BELT & DISC SANDER
MODEL No. CS6-9C
Part No. 6500420

OPERATING & MAINTENANCE
INSTRUCTIONS
DECLARATION OF CONFORMITY

We declare that this product complies to the following standards/directives:

■ 73/23/EEC
■ EN 60 335
■ 89/336 EEC

Product Description: BELT & DISC Sander
Model Number: CS6-9C
Serial (Batch) No: See Product Data Plate

Signed

Clarke INTERNATIONAL
Romnall Street, Epping, Essex CM16 4LG

DOC No. 2001/10 Clarke International is a trading style of Clarke International Limited
Thank you for purchasing this CLARKE Belt and Disc Sander, which is designed for workshop use and comprises a 9” dia. sanding disc and a 6” wide sanding belt. This machine is designed for sanding WOOD ONLY. DO NOT USE for sanding asbestos, or materials containing asbestos, painted surfaces, or materials which produce toxic dust. Do not use for sanding magnesium as this produces a highly flammable dust.

Before attempting to operate this machine, please read this instruction manual thoroughly and follow all directions carefully. By doing so you will ensure the safety of both yourself and others around you, and at the same time, you should look forward to long trouble free service from your Sander.

**GUARANTEE**

This product is guaranteed against faults in manufacture for 12 months from purchase date. Keep your receipt as proof of purchase.

This guarantee is invalid if the product has been found to have been abused in any way, or not used for the purpose for which it was intended, or to have been tampered with in any way. The reason for return must be clearly stated.

This guarantee does not affect your statutory rights.

**CONTENTS**

| Guarantee | 3 |
| Parts & Service Contacts | 3 |
| General Safety Rules | 4 |
| Special Safety Rules for Belt Sanders | 4 |
| Electrical Connections, Fuse Rating | 5 |
| Pre-Assembly Check | 6 |
| Assembly | 7 |
| Checks Before Use | 6 |
| Fitting the Table | 8 |
| Methods of Use | 9 |
| Dust Extraction | 11 |
| Maintenance | 12 |
| Accessories | 13 |
| Specifications | 13 |
| Parts List and Diagram | 14-15 |

**PARTS & SERVICE**

Please contact your dealer, or CLARKE International, on one of the following numbers.

**PARTS & SERVICE TEL:** 020 8988 7400
**PARTS & SERVICE FAX:** 020 8558 3622

or e-mail as follows:

PARTS: Parts@clarkeinternational.com
SERVICE: Service@clarkeinternational.com
GENERAL SAFETY RULES

1. ALWAYS KEEP GUARDS IN PLACE and check they are not damaged.
2. ALWAYS REMOVE ADJUSTING KEYS AND WRENCHES. Make a habit of checking to see that all adjusting keys and wrenches are removed from machine before turning it on.
3. ALWAYS KEEP WORK AREA CLEAN. Cluttered areas and work benches invite accidents.
4. ALWAYS KEEP CHILDREN AWAY. All visitors, but in particular children, should be kept at a safe distance away from the work area.
5. ALWAYS MAKE YOUR WORKSHOP CHILDPROOF with padlocks, master switches, or by removing starter keys.
6. ALWAYS WEAR THE PROPER APPAREL. No loose clothing, gloves, neckties, rings, bracelets, or any other jewellery which might get caught in moving parts. Non-slip footwear is recommended. Long hair should be contained.
7. ALWAYS USE SAFETY GLASSES. Everyday glasses only have impact resistant lenses, they are not safety glasses. Also use a face mask if a lot of dust is generated.
8. ALWAYS KEEP A FIRM FOOTING and proper balance at all times; do not overreach.
9. ALWAYS DISCONNECT FROM THE MAINS before attempting any kind of service work or adjustment or when changing accessories such as grinding wheels.
10. ALWAYS MAINTAIN TOOLS WITH CARE. Keep tools sharp and clean for best and safest performance.
11. ALWAYS make sure switch is in the OFF position before plugging in order to reduce the risk of unintentional starting.
12. ALWAYS CHECK FOR DAMAGED PARTS. Before using the machine, check parts for signs of damage, and ensure they are secure. If a component suffers slight damage, (eg. a distorted guard or bracket), make sure it will perform its intended function properly before switching on. If in doubt, do not use the machine. ALWAYS be prepared to SWITCH OFF IMMEDIATELY, if you experience unusual noises, or excessive vibration. Do not use the machine until the fault is fully rectified.
13. NEVER FORCE YOUR Sander. It will do a better and safer job if used at the rate for which it was designed.
14. NEVER USE IN A DANGEROUS ENVIRONMENT. Do not use any power tools in damp or wet areas, or expose them to rain. Keep work area well lit.

