

SC24H AIR COMPRESSOR

OWNER'S MANUAL



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

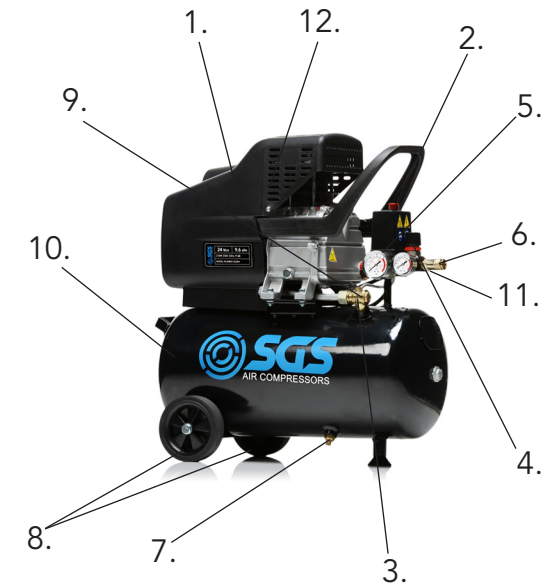


SPECIFICATION

ITEM	DATA
Model	SC24H
Power	1.8 kW / 2.5 HP
Voltage	230 V
Frequency	50 Hz
Motor Poles	2 P
Rated Speed	2850 rpm
Current	7.5 A
Delivery	9.6 CFM
Discharge Pressure	115 PSI / 0.8 MPa
Restart Pressure	70 PSI / 0.5 MPa
Tank Capacity	24 L
Dimensions	610x310x660 mm
Air Outlet Size	1/4"
Net Weight	27 kg
Noise Information	LWA 97 dB

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. Discharge pipe
10. Air tank resevoir
11. Safety valve
12. Fan cover



LIST OF GOODS

ITEM	LIST OF GOODS	QTY
1	Air Compressor	1
2	Air Filter	1
3	Breather Pipe	1
4	Wheel	2
5	Wheel Axis	2
6	Rubber Gasket	1
7	Instruction Manual	1

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 safety goggles and ear protectors when using this compressor.



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

SAFETY PRECAUTIONS

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.

SAFETY PRECAUTIONS

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.

DISPOSAL INFORMATION

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

SAFETY PRECAUTIONS

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.

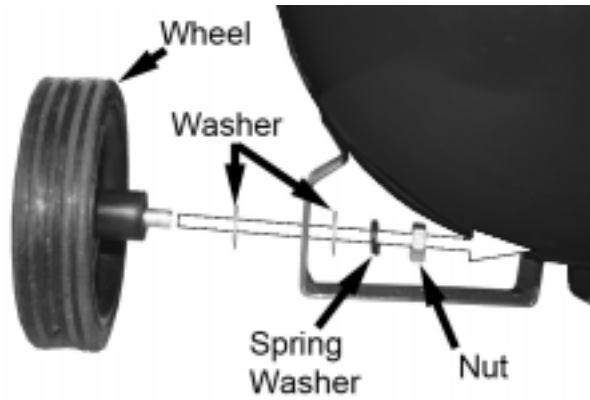
STORE THE AIR COMPRESSOR PROPERLY: When not in use the air compressor should be stored in a secure, dry place out of the reach of children. Always lock up the storage area.

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.

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.



PREPARATION FOR STARTING

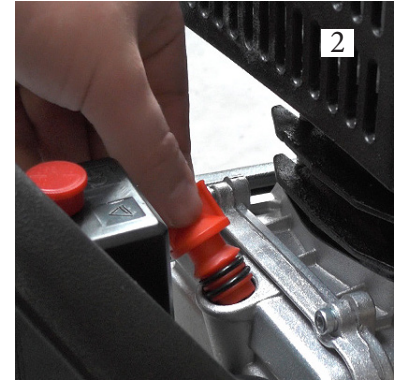
1. Check all nuts and bolts. Make sure all loosened parts are tightened before starting.

