OWNER'S MANUAL

Assembly & Operating Instructions

Electric / Hydraulic Log Splitter

MODEL NO. BBT-LS 7T











To The Owner

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 Log Splitter. It instructs you how to safely and easily set up, operate and maintain your Log Splitter. Please be sure that you and any other persons who will operate the Log Splitter 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.

All the power testing information used to establish the power rating of the engine equipped on this Log Splitter can be found in the engine manufacturer's manual or website. If you have any problems or questions concerning the machine, please contact our Customer Support Department.

Throughout this manual, all references to right and left side of the Log Splitter 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 Log Splitter for more information.

Customer Support

Please do NOT return the Log Splitter 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 Log Splitter, please contact our Customer Support Department.

SAVE THESE INSTRUCTIONS

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IMPORTANT SAFETY INFORMATION



<u>WARNING:</u> Read and thoroughly understand all instructions in this manual and on the 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 its safe operation. To get answers to any questions, call our Customer Support 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 Log Splitter 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 Log Splitter 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 signals, words and meanings are intended to explain the levels of risk associated with this product.



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



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



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



NOTICE is important information about the proper use of your Log Splitter. Failure to follow this instruction could result in damage to your Log Splitter or property.

Additional Information and Potential Changes

We reserve the right to discontinue, change, and improve our products at any time without notice or obligation to the purchaser. The descriptions and sections contained in this manual were in effect at the time of printing. Equipment described within this manual may be optional. Some illustrations may not be applicable to your machine.



IMPORTANT SAFETY INFORMATION

Key to Symbols

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.		
	WEAR GLOVES Always wear non-slip, heavy-duty protective gloves when operating this product.		
	WEAR SAFETY FOOTWEAR Always wear non-slip steel-toed safety footwear when operating this product.		
	BEWARE OF ROTATING BLADES Don't touch the rotating parts.		
*	BYSTANDERS Allow only one person to operate this machine, keep bystanders away.		
	WARNING! HYDRAULIC OIL Fill hydraulic oil before using! CAUTION! SHARP BLADES Pinch point		
<u></u>	WARNING! MOVING PARTS Never place body between log and ram during forward or reverse stroke.		
	NEVER USE YOUR BARE HAND Never remove stuck log or clean the wedge bare-handed.		
	DISCONNECT YOUR MACHINE Maintenance, installation adjustment and cleaning of the machine must only be carried out when the power supply is disconnected according to the instructions in this manual.		

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

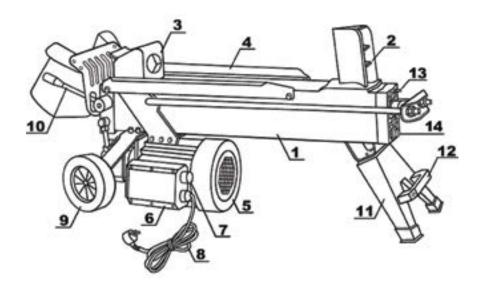
SAVE THESE INSTRUCTIONS!

PARTS LOCATION

Machine Overview

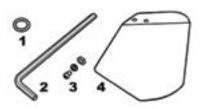
- 1. Hydraulic tank
- 2. Wedge
- 3. Ram
- 4. Log cradle
- 5. Electric motor
- 6. Connecting box
- 7. Switch

- 8. Power cable and plug
- 9. Wheel
- 10. Control handle
- 11. Front frame
- 12. Towing handle
- 13. Vent plug
- 14. Oil dipstick



Accessories

- 1. Copper seal at dipstick × 1
- 2. Hex wrench × 1
- 3. Screw, washer and nut × 4
- 4. Safe guard × 2



Locate model plate and safety label on the equipment. Read and follow the instructions on it.



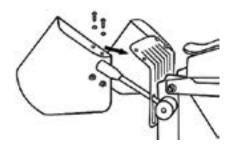
ASSEMBLING

A WARNING

This machine is only intended for homeowners to split firewood as detailed in instructions, not for any other purpose.

