

Radley®

5-Ton electric

Log Splitter

120 V • 60 Hz



Owner's Manual
3 Year *limited warranty*



READ ALL INSTRUCTIONS BEFORE FIRST USE.
KEEP THIS MANUAL FOR FUTURE REFERENCE.
KEEP AWAY FROM CHILDREN.



WEAR CSA APPROVED
EYE PROTECTION



WEAR EAR
PROTECTION



WEAR A
FACE MASK

PRODUCT SPECIFICATIONS

Model Number		WS5T
Motor		120V ~ 60Hz 15A 1 3/4Hp IP54
Log Capacity	Diameter *	50 ~ 250 mm
	Length	520 mm
Splitting Force		5 t
Hydraulic Pressure		20 MPa
Hydraulic Oil Capacity		3.2L
Overall Size	Length	925 mm
	Width	265 mm
	Height	465 mm
Weight		45 kg

* The diameter of the log is indicative - a small log can be difficult to split when it has knobs or a particularly tough fiber. On the other hand, it may not be difficult to split logs with regular fibers even if its diameter exceeds the max. figure indicated above.

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SAFETY WARNINGS & CAUTIONS

Understand your log splitter

Read and understand the owner's manual and labels affixed to the log splitter. Learn its application and limitations as well as the specific potential hazards peculiar to it.



Drugs, alcohol and medication

Do not operate the log splitter while under the influence of drugs, alcohol, or any medication that could affect your ability to use it properly.

Avoid dangerous conditions

Put the log splitter on a 60 - 75cm high, stable, flat, and level work bench where there is plenty of room for handling, and help the operator stay alert. Bolt the log splitter to the work surface if it tends to slip, walk, or slide.

Keep your work area clean and well lit. Cluttered areas invites injuries.

Do not use the log splitter in wet or damp areas or expose it to rain.

Do not use it in areas where fumes from paint, solvents or flammable liquids pose a potential hazard.

Inspect your log splitter

Check your log splitter before turning it on. Keep guards in place and in working order. Form a habit of checking to see that keys and adjusting wrenches are removed from tool area before turning it on.

Replace damaged, missing or failed parts before using it.



Dress properly

Do not wear loose clothing, gloves, neckties or jewelry (rings, wrist watches). They can be caught in moving parts.

Protective gloves that don't conduct electricity and non-skid footwear are recommended when working.

Wear protective hair covering to contain long hair, preventing it from getting caught in machinery.



Protect your eyes and face

Any log splitter may throw foreign objects into the eyes. This can cause permanent eye damage. Always wear safety goggles.

Everyday eyeglasses have only impact resistant lenses. They are not safety glasses.

Do not put the log splitter on the ground for operations. This is an awkward operating position that the operator has to bring his face close to the machine, and thus risks being struck by wood chips or debris.



Extension cords

Improper use of extension cords may cause inefficient operation of the log splitter which can result in overheating. Be sure the extension cord is no longer than 10 m and its section is no less than 2.5mm² to allow sufficient current flow to the motor.

Avoid use of free and inadequately insulated connections. Connections must be made with protected material suitable for outdoor use.

Avoid electrical shock

Check that the electric circuit is adequately protected and that it corresponds with the power, voltage and frequency of the motor.

Check that there is a ground connection, and a regulation differential switch upstream.

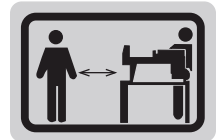
Ground the log splitter. Prevent body contact with grounded surfaces: pipes, radiators, ranges, and refrigerators.

Never open the pushbutton box on the motor. Should this be necessary, contact a qualified electrician.

Make sure your fingers do not touch the plug's metal prongs when plugging or unplugging the log splitter.

Keep visitors and children away

The log splitter must always be operated by one person only. Other people should keep a safe distance from the work area, especially when the log splitter is under operation. Never use another person to help you with freeing a jammed log.