2. Before running the compressor remove the white plug and connect the red bung in its place. (2.)

3. Screw the air filter in before starting the compressor. (3.)

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

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



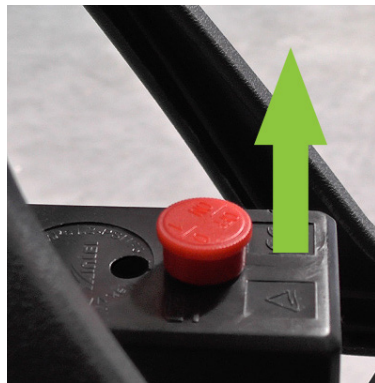
PREPARATION FOR STARTING

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

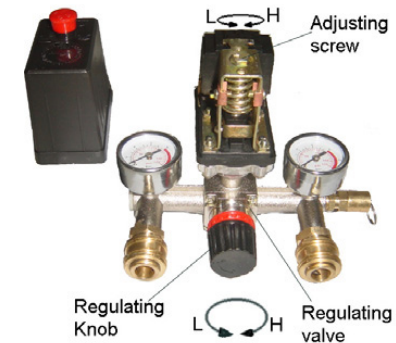


6. Open the drain cock, set the power switch knob to position "on" and let the compressor run for 10 minutes with no load to ensure the moving parts are lubricated before regular service.



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

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.

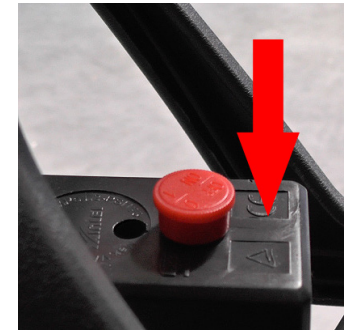


2. The output pressure of compressed air can be adjusted by the regulating valve. Grip the regulation valve knob and turn it clockwise to increase the pressure.

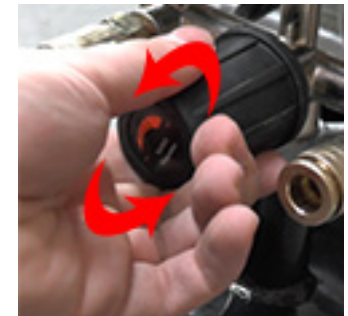


OPERATION AND ADJUSTMENT

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.



