

405MM CIRCULAR LOGSAW

MODEL NO: CLS405

PART NO: 3401997

ASSEMBLY & OPERATING INSTRUCTIONS



ORIGINAL INSTRUCTIONS

GC1120 - ISS 1

INTRODUCTION

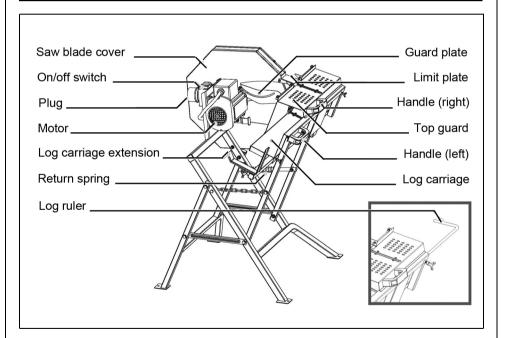
Thank you for purchasing this CLARKE Circular Log Saw.

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.

When unpacking, check for damage or shortages etc. Any found should be reported to your CLARKE dealer where the product was originally purchased.

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

OVERVIEW



SPECIFICATIONS

Model Number	CLS405
Cutting Length Min/max	250 -1000 mm
Cutting Capacity (min/max dia)	30 - 140 mm
Wood Weight Max	11 kg
Operating Voltage	230V / 50Hz
Motor Power	2200 W
IP Rating	IP54
No load blade Speed	2800 rpm
Duty Cycle	S2 / 15 minutes
Blade Diameter	405 mm
Internal Bore Diameter	30 mm
Teeth Thickness (Kerf)	3.2 mm
No of Saw Teeth	32 HW
Sound Pressure Level	101 dB LpA
Guaranteed Sound Power Level	115 dB LWA
Product Dimensions: (L x W x H)	755 x 736 x 1046 mm
Weight	36.3 kg

SAFETY WARNINGS

WORK AREA

- Keep the work area clean and well lit. Cluttered and dark areas invite accidents.
- DO NOT operate power tools in explosive atmospheres such as in the presence of flammable liquids, gasses or dust. Power tools create sparks which may ignite dust or fumes.
- Keep children and bystanders away while operating any 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.
- DO NOT expose power tools to rain or wet conditions. Any water entering power tools will increase the risk of electric shock.
- 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. Use outdoor extension leads. If working outdoors, 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.
- 5. When using a cable reel, always unwind the cable completely. We strongly recommend that this machine is connected to the mains supply via a Residual Current Device (RCD).

PERSONAL SAFETY

- 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. A moment
 of inattention may result in personal injury.
- 2. Wear personal protective equipment including eye protection. Safety equipment such as a dust mask, non-skid shoes or 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 your proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- Concentrate on the job in hand, no matter how trivial it may seem. Be aware that accidents are caused by carelessness due to familiarity.
- Avoid accidental starting of the machine. Ensure the switch is in the off
 position before plugging the machine in to the power supply. Plugging in
 power tools that are switched on invites accidents.
- Dress properly. 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 protective footwear. Keep floor clear of oil, scrap wood, etc.
- 7. Wear gloves while handling saw blades and always store them in the protective packing provided. A dust mask should be warn to reduce the inhalation of harmful dust.
- 8. Always remove and stack cut timber in a suitable place, well away from the saw operator.
- 9. Switch the machine OFF immediately after the task is completed.

POWER TOOL USE AND CARE

- DO NOT force the power tool. Use the correct accessories for your application. The power tool will do a better and safer job at the rate for which it was designed.
- 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 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 this product. Power tools are potentially dangerous in the hands of untrained users.
- 5. **Maintain power tools in top condition.** Check for misalignment or binding of moving parts, broken parts, or any condition that may affect the machine's operation. If damaged, have the machine repaired before use. Many accidents are caused by poorly maintained power tools.
- 6. Check the power tool for damage before use. Any damaged part should be inspected to ensure that it will operate properly and perform its intended function. Any damage should be properly repaired or the part replaced. If in doubt, DO NOT use the machine. Consult your local dealer.

SERVICING

 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.

