

OWNER'S MANUAL

Timberwolf 16T

Log Splitter



OWNER'S MANUAL

Assembly & Operating Instructions

Timberwolf 16T Log Splitter Briggs & Stratton Engine

MODEL NO. TW-LS-16T



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 familiarise 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.

The power testing information used to establish the power rating of the engine equipped on this machine can be found on 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 Owner'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 experts.

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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

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.

CAUTION!

- 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 spill wood in the direction of the grain.
- No one under the age of 18 should operate log splitter.
- Always stay in operator zone specified by manufacturer during operation.
- Do not stand on or reach over log splitter.

OPERATING INSTRUCTIONS

3 POSITIONS OF CONTROL HANDLE

← FORWARD NEUTRAL → REVERSE

- Place log splitter on flat dry solid ground and block wheels.
- Start the engine as instructed in the Engine Operator's manual included.
- Move control handle fully extended back and forth for 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 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 retract the wedge to split a log on the other side.

WARNING!

- Only one person is permitted to load logs and operate controls. Keep bystanders, children, pets and helpers at least 21 ft. away.
- Keep work area clear of split wood, debris, and other obstacles.
- Do not operate log splitter under the influence of alcohol or drugs.
- 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 poisoning.
- NEVER use your hands to dislodge a log from the wedge.

WARNING!

- Do not refill hydraulic oil while engine is hot or running.
- Do not refill 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 #: 410-175

Part #: 410-175

KEEP HANDS / FEET AWAY!

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

DANGER!

Part #: 410-233

Part #: 410-233

DANGER!

KEEP HANDS / FEET AWAY!

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

Part #: 410-235

Part #: 410-235

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

NOTICE

DIPSTICK

HYDRAULIC OIL

1. 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.
2. 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.
3. 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 stabilises the log must be the person who operates control handle.
	WARNING— PRESSURISED 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 odourless and deadly gas.
	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. Returning 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 area. Always wearing 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** keep the work area clean. Remove split wood from 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 510mm in length. Uneven logs (e.g. knotted, curved, etc.) should not be used.
12. **ALWAYS** check the oil level before you start the log splitter. See Page 23.
13. 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

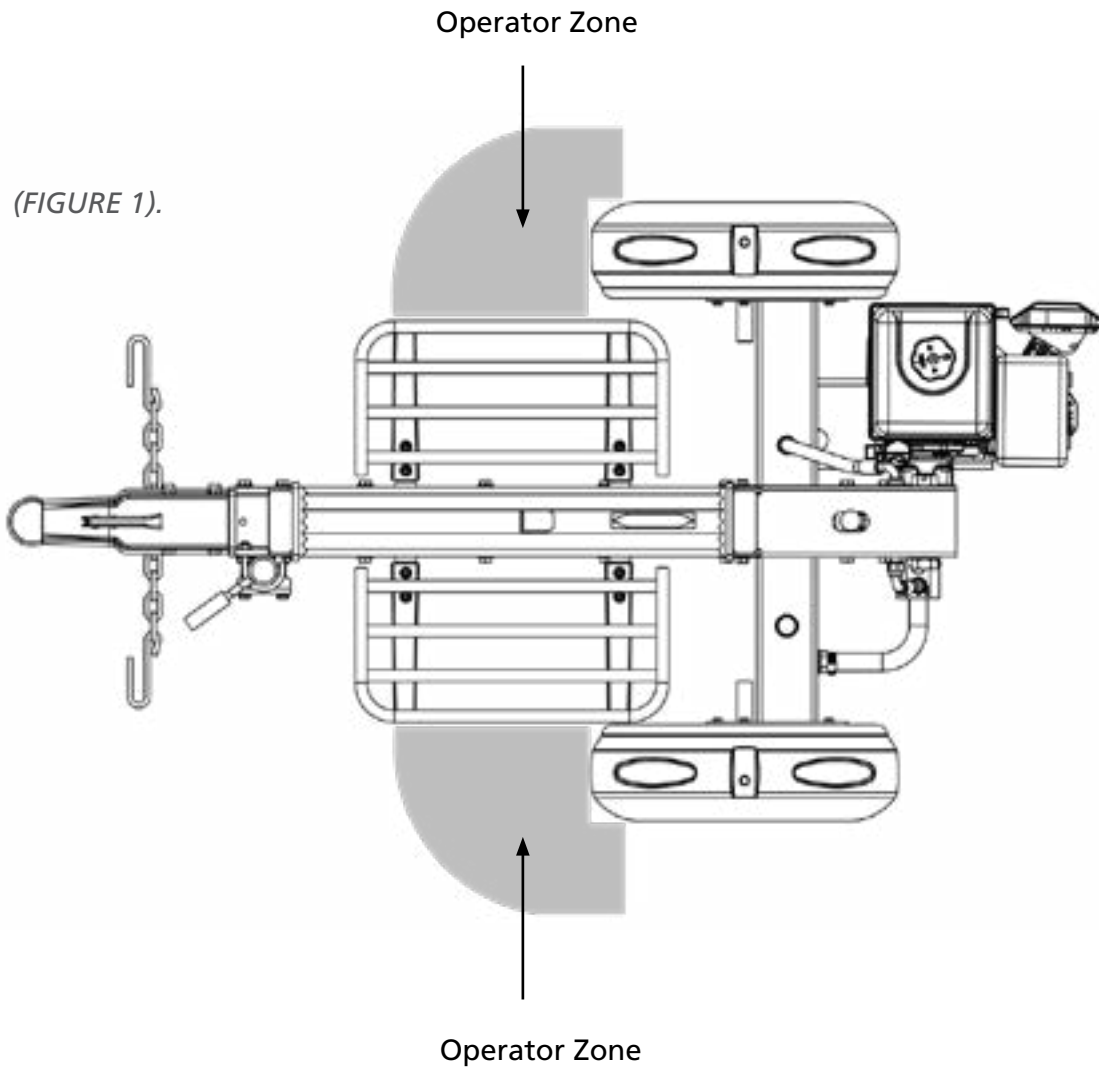
1. **BEFORE** starting this machine, review the safety instructions in the manual. Failure to follow these rules may result in serious injury to the operator or bystanders.
2. **NEVER** leave this machine unattended with the engine running.
3. **DO NOT** operate machine while under the influence of alcohol, 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 one hand to operate the controls.
WARNING! When stabilizing log with the other 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. **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.
11. **ALWAYS** keep fingers away from any cracks that open in the log while splitting. They can quickly close and pinch or amputate your fingers.
12. Keep your work area clean. Immediately remove split wood from around the machine so you do not stumble over it.
13. **NEVER** straddle or step over the log splitter during operation.
14. **NEVER** reach or bend over the log splitter to pick up a log.
15. **NEVER try to split two logs on top of each other. NEVER try to cross split a log.**
16. **NEVER** operate your log splitter when it is in poor mechanical condition or in need of repair.
17. **NEVER** touch the muffler and other hot areas of the engine during operation. Wait until the engine cools down.
18. **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.
19. **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.
20. **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 zones 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. See FIGURE 1.





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 it 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.



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 Petrol. 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 gas 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 gas fumes or spilled gas. Never fuel the machine indoors.
8. **NEVER** overfill the fuel tank. Fill tank to no more than 15mm 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 gas cap securely. Never remove gas 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 gas appliances.
15. If the engine is equipped with a spark arrestor muffler, clean and inspect it regularly according to manufacturer's instructions. Replace if damaged.



