

INSTRUCTIONS FOR: 2 X 3.0HP 270 LITRE BELT DRIVE COMPRESSOR MODEL No: SA2127/32

Thank you for purchasing a Sealey product. Manufactured to a high standard this product will, if used according to these instructions and properly maintained, give you years of trouble free performance.

MPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS AND CAUTIONS. USE THE PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY. PLEASE KEEP INSTRUCTIONS SAFE FOR FUTURE USE.

# 1. SAFETY PRECAUTIONS

#### 1.1. ELECTRICAL SAFETY

□ WARNING! ELECTRICAL INSTALLATION OF COMPRESSOR CONTROL BOX TO A 230V 30A SUPPLY MUST ONLY BE CARRIED OUT BY A QUALIFIED ELECTRICIAN. Make sure the power supply cable is correctly connected to the earth. □ WARNING! It is the owner's responsibility to read, understand and comply with the following:

✓ Check all electrical equipment and appliances to ensure they are safe before using. You must inspect power supply leads, plugs and all electrical connections for wear and damage. You must ensure the risk of electric shock is minimised by the installation of appropriate safety devices. An RCCB (Residual Current Circuit Breaker) should be incorporated in the main distribution board. We also recommend that an RCD (Residual Current Device) is used with all electrical products. It is particularly important to use an RCD together with portable products that are plugged into an electrical supply not protected by an RCCB. If in doubt consult a professional electrician. You may obtain an RCD by contacting your Sealey dealer. You must also read and understand the following instructions concerning electrical safety. The *Electricity At Work Act 1989* requires all portable electrical appliances, if used on business premises, to be tested by a qualified electrician, using a Portable Appliance Tester (PAT), at least once a year.

The Health & Safety at Work Act 1974 makes owners of electrical appliances responsible for the safe condition of the appliance and the safety of the appliance operator. If in any doubt about electrical safety, contact a qualified electrician.

- ✓ Ensure that the insulation on all cables and the compressor is safe prior to connecting to the mains supply.
- ✓ Regularly inspect the power supply leads, plugs and electrical connections for damage or wear.
- **X DO NOT** pull the powered appliance by the power cable.
- *x* **DO NOT** pull the power plug from its socket by the power cable.
- X DO NOT use worn or damaged leads, plugs or connections. Immediately replace them, or have them repaired by a qualified electrician.
- Ensure that cables are always protected against short circuit and overload.
   Important: Ensure the voltage marked on the product is the same as the electrical power supply to be used, and check that plugs are fitted with correct capacity fuse.
- □ WARNING! MODEL SA2127/32 HAS A CURRENT RATING OF 20 AMPS AND THEREFORE REQUIRES TO BE CONNECTED TO A 30 AMP SUPPLY. YOU MUST CONTACT A QUALIFIED ELECTRICIAN TO ENSURE A 30 AMP FUSED SUPPLY IS AVAILABLE. WE RECOMMEND YOU DISCUSS THE INSTALLATION OF AN INDUSTRIAL ROUND PIN PLUG & SOCKET WITH YOUR ELECTRICIAN.
- □ WARNING! If an electrical fuse blows, ensure that it is replaced with one of identical type and rating.

### 1.2. GENERAL SAFETY INSTRUCTIONS

- ✓ Familiarise yourself with the application and limitations of the compressor.
- Ensure the compressor is in good order and condition before use. If in any doubt do not use the unit and contact an electrician/service agent.

IMPORTANT: The compressor must be installed and commissioned by qualified personnel.

- WARNING! The compressor must only be serviced by an authorised agent. DO NOT tamper with, or attempt to adjust, the pressure switch or safety valve.
- ✓ Before moving, or maintaining the compressor ensure it is unplugged from the mains supply and that the air tank pressure has been vented.
- ✓ Only use recommended attachments and parts. To use unauthorised items may be dangerous and will invalidate your warranty.
- Read the instructions regarding any accessory used with the compressor. Ensure the safe working pressure of any air appliance used exceeds the compressor regulator. If using a spray gun, check the area selected for spraying is provided with air change system/ventilation.
- ✓ Ensure the air supply valve is turned off before disconnecting the air supply hose.
- ✓ Use the compressor in a well ventilated area and ensure it is placed on a firm surface away from any heat sources.
- ✓ Keep tools and other items away from the compressor when it is in use and keep area clean and clear of unnecessary items.
- ✓ Ensure the air hose is not tangled, twisted or pinched.
- ✓ Keep children and unauthorised persons away from the working area.
- *x* **DO NOT** use the compressor outdoors or in damp, or wet, locations.
- X DO NOT operate within the vicinity of flammable liquids, gases or solids.
- X DO NOT touch compressor cylinders, cylinder heads or pipes from heads to tank as these may be hot and will remain so for some time after shutdown.
- **X DO NOT** attempt to move the compressor by pulling the air tool hose.
- X DO NOT use this product to perform a task for which it has not been designed.
- **X DO NOT** operate the compressor with either belt guard removed.
- **X DO NOT** deface the certification plate attached to the end of the compressor tank.
- X DO NOT cover the compressor or restrict air flow around the machine whilst it is operating.
- DANGER! DO NOT direct the output jet of air towards people or animals.
- X DO NOT operate the compressor without fitted inlet air filters.
- X DO NOT allow anyone to operate the compressor unless they have received full instructions.

