# SC50S
# 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. Wheel
9. Discharge pipe
10. Air tank
11. Safety valve
12. Fan cover


| | |
|---|---|
| Model | **SC50S** |
| Power | **1.8 kW / 2.5 HP** |
| Voltage | **230 V @ 50 Hz** |
| Motor Poles | **2 P** |
| Rated Speed | **2850 rpm** |
| Delivery | **9.5 cfm** |
| Discharge Pressure | **115 psi / 0.8 MPa** |
| Tank Capacity | **50 L** |
| Dimensions | **(L) 840 x (W) 330 x (H) 660 mm** |
| Net Weight | **38 kg** |
| Noise Specification | **LWA 97dB** |

## 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.

**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.

SAFETY PRECAUTIONS

**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.

## SAFETY PRECAUTIONS

**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.

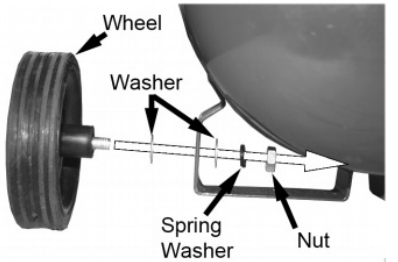
**DISPOSAL INFORMATION:** The air compressor should be disposed of in a safe an environmentally friendly manner. Contact your local Council for disposal assistance.

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

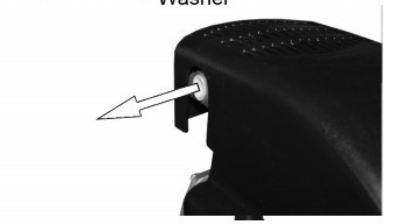


## ASSEMBLY

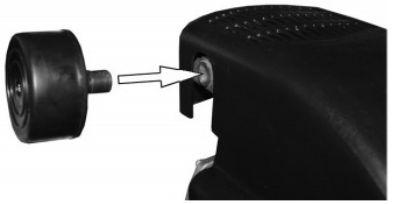
Attach the wheels to the compressor.



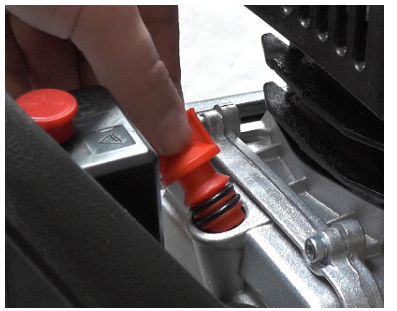

Remove the travel bung.



Screw in the air filter.



Remove the travel bung and fit the oil breather pipe.



## BEFORE USE

1. Set the ON/OFF switch to the-OFF position (pushed down).

2. Make sure that the compressor is on level ground and check that the oil level is half way up the oil sight glass

3. If not, remove the breather plug and fill with compressor oil (our part code SO2068)

## OPERATION

1. Attach a hose to the quick re-lease coupler on the compres-sor and to an air tool.

2. Turn the compressor on by lifting the on/off button. The compressor will operate until the tank is fully pressurised before switching off. The com-pressor will start again when the tank pressure drops.

3. Set the regulator to the correct pressure for the air tool (check in the air tool manual). The output pressure is shown on the right gauge. The left hand gauge shows the tank pressure.

## SWITCHING OFF

1. Push down on the on/off switch to turn the compressor off.

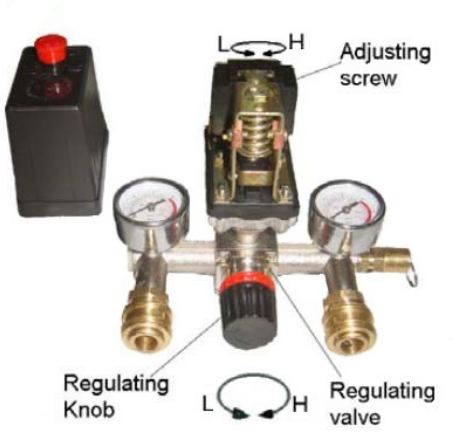
2. Operate the air tool to depressurise the air hose.

