

Clarke®



LOGBUSTER II

(Electric Log Splitter)

Part No. 3402010

OPERATING & MAINTENANCE INSTRUCTIONS



0201

Congratulations on your choice of a Clarke Logbuster II. Please read this manual thoroughly and carefully follow all instructions given. In doing so you will ensure the safety of yourself and that of others around you, and achieve excellent results and the best performance from the machine.

IMPORTANT

Before transporting, installing or operating the machine, you should read all parts of this manual, paying particular attention to the specific safety regulations. This manual is an integral part of the machine and must accompany it even in the case of transfer of ownership.

Clarke's Logbuster II has been designed and manufactured in compliance with the most recent European safety regulations with particular reference to the EN609 and EN60204.

The "ZHB" control systems have been designed and engineered so that the operator is forced to work in the safety area without any possibility of inserting hands or arms in dangerous areas.

GUARANTEE

This CLARKE product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt as proof of purchase. This guarantee is invalid if the product is found to have been abused or tampered with in any way, or not used for the purpose for which it was intended.

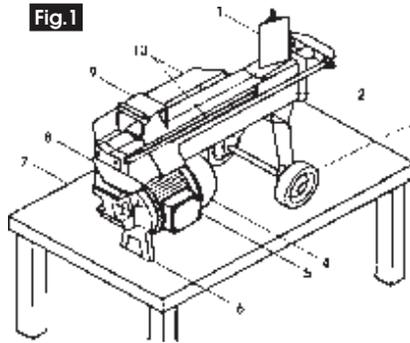
Faulty goods should be returned to their place of purchase, no product can be returned to us without prior permission. This guarantee does not effect your statutory rights.

Failure to comply in any way with these instructions, improper use of the machine, extraordinary maintenance operations not carried out by skilled, authorised personnel, removal of data plates or markings of any type, removal or tampering with the guards and safety mechanisms of the machine or any other action not expressly authorised, that may impair the active and passive safety systems of the machine, shall relieve the manufacturer of all and any liability and may result in serious injury and damage.

FEATURES

The Logbuster II is a portable log splitter, equipped with electric motor. The various parts of the machine are shown in fig. 1.

- | | |
|--|------------------------------------|
| 1 - Blade | 6 - Foot |
| 2 - Oil tank | 7 - Support surface (not supplied) |
| 3 - Wheels for minor movements | 8 - ZHB hydraulic control lever |
| 4 - Electric motor | 9 - Log pusher and lifting handle |
| 5 - Electric motor starter push-button | 10 - Log retention brackets |

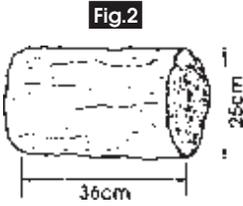


SPECIFICATIONS

Length	765 mm
Width	300 mm
Height	490 mm
Weight	35 Kg
Max. force	4 tons
Log capacity	36 cm
Hydraulic oil capacity	2,6 Lt
Power Supply	230V 50Hz 1phase
Current	10 A
Power Rating	2 CV - 1,5 kW
Average noise	<=71 dB(A) at 1m.
	(Protective ear defenders are not necessary)

Size of logs to be split

Figure 2 shows the maximum log size that can be split. Please note that the diameter of the log is indicative: i.e. A small log can be difficult to split if it has knots or a particularly tough fibre. On the other hand, if the wood has regular fibres, it is not difficult to split logs with diameters greater than that shown in Figure 2.



It is important **NOT** to persist if the log does not split on the first attempt, as the pump may be damaged by the oil overheating. This could occur when the machine is made to work under maximum stress in an attempt to split excessively fibrous, knotty wood or wet, green wood. Do not attempt to split a log for longer than 5 seconds

WARNING: THE LOGBUSTER II HAS BEEN DESIGNED AND MANUFACTURED TO SPLIT LOGS OF THE SIZES RECOMMENDED. USE OF THE MACHINE FOR ANY OTHER PURPOSE SHALL BE CONSIDERED IMPROPER.

