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#### 850W (230V) RECIPROCATING SAW

MODEL NO: CON850B

PART NO: 6459015

#### **OPERATION & MAINTENANCE INSTRUCTIONS**





ORIGINAL INSTRUCTIONS

DL 0122

#### INTRODUCTION

Thank you for purchasing this CLARKE 850W Reciprocating Saw.

Before attempting to use this product, 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 your purchase 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.

#### **ENVIRONMENTAL PROTECTION**



Through purchase of this product, the customer is taking on the obligation to deal with the WEEE in accordance with the WEEE regulations in relation to the treatment, recycling & recovery and environmentally sound disposal of the WEEE.

In effect, this means that this product must not be disposed of with general household waste. It must be disposed of according to the laws governing Waste Electrical and Electronic Equipment (WEEE) at a recognised disposal facility

#### **ELECTRICAL CONNECTION**



WARNING: READ THESE ELECTRICAL SAFETY INSTRUCTIONS THOROUGHLY BEFORE CONNECTING THE PRODUCT TO THE MAINS SUPPLY.

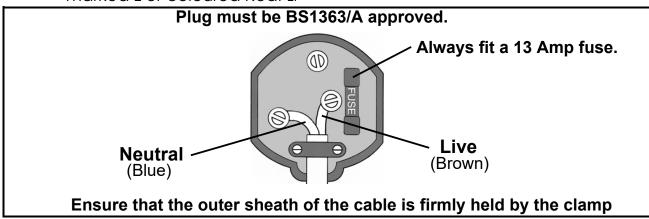
Before switching the product on, make sure that the voltage of your electricity supply is the same as that indicated on the rating plate. This product is designed to operate on 230VAC 50Hz. **DO NOT** connect it to any other power source.

This product may be fitted with a non-rewireable plug. If it is necessary to change the fuse in the plug, the fuse cover must be refitted. If the fuse cover becomes lost or damaged, the plug must not be used until a suitable replacement is obtained.

If the plug has to be changed because it is not suitable for your socket, or due to damage, it should be cut off and a replacement fitted, following the wiring instructions shown below. The old plug must be disposed of safely, as insertion into a mains socket could cause an electrical hazard.

If the colours of the wires in the power cable of this product do not correspond with the terminal markings of your plug, proceed as follows.

- The wire which is coloured Blue must be connected to the terminal marked **N** or coloured Black.
- The wire which is coloured Brown must be connected to the terminal marked **L** or coloured Red. **L**.



We strongly recommend that this machine is connected to the mains supply via a Residual Current Device (RCD) If in any doubt, consult a qualified electrician. **DO NOT** attempt any repairs yourself.

This symbol indicates that this is a Class II product, and does not require an earth connection.

#### **GENERAL SAFETY RULES**

#### **WORK AREA**

- 1. **ALWAYS** keep the work area clean and well lit. Cluttered and dark areas invite accidents.
- 2. **DO NOT** operate power tools in explosive atmospheres such as in the presence of flammable liquids, gasses or heavy dust. Power tools create sparks which may ignite dust or fumes.
- 3. **ALWAYS** keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

#### **ELECTRICAL SAFETY**

- Power tools must match the power outlet. NEVER modify the plug in any way. DO NOT use adaptor plugs with earthed (grounded) power tools. Correct plugs and outlets will reduce the risk of electric shock.
- 2. **DO NOT** expose power tools to rain or wet conditions. Any water entering power tools will increase the risk of electric shock.
- 3. **DO NOT** abuse the electrical cable. **NEVER** use the cable for pulling or unplugging the power tool. Keep the cable away from sources of heat, oil, sharp edges or moving parts. Damaged or tangled cables increase the risk of electric shock.
- 4. If working outdoors, use outdoor extension leads, 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. We strongly recommend that this machine is connected to the mains supply via a Residual Current Device (RCD).

