INTRODUCTION

Thank you for purchasing this CLARKE Silent Air Compressor.

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.

PARTS AND SERVICING

For Parts & Servicing, please contact your nearest 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
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 MAY RESULT.

1. Compressed air is dangerous. NEVER direct a jet of air at people or animals, and NEVER discharge compressed air against the skin.

2. DO NOT operate your compressor with any guards removed.

3. Electrical or mechanical repairs should only be carried out by a qualified engineer. If problems occur, contact your Clarke dealer.

4. Before carrying out any maintenance, ensure the pressure is expelled from the air receiver, and the machine is disconnected from the mains supply.

5. DO NOT leave pressure in the receiver overnight, or when transporting.

6. DO NOT adjust, or tamper with the safety valves. The maximum pressure is factory set, and clearly marked on the machine.

7. DO NOT operate in wet or damp conditions. Keep the machine dry at all times. Similarly, a clean atmosphere will ensure efficient operation. Do not use in dusty or otherwise dirty locations.

8. Some of the metal parts can become quite hot during operation. Take care not to touch these until the machine has cooled down.

9. Always adjust the pressure regulator to the recommended setting for the particular spray gun or tool being used.

10. When spraying flammable materials e.g. cellulose paint, ensure that there is adequate ventilation and keep clear of any possible source of ignition.

11. Protect yourself. Think carefully about any potential hazards which may be created by using the air compressor and use the appropriate protection. e.g. Goggles will protect your eyes from flying particles. Face masks will protect you against paint spray and/or fumes.

12. Before spraying any material always consult paint manufacturers instructions for safety and usage.

13. Do not exert any strain on electrical cables and ensure that air hoses are not angled or wrapped around machinery etc.

14. When disconnecting air hoses or other equipment from your compressor ensure that the air supply is turned off at the machine outlet and vent all pressurised air from within the machine and other equipment attached to it.

15. Make sure that children and animals are kept well away from the compressor and any equipment attached to it.

16. Always ensure that all individuals using the compressor have read and fully understand these Operating Instructions.

17. Ensure that any equipment or tool used in conjunction with your compressor, has a safety working pressure exceeding that of the machine.
ELECTRICAL CONNECTIONS

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.

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

- 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 with a letter “L” or coloured RED.
- Connect BLUE cord to terminal marked with a letter “N” or coloured BLACK.

If this appliance is fitted with a plug which is moulded onto 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. When replacing a detachable fuse carrier, ensure the correct replacement is used (as indicated by marking or colour code).
4. Replacement fuse covers can be obtained from your local dealer or most electrical stockists.

FUSE RATING

The fuse in the plug must be replaced with one of the same rating (13 amps) and this replacement must be ASTA approved to BS1362.

If in any doubt, consult a qualified electrician. DO NOT attempt any repairs yourself.
PREPARING FOR USE

Before connecting your compressor to the mains supply, check the following:-

- Firstly, ensure the compressor is on level ground. Do not allow it to run if it is standing on an incline.
- Check also that the mains voltage corresponds with that shown on the data label on the side of the compressor.
- The ON/OFF switch is in the OFF position.

ADDING OIL

The compressor is supplied without any oil inside.

1. Make sure that the oil level is half way up the oil sight glass.
2. If not, remove the oil cap and top up the reservoir.
   - Only use Clarke synthetic compressor oil, available from your Clarke dealer (Part No. 3050795).
SWITCHING THE AIR COMPRESSOR ON

The compressor will make a continuous loud noise when the tank is charging - this is normal.

1. To start the compressor, turn the ON/OFF switch to the ‘I’ (ON) position - the motor should start immediately.

   NOTE: If the motor fails to start immediately, the air receiver may already be full of air. Check the tank pressure gauge (shown on the right). If you release air, by opening the air outlet tap, the motor will start automatically once the cut-in pressure is reached.

2. Allow the compressor to run for 10 - 15 seconds, with the air outlet tap, (A) open.
   • This will distribute the lubricating oil.

3. Close the outlet tap and connect a suitable air hose to the filter/regulator outlet (B). Connect the other end to the equipment to be used.