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 (Page 26) 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



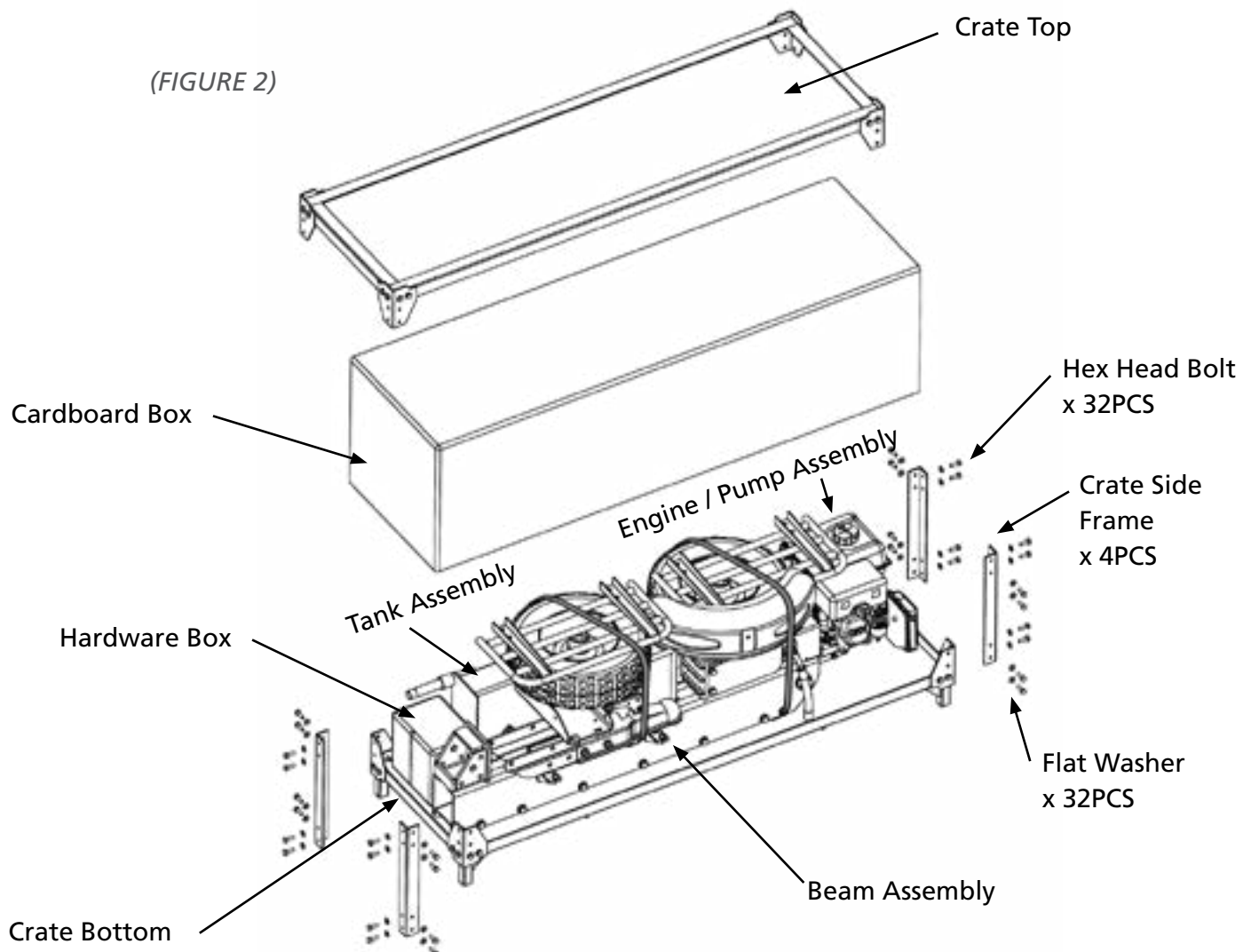
WARNING! Use extreme caution unpacking this machine. Some components are very heavy and will require additional people or mechanical handling equipment.

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, and then lift away the crate top and the cardboard box. See FIGURE 2.



ASSEMBLY & SETUP INSTRUCTIONS

Step 2: Remove all loose parts included in the container, e.g. 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, wheels, tongue assembly and log tray 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 39). 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

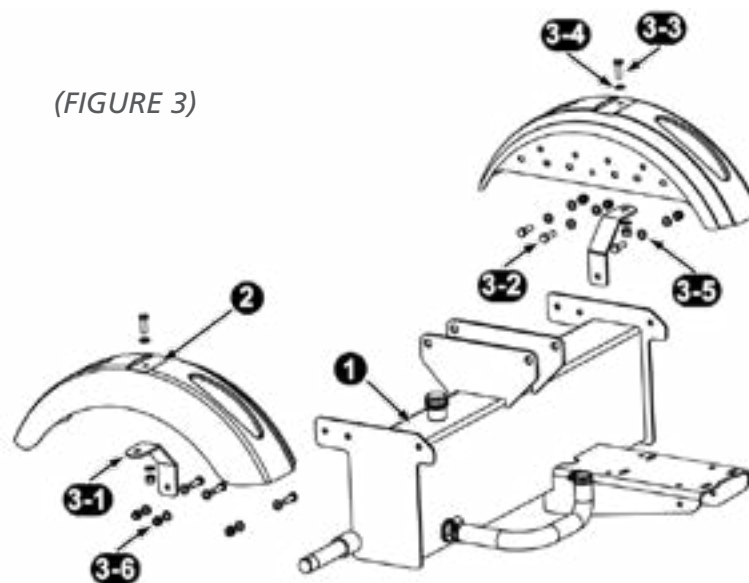
NOTE: Due to the weight / size of the log splitter, it's recommended that two or more adults be present to assist with the assembling. Some lifting tools as hoist, crane, jack, etc. are recommended, too.

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 3, 6mm one each
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 3.

1. Loosely secure the fender to the fender support, 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.

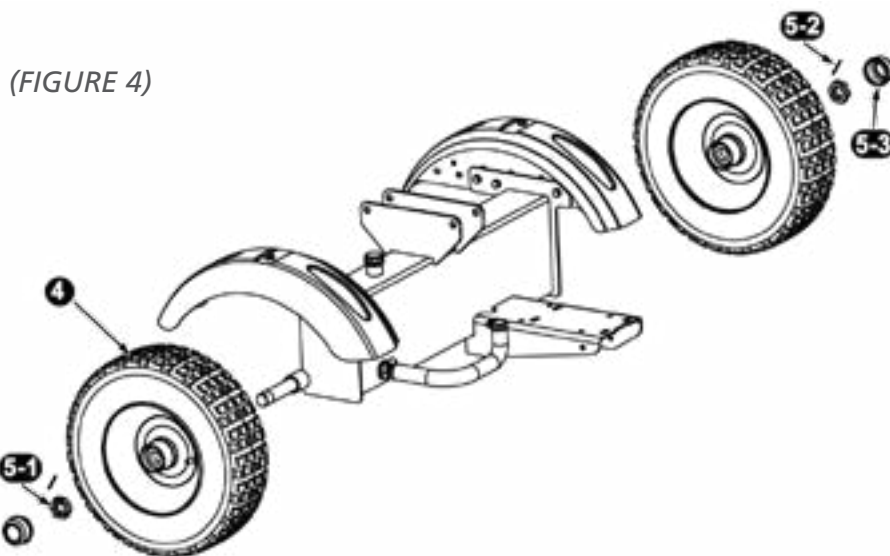


REF. NO.	DESCRIPTION	QTY.
1	Reservoir tank assembly	1
2	Fender	2
3	Hardware Kit #1, including:	1
3-1	Fender support	2
3-2	Hex head bolt / M8 x 25	2
3-3	Hex head bolt / M8 x 20	6
3-4	Flat washer / Ø9 x Ø24 x 1.5	2
3-5	Flat washer / M8	14
3-6	Lock nut / M8	8

ASSEMBLY & SETUP INSTRUCTIONS

STEP 2: Install the two wheels. See FIGURE 4.

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, 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.