#### **PERSONAL SAFETY**

- 1. Stay alert, watch what you are doing and use common sense when you are operating a power tool. **DO NOT** operate a power tool when you are tired, ill or under the influence of alcohol, drugs or medication.
- 2. Wear personal protective equipment including eye protection. Safety equipment such as a dust mask, non-skid shoes and hearing protection used for appropriate conditions will reduce personal injuries. Use a face or dust mask if operation is particularly dusty. Wear ear protectors/defenders as the noise level of this machine can exceed 85dB (A).
- 3. **DO NOT** over-reach. Keep a proper footing and balance at all times. This enables better control of the power tool in unexpected situations.

- 4. Concentrate on the job in hand, no matter how trivial it may seem. Be aware that accidents are caused by carelessness due to familiarity.
- Dress appropriately. **DO NOT** wear loose clothing or jewelry which may get caught in moving parts. Wear protective hair covering to contain long hair. For best footing, wear rubber soled footwear. Keep floor clear of oil, scrap wood, etc.
- 6. **AVOID** accidental starting of the machine. Ensure the switch is in the off position and the locking button disengaged before plugging the machine in to the power supply. Carrying power tools around with your finger on the trigger or plugging in power tools that are switched on invites accidents.
- 7. Switch the machine **OFF** immediately after the task is completed.

#### POWER TOOL USE AND CARE

- DO NOT force the machine. Use the correct power tool for your application. It will do a better and safer job at the rate for which it was designed.
- 2. **DO NOT** use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- 3. Disconnect the power tool from the power supply before making any adjustments, changing accessories, or storing the tool. These measures will reduce the risk of the power tool starting accidentally.
- 4. Store power tools out of the reach of children and **DO NOT** allow persons unfamiliar with these instructions to operate the power tool. Power tools are potentially dangerous in the hands of untrained users.
- 5. Use recommended accessories. The use of improper accessories could be hazardous.
- 6. **DO NOT** allow the ventilation slots in the machine to become blocked with dust.
- 7. Check the power tool for damage before using the machine each time. Any damaged part should be inspected 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 machine's operation. Any damage should be properly repaired or the part replaced. If in doubt, **DO NOT** use the machine. Consult your local CLARKE dealer.

#### **SERVICE**

1. When necessary, have your power tools serviced or repaired by a qualified person using identical replacement parts. This will ensure that the safety of the power tool is maintained.

#### RECIPROCATING SAW SAFETY INSTRUCTIONS

WARNING: ONLY USE THE SAW AS DESCRIBED IN THESE INSTRUCTIONS.

#### HAND VIBRATION

All hand held power tools vibrate to some extent, and this vibration is transmitted to the operator via the handles. 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. If you feel numbness or pain in hands or arms, **STOP** using the tool and take a rest. If symptoms persist seek medical advice.

#### **CHANGING BLADES (PAGE 9)**

- 1. Unplug the saw before changing blades, and take care to prevent entrapment of fingers between the blade and the shoe. Ensure the blade is secure before use.
- 2. Use the appropriate saw blade for the material being cut. Different blades are available from your CLARKE dealer.
- 3. Only use saw blades in perfect working condition. Discard and replace any cracked or bent saw blades.

#### WHEN SAWING (PAGE 12)

- 1. Keep the mains cable well away from the saw blade and ensure an adequate electrical supply is close at hand so that the operation is not restricted by the length of the cable.
- 2. Working on the bench. Allow sufficient clearance beneath the workpiece to ensure the blade does not come into contact with the floor, bench etc.
- 3. Switching off. **NEVER** place the saw on a table or bench if it has not completely stopped. The saw blade will continue to reciprocate for a short time after the trigger has been released to stop the saw.
- 4. **DO NOT** cut material above the specified thickness.
- 5. Cutting into walls. **DO NOT** cut through walls or cavities before checking for hidden electrical wires or water pipes etc.
- 6. Finishing cutting. **DO NOT** remove the tool from the work until the blade has completely stopped and allow time for it to cool before touching the blade immediately after use.
- 7. Use clamps & vices wherever possible to secure the workpiece.