3. Disconnect the tool from the hose.

4. Open the drain cock to remove any condensation from the compressor.

## PRESSURE 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.

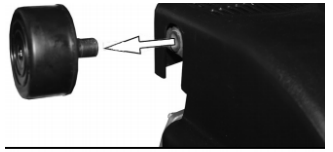


## CAUTIONS

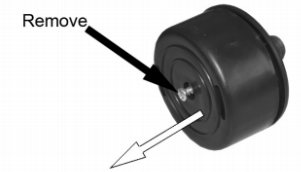
1. Disconnect power source then release all pressure from the system before attempting to install, service, relocate or perform any maintenance.
2. Never unscrew any connecting part when the tank is pressurised.
3. Never disassemble any electrical part before disconnecting the plug.
4. Never adjust the safety valve carelessly.
5. Never use the compressor where voltage is too low or too high.
6. Never disconnect the plug to stop the compressor, set the switch knob to the off position instead.
7. Lubricating oil must be clean and at the level indicated.
8. Clean crankcase and renew lubricating oil after the first 10 working hours. Check the oil level after every 20 working hours, and replenish if necessary.

## MAINTENANCE

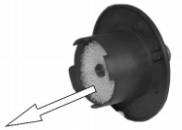
### CLEAN THE AIR FILTERS (MONTHLY)



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




1. Unscrew the filters from the compressor.
2. Remove the filter covers from the filters.
3. Clean the sponge and the filter 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.

