

# ELANKE®

## CONTRACTOR®



## **ELECTRIC SANDER**

### **MODEL No. CON300**

Part No. 6462052

## **OPERATING & MAINTENANCE INSTRUCTIONS**



LS0610



Thank you for purchasing this CLARKE Sander.

Before attempting to use the sander, 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 sander 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.

## PACK CONTENTS

- CON300 Electric sander
- 3 x 120 Grit Sanding Sheets
- 4 x 60 Grit Sanding Sheets
- 3 x 240 Grit Sanding Sheets

## SPECIFICATIONS

Model .....	CON300
Part No .....	6462052
Electrical Supply .....	230V 50Hz 1 ph
Wattage .....	330 W
No Load Speed .....	6000 - 11000 Orbits per minutes
Sanding pad size .....	230 mm x 115 mm
Weight (unpacked) .....	2.62 kg
Dimensions .....	340 x 120 x 195 mm
Sound Pressure Level $L_{PA}$ .....	84.5 dB(A)
Sound Power Level $L_{WA}$ .....	95.5 dB(A)

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.

# 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 sanding 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 so that you will not be working in your own shadow.
8. **ALWAYS** keep children away. All visitors should be kept a safe distance from the work area, especially whilst operating the machine.
9. **ALWAYS** maintain machine in top condition. Keep tools/machines clean for the best and safest performance, follow maintenance instructions.
10. **ALWAYS** handle with extreme care do not carry the tool/machine by its' electric cable, or yank the cable to disconnect it from the power supply .
11. **ALWAYS** ensure the switch is off before plugging in to mains. Avoid accidental starting.
12. **ALWAYS** concentrate on the job in hand, no matter how trivial it may seem. Be aware that accidents are often 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.
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 environment.

## ADDITIONAL PRECAUTIONS FOR ORBITAL SANDERS

1. Always wear ear protectors/defenders, as the noise level of this machine can exceed 85dB (A).
2. Do not use the machine if the electric cable, plug or the motor, is in poor condition.
3. Keep the mains cable well away from the sander, and ensure an adequate electrical supply is close at hand so that the operation is not restricted by the length of the cable.
4. Switch the machine OFF immediately the task is completed.
5. Never allow the ventilation slots in the machine to become blocked.
6. Always use the appropriate sanding medium for the material being worked. Both metal and wood sanding sheets of various grades are available from all good hardware stores.
7. Do not attempt any electrical repair yourself. Consult a qualified electrician, or our Service Department on **020 8988 7400**

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

## DUST EXTRACTION

The sander is provided with a dust extraction facility. Please note however, that this does not preclude the user from wearing a face mask to prevent the inhalation of dust particles.

It is an EEC requirement that a dust extraction facility be provided on power tools, however, due to the nature of the tool, some of the dust produced will be forced into the surrounding atmosphere, and will not be collected.

# 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.



*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.

# PREPARATION



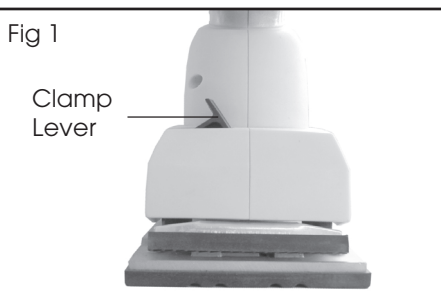
## WARNING!

Disconnect the plug from the power source before fitting/changing the sandpaper.

## FITTING THE SANDPAPER

To fit the sandpaper, proceed as follows:

1. Lift the clamp lever, see figure 1.
2. Insert the end of the sandpaper and push the clamp lever down.
3. Fold the sandpaper around the vibrating plate, ensuring the holes on the sandpaper are aligned with the holes on the vibrating plate, see figure 2.
4. Insert and clamp the other end of the sandpaper to the other end of the sander.



## WARNING!

When using the orbital sander, certain materials will generate harmful or toxic dusts and grit. Contact with or inhalation of these dusts can endanger the health of the operator and bystanders, see general safety rules for appropriate personal protective equipment.

## OPERATION

1. Connect the plug to the mains supply socket and switch on.
2. Hold the sander firmly with both hands.

### OPERATING THE TRIGGER SWITCH



#### **WARNING!**

**Never start the sander when it is in contact with the work piece.**

1. Hold the sander in mid air and squeeze the trigger, the sander will start.
2. Release the trigger to stop the sander.
3. If continuous operation is required, squeeze the trigger, and depress the lock-on button and release the trigger.
4. To stop the sander, squeeze the trigger to release the lock-on button, then release the trigger.



