

Champro® **METALWORKER**



PORTABLE METAL CUTTING CIRCULAR SAW
MODEL NO: CPMCS1

PART NO: 6462360

**OPERATION & MAINTENANCE
INSTRUCTIONS**



LS0815

INTRODUCTION

Thank you for purchasing this CLARKE product. The tool is intended for cutting iron, steel and other ferrous metals with the appropriate saw blades.

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 RECYCLING POLICY



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.

CONTENTS

The following items should be supplied in the carton. If any parts are missing, do not operate your saw until the missing parts are obtained.

1 x Metal Saw	1 x Clarke Instruction Manual
1 x HSS Blade - 225 x 1.9 x 32 x 150T (fitted)	1 x Block Plate
1 x Bar Stop, Rod	1 x 10mm Hex Key
1 x Bar Stop	

SAFETY WARNINGS



WARNING: WHEN USING ELECTRIC TOOLS, BASIC SAFETY PRECAUTIONS, INCLUDING THE FOLLOWING, SHOULD ALWAYS BE FOLLOWED TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK AND PERSONAL INJURY. READ ALL THESE INSTRUCTIONS BEFORE OPERATING THIS PRODUCT AND SAVE THESE INSTRUCTIONS.

- 1. Keep work area clean.** Cluttered areas and benches invite injuries.
- 2. Consider work area environment.** Do not expose power tools to rain. Do not use power tools in damp or wet locations. Keep work area well lit. Do not use power tools where there is risk to cause fire or explosion.
- 3. Guard against electric shock.** Avoid body contact with earthed or grounded surfaces (e.g. pipes, radiators, ranges, refrigerators).
- 4. Keep children away.** Do not let visitors touch the tool or extension cord. All visitors should be kept away from work area.
- 5. Store idle tools.** When not in use, tools should be stored in a dry, high or locked up place, out of reach of children.
- 6. Do not force the tool.** It will do the job better and safer at the rate for which it was intended.
- 7. Use the right tool.** Do not force small tools or attachments to do the job of a heavy duty tool. Do not use tools for purposes not intended; for example, do not use circular saws to cut tree limbs or logs.
- 8. Dress properly.** Do not wear loose clothing or jewellery, they can be caught in moving parts. Non-skid footwear are recommended when working outdoors. Wear protecting hair covering to contain long hair.
- 9. Use safety glasses and hearing protection.** Also use face or dust mask if the cutting operation is dusty.
- 10. Do not abuse the cord.** Never carry the tool by the cord or yank it to

disconnect it from the socket. Keep the cord away from heat, oil and sharp edges.

11. **Secure work.** Use clamps or a vice to hold the work. It is safer than using your hand and it frees both hands to operate the tool.
12. **Do not overreach.** Keep proper footing and balance at all times.
13. **Maintain tools with care.** Keep cutting tools sharp and clean for better and safer performance. Follow instructions for lubrication and changing accessories. Inspect tool cord periodically and if damaged have it repaired by an authorized service facility. Inspect extension cords periodically and replace, if damaged. Keep handles dry, clean and free from oil and grease.
14. **Disconnect tool** when not in use, before servicing, and when changing accessories such as blades, bits and cutters.
15. **Remove adjusting keys and wrenches.** Form the habit of checking to see that keys and adjusting wrenches are removed from the tool before turning it on.
16. **Avoid unintentional starting.** Do not carry a plugged-in tool with a finger on the switch. Ensure the switch is off when plugging in.
17. **Use outdoor extension leads.** When tool is used outdoors, use only extension cords intended for outdoor use.
18. **Stay alert.** Watch what you are doing. Use common sense. Do not operate the tool when you are tired.
19. **Check damaged parts.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, free running of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service centre unless otherwise indicated in this instruction manual. Have defective switches replaced by an authorised service facility. Do not use the tool if the switch does not turn it on and off
20. **Have your tool repaired by a qualified person.** This electric tool is in accordance with the relevant safety requirements. Repairs should only be carried out by qualified persons using original spare parts, otherwise this may result in considerable danger to the user.

