

# Glantke®

## air



## HD DUAL-ACTION SANDER

Model Nos: CAT24B & CAT93

Part No: 3110403 & 3110849

## OPERATION & MAINTENANCE INSTRUCTIONS



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## INTRODUCTION

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Thank you for purchasing this CLARKE air tool.

Before attempting to use the product, it is essential that you read this manual thoroughly and carefully follow all instructions given. In doing so you will ensure the safety of yourself and that of others around you, and you can also look forward to the product giving you long and satisfactory service.

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## GUARANTEE

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This CLARKE product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt 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 its intended purpose.

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.

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## ENVIRONMENTAL PROTECTION

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Do not dispose of this product with general household waste. All tools, accessories and packaging should be sorted, taken to a re-cycling centre and disposed of appropriately.

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# SAFETY PRECAUTIONS

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CAUTION: FAILURE TO FOLLOW THESE PRECAUTIONS COULD RESULT IN PERSONAL INJURY, AND /OR DAMAGE TO PROPERTY

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## WORK ENVIRONMENT

- Keep the work area clean and tidy.
- Dress appropriately - Do not wear loose clothing or jewellery. Tie long hair out of the way.
- Keep children and visitors away - Do not let children handle the tool. Make sure that any other persons in the work area are dressed suitably and are wearing eye and ear protectors.
- Keep the air supply hose away from heat, oil and sharp edges.
- Do not fit the tool to any stand or clamping device that may damage the tool.

## GENERAL USE

- Stay alert and use common sense - do not use the tool when you are tired or under the influence of alcohol, drugs or medication.
- Always wear eye protection when using the tool - eye protection must provide protection from the front and the side.
- Always wear ear protectors when using the tool.
- Do not over-reach - keep proper footing and balance at all times.
- Never use any type of bottled gas as a source of power for the tool.
- Do not connect the air supply hose with your finger on the trigger of the tool.
- Do not exceed the maximum pressure for the tool: 90 psi / 6.2 bar.
- Check hoses for leaks or worn condition before use and ensure that all connections are secure.
- Do not use the tool for any other purpose than that described in this booklet.
- Do not carry out any alterations or modifications to the tool.
- Always disconnect from the air supply when:
  - a) Performing any maintenance.
  - b) The tool is not in use.

- c) The tool will be left unattended.
- d) Moving to another work area.
- Never use the tool if it is defective or operating abnormally.
- The tool should be serviced as required by your CLARKE dealer.
- Avoid damaging the tool for example by applying excessive force.
- ALWAYS maintain the tool with care. Keep it clean for best and safest performance.
- ALWAYS ensure the workpiece is firmly secured leaving both hands free to control the tool.
- ALWAYS ensure the tool has stopped before putting it down after use.
- ALWAYS ensure that any attachments are correctly fastened before connecting the tool to the power supply.
- Quick change air-line couplings should not be located at the tool. They add weight and could fail due to vibration.
- DO NOT force or misuse the tool. It will do a better and safer job operating at the rate for which it was designed.
- Do not remove any labels. Damaged labels should be replaced.
- This tool vibrates during use. Vibration may be harmful to your hands or arms. Stop using the tool if discomfort, a tingling feeling or pain occurs and seek medical advice before resuming use.

## **TRANSPORTATION**

- Never carry the tool by the air supply hose.
- Never carry the tool with your finger on the trigger.

## **STORAGE**

- When not in use the tool must be disconnected from the air supply and stored in a dry place out of the reach of children (preferably in a locked cabinet).
- Avoid storage in environments where the temperature is below 0°C.

## OVERVIEW



The CAT24B and CAT 93 Sanders are ideal for use in garages and workshops. Random orbit sanders give a virtually scratch - free finish on various surfaces prior to painting or varnishing the finished surface.

The only difference between the two sanders is that the external parts on the CAT93 are highly polished and include rubber grips. Should you require any component parts, refer to pages 12 and 13 in the manual and contact your Clarke dealer.

When unpacking the tool, any damage or deficiency should be reported to your CLARKE dealer immediately. The carton contains:

- Heavy Duty Dual Action Sander
- 6" Sanding Pad
- Operators Manual (this document)

Your dual -acting sander has been designed to give long and trouble free service. If, however, having followed the instructions in this booklet carefully, you encounter problems, take the unit to your local CLARKE dealer.