ADDITIONAL SAFETY RULES FOR SANDERS

1. ALWAYS wear eye protection.
2. ALWAYS use the backstop or table to support the workpiece.
3. ALWAYS check to ensure the table and sanding belt arm and attachments are secure before starting.
4. ALWAYS maintain a clearance of 2mm between table and sanding belt or disc.
5. ALWAYS hold the workpiece firmly so that it cannot be ripped from your hands.
6. ALWAYS feed the workpiece against the direction of rotation of the disc or belt.
7. ALWAYS KEEP WORK AREA CLEAN. Cluttered areas and work benches invite accidents.
8. ALWAYS KEEP CHILDREN AWAY. All visitors, but in particular children, should be kept at a safe distance away from the work area.
9. ALWAYS CHECK FOR DAMAGED PARTS. Before using the machine, check parts for signs of damage, and ensure they are secure. If a component suffers slight damage, (eg. a distorted guard or bracket), make sure it will perform its intended function properly before switching on. If in doubt, do not use the machine. ALWAYS be prepared to SWITCH OFF IMMEDIATELY, if you experience unusual noises, or excessive vibration. Do not use the machine until the fault is fully rectified.
10. ALWAYS MAINTAIN TOOLS WITH CARE. Keep tools sharp and clean for best and safest performance.
11. ALWAYS DISCONNECT FROM THE MAINS before attempting any kind of service work or adjustment or when changing accessories such as grinding wheels.

ACCESSORIES

Replacement Discs and Belts are available in packs of 5 from your local dealer. Please quote the part numbers below.

A. 6” Replacement Belts (150 x 1219mm)

<table>
<thead>
<tr>
<th>Grit size</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fine</td>
<td>6502098</td>
</tr>
<tr>
<td>Medium</td>
<td>6501164</td>
</tr>
<tr>
<td>Coarse</td>
<td>6502103</td>
</tr>
</tbody>
</table>

B. 9” Replacement Discs (230mm)

<table>
<thead>
<tr>
<th>Grit size</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fine</td>
<td>6502099</td>
</tr>
<tr>
<td>Medium</td>
<td>6501076</td>
</tr>
<tr>
<td>Coarse</td>
<td>6502100</td>
</tr>
</tbody>
</table>

SPECIFICATIONS

Motor ........................................... 230V 50Hz 1Ph
Power Rating ................................... 750W (1HP)
Speed ........................................... 2850RPM
Input Current .................................. 4Amps
Fuse Rating .................................... 13Amps
Belt Speed .................................... 5.6 M/s
Belt Size ....................................... 150 x 1219mm (6x48in)
Disc Speed ..................................... 1400RPM
Disc Size ....................................... 230mm (9in)
Gross Weight .................................. 51.5kg
Model No. ...................................... CS6-9C
Part No. ........................................ 6500420

WARNING! Use ONLY for sanding WOOD. DO NOT DO NOT USE for sanding asbestos, or materials containing asbestos, painted surfaces, or materials which produce toxic dust. Do not use for sanding magnesium as this produces a highly flammable dust.
MAINTENANCE

CAUTION: Before carrying out any maintenance or servicing, ALWAYS ensure the plug is disconnected from the mains supply.

A. Changing the Belt

1. Raise the table and secure in the vertical position.

2. Remove the lower Belt Cover by slackening the four securing screws (two of which are shown in fig. 11 - two others are on the opposite side of the belt), sufficiently for the cover to be slipped off.

3. Remove the screw securing the dust extraction outlet to the left hand (or rear) mounting.

4. Slide the Belt Tension Lever fully FORWARD. (As the Belt Arm is vertical, this would be - UPWARDS).

The belt may now be slipped off and replaced by a new one.

