. 4. Loose shaft coupling. 5. Gear sections damaged. 6. Damaged relief valve. 7. Hydraulic lines blocked. 8. Low oil level or air trapped in hydraulic system. 9. Damaged control valve. 10. Blocked control valve. 	<ol style="list-style-type: none"> 1. See authorized service dealer. 2. Disconnect hydraulic hoses, remove shipping plugs, and reconnect hoses. 3. See authorized service dealer. 4. Correct engine/pump alignment as necessary. 5. See authorized service dealer. 6. See authorized service dealer. 7. Flush and clean hydraulic system. 8. Fill oil or bleed air. 9. See authorized service dealer. 10. Flush and clean hydraulic system
Slow cylinder shaft speed while extending and retracting	<ol style="list-style-type: none"> 1. Gear sections damaged. 2. Excessive pump inlet vacuum. 3. Slow engine speed. 4. Damaged relief valve. 5. Low oil level or air trapped in hydraulic system. 6. Contaminated oil. 7. Control valve leaking internally. 8. Internally damaged cylinder. 	<ol style="list-style-type: none"> 1. See authorized service dealer. 2. Make certain pump inlet hoses are clear and unblocked. use short, large diameter inlet hoses. 3. See authorized service dealer. 4. See authorized service dealer. 5. Fill oil or bleed air. 6. Drain oil, clean reservoir and refill. 7. See authorized service dealer. 8. See authorized service dealer
Leaking Cylinder	<ol style="list-style-type: none"> 1. Worn seals. 2. Scored cylinder. 	<ol style="list-style-type: none"> 1. See authorized service dealer. 2. See authorized service dealer.
Wood will not split or wood splits too slowly	<ol style="list-style-type: none"> 1. Small gear section damaged. 2. Pump check valve leaking. 3. Excessive pump inlet vacuum. 4. Low oil level or air trapped in hydraulic system. 5. Contaminated oil. 6. Control valve leaking internally. 7. Overloaded cylinder. 8. Internally damaged cylinder. 	<ol style="list-style-type: none"> 1. See authorized service dealer. 2. See authorized service dealer. 3. Make certain pump inlet hoses are clear and unblocked. 4. Fill oil or bleed air. 5. Drain oil, clean reservoir and refill. 6. See authorized service dealer. 7. Do not attempt to split wood against the grain. 8. See authorized service dealer.
Leaking pump shaft seal	<ol style="list-style-type: none"> 1. Broken drive shaft. 2. Engine/pump misalignment. 3. Gear sections damaged. 4. Damaged shaft seal. 5. Plugged oil breather. 	<ol style="list-style-type: none"> 1. See authorized service dealer. 2. Correct alignment as necessary. 3. See authorized service dealer. 4. See authorized service dealer. 5. Make certain reservoir is properly vented.
Wedge continues to move forward when control handle is released	<ol style="list-style-type: none"> 1. Damaged control valve 	<ol style="list-style-type: none"> 1. See authorized service dealer.
Control handle does not return to neutral when released from forward position	<ol style="list-style-type: none"> 1. Hydraulic fluid too cold. 2. Hydraulic fluid too thick. 3. Hydraulic fluid contaminated. 4. Damaged control valve. 	<ol style="list-style-type: none"> 1. Warm up engine. 2. Replace hydraulic fluid. 3. Replace hydraulic fluid. 4. See authorized service dealer.

SPECIFICATIONS

Model	TW-LS-35T	
Engine	See engine manual	
Pump	Two-Stage, 60 lpm	
Cylinder (Bore x Stroke)	5 in. x 24 in.	
Maximum Splitting Force	35 Tons*	
Hydraulic Pressure	24.5 MPa*	
Maximum Log Length	640mm.	
Wedge Height	203mm	
Cycle Time	Forward	8.5 Seconds*
	Reverse	7.5 Seconds*
Wheels	16 x 4.8 x 8 in.	
Hydraulic Capacity	20 Litre	
Height (Horizontal / Vertical Position)	105.5 / 180.5 cm	
Length (Horizontal / Vertical Position)	221 / 213.5 cm	
Width	104 cm	
Net Weight	258.5 kgs	

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

WARRANTY & SERVICE

Warranties

Bigger Boyz Toyz offer a 1 year parts warranty on all products used for domestic use from the date of purchase. For all commercial use a 3 months parts warranty period applies, unless specified in the item listing. All conditions below are based upon the product being faulty or not performing as described. In the instance where a return is required the purchaser is liable for any shipping cost. Warranties will only be determined by a Bigger Boyz Toyz Technician upon inspection.

