

ELECTRIC LOG SPLITTER 7 TON



MODEL NO.: ES7T20 Owner's Manual ASSEMBLY & OPERATING INSTRUCTIONS

Purchase Date_	Serial No	
Dealer		

Boss Industrial, Inc. • 1208 N. Independence Blvd • Romeoville, IL 60446 • USA Phone: (800) 780-BOSS (2677) • Fax (331) 472-2976 www.boss-industrial.com

To The Owner

Thank You!

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

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

All information in this manual is relative to the most recent product information available at the time of printing. Review this manual frequently to familiarize yourself with the machine, its features and operation. We reserve the right to change product specifications, designs and equipment without notice and without incurring obligation.

This unit is designed to use on a power supply that is 115 volts, 60 Hz, AC only (normal household current of 15 amp or 20 amp). If you have any problems or questions concerning the machine, phone an authorized service dealer or contact us directly. Boss Industrial's customer support phone number, website and mailing address can be found on this page. We want to ensure your complete satisfaction at all times.

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

Read and thoroughly understand all instructions and safety information before assembling or operating this log splitter. Failure to do so may cause serious injury or death. Do not allow familiarity with tools to make you careless. Remember that a careless fraction of a second is sufficient to inflict serious injury.

Customer Support

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

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

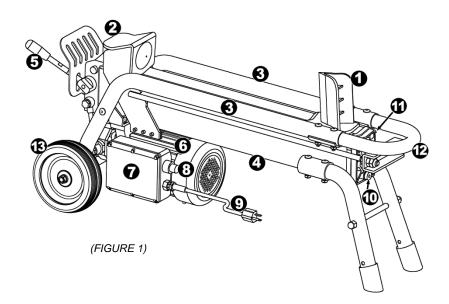
- Visit us on the web at www.boss-industrial.com
- Call a Customer Support Representative at (800) 780-2677 or send an email to: service@boss-industrial.com
- ♦ Write to Boss Industrial, Inc., 1208 N. Independence Blvd, Romeoville, IL 60446

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SECTION I: KNOW YOUR LOG SPLITTER

LOG SPLITTER OVERVIEW



- End wedge
- 2. Sliding ram
- 3. Log holder w/ Leg
- 4. Machine body / Reservoir
- 5. Control handle
- 6. 115v, 2hp motor
- 7. Motor control box
- 8. Switch
- 9. Power cable with plug
- 10. Oil drain bolt with dipstick
- 11. Vent plug
- 12. Towing handle
- 13. Wheel

SAFETY DECALS

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

1. Safety Warning Label (Part #: 410-231)

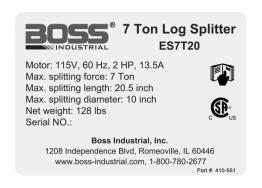


2. Operating Label (Part #: 410-156)



- when you experience extremely hard wood. The tool is designed to operat within its maximum speed and power. Force the tool will cause permanent

3. Serial NO. / Spec. Label (Part #: 410-561)



4. Warning Label (Part #: 410-245)

5. Switch Label (Part #: 410-159)

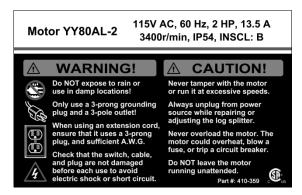
6. Warning Label (Part #: 410-265)







7. Motor Label (Part #: 410-359)



7. Oil Tag (Part #: 410-602)



Study the following symbols used on this tool and learn their meaning. Proper interpretation of these symbols will allow you to operate the tool better and safer.

	Wet Conditions Alert	Do not expose to rain or use in damp locations.
	Read The Operator's Manual	To reduce the risk of injury, user must read and understand operator's manual before using this product.
	Eye, Face & Ear Protection	Always wear safety goggles or safety glasses with side shields, earplugs and a face shield when operating this product.
lack	Safety Alert	Precautions that involve your safety.
	Wear Gloves	Always wear nonslip, heavy-duty protective gloves when operating this product.
	Wear Safety Footwear	Always wear nonslip safety footwear when operating this product.
Mideum 25 Ft.	Keep Bystanders Away	Always keep bystanders at least 25 ft. (7.5 m) away.
	Keep Hands Away	Always keep hands away from the wedge and the ram.
	Pinch Point	Never touch the cylinder bed, ram, or wedge during machine operation.
	Rotating & Moving Parts Alert	Beware of rotating and moving parts, serious injury could occur.
4	Electric Shock Alert	Never touch damaged or exposed wires while the machine is connected to a power source.

