

SC100V AIR COMPRESSOR

OWNER'S MANUAL



FOR YOUR SAFETY
PLEASE READ THESE INSTRUCTIONS CAREFULLY
AND RETAIN THEM FOR FUTURE USE.



MAIN COMPONENTS

1. Main compressor
2. Pressure switch
3. Outlet Valve
4. Regulating Valve
5. Pressure gauge
6. One-way Valve
7. Drain cock
8. Wheels
9. Air tank
10. Safety valve
11. Fan cover



Model	SC100V
Power	2.2Kw / 3HP
Voltage	230V / 50Hz
Motor Poles	2P
Rated Speed	2850 r/min
Delivery	14.6 CFM
Discharge Pressure	115PSI / 0.8MPa
Tank Capacity	100L
Dimensions	1090x430x830mm
Net Weight	57 kg
Air Outlet Size	1/4"

WARNING SYMBOLS



READ THIS INSTRUCTION MANUAL CAREFULLY BEFORE OPERATING OR ADJUSTING THE COMPRESSOR.



Risk of electric shock. The compressor must be disconnected from the mains supply before maintenance or removing any covers. Do not use in a damp environment.



Risk of accidental start-up. The compressor could start automatically in the event of a power cut and subsequent reset. Do not carry the compressor while it is connected to the power source, or when the tank is filled with compressed air.



This compressor contains surfaces which may reach a high temperature during operation. Never operate with the motor housing removed.



Air and condensation water can burst from the compressor when the drain plug is removed.

Wear a safety goggles and ear protectors when using this compressor.



This compressor produces a high sound level during operation. Ear protection should be worn.

WARNING

TRAINING: Prior to use, all users must become familiar with the instructions given in this manual. In particular, become familiar with the ON/OFF control for stopping the compressor in the event of an emergency.

ALWAYS USE EYE PROTECTION: When operating the air compressor, always use eye protection such as goggles, and make sure that other people in the work area are also using eye protection. Eye protectors must provide protection from flying particles both from the front and from the side.

PROTECT YOUR HEARING: Hearing protection should be worn when operating this compressor, use ear plugs or ear defenders.

NEVER TOUCH MOVING PARTS: Never place your hand near any moving parts on the air compressor or operate with the covers removed.

PROTECT YOUR SELF AGAINST ELECTRIC SHOCK: Never operate the air compressor in wet or damp locations.

DRESS PROPERLY: Loose clothing or jewellery may be caught in moving parts. Always tie long hair back, and wear suitable clothing.

KEEP VISITORS/CHILDREN AWAY: Do not allow visitors/children to handle the air compressor or attachments and ensure that any people in the work area are suitably dressed.

KEEP THE WORK AREA CLEAN: Cluttered areas mean accidents, so clear the work area of all unnecessary tools, debris and furniture.

DO NOT TOUCH HOT SURFACES: During operation, the motor, connections, compressor body, cylinder head and tubes may get hot, do not touch.

DO NOT DIRECT AN AIR STREAM AT THE BODY: Do not direct the air stream at people or animals, as injury may result. Compressed air can cause soft tissue damage and propel dirt and other particles at high speed.

BREATHING AIR: This compressor should not be used to supply breathing quality air. Never use it as breathing apparatus.

STAY ALERT: Watch what you are doing, use common sense, and do not operate the air compressor when you are tired. The air compressor should not be used if you are under the influence of alcohol, drugs or any medication that makes you drowsy.

DISCONNECT THE AIR COMPRESSOR: Always disconnect the air compressor from the mains power supply and decompress before performing maintenance, changing any parts and when not in use.

MAINS POWER CABLE PRECAUTIONS: Never pull on the cable when removing the plug from the mains socket, or lift the compressor by the mains cable.

AVOID UNINTENTIONAL STARTING: When connecting the air compressor to the mains supply make sure the red button on top of the air compressor is in the OFF (down) position.

STORE THE AIR COMPRESSOR PROPERLY: When not in use the air compressor should be stored in a secure, dry place out of the reach of children. Always lock up the storage area.

MAINTAIN THE AIR COMPRESSOR WITH CARE: If the air compressor is damaged in any way, have it repaired by a qualified engineer.