#### AIR TANK SAFETY INSTRUCTIONS

- WARNING! The air tank is a pressure vessel and the following safety measures apply:
- *x* **DO NOT** tamper with the safety valve.
- *x* **DO NOT** modify or alter the tank in any way.
- *x* **DO NOT** strap or weld anything to the tank.
- **X DO NOT** subject the tank to impact or vibration.
- *x* **DO NOT** operate the compressor if damaged.
- ✓ DO drain condensation from tank daily, inspect inside walls for corrosion every three months and have a detailed tank inspection carried out annually. The tank shell must not fall below the certified thickness at any point.
- When not in use, store the compressor carefully in a safe, dry, childproof location.

# 2. INTRODUCTION & SPECIFICATION

#### 2.1 Introduction

2.1.1 High output unit suitable for garage, body shop and industrial applications. Features tandem twin-cylinder compressors, each powered by a heavyduty electric motor. Fully automatic pressure switch keeps line pressure at an optimum level. Supplied with control box which provides automatic stepped starting to prevent supply overload. Requires a 230V 30A supply. Supplied with full CE certification.

#### 2.2 Specification

Model	2127/32
Motor output	2 x 3hp
Current	30V AC)
Pump speed	300rpm
Piston displacement	x 13 cfm
Free air delivery	x 10cfm
6 bar: 2 >	k 9.2cfm
9 bar: 2 >	k 7.7cfm
10 bar: 2 >	7.1cfm
Operating pressure	.10 bar

Operating pressure	10 bar
Tank capacity	270ltrs
Noise	. 95 dB.A

#### 3. PREPARATION

- 3.1. Remove compressor from packaging and inspect for any shortages or damage.
- If anything is found to be missing or damaged contact your supplier.
  3.2 Save the packing material for future transportation of the compressor. We recommend that you store the packing in a safe location, at least

for the period of the guarantee. Then, if necessary, it will be easier to send the compressor to the service centre.

- 3.3 Confirm the mains voltage corresponds with the voltage shown on compressor data plate. Wire in accordance with Section 1.1. and check that the motors operate in the correct direction.
- 3.4 The compressor should be operated on a flat surface, or one that does not exceed 15O either transversely or longitudinally. Refer to Fig.1. The compressor should be in a position that allows good air circulation around the unit.
- 3.5 Confirm that the oil level is at the maximum mark on both sight glasses. Refer to Fig. 2.
- 3.6 When fully installed, start the compressor and ensure everything is in good working order before operational use. Check the direction of rotation (see arrow on motor) to confirm correct wiring.

## 4. OPERATION

#### IMPORTANT

The motors on the compressor are 3HP/230V and **will not** operate within the capacity of a 13-amp fused circuit. The compressor must be connected to a 230V 30A supply. Refer to Section 1.1.

□ WARNING! An extension lead must not be used to connect the compressor to the mains, as the resulting voltage drop would reduce the motor's output and pump performance.

#### □ IMPORTANT

Take care when selecting tools for use with the compressor. Air tool manufacturers normally express the volume of air required to operate a tool in cubic feet per minute (cfm). This refers to free air delivered by the compressor ('air out') which varies according to the pressure setting. Do not confuse this with the compressor displacement, which is the air taken in by the compressor ('air in'). 'Air out' is always less than 'air in' due to losses within the compressor - and so it is important that, before choosing equipment, you study the 'Free Air Delivery' figures shown in the specification table in Section 2.

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#### 4.1 Starting the Compressor

- □ WARNING! To aid start-up, the compressor is fitted with a pressure switch with a blowdown valve which stays open until the tank pressure is at 1 bar. When this pressure has been reached the valve she allowing the motor to reach the correct revolutions immediately.
- **NOTE:** The SA2127/32 model is a dual stage compressor, in which a timer controls the startup of the two motors, such that one motor starts 10 seconds after the other.
- 4.1.1 Ensure that the main switch is in the "O," OFF, position (refer to Fig. 3.1) and that the tank air outlet valve is closed.
- 4.1.2 Plug the mains cable into the supply socket and start the compressor by turning the main switch (Fig. 3.1) to "AUTO."
- 4.1.3 Ensure that the pressure in the tank rises and that the compressor stops automatically when the maximum pressure indicated on the gauge is reached. Refer to Fig. 3.2.
- 4.1.4 The compressor is controlled by the pressure switch which disconnects the motor power supply when the tank pressure reaches the pressure switch value, 10 bar.
- 4.1.5 Both motors are supplied with thermal cutouts. Refer to Fig. 4. The cutouts protect the motors by disconnecting the power supply if the nominal absorption values are exceeded. If the cutouts are activated, the cause must be traced and rectified.