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

▲ DANGER

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

WARNING

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

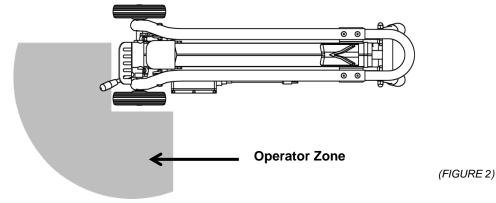
NOTICE is important information about the proper use of your machine. Failure to follow this instruction could result in damage to your machine.

IMPORTANT TIPS

- 1. DO NOT discard packing materials until you have carefully inspected and satisfactorily operated the tool.
- 2. Before every operation, **LOOSEN** the vent plug to allow air in and out. Failure to do so may blow the seals and void warranty.
- 3. Lubricate the wedge an upper side of the machine body for splitting smoothly.
- 4. Check the oil level before every operation.
- 5. Sharpen the wedge periodically.
- 6. **USE** only an electrical circuit having adequate capacity as recommended.
- 7. **DO NOT** continue to push on the control handle more than 3 seconds if the wedge can't cut through an oversized or extremely hard log. Force the tool will cause permanent damage and void warranty.
- 8. Try to split from another end or cut a small piece from the border instead of the center when you fail to cut through a log.
- 9. Remove the handle lever before standing upright.
- 10. DO NOT expose this machine to rain or use in a damp environment.

OPERATOR ZONE

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



ELECTRICAL SAFETY

- 1. This tool is powered by a precision built electric motor. Use only an electrical circuit having adequate capacity as recommended by the manufacturer -- 115 volts, 60 Hz, AC only (normal household current). Do not operate this tool on direct current (DC). If you choose to connect the tool to a generator, make sure the generator carrying the current (Amperes) or power output (Watts) at least 50% more than rated.
- 2. A substantial voltage drop will cause a loss of power and the motor will overheat. If the machine does not operate when plugged into an outlet, double check the power supply.
- 3. For voltage, the wiring is as important as the motor's horsepower rating. A line intended only for lights cannot properly carry a power tool motor. Check the house wiring if you experience circuit breaker tripped or fuse blown even the motor is plugged into a wall outlet directly, or switch to a 20 A circuit if this happens on a 15 A circuit.
- 4. This tool is intended for use on a circuit that has an outlet like the one shown below (*FIGURE 3*). Ensure that the outlet has a grounding pin that is properly installed and grounded in accordance with all local codes and ordinances to reduce the risk of electric shock. Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.
- 5. Check that the switch, cable and plug are not damaged before each use to avoid electric shock or short circuit.
- 6. Use only 3-wire extension cords with 3-prong grounding plugs, and 3-pole receptacles that accept the tool's plug.
- 7. When using a power tool at a considerable distance from the power source, use an extension cord heavy enough to carry the current that the tool will draw. An undersized extension cord will cause a drop in line voltage, resulting in a loss of power and causing the motor to overheat.
- 8. Use the chart provided below to determine the minimum wire size required in an extension cord. Only round jacketed cords listed by Underwriter's Laboratories (UL) should be used.

**Ampere rating (on tool faceplate)						
	0-2.0	2.1-3.4	3.5-5.0	5.1-7.0	1-12.0	12.1-16.0
Cord	Length	1	Wire Size	(A.W.G	i.)	
25'	14	14	14	12	12	12
50'	14	14	12	12	10	10
100'	12	12	10	10	10	_

**Used on 14 gauge - 15 amp circuit, Or 12 gauge - 20 amp circuit.

NOTE: AWG = American Wire Gauge



(FIGURE 3)

- 9. When working with the tool outdoors, use an extension cord that is designed for outside use. This is indicated by the letters "WA" on the cord's jacket.
- 10. Keep the extension cord clear of the working area. Position the cord so that it will not get caught on lumber, tools or other obstructions while you are working with a power tool. Failure to do so can result in serious injury.
- 11. "BLOWING" a fuse or tripping a circuit breaker is usually a warning that you are overloading the machine or have too many devices taking power from the circuit, or both. DO NOT install a higher capacity fuse!
- 12. DO NOT leave the motor running unattended.
- 13. DO NOT expose the motor to rain or use / store in damp locations.