Assembling your Log Splitter

- 1. Cut and remove straps bound to the carton and unpack the carton.
- 2. Remove the loose parts included with unit (i.e., Owner's Manual, parts assembly, etc.).
- 3. Set the foams aside.
- 4. Connect the safe guards. Align the holes in the safe guards with main shield, secure with wrench and screwdriver.



WARNING

- If you notice transport damage while unpacking, notify your supplier immediately. **DO NOT** operate the machine.
- Read, understand and follow all safety instructions in this manual and labels on the equipment carefully.
- Keep the manual in a safe place for future and regular reference.
- Ensure the machine is disconnected from power supply while assembling.

ASSEMBLING

Preparation Before Operating

- Put the machine on a level surface of a sturdy workbench at least 60cm high.
- Always block the wheels to prevent movement of the Log Splitter while in operation.
- Oil the wedge and upper side of the tank to make operation more smooth.
- Check all nuts, bolts and hydraulic fittings are tight to ensure the equipment is in safe working condition.
- Make sure your outlet, mains voltage and frequency match the data stated on the model plate (or Technical Specifications in this manual).
- The power supply for the Log Splitter must have the protection of an under-voltage over-voltage circuit breaker with a residual current device (RCD) which maximum residual current rated at 0.03A.
- Check the switch, power cable and plug are not damaged (no cracks, etc.) to exclude the risk of electric shock and short circuit.
- Check all safety shields to be sure they are in the proper position.
- Wear non-slip safety shoes, safety goggles, safety gloves and suitable work clothing. **NEVER** wear jewellery, necktie or other loose clothing.
- Logs should be cut with square ends and permissible dimensions in advance. Uneven logs (e.g., knotted, curved, etc.) should not be cut.

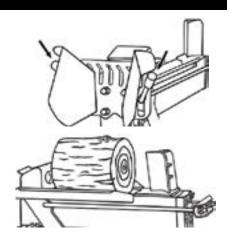
A WARNING

- Make sure the power cable is unplugged while setting up the machine.
- Take away the accessories on or around the unit before switching on.
- Ensure the motor is properly earthed or apply a protection device.
- Use only rubber-jacketed cable of sufficient lead cross section as extension cable. **NEVER** use an extension cable longer than 7 metres. Cable gauge must be 14 or lower.
- Keep away from flammable liquids or gases before starting the machine.
- Hydraulic oil is flammable and can explode. Always take a Class B fire extinguisher with you when operating the Log Splitter in a dry area as a precautionary measure against possible flying sparks.
- Always check the oil level of the hydraulic reservoir before operating. Operating the Log Splitter without adequate oil supply will cause severe damage to the pump.
- Keep handles free of oil, grease and resin.
- Before starting work, hydraulic pipes and hoses should be inspected and the stopping devices should be tested.
- Ensure to keep the working area free from obstructions, e.g., logs, split wood, etc.
- To check the function of the machine, operate the unit without loading to check whether this unit works normally (Refer to Operation).
- If the noise becomes louder and the ram running starts to be erratic, this indicates there is excessive air or a shortage of hydraulic oil in tank, you need to release vent plug or add hydraulic oil (Refer to Maintenance and Repair).

OPERATION

Operation

- 1. Plug in the power cable and switch on.
- 2. Load log between log cradles and on the tank.
- 3. Move both control handles down until the log is split. (Fig. 8)
- 4. Release any control handle to stop the ram extending.
- 5. Release both control handles to retract the ram for loading next log.
- 6. After log splitting, switch off and unplug the power cable.