GENERAL

WARNING:

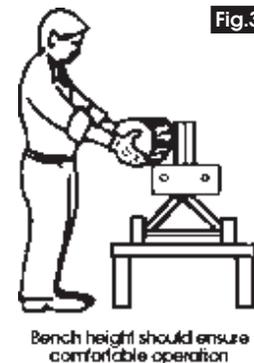
As with all machinery, there are certain hazards involved with their operation and use. Exercising respect and caution will considerably lessen the risk of personal injury. However, if normal safety precautions are overlooked or ignored, personal injury to the operator or damage to property may result.

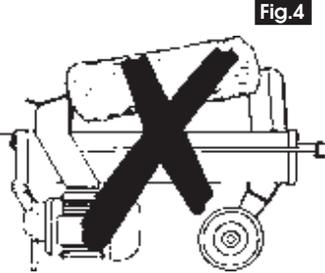
- The operator must take all necessary precautions to minimise the risk of accidental damage or injury due to wood being ejected from the machine.
- The operator must operate the machines' controls with both hands without using other makeshift systems and without tampering with the ZHB control.
- When the machine is working, persons and animals must be kept at a distance of at least 5 meters from the machine.
- **NEVER** work with the machine on the ground. This is not only an uncomfortable working position but it can also be dangerous because the operator has to bend towards the machine, and thus risk being struck by chips or debris.

For the best and safest use, the logbuster **MUST** be used on a raised surface, of sufficient height so that when the logbuster is mounted, the main bed of the machine is no higher, or lower, than the extended arms of the operator, without the operator having to bend forward (see fig. 3).

The surface must be perfectly level to prevent the machine from moving during operation, and the area must be free from any objects that could prevent complete freedom of movement for the operator whilst working.

- Never tamper with the log splitter or attempt to operate the machine without covers fitted.
- The machine must always be used by **ONE OPERATOR ONLY**.
- Nobody must be allowed to use the log splitter unless they have read the instruction manual thoroughly and have been instructed in its use.
- The machine must be used by adults only.
- Wear suitable clothing. Be aware that, loose clothing, jewellery or long hair may get caught in moving parts.
- ALWAYS wear good quality industrial gloves when using the machine.
- Check that the logs to be split are free from nails or wire, which may fly up or damage the machine. The ends of the logs must be cut square. Branches must be cut off flush with the trunk.
- Never try to split logs larger than those indicated in fig. 2. This could be dangerous and may damage the machine.



- Never attempt to cut two logs at once; one may be ejected with possibly serious damage.
- Split wood in the direction of the grain. Do not attempt to split a piece of wood across the grain as this could seriously damage the machine.
- If the log moves away from the blade, retract the ram and rotate the log through 90° as shown in diagram. 
- Do not attempt to load the log in the machine whilst the log pusher is in motion. you could get trapped and injured.
- Keep your hands well away from any splits and cracks which open in the log; these may close suddenly and crush your fingers.
- Never attempt to split a log for longer than 5 seconds. After this time interval, the oil under pressure is overheated and the machine could be damaged. It is therefore better to stop and rotate the log by 90°. as shown above, to see whether it can be split in a different position. Not being able to split the log within this time, indicates that its hardness exceeds the capacity of the machine and it should therefore be discarded so as not to cause damage.
- Do not force the blade by pushing the log on the upper part (fig.4), as this can cause the blade to break or damage the body of the machine. Always set the log on the guides. 
- Never leave the machine unattended while it is running. If you leave the machine, even for a short time, disconnect from the power supply.
- NEVER use the machine whilst under the influence of alcohol, drugs, medicines, or when you are tired. A clear mind is essential for safety.
- Never request the assistance of another person to help you remove a jammed log.
- NEVER use the machine in a dangerous environment i.e. damp or wet conditions, or expose it to rain. DO NOT use in a potentially explosive atmosphere (around paint, flammable liquids etc.)
- ALWAYS comply with the requirements for electrical installation .
- Make sure that the machine and the cable never come in contact with water.
- Treat the power cable with care. do not attempt to move the machine by pulling the cable. do not yank the cable to unplug it; keep the cable away from excessive heat, oil and sharp objects.
- ALWAYS disconnect the power cable when not in use, when carrying out maintenance work or when moving the machine.
- Never use the Logbuster if it is not in perfect order or if it needs servicing. Before starting work, check correct functioning of all the safety devices (ZHB, push button) and check for soundness of welded joints, securing nuts, & bolts.

ELECTRICAL CONNECTIONS

WARNING: THIS MACHINE MUST BE EARTHED.

