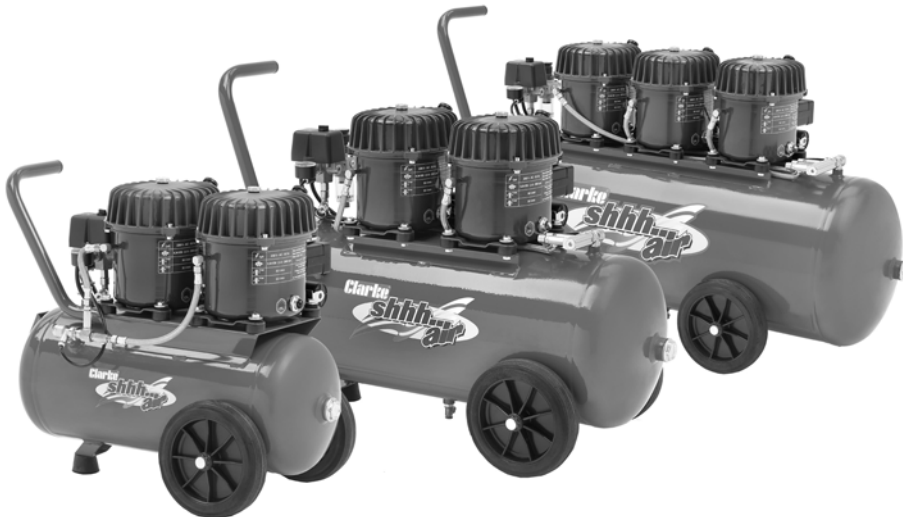


# Clarke<sup>TM</sup>

## air



## SILENT AIR COMPRESSOR

MODEL NO: SHHHAIR 100/24, 100/50, 150/100

PART NO: 2320880, 2320885, 2320890,

## OPERATION & MAINTENANCE INSTRUCTIONS



0708

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## INTRODUCTION

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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.

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## GUARANTEE

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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.

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## PARTS AND SERVICING

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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](mailto:Parts@clarkeinternational.com)**  
**SERVICE: [Service@clarkeinternational.com](mailto: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).



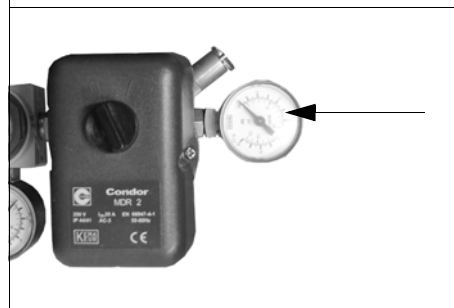
## SWITCHING THE AIR COMPRESSOR ON

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.



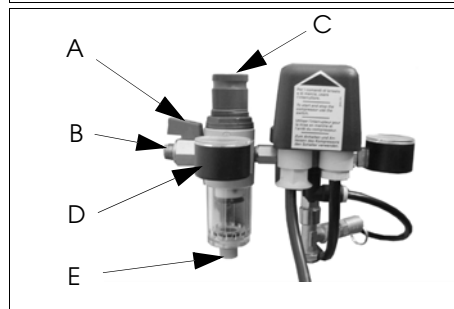
**NOTE:** If the motor fails to start immediately, the air receiver may already be full of air. Check the tank pressure gauge (shown on the right). If you release air, by opening the air outlet tap, the motor will start automatically once the cut-in pressure is reached.



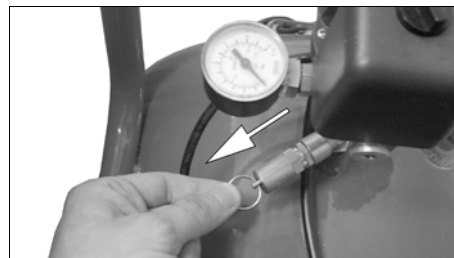
2. Allow the compressor to run for 10 - 15 seconds, with the air outlet tap, (A) open.

- 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.