A WARNING

- After log splitting, switch off and unplug the power cable.
- Ensure the horizontal distance between splitter and outlet is more than 3m due to the dust influence.
- Allow only responsible adults who have read and understood the manual to operate the machine.
- Be familiar with all controls and proper operation. Know how to stop the machine quickly in the event of an emergency.
- DO NOT operate the machine while under the influence of alcohol, drugs or medication.
- Only a single operator is allowed to load and operate this Log Splitter. Keep bystanders, helpers, pets and children at a sufficient distance from the machine.
- Only use your hands to operate the control handles and the switch. Arms, feet, knees, rope, heavy objects and extension devices are not allowed.
- NEVER put any part of your body between the extending ram and the wedge.
- **DO NOT** step over the Log Splitter when the motor is running.
- Always split log along its grain. If across the grain, some types of wood may burst or fly out resulting in injury.
- If you experience problems splitting, especially hard wood, **DO NOT** keep pushing on the handles. Release both control handles at once, the ram will return. If you keep pushing, the ram will fail to retract. If this occurs, turn the motor off and on again to continue operation.
- If the log is clipped on the wedge, release both hands and unplug the power cable immediately. Knock off the log with a hammer slightly (not with your hands).
- **NEVER** attempt to split more than one log at a time unless the ram has fully extended and a second log is needed to complete the separation of the first log. **NEVER** attempt to split one log on top of another.
- Regularly clear away the split wood to keep work area tidy for firm footing.
- Periodically check that all nuts, bolts, screws, hydraulic fittings and hose clamps are tightened.
- **NEVER** operate the Log Splitter on wet, muddy or icy surface. Safe footing is essential in preventing accidents.
- NEVER leave the machine unattended with the motor running.
- NEVER use this machine in a damp or rainy environment to avoid electric shock or short circuit.
- Operate the Log Splitter in proper lighting.
- **NEVER** tamper with the motor to run it at excessive speeds. The maximum motor speed is preset by the manufacturer and is within safety limits.
- Switch off and unplug power cables quickly when the machine is out of order. For example: the noises are becoming louder and the ram running erratic indicate there's excessive air or a shortage of hydraulic oil in tank, you will need to release vent bolt or add hydraulic oil. (Refer to Maintenance and Repair)
- DO NOT pull on power supply cable to unplug.

TRANSPORTATION

Transportation

- Hold the towing handle to move about slowly.
- If transporting the unit for a long distance, please pack the machine similar to the way it was packed in the carton.

A WARNING

- **NEVER** move this machine while the machine is running.
- Be extra cautious when moving the machine on rugged and rough terrain.
- Be careful to keep upright, not to be tipped during transportation
- **NEVER** allow anyone to ride on the machine while moving.

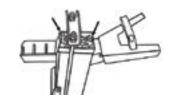
MAINTENANCE AND REPAIR

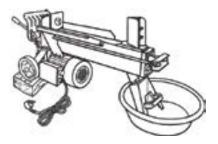
Maintenance and Repair

Refer to the Component Parts Diagram and Parts List should it become necessary to disassemble the unit for repair or replacement of parts.

To change hydraulic oil

- 1. If you want to change the hydraulic oil, you will need to drain the tank first.
- 2. Put a container under the front of the tank and raise the wheels 5cm off the ground on blocks.
- 3. Disconnect the bolt under the front of the tank to drain the tank.
- 4. After draining, screw on the bolt tightly.
- 5. Fill the hydraulic reservoir and repel the excessive air in the reservoir.
- 6. Refill the tank at least within the range marked on the dipstick. If the tank permits, add more oil to the hydraulic system for better operation.
- 7. After refilling, start the motor and operate the unit fully extended several times to repel the air in the reservoir.
- 8. Make sure the hydraulic oil level is OK and no excessive air is in the tank, insert and tighten the dipstick.





WARNING

- The Log Splitter is shipped without hydraulic oil in the reservoir.
- YOU MUST FILL THE RESERVOIR BEFORE USE.
- If it is difficult to obtain ISO 68 grade hydraulic oil, it can be substituted with a similar product.
- **DO NOT** mix different hydraulic oils, you must drain the system. Use only clean oil and take care to prevent dirt from entering the hydraulic reservoir.