This product is provided with a standard 13 amp, 230 volt (50Hz), BS 1363 plug, for connection to a standard, electrical supply. Should the plug need changing at any time, ensure that a plug of identical specification is used. **IMPORTANT:** The wires in the mains lead should be wired up in accordance with the following colour code:

Green & Yellow	—	Earth
Blue	—	Neutral
Brown	—	Live

Connect GREEN & YELLOW coloured cord to terminal marked with a letter "E" or Earth symbol "⏏".

Connect BROWN cord to terminal marked letter "L".

Connect BLUE cord to terminal marked letter "N".

If this appliance is fitted with a plug which is moulded onto the electric cable (i.e. non-rewirable) please note:

1. The plug must be thrown away if it is cut from the electric cable. There is a danger of electric shock if it is subsequently inserted into a socket outlet.
2. Never use the plug without the fuse cover fitted.
3. Should you wish to replace a detachable fuse carrier, ensure that the correct replacement is used (as indicated by marking or colour code).
4. Replacement fuse covers can be obtained from your local dealer or most electrical stockists.

FUSE RATING

The fuse in the plug must be replaced with one of the same rating (**13 amps**) and this replacement must be approved to BS1362.

CABLE EXTENSIONS

Use cables with a section of 2.5 mm². Avoid use of free and inadequately insulated connections. Connections must be made with protected material suitable for outdoor use. Do not use extension cables over 10 metres long, as excessively long cables or those with inadequate section can cause voltage drops that prevents the motor from developing its full power.

We strongly recommend that this machine is connected to the mains supply through a Residual Current Device (RCD).

If in doubt, consult a qualified electrician. Do not attempt any electrical repairs yourself.

ASSEMBLY

Before operating the Logbuster, it is necessary to fit the wheels on to the axle.

Thread the wheel (12, Fig. 5) on to the axle (11), secure it using the special washer (13), so that the outer rim of the washer faces outwards, and push the plastic cap (14) home firmly.

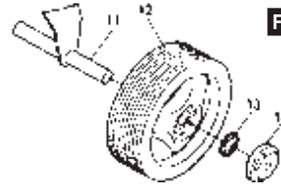


Fig.5

OPERATION

On the end of the machine, is a bleed screw shown in Fig.6.

BEFORE use, this screw must be slackened (turned anticlockwise), by about 3 to 4 turns.

After use, or when the Logbuster is to be moved, tighten the screw to prevent oil leakage.

1. Position the log splitter on a raised surface.
2. Connect the machine to the electrical power supply. (Never pass the power cable over the Logbuster, close to the blade or anywhere where it may be damaged or severed).
3. Position the log so that it sits snugly and firmly between the log retention brackets (10, Fig.1). The log retention brackets help to keep the log at the centre of the blade. If the log tends to wobble it must be repositioned - turned, if so that it remains firmly between the log retention brackets.
4. With the right hand press the starter button (5), of the electric motor, and with your left hand press the control lever (8), all the way down. The Log pusher will go into action and split the log.

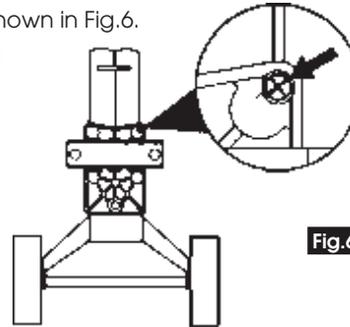


Fig.6

NOTE: If the log does not split immediately, do not force it by maintaining the thrust for more than five seconds. It is advisable to bring the log pusher back to the rest position and try again by repositioning the log.

It can sometimes be difficult to split small logs if the wood is particularly hard or knotty, whilst larger logs of wood with regular fibres are very quick and easy to split. If the hardness of the wood exceeds the capacity of the machine, it is better to discard that piece to avoid damage to the machine that may be caused by oil overheating.

5. Repeat the operation, with the pieces obtained, to split log into several parts.
6. On completing the work, disconnect the machine from the power supply. Never yank the plug using the cable. Grasp the body of the plug and pull it firmly.