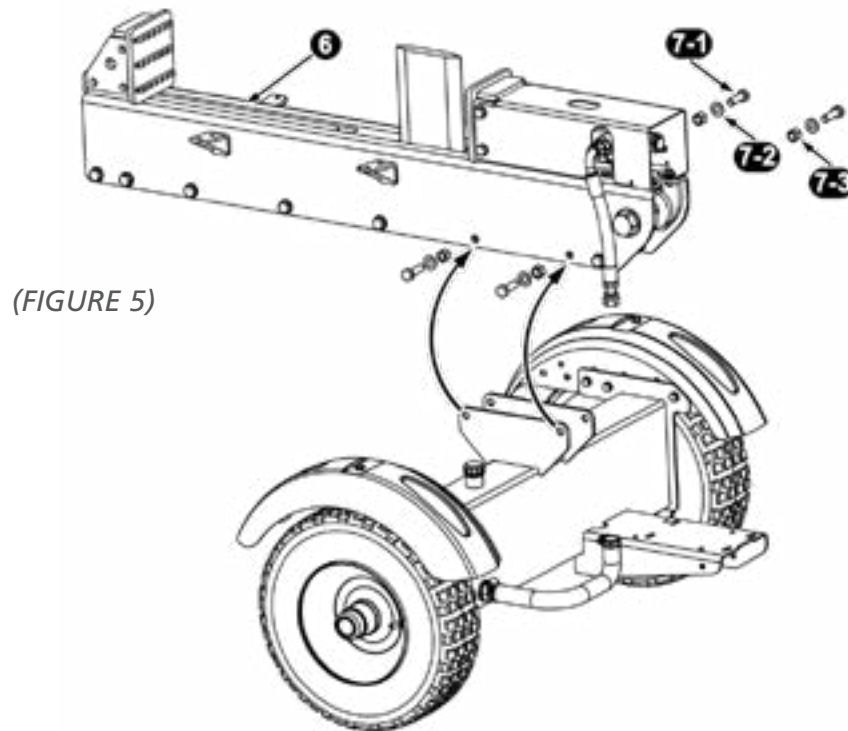


REF. NO.	DESCRIPTION	QTY.
4	Off- Road tire / Wheel	2
5	Hardware Kit #2, including:	1
5-1	Castle nut / 1-14	2
5-2	Split pin / Ø4 x 50	2
5-3	Dust cap	2

STEP 3: Install the beam assembly. See FIGURE 5

1. Raise the beam assembly off the ground on some blocks high enough to roll the tank underneath it. Two or more people are recommended to assist with raising the beam as it is very heavy. Lifting tools as hoist, crane, jack, etc. are strongly recommended. Be sure to keep hands away from any possible pinch points.
2. Screw off the 4 sets of M12 hardware on both sides of the rear end of the beam.
3. Position the tank assembly so that the beam support brackets are set inside the bottom of the main beam.
4. Slide the Bolts M12 x 40 just removed through the aligned holes and tighten the hardware using a 18mm wrench for bolts and a 19mm wrench for the lock nuts. You may need another helper to lift up the tank for the holes to align.

ASSEMBLY & SETUP INSTRUCTIONS

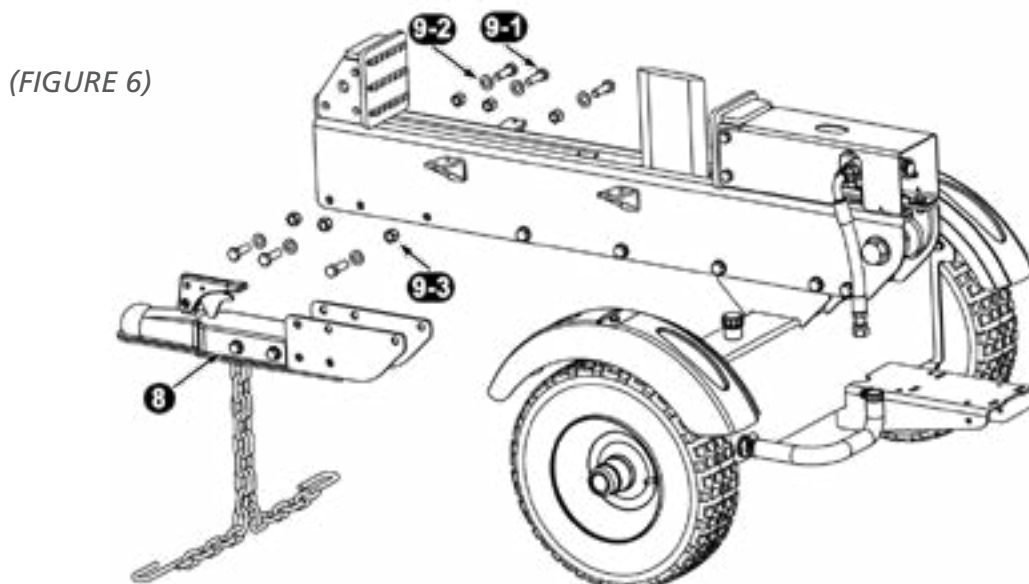


(FIGURE 5)

REF. NO.	DESCRIPTION	QTY.
6	Beam assembly	1
7	Hardware mounted on the beam , including:	
7-1	Hex head bolt / M12 x 35	4
7-2	Flat washer / M12	4
7-3	Lock nut / M12	4

STEP 4: Install the tongue assembly. See FIGURE 6

1. Remove the 6 sets of M12 hardware on both sides of the front end of the beam.
2. Position the tongue assembly so that the mounting brackets are inside the bottom of the main beam.
3. Slide the Bolts M12 x 40 just removed through the aligned holes and tighten the hardware using a 18mm wrench for the bolts and a 19mm wrench for the lock nuts.



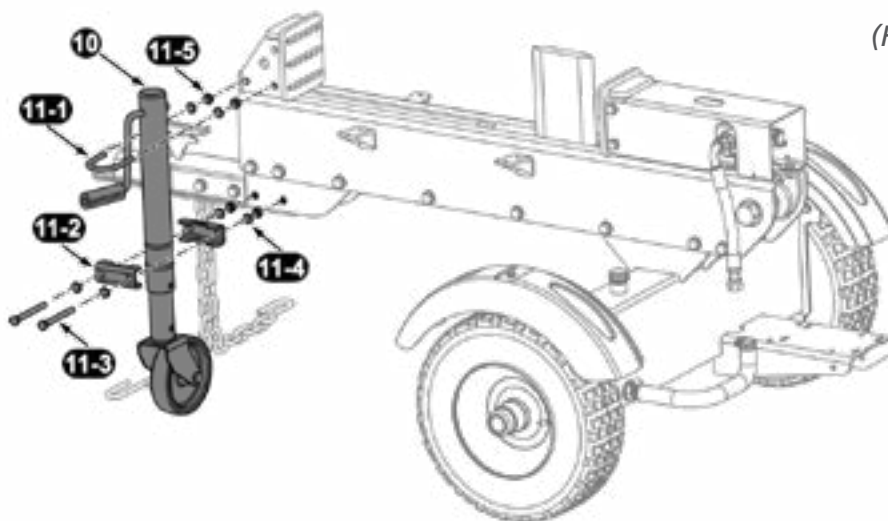
(FIGURE 6)

ASSEMBLY & SETUP INSTRUCTIONS

REF. NO.	DESCRIPTION	QTY.
8	Tongue assembly	1
9	Hardware mounted on the beam , including:	
9-1	Hex head bolt / M12 x 35	6
9-2	Flat washer / M12	6
9-3	Lock nut / M12	6

STEP 5: Install the wheeled trailer jack assembly. See FIGURE 7.

1. Position the wheeled trailer jack against the front end of the beam.
2. Slide the two threaded ends of U-bolt through the two bottom holes on the side bracket of front end plate, and secure with the M10 washers and lock nuts loosely.
3. Position the two jack clamp between the two annular bulges on the trailer jack, align the holes on the clamps with the two holes on the tongue mounting bracket, and then secure with the M10 hardware loosely.
4. Adjust the trailer jack and make sure the crank handle is sticking out to the front / left and doesn't hit the tongue when rotated.
5. Tighten all M10 hardware using a 16mm wrench on the bolts and a 17mm wrench on the lock nuts.