MAINTENANCE AND REPAIR

A WARNING

- Ensure the power cable is unplugged while performing any maintenance or repairs.
- The hydraulic system is preset at the factory. **DO NOT** adjust the valve.
- **NEVER** alter this machine in any manner under any circumstances. Any alteration done on the design capabilities and capacities of this machine could result in serious injury and will void the warranty.
- Replace all damaged and worn parts immediately with original equipment and manufacturer's parts only.
- Wipe unit with an oiled rag to prevent rust. If the wedge becomes dull or nicked, it can be sharpened. Wear safety gloves while handling the wedge.
- **NEVER** check for leaks of hydraulic oil with your hand. Escaping oil under pressure can have sufficient force to penetrate skin causing serious personal injury or even death. Leaks can be detected by passing a piece of cardboard over the suspected leak and looking for discolouration.
- NEVER loosen or remove hydraulic fittings or the cap of hydraulic tank while the Log Splitter is running.
- If the motor is overloaded for a long time, the thermal protector in it which operating temperature is 130°C will disconnect the power of motor. Switch off and unplug the power cable, cool down the motor for half an hour and it will connect again for continual operation. If not, contact your dealer for customer support.
- Any problems with the hydraulic system and motor, other than described above, should only be handled by qualified specialists.
- Periodically check the oil level in the hydraulic reservoir. If there is a slow or erratic ram running during operation, it indicates the problem of oil shortage or excessive air in the reservoir.
- After each season use, check if the hydraulic oil needs to be changed. The Log Splitter has an oil filter
 in the tank. Generally, the hydraulic oil needs to be changed when there is abnormal or loud noise or
 ram block during operation.

Storage

A WARNING

- Ensure the Log Splitter is switched off and unplugged when in storage.
- Allow machine to cool for a minimum of 5 minutes after use before storage.
- Protect power supply cable from heat, sun, corrosive liquids and sharp edges.
- **DO NOT** store the Log Splitter unprotected in the outdoors, next to corrosive materials or in a damp environment. Store unit in a clean, dry area.
- DO NOT store the Log Splitter in a place where children could start it.

SPECIFICATIONS

			BBT-LS-7T	
Electrical requirement	Voltage		240V±10%	
	Frequency		50±1 Hz	
	HVF		<0.02	
Power input			2350W	
Power output			1800 W	
Rated current			9.8A	
Motor speed			2800 rpm	
Thermal protector			130C°	
Protection degree			IP44	
Motor working mode			S6 40%	
Power cable			3G1.5mm²	
Machine dimension (Lx	W×H) (cm)		97x28x46	
Machine net weight			50kg	
Min. oil capacity			3.4Liter	
Max. splitting force			7ton	
Max. splitting length			520mm	
Max. splitting diameter			250mm	
Min. splitting diameter				
Hydraulic pressure			28MPa	
Cylinder inner diameter			55mm	
Feed time			10s	
Retract time		4s		
Max. cylinder stroke		520mm		
Noise emission value		≤68dB(A)		
Vibration of control handle		≤2.5m/s2		
Operation	Altitude		≤1000m	
	Temperature		5~40C°	
	Humidity	40C°	≤50%	
		20C°	≤90%	
Transportation & storag	Transportation & storage temperature (C°)		-25~+50	

Technical Data subject to change without notice.

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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-month 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 products 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.

Parts purchases, consumable components and accessories such as chains, carry bags, batteries, hoses, grinding discs, covers, belts, cable, wheels and blades are not covered by standard warranty.

Spare Parts

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

BBT-LS 7T WWW.BBTA.COM.AU

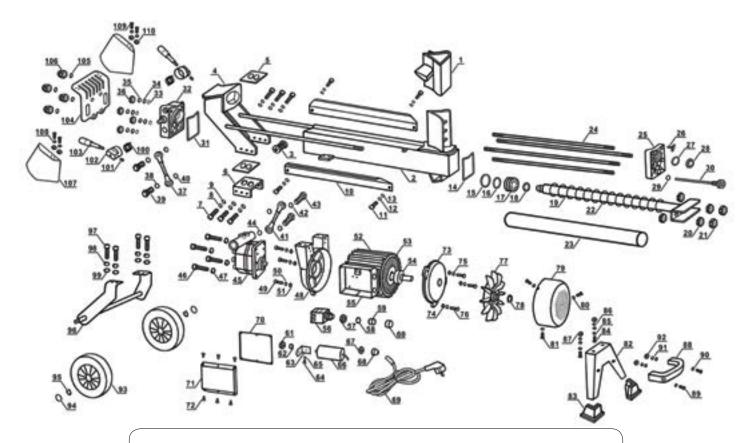
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EXPLODED DIAGRAM & PARTS LIST