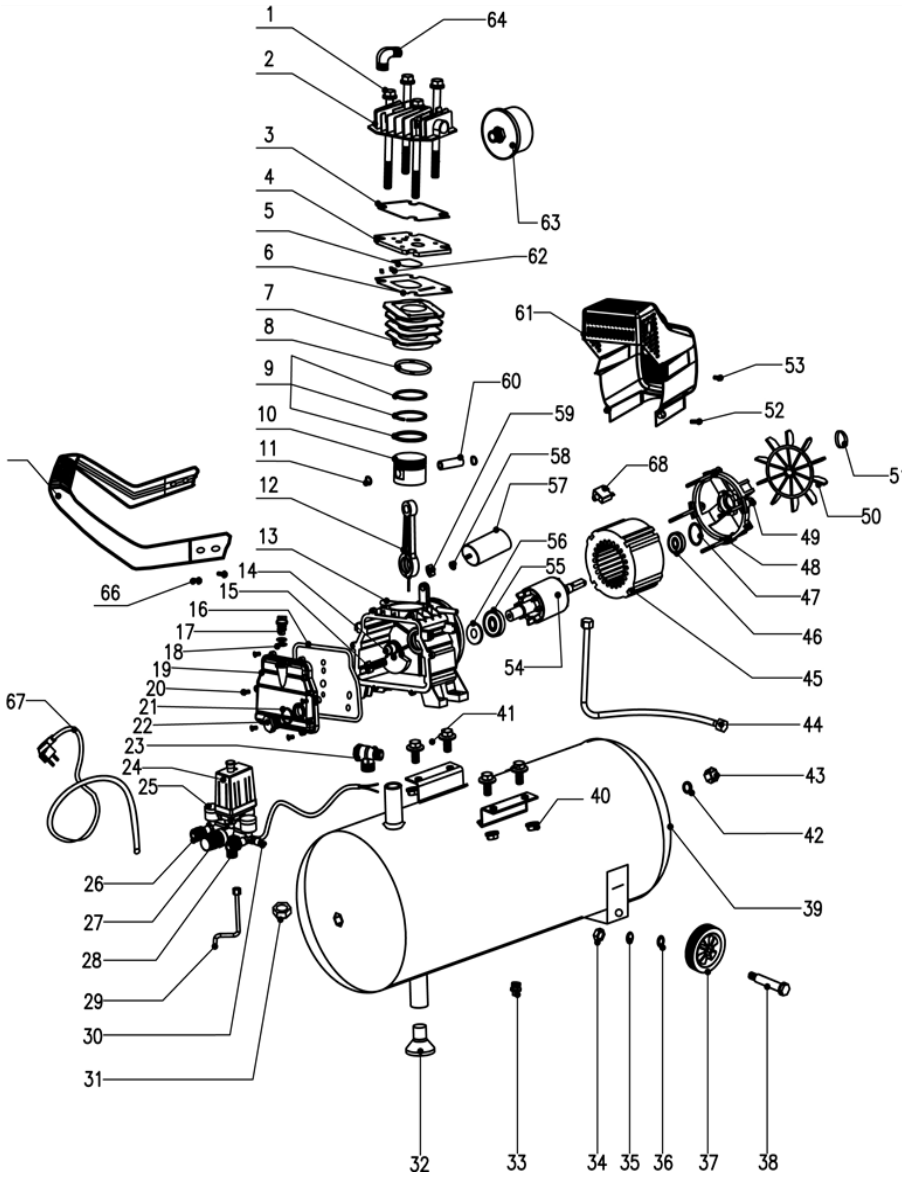


4. Make sure that the filters and filter covers are replaced into position. If the filters are damaged, you must replace them.

### CLEANING

1. Open drain cock under the tank to exhaust condensate after every use.
2. Clean the crankcase and renew the oil, clean air filter, and check safety valve and pressure gauge after every 120 working hours.

## REPLACEMENT PARTS DIAGRAM




| No. | Part | Qty | Part No | No | Part | Qty | Part No |
|---|---|---|---|---|---|---|---|
| 1 | Bolt M8x103 | 4 | 905001 | 35 | Washer 10 | 2 | 905033 |
| 2 | Cylinder cover | 1 | 905002 | 36 | Spring washer 10 | 2 | 903623 |
| 3 | Cylinder cover gasket | 1 | 905003 | 37 | Wheel | 2 | 905034 |
| 4 | Valve plate | 1 | 905004 | 38 | Wheel bolt M10 | 2 | 905035 |
| 5 | Valve clack | 1 | 905005 | 39 | Tank | 1 | 905036 |
| 6 | Valve plate gasket | 1 | 905006 | 40 | Lock nut M8 | 4 | 900391 |
| 7 | Cylinder | 1 | 905007 | 41 | Lock bolt M8x30 | 4 | 905037 |
| 8 | Cylinder gasket | 1 | 905008 | 42 | Sealed ring φ18x2.4 | 2 | 905038 |
| 9 | Piston ring | 3 | 905009 | 43 | Stem Rp1/2 | 2 | 905039 |
| 10 | Piston | 1 | 905010 | 44 | Discharge pipe | 1 | 905040 |
| 11 | Circlip | 2 | 905011 | 45 | Stator | 1 | 905041 |
| 12 | Conncting rod | 1 | 905012 | 46 | Bearing 6203 | 1 | 905042 |
| 13 | Crank case | 1 | 905013 | 47 | Conugated washer | 1 | 905043 |
| 14 | Crank | 1 | 905014 | 48 | Motor cover | 1 | 905044 |
| 15 | Hex bolt M8x22(left) | 1 | 903627 | 49 | Bolt M5x105 | 4 | 903830 |
| 16 | Rubber gasket | 1 | 905015 | 50 | Fan | 1 | 905045 |
| 17 | Breather pipe | 1 | 905016 | 51 | Circlip | 1 | 905046 |
| 18 | Sealed ring 13x2.5 | 2 | 905017 | 52 | Bolt ST3.9x19 | 2 | 905047 |
| 19 | Crank case cover | 1 | 905018 | 53 | Bolt M5x8 | 2 | 903676 |
| 20 | Bolt M6x10 | 6 | 901925 | 54 | Rotor | 1 | 905048 |
| 21 | Oil leveler gasket | 1 | 905019 | 55 | Brearing 6204 | 1 | 905049 |
| 22 | Oil leveler | 1 | 905020 | 56 | Sealing ring | 1 | 905050 |
| 23 | Only-way valve | 1 | 905021 | 57 | Capacitance | 1 | 905051 |
| 24 | Pressure switch | 1 | 905022 | 58 | Washer 8 | 1 | 903393 |
| 25 | Pressure gauge | 2 | 905023 | 59 | Nut M8 | 1 | 901995 |
| 26 | Quick couplers | 2 | 905024 | 60 | Piston pin | 1 | 905053 |
| 27 | Regulator valve | 1 | 905025 | 61 | Fan cover | 1 | 905054 |
| 28 | Distributor | 1 | 905026 | 62 | Column 3 | 2 | 905055 |
| 29 | Release pipe | 1 | 905027 | 63 | Air filter | 1 | 905056 |
| 30 | Safety valve | 1 | 905028 | 64 | Curved head | 1 | 905057 |
| 31 | Nut Rp1/2 | 1 | 905029 | 65 | Plastic hand | 1 | 905058 |
| 32 | Washer foot | 1 | 905030 | 66 | Bolt M5x12 | 4 | 904074 |
| 33 | Drain valve | 1 | 905031 | 67 | Power cord | 1 | 905060 |
| 34 | Lock nut M10 | 2 | 905032 | 68 | Thermal protector | 1 | 905061 |