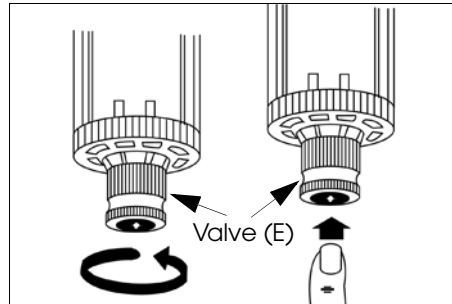
## DRAINING THE TANK

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

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

## MAINTENANCE

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

### DRAIN AND REPLACE THE OIL

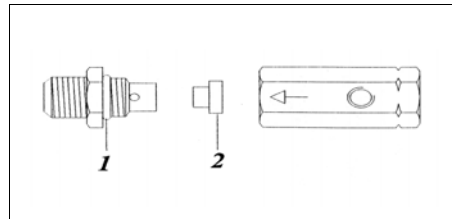
Drain and replace the oil annually, as follows:

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 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.

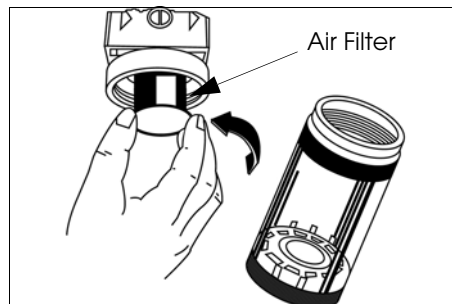
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## REPLACING THE AIR OUTLET FILTER

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**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.

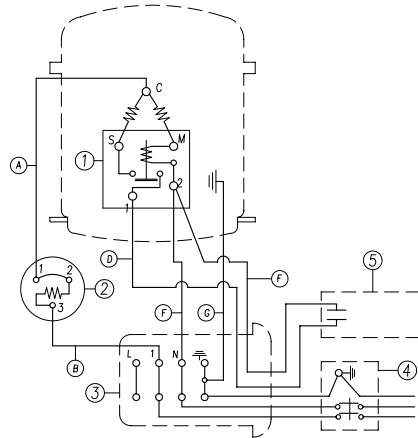
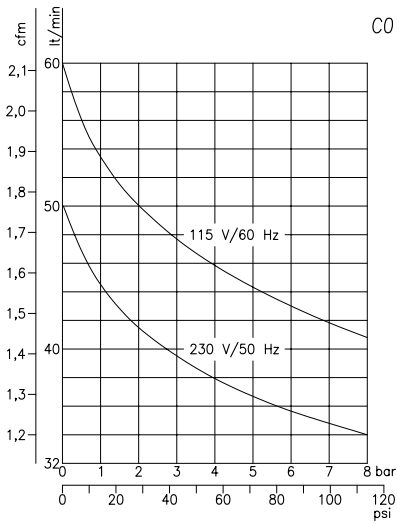
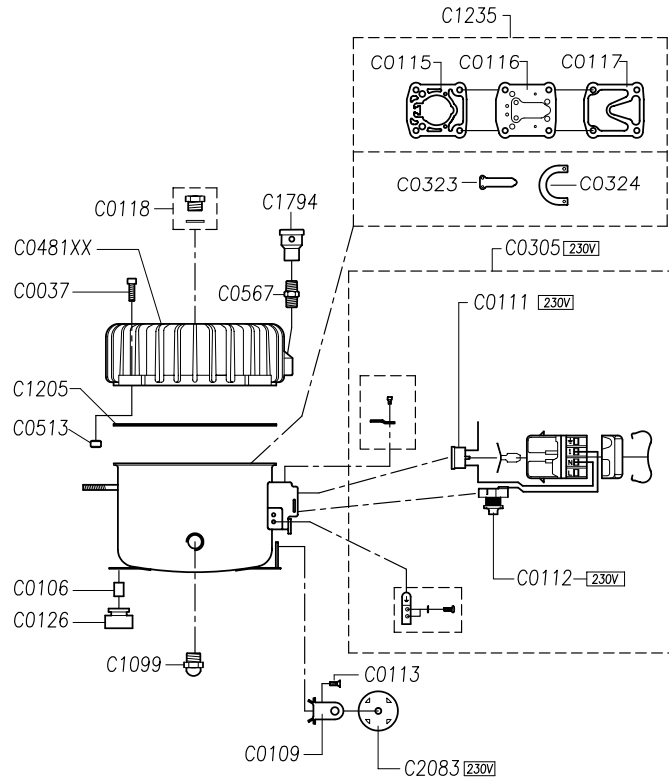