4. Check the safety valve by pulling on the ring shown, air should hiss out when pulled.
5. Adjust the pressure regulator.
   - To do this, lift the pressure regulator knob (C), and turn it clockwise to increase the pressure, anticlockwise to decrease the pressure. The pressure is shown on the outlet gauge, (D).
   - To lock the pressure regulator knob, push the pressure regulator knob down until it clicks into place.

IMPORTANT: Always refer to the accessory manufacturers recommendations for optimum operating pressures for their equipment.

6. With operating pressure set, open the air outlet tap.

   NOTE: If the machine pumps continuously without cutting out then the compressor is too small for the application/tool being used, and damage may result. Consult your Clarke dealer.

   NOTE: DO NOT exceed the duty cycle for the machine (see Specifications).

SHUTTING DOWN THE COMPRESSOR

1. To shut off the compressor, simply turn the ON/OFF switch to the O (OFF) position.

2. Close the air outlet tap and trigger the equipment (spray gun, air tool etc.) to release air from the air hose before disconnecting the hose from the machine.

3. Before transporting your compressor or when leaving overnight, expel all air from the receiver and drain the tank. See page 8.
DRAINING THE TANK

1. Pressurise the reservoir slightly and then turn the compressor off.
2. Attach the small hose supplied to the vent valve as shown.
3. Place a tray beneath the vent valve to collect any condensate.
4. Slowly open the vent valve.
5. When the reservoir has been drained, re-tighten the vent valve and remove the hose.

DRAINING THE AIR OUTLET FILTER

1. Drain any liquid that may have accumulated in the air filter chamber, by first twisting and then pushing the valve (E) upwards.
## TROUBLESHOOTING

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>PROBABLE CAUSE</th>
<th>REMEDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>The compressor will not start, or stops and will not start again</td>
<td>Bad connections</td>
<td>Check the electrical connections</td>
</tr>
<tr>
<td></td>
<td>Blown fuse</td>
<td>Replace fuse</td>
</tr>
<tr>
<td></td>
<td>Overload cutout switch has tripped</td>
<td>Wait 25-20 mins before attempting to restart</td>
</tr>
<tr>
<td>Compressor does not start</td>
<td>Air receiver charged</td>
<td>Open drain valve to expel air. Compressor should start again when pressure reduces to approx 95 psi</td>
</tr>
<tr>
<td>The compressor does not reach the set pressure and overheats easily</td>
<td>Inlet Air Filter is blocked</td>
<td>Renew oil filler/air Filter plug</td>
</tr>
<tr>
<td></td>
<td>NOTE: It is also possible that you are trying to use more air than the compressor is capable of delivering</td>
<td></td>
</tr>
<tr>
<td>Air leaking from the pressure switch valve when the compressor is not running</td>
<td>Faulty non-return valve</td>
<td>First drain the receiver completely of air. Renew the non-return valve</td>
</tr>
<tr>
<td>Air pressure from the regulator will not adjust</td>
<td>The diaphragm within the regulator body is broken</td>
<td>Replace regulator</td>
</tr>
<tr>
<td>Compressor operating, but no air from outlet</td>
<td>Inlet air filter blocked</td>
<td>Renew oil filler/air filter plug</td>
</tr>
<tr>
<td></td>
<td>Pressure regulator closed</td>
<td>Turn Regulator clockwise to set required pressure</td>
</tr>
<tr>
<td></td>
<td>Drain valve open</td>
<td>Close vent valve</td>
</tr>
<tr>
<td></td>
<td>Bleed pipe (from Pressure Switch to non-return valve) broken or disconnected</td>
<td>Reconnect or replace bleed pipe</td>
</tr>
</tbody>
</table>
MAINTENANCE

<table>
<thead>
<tr>
<th></th>
<th>Before each use</th>
<th>Once a Month</th>
<th>Once a Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check the oil level, See &quot;Adding Oil&quot; on page 5.</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Drain the water collected in the air outlet filter. See &quot;Draining the Tank&quot; on page 8.</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Remove the condensate that has collected in the air tank. See &quot;Draining the Tank&quot; on page 8.</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Once a month check the compressor for loose connections, wear, etc.</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Clean the compressor with a soft cloth.</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Check the safety valve pulling the ring gently when there is pressure in the tank.</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Total replacement of oil See &quot;Drain and replace the oil&quot; on page 10.</td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