- 8. Cutting sheet materials. **DO NOT** cut workpiece less than at least twice the pitch of the saw blade. i.e. at least two teeth must be in contact with the workpiece at all times.
- 9. Beware of foreign objects. When cutting pre-used wood, ensure all nails have been removed beforehand. Nails will damage the wood saw blade.
- 10. Cooling agents. When cutting metals, **ALWAYS** use a cooling agent i.e. cutting/soluble oil.
- 11. **DO NOT** attempt to saw very small objects including those which cannot be properly secured. Always hold the saw with both hands.

Please keep these instructions in a safe place for future reference.

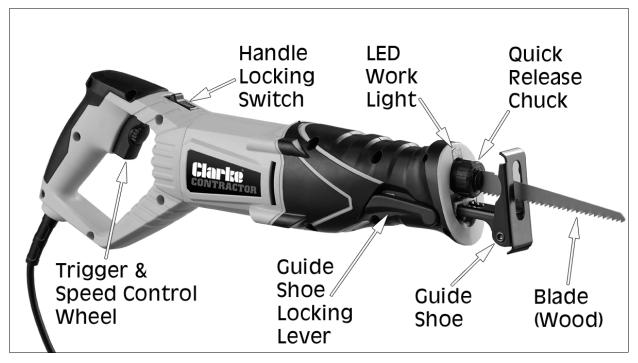
#### **SAFETY SYMBOLS**

<b>ALWAYS</b> : Read this manual and make sure that all warnings and instructions are clear before you use this reciprocating saw.
WARNING: Always wear eye protection.
WARNING: Always wear protective gloves.
WARNING: Always wear ear protection.
<b>WARNING:</b> Always wear a dust mask.
<b>WARNING:</b> Risk of injury. Sharp blade.

#### **OVERVIEW**

The CLARKE CON850B is a variable-speed reciprocating saw fitted with a lockon button for continuous operation. The saw is equipped with a quick-release blade retention system for convenient replacement of saw blades.

When unpacking, check for damage or shortages etc. Any found should be reported to your CLARKE dealer where the tool was originally purchased. This CON850B Reciprocating Saw is supplied with the following components:



The saw is also supplied with the following cutting blades:

- 2 x 130mm Wood Cutting Blade
- 1 x 80mm Metal Cutting Blade

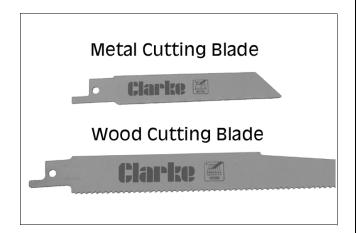
#### **BEFORE USE**



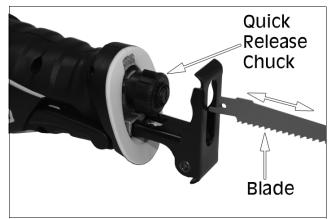
CAUTION: USE ONLY RECIPROCATING SAW BLADES WITH THE CORRECT FITTING AS SHOWN BELOW. ALWAYS ENSURE THE SAW IS DISCONNECTED FROM THE POWER SUPPLY BEFORE INSTALLING/REMOVING THE BLADE.

#### **INSTALLING/CHANGING BLADES**

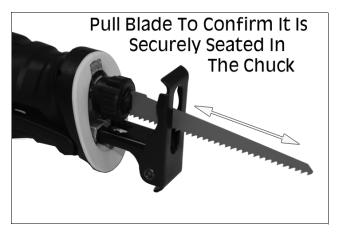
 Twist the quick release chuck a 1/4 turn anti-clockwise and hold open.



- 2. Insert or remove the blade while keeping the chuck open.
  - Never use cracked, blunt or otherwise damaged blades.



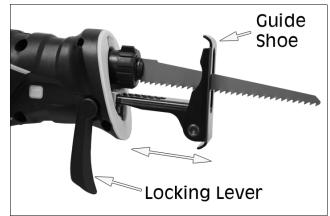
- Release the chuck when the blade is fully inserted in position, making sure the teeth of the blade are pointing downwards. The blade will now be locked in place.
- 4. Pull the blade to check that it is secure. If it does not pull out, it is correctly fitted.