## SPECIFICATIONS

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

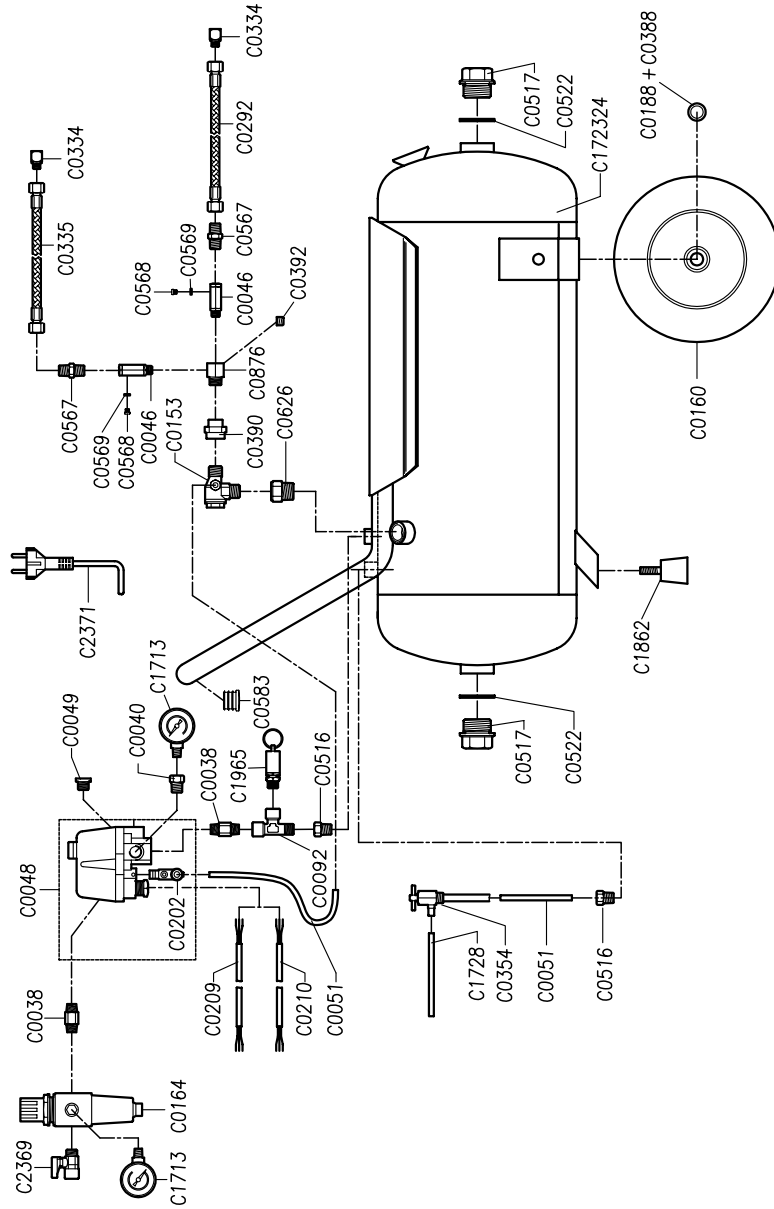
Please note that the details and specifications contained herein, are correct at the time of going to print.  
 CLARKE International reserve the right to change specifications at any time without prior notice.