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



MAINTENANCE



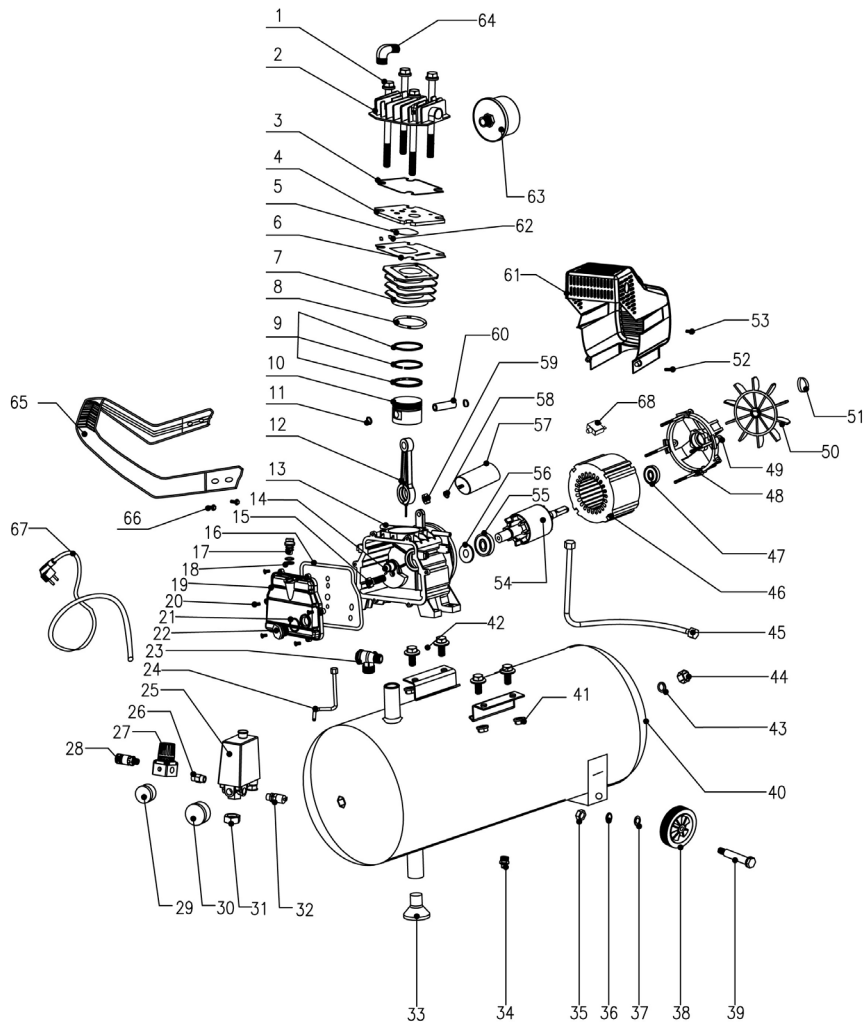
1. Before any maintenance operation stop the air compressor, cut off the power supply and discharge all air in the air tank.
2. Clean crank case and renew lubricating oil after the first 10 working hours. Check the oil level through the oil level sightglass (1.) before every use and replenish if necessary - you can replenish by unbolting the sump bolt, and drain 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.
6. Change the oil (drain all old oil and replace) after every 120 working hours.

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.

REPLACEMENT PARTS DIAGRAM



PARTS LIST

ITEM	PART	QTY	CODE	ITEM	PART	QTY	CODE
1	M8x107 Bolt	4	900089	46	Winding	1	901832
2	Cylinder head	1	901602	47	Bearing 6203	1	907139
3	Cylinder cover gasket	1	900106	48	Motor cover	1	907140
4	Valve plate	1	900079	49	Bolt M5x105	4	903830
5	Valve plate flap	1	901318	50	Fan	1	900078
6	Valve plate gasket	1	906956	51	Circlip	1	907149
7	Cylinder	1	901746	52	Bolt ST3.9x19	2	905047
8	Cylinder gasket	1	900109	53	Bolt M5x8	2	907141
9	Piston ring	3	901778	54	Rotor	1	907142
10	Piston	1	901881	55	Bearing 6204	1	907143
11	Circlip	2	901234	56	Sealing ring	1	907144
12	Piston rod	1	900085	57	Capacitor	1	901383
13	Crank case	1	901874	58	Washer 8	1	901263
14	Crank	1	900090	59	Nut M8	1	901995
15	Hex Bolt M8x22	1	901335	60	Piston pin	1	907145
16	Rubber gasket	1	900083	61	Cowling	1	900076
17	Oil bung	1	900096	62	Valve assy. bolt	2	907146
18	Sealing ring 13x2.5	2	900099	63	Air filter	1	900075
19	Crank case cover	1	906970	64	90° Elbow	1	907147
20	Bolt M6x10	6	900100	65	Handle	1	900082
21	Oil leveller gasket	1	900082	66	Bolt M5x12	4	904074
22	Oil leveller	1	906089	67	Power cord	1	907148
23	Non-return valve	1	900081	68	Thermal switch	1	900123
24	Discharge pipe	1	901513				
25	Switch box cover	1	900084				
26	Connecting nut	1	901313				
27	Manifold/Regulator	1	900094				
28	Quick coupler	1	900091				
29	Small pressure gauge	1	900122				
30	Large pressure gauge	1	900131				
31	Switch box nut	1	902684				
32	Safety valve	1	900073				
33	Rubber foot	1	900102				
34	Drain cock	1	900070				
35	Nut M10	2	905032				
36	Washer 10	2	902456				
37	Spring washer	2	903842				
38	Wheel	2	900104				
39	Wheel axle	2	901618				
40	Air tank	1	900103				
41	Nut M8	4	901995				
42	Bolt M8x25	4	902525				
43	Sealing ring 18x2.4	2	907138				
44	Stem Rp 1/2	2	901122				
45	Discharge pipe	1	901513				