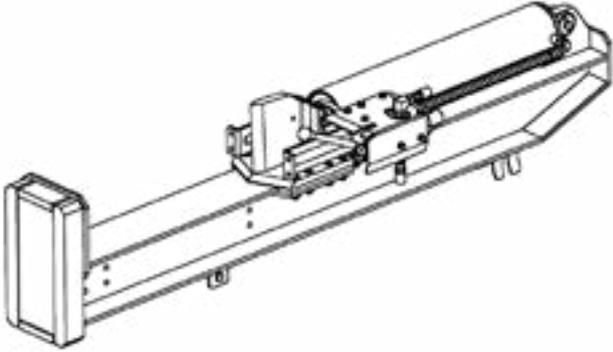
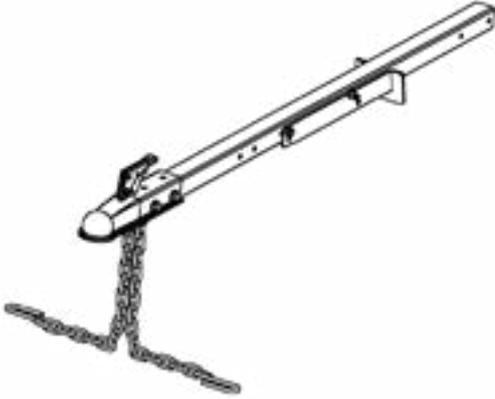
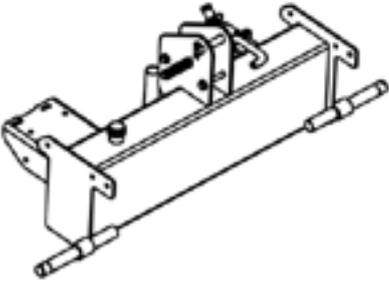
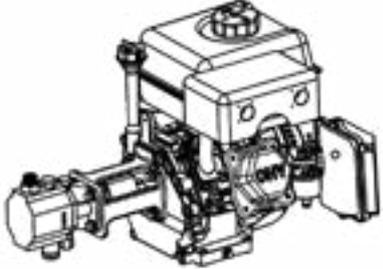
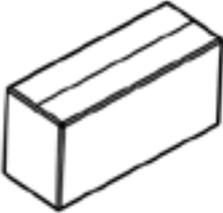
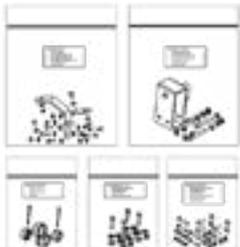
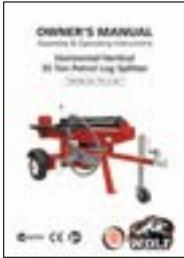
Warranties do not cover accidents, misuse, neglect, natural disaster or act of God or other external causes, or damage caused by operating the equipment in a manner that is not described in the instructions.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Spare Parts

Spare parts are available. Please see our website (www.bbta.com.au) or contact at bbt@bbta.com.au for more details.