5. Tension the belt by sliding the tensioning lever backwards (downwards), then replace the belt cover.

6. Proceed to check belt tracking, as described on page 7

B. Changing the Disc

1. Remove the disc side cover as shown in fig. 12, then peel off the disc.

2. Clean any excess adhesive from the face of the disc, if any, and replace with a new disc, ensuring it is firmly attached.

3. When satisfied, replace cover.

ELECTRICAL CONNECTIONS

Connect the mains lead to a standard, 230 volt (50Hz) electrical supply through a fused good quality 13 amp BS 1363 plug, or a suitable fused isolator switch.

WARNING: THIS APPLIANCE MUST BE EARTHED

IMPORTANT: The wires in the mains lead are coloured in accordance with the following code:

Green & Yellow - Earth
Blue - Neutral
Brown - Live

As the colours of the flexible cord of this appliance may not correspond with the coloured markings identifying terminals in your plug, proceed as follows:

- Connect GREEN & YELLOW cord to terminal marked with a letter “E” or Earth symbol “ ” or coloured GREEN or GREEN & YELLOW.
- Connect BROWN cord to terminal marked letter “L” or coloured RED.
- Connect BLUE cord to terminal marked letter “N” or coloured BLACK.

We strongly recommend that this unit is fitted with a Residual Current Device (RCD).

FUSE RATING

The fuse in the plug for this appliance must be rated at 13 amps and any replacement must be ASTA approved to BS1362.

IMPORTANT NOTICE

If this appliance is fitted with a plug which is moulded on to the electric cable (i.e. non rewirable) please note:

1. This 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 in 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 dealer, or an electrical stockist.

5. The fuse in the plug must be 13Amps.
PRE-ASSEMBLY CHECK

Unpack the carton and lay out the components and loose items. Check against the list below to ensure that all parts are present. If any damage has occurred during transit, please contact your Clarke dealer immediately.

1. Main Body complete
2. Table Assembly complete
3. Leg Assembly, comprising 8 parts
4. Mitre Gauge Assembly
5. Leg Assembly Fixing Screws, comprising
   - 20 x M8 Coach Bolts
   - 20 8Ø Plain Washers
   - 4 x M6 Screws
   - 4 X 6Ø Plain Washers
   - 4 x 6Ø Spring Washers
6. Table Support Bar
7. 2 x Hex Wrenches

Curves may be sanded as shown in fig. 9A

...or the belt used in the vertical position as shown in Fig. 9B.
NOTE: The work stop has been removed.

DUST EXTRACTION

Provision is made for forced dust extraction on both the disc AND belt. The dust extraction outlets are shown in fig. 10 and have an outside diameter of 56mm (2\(\frac{1}{4}\)in).

Connect a suitable hose to a vacuum cleaner via a reducer, or Dust Extraction device (see your Clarke dealer).
ASSEMBLY

1. Assemble the stand in the manner shown in fig. 2. The four top panels are secured with a single bolt, with flat washer, in each corner, and the legs are then bolted on, followed by the leg braces. Do not tighten the nuts until all bolts are in place and the stand is rocked vigorously to ensure it is stable. When satisfied, tighten securely.

2. WITH ASSISTANCE, considering its weight, raise the machine and place it on top of the stand. Manoeuvre it so that the bolt holes, viewed from below, line up. Enter the M6 screws fitted with flat and lock washers and tighten securely.

NOTE: Except for the table, your Sander is now fully assembled. The location of the Table will depend upon the job in hand, i.e. either adjacent to the disc or the belt. Table fitting and adjustments are described on pages 8 and 9. The machine is fitted with a Sanding Disc and Sanding Belt at the factory. Before using the machine, the following pre-checks MUST be carried out.

CHECKS BEFORE USE

As with all machinery, it is important to ensure that the various components are properly secure and in good order before use.

The machine is designed so that when switched ON, both the belt AND the disc will rotate. It is also important therefore, to ensure that the belt runs true on the rollers, referred to as ‘Tracking’. Although the necessary adjustments have been carried out at the factory, it is nevertheless prudent to perform this check when first setting up your machine, in the event it has been disturbed during transit.