HYDRAULIC SAFETY

- 1. 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.
- 2. 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 personal injury or even death. Leaks can be detected by passing a piece of cardboard over the suspected leak and looking for discoloration.
- 3. 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.
- 4. ALWAYS be sure to relieve all pressure by shutting off the motor and moving the control handle back to stop position.
- 5. NEVER remove the vent plug 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.
- 6. 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.
- 7. NEVER operate your log splitter near a flame or spark. Hydraulic oil is flammable and can explode.
- 8. ALWAYS take a Class B fire extinguisher with you when operating this log splitter in dry areas as a precautionary measure against possible flying sparks.

CALIFORNIA PROPOSITION 65



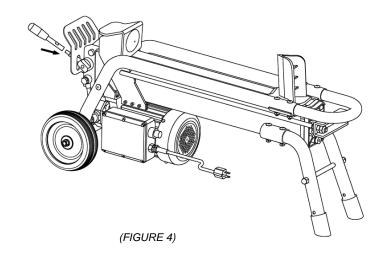
WARNING! Engine Exhaust, some of its constituents, and certain components contain or emit chemicals known to State of California to cause cancer and birth defects or other reproductive harm. For more information, please go to www.P65Warnings.ca.gov.

SECTION II: PRE-OPERATION INSTRUCTIONS

UNPACKING & ASSEMBLING

This product has been shipped pre-assembled.

- Carefully remove the log splitter and all accessories from the box. Make sure that all components listed in the Packing List are included. See Page 16
- Inspect the tool carefully to make sure no breakage or damage occurred during shipping.
- DO NOT discard packing materials until you have Carefully inspected and satisfactorily operated the tool.
- If any parts are damaged or missing, please call 1-800-780-2677 for assistance.
- Screw on the control handle lever before operation
 See FIGURE 4.



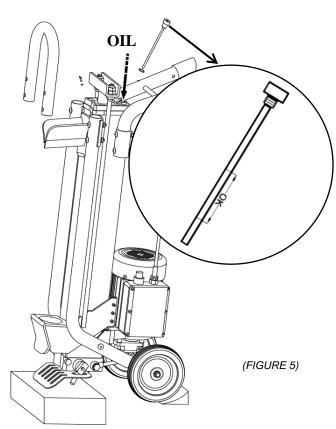


NOTES:

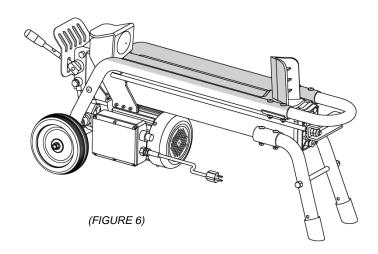
- 1. If any parts are damaged or missing, do not operate this tool until the missing parts are replaced. Failure to do so could result in possible serious personal injury.
- 2. Do not attempt to modify this tool or create accessories not recommended for use with this tool. Any such alteration or modification is misuse and could result in a hazardous condition leading to possible serious personal injury.

GETTING PREPARED

- Check the oil level. See FIGURE 5
 - 1) Remove the control handle lever and towing handle, and then stand the log splitter upright.
 - 2) Using a 19mm wrench or an adjustable wrench, remove the oil drain bolt.
 - 3) Wipe the dipstick and insert it all the way back into the oil tank.
 - 4) Take out the dipstick and see if the oil level is between the "OK" range.
 - 5) Add oil (AW32) if the oil level is underneath the bottom line until the proper level is reached.
- Place the log splitter on flat, dry, solid ground.
- Block two wheels to prevent your log splitter from moving during operation.