**Inspect your log**

Make sure there are no nails or foreign objects in logs to be split. The ends of the logs must be cut square. Branches must be cut off flush with the trunk.

Don't overreach

Floor must not be slippery.

Keep proper footing and balance at all times.

Never stand on log splitter. Serious injury could occur if the tool is tipped or if the cutting tools is unintentionally contacted. Do not store anything above or near the log splitter where anyone might stand on the tool to reach them.

Avoid injury from unexpected accident

Always pay full attention to the movement of the log pusher.

Do not attempt to load the log on until the log pusher has stopped.

Keep hands out of the way of all moving parts.



Protect your hands

Keep your hands away from splits and cracks which open in the log. They may close suddenly and crush or amputate your hands. Do not remove jammed logs with your hands.



Don't force tool

It will do a better and safer job at its designed rate. Never try to split logs larger than those indicated in the specifications table. This could be dangerous and may damage the machine.

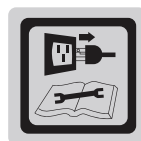
Don't use log splitter for a purpose for which it was not intended.

Never leave tool running unattended

Don't leave tool until it has come to a complete stop.

Disconnect power

Unplug when not in use, before making adjustments, changing parts, cleaning, or working on the log splitter. Consult technical manual before servicing.



Protect the environment

Take used oil to an authorized collection point or follow the stipulations in the country where the log splitter is used.

Do not discharge into drains, soil or water.



Maintain your log splitter with care

Keep the log splitter clean for best and safest performance.

Make the workshop childproof

Lock the shop. Disconnect master switches. Store the log splitter away from children and others not qualified to use it.

APPLICATION CONDITIONS

This log splitter is a home use model. It is designed for operating under ambient temperatures between +5°C and 40°C and for installation at altitudes no more than 1000m above M.S.L. The surrounding humidity should be less than 50% at 40°C. It can be stored or transported under ambient temperatures between -25°C and 55°C.

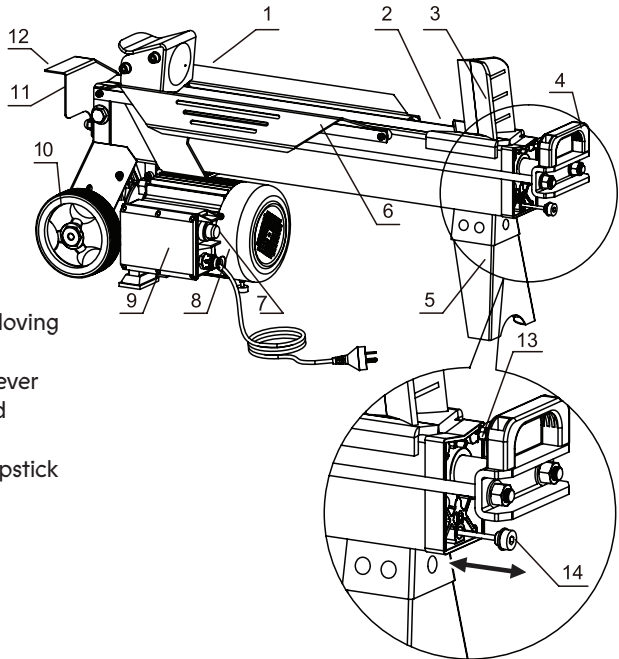
ELECTRICAL REQUIREMENTS

Connect the main leads to a standard 120V±10% (60Hz±1 Hz) electrical supply which has protection devices of under-voltage, over-voltage, over-current as well as a residual current device (RCD) which maximum residual current rated at 0.03A.

SET UP AND PREPARATION FOR OPERATION

1. Bolt the Support Leg to the Log Splitter, lift the log splitter by the handles at both ends and place it on a 60 - 75cm high, stable, flat and level work surface.
2. Familiarize yourself with the controls and features of this log splitter in the illustrations.