(FIGURE 7)

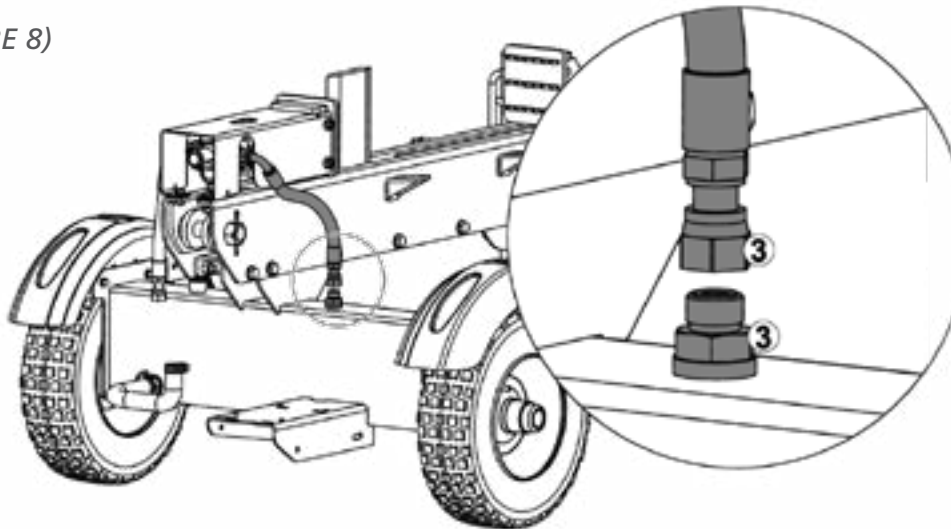
REF. NO.	DESCRIPTION	QTY.
10	Wheeled trailer jack	1
11	Hardware Kit # 4-1 (13T), or 4-2 (16T) including:	1
11-1	U-bolt / M10 x 190	The same
11-2	Jack Clamp / W26 or Jack Clamp / W35.5	2
11-3	Hex head bolt / M10 x 130	The same
11-4	Flat washer / M10	The same
11-5	Lock nut / M10	The same

STEP 6: Connect the oil return hose. See FIGURE 8.

1. The oil return hose 1/2" has one end fixed on the right side of the valve on the beam assembly by manufacturer, the other open end needs to be attached to the reservoir, which is labeled as ③ for easy installation
2. Screw the open end of this hose onto the fitting on top of the reservoir, which is also labeled as ③. Tighten the hose using a 27mm wrench or an adjustable wrench.

ASSEMBLY & SETUP INSTRUCTIONS

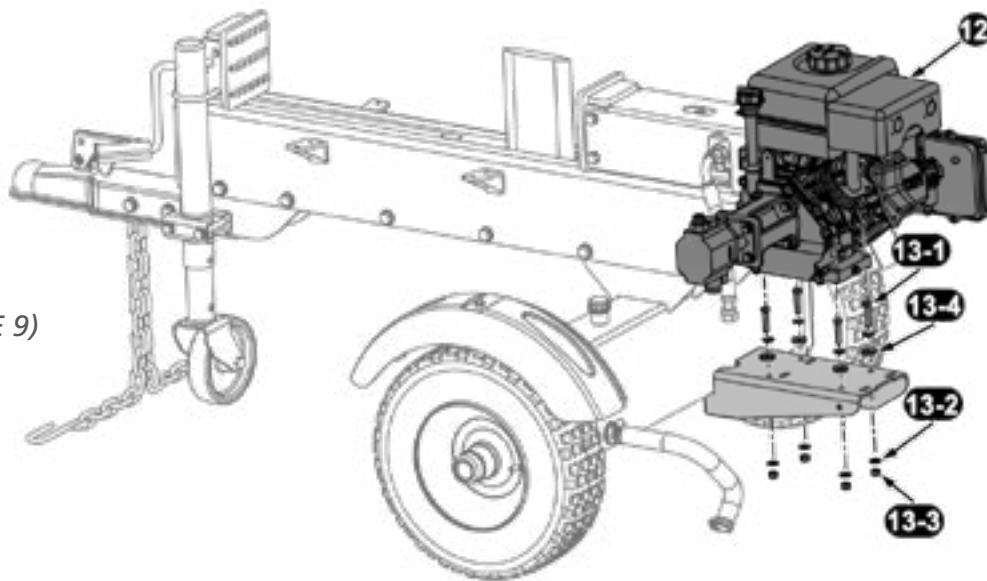
(FIGURE 8)



STEP 7: Install the engine / pump assembly. See FIGURE 9.

1. Insert a vibration isolator between the engine and the mount plate at each of the four mounting hole positions.
2. Secure the engine with the M8 hardware, then tighten the hardware using two 13mm wrenches.

(FIGURE 9)



REF. NO.	DESCRIPTION	QTY.
12	Engine / Pump assembly	1
13	Hardware kit # 5-1, including:	1
13-1	Hex head bolt / M8 x 40	4
13-2	Flat washer / M8	8
13-3	Lock nut / M8	4
13-4	Vibration isolator / Ø9	4

STEP 8: Attach the oil suction hose and Pump / Valve connecting hose. See FIGURE 10.

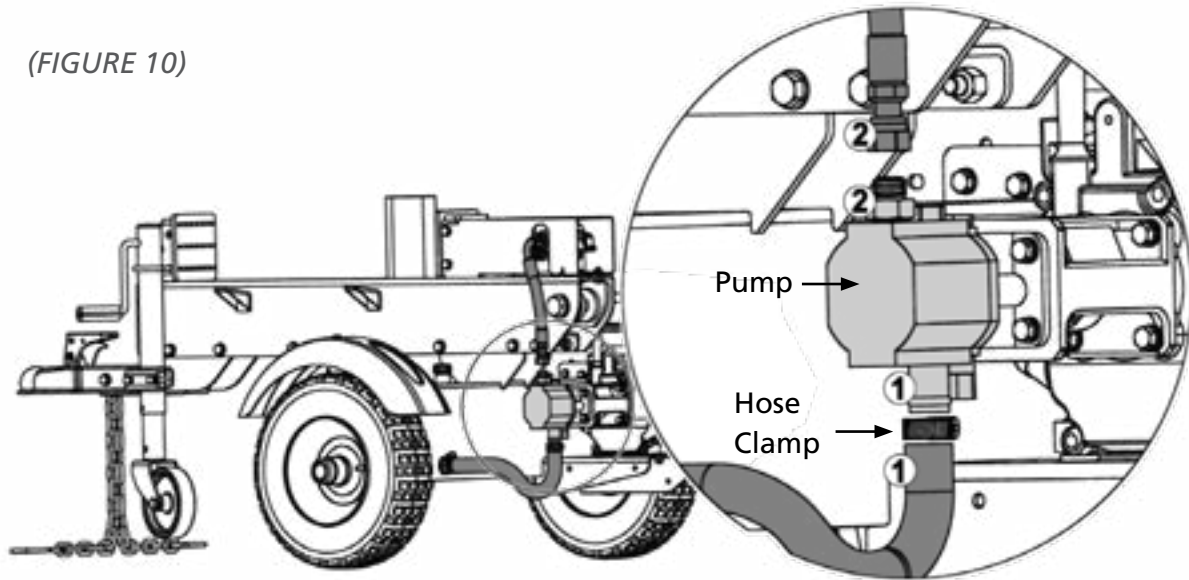
The two hydraulic hoses listed below, each of them has one end fixed on the log splitter by manufacturer, the other open end still needs to be attached.

1. Oil suction hose $\frac{3}{4}$ " , labeled as ①, comes from the bottom of the reservoir. 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.

ASSEMBLY & SETUP INSTRUCTIONS

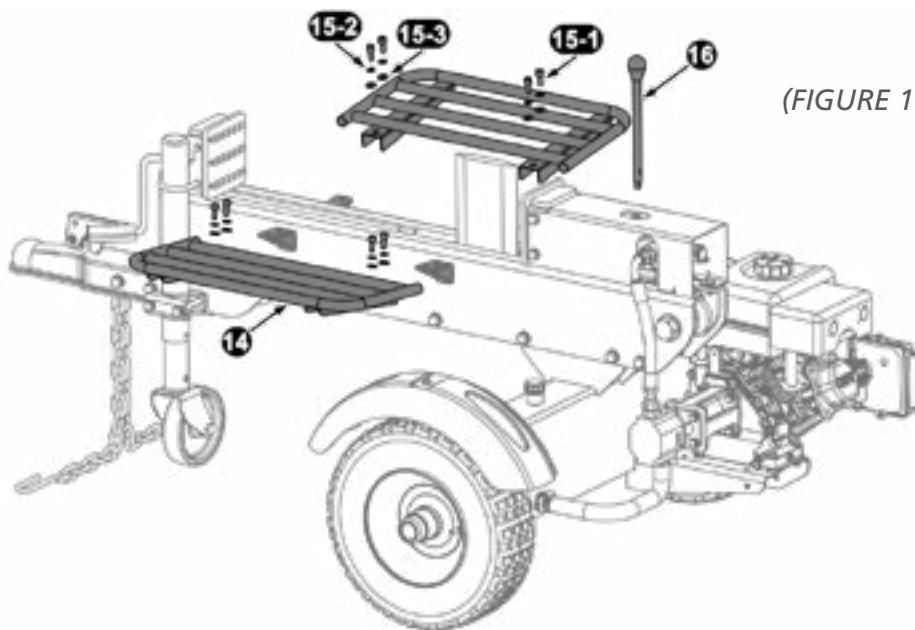
2. Pump / Valve connecting hose ½", labeled as ②, comes from the left side of the valve on the beam assembly. Screw the open end of this hose onto the fitting on top of the pump, which is also labeled as ②. Tighten using a 27mm wrench or an adjustable wrench.