PRECAUTIONS SPECIFIC TO CIRCULAR SAWS

- 1. **ALWAYS** wear ear protectors/defenders during continuous use as the noise level of this machine can exceed 85dB (A).
- 2. **ALWAYS** keep the mains cable well away from the saw and ensure an adequate electrical supply is close at hand so that the operation is not restricted by the length of the cable.
- ALWAYS use only the correct blade for this saw and ensure the blade is fully tightened before use. The blade must always be rated to operate at a rotational speed equal to, or greater than that of the machine.
- 4. Beware of foreign objects. When cutting pre-used wood, ensure all nails have been removed beforehand. Nails will damage the saw blade.
- 5. When switching off, remember that the blade will continue to rotate for a short time after the stop button has been pressed to stop the saw.
- 6. **NEVER** operate the saw without the blade guards being installed correctly.
- 7. **NEVER** start the saw when the blade is in contact with the work.
- 8. **DO NOT** use the saw if the power cable, plug or motor is in poor condition.
- 9. **ALWAYS** ensure the workpiece is held securely when cutting by placing securely in the log cradle to avoid loss of control.
- 10. **ALWAYS** hold the cradle handles with both hands to keep hands well away from the saw blade.
- 12. **DO NOT** attempt to saw very small logs including those which cannot be properly secured. Logs sizes are stated in the Specification on page 3.

CHANGING BLADES

- 1. Unplug the saw from the power supply before changing the blade and take care to prevent entrapment of the fingers between the blade and the inner guard. Ensure the blade is secure before use.
- Use the appropriate saw blade for this saw. Correct blades are available from your CLARKE dealer Part No 3401991
- ONLY use saw blades in good working condition. Discard and replace cracked or bent saw blades.
- 4. **ALWAYS** secure the blade using the wrenches supplied.

SAFETY SYMBOLS & PICTOGRAMS

Please read all of the safety and operating instructions carefully before using this product.

The following safety symbols are found on the product.

	Refer to instruction manual before use.		Never reach into the running saw blade.
	Wear eye protection		Wear a breathing mask
	Wear ear protection		Do not use in the rain
	Wear protective gloves		Keep hands away from the blade or serious per- sonnel injury could result.
	Wear safety footwear		Disconnect mains power cable prior to any repair, cleaning or maintenance.
† → ∤ †	Keep children and bystanders away		Never attempt to cut more than one log at a time.
Q	Inspect the log cutter for damage before use.	*	Avoid accidents by keeping work space tidy.

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 BS1363 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.

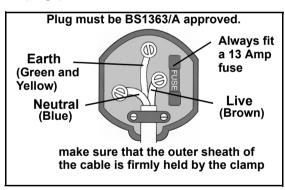


WARNING: THE WIRES IN THE POWER CABLE OF THIS PRODUCT ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE:

BLUE = NEUTRAL BROWN = LIVE YELLOW AND GREEN = EARTH.

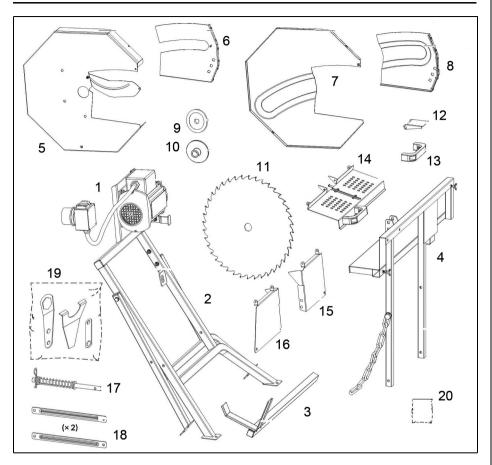
The If the colours of the wires in the power cable do not correspond with the markings on the terminals of your plug, proceed as follows.

- Connect the blue wire to the terminal which is marked N.
- Connect the brown wire to the terminal which is marked L.
- Connect the yellow and green wire to the terminal which is marked E or \(\pm\).



We strongly recommend that this machine is connected to the mains supply via a Residual Current Device (RCD). If you are not sure, consult a qualified electrician. DO NOT try to carry out any repairs yourself.

INVENTORY



1	Motor
2	Base Frame
3	Log Carriage Extension
4	Pivoting Log Carriage
5	Inner Saw Blade Cover
6	Blade Guard 2
7	Outer Saw Blade Cover
8	Blade Guard
9	Front Clamping Disc
10	Rear Saw Blade Disc

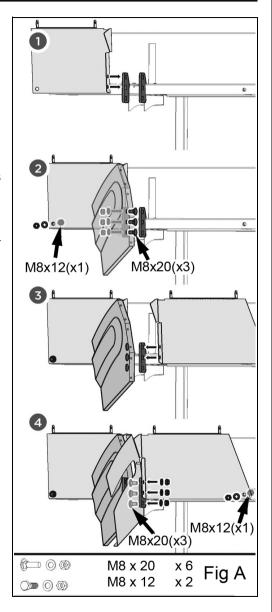
11	Saw Blade
12	Limit Plate
13	Handle
14	Top Guard
15	Back Plate 1
16	Back Plate 2
17	Guide Tube with Return Spring
18	Cross Brace
19	Blade Wrench, Face Wrench, Spanner
20	Hardware Bag
	<u> </u>

ASSEMBLY

This log saw was partially assembled at the factory. To complete your saw follow the instructions below.