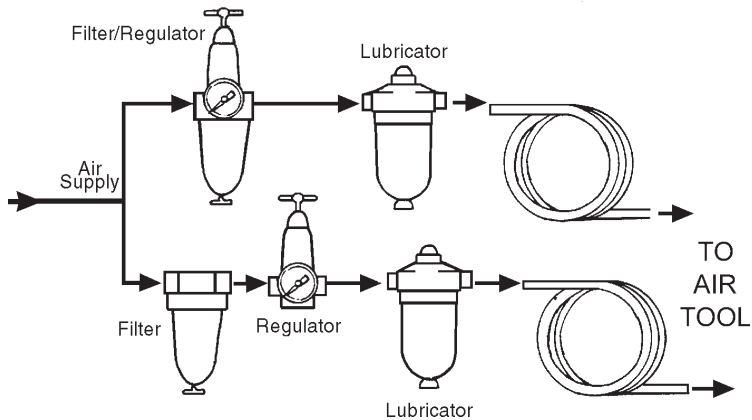
# AIR SUPPLY REQUIREMENTS



**WARNING: COMPRESSED AIR CAN BE DANGEROUS. ENSURE THAT YOU ARE THOROUGHLY FAMILIAR WITH ALL PRECAUTIONS RELATING TO THE USE OF COMPRESSORS AND COMPRESSED AIR SUPPLY.**

- Use only clean, dry, regulated compressed air as a power source.
- Air compressors used with the tool must comply with the appropriate European Community safety directives.
- A build up of moisture in the air compressor will accelerate wear and corrosion in the moving parts. Ensure any moisture is drained from the compressor daily and the inlet filter is kept clean.
- If an unusually long air hose is required, (over 8 metres), line pressure may need to be increased.
- Never exceed the maximum operating pressure for the tool.
- The air hose must be rated at least 150% of the maximum operating pressure of the tool.
- A pressure of 90psi with a flow of 6 cfm is required. Too high an air pressure will shorten the life of the tool due to excessive wear.

A typical airline layout is shown. If an automatic in-line filter/regulator/lubricator unit is used it will keep the tool in good condition, but should be regularly checked and topped up with oil.



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# ASSEMBLY

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## INSTALLING THE DISC

1. To assemble the pad to the tool, turn the locking nut (A) until the knurled portion contacts the flat surface on the output spindle (B).
2. Thread the pad into the spindle by gripping the orbital hub (C) with one hand and the pad with the other. Tighten fully.
3. Turn the locking nut (A) until the spindle (B) turns freely. Do not operate the tool with the spindle in the locked mode as performance would be severely affected and a hazardous situation could result.



## FITTING THE SANDING SHEET

1. Peel off the back of the self adhesive sanding sheet and stick it to the backing pad.

**IMPORTANT: Only use abrasive sanding pads designed for use with this type of 150mm dia sanding pad.**

## CONNECTING THE AIR SUPPLY



**WARNING: COMPRESSED AIR CAN BE DANGEROUS. ENSURE THAT YOU ARE FAMILIAR WITH ALL PRECAUTIONS RELATING TO THE USE OF COMPRESSORS AND COMPRESSED AIR SUPPLIES.**

**Note: Ensure the compressor is turned off.**

1. Remove the plastic blanking plug from the connection port of the tool.
2. Pour 2-3 drops of CLARKE airline oil into the air inlet. This should be done regardless of whether or not a lubricated air supply is to be used.
3. Connect a suitable hose to the tool as shown.





4. Connect the other end of the hose to the compressor. (A whip hose with a quick fit coupling is available from your CLARKE dealer).
5. Turn on the air supply and check for air leaks. Rectify any found before proceeding. The tool is now ready for use

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## OPERATION

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### ADJUSTING THE SPEED

1. Adjust the operating speed if required, by twisting the speed control shown.
  - Clockwise will increase the sanding speed.
  - Anticlockwise will decrease the sanding speed.
2. Squeeze the trigger against the body of the tool to start and evaluate its speed.



3. Rest the disc pad on the workpiece and start the sander. Let the tool do the work.
  - The actual weight of the machine is normally sufficient for efficient sanding. Do not put additional pressure on the machine, which would only slow down the speed of the pad, reducing efficiency and placing an additional burden on the motor.
4. Pass the sander back and forth in wide, overlapping areas, taking care to keep the sander moving around at all times. Avoid dwelling in one place for more than a moment.
5. Release the trigger to stop the tool.
6. Always ensure the tool has stopped before putting it down.

### DISCONNECTING THE AIR SUPPLY

1. Do not disconnect the air supply hose until the compressor has been shut down and the compressed air pressure released.
2. Once the pressure has been released, disconnect the air supply hose from the tool.

### STORAGE

1. Store the tool safely in its box in a dry, secure environment.
2. When storing, ensure the blanking plug is replaced on the airline connector once the airline has been disconnected.

- If the tool is not to be used for longer than 24 hours, run a few drops of CLARKE airline oil into the air inlet and run the tool for a few seconds to ensure that the oil has been well distributed throughout the tool.