ADDITIONAL SAFETY RULES FOR TOOL

1. Use only correct blades from your Clarke dealer. Never use abrasive cut-off wheel or other types of saw blades.
2. Check the blade carefully for cracks or damage before operation. Replace a cracked or damaged blade immediately.
3. Never secure the safety cover (safety guard) in an open position. Always be sure that the safety cover moves smoothly before operation. Any irregular operation of the safety cover should be corrected immediately. Do not use the saw without guards in position.
4. Make sure guard lock is released before the switch is turned on.
5. Before using the tool on an actual workpiece, let it run for a while. Watch for vibration or wobbling that could indicate poor installation or a poorly balanced blade.
6. Keep your hands and body away from rotating blade.
7. Always secure the workpiece with the vice.
8. Make sure the blade is not contacting the workpiece before switching on.
9. Watch out for flying sparks when operating. They can cause injury or ignite combustible materials.
10. Do not touch the blade, workpiece or swarf immediately after operation; they may be extremely hot and could burn your skin.
11. If the blade stops during operation, makes an odd noise, or begins to vibrate, switch off the tool immediately. Then check the tool and blade.

SAFETY SYMBOLS

	<p>Read this instruction booklet before use</p>		<p>Wear hearing protection</p>
	<p>Wear eye protection</p>		<p>Wear a dust mask that is specially designed to filter microscopic particles.</p>

ELECTRICAL CONNECTIONS



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

Connect the mains lead to a standard, 230 Volt (50Hz) electrical supply through an approved 13 amp BS 1363 plug, or a suitably fused isolator switch.

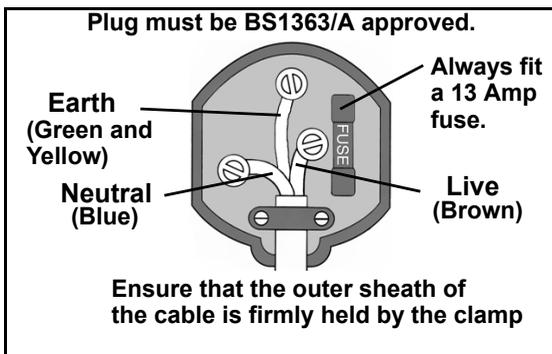
If the plug has to be changed because it is not suitable for your socket, or because of damage, it must be removed and a replacement fitted, following the wiring instructions shown below. The old plug must be discarded safely, as insertion into a power socket could cause an electrical hazard.



**WARNING: THE WIRES IN THE POWER CABLE OF THIS PRODUCT ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE:
BLUE = NEUTRAL BROWN = LIVE YELLOW AND GREEN = EARTH**

If the colours of the wires in the power cable do not agree with the markings on the plug.

- The BLUE wire must be connected to the terminal which is marked N or coloured black.
- The BROWN wire must be connected to the terminal which is marked L or coloured red.
- The YELLOW AND GREEN wire must be connected to the terminal which is marked E or  or coloured green.

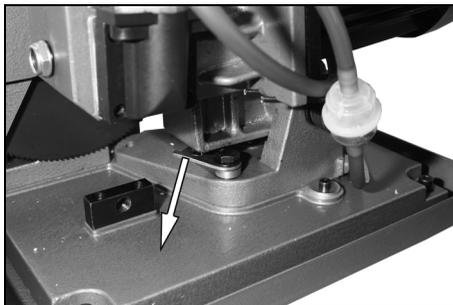


We strongly recommend that this machine is connected to the mains supply through a Residual Current Device (RCD)

If you are not sure, consult a qualified electrician. DO NOT try to do any repairs.

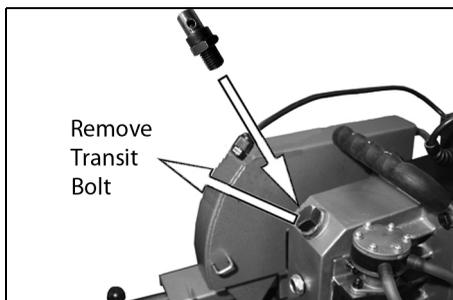
ASSEMBLY

1. Lift the tool from the box using the handle located on its upper side, check for damage which may have occurred in transit.
2. Place the saw on a flat and firm surface.
3. Free the operating head by lowering it slightly and turning the locking plate located at the machine base.