#### 4.2 Stopping the Compressor

- 4.2.1 The compressor is stopped by turning the main switch to the "O," OFF, position.
- 4.2.2 The compressed air inside the compressor head will flow out, making the restart easier and preventing damage to the motor.
- 4.2.3 **DO NOT,** other than in an emergency, stop the compressor by switching off at the mains socket, or by pulling the plug out, as pressure relief will not occur and damage to the motor may result on restart.
- NOTE: If the motor does not cut in and out but runs continuously when using an air appliance, the compressor capacity may be too small for the tool.
- □ WARNING! The gauge shown in Fig. 3.2 indicates the pressure inside the main tank, NOT that supplied to the air equipment. Should the pressure in the tank exceed the pre-set switch (Fig. 3.6) maximum, a safety valve (Fig. 3.5) activates.

### 5. MAINTENANCE

In order to keep the compressor in good working condition, periodic maintenance is essential.

- IMPORTANT! Failure to carry out maintenance tasks may invalidate the warranty on your compressor.
- WARNING! Before performing any maintenance operation, switch off the compressor, disconnect it from the power supply and vent the air from the tank.
- IMPORTANT! Operations to be carried out after the first 50 working hours: a) Check that all holts/nuts are tight, particularly those retaining the crank case
  - a) Check that all bolts/nuts are tight, particularly those retaining the crank case and cylinder head.b) Replace the lubricating oil.

### 5.1. Air Intake Filter

- 5.1.1 Dry air filters with interchangeable cartridges are used with an average service life of 500 hours. Refer to Fig. 5.
- 5.1.2 The air intake filters should be checked monthly for dust ingestion. In very dusty environments, the filters should be checked once per week.
- 5.1.3 Replace damaged filters by unscrewing the butterfly nut and then removing the cartridge.

### 5.2 Oil Change

- 5.2.1 Drain the oil via the drainage plug on the unit base frame. Replace plug.
- 5.2.2 Unscrew the oil filler plug shown in Fig. 6. Pour the oil until it reaches the centre of the level indicator.
- 5.2.3 Screw the oil filler plug back into pump and run the compressor for approximately 2 minutes. Switch the motor off and check the oil level. If necessary, top up the level until it reaches the centre of the indicator.

#### 5.3 Recommended Oils

5.3.1 Recommended oil for compressors, suitable for room temperature ranging from +5°C to +25°C: Sealey CPO or equivalent SAE 40 compressor oil. Room temperature below +5°C: SAE 20 compressor oil.

#### 5.4 Condensation Discharge

5.4.1 The condensation should be drained after each day's work, using the valve under the tank. Refer to Fig. 7.

#### 5.5 V-Belts

5.5.1 The belt tension is set by the manufacturer. However, if the belt needs to be replaced, ensure that the pulleys are accurately aligned and tensioned correctly.

#### 5.6 General Maintenance

- 5.6.1 Clean the machine by using compressed air.
- 5.6.2 Pay particular attention to both the controls and the motors.
- 5.6.3 Remove any residual oil.
- 5.6.4 Clean all finned parts of the compressor, to ensure the efficiency of the cooling system and so increase the working life of the compressor.





Fig. 5







WARNING! DO NOT mix different types of oil. Dispose of waste oil in accordance with local authority requirements.

#### 5.7 **Scheduled Maintenance Tables**

Maintenance Operations	Daily	Monthly
Drain condensation	•	
Check oil level		•
Check safety valve		•
Check belt tension		•
Check oil leakage		•
Air Filter		•

Maintenance Operations	500 hrs.	1000 hrs.
Replace air filters	•	
General cleaning of compressor		•
Internal & external inspection of tank		•
Replace oil		•
Check tube fittings and electrical connections		•
Check condition of belts and pullevs		•

