

Clarke®

CONTRACTOR®



RECIPROCATING SAW

MODEL No. CON100

Part No. 6459000

OPERATING & MAINTENANCE
INSTRUCTIONS



LS0610

Thank you for purchasing this CLARKE Reciprocating Saw.

Before attempting to use the reciprocating saw, 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 reciprocating saw giving you long and satisfactory service.

GUARANTEE

This product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt which will be required 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.

FEATURES

- Variable speed reciprocating saw
- 3 stage pendulum action

SPECIFICATIONS

Model number	CON100
Rated voltage	230V AC 50Hz
Input power	600 Watts
No load variable speed	700 - 2300 strokes per minute
Pendulum action	3 stage
Cutting capacities	Metal - 10 mm
.....	Wood - 150 mm
Sound pressure level	95.02 dB (A)
Sound power level	106.02 dBLwA

Please note that the details and specifications contained herein, are correct at the time of going to print. However, CLARKE International reserve the right to change specifications at any time without prior notice.

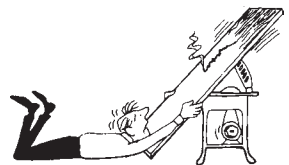
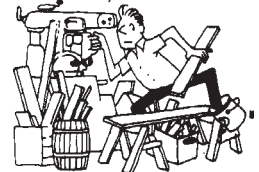
GENERAL SAFETY PRECAUTIONS



WARNING:

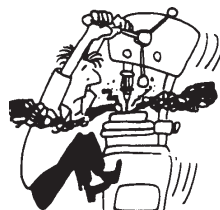
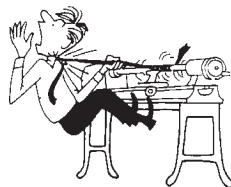
As with all machinery, there are certain hazards involved with their operation and use. Exercising respect and caution will considerably lessen the risk of personal injury. However, if normal safety precautions are overlooked or ignored, personal injury to the operator or damage to property, may result.

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 positioned 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, wear rubber soled footwear. Keep floor clear of oil, scrap wood, etc.
14. **ALWAYS** wear proper apparel. Loose clothing or jewellery may get caught in moving parts. Wear protective hair covering to contain long hair.
15. **ALWAYS** use recommended accessories. The use of improper accessories could be hazardous.



GENERAL SAFETY PRECAUTIONS

16. **ALWAYS** remove plug from electrical outlet when adjusting, changing parts, or working on the machine.
17. **NEVER** operate machine while under the influence of drugs, alcohol or medication.
18. **NEVER** leave machine running unattended. Turn power off. Do not leave the machine until it comes to a complete stop.
19. **NEVER** force the machine. It will do a better and safer job at the rate for which it was designed.
20. **NEVER** use power tools in damp or wet locations or expose them to rain. Keep your work area well illuminated. Do not use in explosive atmosphere (around paint fumes, flammable liquids etc.). Avoid dangerous environments.



ADDITIONAL WARNINGS FOR RECIPROCATING

1. **ALWAYS** wear ear protectors/defenders as the noise level of this machine can exceed 85dB (A).
2. **ALWAYS** use the appropriate blade for the material being cut.
3. **ALWAYS** keep the mains cable well away from the machine and ensure an adequate electrical supply is close at hand so that the operation is not restricted by the length of the cable.
4. **ALWAYS** switch the machine OFF immediately the task is completed.
5. **ALWAYS** ensure the blade is fully tightened before use.
6. **ALWAYS** allow sufficient clearance beneath the work to ensure the blade does not come into contact with the floor, table etc.
7. **ALWAYS** check for hidden electrical wires or water pipes etc.
8. **NEVER** allow the ventilation slots in the machine to become blocked.
9. **DO NOT** cut material above the specified thickness.
10. **DO NOT** cut through walls or cavities before checking for hidden electrical wires or water pipes etc.
11. **DO NOT** touch the blade immediately after use, allow time for it to cool.
12. **DO NOT** cut work less than at least twice the pitch of the saw blade. i.e. at least two teeth must be in contact with the work at all times.
13. **DO NOT** use the machine if the electric cable, plug or motor is in poor condition.
14. When cutting wood, ensure all nails have been removed beforehand. Nails will damage the wood saw blade.
15. When cutting metals, always use a cooling agent i.e. cutting/soluble oil.