1. Log Pusher
2. Work Table
3. Wedge
4. Lift Handle
5. Support Leg
6. Log Retaining Plates
7. Switch
8. Motor
9. Pushbutton Box
10. Wheels for Minor Moving ONLY.
11. Hydraulic Control Lever
12. Control Lever Guard
13. Bleed Screw
14. Oil Drain Bolt w/ Dipstick



Before operating the log splitter, the Bleed Screw should be loosened by some rotations until air can go in and out of the oil tank smoothly.

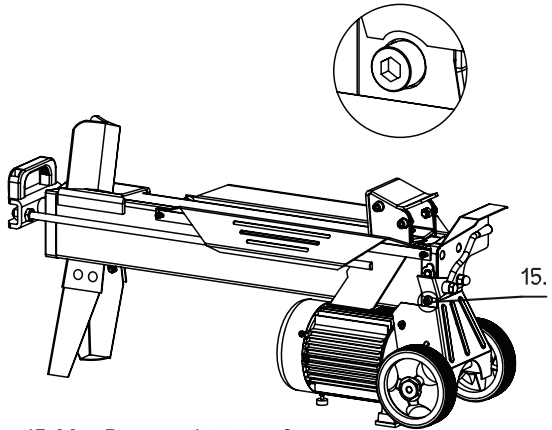
Air flow thru the Bleed Screw hole should be detectable while the log splitter is under operations.

Before moving the log splitter, make sure the Bleed Screw is tightened to avoid oil leaking from this point.



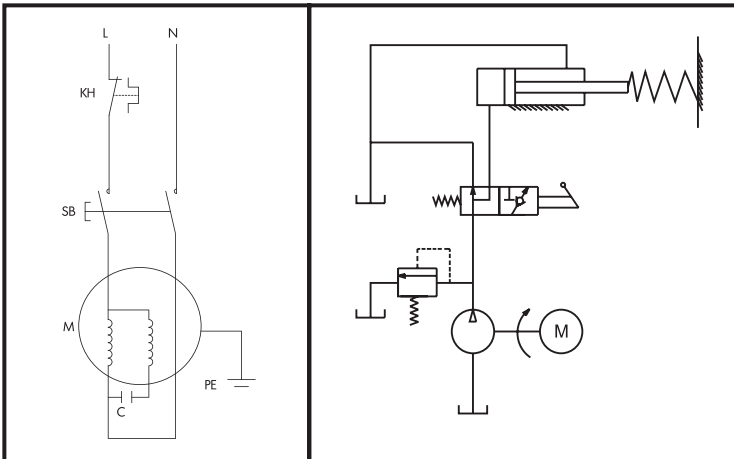
Failure to loosen the bleed screw will keep the sealed air in hydraulic system being compressed after being decompressed. Such continuous air compression and decompression will blow out the seals of the hydraulic system and cause permanent damage to the log splitter. Do not adjust the max pressure limiting screw!

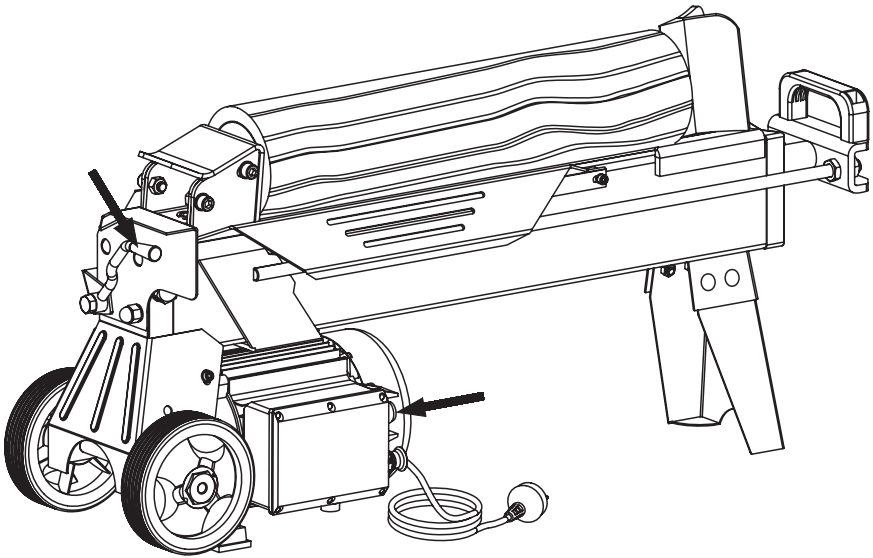
Max pressure was set before the log splitter left the factory and the max pressure limiting screw is sealed with glue to ensure the log splitter works under pressure no more than 5 tons. The setting was done by a qualified mechanic with professional instruments. Unauthorized resetting will cause the hydraulic pump fail to output enough splitting pressure or **RESULT IN SERIOUS INJURY AS WELL AS DAMAGE TO THE MACHINE.**



