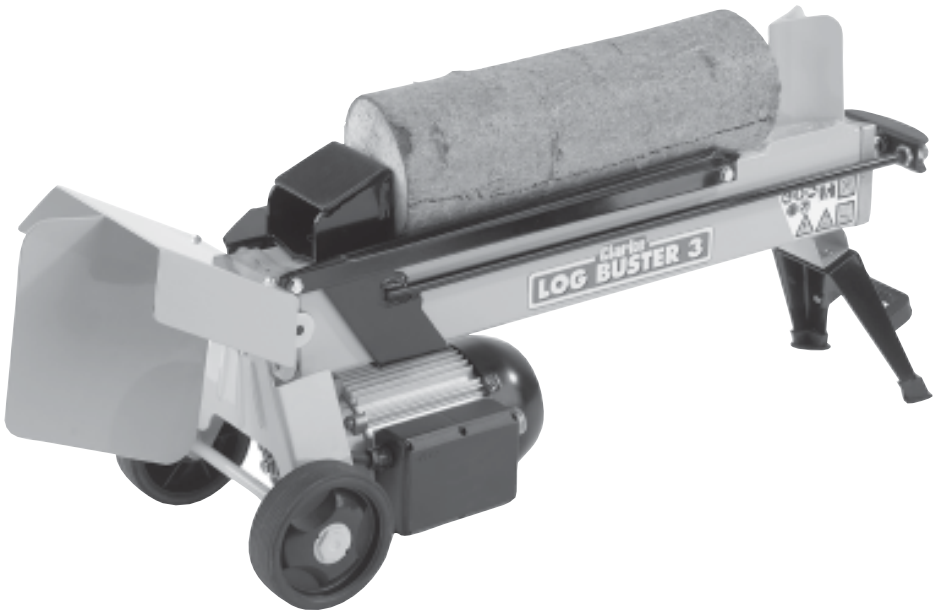
Clarke®



LOG SPLITTER

4 Tonne Force

MODEL NO: Log Buster 3

PART No: 3402020

OPERATION & MAINTENANCE INSTRUCTIONS

CE

0205

Thank you for purchasing this CLARKE Log Buster.

Before attempting to use the machine, please read this manual thoroughly and follow the instructions carefully. In doing so you will ensure the safety of yourself and that of others around you, and you can look forward to the log buster giving you long and satisfactory service.

CLARKE 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.

Specifications

Model No: ..... Log Buster 3

Part No: 3402020

Supply Voltage: 230vac 50Hz

Motor: 2hp-1500w

IP Rating: IP54

Weight: 45kg

Dimensions L x W x H: ..... 1160 x 323 x 460mm

LOG CAPACITY

Maximum Length: 520mm

Maximum Diameter: 250mm

Minimum Diameter: 50mm

Check List

Before commencing to assemble your log splitter, please check for shortages and or damage, any discrepancies should be reported to the Clarke dealer where the machine was purchased as soon as possible.

Double Ended Spanners 2 off 10mm x 12mm & 1 off 13mm x 16mm.

1 Off, Operating and Maintenance Instructions.

1 Off, Log splitter (main body including motor and oil pump).

1 Off, Safety Cover (Item **70**).

2 Off, Handle assembly (Items **60** & **61**).

1 Off, Wheel assembly (Items **66**, **65** x 2, **64** x 2 & **63a** x 2).

1 Off, Leg assembly (Items **22**, **21** & **20**).

1 Off, Handle (**19**).

1 Off, Pack of nuts bolts and washers.

Safety Precautions

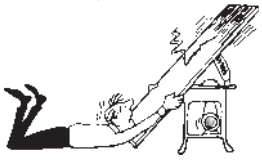
⚠ WARNING ⚠

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.

1. **ALWAYS** Learn the machines applications, limitations and the specific potential hazards peculiar to it. Read and become familiar with the entire operating manual.
2. **ALWAYS** use a face or dust mask if operation is particularly dusty.
3. **ALWAYS** check for damage. Before using the machine, any damaged part, should be checked to ensure that it will operate properly, and perform its intended function. Check for alignment of moving parts, breakage of parts, mountings, and any other condition that may affect the machines operation. Any damage should be properly repaired or the part replaced. If in doubt, **DO NOT** use the machine. Consult your local dealer.
4. **ALWAYS** disconnect the tool/machine from the power supply before servicing and when changing accessories.
5. **ALWAYS** wear safety goggles, manufactured to the latest European Safety Standards. Everyday eyeglasses do not have impact resistant lenses, they are not safety glasses.