DO NOT USE EXTENSION LEADS: Using extension leads can cause your compressor motor to burn out. Only use extension hoses.

DISPOSAL INFORMATION: The air compressor should be disposed of in a safe and environmentally friendly manner. Contact your local Council for disposal assistance.

DO NOT WELD TO THE PRESSURE VESSEL: Do not weld or modify the pressure vessel in any manner.

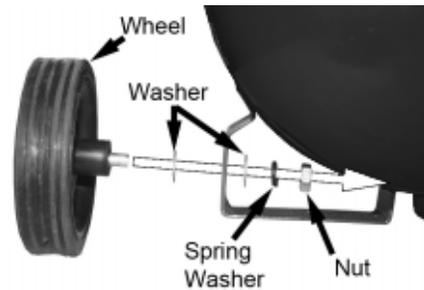
ASSEMBLY

Use a spanner to attach the wheels to the compressor.

Use the washers and spring washer in the positions shown.

Insert the support foot into the position shown.

Check all nuts and bolts.
Make sure all loosened parts are tightened before starting.



PREPARATION FOR STARTING

1. Before running the compressor remove the plug and connect the breather pipe to the oil-hole.

2. Screw both the air filters in either side before starting the compressor.

3. Set the compressor in a clean, dry and ventilated area.

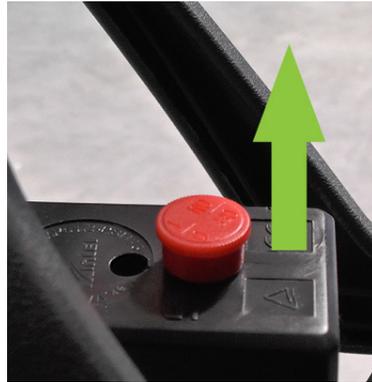
4. Keep voltage within $\pm 4\%$ of the rated value.

5. Keep the oil level in the red circle of the oil glass sight window. You can purchase compressor oil from our website at: www.sgs-engineering.com



PREPARATION FOR STARTING

6. Open the outlet valve, set the power switch knob to position "on" and let the compressor run for 10 minutes with no load to ensure the moving parts are lubricated before regular service.



PRESSURE GAUGES

There are two pressure gauges on the compressor.

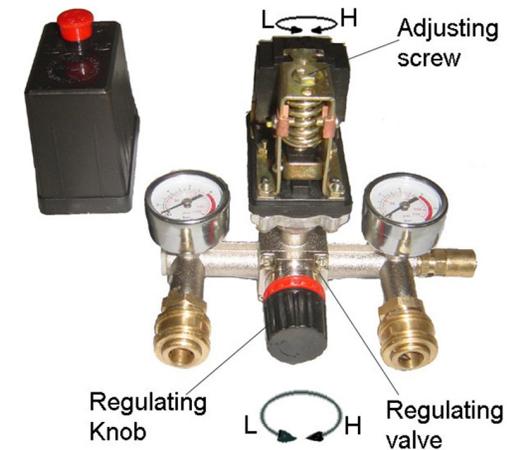
1. The pressure gauge on the RIGHT shows the current pressure in the reservoir tank.

2. The pressure gauge on the LEFT shows the 'user set' outlet pressure. This can be adjusted using the regulator.



OPERATION AND ADJUSTMENT

1. The compressor is controlled by a pressure switch. It can be stopped automatically as the pressure increases to the maximum and restarted as pressure decreases to the minimum. The rated pressure has been adjusted during the manufacturing process - don't alter it carelessly. As soon as the motor is switched off the compressed air in the discharge pipe should be released through the release valve under the switch. This is a necessary condition before restarting or the motor will be damaged. The rated pressure can be altered by turning the adjusting screw.



OPERATION AND ADJUSTMENT

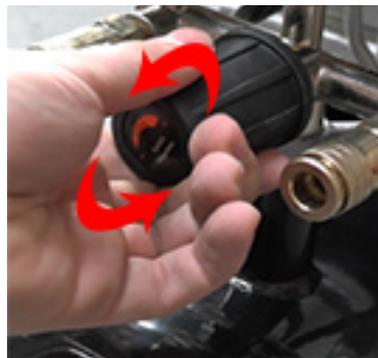
2. The output pressure of compressed air can be regulated by using the regulating valve. turn the regulation valve knob clockwise to increase the pressure.