(FIGURE 10)



STEP 9: Install the log tray assemblies and control handle lever. See FIGURE 11.

1. Position the log tray frames onto the tabs on both sides of the beam as shown, and secure with the M8 hardware using a 6mm Allen wrench.
2. Screw the control handle lever into its linkage part on top of the valve.



(FIGURE 11)

REF. NO.	DESCRIPTION	QTY.
14	Log tray	2
15	Hardware Kit #7, including:	1
15-1	Inner Hex head bolt / M8 x M20	8
15-2	Spring washer / M8	8
15-3	Flat washer / M8	8
16	Control handle lever	1

ASSEMBLY & SETUP INSTRUCTIONS

SET-UP

Gas and Oil Fill-Up

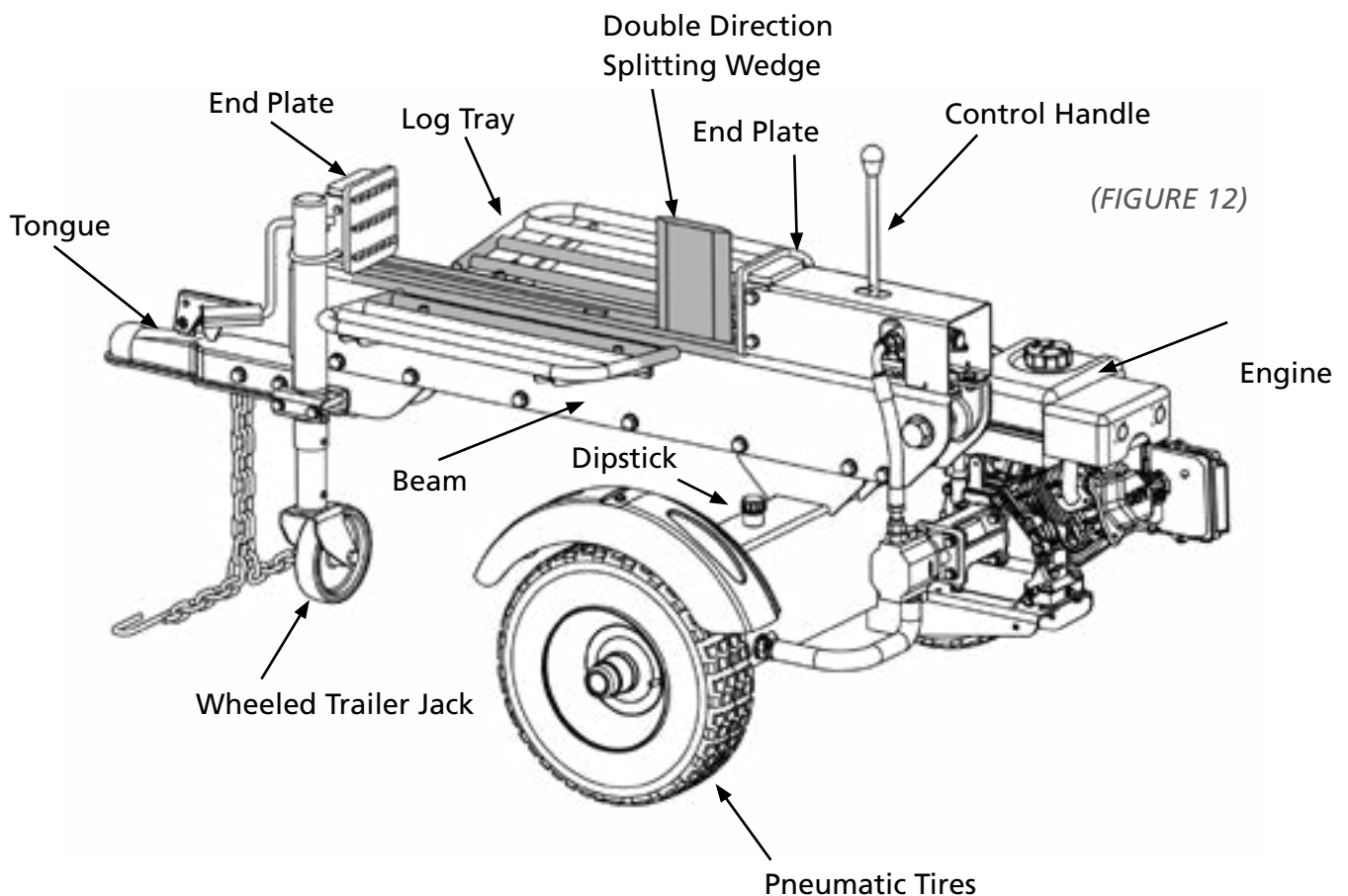
Service the engine with petrol and engine oil as instructed in the engine manual packed with your log splitter. Read the instructions carefully.



WARNING! Use extreme care when handling petrol. 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 should only be added to the engine when it is turned off.

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.

Lubricate the Beam

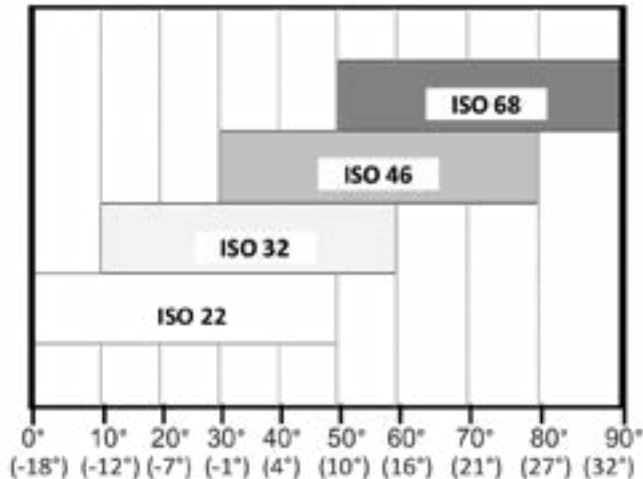
Lubricate the beam area (where the splitting wedge will slide) with engine oil. Do not use grease. See FIGURE 12.

ASSEMBLY & SETUP INSTRUCTIONS

Fill hydraulic oil

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

1. Remove the vented reservoir dipstick, which is located on top of the reservoir tank. See FIGURE 13.



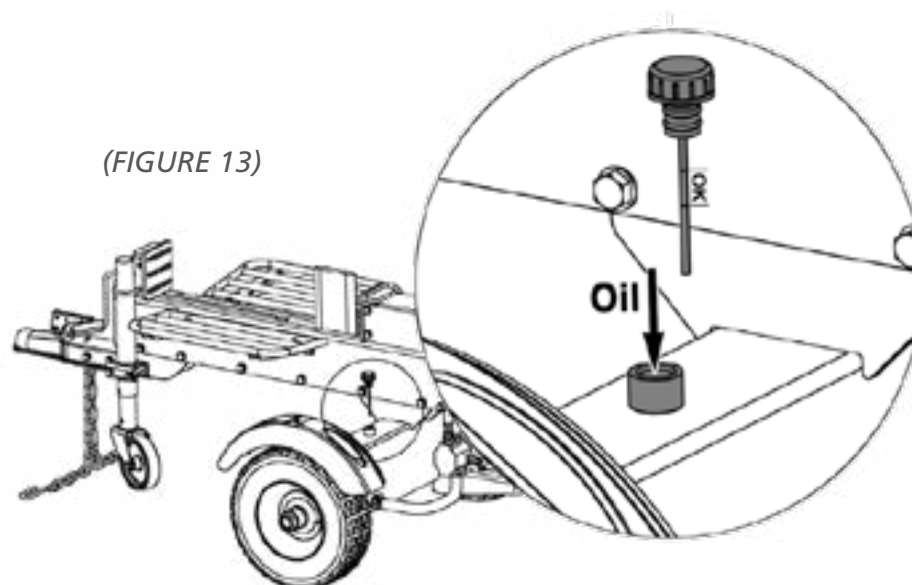
Please select the oil based on the outside temperature range the log splitter will be used in. Refer to the chart provided to select the appropriate hydraulic oil.