#### ADJUSTING THE GUIDE SHOE

### WARNING: ALWAYS ENSURE THE SAW IS DISCONNECTED FROM THE POWER SUPPLY BEFORE MAKING ADJUSTMENTS.

- To adjust the shoe, unlock by releasing the locking lever on the side of the saw. Adjust the shoe to the desired position and then push the locking lever back into position.
  - Note that the shoe can slide fully in and out of the saw body.

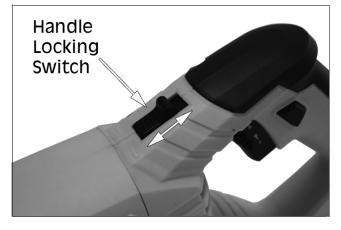


2. The head of the shoe will adapt to the surface of the workpiece you are working on with an inclination of up to 30°.

#### ADJUSTING THE HANDLE

The handle can be rotated 90° left or right of centre so as to give a better angle of attack on the workpiece.

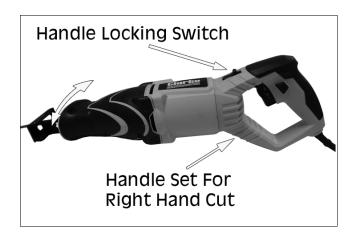
1. Slide handle locking switch back.



2. Rotate handle 90° left or right, depending on angle of attack needed.



3. Slide handle locking switch forward to lock the handle into place.



#### **OPERATION**

IMPORTANT: DO NOT plug into the mains, unless you have ensured the saw is switched OFF. To do this, squeeze the trigger fully, then release it.

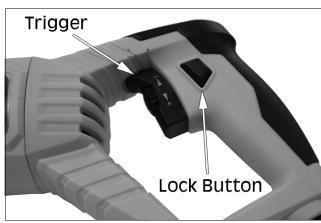
**NOTE:** The LED work light will be illuminated once the tool is plugged into the mains. There is no standalone on/off switch for the light.

#### PRIOR TO CUTTING

- 1. Ensure that the workpiece is securely held in place and that the cut line is clearly marked.
- 2. Ensure the blade is not striking anything below the workpiece and that the power cable is well away from the moving blade before starting the saw.
  - Let the blade work naturally. If cutting out an aperture, it will be necessary to drill a suitably sized hole in the workpiece to use as a starting point.
  - The blade should emerge from the work at every point of the cut.
- 3. Check that any previously used timber being sawn does not contain any nails or other metal objects which would damage the blade.

#### STARTING & STOPPING

- 1. To start the saw, squeeze the trigger.
- Maintain the saw at a constant speed by pressing in the lock button.
  - You can then release your finger pressure on the trigger.
- 3. To stop the saw if the lock button is used, squeeze the trigger fully in, then release it and the motor will stop. Always switch off before unplugging.



#### **USING THE SAW**

- Place the shoe fully against the work-piece and squeeze the trigger to run the saw before letting the blade touch the cut line on the work piece. To make your cut, move the saw slowly along the cutting line.
- 2. Take care not to allow the saw to bounce on the workpiece. Ensure the shoe remains in contact with the workpiece.



- 3. Always hold the saw with both hands on the body and handle.
- 4. Take extra care when cutting curves move slowly to avoid stress on the blade.
- 5. Avoid putting unnecessary pressure on the blade and avoid applying lateral pressure. Let the blade work naturally.
- 6. Never try to start the saw if the blade becomes jammed in the workpiece.
- 7. If the blade becomes blunt in one section of its cutting edge, reposition the shoe to utilise a sharper, unused portion of the blade. Page 10 shows the adjustable shoe which can be positioned close to the blade holder and then extended to optimise the use of the blade & extend its useful life.

