# SEALE PRODUCTS

INSTRUCTIONS FOR:

# VERTICAL DIRECT DRIVE COMPRESSOR

## MODEL No: SA9910/3

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.

IMPORTANT: 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 INSTRUCTIONS

**1.1.** ELECTRICAL SAFETY. D WARNING! It is the user's responsibility to read, understand and comply with the following: You must 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 or 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 with portable products that are plugged into an electrical supply not protected by an RCCB. If in doubt consult a qualified electrician. You may obtain a Residual Current Device by contacting your Sealey dealer. **You must** also read and understand the following instructions concerning electrical safety.

- 1.1.1. 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.
- 1.1.2. The *Health & Safety at Work Act 1974* makes owners of electrical appliances responsible for the safe condition of those appliances and the safety of appliance operators. *If in any doubt about electrical safety, contact a qualified electrician.*
- 1.1.3. Ensure the insulation on all cables and the product itself is safe before connecting to the mains power supply.
- See 1.1.1. & 1.1.2. above and use a Portable Appliance Tester (PAT).
- 1.1.4. Ensure that cables are always protected against short circuit and overload.
- 1.1.5. Regularly inspect power supply leads and plugs for wear or damage and connections to ensure that none is loose.
- 1.1.6. *Important:* Ensure the voltage marked on the product is the same as the power supply to be used, and check that the plug is fitted with the correct capacity fuse.
- 1.1.7. **DO NOT** pull or carry the appliance by its power supply lead.
- 1.1.8. **DO NOT** pull plug from socket by the power cable.
- 1.1.9. DO NOT use worn or damage leads, plugs or connections. Immediately replace or have repaired by a qualified electrician.
- 1.1.10. This device is fitted with a ASTA/BS approved non-rewirable plug.
  - If the plug is damaged it should be replaced according to the instructions below.
  - (UK only see diagram at right). Ensure the unit is correctly earthed via a three-pin plug.
  - a) Connect the green/yellow earth wire to the earth terminal 'E'.
  - b) Connect the brown live wire to the live terminal 'L'.
  - c) Connect the blue neutral wire to the neutral terminal 'N'.
  - d) Ensure the plug is fitted with a 13 amp fuse.

e) After wiring, check that there are no bare wires, that all wires have been correctly Wi connected, that the cable outer insulation extends past the cable restraint and that restraint is tight.

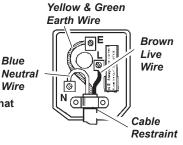
#### 1.2. GENERAL SAFETY INSTRUCTIONS

- 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.
- □ WARNING! Compressor must only be serviced by an authorised agent. DO NOT tamper with, or attempt to adjust, pressure switch or safety valve.
- ✓ Before moving or maintaining the compressor ensure that it is unplugged from the mains supply and that the tank pressure has been vented.
- ✓ Only use recommended attachments and parts. To use non-recommended 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 output pressure. If using a spray gun, check that the area selected for spraying is provided with air change system/ventilation.
- $\checkmark$  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.
- ✓ 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 work area.
- x DO NOT dis-assemble compressor for any reason. The unit must be checked by qualified personnel only.
- x DO NOT use the compressor outdoors, or in damp, or wet, locations and DO NOT operate within the vicinity of flammable liquids, gases or solids.
- x DO NOT touch compressor cylinder, cylinder head or pipe from head 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 the compressor for a task for which it is not designed.
- x DO NOT cover the compressor or restrict air flow around the machine whilst operating.
- ▲ DANGER! DO NOT direct the air hose towards people or animals.
- **x DO NOT** operate the compressor without inlet air filters.
- **x DO NOT** allow anyone to operate the compressor unless they have received full instructions.
- □ WARNING! The air tank is a pressure vessel and the following safety measures apply:

DO NOT tamper with the safety valve, DO NOT modify or alter the tank in any way and DO NOT strap anything to the tank. DO NOT subject the tank to impact, vibration or to heat and DO NOT allow contact with abrasives or corrosives. 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.

- □ WARNING! If an electrical fuse blows, ensure it is replaced with an identical fuse type and rating.
- $\checkmark$  When not in use, store the compressor in a safe, dry, childproof location.



## 2. INTRODUCTION & SPECIFICATION

Aluminium cylinders with cast iron liners gives reduced weight and improved resistance to wear. Suitable for general-purpose workshop applications. Pump head directly coupled to heavy-duty induction motor for reliable operation. Precision welded receiver tank manufactured to meet Pressure Vessel Directive 87/404/EEC. Fitted with fully automatic pressure cut-out switch and air regulator with gauge. Supplied with handle and wheels for easy manoeuvrability. Fitted with ASTA/BS approved non-rewirable plug.