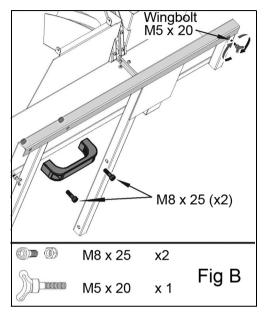
SAW BLADE GUARDS

- Place the back plate 1, against the outside of the connecting part of the log carriage and align its two holes with the upper two holes of the connecting part as Fig A, step 1.
- Fix the back plate 1 to the table with one M8 x12 bolt, flat washer and nut as Fig A, step 2.
- 3. Put the saw blade guard 1 against the inner side of the same connecting part, align the holes and bolt the saw blade guard 1, connecting part and back plate, together with three M8 x 20 bolts, washers and nuts.
- Repeat the same assembly steps on the other side for back plate 2 and saw blade guard 2 as Fig A steps 3 & 4.



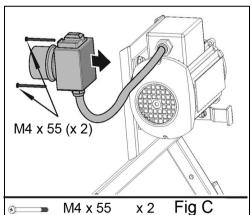
HANDLE

Attach the handle to the back of the log carriage. Secure it with two M8x25 bolts and lock nuts as Fig B. Screw the wing bolt M5 x 20 into the hole at the upper right corner.



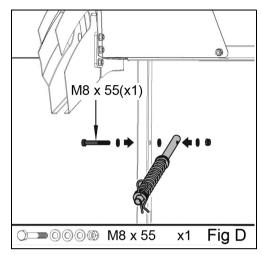
ON/OFF SWITCH

Fix the switch to the motor plate with two M4 x 55 bolts as Fig C.



RETURN SPRING

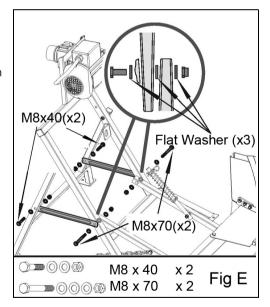
Fix one end of the guide pipe with return spring on the left leg with M8 x 55 bolts, washers and lock nut as Fig D.



CONNECTING PIVOTING LOG CARRIAGE AND BASE FRAME

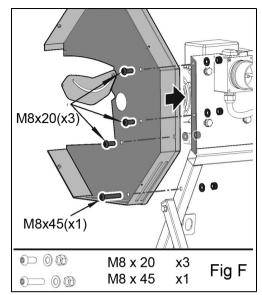
Lay the pivoting log carriage on the ground with legs inside the base frame, and put one end of the cross brace outside as shown in Fig E. Fasten them together with M8 x 40 bolts, washers and lock nuts on both sides.

Fix the other end of the cross brace from the inner side of the base frame with M8 x 70 bolts, washers and lock nuts on both sides.



INNER SAW BLADE COVER

Slide the shaft through the centre hole of the inner saw blade cover and align its other holes with those on the motor plate as Fig F. Secure it with three M8 x 20 bolts, washers and lock nuts on the upper side and one M8 x 45 bolt, washer and lock nut on the lower.



SAW BLADE

Slide the rear saw blade retaining disc onto the motor shaft. Place the saw blade together with the front retaining disc onto the shaft and touching the rear disc.

Secure it with the nut M20 as Fig G, step 1.

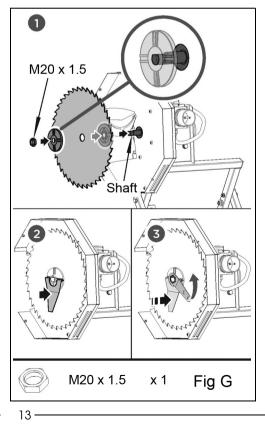
NOTE: The arrow on the blade must point in the direction of the operating side.

NOTE: The teeth must point in the direction of rotation as shown when viewed from the exposed side.