- Lubricate the wedge and upper side of the machine body. This will allow the log to move smoothly on the surface. See FIGURE 6
- Wear non-slip safety shoes, safety goggles, safety gloves, protective hair covering and suitable work clothing. Never wear jewelry, necktie and other loose clothing.
- Logs should be cut with square ends. Never split logs larger than 10 in. diameter or 20-1/2 in. long. Uneven logs (e.g. knotted, curved, etc.) should not be used.
- Before every operation, LOOSEN the vent plug to allow air in and out. Failure to do so may blow the seals which could cause permanent damage to the log splitter and void warranty.



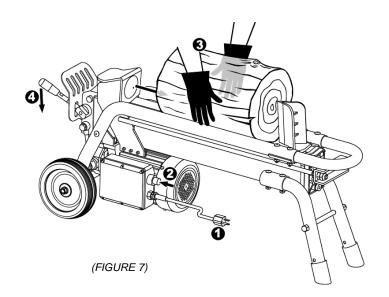
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NOTES:

- 1. ALWAYS read the operator's manual before operation.
- 2. NEVER allow children to operate this log splitter. NEVER allow adults lacking proper instructions and understanding to operate this log splitter.
- 3. NEVER operate the log splitter when tired or under the influence of alcohol, drugs or medication.
- 4. Always use eye protection which is marked to comply with ANSI Z87.1.
- 5. 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.
- 6. Check that the switch, power cable and plug are not damaged (no cracks, etc.) to prevent the risk of electric shock or a short circuit.
- 7. Check that all nuts, bolts and hydraulic fittings are tight to be sure the equipment is in a safe working condition.
- 8. Ensure that the horizontal distance between the splitter and outlet is more than 5 feet.
- 9. Be familiar with all controls and proper operation. Know how to stop the machine quickly in the event of any malfunction or emergency.

SECTION III: OPERATION INSTRUCTIONS

- Plug the machine into a 3 pole outlet and start the motor.
- Grab the round side of the log and place it firmly against the wedge. See FIGURE 7
- Use your right hand to push the control handle DOWN.
 The ram will drive the log against the wedge to split.
- Stabilize the log using your left hand when needed.
 Remove left hand immediately as the wedge starts to contact the log.
- Release the control handle to stop splitting. The ram will retract automatically for you to load next log.
- When you finish splitting, switch off and unplug the power cable.





NOTES

- 1. NEVER place hands or feet between the extending ram and the wedge.
- 2. NEVER straddle or step over the log splitter during operation.
- 3. NEVER reach or bend over the log splitter to pick up a log.
- 4. NEVER try to split two logs on top of each other.
- 5. NEVER try to cross split a log.
- 6. NEVER attempt to load your log splitter when the ram is in motion.
- ALWAYS use your hand to operate the control lever on the valve. NEVER use your foot, a rope or any extension device.
- 8. ONLY operate your log splitter in daylight or under good artificial light.
- 9. ALWAYS keep the work area clean. Remove split wood around your log splitter immediately so that you don't stumble over it.
- 10. Only a single operator is allowed to load and operate this log splitter. Keep bystanders, helpers, pets and children a sufficient distance at least 25 feet from the machine.
- 11. DO NOT force the tool. It is designed to operate within its maximum speed and tonnage. No continuing to push on the control handle for more than 3 seconds. If you experience extremely hard wood, release the control handle at once to avoid permanent damage which will void warranty. If the motor stops, turn off the motor and then turn it back on again to continue splitting.
- 12. If the log is clipped or jammed on the wedge, stop the machine and knock off the log with a hammer or mallet (not with your hands).
- 13. DO NOT pull on the power supply cable to unplug the machine.

SECTION IV: MAINTENANCE

OFF SEASON STORAGE

Store unit in a clean, dry area. Make sure it's switched off and unplugged.



NOTES

- 1. Allow the machine to cool 5 minutes after use before storing.
- 2. Protect power supply cable from heat, sunshine, aggressive liquids and sharp edges.
- 3. Do not store unit in unprotected areas outdoors. Never place near corrosive materials or in a damp environment.
- 4. Unscrew the control handle if you store the machine upright. Make sure it won't tip over.

