

# POWER INSTRUCTIONS FOR: DIRECT DRIVE COMPRESSOR

MODEL NO: **SA2225/1.5.V3** 

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 THIS 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.

# SAFETY INSTRUCTIONS

## **ELECTRICAL SAFETY**

WARNING! It is the responsibility of the owner and the operator to read, understand and comply with the following:

You must check all electrical products, before use, to ensure that they are safe. You must inspect power cables, plugs, sockets and any other connectors for wear or damage. You must ensure that the risk of electric shock is minimised by the installation of appropriate safety devices. A Residual Current Circuit Breaker (RCCB) should be incorporated in the main distribution board. We also recommend that a residual Current Device (RCD) is used. It is particularly important to use an RCD with portable products that are plugged into a supply which is not protected by an RCCB. If in any 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.

- 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 the appliance operators. If in any doubt about electrical safety, contact a qualified electrician.
- 1.1.3 Ensure that the insulation on all cables and on the appliance is safe before connecting it to the power supply. See 1.1.1 and 1.1.2 and use a Portable Appliance Tester.
- 1.1.4. Ensure that cables are always protected against short circuit and overload.
- 1.1.5 Regularly inspect power supply cables and plugs for wear or damage and check all connections to ensure that none are loose.
- 1.1.6 **Important:** Ensure that the voltage marked on the appliance matches the power supply to be used and that the plug is fitted with the correct fuse - see fuse rating at right.
- **DO NOT** pull or carry the appliance by the power cable.
- 1.1.8 **DO NOT** pull the plug from the socket by the cable.
- 1.1.9 DO NOT use worn or damaged cables, plugs or connectors. Immediately have any faulty item repaired or replaced by a qualified electrician. When an ASTA/BS approved UK 3 pin plug is damaged, cut the cable just above the plug and dispose of the plug safely. Fit a new plug according to the following instructions (UK only).
  - 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) After wiring, check that there are no bare wires, that all wires have been correctly connected, that the cable outer insulation extends beyond the cable restraint and that the restraint is tight.

Double insulated products, which are always marked with this symbol [a], are fitted with live (brown) and neutral (blue) wires only. To rewire, connect the wires as indicated above - DO NOT connect either wire to the earth terminal.

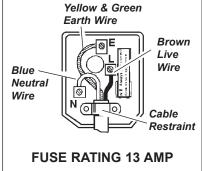
- 1.1.10 Products which require more than 13 amps are supplied without a plug. In this case you must contact a qualified electrician to ensure that a 30 amp supply is available. We recommend that you discuss the installation of an industrial round pin plug and socket with your
- 1.1.11 If an extension reel is used it should be fully unwound before connection. A reel with an RCD fitted is preferred since any appliance plugged into it will be protected. The section of the cores in the cable is important and should be at least 1.5mm<sup>2</sup>, but to be absolutely sure that the capacity of the reel is suitable for this product and for others which may be used in the other output sockets, we recommend the use of 2.5mm<sup>2</sup> section cable.

#### **GENERAL SAFETY INSTRUCTIONS** 12

Familiarise yourself with the application and limitations of the compressor.

Ensure that the compressor is in good order and condition before use. If in any doubt do not use. Contact an electrician/service agent.

- WARNING! the compressor must be serviced by an authorised agent only. DO NOT tamper with, or attempt to adjust, the pressure switch or the safety valve.
- Before moving, or maintaining the compressor ensure that it is unplugged from the mains supply and that the air tank pressure has been vented
- Only use recommended parts and accessories. To use unauthorised items may be dangerous and will invalidate your warranty.
- Read the instructions regarding any accessory used with the compressor. Ensure that the safe working pressure of any air appliance used exceeds the output pressure of the compressor.
- Ensure that the air supply valve is turned off before disconnecting the air supply hose.
- To move the compressor, use the handle only. Lift the compressor so that the front legs give enough clearance for manoeuvring but  $\Box$ maintain unit's centre of gravity in front of the wheels.
- **DO NOT** attempt to lift or move the compressor by any means other than by the handle. X
- Use the compressor in a well ventilated area and ensure that it is placed on a firm, level surface.
- Keep tools and other items away from the compressor when it is in use and keep the area clean and free of unrelated items.
- Ensure that the air hose is not tangled, twisted or pinched.
- Keep children and unauthorised persons away from the work area.
- DO NOT dis-assemble compressor for any reason. The unit must be checked by qualified personnel only.
- DO NOT use the compressor outdoors, or in damp, or wet, locations and DO NOT operate it 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.
- DO NOT attempt to move the compressor by pulling the air supply hose. Only move the compressor by the handle. X
- **DO NOT** use this product to perform a task for which it is not designed. X
- **DO NOT** deface the certification plate attached to the end of the compressor tank. X
- X DO NOT cover the compressor or restrict air flow around the machine whilst operating.
- DANGER! DO NOT direct the output jet of air towards people or animals.
- X DO NOT operate the compressor without an air filter.
- DO NOT allow anyone to operate the compressor unless they have received full instructions.
- *X* □ WARNING! The air tank is a pressure vessel and the following safety measures apply:
- X DO NOT tamper with the safety valve and 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 abrasive or corrosive materials. X
- DO drain condensation from tank daily and inspect inside walls for corrosion every three months. 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 that it is replaced with one of identical type and rating.
- When not in use, disconnect from the mains, vent the tank and store the compressor in a safe, dry, childproof location.