6. **ALWAYS** keep work area clean. Cluttered areas and benches invite accidents.
7. **ALWAYS** ensure that adequate lighting is available. A minimum intensity of 300 lux should be provided. Ensure that lighting is placed so that you will not be working in your own shadow.
8. **ALWAYS** keep children away. All visitors should be kept a safe distance from the work area, especially whilst operating the machine.

9. **ALWAYS** maintain machine in top condition. Keep tools/machines clean for the best and safest performance. Follow maintenance instructions.
10. **ALWAYS** handle with extreme care do not carry the tool/machine by its' electric cable, or yank the cable to disconnect it from the power supply.
11. **ALWAYS** ensure the switch is off before plugging in to mains. Avoid accidental starting.



12. **ALWAYS** concentrate on the job in hand, no matter how trivial it may seem. Be aware that accidents are caused by carelessness due to familiarity.
13. **ALWAYS** keep your proper footing and balance at all times - don't overreach. For best footing, always wear safety footwear (rubber soles & steel toecaps). Keep floor clear of oil, scrap wood, etc.

Extra Precautions for Log Splitters

Extra special care is required when using this powerful tool to safeguard yourself and that of others around you.

- Before using the log splitter, check for fluid leaks. Be sure the tool and the work area around it is clean and free of oil spills. Hydraulic fluid can create hazards, causing you to slip and fall, your hands to slip while using the machine, and it is also a potential fire hazard.
- **Hydraulic Systems: Never** operate this tool if there is a potential hazard due to leaking hydraulic fluid.
- **Electrical Safety: Never** operate this tool in wet conditions.
- **Physical Hazards:** The very nature of log splitting will produce splinters. When operating log splitters, always ensure approved safety gloves, shoes, and eye protection is worn.
- **NEVER** tamper with the log splitter or attempt to operate the machine without covers fitted.
- **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.
- **NEVER** try to split logs larger than those indicated in Fig. 2. This could be dangerous and may damage the machine.
- **Do not** allow split logs to accumulate, always clean up as you work, accumulated split logs and wood chips can create a hazardous work environment.

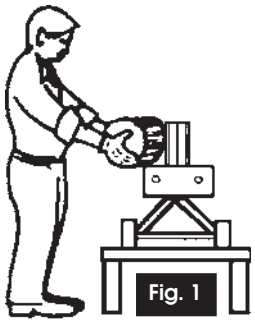


Fig. 1

Bench height should ensure comfortable operation

- The operator must take all necessary precautions to minimize 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, i.e. wedging control levers down etc.
- 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. 1).
- 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.
- 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. 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.

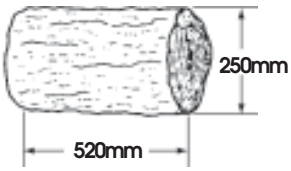


Fig. 2

- Never attempt to split 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.

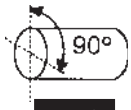


Fig. 3

• If the log moves away from the blade, retract the ram and rotate the log through 90° as shown in Fig. 3.

• 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/injury.

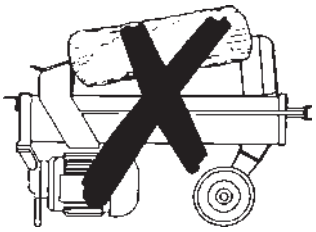


Fig. 4

• 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 and check for soundness of welded joints, securing nuts & bolts.

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.

Electrical Connections

This product is provided with a standard 13 amp, 230 volt (50Hz), BS 1363 plug, for connection to a standard, domestic electrical supply. Should the plug need changing at any time, ensure that a plug of identical specification is used.