15. Max Pressure Limiting Screw

WIRING DIAGRAM PLUMBING DIAGRAM





LOG SPLITTER OPERATION

This log splitter is equipped with "ZHB" control system that requires it to be operated by both hands of the user. Left hand controls the hydraulic control lever while right hand controls the push-button switch. The log splitter will freeze upon absence of either hand. Only after both hands release the controls, the log pusher starts to return backward to the starting position.

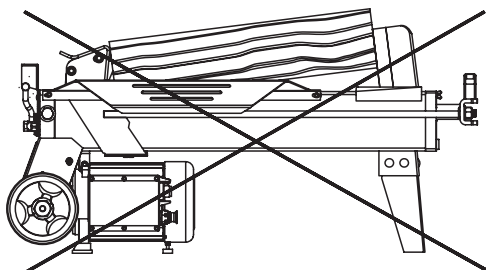
Trigger type lock-out device is adopted to avoid accidental Hydraulic Control Lever pushdown. To operate the Hydraulic Control Lever, draw the Trigger backward with the index finger before pushing the Hydraulic Control Lever forward.



Never force the log splitter for more than 5 seconds by keeping pressure on it to split excessively hard wood.

After this time interval, the oil under pressure will be overheated and the machine could be damaged. For an extremely hard log, rotate it by 90° to see whether it can be split in a different direction. In any case, if you are not able to split the log, this means that its hardness exceeds the capacity of the machine and thus that log should be discarded to protect the log splitter.

Always set logs firmly on the log retaining plates and work table. Make sure logs will not twist, rock or slip while being split. Do not force the blade by splitting the log on the upper part. This will break the blade or damage the machine.

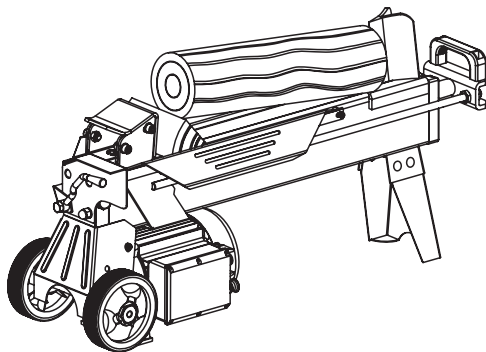


Break log in the direction of its growing grain. Do not place log across the log splitter for splitting. It may be dangerous and may seriously damage the machine.

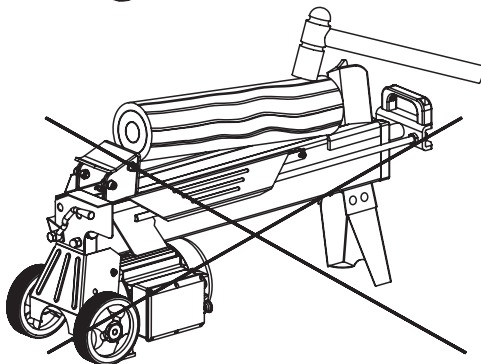
Do not attempt to split 2 pieces of logs at the same time. One of them may fly up and hit you.