NOTE: During normal operation, the metal components, connected to the motor, remain cold, or at the most reach a temperature only slightly higher than the

ambient temperature. After several hours of use however, with particularly difficult wood, the pump may become very hot. This is not a dangerous situation for the machine, which returns to full functioning capacity after being cooled. Nevertheless, it is very important not to cause overheating of the oil, and thus the pump, by forcing the machine in an attempt to split logs that exceed the capacity of the machine.

MAINTENANCE

All routine maintenance operations must be carried out with the machine switched OFF, and the power cable disconnected from the mains supply.

1. Before each use

Always inspect the machine to ensure it is in good condition. Inspect the bed and welded joints for signs of cracking or distortion. Inspect the hydraulics for signs of leaks.

2. Monthly

Check oil level by tilting the machine as shown in fig 9 and removing the Filler Cap (shown in fig 7). Attached to the filler cap is a dipstick; the oil level should be within the notch on the stem. Top up with Clarke Hydraulic oil if necessary.

3. Every 400 hours of use.

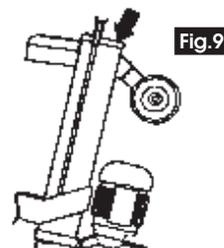
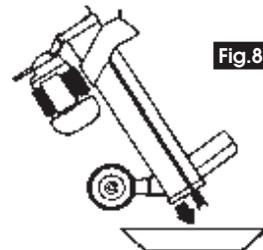
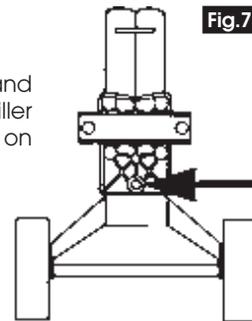
Change the hydraulic oil as follows:

- 3.1 Ensure that the log pusher of the machine is fully retracted then unscrew the breather a few turns, (see fig. 6).
- 3.2 Position a container under the Logbuster large enough to hold 4 litres of oil, then unscrew the cap shown in Fig. 7 and remove it completely.
- 3.3 Tilt the machine as in Fig. 8, to empty the oil.
- 3.4 Tilt the machine in the other direction, as shown in Fig.9, and pour in 2.6 litres of Hydraulicoil.

IMPORTANT: Use ONLY CLARKE HYDRAULIC OIL, or exact equivalent, available from your local dealer:

Part No: 1 ltr - 3050830
5 ltr - 3050835

- 3.5 Clean the dipstick which is attached to the filler cap and insert it to check that the oil level is within the notch on the stem.
- 3.6 Clean the cap and washer thoroughly and re-tighten completely, but very carefully so as not to damage the thread on the plastic cap.
- 3.7 Finally, screw IN the breather.



WARNING:
*NEVER MIX OIL WITH GENERAL WASTE.
 USED OIL MUST BE DISPOSED OF ACCORDING TO CURRENT REGULATIONS.*

Sharpening the Blade

After long periods of operation, and when required, sharpen the cutting edge of the blade, using a file or portable grinder, to a fine point.

How to free a jammed log

1. Release both controls: the log pusher will be fully retracted.
2. Insert a wedge (a triangular block of wood), under the jammed log and activate the log splitter until the wedge is pushed completely under the piece of wood (see fig. 10).
3. Repeat the operation with larger wedges if necessary, until the log is completely free.