## EXPLODED DIAGRAM & PARTS LIST



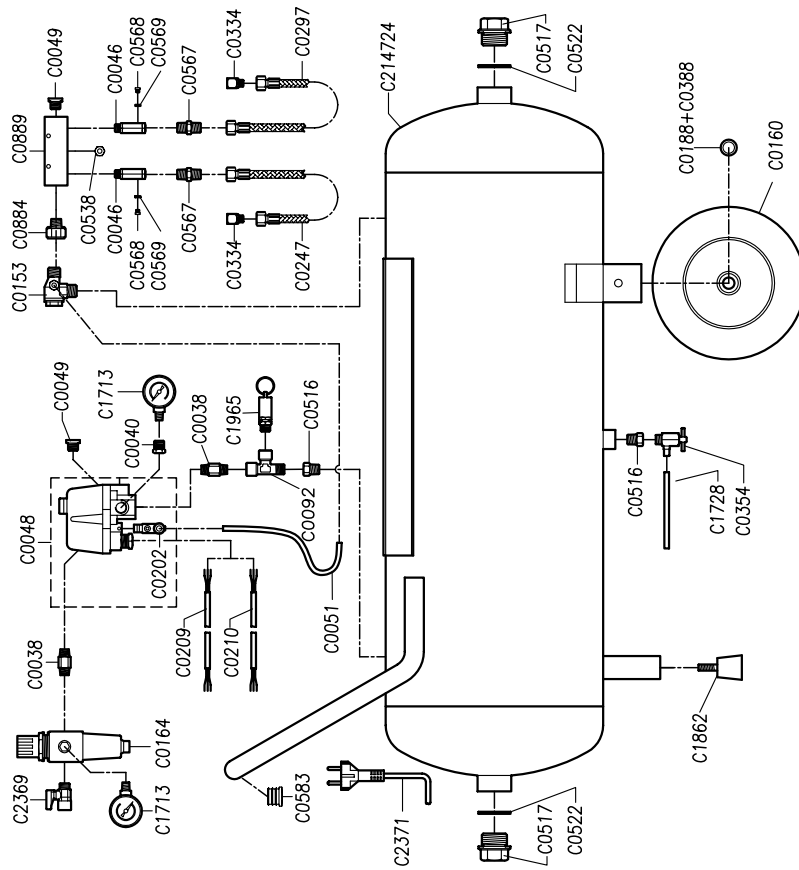
## EXPLODED DIAGRAM & PARTS LIST

### SHHHAIR 100/24



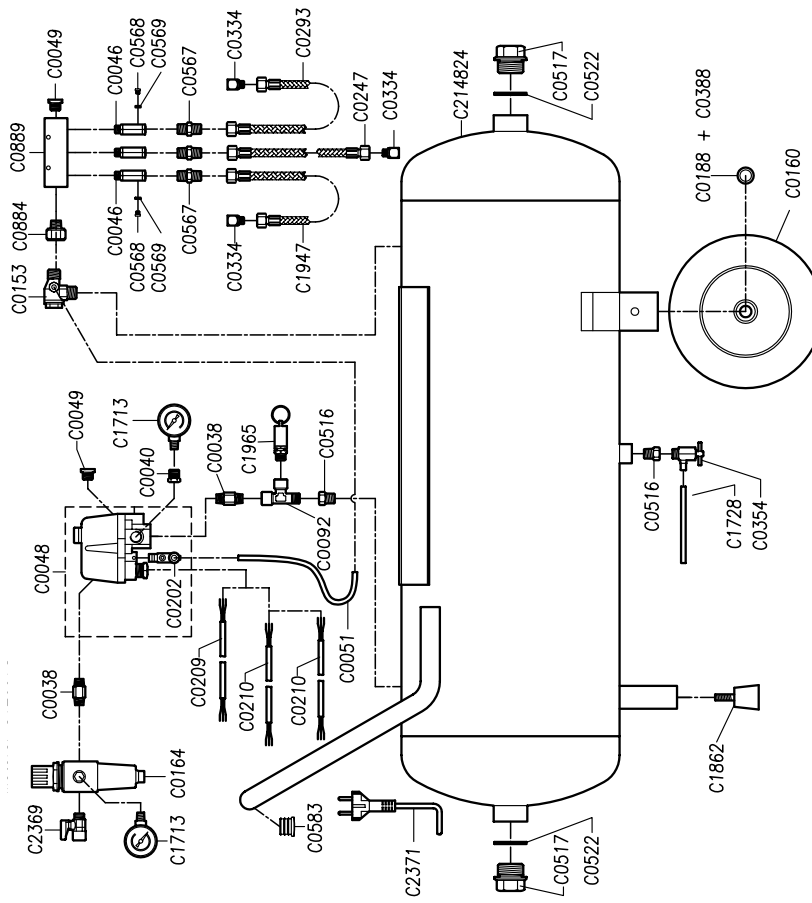
## EXPLODED DIAGRAM & PARTS LIST

### SHHHAIR 100/50



## EXPLODED DIAGRAM & PARTS LIST

### SHHHAIR 150/100



## EXPLODED DIAGRAM & PARTS LIST

NO	DESCRIPTION	NO	DESCRIPTION
C0037	Screw TCEI 6X20	C0247	Air Hose
C0106	Spacer T21	C0292	Air Pipe MM 260 1/8FX1/8F Rotable
C0109	Capacitor Bracket	C0293	Air Pipe MM 300 1/8FX1/8F Rotable
C0111	Overload Protector T2134A (230V)	C0297	Air Hose
C0112	Start Relay T21 ( 230V )	C0334	Distribution Frame ""L"" M-F 1/8 CH13
C0113	Screw	C0335	Air Pipe MM 140 1/8FX1/8F Rotable
C0115	Cylinder Gasket	C0354	Draincock M 1/4 90
C0116	Valve Plate T21 with Valve	C0388	Wheel Axle
C0117	Head Gasket	C0390	Coupling F-F 1/4X3/8 NI
C0118	Oil Plug 3/8+O Ring	C0392	Plug M 1/8
C0126	Rubber Grommet T21	C0516	Reduction M-F 3/8""-1/4"
C0305	Kit Terminal Box T21 ( 230V )	C0517	Plug M1"
C0323	Intake Valve	C0522	Aluminium Washer 1"
C0324	Exhaust Valve	C0538	Plug M1/8"
C048178	Rubber Head	C0567	Nipple 1/8"
C0513	Nut with Washer	C0568	Screw M5X6 UNI7687
C0567	"Nipple 1/8"	C0569	Washer Nylon ?5X10
C1099	"Oil Level Glass 1/2"	C0583	Rubber Foot ?25
C1205	O Ring 4700	C0626	Reducer M-F 3/8X3/8 NI
C1235	Kit Valve Plate+Gasket T2134A	C0876	Connection