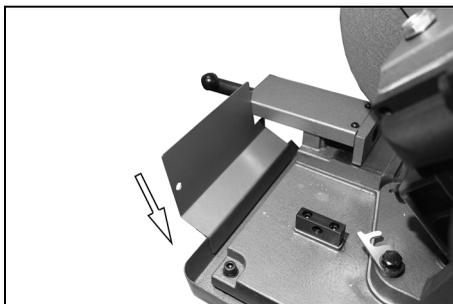
MOUNTING THE HANDGRIP

1. Remove the transit bolt from the unit and replace it with the handle mounting post supplied.
2. Remove the fixing bolt, washers and nut from the handle.
3. Slide the handle into position.
4. Insert the fixing bolt through the handle, locking it in place.
5. Replace the washers and nut to secure the handgrip.
 - Make sure that the hand grip is orientated as shown.



FIT THE SPLASH GUARD

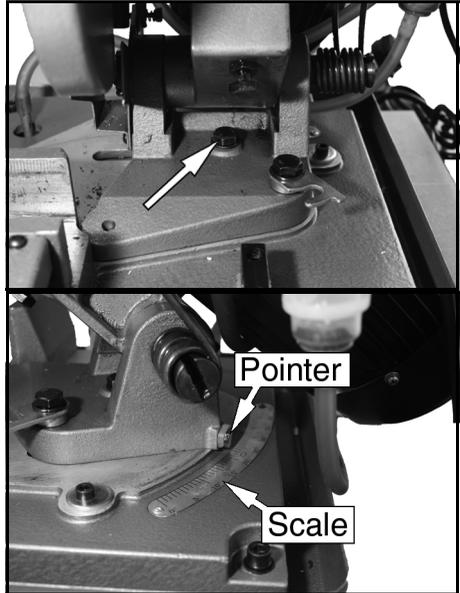
Fit the splash guard supplied to the front of the tray as shown.



BEFORE USE

SET THE CUTTING ANGLE

1. Loosen the central bolt.
2. Turn the head until the required angle is reached,
 - The pointer and scale are located at the back of the tool.
3. Tighten the central bolt.



SECURE THE WORK IN THE VICE

Before cutting, secure the work in the vice and tighten securely.



OPERATION

BEFORE STARTING WORK

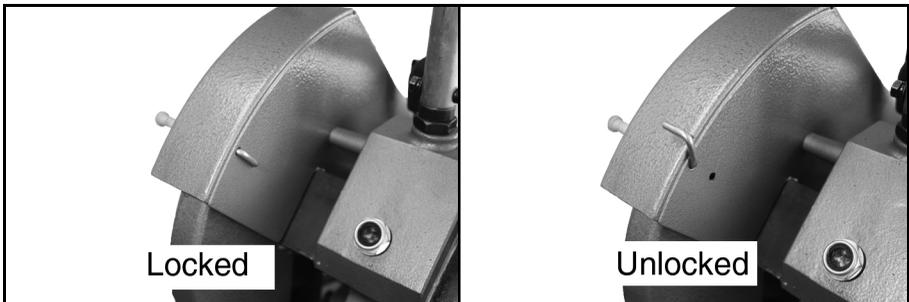
- All covers and safety devices have to be properly fitted before the machine is switched on.
- Before you switch on, make sure that the saw blade is correctly fitted and that the blade guard operates smoothly.
- Before you connect the machine to the power supply, make sure the data on the rating plate is the same as that for your mains supply.
- The machine should be operated in a well ventilated area.



WARNING: BEFORE CUTTING, MAKE SURE THAT THE WORKPIECE IS SECURED IN THE VICE.

RELEASE THE GUARD LOCK

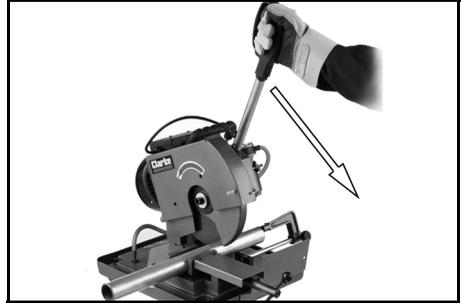
The tool is equipped with a mechanical safety pin to prevent the blade being pulled down.



- Pull the pin out and rotate it to the unlocked position before use
- Return the pin to the locked position after use.

START THE SAW

1. To start the saw, press the trigger located at the end of the handgrip.
 - Wait for the blade to reach its maximum speed before commencing with the cut.



MAKE THE CUT

1. Use the handgrip to pull the saw into the work.
 - Do not force the blade. Allow it to work at its own pace.
 - Never remove the blade guards.