PACKING LIST

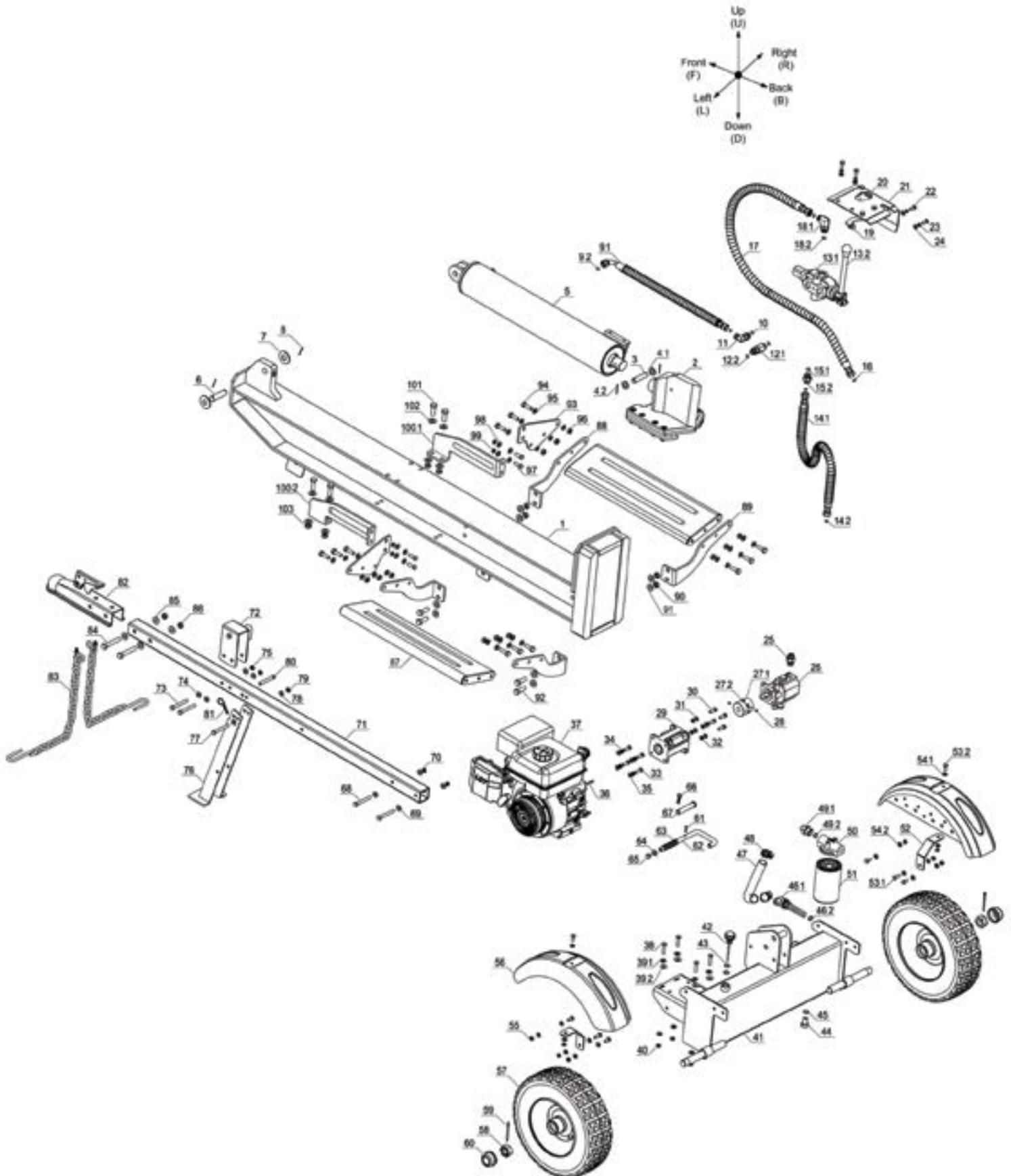
		
<p>Beam assembly x 1</p>	<p>Tongue assembly x 1</p>	
		
<p>Reservoir tank assembly x 1</p>	<p>Engine / Pump assembly x 1</p>	
		
<p>Log tray & Log dislodger assembly x 2</p>	<p>Hardware kit box x 1, including:</p>	
		