Additionally, please keep these instructions in a safe place for future reference.

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 is double insulated, and the two wires in the mains lead should be wired in accordance with the following colour code:

BLUE - NEUTRAL

BROWN - LIVE

- Connect the BLUE coloured wire to the plug terminal marked with a letter "N"
- Connect the BROWN coloured wire to the plug terminal marked with a letter "L"

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 Clarke dealer or most electrical stockists.

FUSE RATING

The fuse in the plug must be replaced with one of the same rating (**5 amps**) and this replacement must be ASTA 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. If using tool outdoors, only use extension cables intended for outdoor use.

BEFORE USE

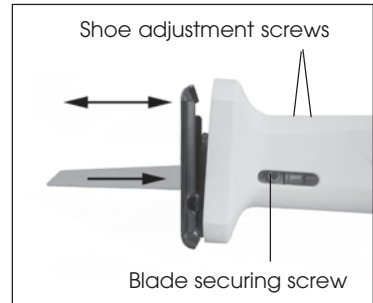
FITTING THE BLADE



WARNING!

Before removing, or installing a blade, make sure that the mains plug has been removed from the mains supply.

1. Loosen the blade securing screw, using the hexagonal key provided.
2. With the blade teeth facing downwards, push the blade shank into the blade locating clip as far as possible.
3. Fully tighten the blade securing screw.



ADJUSTING THE SHOE

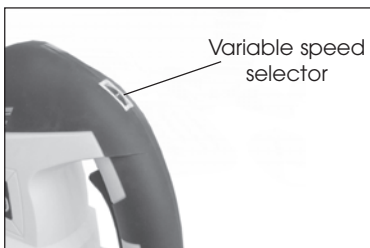
1. The shoe can be adjusted by loosening the shoe adjustment screws and sliding the shoe in or out.
2. Re-tighten all screws before use.

VARIABLE SPEED SELECTOR

The variable speed selector is used to control the speed of the reciprocating saw.

- The higher the number selected the faster the stroke rate of the blade.
- The stroke rate should be changed according to the material being cut.

This is only a recommendation, you should always make a test cut on a scrap piece of material first.



MATERIAL	RECOMMENDED SPEED SETTING
Wood	5-MAX
Metal	2-3
Aluminium	3-5
PVC	3-4

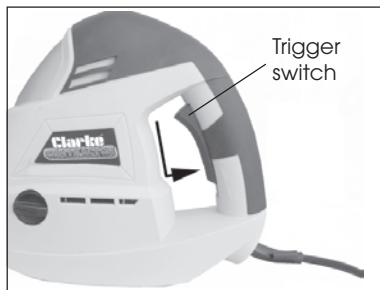
OPERATION

ON/OFF SWITCH

1. Slide the trigger switch down and back.

The saw will run at the speed selected with the variable speed selector.

2. To switch off the reciprocating saw, release the trigger switch.



WARNING!

The blade will continue to run for a short period after the trigger has been release. Wait until it stops before removing it from the workpiece.



WARNING!

If the cutting operation is dusty, we recommend that you use a dust mask.

OPERATION

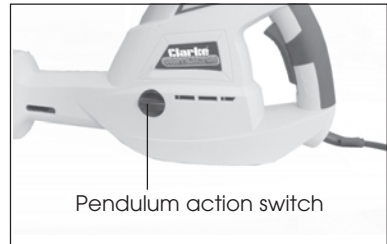
PENDULUM SWITCH

The pendulum switch adjusts the cutting stroke for each type of material. This improves the quality of the cut, and increases the blade life.

Position	Wood	Metal	Plastics
3	Fast cuts	-	PVC
2	Thick workpieces	-	Fibreglass Acrylic
1	Plywood Chipboard	Aluminium Non-ferrous	- -
0	Thin Workpieces Fine Cuts	Sheet metal	-

To adjust the pendulum setting

1. Rotate the pendulum switch to the desired setting. Use the table above to select the correct setting.



OPERATION

TIPS

Cutting wood

- Clamp the workpiece securely and remove all nails and metal objects.
- Holding the tool with both hands, work with the saw shoe pressed against the workpiece.