# 6. TROUBLE SHOOTING

FAULT	CAUSE REMEDY	
The compressor does not start.	No power supply. Supply voltage differs from that on the data plate. Thermal cut out has been triggered. Compressor is pressurised. A pressure switch malfunction.	Check the power supply connections. Check power supply Reset the motor thermal cutout. Vent the tank. Check the efficiency of the pressure switch. Ensure that the switch is intact.
The compressor has difficulty starting and the overload device is occasionally triggered.	Insufficient voltage to the motor terminals. Incorrect thermal cutout setting. Pump unit resistance fault.	Check the power supply voltage. Check thermal cutout efficiency and replace if necessary. Remove drive belts and check the pump unit efficiency. Check the oil level. Check for correct off-load motor operation.
The safety valve opens.	An incorrect pressure switch setting. An incorrect safety valve setting.	Reset the pressure switch. Replace the safety valve with another valve of the same type.
Poor or low capacity. The pressure does not increase.	The air intake filters are clogged. The drive belts are slack, or worn. Air leaking from fittings. A mechanical fault in the pump unit. A blocked check valve.	Clean or replace the filters. Tension or replace the belts. Inspect the fittings using soapy water. Contact a Sealey service agent. Overhaul the check valves and clean the parts.
Irregular variations in oil level.	Excessive oil consumption. Oil leaks. Oil has a tendency to emulsify and increase.	Overhaul the pump and replace the piston rings. Locate leaks and rectify. Move the compressor to a less humid and warmer environment. Change the oil more frequently.
Excessive noise and vibration.	Loose or worn parts. The unit is noisy due to wear. The compressor has been incorrectly mounted.	Check that all nuts and bolts are tight. Overhaul the pump units. Ensure floor is adequate.

NOTE: It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice. **IMPORTANT:** No liability is accepted for incorrect use of this product. CE

WARRANTY: Guarantee is 12 months from purchase date, proof of which will be required for any claim.

**INFORMATION:** For a copy of our latest catalogue and promotions call us on 01284 757525 and leave your full name and address, including postcode.





Original Language Version

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PARTS LIST FOR: BELT DRIVEN COMPRESSOR Model: SA2127/32



No	Part No	Description
1	SH11905170	TANK 270LT
2	SH14400270	NON-RETURN VALVE
3	SH16901960	2" PLUG
4	SH14303920	DELIVERY HOSE
5	SH1420148C	MOUNT PLATE
6	SH12201930	CONTROL BOX
7	SHK1600030	MOTOR PUMP K17
8	SH13900320	V-BELT V/A47
9	SH17000800	PLASTIC BELT GUARD KIT
10	SH3100728A	PULLEY
11	SH10701560	MOTOR 3HP, ELECTRIC SOFT
		START VERSION
12	SH16901820	REDUCTION 2"-1/2"
13	SH15300260	OUTLET TAP 1/2 BSP
14	SH15300320	DRAIN VALVE CONDENSATE
15	SH31201340	RUBBER FOOT
16	SH12800330	NEW TYPE PRESSURE SWITCH
		3/8" CONNECTION
17	SH15000060	GAUGE 1/4 0 - 20BAR
18	SH14401350	SAFETY VALVE
19	SH14400570	VALVE

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PARTS LIST FOR: BELT DRIVEN COMPRESSOR PUMP Model: SA2127/32



No	Part No	Description	No	Part No	Description
1	SH3020685A	CRANKSHAFT	21	SH33101600	CRANKCASE
2	B/6205	BEARING	22	SH35600420	BASE PLATE, FILTER
3	SH30307540	OIL SEAL	23	SH35600430	FILTER ELEMENT
4	SH30406830	CRANK END CAP (OIL FILLER)	24	SH35600440	FILTER COVER
5	SH30506870	GASKET, END CAP	25	SH36507050	OIL PLUG
6	SH30501910	GASKET	26	SH36531150	DIP STICK
7	SH30501930	GASKET	27	SH37301410	STUD, FILTER MOUNTING 115MM
8	SH30501920	GASKET	28	SH37303340	DRAIN PLUG
9	SH30501900	GASKET	29	SH17300570	SCREW
10	SH3100728A	FLYWHEEL	30	SH37335560	SCREW
11	SH31106860	CONNECTING ROD	31	SH37335610	SCREW
12	SH31201370	PISTON PIN	32	SH37400450	FLY NUT, FILTER
13	SH31201360	PISTON	33	SH37508130	WASHER
14	SH31201350	OIL SCRAPER RING	34	SH37508090	WASHER
15	SH31201340	SCRAPER RING	35	SH37600230	CIRCLIP, PISTON
16	SH31201330	COMPRESSION RING	36	SH37607530	CIRCLIP, CRANK
17	SH31301600	CYLINDER HEAD	38	SH30502510	O-RING
18	SH31601600	CYLINDER	39	SH32901600	AFTER COOLER
19	SH32701600	VALVE PLATE	40	SH37302530	ALLEN BOLT, AFTER COOLER
20	SH32700350	VALVE	41	SH37307570	BOLT

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