Tighten the nut using the saw blade wrench. Hold the front retaining disc with the face wrench as Fig G, steps 2 & 3.

Never use a cracked, blunt or otherwise damaged blade.

Ensure the blade is rated at least equal to the speed/performance of the machine.



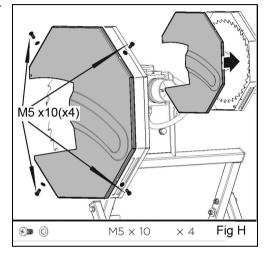
IMPORTANT: Keep the two special wrenches in a safe place.



CAUTION: INSTALLING THE BLADE THE WRONG WAY ROUND WILL RESULT IN DAMAGE TO THE BLADE. THE ARROW MUST POINT TOWARDS THE DIRECTION OF ROTATION.

OUTER SAW BLADE COVER

Tighten the outer saw blade cover to the inner cover with four M5 x 10 cross head screws and flat washers as Fig H.

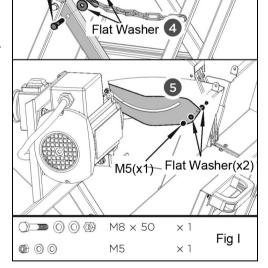


FIXING RETURN SPRING/CHAIN AND GUARD PLATE

Take the cotter pin and washer from the guiding pipe with spring as Fig I step 1. Push the log carriage to the base frame until the open end of the guiding pipe is inserted into the angle part of the base frame as Fig I step 2.

Secure the pipe with the washer and cotter pin as Fig I step 3.

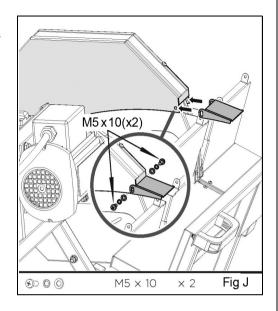
Install the guard plate of the inner saw blade cover on the saw blade guard with an M5 nut and two flat washers as Fig I step 5.



M8x50

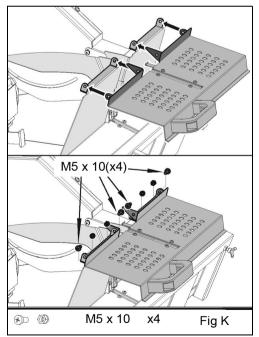
LIMIT PLATE

Mount the limit plate and fasten with two M5 x 10 screws, washers and spring washers as in Fig J.



TOP GUARD

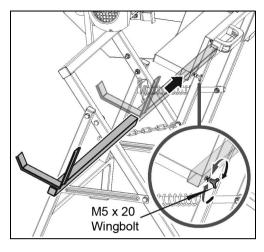
Mount the top guard with four M5 x 10 bolts and locknuts as Fig K.



LOG CARRIAGE EXTENSION

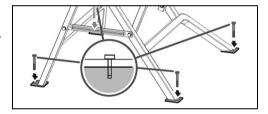
Loosen the wing bolt M5 x 20 on the back of the log carriage until the carriage extension can be inserted into the opening.

Slide the carriage extension into the channel and align it correctly. Secure it with the wing bolt.



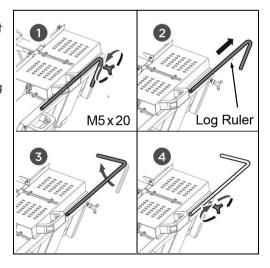
MOUNTING THE SAW TO THE FLOOR

The foot of each leg is provided with an 8mm bolt hole for fixing the log saw to a suitably level floor or platform. Choose a suitable position close to a convenient power supply and bolt or screw the stand securely in position. (fixings not supplied).



SET THE LOG RULER

Loosen the wing bolt M5 x 20 to allow the log ruler to be pulled out freely. Set the desired length on the scale. Turn it clockwise as shown in the illustration step 3, and secure by tightening the wing bolt.



OPERATION

- Check that all component parts are secure. If the log saw is not fixed to the floor, ensure that it is placed in a steady position on firm ground.
- 2. Ensure the power cable is well away from the saw and the workpiece, then plug into the mains supply.
- 3. Check that any previously used timber being sawn does not contain any nails or other metal objects which would damage the blade.
- 4. ALWAYS check that the saw guard and cradle move freely and spring back when released.
- 5. The maximum log diameter that can be cut is 140 mm/11 kg.