FREING A JAMMED LOG

- Release both controls.
- After the log pusher moves back and completely stops at its starting position, insert a wood wedge under the jammed log.
- Start the log splitter to push the wood wedge to go completely under the jammed one.
- Repeat above procedure with sharper slope woods wedges until the log is completely freed.



Do not try to knock the jammed log off. Knocking about will damage the machine or may launch the log and cause accident.

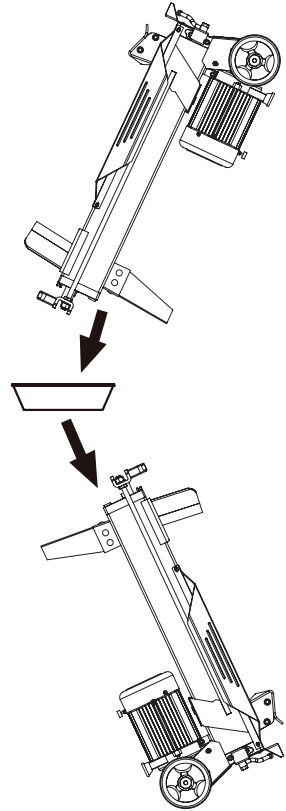


REPLACING HYDRAULIC OIL

Replace the Hydraulic oil in the log splitter after every 150 hours of use. Take following steps to replace it.

- Make sure all moving parts stops and the log splitter is unplugged.
- Unscrew Oil Drain Bolt with Dipstick to remove it.
- Turn the log splitter on the Support Leg side over an 4 liters capacity container to drain the hydraulic oil off.
- Turn the log splitter on the motor side.
- Refill fresh hydraulic oil at the volume as per the hydraulic oil capacity of a particular model indicated in above specifications table.
- Clean the surface of Dipstick on the Oil Drain Bolt and put it back into the oil tank while keep the log splitter vertically.
- Make sure the level of the refilled oil is just between 2 grooves around the Dipstick.
- Clean the Oil Drain Bolt before thread them back. Make sure they are tightened to avoid leakage before place the log splitter horizontally.

Periodically check oil level to ensure it is between 2 grooves around the Dipstick. Upon Lower oil level, oil refilling is required.



Following hydraulic oils or equivalent are recommend for the log splitter's hydraulic transmission system:

SHELL Tellus 22

MOBIL DTE 11

ARAL Vitam GF 22

BP Energol HLP-HM 22

SHARPENING WEDGE

After using the log splitters for some time, sharpen the wedge of the log splitter using a fine-toothed file and smooth any burrs or crushed area along the cutting edge.