TRANSPORTATION

This machine can fit in most vehicles for transportation. Ensure that the splitter is properly secured before the vehicle is in motion.



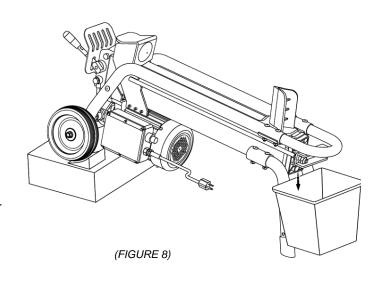
NOTES

- 1. NEVER move this machine while the motor is running.
- 2. Be extra cautious when moving this machine on rugged and rough terrain.
- 3. Never allow anyone to ride on the machine while transporting.
- 4. Make sure the vent plug is tightened during transportation.

MAINTENANCE

Regular maintenance is the way to ensure the best performance and long life of your machine.

- Replace hydraulic oil every 100 hours of use. AW32 universal hydraulic oil is highly recommended.
 - 1) Raise the wheel end of the splitter 10 in. off the ground. See *FIGURE 8*
 - 2) Place a container no less than 1.5 gallon of capacity under the front end of the splitter.
 - 3) Using a 19mm wrench or an adjustable wrench to remove the oil drain bolt.
 - 4) Disconnect the vent plug to allow the oil to drain into the container.
 - 5) Stand the splitter upright once the oil is drained. Refill the reservoir tank with fresh hydraulic oil (1 gallon) until oil level reaches the maximum line on the dipstick. See *FIGURE 5* on Page 6.
 - 6) Put the oil drain bolt back and tighten.



- 7) Level down the machine and operate it unloaded. Hold the control handle to engage the ram to the farthest position and then release the control handle to retract the ram fully. Repeat this operation for 12 cycles to repel the air.
- 8) Dispose old oil at an oil recycling center.
- Sharpen the wedge when it gets dull or nicked. Using a fine-toothed file, smooth any burrs or crushed areas along the cutting edge.
- Periodically clean the machine using an oiled rag to prevent rust.
- Do not at any time let brake fluids, gasoline, petroleum based products, penetrating lubricants, etc., come in contact with plastic parts. Chemicals can damage, weaken or destroy plastic which may result in serious personal injury.
- · ALWAYS unplug from the power source while repairing or adjusting the splitter.
- Replace all damaged or worn parts immediately that must meet manufacturer's specifications.

TROUBLE SHOOTING

Most problems are easy to fix. Consult the trouble shooting Table below for common problems and their solutions. An unusual noise or vibration is generally a warning of trouble. Check for damaged parts and clean, repairs and / or replace as necessary. If you continue to experience problems, contact us at www.boss-industrial.com, call toll-free (800) 780 2677 or send an email to service@boss-industrial.com for support.

Problem	Possible Cause	Remedy
Motor fails to start.	Overload Protection Device disengaged to protect the log splitter from being damaged.	Switch off the motor and unplug the power cable. Let motor cool down for 5 min and restart. If this does not solve the problem, call us for support.
The log splitter won't split logs.	 Log is improperly positioned. The size or hardness of the log exceeds the machine's capacity. Wedge cutting edge is blunt. Insufficient hydraulic oil. Unauthorized adjustment was made on the Maximum Pressure Set Screw. The pressure was set lower. Extension cable of insufficient A.W.G. 	 Refer to <i>Operation</i> section for log loading. Reduce the log size before splitting Refer to "Sharpening The Wedge" in the <i>Maintenance</i> section. Locate leak(s). Contact us for support. Contact us for support. Change an extension cable of higher A.W.G.
Ram jerks, vibrates or does not move.	 Unit is not placed on level ground. Low oil level. Excessive air trapped in the hydraulic system. Vent plug wasn't loosened during operation Log splitter is over forced. Hydraulic lines blocked . Hydraulic fluid too thick or too cold. 	 Reposition the log splitter to ensure that the wheel end of the unit is lower than the other end. Check oil level for possible oil refilling. Operate 12 cycles to repel air. Open the vent plug. Turn off and restart the unit. If this doesn't solve the problem, contact us for support. Change oil. Change wrong oil or warm up
Oil leaks from points of the hydraulic system	 Air is sealed in hydraulic system while operating. Vent plug is not tightened before moving the log splitter. Oil drain bolt is not tight. Hydraulic fitting(s) and/or seal(s) are worn. 	 Loosen vent plug before operating the log splitter. Tighten the vent plug before moving the log splitter. Tighten the oil drain bolt. Contact the dealer.