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 with the recommended hydraulic oil until oil level reaches 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:



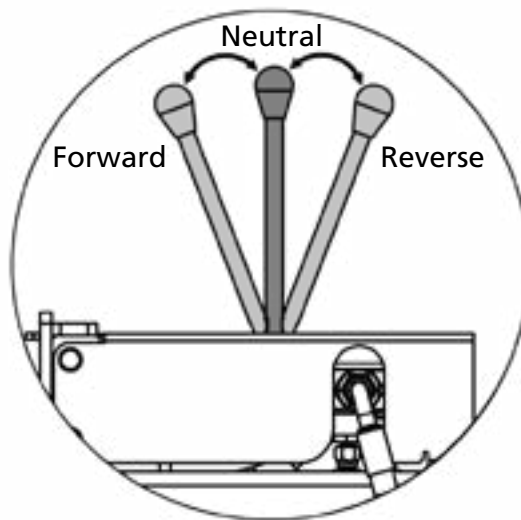
OPERATION INSTRUCTIONS

STARTING & STOPPING THE ENGINE

1. Place the log splitter on flat, dry, solid ground.
2. Block both wheels to prevent your log splitter from moving during operation.
3. Refer to the Engine Owner's Manual packed with your log splitter for instructions on starting and stopping the engine.

USING CONTROL HANDLE

The control handle has three positions. See FIGURE 14.



(FIGURE 14)

- **FORWARD** — To split wood in forward direction. Move the control handle to the FORWARD position which will engage the wedge forward to split the log.
- **NEUTRAL** — To stop wedge. The control handle will return to the NEUTRAL position as soon as the handle is released, and the wedge stops moving at the point during splitting.
- **REVERSE** — To split wood in reverse direction. Move the control handle to the REVERSE position which will engage the wedge backward to split another log.

NOTE: Do not continual to hold the handle in the FORWARD or REVERSE positions when the wedge is fully extended or retracted, this may cause damage to the machine.



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, place it on top of the beam against the front end plate to split the wood in the direction of the grain. See FIGURE 15.
3. To stabilize the log, place your left hand on the side of the log. See FIGURE 15.



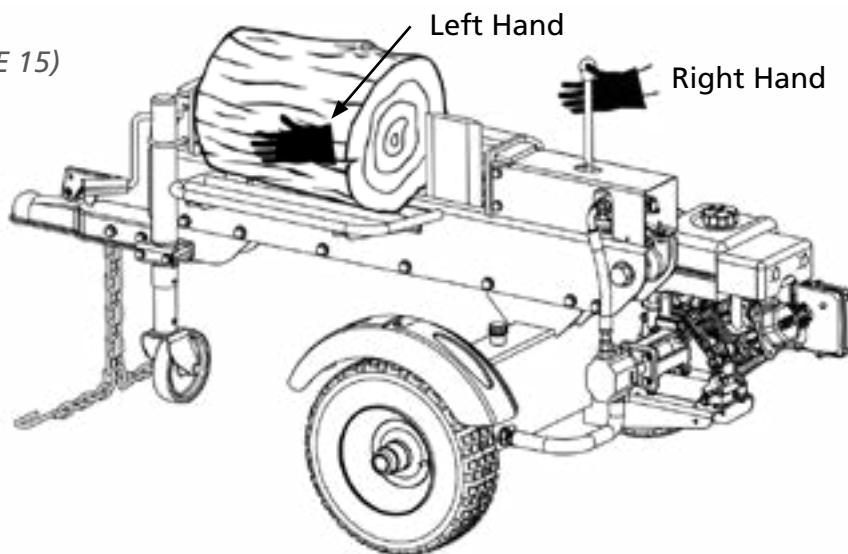
WARNING! Never place a hand on the ends of the log, between the log and the end plate or the log and the splitting wedge.



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 side of the log once the wedge begins to contact the log. Continue holding control handle forward to split the log.
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 across and attempt to catch falling split wood, let it fall. The control handle will return to the Neutral position automatically when you release it.
7. Once the log is split or the wedge is fully extended, load another log between the wedge and the back end plate, and pull the control handle backward to split the log.

(FIGURE 15)



8. Remove partially split wood from wedge.
 - i. If the log is clipped or jammed on the wedge, release the control handle and shut off the engine immediately. Gently knock off the log with a hammer or mallet (not with your hands).



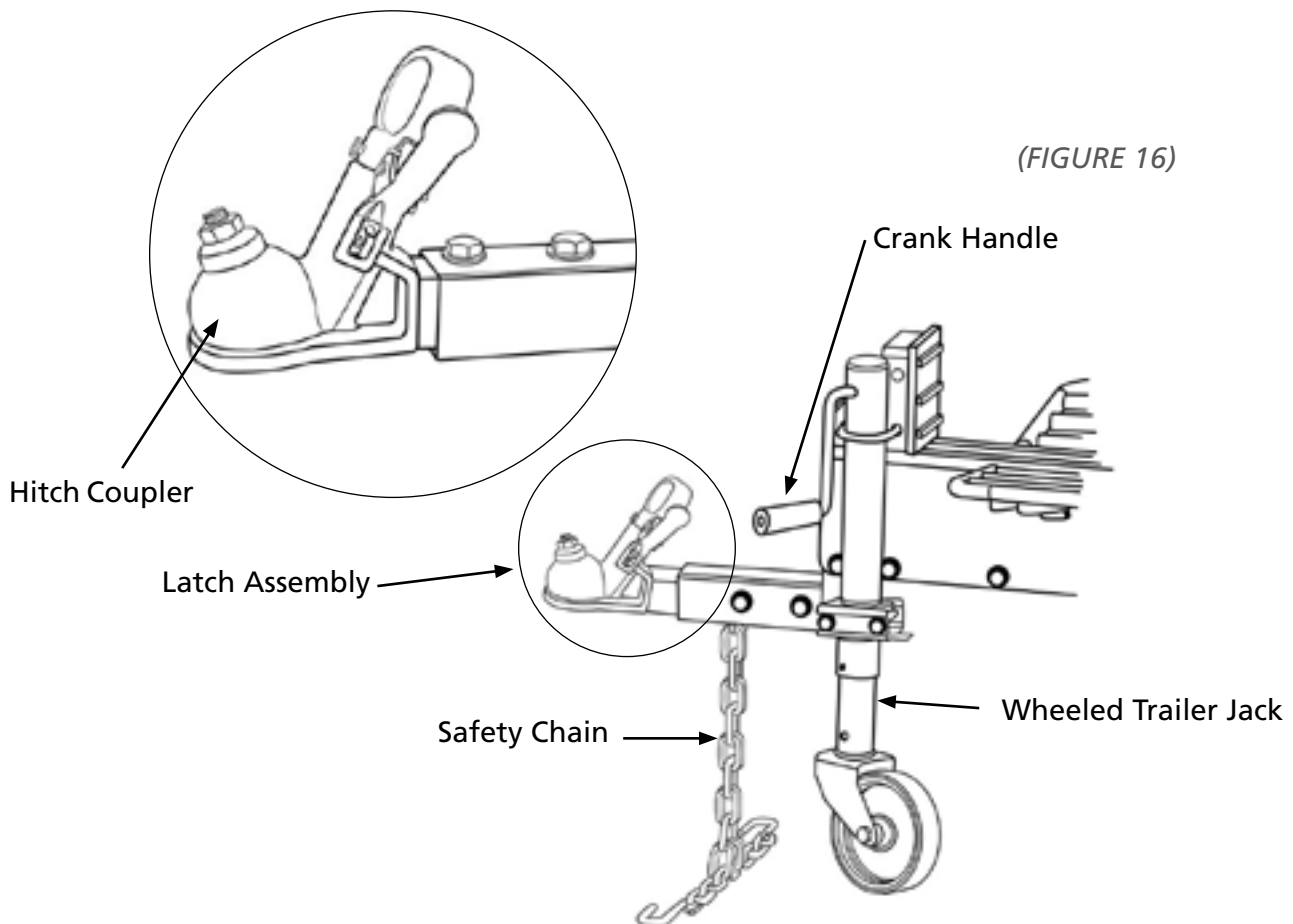
WARNING! Never remove partially split wood from the wedge with your hands. Fingers may become trapped between the split wood.