# **INTRODUCTION & SPECIFICATION**

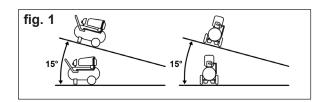
Aluminium cylinder head with cast iron cylinder gives added resistance to wear. Suitable for general-purpose workshop applications. Pump head directly coupled to heavy-duty induction motor for reliable and quiet operation. Welded tank complies with latest European standards. Fitted with fully automatic pressure cutout switch with twin gauges displaying tank and working pressures. Fitted with ASTA/BS approved non-rewirable plug.

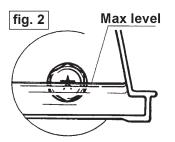
Motor Output:         1.5           Voltage/Phase:         230V - 1	
Input Current:	.0Α
Piston Displacement:	fm
Maximum Free Air Delivery:	fm
Tank Capacity:	5ltr
Maximum Pressure:	oar
Noise Power	ΒA
Noise Pressure	ВА



# **PREPARATION**

- $\Box$ WARNING! The compressor is supplied without any lubricating oil in the pump - see para. 3.5.
- 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
- Save the packing material for future transportation of the compressor. 3.2. 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 mains voltage corresponds with the voltage shown on the compressor data plate.
- The compressor should be installed on a flat surface, or one that does not exceed 15° either transversely or longitudinally (fig.1), 3 4 and should be in a position that allows good air circulation around the unit.
- 3.5. IMPORTANT! Remove the oil filler/breather from the pump and add the oil provided until the level is up to the centre of sight glass (fig. 2). Replace the filler/breather. DO NOT attempt to run the compressor until this has been done.
- Screw air filter (fig.3.A) into inlet port. 3.6.







SA2225/1.5.V3 - 2 - 270208

## 4. OPERATION

#### ☐ 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 Chart, Section 2.

- □ WARNING! Ensure that you have read, understand and apply Section 1 Safety Instructions.
- 4.1. Make sure that the main switch (fig.4.1) is 'Off' (down).
- 4.2. Plug the mains cable into mains supply and start the compressor by pulling up the main switch.
- 4.3. When starting the compressor for the first time, leave it running with air outlet (fig.4.4) closed and pressure regulator (fig.4.2) set to maximum. Make sure that the pressure in the tank rises and that the compressor stops automatically when the max. pressure allowed written on the tank plate is achieved. Tank pressure is shown on the larger gauge (fig.4.6).
  - 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. Stop the compressor by pressing down the main switch (fig.4.1). 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 then occur and motor damage may result upon restart.
- When the compressor is stopped correctly there will be a whistling sound as compressed air is vented from the compressor head.

  4.5. The output pressure is controlled by the pressure regulator (fig.4.2) and shown on the smaller gauge (fig.4.5). Unscrew locking ring (fig.4.2A) and then turn regulator knob (fig.4.2) clockwise to increase pressure or anti-clockwise to reduce it tighten locking ring to lock in the required position. Always adjust **up** to the required pressure. To determine the correct working pressure for air tools etc. check the corresponding manual.
  - When the compressor is not being used, set the regulated pressure to zero so as to avoid damaging the pressure regulator.
- Note: a) 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 appliance.
  - b) The main gauge (fig.4.6) indicates the pressure inside the main tank, **NOT** the pressure supplied to the air equipment, which is shown on the smaller gauge (fig.4.5). Should the pressure in the main tank exceed the pre-set switch (fig.4.8) maximum, a safety valve (fig.4.7) will activate. **WARNING!** For this reason DO NOT tamper with, or adjust, the switch or the safety valve.

## 5. MAINTENANCE

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

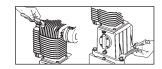
IMPORTANT! Failure to carry out maintenance tasks may invalidate the warranty on your compressor.

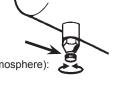
UMARNING! Before performing any maintenance operation, switch off the compressor, disconnect from electricity supply and release all air from the tank.