SAFETY CLUTCH

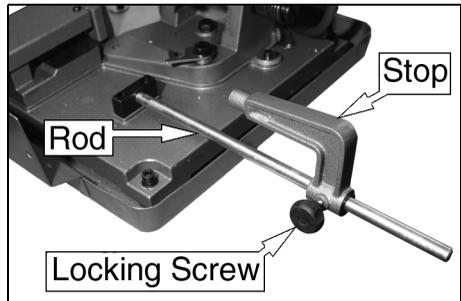
The tool is equipped with a safety clutch which protects the machine from overloading.

If you find that the clutch is activating too often you may need to tighten the blade.

USING THE STOP

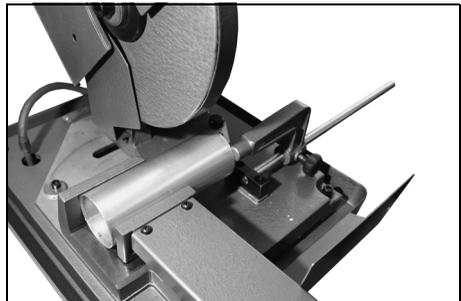
FITTING

1. Screw the rod into the position shown.
2. Loosen the locking screw on the stop and slide the stop onto the rod.
3. Tighten the locking screw to fix the stop in place.



ADJUSTMENT

1. Loosen the locking screw.
2. Move the stop to the appropriate position along the rod.
3. Tighten the locking screw.



CUTTING FLUID/LUBRICATION

To prevent the material and blade overheating during cutting, lubricate the blade using coolant poured in the tray.

The coolant is then re-circulated after passing through a purifying filter.

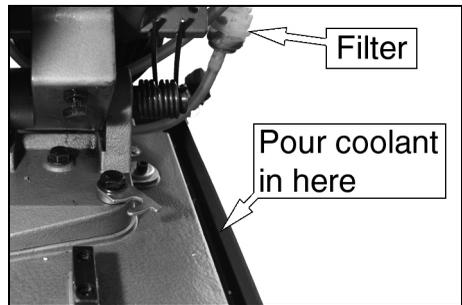
RECOMMENDED FLUID

For general cutting, it is recommended that you use Clarke Professional Metal Cutting Fluid available from your local Clarke dealer

(Part number 1 litre - 3051059, 5 litre - 3051061)

FILLING

1. Add coolant to the tray (minimum depth 10 mm).



CLEANING

We recommend that the coolant is removed when the machine is transported. The tray can then be completely emptied of any debris.

For thorough cleaning, loosen the 4 bolts on the base and remove the entire machine unit thereby freeing the tray.

COOLANT DISPOSAL

The disposal of coolants is controlled by strict regulations, do not pour coolant down drains, take it to your local recycling center for safe disposal.

MAINTENANCE



WARNING: REMOVE THE PLUG FROM THE MAINS POWER SUPPLY BEFORE CARRYING OUT ANY ADJUSTMENT. SERVICING OR MAINTENANCE

- Remove dust and dirt regularly from the machine. Cleaning is best carried out with a fine brush or a cloth.
- Never use caustic agents to clean plastic parts.
- Keep the saw unit clean.

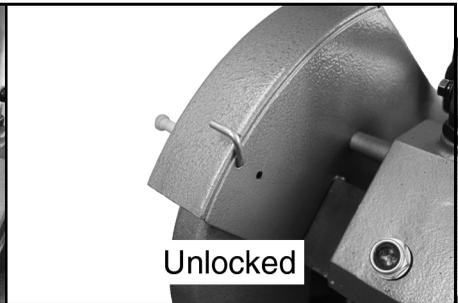
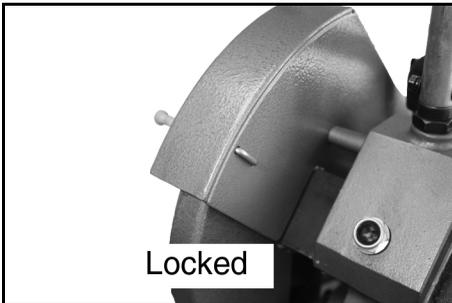
BLADE REPLACEMENT



CAUTION: WHEN MOUNTING THE BLADE, MAKE SURE THAT THE DIRECTION OF THE ARROW ON THE SURFACE OF THE BLADE MATCHES THE DIRECTION OF THE ARROW ON THE BLADE GUARD.