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

OPERATION INSTRUCTIONS

TRANSPORTING THE LOG SPLITTER

1. This log splitter has a built-in wheeled trailer jack for easy maneuvering.
2. Swing the jack up or down using the crank handle on the jack to position the hitch coupler over the tow ball behind your vehicle. See FIGURE 16
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.
 - 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.



WARNING! Do not tow faster than 70 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 with 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.

Tyre Pressure

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



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

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 coupler spider fails completely, 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. Follow the steps below:

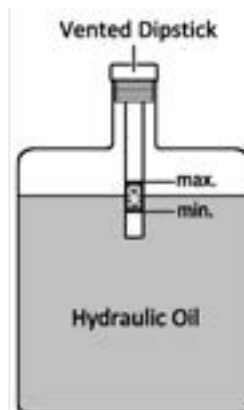
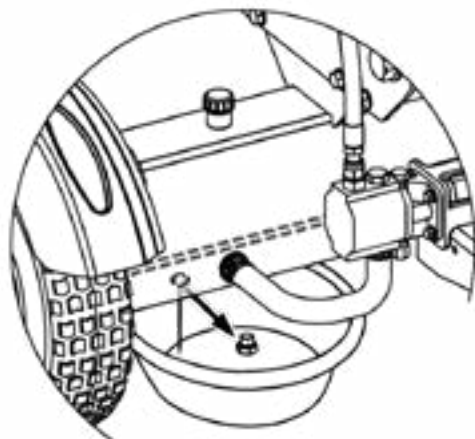
1. Place a suitable oil collection container under the tank.
2. Disconnect the oil drain screw from the bottom of the reservoir tank. See FIGURE 17.
3. Allow the fluid to drain into the container.

NOTE: The reservoir tank has a capacity of 15 litres of hydraulic fluid.

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

MAINTENANCE & ADJUSTMENTS

(FIGURE 17)



(FIGURE 18)

6. Refill the reservoir tank (Please follow the steps in Page 23 to fill the tank, and repel the air in the tank) .

7. Maintain the fluid level within the range specified on the dipstick at all times. See FIGURE 18.

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 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 and 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.

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. Clean, repair and / or replace as necessary.

TROUBLESHOOTING

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-16TK	
Engine	See engine manual	
Pump	Two-Stage, 41 Lpm	
Cylinder (Bore x Stroke)	3.5 in. x 18.4 in.	
Maximum Splitting Force	16 Tons*	
Hydraulic Pressure	23.5 MPa*	
Maximum Log Length	520mm	
Wedge Height	170mm	
Cycle Time	Forward	6 Seconds*
	Reverse	5.5 Seconds*
Wheels	16 x 4.8 x 8 in.	
Hydraulic Capacity	15 Litre	
Height	96.5cm	
Length	182cm	
Width	103cm	
Net Weight	155 kg	

*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.

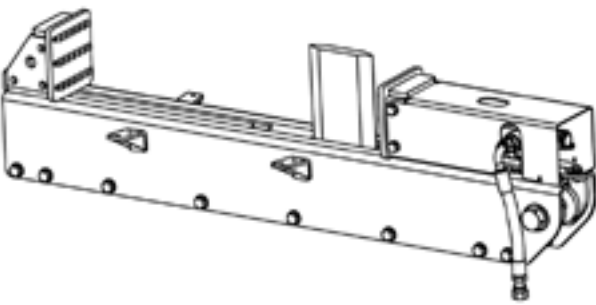

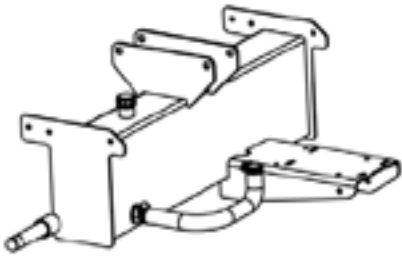
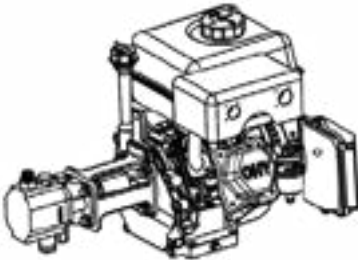

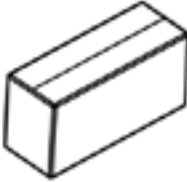





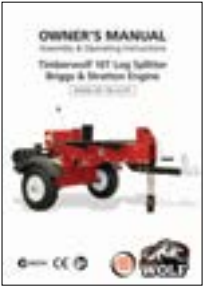

Warranties do not cover accidents, misuse, neglect, natural disaster or act of God or other external causes, or damage caused by operating the equipment in a manner that is not described in the instructions.

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.

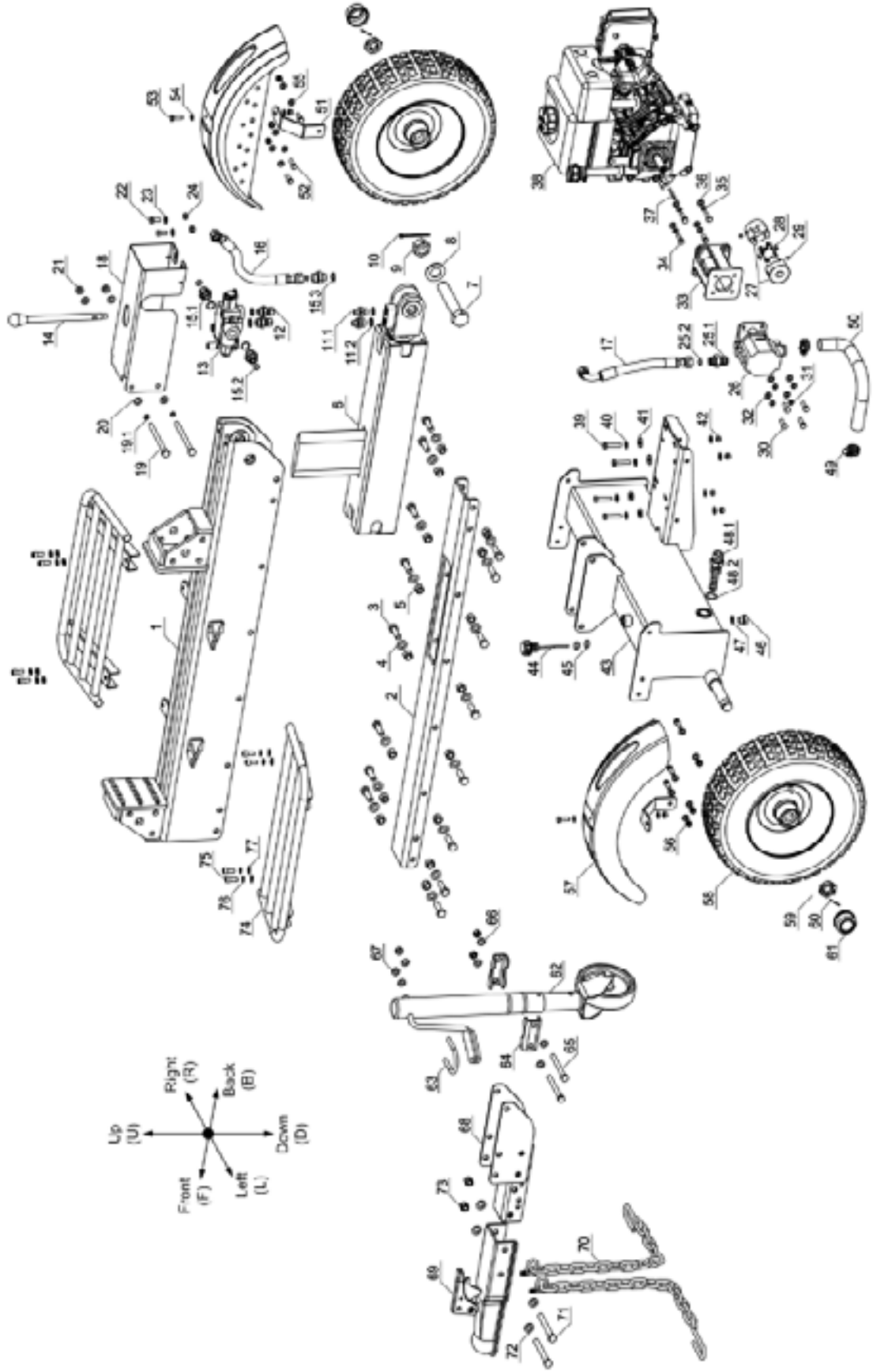
Spare Parts

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>Wheeled trailer jack 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 kits box x 1, including:</p>	
		