WARNING ! THIS APPLIANCE MUST BE EARTHED

This machine must be wired up in accordance with the following colour code:

BLUE	***-***	***NEUTRAL***
BROWN	***-***	***LIVE***
GREEN/YELLOW	***-***	***EARTH***

- Connect the BLUE coloured cord to the plug terminal marked "N"
- Connect the BROWN coloured cord to the plug terminal marked "L"
- Connect the GREEN/YELLOW coloured cord to the plug terminal marked "E"

If this appliance is fitted with a plug which is moulded on to the electric cable (i.e. non-rewireable) 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.

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

Cable Extension

Always use an approved cable extension suitable for the power rating of this tool (see specifications), the conductor size should also be at least the same size as that on the machine, or larger. When using a cable reel, always unwind the cable completely.

IMPORTANT:

If a cable extension is needed, it is essential to comply with the following data.

Voltage	Extension length	Cable section
230v	**Up to 20m**	**2.5mm^2**
230v	**From 20 to 50m**	**4mm^2**

WARNING

This equipment MUST be connected through an RCD (Residual Current Device)

Assembly

With the assistance of another person, carefully remove all contents from the carton, carefully lay out and check for shortages or damage etc, ref check list on page 2. Any discrepancies should be reported to the Clarke dealer where the machine was purchased.

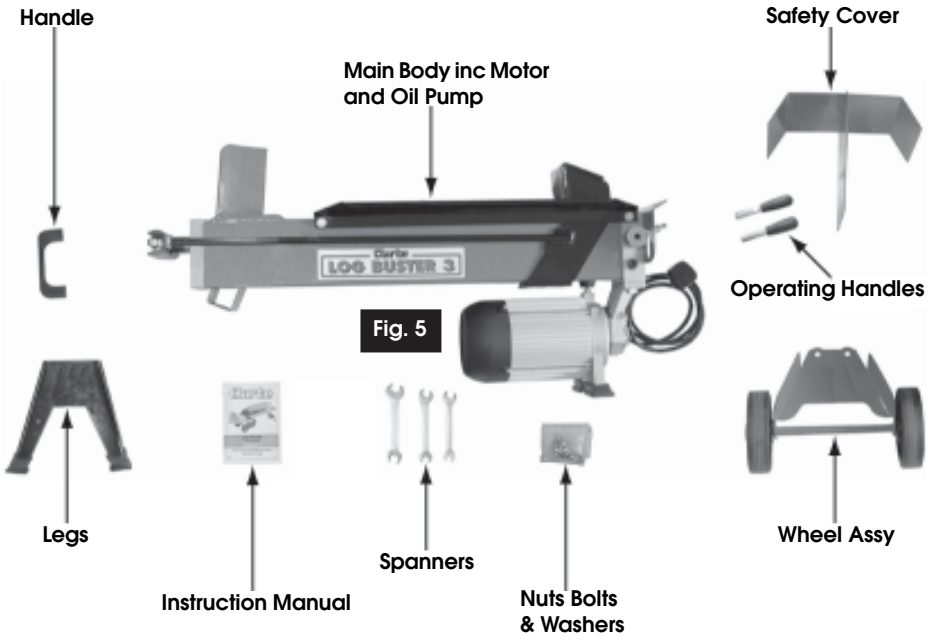


Fig. 5

Assemble as follows:

1. Carefully turn the main body onto its back (Fig. 6), take care it doesn't fall over.

Fig. 6

2. Attach the legs to the body using nuts bolts and washers supplied (Fig. 7), loosely fit both nuts and bolts, line up legs and tighten bolts.

3. Attach the handle to the front legs using screws, nuts and washers supplied Fig. 8.

   NOTE: insert screw with washer through the handle and secure to the legs with locknut.

   DO NOT Overtighten.