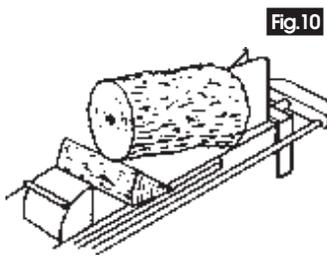
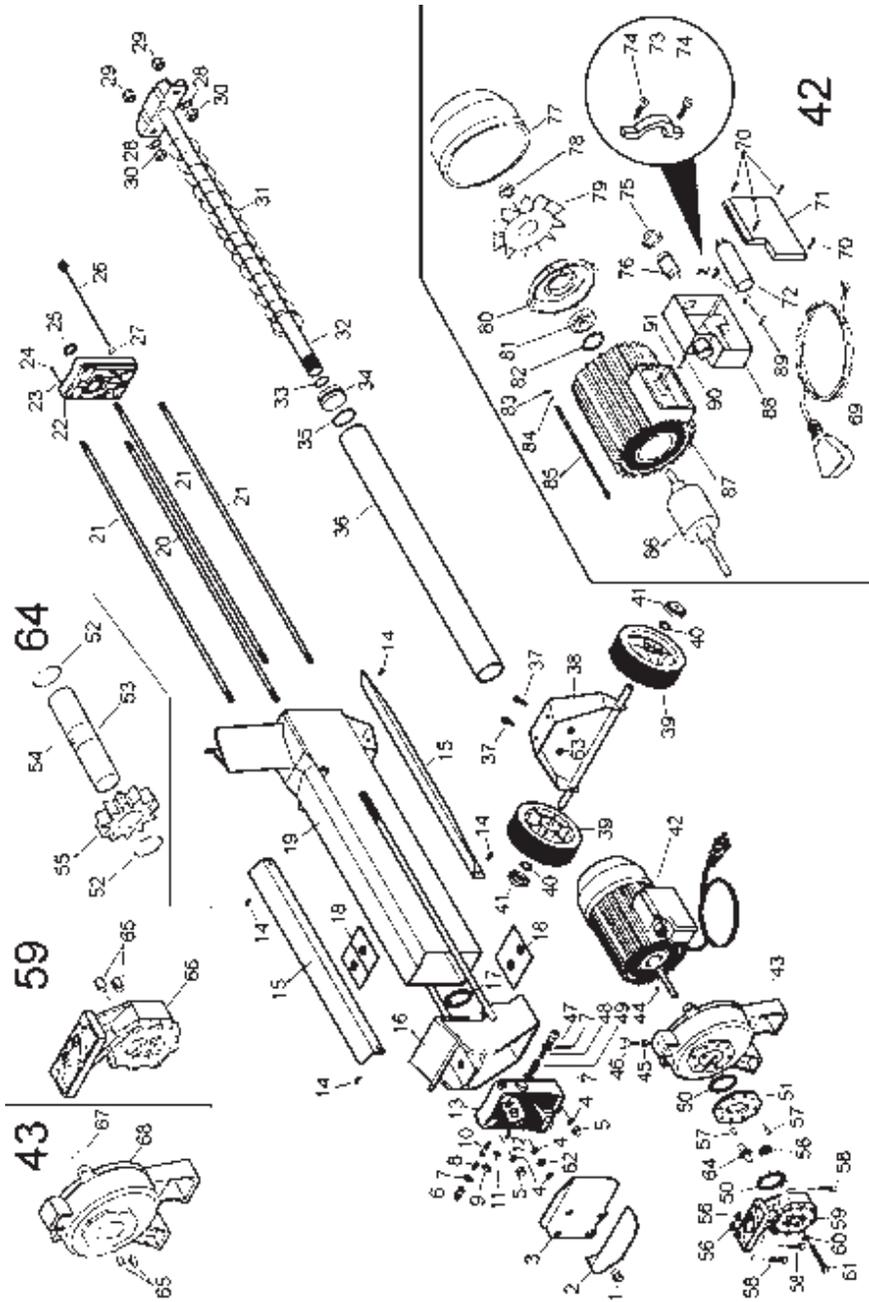


Fig.10

WARNING:
*NEVER ASK FOR THE ASSISTANCE OF ANOTHER PERSON WHEN
 FREEING A JAMMED LOG.*

TROUBLESHOOTING

Problem	Probable Cause	Remedy
Log fails to split	Incorrect positioning of the log Log exceeds permitted dimensions or the wood is too hard for the capacity of the machine Blade does not cut Oil leak	Position the log correctly Try to cut a small piece or use other means to reduce the size of the log Sharpen the blade, check for burrs or nicks, file if necessary Locate the leak If necessary, Contact your dealer
Log pusher advances jerkily or with strong vibrations	Air in the circuit	Check oil level. Top up if necessary. If problem remains contact your dealer
Oil leaks	Leakage from the tank Seals worn	Check that the bleed screw has been unscrewed before using the machine (Fig. 6, page 7) Contact your dealer