3. When the running compressor needs to be stopped set the pressure switch in the off position.



4. Always vent the compressor after each use by turning the regulator knob fully anticlockwise.



OPERATION AND ADJUSTMENT

5. Once the compressor is vented, remove any condensation from inside the tank by unscrewing the bleed nipple.



MAINTENANCE

1. Before any maintenance operation stop the air compressor, cut off the power supply and discharge all air in the air tank.
2. Clean crank case and renew lubricating oil after the first 10 working hours. Check the oil level through the oil level sightglass (1.) after every 20 working hours and replenish if necessary- you can replenish by unbolting the oil level sightglass, and draining off any old oil. (2.)
3. Have the safety valve and pressure gauge checked by a certified repair centre every 6 months to ensure they are in the correct working condition.
4. Make sure there is no rust on the air tank and the air tank is not damaged.
5. Have the thickness of the air tank checked by a certified repair centre every year to ensure the tank thickness is not less than 2.1mm.

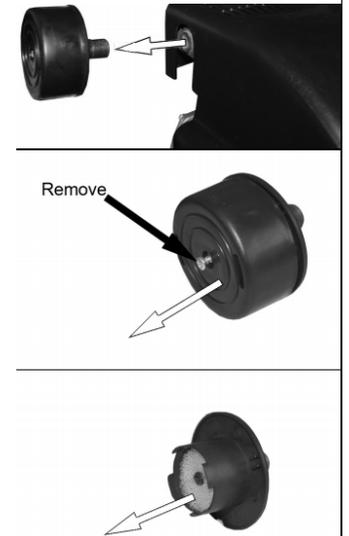


MAINTENANCE

CLEAN THE AIR FILTERS (MONTHLY)

The air filters must be examined monthly, more often in dusty conditions:

1. Remove the filter covers from the compressor.
2. Remove the filter covers from the filters.
3. Remove the filters from the filter covers.
4. Clean the sponge and both the filters cover using a soft brush. If necessary, the filters can be carefully cleaned in warm soapy water. Rinse and let the filters dry completely before refitting.
5. Make sure that the filters and filter covers are replaced into position. If the filters are damaged, you must

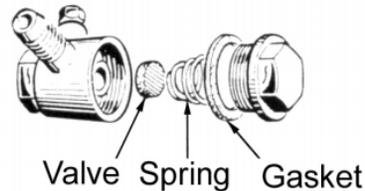


MAINTENANCE

CHECK THE NON-RETURN VALVE (EVERY 6 MONTHS)

If the reservoir pressure decreases for no apparent reason, it is possible that the non-return valve is leaking. To check:

1. Make sure that the reservoir is not under pressure and the compressor is switched OFF.
2. Examine the non-return valve, and replace the gasket and valve if necessary.