#### **CUTTING DIFFERENT MATERIALS**

Adjust the speed controller wheel to suit the material being cut using the following suggested settings as a starting point. However, the optimum speed will be determined with practice.

• Plastic: Slow - Medium

• Steel: Slow - Medium

Hardboard: Medium

Ceramics: Medium - Fast (max)

• Aluminium: Medium - Fast (max)

• Wood: Medium - Fast (max)



#### 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 the saw on and slowly feed in the blade. Make sure that the saw shoe remains in contact with the workpiece at all times.

#### **POCKET CUTS IN WOOD**

Measure and mark out the pocket cut. Using a narrow blade, rest
the bottom of the shoe on the workpiece ensuring the blade is on
the cutting line. If necessary, e.g. in confined spaces, use the outer
edge of the shoe as your guideline.

#### **CUTTING METAL**

- Choose the correct blade for cutting metal. Support the workpiece with wooden blocks on either side.
- Apply a thin film of lubricant along the cutting line to prevent the tool from overheating.

#### **CUTTING PLASTICS**

 Always work at reduced speed and carry out a test cut to see if the material is sensitive to heat or vibration.



#### **MAINTENANCE**

#### **CLEANING**

- 1. To ensure constant air circulation and after use, clean all dust and wood chippings from the reciprocating saw.
  - Clean all of the ventilation slots on the motor housing.
  - If possible, use compressed air to clean the machine (Always wear eye protection when using compressed air).
- 2. The blade holder should be kept clean and occasionally be lightly oiled.
- 3. Keep the handle clean and free from oil and grease.
- 4. Resin and glue on the blade causes poor cutting results. Clean the blade after use if necessary.

#### **GENERAL MAINTENANCE**

- 1. Check the power cable to ensure it is sound and free from cracks, bare wires etc. Avoid using solvents when cleaning plastic parts, most plastics are susceptible to damage from the various types of commercial solvents.
- 2. Ensure all nuts, bolts and screws remain tight at all times.
  - All bearings etc, in this power tool are lubricated with a sufficient amount of high grade lubricant for the tools lifetime under normal operating conditions, therefore no further lubrication is required.
  - Only use replacement blades specified for this product (consult your CLARKE dealer).
  - Refer to your CLARKE dealer if internal maintenance is required.

#### **FAULT FINDING**

Problem	Possible Cause	Remedy
Tool will not operate.	No power supply.	Check power supply.
	Switch is faulty.	Consult your CLARKE dealer
	Fuse blown.	Check and replace
	Motor is faulty	Consult your CLARKE dealer
Motor becomes hot.	Unduly heavy use	Reduce the force applied to the tool. Let the tool do the work.
	Air vents have become blocked.	Clean out the air vents using compressed air or clean with a dry cloth
	Low supply voltage.	Ensure supply voltage is correct. If an extension cable is used, ensure it is of the correct rating & fully unwound.
Motor runs but blade	Blade fastening not tight.	Secure blade.
does not move.	Drive gear broken	Consult your CLARKE dealer
Internal sparking	Faulty motor	Consult your CLARKE dealer
Excessive vibration	Blade not mounted correctly	Check and correct (See Page 9).
	Machine bearings worn	Consult your CLARKE dealer