SPARE PARTS LIST

No.	Description	Qty	Part No.	No.	Description	Qty	Part No.
1	Lever Locknut	1	BLB41000480	48	Valve Spring	1	BLB51050250
2	Valve Lever	1	BLD05411230	49	Valve Seat	1	BLB72150070
3	Lever Guard	1	BLB62200070	50	O-Ring Seal	2	BLE25830043
4	Alu Washer	5	BLE51432014	51	Pump Gear Body	1	BLB31050020
5	Box Nut M10	3	BLE26525740	52	Ring	2	BLE27201113
6	Valve Piston **	1	BLB60820040	53	Pump Shaft	1	BLB02070010
7	O-Ring Seal **	3	BLE25830017	54	Ball 3/32"	1	BLE28620015
8	Max Valve Spring **	1	BLB51050152	55	Pump Gear	1	BLB53100010
9	Low-Headed Nut **	1	BLE26515036	56	O-Ring Seal	2	BLE25830083
10	Valve Spool **	1	BLB60840021	57	Locating Peg	2	BLE27350280
11	Ext Tooth Washer **	1	BLE26860006	58	Flanged Hex Screw	3	BLE26051550
12	Screw M6 **	1	BLE26155076	59	Pump Flange Assy	1	BLD02100080
13	Rear Beam Head **	1	BLB84000020	60	Spring Washer	6	BLE26830055
14	Flanged Hex Screw	4	BLE26050510	61	Hex Screw M8	6	BLE26015104
15	Log Guide	2	BLB50120030	62	Nut M10	1	BLE26515040
16	Log Pusher	1	BLD05240100	63	Flanged Nut M6	2	BLE26530442
17	Dual Ring Seal **	1	BLE25850055	64	Gear Group	1	BLD02100090
18	Sliding Shoe	2	BLB50010080	65	Bushing	4	BLE27570076
19	Beam	1	BLD05150080	66	Pump Rear Flange	1	BLB31050030
20	Tie Rod	1	BLB02170890	67	Ring	1	BLE25910015
21	Tie Rod	3	BLB02170880	68	Motor Flange	1	BLB31050010
22	Beam Hd Stem Side	1	BLB84000010	69	Cable	1	BLD17120060
23	Alu Washer	1	BLE51432003	70	Screw	4	BLE26401140
24	Self-Tapping Screw	1	BLE26224018	71	Box Lid	1	N/A
25	Seal	1	BLE25710512	72	Condenser 30MF	1	BLE78000010
26	Cap Screw 1/4"	1	BLE28400090	73	Cable Clamp	1	BLE87100200
27	Rubber Seal 1/4"	1	BLE51434050	74	Screw 3.5x13	2	BLE26401117
28	Spring Washer	2	BLE26840022	75	Protection Cap	1	BLE87300110
29	Nut M14	2	BLE26515141	76	Switch	1	BLE78100100
30	Low-Headed Nut	2	BLE26513371	77	Fan Cover	1	BLE87300015
31	Cylinder Spring	1	BLB51050210	78	Fan Locking Ring	1	BLE87100300
32	Welded Stem	1	BLD30390020	79	Fan	1	BLE87300035
33	O-Ring Seal	1	BLE25830190	80	Rear Flange	1	BLE87300200
34	Cylinder Alu Piston	1	BLB60220010	81	Bearing	1	BLE36023017
35	Slipper Seal	1	BLB25353745	82	Snap Ring	1	BLE26160550
36	Cylinder Liner	1	BLB22300120	83	Nut M5	4	BLE26513029
37	Flanged Hex Screw	2	BLE26050520	84	Spring Washer	4	BLE26840012
38	Wheel Axle	1	BLD05130290	85	Tie Rod	4	BLE87300210
39	Spring Washer	2	BLE31650040	86	Rotor	1	BLE87300220
40	Wheel Lock	2	BLE26790020	87	Stator	1	BLE87300230
41	Wheel Hub Cover	2	BLB82110090	88	Switch Box w/Cover	1	BLE87400110
42	E. Motor H80/1 2HP	1	BLE85510050	71-88 Sw. Box complete	1	BLE87100060	
43	Motor Flange Assy	1	BLD02100070	89	Capscrew M5X10	4	BLE26221039
44	Roller 3/32"	1	BLE26610034	90	Screw	1	BLE26401106
45	Nut M8	1	BLE26515038	91	Spring Washer	1	BLE26840011
46	Screw D.25 M8X23	1	BLB41110150	- Seal Kit	1	BLJ00070050	
47	Plug M16*1.5 Valve	1	BLB82030080	Hydraulic Oil 1 Ltr	3050830		