DRAIN AND REPLACE THE OIL

Drain and replace the oil annually, as follows:

1. Remove the 4 hex head screws securing each of the compressor heads.
2. Pull off the heads, complete with sealing rings.
3. Invert the compressor carefully, so that the oil is drained into a suitable container.
   - Dispose of the oil according to local regulations.
4. Reassemble the heads ensuring the sealing rings are in perfect condition and is located correctly.
CHECK THE NON RETURN VALVES

If the tank pressure decreases for no apparent reason, it is possible that the non-return valve is leaking. To check, ensure the tank is under pressure and the machine switched OFF.

1. Take off the flexible hose and check if air leaks out from the valve.
2. If so, unscrew the valve from the connection and disassemble it as shown.
3. Clean all the components with a dry cloth and reassemble the valve taking care to place the internal rubber disc(2) as shown.
4. Fasten the valve to the connection and join the flexible hose. If the leakage persists, the whole valve must be replaced.

REPLACING THE AIR OUTLET FILTER

NOTE: The compressor must be completely depressurised before carrying out this procedure.

1. Unscrew the cartridge from the air filter assembly.
2. Uncrew and replace the small air filter.
# SPECIFICATIONS

<table>
<thead>
<tr>
<th></th>
<th>100/24</th>
<th>100/50</th>
<th>150/100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Pressure</td>
<td>8 Bar</td>
<td>8 Bar</td>
<td>8 Bar</td>
</tr>
<tr>
<td>Air Displacement</td>
<td>70LPM @100psi</td>
<td>70LPM @100psi</td>
<td>105 LPM @100psi</td>
</tr>
<tr>
<td>Receiver Capacity</td>
<td>24 L</td>
<td>50 L</td>
<td>100 L</td>
</tr>
<tr>
<td>Fuse Rating</td>
<td>13 Amps</td>
<td>13 Amps</td>
<td>13 Amps</td>
</tr>
<tr>
<td>Duty Cycle</td>
<td>50% (15 mins (ON) - 15 mins (OFF))</td>
<td>50% (15 mins (ON) - 15 mins (OFF))</td>
<td>50% (15 mins (ON) - 15 mins (OFF))</td>
</tr>
<tr>
<td>Part No.</td>
<td>2320880</td>
<td>2320885</td>
<td>2320890</td>
</tr>
<tr>
<td>Dimensions (L x H x W)</td>
<td>650 x 550 x 360 mm</td>
<td>860 x 750 x 400 mm</td>
<td>1150 x 630 x 450 mm</td>
</tr>
<tr>
<td>Sound Power Level</td>
<td>42 dBA</td>
<td>42 dBA</td>
<td>43 dBA</td>
</tr>
<tr>
<td>Weight</td>
<td>48 kg</td>
<td>60 kg</td>
<td>86 kg</td>
</tr>
<tr>
<td>Compressor Oil</td>
<td>500mL Synthetic Oil</td>
<td>500mL Synthetic Oil</td>
<td>500mL Synthetic Oil</td>
</tr>
<tr>
<td>Oil Part No.</td>
<td>3050795</td>
<td>3050795</td>
<td>3050795</td>
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</tbody>
</table>