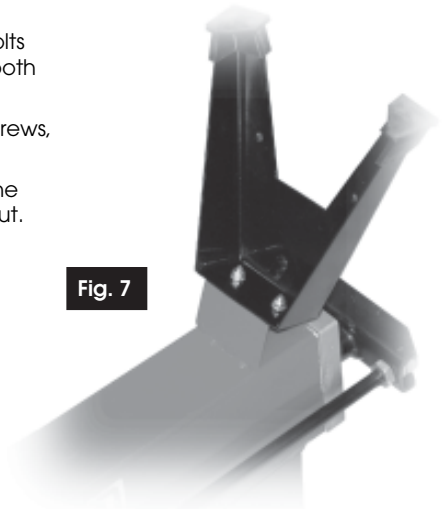


Fig. 7

Fig. 8

4. Loosen and remove 2 domed nuts Fig. 9, store safely for re-use.

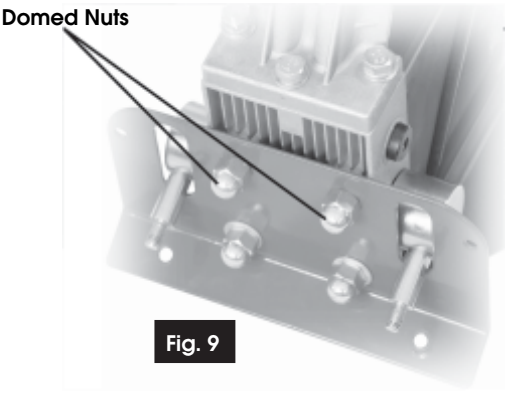


Fig. 9

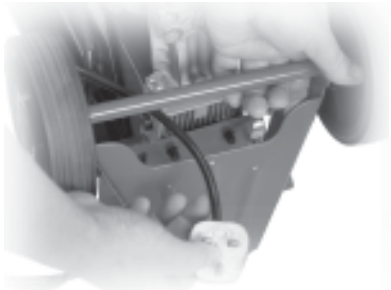


Fig. 10

4. Before attaching the wheel assy, pass the power cable through the frame as shown in Fig. 10. Ensure the cable is not trapped anywhere before securing assy to main body.

5. Carefully turn the machine over onto its feet.
Stand the log splitter on a firm level surface, attach the handles by screwing onto short shafts in a clockwise direction (Fig. 11). Tighten handles using spanner supplied, DO NOT overtighten.

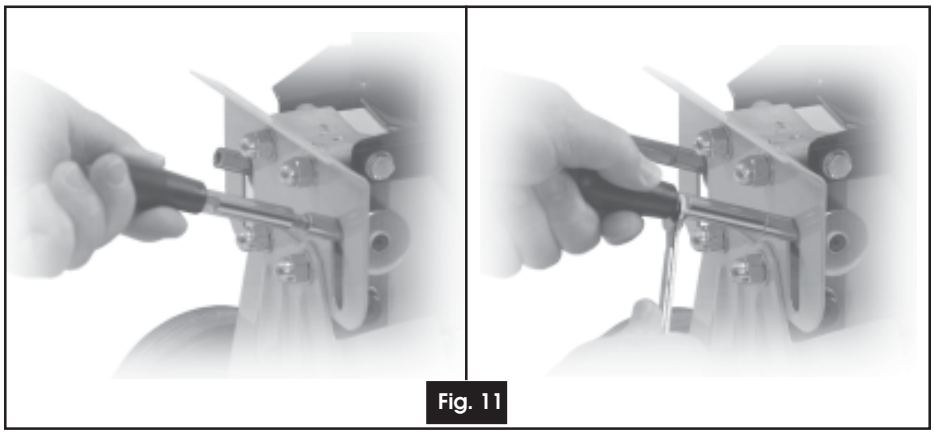


Fig. 11

6. Attach the safety cover using nuts bolts and washers supplied (Fig. 12). DO NOT overtighten nuts.

WARNING

NEVER operate the machine with this cover removed, this is a safety cover making it necessary to use both hands to operate.