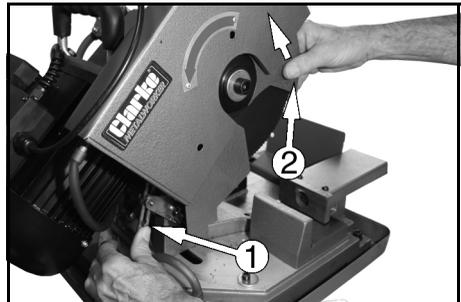
With the operating head in the raised position:

1. Release the guard lock

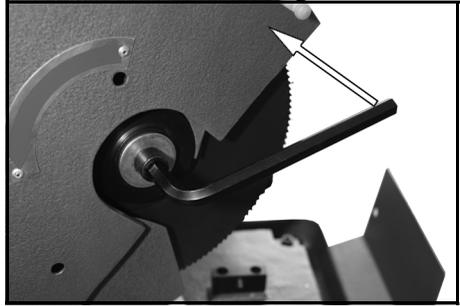


2. Press the end of the lever shown (1) and rotate the blade guard by hand towards the rear (2).

- You should now have access to the blade.
- **DO NOT REMOVE THE BLADE GUARDS.**



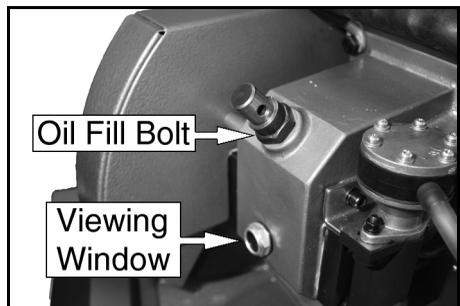
3. Use a Hexagonal key (10mm) to loosen the blade securing bolt.
4. Remove the outer blade retaining flange.
5. Remove the used blade and insert the replacement blade.
 - Make sure that the tooth inclination runs in the same direction as the arrow on the blade guard.
 - Replacement blades are available from your Clarke Dealer (Part Number 6469017)
6. Thoroughly clean the outer and inner blade flanges before fitting them (be careful to insert them accurately on the shaft).
7. Replace and tighten the blade securing bolt.
8. Slide the blade guard back into position.
9. Before plugging the saw in, lower the body and make sure the blade turns smoothly and that the blade guard works correctly.



MOTOR OIL

Regularly check the motor oil level using the viewing window.

1. Remove the handgrip.
2. Remove the oil fill bolt.
3. Pour the oil into this opening.
 - Recommended oil is Shell gear oil or Mobil gear oil No. 90.
4. Replace the oil fill bolt, and handgrip.