Belt Tracking Check

The rollers must run parallel, otherwise the belt will be driven off to one side. To perform this check, ideally the belt should be in the vertical position, as this position provides greater safety for the operator.

To raise the belt to its vertical position, slacken off the two securing screws, one of which is shown in fig. 3, the other is diametrically opposed. Then raise the arm, and retighten the two screws.

Fig. 8A shows the table being used in conjunction with the Mitre Gauge.

Set the gauge to the angle you require and hold the workpiece firmly against the gauge, feeding it gently into the disc.

Keep the workpiece in contact with the left side of the disc as far as possible.

Fig. 8B shows the table set to an angle. The mitre gauge may also be used with this setup.

Angles up to 45° may be set.

If accuracy is required, check angle using a suitable square or template.

Fig. 8B shows the table being used in conjunction with the Mitre Gauge.

Set the gauge to the angle you require and hold the workpiece firmly against the gauge, feeding it gently into the disc.

Keep the workpiece in contact with the left side of the disc as far as possible.

8. Using the Belt

The belt is used for long pieces, as shown in fig. 9. The workpiece is held firmly against the work stop.

DO NOT exert too much pressure - a light touch is all that is required.

Fig. 8A

Fig. 8B

Fig. 9
With the belt raised, ensure that nothing can interfere with the disc or belt, and that the Belt Tensioning Lever (1, Fig.4), is pushed fully to the rear - in the direction of the arrow.

Plug in to the mains supply and press the GREEN ON button, marked ‘I’ to start the machine, keeping well away from the belt.

Observe the belt as it passes over the front (top) roller...there should be no creep to one side. If it does creep, switch OFF by pressing the RED OFF button, marked ‘O’.

Adjacent to the belt tensioning lever, is the Roller Adjustment Knob (2, Fig.4). Slacken the locknut as shown in fig. 4 and back the nut off a turn or two.

Restart the machine, and screw the Adjuster Knob very gently in or out to compensate for the creep. When the belt is running true, switch OFF and tighten the locknut, ensuring you do not allow the adjuster knob to turn. When satisfied, restart and check. If necessary, repeat until the belt runs true.

### FITTING THE TABLE

#### A...to the Disc

The Table is mounted on a Support Bar (6, Fig.1 and 1, Fig.5). ‘Flats’ are milled at each end of the bar. Insert the end with the shorter length flat into the housing on the machine.

**NOTE:** It may be necessary to unscrew the two securing screws (2, Fig.5) in order for the bar to be inserted fully.

Tighten the securing screws.

Slide the table assembly on to the support bar, and bring the table to within 2mm of the disc, then tighten the two securing screws (1, Fig.6).

To ensure the table is at exactly 90° to the disc, place a small engineers square on the table and bring up to the disc. Slacken off the Table Angle Adjustment Knob, shown in Fig.5, and adjust accordingly so that the table is true.

Tighten the adjustment knob, and if necessary, zero the pointer, adjacent to the scale, by slackening the securing screw and repositioning.

#### B...to the Belt

Before attempting to attach the table to the belt mounting, raise the belt arm and secure with the two securing screws, as explained under ‘Checks Before Use’, p7.

Slide the Table Support bar into the mounting as shown in fig. 6 with the shorter flat on the end of the bar - inwards. Tighten the two securing screws.

Mount the table on the support bar, bring to within 2mm of the belt and tighten the securing screws (1, Fig.6).

To ensure the table is square, proceed as previously described for squaring the table to the disc.

When using the table with the sanding belt, remove the work stop from the belt by removing the securing screw as shown in Fig. 7.

Ensure the screw is replaced and tightened before use. This screw also secures the Lower Belt Guard. Ensure this is properly in place when tightening.

### METHODS OF USE

**WARNING!** Always observe the proper safety precautions before use. Remember, failure to observe these precautions could be extremely hazardous.

#### A. Using the Disc

Check to ensure the table is no more than 2mm from the disc, before switching ON.

Hold the work firmly, as shown in fig. 8 and ALWAYS hold the workpiece against the left half of the disc. i.e. that half moving downwards towards the table.

DO NOT exert too much pressure. A light touch is all that is required.