- 5.1. Operations to be carried out after the first 50 working hours:
  - a) Check that all bolts/nuts are tight, particularly those retaining the crank case and cylinder head.
  - b) Replace the lubricating oil see para 5.4.
- 5.2. Operations to be carried out daily:
  - Drain condensation by opening the valve located under the tank. Place a container under the valve and open the valve by turning anticlockwise.
- 5.3. Operations to be carried out every 100 hours (or more frequently, if the compressor operates in a very dusty atmosphere):
  - a) Check oil level and, if necessary, top up.
  - b) Remove the filter element (fig.2) and clean by blowing through, with an air line at low pressure, from the clean side or wash in soapy water, rinse and dry. Do not operate the compressor without the filter as foreign bodies or dust could seriously damage the pump.
  - c) Check for oil leaks
- 5.4. Operations to be carried out every 200 hours:
  - a) Replace the lubricating oil. For oil specifications see 5.7. Remove the oil filler plug 'A' and unscrew sight glass 'B', draining the oil into a container. Drain when the compressor is hot so that oil drains rapidly and completely. Incline compressor to ensure complete drainage. Replace sight glass and refill through the filler aperture. Do not overfill. Replace plug 'A'.
- WARNING! Never mix different oils and do not use non-detergent/low quality oils as the compressor may be damaged.
  - WARNING! Dispose of waste oil only in accordance with local authority requirements.
    - b) Check the automatic cut-out at max. pressure and the automatic cut-in at 2 bar below.
- 5.5. Operations to be carried out every 500 hours:
  - a) Replace air filter.

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- b) Check all tube fittings and electrical connections.
- c) Inspect pressure tank inside and out for damage or corrosion.







#### Scheduled maintenance table 5.6.

Maintenance Operations	Daily	100 hrs.	200 hrs.	500 hrs.
Drain condensation	•			
Check oil level		•		
Clean intake filter		•		
Check for oil leaks		•		
Check cut-out			•	
Replace oil			•	
General cleaning of compressor			•	
Internal & external inspection of tank				•
Replace air filter				•
Check tube fittings and electrical connections				•

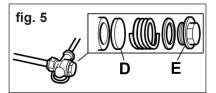
#### 5.7. Recommended oils

Recommended oil for compressors, suitable for room temperatures ranging from +5<sup>O</sup>C to +25<sup>O</sup>C.

SEALEY CPO or equivalent SAE 40 compressor oil.

Room temperature below +5<sup>O</sup>C: SAE 20 compressor oil.

Approximate oil capacity: 0.25 litres.



## TROUBLESHOOTING

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 'E' (fig.5) and clean, or if necessary replace, the seal 'D'.	
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 stop at 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.	

Declaration of Conformity We, the sole UK importer, declare that the product listed below is in conformity with the following standards and directives.

# **DIRECT DRIVE COMPRESSOR** Model: SA2225/1.5.V3

87/404/EEC Pressure Vessel Directive 2004/108/EC EMC Directive 2006/95/EC Low Voltage Directive 2006/42/EC Machinery Directive



The construction file for this product is held by the manufacturer and may be inspected, by a national authority, upon request to Jack Sealey Ltd.

Signed by Mark Sweetman



27th February 2008

For Jack Sealey Ltd. Sole UK importer of Sealey Power Products.

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 equipment. 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.



Sole UK Distributor Sealey Group,



**a** 01284 757500



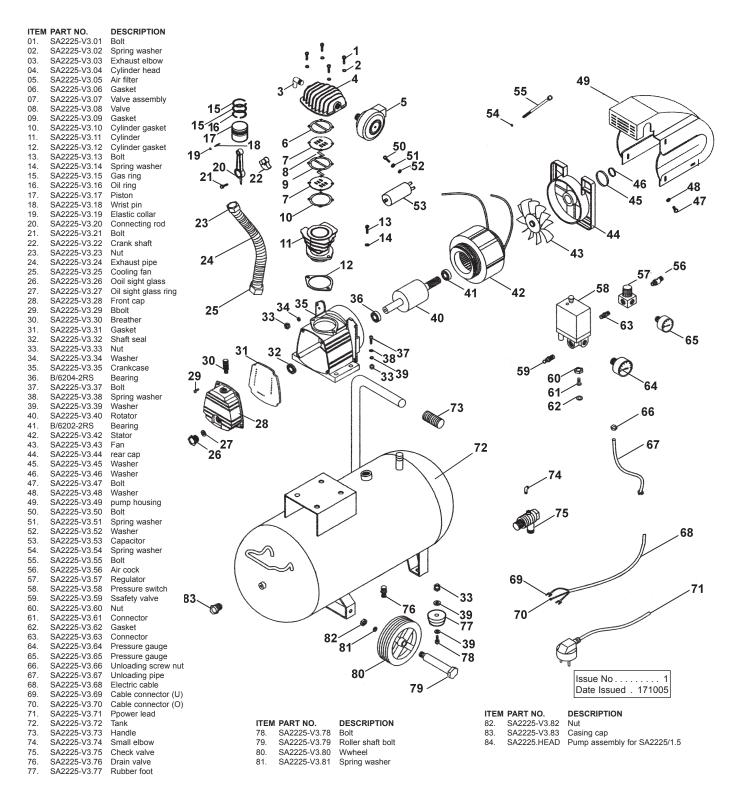
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PARTS INFORMATION FOR:

MODEL NO: **SA2225/1.5.V3** 



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 equipment. 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.