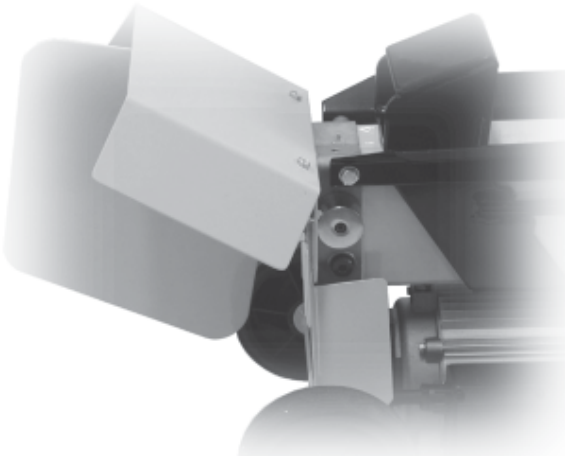


Fig. 12

Operation

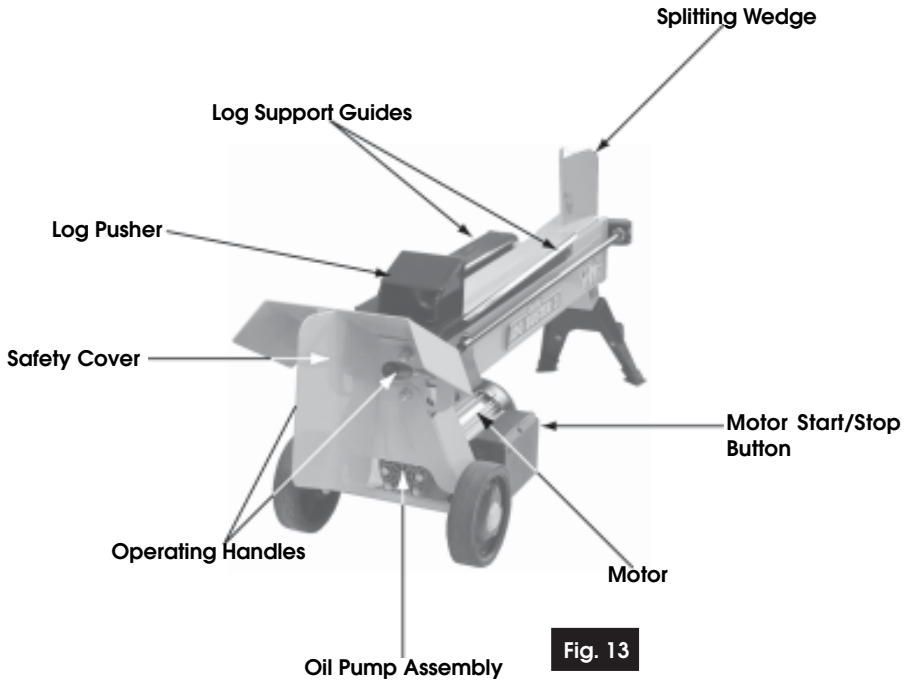


Fig. 13

- Before plugging in and switching ON, ensure the machine is sited safely on a raised flat level surface.
- If possible have a truck or similar available to stack the split logs into for easy transportation to a location where the logs are to be stacked.
- Prepare the logs for splitting in a tidy pile as close as possible to the splitter, only stack those logs that are ok for splitting, i.e. length and diameter. DO NOT attempt to split green logs, dry, seasoned logs split more easily.
- Route the power supply cord safely from the machine to the 13amp socket, whilst ensuring it is not causing an obstruction, and is not likely to be damaged by falling logs etc. Avoid wet conditions.
- Loosen the air bleed screw 3 or 4 full turns (Fig. 14),be sure to re-tighten the screw when finished using the machine.
- Plug the power cord into a 13amp socket and switch on the electric supply.
- Position the log to be split so that it fits neatly on the log support guides, if the log tends to

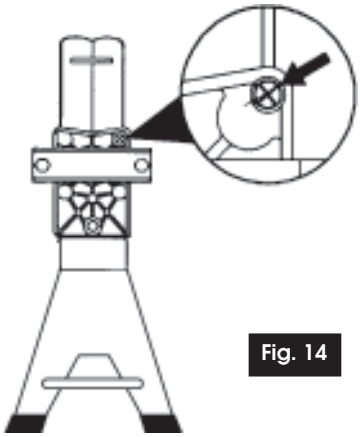


Fig. 14

wobble, it must be repositioned by turning until it becomes stable.

- Press the motor start button, and wait for the motor to reach full speed before continuing.
- Using both hands, push the operating handles down as far as possible. The log pusher will push the log into the splitting wedge, causing the log to split.
- The two halves can be split again, one at a time. the operation can be repeated, until the log has been split sufficiently.

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, especially if the wood is particularly hard or knotty, larger logs with regular fibres are quick and easy to split. Any logs found difficult to split, are best discarded to prevent damage to the machine caused by the oil overheating etc.