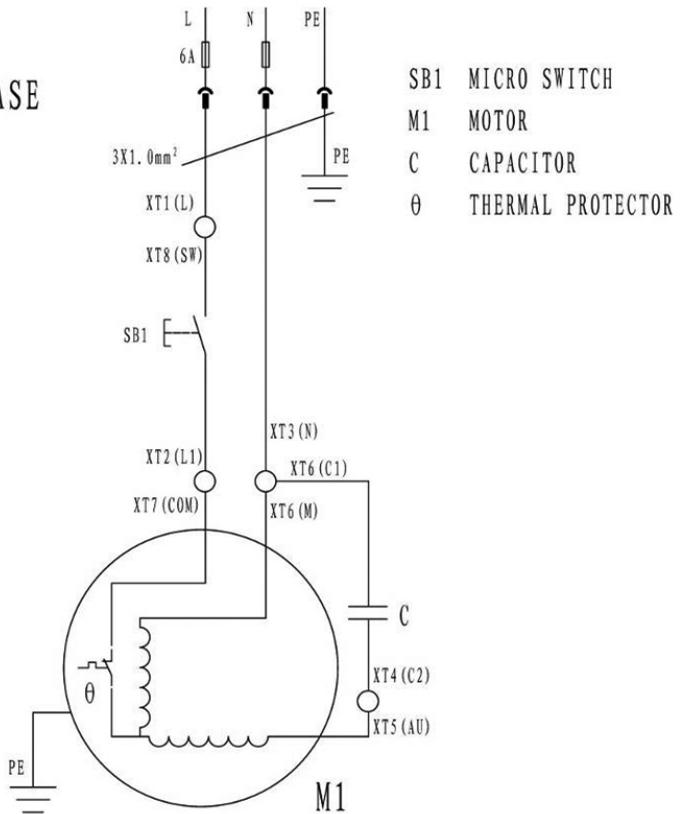
SPECIFICATIONS

Motor Voltage	230V 50Hz 1Phase
Rated Power	720W
Operating Temperature	5 to 40 °C
Blade Speed	86 rpm
Blade Diameter:	225 mm Ø
Blade Bore Diameter	32 mm Ø
Blade Thickness:	1.9 mm
Number of teeth:	150
Product Dimensions (L x W x H)	574 x 346 x 738 mm
Weight (Unpacked)	32.7 kg
Sound Pressure level: dB LpA	85 dB
Sound Power level: dB LWA	94 dB
Cutting Capacities:	
Round Hollow Section @ 0° / 45°	65 / 60 mm
Square Hollow Section @ 0° / 45°	60 / 50 mm
Rectangle Hollow Section @ 0° / 45°	70 x 55 / 60 x 40 mm
Round Solid Section @ 0° / 45°	45 / 45 mm
Square Solid Section @ 0° / 45°	40 / 40 mm
Cutting Angle Range:	0 (90 °) - 45°
Vice Size: Width x Opening	82 x 72 mm
Coolant Flow Rate:	206 ml/min

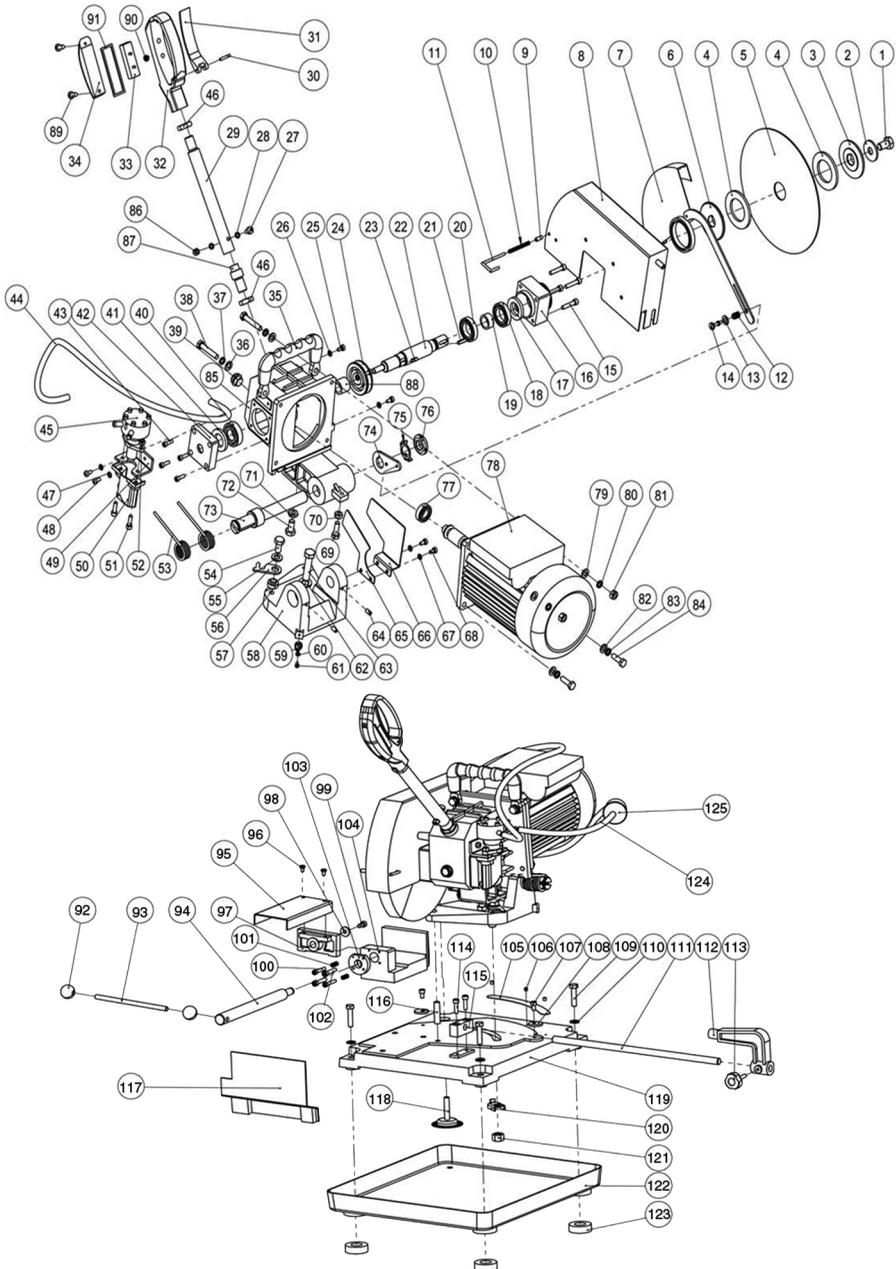
Please note that the details and specifications contained herein, are correct at the time of going to print. We reserve the right to change specifications at any time without prior notice.