Please note that the details and specifications contained herein, are correct at the time of going to print. CLARKE International reserve the right to change specifications at any time without prior notice.
<table>
<thead>
<tr>
<th>NO</th>
<th>DESCRIPTION</th>
<th>NO</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>C0037</td>
<td>Screw TCEI 6X20</td>
<td>C0247</td>
<td>Air Hose</td>
</tr>
<tr>
<td>C0106</td>
<td>Spacer T21</td>
<td>C0292</td>
<td>Air Pipe MM 260 1/8X1/8F Rotatable</td>
</tr>
<tr>
<td>C0109</td>
<td>Capacitor Bracket</td>
<td>C0293</td>
<td>Air Pipe MM 300 1/8X1/8F Rotatable</td>
</tr>
<tr>
<td>C0111</td>
<td>Overload Protector T2134A (230V)</td>
<td>C0297</td>
<td>Air Hose</td>
</tr>
<tr>
<td>C0112</td>
<td>Start Relay T21 (230V)</td>
<td>C0334</td>
<td>Distribution Frame &quot;L&quot; M-1/8 CH13</td>
</tr>
<tr>
<td>C0113</td>
<td>Screw</td>
<td>C0335</td>
<td>Air Pipe MM 140 1/8X1/8F Rotatable</td>
</tr>
<tr>
<td>C0115</td>
<td>Cylinder Gasket</td>
<td>C0354</td>
<td>Draincock M 1/4 90</td>
</tr>
<tr>
<td>C0116</td>
<td>Valve Plate T21 with Valve</td>
<td>C0388</td>
<td>Wheel Axle</td>
</tr>
<tr>
<td>C0117</td>
<td>Head Gasket</td>
<td>C0390</td>
<td>Coupling F-F 1/4X3/8 Ni</td>
</tr>
<tr>
<td>C0118</td>
<td>Oil Plug 3/8+O Ring</td>
<td>C0392</td>
<td>Plug M 1/8</td>
</tr>
<tr>
<td>C0126</td>
<td>Rubber Grommet T21</td>
<td>C0516</td>
<td>Reduction M-F 3/8&quot;-1/4&quot;</td>
</tr>
<tr>
<td>C0305</td>
<td>Kit Terminal Box T21 (230V)</td>
<td>C0517</td>
<td>Plug M1&quot;</td>
</tr>
<tr>
<td>C0323</td>
<td>Intake Valve</td>
<td>C0522</td>
<td>Aluminum Washer 1&quot;</td>
</tr>
<tr>
<td>C0324</td>
<td>Exhaust Valve</td>
<td>C0538</td>
<td>Plug M1/8&quot;</td>
</tr>
<tr>
<td>C04187</td>
<td>Rubber Head</td>
<td>C0567</td>
<td>Nipple 1/8&quot;</td>
</tr>
<tr>
<td>C0513</td>
<td>Nut with Washer</td>
<td>C0568</td>
<td>Screw M5X6 UNI7687</td>
</tr>
<tr>
<td>C0567</td>
<td>&quot;Nipple 1/8&quot;</td>
<td>C0569</td>
<td>Washer Nylon 75X10</td>
</tr>
<tr>
<td>C1099</td>
<td>&quot;Oil Level Glass 1/2&quot;</td>
<td>C0653</td>
<td>Rubber Foot 725</td>
</tr>
<tr>
<td>C1206</td>
<td>O Ring 4/700</td>
<td>C0626</td>
<td>Reducer M-F 3/8X3/8 Ni</td>
</tr>
<tr>
<td>C1235</td>
<td>Kit Valve Plate Gasket T2134A</td>
<td>C0876</td>
<td>Connection</td>
</tr>
<tr>
<td>C1794</td>
<td>Kit Intake Filter</td>
<td>C0884</td>
<td>Reduction M-F 1/4 x 3/8 Ni</td>
</tr>
<tr>
<td>C2083</td>
<td>Capacitor</td>
<td>C0889</td>
<td>Extension Piece 5 Ways</td>
</tr>
<tr>
<td>C0638</td>
<td>Nipple 1/4&quot; X 35</td>
<td>C1713</td>
<td>Gauge R 40</td>
</tr>
<tr>
<td>C0040</td>
<td>Reduction M-F 1/4 x 1/9</td>
<td>C172324</td>
<td>Tank 100/24 CE</td>
</tr>
<tr>
<td>C0046</td>
<td>Non Return Valve M-F 1/8&quot;</td>
<td>C1728</td>
<td>Hose</td>
</tr>
<tr>
<td>C0048</td>
<td>Bipole Pressure Switch 4 Ways 230V</td>
<td>C1862</td>
<td>Rubber Support</td>
</tr>
<tr>
<td>C0049</td>
<td>Plug M1/4</td>
<td>C1947</td>
<td>Air Hose</td>
</tr>
<tr>
<td>C0051</td>
<td>Rylsan Hose 74/6</td>
<td>C1965</td>
<td>Valve</td>
</tr>
<tr>
<td>C0092</td>
<td>&quot;T&quot; Connection F-F-M 1/4&quot;</td>
<td>C214724</td>
<td>50LT Tank</td>
</tr>
<tr>
<td>C0153</td>
<td>Non-Return Valve M-M 3/8°C</td>
<td>C214824</td>
<td>100LT Tank</td>
</tr>
<tr>
<td>C0160</td>
<td>Wheel D200</td>
<td>C2369</td>
<td>Outlet tap</td>
</tr>
<tr>
<td>C0164</td>
<td>Filter Regulator</td>
<td>C2371</td>
<td>Electrical Cable</td>
</tr>
</tbody>
</table>
We declare that this product complies with the following directives:

- 73/23/EEC Low Voltage Equipment directive, amended by 93/68/EEC.
- 87/404/EEC Simple Pressure Vessels
- 97/23/EC Pressure Equipment

The Following Standards have been applied to the product:

- BS EN 10121-96
- BS EN 292-1/91
- BS EN 292-2/91
- BS EN 55014-1:2001
- BS EN 60204-1/98
- EN 61000-3-2:2001

The technical documentation required to demonstrate that the products meet the requirements of the Low Voltage Equipment directive has been compiled and is available for inspection by the relevant enforcement authorities.

The CE mark was first applied in: 2003

Product Description: Silent Air Compressor
Model number(s): SHHHAIR 100/24
Serial / batch Number: Current Manufacture
Date of Issue: 01/05/2008

Signed: A.C. AIKEN
Senior Manager Clarke International.
DECLARATION OF CONFORMITY

This is an important document and should be retained.

We declare that this product complies with the following directives:

- 73/23/EEC Low Voltage Equipment directive, amended by 93/68/EEC.
- 87/404/EEC Simple Pressure Vessels
- 97/23/EC Pressure Equipment

The Following Standards have been applied to the product:

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- EN 61000-3-2:2001

The technical documentation required to demonstrate that the products meet the requirements of the Low Voltage Equipment directive has been compiled and is available for inspection by the relevant enforcement authorities.

The CE mark was first applied in: 2003

Product Description: SILENT AIR COMPRESSOR
Model number(s): SHHHAIR 100/50
Serial / batch Number: CURRENT MANUFACTURE
Date of Issue: 01/01/1901

Signed

A.C. AIKEN
Senior Manager Clarke International.
DECLARATION OF CONFORMITY

We declare that this product complies with the following directives:

89/336/EEC  Electromagnetic Compatibility directive, as amended.
73/23/EEC    Low Voltage Equipment directive, amended by 93/68/EEC.
98/37/EC    Machinery Directive.
87/404/EEC Simple Pressure Vessels
97/23/EC    Pressure Equipment

The Following Standards have been applied to the product:

BS EN 10121-96    BS EN 292-1/91
BS EN 292-2/91    BS EN 60204-1/98
BS EN 55014-1:2001 EN 61000-3-2:2001

The technical documentation required to demonstrate that the products meet the requirements of the Low Voltage Equipment directive has been compiled and is available for inspection by the relevant enforcement authorities.

The CE mark was first applied in: 2003

Product Description: SILENT AIR COMPRESSOR
Model number(s): SHHHAIR 150/100
Serial / batch Number: CURRENT MANUFACTURE
Date of Issue: 01/05/2008

Signed

A.C. AIKEN
Senior Manager Clarke International.
A SELECTION FROM THE VAST RANGE OF

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.

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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.

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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.

For spare parts and servicing, please contact your nearest dealer, or Clarke International on

020 8988 7400

e-mail: Parts@clarkeinternational.com e-mail: Service@clarkeinternational.com

Clarke INTERNATIONAL
Hemnall Street, Epping, Essex CM16 4LG