- When finished using the machine, switch OFF and isolate from the electric supply by removing the plug from the socket.

Note: During normal operation, the metal parts connected to the motor, will at most reach a temperature slightly higher than the ambient temperature. After several hours of continuous use, the pump may become very hot. This is not detrimental to the machine, however it is very important to not cause overheating of the oil by attempting to split very hard logs that exceed the capacity of the splitter.

Maintenance

Before attempting any maintenance activities, **ALWAYS** switch OFF and Isolate from the power supply, by removing the plug from the socket.

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, any defects should be rectified before using the machine again.

2. Monthly

Fig. 15

Check oil level by tilting the machine as shown in Fig. 10. It is necessary to remove the safety cover (item 70) first.
Remove the oil filler plug/dipstick Fig. 15, the oil level should be within the two marks, min and maximum. Top up if necessary with Clarke hydraulic oil.

3. Every 400 hours of use

Change the hydraulic oil as follows,

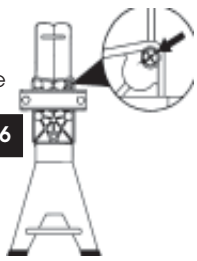


Fig. 16

3.1 Place a container, large enough to hold 4 litres of oil under the oil fille plug, Loosen the breather Fig. 16 three or four turns.

3.2 Loosen and remove the oil filer plug/dipstick, slowly tilt the machine as in Fig. 17 to empty the oil.

3.4 To refill with new oil, tilt machine as in Fig. 15, using a clean funnel, pour in 2.1 Litres of Clarke hydraulic oil,

IMPORTANT: use ONLY CLARKE HYDRAULIC OIL, available from your nearest dealer.

Part No: 1Ltr - 3050830

5Ltr - 3050835

Fig. 17

3.5 Wipe the dipstick, using a clean soft cloth and check the oil level as before, and add more oil as required.

3.6 Clean the filler neck and plug/dipstick washer/seal thoroughly and refit, tighten sufficiently to prevent oil leaking, DO NOT overtighten.

3.7 Carefully return machine to normal working position.

3.8 Finally, tighten the breather screw, and refit the safety cover removed earlier

WARNING:

Dispose of used oil according to local authority regulations.

4. Wedge sharpening

After long periods of operation, the splitting wedge will become blunt and require sharpening. To do this, simply remove burrs and flat spots using a fine file.

Jam Clearing

Use extreme care when clearing jammed logs, to do this proceed as follows.

1. Release both control levers, the log pusher returns to its home position.
2. Insert a wedge (triangular block of wood), under the jammed log (see Fig. 18). activate the log splitter in the normal way, the wedge forces jammed log upwards and off the wedge.

It may be necessary to repeat the operation, using larger wedges until the jammed log is completely free.

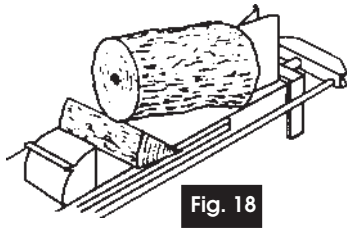


Fig. 18

WARNING:

NEVER ask for assistance of another person when operating this machine, this instruction applies especially with jam clearing. Keep hands clear of jammed log and moving parts when attempting to free jammed logs.

Trouble Shooting

Problem	Probable Cause	Remedy
Log fails to split.	Incorrect positioning of the log.	Reposition the log.
	Log exceeds permitted dimensions or wood is too hard or knotty for the capacity of the machine.	Use logs of the correct specifications.
	Wedge not cutting.	Check the splitting wedge and sharpen if necessary.
	Oil Leak	Locate the leak and rectify, if necessary, contact your nearest Clarke dealer.
Log pusher advances jerkily or with strong vibrations.	Air in hydraulic system.	Check oil level. Top up if necessary. If problem persists, consult your nearest Clarke dealer.
Oil leaks.	Leaking from the tank.	Check the bleed screw has been unscrewed before operating the machine.
	Washer/seal on plug/ dipstick worn or damaged.	Fit replacement washer.
	Worn or damaged oil seals.	Fit new oil seals, consult your nearest Clarke dealer.

IMPORTANT:

The use of parts other than CLARKE replacement parts may result in safety hazards, decreased tool performance and may invalidate your warranty.