<p>Fender x 2</p>	<p>Control handle lever x 1</p>	<p>Engine manual x 1</p>
		
<p>Wheel x 2</p>		
	<p>Hardware kit #1, 2, 4, 5, 7</p>	
<p>Tongue assembly x 1</p>	<p>Owner's Manual x 1</p>	

EXPLODED DIAGRAM & PARTS LIST



EXPLODED DIAGRAM & PARTS LIST

NO	SKU	DESCRIPTION	PART	QTY
1	SP-TW-LS-16T-001	Machine Body incl. End Plates 16 Ton	310-853	
2	SP-TW-LS-16T-002	Machine Body Bottom 16 Ton	310-854	
3	SP-TW-LS-16T-003	Hex Head Bolt	710-438	16
4	SP-TW-LS-16T-004	Flat Washer	750-621	16
5	SP-TW-LS-16T-005	Lock Nut	720-536	16
6	SP-TW-LS-16T-006	Cylinder, 16 Ton	530-482	
7	SP-TW-LS-16T-007	Pin, 16 TON	760-132	
8	SP-TW-LS-16T-008	Flat Washer, 16 Ton	750-677	
9	SP-TW-LS-16T-009	Bored Nut, 16 Ton	720-872	
10	SP-TW-LS-16T-010	Split Pin	760-744	1
11	SP-TW-LS-16T-011.1	Hydraulic Adaptor	510-211	2
11	SP-TW-LS-16T-011.2	O Seal Ring	730-077	4
12	SP-TW-LS-16T-012	Hydraulic Adaptor	510-224	2
13	SP-TW-LS-16T-013	Hydraulic Valve	520-766	1
14	SP-TW-LS-16T-014	Control Handle Lever	520-405	1
15	SP-TW-LS-16T-015.1	Hydraulic Adaptor	510-448	3
15	SP-TW-LS-16T-015.2	O Seal Ring	730-619	3
15	SP-TW-LS-16T-015.3	O Seal Ring	730-077	3
16	SP-TW-LS-16T-016	Hydraulic Hose (Valve - Reservoir)	560-409	1
17	SP-TW-LS-16T-017	Hydraulic Hose (Pump - Valve)	560-403	1
18	SP-TW-LS-16T-018	Valve Cover 16 Ton	350-203	
19	SP-TW-LS-16T-019	Hex Head Bolt 16 Ton	710-614	4
19	SP-TW-LS-16T-019.1	Spring washer 16 Ton	750-834	4
20	SP-TW-LS-16T-020	Flat Washer, 16 Ton	750-638	
21	SP-TW-LS-16T-021	Lock Nut 13 Ton	720-120	2
22	SP-TW-LS-16T-022	Hex Head Bolt	710-637	2
23	SP-TW-LS-16T-023	Flat Washer	750-638	2
24	SP-TW-LS-16T-024	Lock Nut	720-500	2
25	SP-TW-LS-16T-025.1	Hydraulic Adapter on Pump for Connecting Hose	510-432	1
25	SP-TW-LS-16T-025.2	O Seal Ring	730-619	1
26	SP-TW-LS-16T-026	Two Stage Pump	550-412	1
27	SP-TW-LS-16T-027	Coupling Shaft	550-702	1
28	SP-TW-LS-16T-028	Coupling Spider	550-706	1
29	SP-TW-LS-16T-029	Set Screw	740-600	2
30	SP-TW-LS-16T-030	Hex Head Bolt	710-637	4
31	SP-TW-LS-16T-031	Spring Washer	750-834	4
32	SP-TW-LS-16T-032	Flat Washer	750-638	4
33	SP-TW-LS-16T-033	Pump Mount	550-814	1
34	SP-TW-LS-16T-034	Hex Head Bolt	710-632	4
35	SP-TW-LS-16T-035	Spring Washer	750-844	4
36	SP-TW-LS-16T-036	Flat Washer	750-617	4

NO	SKU	DESCRIPTION	PART	QTY
37	SP-TW-LS-16T-037	Engine Shaft Square Key	770-123	1
38	SP-TW-LS-16T-038	Engine	960-327	1
39	SP-TW-LS-16T-039	Hex Head Bolt	710-693	4
40	SP-TW-LS-16T-040	Flat Washer	750-638	8
41	SP-TW-LS-16T-041	Vibration Isolator 22/28 Ton	960-429	4
42	SP-TW-LS-16T-042	Lock Nut	720-500	4
43	SP-TW-LS-16T-043	Reservoir Tank	540-911	1
44	SP-TW-LS-16T-044	Vented Dipstick	540-328	1
45	SP-TW-LS-16T-045	O Seal Ring	730--655	2
46	SP-TW-LS-16T-046	Oil Drain Screw	710-877	1
47	SP-TW-LS-16T-047	O Seal Ring	730-064	1
48	SP-TW-LS-16T-048.1	Suction filter	540-074	1
48	SP-TW-LS-16T-048.2	O Seal Ring	730-602	1
49	SP-TW-LS-16T-049	Hose Clamp	760-377	2
50	SP-TW-LS-16T-050	Oil Suction Hose	560-315	1
51	SP-TW-LS-16T-051	Fender Support	330-674	2
52	SP-TW-LS-16T-052	Hex Head Bolt	710-661	2
53	SP-TW-LS-16T-053	Hex Head Bolt	710-637	6
54	SP-TW-LS-16T-054	Flat Washer	750-699	2
55	SP-TW-LS-16T-055	Flat Washer	750-638	14
56	SP-TW-LS-16T-056	Lock Nut	720-500	8
57	SP-TW-LS-16T-057	Fender	330-612	2
58	SP-TW-LS-16T-058	Wheel	330-524	2
59	SP-TW-LS-16T-059	Castle Nut	720-836	2
60	SP-TW-LS-16T-060	Split Pin	760-744	2
61	SP-TW-LS-16T-061	Dust Cap	330-631	2
62	SP-TW-LS-16T-062	Wheeled Trailer Jack	320-455	1
63	SP-TW-LS-16T-063	U-bolt	710-333	1
64	SP-TW-LS-16T-064	Jack Clamp 16 Ton	320-459	
65	SP-TW-LS-16T-065	Hex Head Bolt	710-669	2
66	SP-TW-LS-16T-066	Flat Washer	750-525	6
67	SP-TW-LS-16T-067	Lock Nut	720-120	4
68	SP-TW-LS-16T-068	Tongue	320-431	1
69	SP-TW-LS-16T-069	Hitch Coupler	320-437	1
70	SP-TW-LS-16T-070	Safety Chain	320-421	2
71	SP-TW-LS-16T-071	Hex Head Bolt	710-622	2
72	SP-TW-LS-16T-072	Flat Washer	750-621	4
73	SP-TW-LS-16T-073	Lock Nut	720-536	2
74	SP-TW-LS-16T-074	Log Tray	320-913	2
75	SP-TW-LS-16T-075	Inner Hex Head Bolt	710-895	8
76	SP-TW-LS-16T-076	Spring Washer	750-075	8
77	SP-TW-LS-16T-077	Flat Washer	750-160	8

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