TROUBLESHOOTING

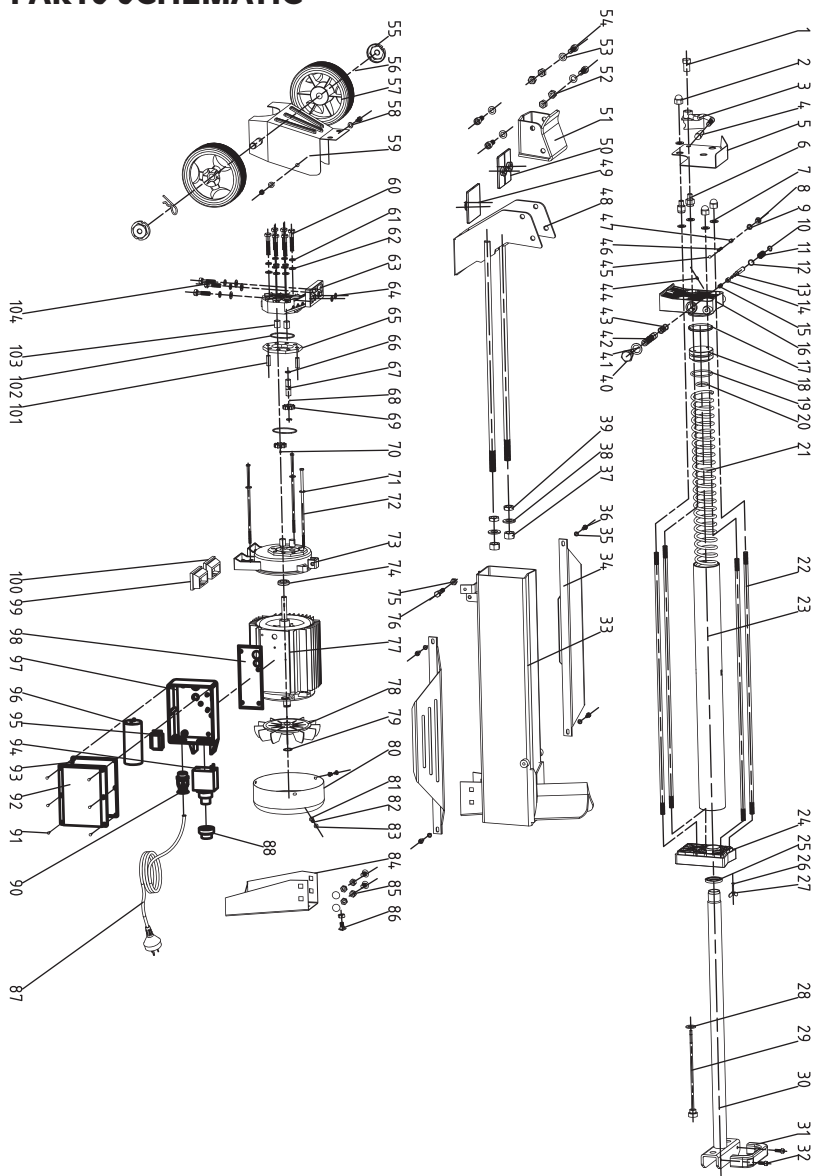
Problem	Probable Cause	Remedy Suggested
Fails to split logs.	Log is improperly positioned.	Refer to "Log Splitter Operation" section for perfect log loading.
	The sizes or hardness of the log exceeds the capacity of the machine.	Reduce the log sizes before splitting it on the log splitter.
	Wedge cutting edge is blunt.	Refer to "Sharpening Wedge" section.
	Oil leaks.	Located leak(s) and contact the dealer.
	Unauthorized adjustment was made on Max. Pressure Screw. Lower max pressure rating was set.	Contact the dealer.
The log pusher moves jerkily, making unfamiliar noise or vibrating a lot.	Lack of hydraulic oil and excessive air in the hydraulic system.	Check oil level for possible oil refilling. Contact the dealer.
Oil leaks around cylinder ram or from other points.	Air sealed in hydraulic system while operating.	Loosen Bleed Screw by 3~4 rotations before operating the log splitter
	Bleed Screw is not tightened before moving the log splitter.	Tighten the Bleed Screw up before moving the log splitter.
	Oil Drain Bolt with Dipstick is not tight.	Tighten the Oil Drain Bolt with Dipstick.
	Hydraulic Control Valve Assembly and/or seal(s) worn.	Contact the dealer.

WARRANTY

RADLEY 5-TON ELECTRIC LOG SPLITTER WARRANTY

If this Radley tool fails due to a defect in material or workmanship within three years from the date of purchase, return it to any Home Hardware store with the original bill of sale for exchange. This warranty does not include expendable parts including but not limited to blades, brushes, belts, light bulbs and/or batteries. This warranty covers defects in material or workmanship only. It does not cover normal wear and tear, failure due to abuse/misuse, or defects caused by careless or accidental mishandling. If this Radley product is used for commercial or rental purposes, this warranty does not apply.

PARTS SCHEMATIC



PARTS LIST

! WARNING: When servicing, use only original equipment replacement parts. The use of any other parts may create a safety hazard or cause damage to the log splitter.