ELECTRICAL DIAGRAM

SINGLE PHASE



EXPLODED DIAGRAM



No	Part Name	Part Number
1	Hex. Screw M12 x 20	EFCPMCS1001
2	Washer 12mm	EFCPMCS1002
3	Outer flange	EFCPMCS1003
4	Friction plate	EFCPMCS1004
5	Blade	EFCPMCS1005
6	Inner flange	EFCPMCS1006
7	Inner blade guide	EFCPMCS1007
8	Outer blade guide	EFCPMCS1008
9	End cap	EFCPMCS1009
10	Spring C	EFCPMCS1010
11	Locking pin	EFCPMCS1011
12	Spring A	EFCPMCS1012
13	Thin washer	EFCPMCS1013
14	Special screw	EFCPMCS1014
15	Hex. screw M6x30	EFCPMCS1015
16	Bearing seat B	EFCPMCS1016
17	Oil seal 25 x 40 x 7	EFCPMCS1017
18	Bearing 61905	EFCPMCS1018
19	Spacer bush A	EFCPMCS1019
20	Bearing 61905	EFCPMCS1020
21	Flat key 5 x 5 x 14	EFCPMCS1021
22	Shaft, blade	EFCPMCS1022
23	Flat key 5 x 5 x 20	EFCPMCS1023
24	Worm wheel	EFCPMCS1024
25	Bolt M5 x 10	EFCPMCS1025
26	Washer 5 mm	EFCPMCS1026
27	Bolt M6 x 25	EFCPMCS1027
28	Spring washer 6mm	EFCPMCS1028
29	Rod-handgrip	EFCPMCS1029
30	Straight pin 4 x 25	EFCPMCS1030
31	Trigger	EFCPMCS1031
32	Handgrip	EFCPMCS1032
33	Switch	EFCPMCS1033
34	Cover,handgrip	EFCPMCS1034
35	Handle	EFCPMCS1035
36	Washer 8 mm	EFCPMCS1036
37	Spring washer 8 mm	EFCPMCS1037
38	Hex. Screw M8 x 45	EFCPMCS1038
39	Oil window	EFCPMCS1039
40	Bearing 6004	EFCPMCS1040
41	Oil seal 20x35x7	EFCPMCS1041
42	Bearing seat A	EFCPMCS1042
43	Hex.screw M5x16	EFCPMCS1043

No	Part Name	Part Number
44	Discharge Hose,	EFCPMCS1044
45	Pump	EFCPMCS1045
46	Hex. Nut M16	EFCPMCS1046
47	Washer 5mm	EFCPMCS1047
48	Bolt M5x10	EFCPMCS1048
49	Plate, pump	EFCPMCS1049
50	Cover, pump	EFCPMCS1050
51	Hex. Screw M6 x 20	EFCPMCS1051
52	Hex. Nut M6	EFCPMCS1052
53	Torsional spring	EFCPMCS1053
54	Hex.screw M10 x 20	EFCPMCS1054
55	Corrugation pad 12mm	EFCPMCS1055
56	Coupling plate	EFCPMCS1056
57	Bush	EFCPMCS1057
58	Rotating base	EFCPMCS1058
59	Indicator	EFCPMCS1059
60	Washer 4 mm	EFCPMCS1060
61	Bolt M4 x 8	EFCPMCS1061
62	Washer 12 mm	EFCPMCS1062
63	Hex. screw M12 x 45	EFCPMCS1063
64	Hex.screw M6 x 12	EFCPMCS1064
65	Blade safety guard A	EFCPMCS1065
66	Blade safety guard B	EFCPMCS1066
67	Washer 5 mm	EFCPMCS1067
68	Bolt M5 x 10	EFCPMCS1068
69	Hex.screw M8 x 25	EFCPMCS1069
70	Hex.nut M8	EFCPMCS1070
71	Hex. Nut M10	EFCPMCS1071
72	Hex. Screw M10 x 20	EFCPMCS1072
73	Rotate shaft	EFCPMCS1073
74	Locking plate	EFCPMCS1074
75	Star washer 20 mm	EFCPMCS1075
76	Nut M20 x 1.5	EFCPMCS1076
77	Bearing 6002	EFCPMCS1077
78	Motor	EFCPMCS1078
79	Washer 8mm	EFCPMCS1079
80	Spring washer 8mm	EFCPMCS1080
81	Hex. Nut M8	EFCPMCS1081
82	Washer 8mm	EFCPMCS1082
83	Spring washer 8mm	EFCPMCS1083
84	Hex. Screw M8 x 25	EFCPMCS1084
85	Gear box	EFCPMCS1085
86	Hex. Nut M6	EFCPMCS1086