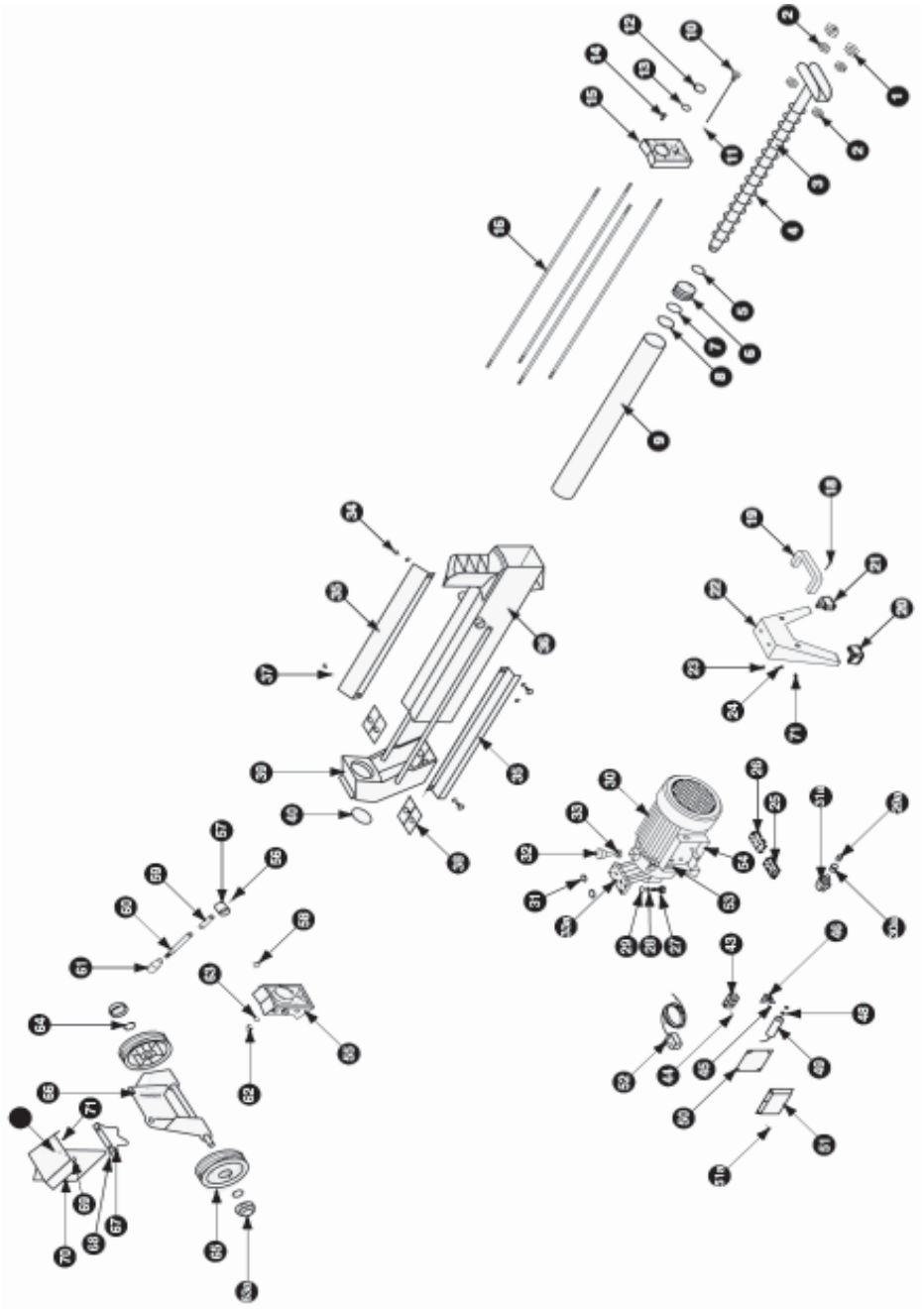
PARTS & SERVICE TEL: 020 8988 7400

or e-mail as follows:

PARTS: Parts@clarkeinternational.com

SERVICE: Service@clarkeinternational.com

Parts Diagram



Parts List

Item	Part No	Description	Qty
01	SD30001	Locking Hex Nut M14	2
02	SD30002	Hex Nut (thin) M14	4
03	SD30003	Piston Ram	1
04	SD30004	Spring	1
05	SD30005	'O' Ring (oil seal)	1
06	SD30006	Piston	1
07	SD30007	'O' Ring (seal 43.5 x 3.5)	1
08	SD30008	'O' Ring (oil seal)	1
09	SD30009	Cylinder Body	1
10	SD30010	Dip Stick	1
11	SD30011	'O' Ring (oil seal)	1
12	SD30012	Teflon Seal Ring	1
13	SD30013	'O' Ring (seal 30 x 2.65)	1
14	SD30014	Bleed Screw M3 x 10	1
15	SD30015	Oil Cylinder End-Cover	1
16	SD30016	Double Ended Threaded Stud	4
18	SD30018	Cross Head Screw M6 x 20	2
19	SD30019	Handle	1
20	SD30020	Foot Pad (left)	1
21	SD30021	Foot Pad (right)	1
22	SD30022	Leg Assy	1
23	SD300023	Locking Nut	2
24	SD300024	Bolt M6 x 14	2
25	SD300025	Motor Pad (right)	1
26	SD300026	Motor Pad (left)	1
27	SD300027	Tensile Bolt M8 x 30	3
28	SD300028	Spring Washer Ø8	3
29	SD300029	Flat Washer Ø8	7
29a	SD30029a	Water-proof Cap	1
30	SD30030	Motor	1
30a	SD30030a	Switch Housing	1
31	SD30031	'O' Ring (seal 10 x 2.65)	2
31a	SD30031a	Switch	1
32	SD30032	Bolt	2
33	SD30033	Nut M8	1
33a	SD30033a	Oil Pump Cover	1
34	SD30034	Bolt M8 x 10	2
35	SD30035	Guide	2
36	SD30036	Main Body	1

Parts List Cont

Item	Part No	Description	Qty
37	SD30037	Bolt M8 x 16	2
38	SD30038	Plastic Insert	2
39	SD30039	Log Pusher Assembly	1
40	SD30040	'O' Ring (seal 50 x 3.1)	1
43	SD30043	Wire Connector Assembly	1
44	SD30044	Cross Head Screw M4 x 12	2
45	SD30045	Cross Head Screw M4 x 8	1
46	SD30046	Capacitor Bracket	1
47	SD30047	Nut M8	1
48	SD30048	Locking Washer Ø8	1
49	SD30049	Capacitor	1
50	SD30050	Gasket	1
51	SD30051	Cover	1
51a	SD30051a	Cross Head Screw ST3.5 x 14	6
52	SD30052	Power Cable & Plug	1
53	SD30053	Cable Clamp	1
54	SD30054	Terminal Box	1
55	SD30055	Oil Cylinder Rear Cover	1
56	SD30056	Grub Screw M8 x 10	2
57	SD30057	Handle Housing (left)	1
57a	SD30057a	Handle Housing (right)	1
58	SD30058	Torque Spring (left)	1
58a	SD30058a	Torque Spring (right)	1
59	SD30059	Short Handle Shaft	2
60	SD30060	Long Handle Shaft	2
61	SD30061	Handle Knob	2
62	SD30062	Nut M10	4
63	SD30063	Copper Washer Ø10	4
63a	SD30063a	Wheel Cap	2
64	SD30064	Axle Circlip Ø15	2
65	SD30065	Rubber Wheel	2
66	SD30066	Wheel Bracket	1
67	SD30067	Cover	1
68	SD30068	Nut M10	4
69	SD30069	Washer Ø6	2
70	SD30070	Safety Cover	1
71	SD30071	Hex Nut M6	4

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This is an important document and should be retained

DECLARATION OF CONFORMITY

CE

We declare that this product complies with the following standards/directives:

- 98/37/EEC
- 89/336/EEC
- 73/23/EEC
- EN609-1/99

Description: log Splitter

Model No: LOGBUSTER 3

Serial (Batch) No: **See Product Data Plate**

Signed: _____

Clarke® INTERNATIONAL
Hemnall Street, Epping, Essex CM16 4LG

DOC No. HO75/27

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