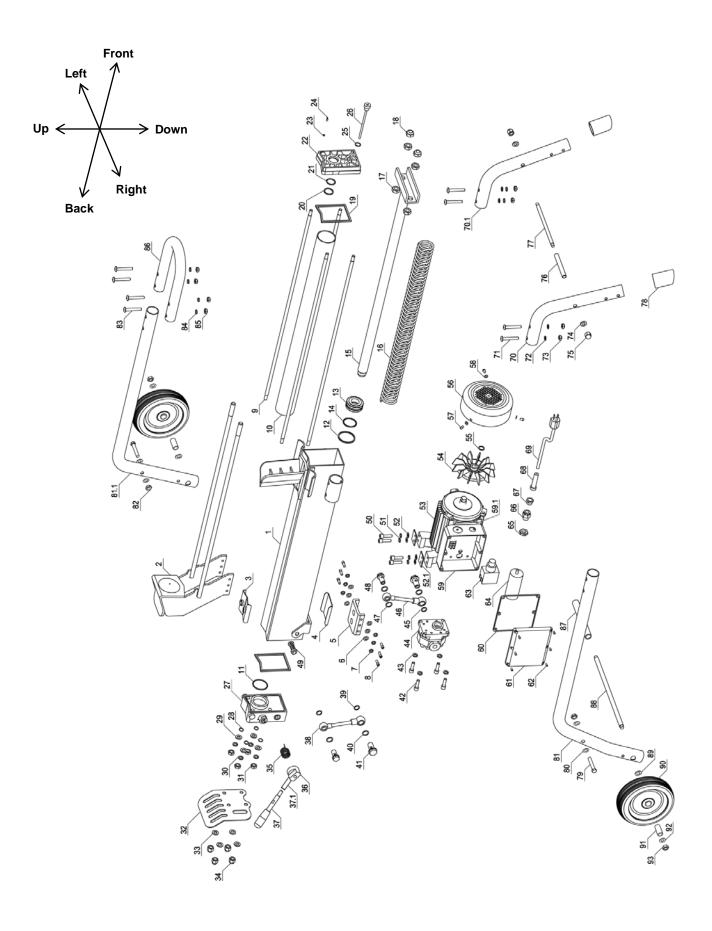
TECHNICAL SPECIFICATIONS

Electrical requirements	115V, 60Hz
Power output	1500W
Rated current	13.5A
Motor speed	3400 RPM
Power cable	SJTW 14 AWG (2.08mm²)

Max. splitting force*		7 ton
Max. splitting length		20.5 in
Splitting wedge height		5 in
Hydraulic pressure		3700 PSI
Cylinder bore		2.36 in
Cycle time*	Feed	9 sec
Cycle time*	Retract	5 sec
Max cylinder stroke		17.5 in
Oil capacity (Included)		1 gal
Machine dimensions (L×W×H) (in)		39.5x13.5x20
Machine net weight		128 lbs

^{*}Tonnage and cycle time may vary dependent upon electricity supply, mechanical and environmental conditions.