C1794	Kit Intake Filter	C0884	Reduction M-F 1/4x 3/8 NI
C2083	Capacitor	C0889	Extension Piece 5 Ways
C0038	Nipple 1/4" X 35	C1713	Gauge R 40
C0040	Reduction M-F 1/4 x 1/9	C172324	Tank 100/24 CE
C0046	Non Return Valve M-F 1/8"	C1728	Hose
C0048	Bipole Pressure Switch 4 Ways 230V	C1862	Rubber Support
C0049	Plug M1/4	C1947	Air Hose
C0051	Rylsan Hose ?4/6	C1965	Valve
C0092	"T" Connection F-F-M 1/4"	C214724	50LT Tank
C0153	Non-Return Valve M-M 3/8"C	C214824	100LT Tank
C0160	Wheel D200	C2369	Outlet tap
C0164	Filter Regulator	C2371	Electrical Cable
C0188	Block Ring ?20		
C0202	Exhaust Valve 90?		
C0209	Electric Cable 3X1.5 MM700		
C0210	Electrical Cable		

## DECLARATION OF CONFORMITY



### DECLARATION OF CONFORMITY

This is an important document and should be retained.



**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 100/24  
**Serial / batch Number:** Current Manufacture  
**Date of Issue:** 01/05/2008

Signed

A.C. AIKEN  
Senior Manager Clarke International.

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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.

- 1 -

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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.

- 1 -

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**Clarke** INTERNATIONAL

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