Plunge cutting in wood

- Rest the saw shoe on the workpiece in such a position that the blade forms an appropriate angle for the plunge cut.
- Switch on the tool and feed the blade into the material at full speed, make sure that the saw shoe remains in contact with the workpiece at all times.



Pocket cuts

- Measure and mark the required pocket cut.
- Using a narrow saw blade rest the bottom of the saw shoe on the workpiece and make sure that the blade is positioned on the cutting line. If necessary, e.g. in confined spaces, use the outer edge of the saw shoe as your guideline.
- Switch on the tool and feed the blade into the material at full speed, holding the tool firmly against the workpiece.

Cutting metal

- When cutting thin metal always stabilize the workpiece with wood on both sides. This guarantees clean cuts and prevents damaging the material.
- For long, straight cuts draw a line on the workpiece.
- Apply a thin film of lubricant along the cutting line, switch on the tool and follow the cutting line.

Cutting plastics

- Always work at reduced speed. Carry out a test cut to check whether the material is sensitive to heat.

MAINTENANCE



WARNING!

Before performing any maintenance tasks make sure that the mains plug has been removed from the mains supply.

- After use, clean all dust and wood chippings from the reciprocating saw.
- Clean all of the ventilation slots on the motor housing.
- Make sure that the shoe is free from dirt and grease.
- Keep the handle clean and free from oil and grease.
- Resin and glue on the blade causes poor cutting results. Clean the blade after use.
- Refer to your CLARKE dealer if internal maintenance is required.

REPLACEMENT BLADES

Replacement blades are available from your CLARKE dealer. Please quote the following part numbers:

Type	Part Number
Metal cutting blades (5 pk)	6462029
Wood cutting blades (5 pk)	6462028
Log cutting blades (5 pk)	6462027

PARTS LIST

Item	Part Number	Description	Available as a Spare part	Item	Part Number	Description	Available as a Spare part
1	KPCON10001	Tapping Screw	Yes	32	KPCON10032	Screw	Yes
2	KPCON10002	Spring Washer	Yes	33	KPCON10033	Washer	Yes
3	KPCON10003	Screw	Yes	34	KPCON10034	Socket Head Screw	Yes
4	KPCON10004	Cove Plate Assembly	Yes	35	KPCON10035	Localising Pin	Yes
5	KPCON10005	Blade Clamp Screw	Yes	36	KPCON10036	Pendulum Selector	Yes
6	KPCON10006	Blade Clamp Plate	Yes	37	KPCON10037	Thimble	Yes
7	KPCON10007	Copper Brushing	Yes	38	KPCON10038	Spring	Yes
8	KPCON10008	Shaft	Yes	39	KPCON10039	Elastic Pin	Yes
9	KPCON10009	Elastic Pin	Yes	40	KPCON10040	Speed Reducuction Gearbox	Yes
10	KPCON10010	Elastic Pin	Yes	41	KPCON10041	Connecting Plate	Yes
11	KPCON10011	Strongback	Yes	42	KPCON10042	Switch	Yes
12	KPCON10012	Bracket	Yes	43	KPCON10043	Spring	Yes
13	KPCON10013	Spring	Yes	44	KPCON10044	Switch	Yes
14	KPCON10014	Saw Holder	Yes	45	KPCON10045	Left Enclosure	Yes
15	KPCON10015	Shaft Holder	Yes	46	KPCON10046	Circuit Plate	Yes
16	KPCON10016	Spacer Sleeve	Yes	47	KPCON10047	Quick Stop Ctrl Switch	Yes
17	KPCON10017	Needle Roller Bearing	Yes	48	KPCON10048	Wiring Terminal	Yes
18	KPCON10018	Gyro Wheel	Yes	49	KPCON10049	Capacitor	Yes
19	KPCON10019	Pin	Yes	50	KPCON10050	Stator	Yes
20	KPCON10020	Gearing	Yes	51	KPCON10051	Bearing	Yes
21	KPCON10021	Washer	Yes	52	KPCON10052	Brush Bearing	Yes
22	KPCON10022	Balance Block	Yes	53	KPCON10053	Carbon Brush	Yes
23	KPCON10023	Lifting knife Plate	Yes	54	KPCON10054	Brush Holder	Yes
24	KPCON10024	Washer	Yes	55	KPCON10055	Rotor	Yes
25	KPCON10025	Guide Block	Yes	56	KPCON10056	Bearing	Yes
26	KPCON10026	Washer	Yes	57	KPCON10057	Cord Sleeve	Yes
27	KPCON10027	Fixing Ring	Yes	58	KPCON10058	AC Cord + Plug	Yes
28	KPCON10028	Rivet	Yes	59	KPCON10059	Strain Relief	Yes
29	KPCON10029	Connecting Plate	Yes	60	KPCON10060	Tapping Screw	Yes
30	KPCON10030	Shoe	Yes	61	KPCON10061	Right Enclosure	Yes
31	KPCON10031	Saw Blade	Yes				