## **PARTS DIAGRAM** 10 11 8 9

#### **PARTS LIST**

PART NO	DESCRIPTION	PART NO	DESCRIPTION
1	Guide Shoe Assembly	31	Stator
2	Chuck Assembly	32	Screw ST4 x 53
3	Screw ST4 x 20	33	Lamp Lense
4	Split Washer	34	LED Lamp PCB
5	Baffle	35	Left Body Casing
6	Split Washer	36	Positioning Sleeve
7	Screw	37	Screw M4 x 6
8	Washer	38	Right Body Casing
9	Lower Slide	39	Guide Shoe Locking Lever
10	Upper Slide	40	Screw ST4 x 16
11	Plate	41	Stator Housing
12	Central Supporter	42	Brush Holder
13	Bearing 608	43	Pressing Plate
14	C Clip	44	Handle Locking Switch
15	Bearing 6000	45	Spring
16	Main Drive Gear Wheel	46	Left Side Handle
17	Gear Shaft	47	Speed Control Switch
18	Small Eccentric Shaft	48	Variable Pressure Plate
19	Axis Guide	49	Capacitor 0.22uf
20	Base Plate	50	Binding Post
21	Cover Plate	51	Power Cable Sheath
22	Clamp Washer	52	13A Plug and Cable
23	Screw M5 x 14	53	Right Side Handle
24	Fan Shroud	54	Carbon Brush
25	Red Fibre Gasket	55	Baffle Plate
26	Dustproof Cushion	56	Screw M5 x 14
27	Bearing 6000	57	Split Washer
28	Motor	58	Split Washer
29	Bearing 607	59	Screw M5 x 10
30	Shockproof Bearing Case	60	Cable Plate

#### **SPECIFICATIONS**

MODEL CON850B				
Weight	2.70 kg			
Dimensions (L x W x H)	475mm x 90mm x 150mm			
Voltage	230 V AC, 50Hz			
Fuse Rating	13 Amp			
IP Rating	IPX0			
Class				
Motor Power	850 Watts			
Speed Control Type	Variable			
No-load Speed	0-2800 Strokes Per Min			
Max Cutting Capacity	Wood: 105mm Mild Steel: 10mm			
Effective Blade Length	Wood (HCS): 130mm Metal (HSS): 80mm			
Sound Pressure Level (LpA)	90.39 dB(A)			
Sound Power Level (LWA)	104 dB(A)			
Sound Uncertainty Value (K)	3 dB(A)			
Max. Vibration	21.22 m/s <sup>2</sup>			
Vibration Uncertainty Value (K)	1.5 m/s <sup>2</sup>			

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.

#### **DECLARATION OF CONFORMITY**



## **DECLARATION OF CONFORMITY**

This is an important document and should be retained.

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

Electromagnetic Compatibility Regulations 2016

Supply of Machinery (Safety) Regulations 2016

The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment

Regulations 2012

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

EN 55014-1:2017, EN 55014-2:2015, EN 61000-3-3:2013, EN 61000-3-2:2014,

EN 62841-1:2015, EN 62841-2-11:2016, IEC 62321-3-1:2013, IEC 62321-4:2013,

IEC 62321-5:2013, IEC 62321-6:2015, IEC 62321-7-1:2015, IEC 62321:2008.

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

The UKCA mark was first applied in: 2021

850W Reciprocating Saw Product Description:

CON850B Model number(s):

01/12/2021 ΑN Serial / batch Number: Date of Issue:

J.A. Clarke

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Fitzwilliam Hall, Fitzwilliam Place, Dublin 2

**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):

Electromagnetic Compatibility Directive. 2014/30/EU

Machinery Directive. 2006/42/EC

2011/65/EU

Restriction of Hazardous substances (amended by (EU) 2015/863)

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

EN 55014-1:2017, EN 55014-2:2015, EN 61000-3-3:2013, EN 61000-3-2:2014,

EN 62841-1:2015, EN 62841-2-11:2016, IEC 62321-3-1:2013, IEC 62321-4:2013,

IEC 62321-5:2013, IEC 62321-6:2015, IEC 62321-7-1:2015, IEC 62321:2008.

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

The CE mark was first applied in: 2021

850W Reciprocating Saw CON850B Product Description: Model number(s):

Serial / batch Number:

01/12/2021 ΑN Date of Issue:

Signed:

J.A. Clarke

Director

CON850B CE Clarke DOC 120121

#### A SELECTION FROM THE VAST RANGE OF





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Parts Enquiries
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Servicing & Technical Enquiries
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SALES: UK 01992 565333 or Export 00 44 (0)1992 565335

CIAPE INTERNATIONAL Hemnall Street, Epping, Essex CM16 4LG
www.clarkeinternational.com