THERMAL RESET SWITCH



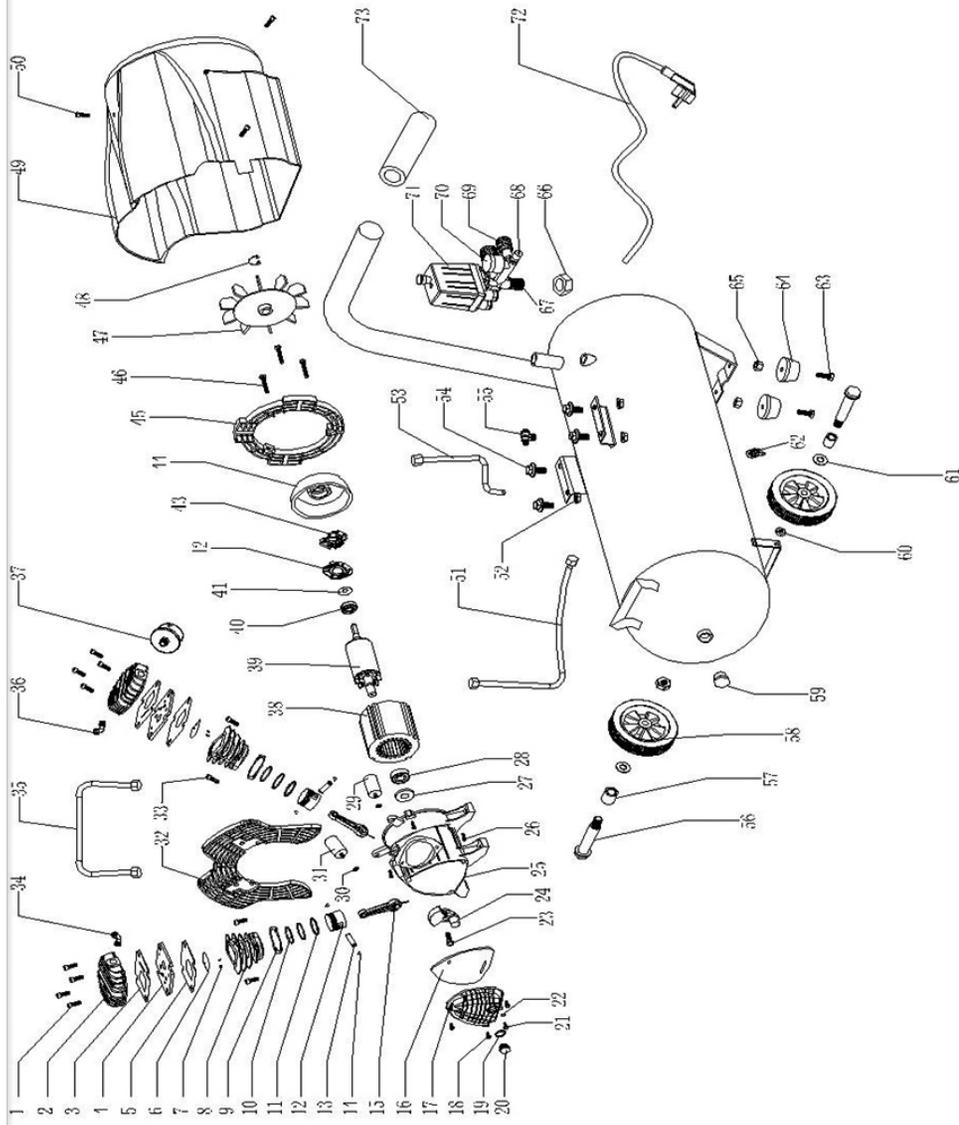
There may be instances your compressor will overheat. If it cuts out, this is a safety feature to protect you and your compressor. Leave this compressor for a good while until you reset it.

If the compressor turns off again on re-set you should not keep running it as it may be damaged and the system may be unsafe.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	ACTION
Motor unable to run, running slow or getting hot	<ol style="list-style-type: none"> 1. Fault in line or insufficient voltage 2. Power wire too thin or long 3. Fault in pressure switch 4. Fault in motor 5. Sticking of main compressor 	<ol style="list-style-type: none"> 1. Check the line 2. Replace the wire 3. Repair or replace 4. Repair or replace 5. Check and repair
Sticking of main compressor	<ol style="list-style-type: none"> 1. Moving parts burnt due to insufficient oil 2. Moving parts damaged or stuck by a foreign body 	Check crankshaft, bearing, connecting rod, piston, piston ring, etc. and replace if necessary
Shaking or abnormal noise	<ol style="list-style-type: none"> 1. Connecting part loose 2. Foreign body in the main compressor 3. Piston knocking the valve seat 4. Moving parts seriously worn 	<ol style="list-style-type: none"> 1. Check and retighten 2. Check and clean away 3. Replace with thicker paper gasket 4. Repair or replace
Pressure insufficient or discharge capacity decreased	<ol style="list-style-type: none"> 1. Motor running too slow 2. Air filter choked up 3. Leakage of safety valve 4. Leakage of discharge pipe 5. Sealing gasket damaged 6. Valve plate damaged, stuck or carbon build up 7. Piston ring and cylinder worn or damaged 	<ol style="list-style-type: none"> 1. Check and remedy 2. Clean or replace the cartridge 3. Check and adjust 4. Check and repair 5. Check and replace 6. Replace and clean 7. Repair or replace
Excessive oil consumption	<ol style="list-style-type: none"> 1. Oil level too high 2. Breather pipe choked up 3. Piston ring and cylinder worn or damaged 	<ol style="list-style-type: none"> 1. Keep the level within set range 2. Check and clean 3. Repair or replace