EXPLODED DIAGRAM & PARTS LIST



REF#	PART#	PART NAME	SPECIFICATIONS	QTY PER SECTION
1	310-325	Machine Body w/ End Wedge	7 ton	1
2	530-102	Ram Cap & Shaft	7 ton (Teethed)	1
3	530-475	Upper Nylon Cushion		1
4	530-898	Lower Nylon Cushion		1
5	530-616	Base Plate of Ram		1
6	750-520	Flat Washer	PH, M10	6
7	750-432	Spring Washer	PH, M10	6
8	710-095	Inner Hex Bolt	PH, M10*25	6
9	710-685	Double-Screw Bolt	M10*813*2.5	4
10	530-322	Cylinder Tube	Ø55*743	1
11	730-847	O Seal Ring	Ø55*3.1	1
12	730-446	Seal Cover	Ø55	1
13	530-624	Piston Head	Ø 54.5*22	1
14	730-924	O Seal Ring	Ø50*3.5	1
15	530-434	Piston Shaft w/ Connecting Plate	7 ton	1
16	530-580	Retracting Spring		1
17	720-156	Nut	ZP, M14	4
18	720-884	Lock Nut	ZP, M14	2
19	730-772	Paper Seal Ring		2
20	730-186	O Seal Ring	Ø30*2.65	1
21	730-139	Dirt Proof Ring	Ø30	1
22	540-853	Front Reservoir Cover		1
23	730-094	O Seal Ring	Ø5*1	1
24	540-537	Vent Plug	ZP, M4*10	1
25	750-158	Copper Seal Washer	M14*1	1
26	540-333	Oil Dipstick w/ Oil Drain Bolt	Ø5*190 / M14*12	1
27	520-974	Hydraulic Valve		1
28	730-198	O Seal Ring	Ø14*2.4	4
29	750-532	Flat Washer	PH, M10*2.5	4
30	750-355	Spring Washer	PH, M10	4
31	720-465	Nut	PH, M10	4
32	350-233	Position Shield		1
33	750-525	Flat Washer	ZP, M10	4
34	720-678	Snap Head Nut	ZP, M10	4
35	520-596	Torsion Spring		1
36	520-293	Control Handle Bracket		1
37	520-401	Control Handle Lever w/ Grip	Ø12.5*116	1
37.1	520-400	Short Lever	Ø12.5*54	1
38	560-587	Oil Tube	Ø14 - Ø10*100*2	1
39	730-624	O Seal Ring	Ø18*1.9	2
40	750-158	Copper Seal Washer	M14*1	2
41	710-896	Oil Tube Screw	PH, M14*30*1.5	2
42	710-895	Inner Hex Head Bolt	PH, M8*20	4
43	750-075	Flat Washer	PH, M8*2.5	4
44	550-202	Hydraulic Pump	5.0	1
45	730-624	O Seal Ring	Ø18*1.9	1
46	560-587	Oil Tube	Ø14 - Ø10*100*2	1
47	750-158	Copper Seal Washer	M14*1	3

REF#	PART#	PART NAME	SPECIFICATIONS	QTY PER SECTION
48	710-896	Oil Tube Screw	PH, M14*30	2
49	540-311	Oil Filter		1
50	710-541	Inner Hex Head Bolt	PH, M8*30	4
51	750-075	Spring Washer	PH, M8	4
52	750-160	Flat Washer	PH, M8	4
52.1	940-002	Motor Mounting Spacer		2
53	910-256	Electric Motor 2 HP, Main Body		1
54	910-194	Fan		1
55	760-548	Circlip for Shaft	Ø16	1
56	910-154	Fan Cover	Ø162	1
57	750-270	Flat Washer	ZP, M4*1	3
58	740-477	Cross Recess Pan Head Screw	ZP, M4*10	3
59	920-011	Connecting Box (Bottom)		1
59.1	920-507	Connecting Box (Rubber Cushion)		1
60	920-506	Connecting Box (Rubber Ring)		1
61	920-853	Connecting Box (Cover)		1
62	740-603	Cross Recess Pan Head Screw	PH, M4*10	6
63	920-943	Power Switch		1
64	920-980	Capacitor	60uf	1
6567	930-880	Cable Fastener		1
68	930-511	Cable Bushing		1
69	930-182	Power Cable	STJW 3/C 14AWG, Ø2.08*1600	1
70	320-812	Front Leg (R)		1
70.1	320-811	Front Leg (L)		1
71	740-526	Cross Recess Pan Head Screw	ZP, M8*55	4
72	750-638	Flat Washer	ZP, M8	4
73	720-500	Lock Nut	ZP, M8	4
74	750-525	Flat Washer	ZP, M10	2
75	720-678	Snap Head Nut	ZP, M10	2
76	320-666	Front Support Bar Bushing	Ø13*1*105	1
77	320-563	Front Support Bar	Ø10*205	1
78	320-825	Bumper		2
79	740-526	Cross Recess Pan Head Screw	ZP, M8*55	2
80	750-638	Flat Washer	ZP, M8	4
81	320-414	Joint Leg and Log Holder (R)		1
81.1	320-413	Joint Leg and Log Holder (L)		1
82	720-500	Lock Nut	ZP, M8	2
83	740-526	Cross Recess Pan Head Screw	ZP, M8*55	4
84	750-638	Flat Washer	ZP, M8	4
85	720-500	Lock Nut	ZP, M8	4
86	320-748	U Shape Towing Handle		1
87	340-090	Wheel Axle	Ø12.7*335	1
88	340-250	Axle Bushing	Ø16*1*168	1
89	750-146	Flat Washer	ZP, ½" *2	2
90	330-214	Wheel	7"*1.8"	2
91	340-132	Bearing spacer	Ø 16*1.2*36.8	2
92	750-525	Flat Washer	ZP, M10	2
	720-120	Lock Nut	ZP, M10 2	2