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

CE MARK

SGS ENGINEERING IS COMMITTED TO DESIGNING, MANUFACTURING, AND MARKETING PRODUCTS THAT MEET OR EXCEED THE NEEDS OF THE CUSTOMERS WE SERVE. SGS ENGINEERING CAN SUPPLY A LETTER OF INCORPORATION OR A DECLARATION OF CONFORMITY AND CE MARKING FOR PRODUCTS THAT CONFORM WITH EUROPEAN COMMUNITY DIRECTIVES.



ISO 9001

SGS ENGINEERING'S COMMITMENT TO QUALITY IS EVIDENT IN EVERYTHING WE DO, FROM RAW MATERIAL RECEIPT TO HOW WE SUPPORT OUR CUSTOMERS YEARS AFTER THEY PURCHASE OUR PRODUCTS. SGS ENGINEERING IS REGISTERED TO ISO 9001: 2000 INTERNATIONAL QUALITY STANDARD. ISO 9001: 2000 REQUIRES COMPLIANCE WITH STANDARDS FOR MANAGEMENT, ADMINISTRATION, PRODUCT DEVELOPMENT, MANUFACTURING AND CONTINUAL IMPROVEMENT.



OUR REGISTRATION VERIFIES THAT SGS ENGINEERING HAS ADOPTED AND MAINTAINS DOCUMENTATION FOR PROCESSES RANGING FROM SUPPLIERS TO CUSTOMERS, INSPECTION, HANDLING, AND TRAINING. ISO 9001 ALSO REQUIRES PERIODIC INTERNAL AND EXTERNAL AUDITS TO ENSURE ALL ASPECTS OF WORK AFFECTING QUALITY CONTROL ARE MONITORED. THIS ALWAYS HAS BEEN, AND WILL CONTINUE TO BE, OUR PHILOSOPHY. THAT'S OUR GUARANTEE TO YOU.

FOR MORE PRODUCTS PLEASE BROWSE OUR WEBSITE: WWW.SGS-ENGINEERING.COM

- GAS STRUTS FOR CARS, DOMESTIC & INDUSTRIAL APPLICATIONS
- GARAGE EQUIPMENT - ENGINE CRANES, STANDS, BOTTLE JACKS, TROLLEY JACKS, AXLE STANDS, FARM JACKS, WHEEL DOLLIES, CHOCKS, SEATS, HYDRAULIC PRESSES
- POWER TEAM 700 BAR HYDRAULIC CYLINDERS, PUMPS, TOOLS & EQUIPMENT



SGS Engineering (UK) Ltd
1 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: SC24H

PARAMETERS:	Rated Voltage	230V~
	Rated Frequency	50Hz
	Rated Input Power	1800W
	Protection Class	I
	Protection Degree	IP20
	Max. Working Pressure	0.8MPa
	Remark	Indoors only

EN 1012-1:2010, AfPS GS 2014:01 PAK

APPLICATION OF EC COUNCIL DIRECTIVES / STANDARD:

EN 1012-1:2010, AfPS GS 2014:01 PAK
Machinery Directive 2006/42/EC
Low Voltage Directive 2014/35/EU

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: 28th SEPTEMBER 2023

(Signature)
Neil Sansom
Company CEO

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.