Component Parts Diagram

NO	SKU	DESCRIPTION	QTY
1	SP-LS-7T-001	Optional four way wedge	
2	SP-LS-7T-002	Tank with wedge	
3	SP-LS-7T-003	Oil filter	
4	SP-LS-7T-004	Ram	
5	SP-LS-7T-005	Nylon liner	
6-9	SP-LS-7T-006-009	Base plate assembly of ram	
10-13	SP-LS-7T-010-013	Log cradle assembly	
14	SP-LS-7T-014	Front paper seal ring	
15-19	SP-LS-7T-015-019	Piston shaft and seals	
10	SP-LS-7T-010	Bored bolt	
11	SP-LS-7T-011	Hydraulic cylinder	
12-14	SP-LS-7T-012-014	Piston shaft and nuts	
15	SP-LS-7T-015	Retracting spring	
16-21	SP-LS-7T-016-21	Piston and seal rings assembly	
20-21	SP-LS-7T-020-021	Dipstick and seal ring	
22	SP-LS-7T-022	Retracting spring	
23	SP-LS-7T-023	Hydraulic cylinder	
24	SP-LS-7T-024	2-end long bolt	
25	SP-LS-7T-025	Front cylinder cover	
26	SP-LS-7T-026	Vent plug	
27	SP-LS-7T-027	Seal ring	
28	SP-LS-7T-028	Dust-proof ring	
29-30	SP-LS-7T-029-030	Dipstick assembly	
31	SP-LS-7T-031	Rear paper seal ring	
32-36	SP-LS-7T-032-036	Hydraulic valve assembly	

NO	SKU	DESCRIPTION	QTY
37-40	SP-LS-7T-037-040	Oil tube assembly between valve and pump	
41-44	SP-LS-7T-041-044	Oil tube assembly between tank and pump	
45-47	SP-LS-7T-045-047	Hydraulic pump assembly	
48-51	SP-LS-7T-048-051	Motor rear plate assembly	
52	SP-LS-7T-052	Motor shell	
53	SP-LS-7T-053	Stator	
54	SP-LS-7T-054	Rotator	
55, 70-72	SP-LS- 7T-055-070-072	Connecting box assembly	
56-60	SP-LS-7T-056-060	Key switch assembly	
61-66	SP-LS-7T-061-066	Capacitor assembly	
67-68	SP-LS-7T-067-068	Cable fastener assembly	
69	SP-LS-7T-069	Power cable	
73-76	SP-LS-7T-073-076	Motor front plate assembly	
77-78	SP-LS-7T-077-078	Fan assembly	
79-81	SP-LS-7T-079-081	Fan cover assembly	
82-87	SP-LS-7T-082-087	Front frame assembly	
88-92	SP-LS-7T-088-092	Towing handle assembly	
93-95	SP-LS-7T-093-095	Wheel assembly	
96-99	SP-LG-7T-096-099	Wheel frame assembly	
100-103	SP-LS-7T-100-103	Control handle assembly	
104-106	SP-LS-7T-104-106	Shield assembly	
107-110	SP-LS-7T-107-110	Safe guard assembly	

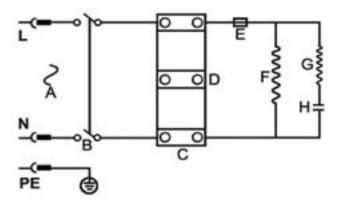


NOTE: Due to continuous product improvement, we reserve the right to change the product without prior notice.

EXPLODED DIAGRAM & PARTS LIST

Electric Circuit Principle Diagram

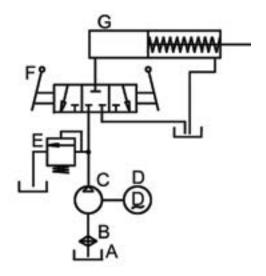
- A. Power cable
- B. Switch
- C. Wiring board
- D. Motor lead wire
- E. Thermal protector
- F. Main winding
- G. Aux. winding
- H. Capacitor



NOTE: The mains connection must have maximum 16A fuse.

Hydraulic Circuit Principle Diagram

- A. Hydraulic tank
- B. Oil filter
- C. Oil pump
- D. Electric motor
- E. Relief valve
- F. Control handle
- G. Cylinder



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