VIBRATION EMISSIONS

HAND-ARM VIBRATION

Employers are advised to refer to the HSE publication "Guide for Employers".

All hand held power tools vibrate to some extent, and this vibration is transmitted to the operator via the handle, or hand used to steady the tool. Vibration from about 2 to 1500 hertz is potentially damaging and is most hazardous in the range from about 5 to 20 hertz.

Operators who are regularly exposed to vibration may suffer from Hand Arm Vibration Syndrome (HAVS), which includes 'dead hand', 'dead finger', and 'white finger'. These are painful conditions and are widespread in industries where vibrating tools are used.

The health risk depends upon the vibration level and the length of time of exposure to it.....in effect, a daily vibration dose.

Tools are tested using specialised equipment, to approximate the vibration level generated under normal, acceptable operating conditions for the tool in question. For example, a grinder used at 45° on mild steel plate, or a sander on softwood in a horizontal plane etc.

These tests produce a value 'a', expressed in metres per second per second, which represents the average vibration level of all tests taken, in three axes where necessary, and a second figure 'K', which represents the uncertainty factor, i.e. a value in excess of 'a', to which the tool could vibrate under normal conditions.

These values appear in the specification panel below.



Declared vibration emission value in accordance with EN12096

Measured vibration emission value - α : 13.90 m/s²

Uncertainty value - K : 1.5 m/s²

Highest measured reading in a single plane 26 m/s²

Values determined according to EN28622-1

VIBRATION EMISSIONS

You will note that a third value is given in the specification - the highest measured reading in a single plane. This is the maximum level of vibration measured during testing in one of the axes, and this should also be taken into account when making a risk assessment.

'*a*' values in excess of 2.5 m/s^2 are considered hazardous when used for prolonged periods. A tool with a vibration value of 2.8 m/s^2 may be used for up to 8 hours (cumulative) per day, whereas a tool with a value of 11.2 m/s^2 may be used for $\frac{1}{2}$ hour per day only.

The graph shows the vibration value against the maximum time the respective tool may be used, per day.

The uncertainty factor should also be taken into account when assessing a risk. The two figures '*a*' and '*K*' may be added together and the resultant value used to assess the risk.

It should be noted that if a tool is used under abnormal, or unusual conditions, then the vibration level could possibly increase significantly. Users must always take this into account and make their own risk assessment, using the graph on the opposite page as a reference.

Some tools with a high vibration value, such as impact wrenches, are generally used for a few seconds at a time, therefore the cumulative time may only be in the order of a few minutes per day. Nevertheless, the cumulative effect, particularly when added to that of other hand held power tools that may be used, must always be taken into account when the total daily dose rate is determined.

DECLARATION OF CONFORMITY



Clarke[®]
INTERNATIONAL

Hemnal Street, Epping, Essex CM16 4LG

DECLARATION OF CONFORMITY

This is an important document and should be retained.

We hereby declare that this product(s) complies with the following directive(s):

2004/108/EC *Electromagnetic Compatibility Directive.*

2006/42/EC *Machinery Directive.*

2006/95/EC *Low Voltage Equipment Directive.*

2002/95/EC *Restriction of Hazardous substances.*

The following standards have been applied to the product(s):

EN 55014-1:2000+A1+A2, EN 55015-2:1997+A1, EN 61000-3-2:2000+A2, EN61000-3-3:1995+A1+A2,

EN 60745-1:2006, EN 60745-2-11:2003+A11+A1.