WARRANTY

LIMITED WARRANTY STATEMENT

Boss Industrial, Inc., ("Boss Industrial") warrants to the original retail purchaser that this BOSS brand outdoor product is designed and made to the highest line standards applicable and agrees to repair or replace, at Boss Industrial's, discretion, any defective product in material and workmanship free of charge within these time periods from the date of purchase under the limited warranty terms below.

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

This warranty extends to the original retail purchaser only and commences on the date of the original retail purchase. Boss Industrial honors the return policy of registered retailors under the terms and conditions mutually specified and agreed. Otherwise, any part of this product manufactured or supplied by Boss Industrial and found in the reasonable judgment of Boss Industrial to be defective in material or workmanship will be repaired or replaced without charge for parts and labor by Boss Industrial or its authorized service center. How to process a warranty claim? You must first call the BOSS INDUSTRIAL service hotline 1 800 780 2677. Proofs of purchase will be required to substantiate any warranty claim. Our technical team will guide you in trouble shooting, repairing, or returning a defective part or machine. Any unauthorized repair or return will invalidate this warranty. The expense of delivering the replacement part or product to the dealer for warranty work and the expense of returning it back to the owner after repair or replacement will be paid by the owner. Boss Industrial's responsibility in respect to claims is limited to making the required repairs or replacements and no claim of breach of warranty shall be cause for cancellation or rescission of the contract of sale of any BOSS brand product. All warranty work must be performed by Boss Industrial or its authorized service center.

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

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

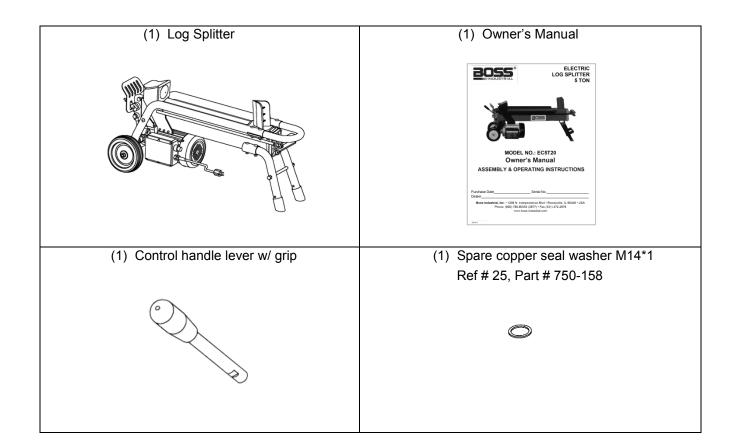
- A. Tune-ups Switch, Capacitor, Cable fastener, Spark Plugs, Carburetors, Adjustments, Ignition, Filters, Handles
- B. Wear items Tires, nylon liners, rubber seals, rubber hoses, hydraulic oil
- C. Gas Engines as they are covered under the Engine Manufacturers' Warranty.

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

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

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

PACKING LIST





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