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# 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: SC24S & SC50S

APPLICATION OF EC COUNCIL DIRECTIVES / STANDARD:

| | |
|---|---|
| 2014/30/EU | Electromagnetic Compatibility Directive |
| 2006/42/EC | Machinery Directive |
| 2009/105/EC | Simple Pressure Vessel Directive |
| 2000/14/EC | Noise Emissions Directive (amended by 2005/88/EC) |
| 2002/95/EC | Restriction of Hazardous Substances |

EN 55014-1:2006/+A1:2009/+A2:2011
EN 55014-2:1997/A1:2001/+A2:2008
EN61000-3-2:2014 EN61000-3-3:2013

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: 5th JULY 2023

(Signature)
Neil Sansom
Company CEO

UK CA

# Specification Table for Tightening Force and Destructive Torque of Screws

Scope of application:

1、 The general specification 3-10mm in outer diameter and meets the strength grade of ISO898-1 4.8/8.8;

2、 Screws that are shorter than 3 times in outer diameter are not suitable for the destructive torque tests.

Test conditions:

1、 The maximum specification for torque meter testing should not exceed 5 times the torque of the product being tested.

2、 During testing, clamp the screw rod onto the vise and expose the screw head with a bite of about 10mm. Then, select a suitable nozzle and install it on the torque batch. Next, rotate the torque batch at a constant speed until the screw breaks. At that time, the displayed torque value is the destructive torque.

Common screw specification:

| Screw Size | Strength Grade | Torque Specifications | |
|---|---|---|---|
| | | Tightening force(N.m) | Min. Destructive Torque (N.m) |
| M3.0 | 8.8 | 1.0~1.5 | 1.8 |
| M3.5 | 8.8 | 1.5~2.0 | 2.8 |
| M4.0 | 8.8 | 2~3 | 4.3 |
| M5.0 | 4.8 | 3.5~5 | / |
| M5.0 | 8.8 | 6~8 | 9.1 |
| M6.0 | 4.8 | 5~7 | / |
| M6.0 | 8.8 | 8~12 | 15 |
| M7.0 | 8.8 | 10~15 | 27 |
| M8.0 | 8.8 | 18~25 | 39 |
| M10.0 | 8.8 | 30~40 | 79 |

Standard Component Specification:

| No. | Description | Specification | Min. Tightening Force (N.m) |
|---|---|---|---|
| 1 | Quick connector | 1/4 | ≥6 |
| 2 | High pressure pipe（nut） | G3/8 | ≥18 |
| 3 | Back cover of check valve(48) | M20 | ≥12 |
| 4 | Back cover of check valve (55) | M22 | ≥15 |

Note: 1. The fixed head and foot pad screws (M8) shall be controlled according to a strength level of 6.8, and their Min. destructive force must be over 23N.m.

2.The tightening force at the nut of the high-pressure pipe should be kept from leaking air in principle.