USING THE SAW

- 1. Turn on the motor switch
 - Once motor switch is set to ON the blade starts rotating.
- Open the top guard, place the log to the cutting position on the log carriage and close the guard. Position the log so that it will not move while cutting.
- 3. If the length of the log is greater than the length of the carriage, extend the adjustable log support carriage and set it's position to suit with the securing knob.
- 4. Grip the handle at the left side of log carriage and push it towards the saw blade cover.
 - The movable saw blade guard will open and expose the saw blade.
- Keep pushing with even pressure until the log on the log carriage is cut. Avoid putting unnecessary pressure on the blade and avoid applying lateral pressure. Let the blade work naturally.
- Stop pushing and the log carriage will retract to its original position. Move the rest of log to the cutting position and continue next cycle until the work is accomplished.
- Regardless of the diameter of the wood, only one piece should be placed on the carriage for cutting at anyone time. Do not attempt to saw multiple pieces of timber at once.
- 8. If logs of equal length are required, set the log stop bar to the required distance using the ruler. Measure this against the scale on the carriage and lock in position with the wing bolt provided.

- 9. ALWAYS control the carriage, keeping both hands on the handles provided. When pushing the logs into the saw, take care that the motor speed does not drop.
- 10. To stop the saw press the OFF switch. Always switch off before unplugging and never leave the saw running unattended.
- 11. NEVER try to re-start the saw if the blade becomes jammed in the log. Switch off and release the jammed log first.

MAINTENANCE

- 1. ALWAYS inspect the saw before use and ensure it is in top condition.
- 2. Ensure that the guard can spring freely back to its closed position and clean out any debris lodged behind it.
- 3. Check the power cable to ensure it is sound and free from cracks, bare wires etc.
- 4. After use, clean all dust and wood chippings from the saw and its hinged parts and guards.
- Ensure motor air vents are clear of debris, (use compressed air to clean the machine if possible). If using compressed air always wear goggles and a dust mask.
- 6. For any problems requiring the dismantling and overhaul of the saw, contact your CLARKE International Service Department on 020-8988-7400.

STORAGE

1. Store in a clean, dry environment protected from the weather and away from children and untrained users.

CHANGING THE SAW BLADE

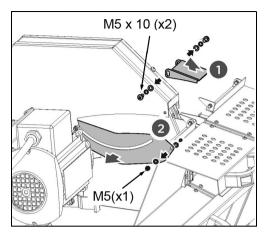


CAUTION: ONLY USE SAW BLADES WITH THE CORRECT FITTING AS SUPPLIED. ALWAYS ENSURE THE SAW IS DISCONNECTED FROM THE POWER SUPPLY BEFORE INSTALLING/REMOVING THE BLADE.

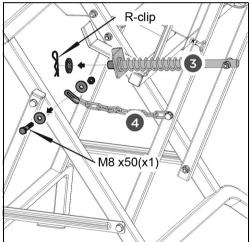
1. Ensure the saw is disconnected from the power supply. Take care that the saw blade has cooled down before touching if it has just been in use.

SAW BLADE CHANGE

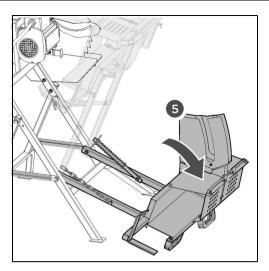
 Remove the limit plate by unfastening the M5 x 10 screws and washers.



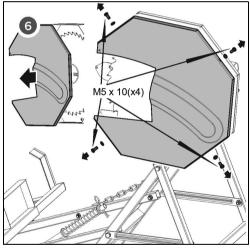
- 3. Support the carriage and pull the cotter pin and washer from the return guide tube.
- Remove the M8 x 50 bolt, washers and nut securing the chain.



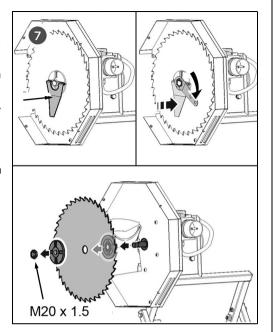
5. Lower the log carriage towards the ground.



6. Remove the four M5 x 10 screws and washers from the blade guard and from the outer blade cover.



- Use the blade locking wrench to prevent the blade from turning and remove the blade retaining nut using the open wrench provided. as shown on page 14.
- Remove the washer and outer retaining disc and remove the blade while deflecting the inner guard by hand. Brush away any dust and debris from the spindle before fitting the new blade.
- Replace all components in reverse order





CAUTION: INSTALLING THE BLADE THE WRONG WAY ROUND WILL RESULT IN DAMAGE TO THE BLADE.