## TROUBLESHOOTING

SYMPTOM	PROBLEM	SOLUTION
Tool runs at normal speed but slows down under load.	<ol style="list-style-type: none"> <li>Motor parts worn.</li> <li>Worn or sticking mechanism due to lack of lubricant.</li> </ol>	<ol style="list-style-type: none"> <li>Return to dealer for overhaul</li> <li>Drip air tool lubricating oil into air inlet and soak moving parts.</li> </ol>
Tool runs slowly. Air flows lightly from exhaust.	<ol style="list-style-type: none"> <li>Motor parts jammed with gum &amp;/or dirt particles.</li> <li>Regulator in closed position.</li> <li>General airflow blocked by dirt.</li> </ol>	<ol style="list-style-type: none"> <li>Examine inlet air filter for cleanliness.</li> <li>Adjust regulator to open position.</li> <li>Operate tool in short bursts of forward/reverse rotation.</li> </ol>
Tool will not run. Air flows freely from exhaust.	<ol style="list-style-type: none"> <li>Motor vanes stuck due to buildup of foreign material.</li> </ol>	<ol style="list-style-type: none"> <li>Disconnect air supply &amp; rotate tool assembly manually.</li> <li>Try operating tool in short bursts of forward/reverse rotation.</li> <li>Tap motor housing gently with rubber mallet.</li> <li>Drip a few drops of air tool lubricating oil into the air inlet to soak moving parts.</li> </ol>
Tool will not shut off.	<ol style="list-style-type: none"> <li>Throttle O-rings damaged or not seated correctly.</li> </ol>	<ol style="list-style-type: none"> <li>Replace O-ring or return to Clarke dealer for repair.</li> </ol>

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# MAINTENANCE

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**WARNING! MAKE SURE THAT THE TOOL IS DISCONNECTED FROM THE AIR SUPPLY BEFORE STARTING ANY CLEANING OR MAINTENANCE PROCEDURES.**

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## DAILY

- Drain water from the compressor air tank and air-line.
- Pour a few drops of CLARKE air line oil\*\* into the air inlet. This should be carried out regardless of whether or not an air line lubricator is used. If a lubricator is not used, this procedure should be repeated after every two to three hours of use.



## WEEKLY

- Check the air inlet screen filter shown in Fig 4 and clean if necessary.

## CLEANING

- Keep the body of the tool clean and free from debris. Grit or gum deposits in the tool may reduce efficiency.
- After extensive use, remove the inlet screen filter and flush out the mechanism with gum solvent oil or an equal mixture of SAE No10 oil and paraffin. Allow to dry before use.

## SERVICE AND REPAIR

- Any major servicing and repairs should be carried out by your local CLARKE dealer or a qualified service technician.

## PERFORMANCE

Please note that factors other than the tool may effect its operation and efficiency such as reduced compressor output, excessive drain on the airline, moisture, or restrictions in the line, or the use of connectors of improper size or poor condition which will reduce air supply.

\*\*Clarke Airline Oil is available from your CLARKE dealer: part no 3050825.

## PARTS LIST

No	Description
1	Motor Housing
2	Hose Adaptor
3	Throttle Valve Spring
4	Throttle Valve Shaft
5	O-Ring
6	O-Ring
7	O-Ring
8	Valve Body
9	Hex. Nut
10	Bracket
11	Screw
12	Lock Washer
13	Hex Nut
14	Throttle Lever
15	Housing Cover
16	Circlip
17	O-Ring
18	Regulator Valve
19	Circlip
20	Wave Washer
21	Bearing
22	End Plate
23	Cylinder
24	O-Ring

No	Description
25	Ball
26	Rotor
27	Rotor Blade
28	Rotor Shaft
29	Key
30	Gasket
31	Drive Housing
32	Cap Screw
33	Cap Screw
34	Cap Screw
35	Orbital Hub
36	Hex Nut
37	Spacer
38	Spindle Lock
39	Spring Washer
40	Flat Washer
41	Cap Screw (spindle Lock)
42	Hex Screw
43	Ball Bearing
44	Drive Spindle
45	Spring Washer
46	Retaining Ring
47	Sanding Pad



## SPECIFICATIONS

Feature	Specification
Nominal Air Consumption	6 cfm
Operating Air Pressure	90 psi (6.2 bar)
Air Inlet Size	1/4" BSP
Maximum Speed	8000 rpm
Minimum Hose Size	5/16" (8 mm)
Sound Pressure Level ( $L_{PA}$ dB)	90 dBA
Sound Power Level ( $L_{WA}$ dBA)	99 dBA
Vibration Levels	8.5 $M/sec^2$
Uncertainty value - k:	1.3 $m/s^2$
Highest measured reading (single plane)	3.08 $m/s^2$
Dimensions (L x W x H)	230 x 75 x 110 mm (exc disc)
Weight	1.9 kg
Pad Size	6" (150mm) dia

# 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):

2006/42/EC Machinery Directive.

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

EN 792-8:2001+A1:2008.

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 authorities.

The CE mark was first applied in: 2002

**Product Description:** Dual Action Sanders  
**Model number(s):** CAT 24B - 93  
**Serial / batch Number:** N/A  
**Date of Issue:** 09/11/2012

Signed:

J.A. Clarke  
Director

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