#### **WARNING!**

**After Use, ensure that the sander has stopped before putting the tool down.**



# OPERATION

## USING THE SANDER

1. Make sure that there are no nails or other objects in the area to be sanded.
2. Let the sander reach full speed before applying it to the work surface.
3. Do not apply pressure to the sander during use. The weight of the sander alone is sufficient for normal use.
4. Move the sander evenly over the work area. Do not allow the sander to stay in one place for too long.
5. Replace worn sanding sheets. The performance of your sander is dependant on the quality of the sanding sheets being used. Replacement sanding sheets are available from your CLARKE dealer (see page 13).
6. Remove the sander from the work area before releasing the trigger.

## SANDING HINTS

- Always use both hands to hold the sander
- Clamp the workpiece for added stability and safety.

Fig 4

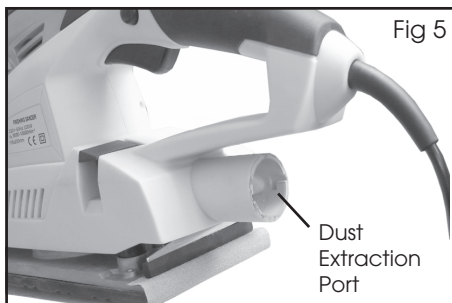


## DUST EXTRACTION PORT

You can connect a vacuum cleaner directly to the dust extraction port.

- The extraction port has an internal diameter of 30mm and an external diameter of 37mm

Fig 5



## MAINTENANCE



### **WARNING!**

**Make sure that the sander is switched off and disconnected from the mains supply before starting any cleaning or maintenance procedures.**

- Keep the cooling vents clear.
- Clean the housing with a soft cloth.
- Any worn or damaged parts should be replaced by qualified personnel.
- Keep the handles clean and free from oil and grease.
- There are no user serviceable parts inside this sander.

## TROUBLE SHOOTING

### **SANDER IS OVERHEATING**

- Clean the ventilation holes, and blow out with compressed air or clean with a dry cloth.
- Overloading the machine could cause overheating. Do not apply excessive pressure.

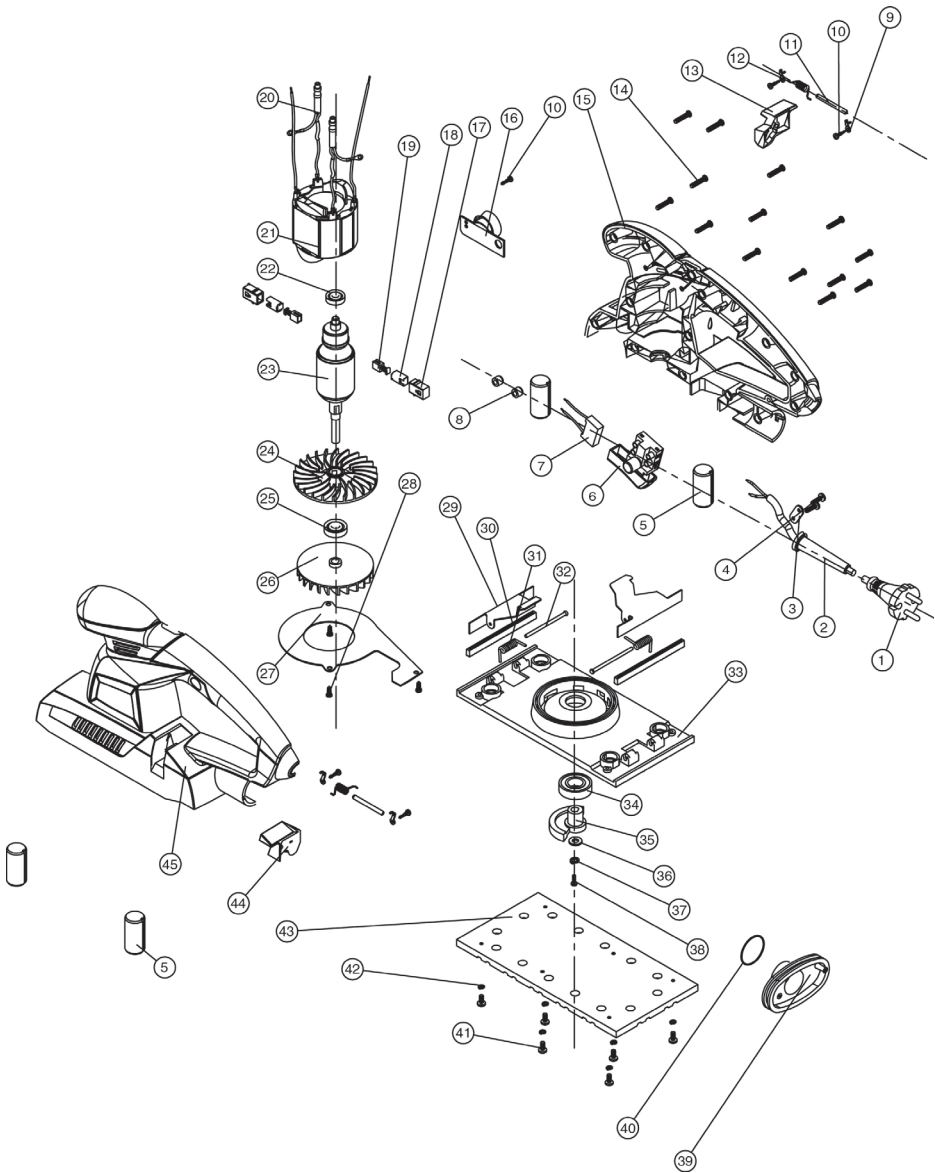
### **SANDER DOES NOT OPERATE WHEN SWITCHED ON**