<p>Fender x 2</p>	<p>Oil Filter x 1</p>	<p>Engine manual x 1</p>
		
<p>Wheel x 2</p>	<p>Hardware kit #1, 2, 3, 5, 6</p>	<p>Owner's Manual x 1</p>

EXPLODED DIAGRAM & PARTS LIST

NO	SKU	DESCRIPTION	PART	QTY
1	SP-TW-LS-35T-001	Beam incl. End Plate 35 Ton	310-452	1
2	SP-TW-LS-35T-002	Splitting Wedge w/ Guides 35 Ton	530-428	1
3	SP-TW-LS-35T-003	Pin	760-118	1
4	SP-TW-LS-35T-004.1	Flat Washer	750-566	2
	SP-TW-LS-35T-004.2	Split Pin	760-734	2
5	SP-TW-LS-35T-005	Cylinder 35 Ton	530-481	1
6	SP-TW-LS-35T-006	Pin	760-112	1
7	SP-TW-LS-35T-007	Flat Washer	750-423	2
8	SP-TW-LS-35T-008	Split Pin	760-755	2
9	SP-TW-LS-35T-009.1	Hydraulic Hose A-Capacity w/ Protection Spring	560-422	1
	SP-TW-LS-35T-009.2	O Seal Ring	730-619	2
10	SP-TW-LS-35T-010	O Seal Ring	730-077	1
11	SP-TW-LS-35T-011	Hydraulic Adaptor for A-Capacity	510-339	1
12	SP-TW-LS-35T-012.1	Hydraulic Adaptor for B-Capacity	510-467	1
	SP-TW-LS-35T-012.2	O Seal Ring	730-077	2
13	SP-TW-LS-35T-013.1	Hydraulic Valve	520-799	1
	SP-TW-LS-35T-013.2	Control Handle	520-452	1
14	SP-TW-LS-35T-014.1	Connecting Hydraulic Hose w/ Protection Spring	560-454	1
	SP-TW-LS-35T-014.2	O Seal Ring	730-619	2
15	SP-TW-LS-35T-015.1	O Seal Ring	730-088	1
	SP-TW-LS-35T-015.2	Hydraulic Adapter on Valve for Connecting Hose	510-448	1
16	SP-TW-LS-35T-016	O Seal Ring	730-661	2
17	SP-TW-LS-35T-017	Oil Return Hose w/ Protection Spring	560-521	1
18	SP-TW-LS-35T-018.1	Hydraulic Adapter	560-462	1
	SP-TW-LS-35T-018.2	O Seal Ring	730-088	1
19	SP-TW-LS-35T-019	Handle Release Lever	520-536	1
20	SP-TW-LS-35T-020	Extension Spring	520-575	1
21	SP-TW-LS-35T-021	Valve Cover	350-226	1
22	SP-TW-LS-35T-022	Hex Head Bolt	710-637	4
23	SP-TW-LS-35T-023	Spring Washer	750-834	4
24	SP-TW-LS-35T-024	Flat Washer	750-638	4
25	SP-TW-LS-35T-025	Hydraulic Adapter Pump Connecting Hose	510-432	1
26	SP-TW-LS-35T-026	Two Stage Pump	550-533	1
27	SP-TW-LS-35T-027.1	Coupling Shaft	550-703	1
	SP-TW-LS-35T-027.2	Coupling Spider	550-706	1
28	SP-TW-LS-35T-028	Set Screw	740-600	2
29	SP-TW-LS-35T-029	Pump Mount	550-817	1
30	SP-TW-LS-35T-030	Hex Head Bolt	710-637	4
31	SP-TW-LS-35T-031	Flat Washer	750-638	4
32	SP-TW-LS-35T-032	Spring Washer	750-834	4
33	SP-TW-LS-35T-033	Hex Head Bolt	710-632	4
34	SP-TW-LS-35T-034	Flat Washer	750-617	4
35	SP-TW-LS-35T-035	Spring Washer	750-844	4
36	SP-TW-LS-35T-036	Engine Shaft Square Key	770-125	1
37	SP-TW-LS-35T-037	Engine	960-261	1
38	SP-TW-LS-35T-038	Hex Head Bolt	710-553	4
39	SP-TW-LS-35T-039.1	Flat Washer	750-638	8
		Flat Washer	750-525	8
39	SP-TW-LS-35T-039.2	Vibration Isolator 35 Ton	960-430	4
40	SP-TW-LS-35T-040	Lock Nut	720-500	4
		Lock Nut	720-120	4
41	SP-TW-LS-35T-041	Reservoir Tank	540-972	1
42	SP-TW-LS-35T-042	Vented Dipstick	540-328	1
43	SP-TW-LS-35T-043	O Seal Ring	730-655	2
44	SP-TW-LS-35T-044	Oil Drain Screw	710-877	1
45	SP-TW-LS-35T-045	O Seal Ring	730-064	1
46	SP-TW-LS-35T-046.1	Suction filter	540-049	1