No	Part Name	Part Number
87	Seat, handgrip rod	EFCPMCS1087
88	Spacer bush B	EFCPMCS1088
89	Self tapping screw	EFCPMCS1089
90	Rubber plug	EFCPMCS1090
91	Rubber washer	EFCPMCS1091
92	End cap	EFCPMCS1092
93	Lever rod	EFCPMCS1093
94	Rod	EFCPMCS1094
95	Vice cover,	EFCPMCS1095
96	Bolt M5 x 8	EFCPMCS1096
97	Adjustable jaw	EFCPMCS1097
98	Washer 6mm	EFCPMCS1098
99	Hex.screw M6 x 12	EFCPMCS1099
100	Hex.screw M5 x 30	EFCPMCS1100
101	Spring B	EFCPMCS1101
102	Hex screw M6 x 30	EFCPMCS1102
103	Special nut	EFCPMCS1103
104	Fixed jaw.	EFCPMCS1104
105	Scale	EFCPMCS1105
106	Rivet	EFCPMCS1106
107	Hex. Screw M6 x 10	EFCPMCS1107
108	Eccentric washer	EFCPMCS1108
109	Hex.screw M8 x 35	EFCPMCS1109
110	Washer 8mm	EFCPMCS1110
111	Bar-stop-rod	EFCPMCS1111
112	Bar-stop	EFCPMCS1112
113	Handle M6 x 12	EFCPMCS1113
114	Hex.screw M6 x 20	EFCPMCS1114
115	Seat, bar-stop-rod	EFCPMCS1115
116	Straight pin 8 x 20	EFCPMCS1116
117	Block plate	EFCPMCS1117
118	Filter gauze	EFCPMCS1118
119	Base	EFCPMCS1119
120	Locking plate	EFCPMCS1120
121	Hex.nut M12	EFCPMCS1121
122	Water tank	EFCPMCS1122
123	Rubber foot	EFCPMCS1123
124	Inlet hose	EFCPMCS1124
125	Filter	EFCPMCS1125

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):

- 2006/42/EC Machinery Directive.*
- 2006/95/EC Low Voltage Equipment Directive.*
- 2011/65/EU Restriction of Hazardous substances.*

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

EN 13898:2003 +A1:2009.

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: 2013

Product Description:	Portable Metal Cutting Saw
Model number(s):	CPMCS1
Serial / batch Number:	N/A
Date of Issue:	13/01/2015

Signed:



J.A. Clarke
Director

A SELECTION FROM THE VAST RANGE OF

Clarke®

QUALITY PRODUCTS

AIR COMPRESSORS

From DIY to industrial, Plus air tools, spray guns and accessories.

GENERATORS

Prime duty or emergency standby for business, home and leisure.

POWER WASHERS

Hot and cold, electric and engine driven - we have what you need

WELDERS

Mig, Arc, Tig and Spot. From DIY to auto/industrial.

METALWORKING

Drills, grinders and saws for DIY and professional use.

WOODWORKING

Saws, sanders, lathes, mortisers and dust extraction.

HYDRAULICS

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

All sizes for car and commercial use.



PARTS & SERVICE: 0208 988 7400

E-mail: Parts@clarkeinternational.com or Service@clarkeinternational.com

SALES: UK 01992 565333 or Export 00 44 (0)1992 565335

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