#### 2.1. Specification

Model	Max Motor Output (hp)	Voltage/ Phase	Current (A)	Air Displacement (cfm)	Free Air Delivery (cfm)	Tank Capacity (Itr)	Max. Pressure (psi/bar)	Noise Level (dB.A)
SA9910/3	3	230/1	10	10.6	8.9	100	116/8	98

#### 3. PREPARATION

- 3.1. Remove compressor from packaging and inspect. 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 that the voltage shown on compressor data plate corresponds with the supply voltage.
- 3.4. The compressor should be operated on a flat surface and 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 the dip stick. (Fig.1)
- 3.6. Confirm that the air filters are fitted to the inlet ports of the cylinder heads. (Fig.2)

## 4. OPERATION

#### IMPORTANT

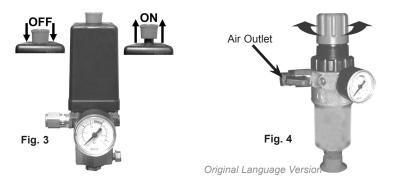
The motor on this compressor is 3HP/230V and at normal mains voltage will start within the capacity of a 13 amp fused circuit. Certain local conditions relating to electrical supply in the UK can result in the voltage varying between a low of 216 volts and a high of 253 volts. At such times of fluctuating voltage the 13 amp fuse in the compressor plug may blow. This is normal and is not a fault with the compressor.

**WARNING!** An extension lead MUST NOT be used to connect compressor to the mains as the resulting voltage drop would reduce motor output and pump performance, causing the 13 amp fuse to blow.

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. 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 chart, Section 2.

- □ WARNING! Ensure that you read, understand and apply Section 1 safety instructions.
- 4.1. Make sure the main switch (fig. 3) is in the "Off" position.
- 4.2. Plug the lead into mains supply and start the compressor by pulling the main switch to "On".
- 4.3. When starting the compressor for the first time, leave it running with air outlet closed. Make sure that the pressure in the tank rises and that the compressor stops automatically when the maximum pressure value allowed (written on the plate and shown on the gauge) is achieved. The compressor will now operate automatically. The pressure switch stops the motor when the maximum tank pressure is reached and restarts it when pressure falls below the minimum threshold approx. 2 bar (29psi) less than the maximum pressure.
- 4.4. To stop the compressor, press the main switch to 'off' (fig. 3). The compressed air inside the compressor head will flow out, making the restart easier and preventing the motor from being damaged. DO NOT, other than in an emergency, stop the compressor by switching off the mains socket, or by pulling the plug out, as the pressure relief will not occur and motor damage may result upon restart.
- Note: If the motor does not cut in and out, but runs continuously when using an air appliance, the capacity of the compressor may be too small for the equipment or tool.
- 4.5. It is possible to adjust the the outlet pressure by turning the regulator knob (Fig. 4) clockwise or anticlockwise to respectively increase or reduce the out-put pressure.



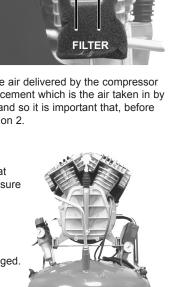
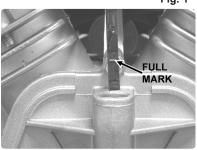
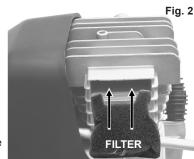


Fig. 1





### 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 compressor, disconnect from power supply and vent air
- from tank.
- 5.1. After approximately 2 hours operation. When the compressor is new check, and if necessary, tighten the head bolts to a torque of 20Nm.
- 5.2. After the first 50 working hours. Operations to be carried out: Fig. 5 a) Check that all bolts/nuts are tight, particularly those retaining the crank case and cylinder head. b) Replace the lubricating oil - see para 5.7. 5.3. Daily. Operation to be carried out: a) Drain condensation by opening the valve located under the tank. Monthly (or more frequently, if the compressor operates in a very dusty 5.4. atmosphere). a) Check oil level and, if necessary, top up. b) Remove the air filter elements and clean by blowing through, with an air line at low pressure, from the clean side. Do not operate compressor without filters as foreign bodies or dust could damage the pump. c) Check for oil leaks. 5.5. 3-Monthly. Operation to be carried out: B a) Check tank for internal corrosion. 5.6. Every 500 hours. Operations to be carried out: a) Change air filter element. b) Check the automatic cut-out at max. pressure. Every 1000 hours. Operations to be carried out: 5.7. a) Replace the lubricating oil. You should perform this operation when the compressor is hot to allow the oil sump to drain rapidly and completely. Remove the oil dipstick 'A' and bolt 'B' (Fig. 5), draining the oil into a container. Replace screw 'B' and refill through the filler aperture. Do not over-fill. Replace dipstick. WARNING! Never mix different oils and do not use non-detergent/low guality oils as compressor may be damaged. WARNING! Dispose of waste oil only in accordance with local authority requirements. b) Check all tube fittings and electrical connections. c) Inspect pressure tank inside and out for damage or corrosion. 5.8. **Recommended oils**

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

Fault	Cause	Remedy		
Pressure drop in the tank.	Air leaks at connections.	Run compressor to max. pressure, switch off. Brush soap solution over connections and look for bubbles. Tighten connections showing leaks. If problem persists contact Authorised Service Agent.		
Pressure switch valve leaks when compressor is idle.	Non-return valve seal defective.	Empty the air tank, remove the non-return valve cap and clean and, if necessary, replace the seal.		
Compressor stops and does not restart.	Motor failure.	Contact Authorised Service Agent.		
Compressor does not stop at max. pressure.	Pressure switch fault.	Contact Authorised Service Agent.		
Compressor does not reach max. pressure.	Filter clogged. Head gasket or valve fault.	Replace filter element. Contact Authorised Service Agent.		
Compressor noisy with metallic knock.	Bearing or piston damage.	Contact Authorised Service Agent.		

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.

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.



6. TROUBLESHOOTING

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