SHARPENING THE BLADE

The saw blade can be sharpened several times without removing it from the machine. Use a fine cut square bladed file of 8-12" for sharpening.

When sharpening manually, only file the front rake of each tooth over a distance of about 5-7mm.

ALWAYS keep the original shape of the tooth. Take care not to make sharp notches at the root of the tooth with your file.

Check the blade carefully for cracks

NOTE: Replacement blades are available from your CLARKE dealer as Part No 3401991.

FAULT FINDING

Problem	Cause	Solution
Machine will not operate.	No power supply.	Check supply and rectify.
	Switch is faulty.	Consult your CLARKE dealer.
	Fuse in plug has blown.	Check and replace.
	Motor is faulty.	Consult your CLARKE dealer.
Motor becomes hot.	Unduly heavy use.	Reduce the force applied to the saw. Let the machine do the work.
	Air vents have become blocked.	Clean out 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 and is fully unwound.
Heavy internal sparking.	Motor fault such as worn brushes.	Return to your CLARKE dealer for repair.
Excessive vibration	Blade not mounted correctly.	Check seating of blade and securing discs, and tightness of retaining nut.
	Saw motor bearings worn.	Return to your CLARKE dealer for repair.
Burns showing on the cut timber.	Incorrect or blunt saw blade.	Replace blade with the correct CLARKE replacement. Check and tighten blade as necessary.

PARTS LIST

No	Description
1	Screw M5 x 10
2	Washer 5mm
3	Flat washer 5mm
4	Inner saw blade cover
5	Outer saw blade cover
6	Switch
7	Motor
8	Rear Retaining disc
9	Saw blade
10	Nut M20 x 1.5
11	Front retaining disc
12	Screw st 4.2 x 9.5
13	Plastic wearstrip
14	Locknut M5
15	Blade guard 1
16	Plastic bar 1
17	Plastic bar 2
18	Back plate 1
19	Bolt M8 x 12
20	Wing screw M5 x 20
21	Screw M8 x 25
22	Handle
23	Pivoting log carriage
24	Log ruler
25	Log carriage extension
26	Plug for 25mm section
27	Bolt M8 x 20
28	Washer 8 mm
29	Locknut M8

No	Description
30	Saw blade guard 2
31	Bolt M8 x 55
32	Flat washer
33	Return spring
34	Bolt M8 x 70
35	Base frame 2
36	Cross brace
37	Locking chain
38	Cotter pin 3mm
39	Bolt M8 x 40
40	Plug for 30mm section
41	Bolt M8 x 50
42	Bolt M8 x 30
43	n/a
44	Top guard
45	n/a
46	n/a
47	Back plate 2
48	Screw M4 x 55
49	Base frame
50	Guard plate
51	Screw M8 x 20
52	Screw M5 x 20
53	Closing plate
54	Guide tube
55	Screw M8 x 45
56	Wing screw M5 x 12
57	Bolt M8 x 45

COMPONENT PARTS 19 8 25 -

Parts & Service: 020 8988 7400 / E-mail: Parts@clarkeinternational.com or Service@clarkeinternational.com

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.

If disposing of this product or any damaged components, do not dispose of with general waste. This product contains valuable raw materials. Metal products should be taken to your local civic amenity site for recycling of metal products.

DECLARATION OF CONFORMITY





Hemnall 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):

2014/30/EU

Electromagnetic Compatibility Directive.

2006/42/EC

Machinery Directive.

2011/65/EU

Restriction of Hazardous Substances, (amended by 2015/863).

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

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

EN 60204-1:2018, EN 1870-6:2017.

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: 2020

Product Description:

405mm Circular Log Saw

Model number(s):

CLS405

Serial / batch Number:

N/A

Date of Issue:

24/08/2020

Signed:

J.A. Clarke

Director

CLS405 Circular Log Saw 405mm (18-0479) D O C (rev0)No20-0075

Page 1 of 1

A SELECTION FROM THE VAST RANGE OF





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

HYDRAULICS

WATER PUMPS Submersible, electric and engine driven

for DIY, agriculture and industry. **POWERTOOLS**

Angle grinders, cordless drill sets,

saws and sanders. STARTERS/CHARGERS All sizes for car and commercial use.

988 7400

Parts Enquiries Parts@clarkeinternational.com

Servicing & Technical Enquiries Service@clarkeinternational.com

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

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