REPLACEMENT PARTS DIAGRAM



No.	Part	Qty	Part No	No.	Part	Qty	Part No
1	Bolt M6x55	4	905225	38	Stator	1	905319
2	Cylinder head	1	900039	39	Rotor	1	905320
3	Cylinder head gasket	2	905307	40	Brearing 6202	1	904965
4	Valve plate	2	905308	41	Wave washer D35	1	905321
5	Valve plate gasket	2	905309	42	Switch scaleboard	1	905322
6	Valve clack	2	901578	43	Switch	1	905323
7	Seal	4	905310	44	Electrical cover	1	905324
8	Cylinder	2	901735	45	Guard	1	905325
9	Cylinder gasket	2	900050	46	Bolt M5x30	6	904046
10	Piston ring	4	905311	47	Fan	1	900043
11	Oil wreath	2	905312	48	Circlip	1	905215
12	Piston	2	900056	49	Cowling	1	900038
13	Piston pin	2	900057	50	Bolt ST4.8x16	5	905327
14	Circlip	4	905313	51	High pressure pipe	1	901724
15	Conncting rod	2	901227	52	Nut M8	4	901995
16	Rubber gasket	1	901245	53	High pressure pipe	1	900124
17	Crank case cover	1	902674	54	Bolt M8x25	4	903842
18	Bolt M5x16	6	904085	55	One-way valve	1	900061
19	Oil leveler gasket	1	905314	56	Axle	2	900119
20	Oil leveler	1	902148	57	Axle set	2	905328
21	Bolt M6x10	1	901925	58	Wheel	2	900152
22	O circlip 5.6x 1.8	1	905315	59	Receiver plug	2	900067
23	Hex bolt M8x22(left)	1	905080	60	Nut M10	2	901126
24	Crank	1	901824	61	Washer	4	905329
25	Crank case	1	902262	62	Drain plug	1	900070
26	Bolt M6x40	8	905316	63	Bolt M8x25	2	903842
27	Sealing ring	1	905317	64	Rubber foot	2	900114
28	Bearing 6204	1	905049	65	Nut M8	2	901995
29	Capacitor	1	905318	66	Nut	1	902684
30	Nut M8	2	901995	67	Support	1	905330
31	Capacitor	1	901223	68	Safety valve	1	900073
32	Guard	1	900046	69	Quick coupler	2	900091
33	Bolt M8x25	4	903842	70	Manometer	2	900122
34	T-Piece & Elbow	1	907277	71	Pressure switch	1	900066
35	Connector	1	901299	72	Plug line	1	900100
36	Elbow	1	901119	73	Rubber grip	1	905331
37	Air filter	2	900011				

FOR YOUR SAFETY
PLEASE READ THESE INSTRUCTIONS CAREFULLY
AND RETAIN THEM FOR FUTURE USE.





SGS Engineering (UK) Ltd
West Side Park
Raynesway
Derby, DE21 7AZ

EC Declaration of Conformity

This is an important document and should be retained

MANUFACTURER'S NAME: SGS Engineering (UK) Ltd

TYPE OF EQUIPMENT: Air Compressor

PART NUMBER: SC50V / SC100V

PARAMETERS: Rated voltage:
230VAC; 230VAC; 230VAC; 230VAC; 220-240VAC;
220-240VAC, 230VAC, 220-240VAC; 220-240VAC
Rated power: 2200W
Rated frequency: 50Hz
Protection class: I
Degree of protection: IP20
Max. working pressure :
0.8 MPa; 0.8 MPa; 1.0 MPa; 0.8 MPa; 1.0 MPa; 1.0
MPa; 1.0 MPa; 1.0 MPa; 1.0 MPa
Remark: Only used indoors

TESTED ACCORDING TO: EN 1012-1:2010

I, the undersigned, hereby declare that the equipment specified above conforms to the above European Communities Directive(s) and Standard(s).

PLACE: Derby, UK

DATE: 24th MAY 2019

A handwritten signature in black ink, appearing to read 'Robert Wyatt', written over a horizontal line.

(Signature)

Robert Wyatt

Company Secretary