NO	SKU	DESCRIPTION	PART	QTY
46	SP-TW-LS-35T-046.2	O Seal Ring	730-122	1
47	SP-TW-LS-35T-047	Oil Suction Hose	560-342	1
48	SP-TW-LS-35T-048	Hose Clamp	760-377	2
49	SP-TW-LS-35T-049.1	Hydraulic Adapter for Oil Return Hose	510-421	1
	SP-TW-LS-35T-049.2	O Seal Ring	730-122	1
50	SP-TW-LS-35T-050	Filter Housing	540-053	1
51	SP-TW-LS-35T-051	Oil Filter	540-089	1
52	SP-TW-LS-35T-052	Fender Support	330-674	2
53	SP-TW-LS-35T-053.1	Hex Head Bolt	710-661	2
	SP-TW-LS-35T-053.2	Hex Head Bolt	710-637	6
54	SP-TW-LS-35T-054.1	Flat Washer	750-699	2
	SP-TW-LS-35T-054.2	Flat Washer	750-638	14
55	SP-TW-LS-35T-055	Lock Nut	720-500	8
56	SP-TW-LS-35T-056	Fender	330-612	2
57	SP-TW-LS-35T-057	Wheel	330-515	2
58	SP-TW-LS-35T-058	Castle Nut	720-836	2
59	SP-TW-LS-35T-059	Split Pin	760-744	2
60	SP-TW-LS-35T-060	Dust Cap	330-631	2
61	SP-TW-LS-35T-061	Split Pin	760-269	1
62	SP-TW-LS-35T-062	Vertical Lock Lever	320-800	1
63	SP-TW-LS-35T-063	Vertical Lock Spring	320-802	1
64	SP-TW-LS-35T-064	Flat Washer	750-525	1
65	SP-TW-LS-35T-065	Hex Head Bolt	710-516	1
66	SP-TW-LS-35T-066	Spring Clip	760-688	1
67	SP-TW-LS-35T-067	Clevis Pin	760-157	1
68	SP-TW-LS-35T-068	Hex Head Bolt	710-580	2
69	SP-TW-LS-35T-069	Flat Washer	750-525	4
70	SP-TW-LS-35T-070	Lock Nut	720-120	2
71	SP-TW-LS-35T-071	Tongue	320-427	1
72	SP-TW-LS-35T-072	Horizontal Beam Lock	320-843	1
73	SP-TW-LS-35T-073	Hex Head Bolt	710-568	2
74	SP-TW-LS-35T-074	Flat Washer	750-525	4
75	SP-TW-LS-35T-075	Lock Nut	720-120	2
76	SP-TW-LS-35T-076	Jack Stand	320-476	
77	SP-TW-LS-35T-077	Hex Head Bolt	710-580	1
78	SP-TW-LS-35T-078	Flat Washer	750-525	2
79	SP-TW-LS-35T-079	Lock Nut	720-120	1
80	SP-TW-LS-35T-080	Clevis Pin	760-152	1
81	SP-TW-LS-35T-081	Spring Clip	760-679	1
82	SP-TW-LS-35T-082	Hitch Coupler	320-420	1
83	SP-TW-LS-35T-083	Safety Chain	320-421	2
84	SP-TW-LS-35T-084	Hex Head Bolt	710-433	2
85	SP-TW-LS-35T-085	Flat Washer	750-621	4
86	SP-TW-LS-35T-086	Lock Nut	720-536	2
87	SP-TW-LS-35T-087	Log Tray Plate	320-938	2
88	SP-TW-LS-35T-088	Log Tray Frame (FR, BL)	320-930	2
89	SP-TW-LS-35T-089	Log Tray Frame (FL, BR)	320-931	2
90	SP-TW-LS-35T-090	Lock Nut	720-536	4
91	SP-TW-LS-35T-091	Flat Washer	750-621	8
92	SP-TW-LS-35T-092	Hex Head Bolt	710-511	4
93	SP-TW-LS-35T-093	Log Dislodger	320-925	2
94	SP-TW-LS-35T-094	Hex Head Bolt	710-518	12
95	SP-TW-LS-35T-095	Flat Washer	750-525	24
96	SP-TW-LS-35T-96	Lock Nut	720-120	12
97	SP-TW-LS-35T-097	Hex Head Bolt	710-520	4
98	SP-TW-LS-35T-098	Flat Washer	750-525	8
99	SP-TW-LS-35T-099	Lock Nut	720-120	4
100	SP-TW-LS-35T-100.1	Dislodger Support R	320-929	1
100	SP-TW-LS-35T-100.2	Dislodger Support L	320-928	1
101	SP-TW-LS-35T-101	Hex Head Bolt	710-438	4
102	SP-TW-LS-35T-102	Flat Washer	750-621	8
103	SP-TW-LS-35T-103	Lock Nut	720-536	4

EXPLODED DIAGRAM & PARTS LIST



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