Any attempt to repair or replace electrical parts on this log splitter may create a safety hazard unless repairs are performed by a qualified technician.

Customer Service /Tech Support 1-866-206-0888.

No.	Description	Qty.
1	Lever Mount Nut	1
2	Nut Cap, M10	3
3	Lever	1
4	Lever Knob	1
5	Guard Plate	1
6	Nut	2
7	Copper Gasket 10	4
8	Safety Valve Screw M8	1
9	O-Ring 5.5x2	1
10	Snap Washer 6	1
11	Valve Retract Spring	1
12	O-Ring 6x1.5	1
13	Valve Core Rod	1
14	Sliding Pressure Sensor Sleeve	1
42	Valve Sleeve	1
15	Sliding Pressure Sensor Sleeve Spring	1
16	Aluminum Cover (Rear)	1
17	O-Ring 55X3.1	1
18	Piston	1
19	Piston Ring 55	1
20	O-Ring 32X3.5	1
21	Spring	1

No.	Description	Qty.
22	Stud	4
23	Hydraulic Cylinder	1
24	Aluminum Cover (Front)	1
25	Piston Rod Seal 30	1
26	O-Ring 7x1.9	1
27	Bleed Screw M5X12	1
28	Washer Groupware 14	1
29	Dipstick	1
30	Piston Rod	1
31	Lift Handle	1
32	Screw M6X16	2
33	Frame Tube	1
34	Support Plate	2
35	Lock Washer 6	4
36	Screw M6x10	2
37	Nut M14	2
38	Flat Washer, M14	2
39	Nut, M14	2
40	Nut Plug	1
41	Washer Groupware 16	1
43	O-Ring 14x1.9	5
44	Adjusting Screw M5x8	1

No.	Description	Qty.
45	Steel Ball	1
46	Pressure Limited Valve Spring	1
47	Adjusting Screw M8x8	1
48	Log Pusher Connection Weldment	1
49	Lower Plastic Insert	1
50	Upper Plastic Insert	1
51	Log Pusher	1
52	Nut, M10	4
53	Flat Washer, M10	5
54	Screw M10x25	4
55	Wheel Cover	2
56	R Clip	2
57	Wheel	2
58	Washer, M6	2
59	Wheel Bracket	1
60	Bolt M8x55	6
61	Lock Washer, M8	9
62	Spring Washer, M8	9
63	Gear Pump Cover	1
64	O-Ring 10.6x2.65	2
65	Gear Housing Plate	1
66	Circlip 10	2
67	Gear Shaft	1
68	Steel Ball 2.5	1
69	Gear	2
70	Pin 2.5x4	1
71	Flat Washer, M5	6
72	Bolt M5x185	3
73	Motor Cover	1

No.	Description	Qty.
74	Seal FB11x26x7	1
75	Nut, M8	1
76	Screw M8x35	1
77	Motor	1
78	Fan	1
79	Block Tum 17	1
80	Fan Shroud	1
81	Lock Washer, M5	3
82	Flat Washer, M5	3
83	Screw M5x10	3
84	Front Support Leg	1
85	Nut, M8	5
86	Bolt M8x12	5
87	Plug	1
88	Cover for Switch	1
90	Strain Relief	1
91	Screw, ST4x10	6
92	Switch Box Cover	1
93	Airproof Underlay	1
94	Switch	1
95	Connection Terminal	1
96	Capacitor	1
97	Switch Box	1
98	Waterproof Underlay	1
99	Motor Support Right Shoe	1
100	Motor Support Left Shoe	1
101	Pin 8x24	2
102	O-Ring, 26 2x1.8	2
103	Sliding Sleeve	2
104	Bolt M8x30	3

5-Ton electric

Log Splitter

120 V • 60 Hz



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For information on the entire line-up of Radley power tools visit homehardware.ca or your local Home Hardware retail store.

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