The technical documentation required to demonstrate that the product(s) meet(s) the requirement(s) of the aforementioned directive(s) has been compiled and is available for inspection by the relevant enforcement authorities.

The CE mark was first applied in: 2007

Product Description: Reciprocating Saw

Model number(s): CON100

Serial / batch Number: N/A

Date of Issue: 15/06/2010

Signed:



J.A. Clarke
Director



When disposing of this product, ensure it is disposed of according to all local ordinances. It must not be disposed of with general household waste.

A SELECTION FROM THE VAST RANGE OF

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Cranes, body repair kits, transmission jacks for all types of workshop use.

WATER PUMPS

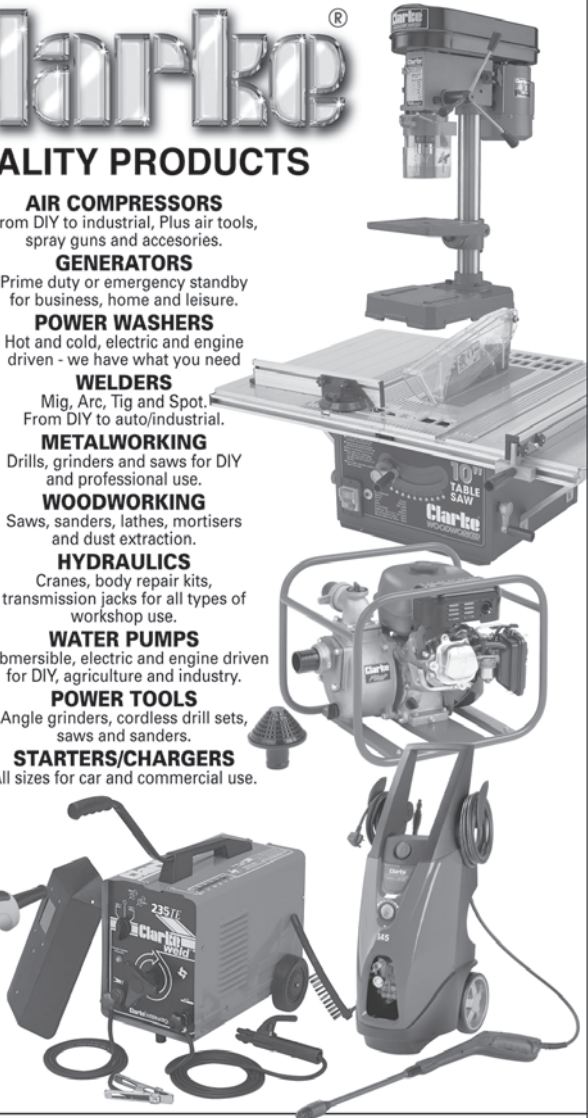
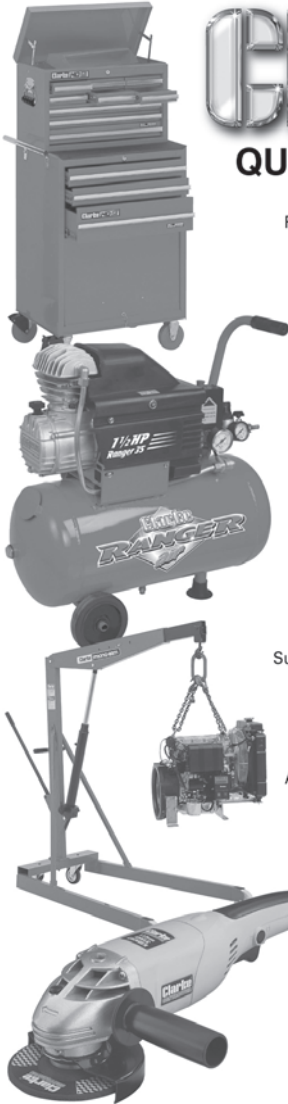
Submersible, electric and engine driven for DIY, agriculture and industry.

POWER TOOLS

Angle grinders, cordless drill sets, saws and sanders.

STARTERS/CHARGERS

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PARTS & SERVICE: 0208 988 7400

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