- Check to make sure that the fuse has not blown, if it has, replace the fuse. If the fuse blows repeatedly, consult your CLARKE dealer.
- If the fuse is OK and the machine still does not work, consult your CLARKE dealer.

### **THE DUST IS NOT EXTRACTED**

- Dust extractor port is blocked.

# PARTS DIAGRAM



## PARTS LIST

Item	Part Number	Description	Qty	Available as a Spare part	Item	Part Number	Description	Qty	Available as a Spare part
1	KP160202	Mains Lead	1	Yes	24	KP314028	Motor Fan	1	No
2	KP322006	Cord Guard	1	Yes	25	KP520023	Roller Bearing 629Z	1	No
3	KP315000	Cord Clamp	1	Yes	26	KP314004	Dust Fan	1	No
4	KP500201	Tapping Screw ST3.9 x 14	2	No	27	KP224318	Air Way Cover	1	No
5	KP323504	Support Bar	4	No	28	KP500206	Tapping Screw ST3.9 x 9	3	No
6	KP163647	Switch	1	Yes	29	KP223401	Paper Clamp	2	Yes
7	KP161500	Capacitor	1	No	30	KP321004	Paper Clamp Foot	2	No
8	KP321000	Rubber Cap	2	No	31	KP241002	Spring	2	No
9	KP224316	Clamp Plate	4	No	32	KP215006	Pin	2	No
10	KP500000	Tapping Screw ST2.9 x 9	5	No	33	KP235000	Base Plate	1	Yes
11	KP215064	Pin	2	No	34	KP520039	Roller Bearing 6002Z	1	No
12	KP241003	Spring	2	No	35	KP234800	Counterbalance	1	No
13	KP312862	Paper Clamp Lever 1	1	Yes	36	KP503002	Plain Washer	1	No
14	KP500200	Tapping Screw ST3.9 x 19	14	No	37	KP504004	Spring Washer	1	No
15	KP300035	Housing 2	1	Yes	38	KP501505	Screw M5x16	1	No
16	KP162821	PCB	1	No	39	KP315839	Dust Port	1	No
17	KP314500	Brush Holder	2	No	40	KP320002	O Ring	1	No
18	KP222800	Brush Holder Support	2	No	41	KP500810	Screw M4x10	6	No
19	KP162400	Carbon Brush Assembly	2	No	42	KP504003	Spring Washer	6	No
20	KP161703	Inductor	1	No	43	KP341004	Pad	1	Yes
21	KP110048	Stator	1	No	44	KP312863	Paper Clamp Lever 2	1	Yes
22	KP520012	Roller Bearing 607Z	1	No	45	KP300035	Housing 1	1	Yes
23	KP100048	Rotor	1	No					

## ACCESSORIES

Accessories are available from your nearest CLARKE dealer, or via the CLARKE International Sales department on 01992 565 300.

## REPLACEMENT SANDING SHEETS

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

Type	Part Number
Replacement sanding sheets #60 (10pk)	6462096
Replacement sanding sheets #120 (10pk)	6462098
Replacement sanding sheets, #240 (10pk)	6462099

# DECLARATION OF CONFORMITY



# Clarke<sup>®</sup> INTERNATIONAL

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):

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 55014-1:2006, EN 55015-2:1997+A1, EN 61000-3-2:2006, EN61000-3-3:1995+A1+A2,  
EN 60745-1:2009, EN 60745-2-4:2009.

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: 2005

**Product Description:** Orbital Sander (½ Sheet)  
**Model number(s):** CON300  
**Serial / batch Number:** N/A  
**Date of Issue:** 15/06/2010

Signed:



J.A. Clarke  
Director

CON300 D O C (rv1)

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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.

# 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.

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  $2.5 \text{ m/s}^2$  are considered hazardous when used for prolonged periods. A tool with a vibration value of  $2.8 \text{ m/s}^2$  may be used for up to 8 hours (cumulative) per day, whereas a tool with a value of  $11.2 \text{ m/s}^2$  may be used for ½ hour per day only.

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



## VIBRATION EMISSIONS

The uncertainty factor should also be taken into account when assessing a risk. The two figures ' $\alpha$ ' 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 above 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.

Declared vibration emission value in accordance with EN12096

Measured vibration emission value -  $\alpha$ :  $< 2.5 \text{ m/s}^2$

Values determined according to EN28622-1

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