



INSTRUCTIONS FOR:  
**ACETYLENE REGULATOR**  
MODEL: **SGA4**

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 OR PERSONAL INJURY, AND WILL INVALIDATE THE WARRANTY. PLEASE KEEP INSTRUCTIONS SAFE FOR FUTURE USE.

## 1. SAFETY INSTRUCTIONS

- ✓ Always have a fire extinguisher nearby.
- ✗ Never use acetylene gas to blow soot or dirt from your clothes.
- ✗ **DO NOT** wear ragged clothes, as sparks can ignite the ragged or loose ends.
- ✓ Secure cylinders to cart, wall or post to prevent them from falling.
- ✓ All cylinders should be used and stored in an upright position.
- ✗ Never drop or strike a cylinder. **DO NOT** use cylinders that have been dented.
- ✓ Cylinder caps should be used when storing or moving cylinders.
- ✓ Empty cylinders should be kept in specified areas and clearly marked 'EMPTY'.
- ✗ Never use oil or grease on any inlet connections, outlet connections or cylinder valves.
- ✓ Examine hoses for cuts, burns or worn areas before each use. Also inspect fittings for damage. If any damage is found, replace immediately.
- ✓ Keep all threads and unions clean and free from oil, dirt or grease.
- ✗ Never apply oil or grease to any thread.
- ✓ For safety advice regarding gas bottles refer to the supplier of the bottles.
- ✓ Make sure the bottle key is in place at all times so that in the event of an emergency the cylinder valve can be turned off quickly.
- ✓ Check all joints weekly to make sure there are no leaks. **LEAKING HOSES CAN KILL.**
- ✓ Remember at all times **RED = ACETYLENE 'A'**  
**BLUE = OXYGEN 'O'**
- ✓ Acetylene fittings have a reverse, left-handed thread.
- ✓ This regulator has no user-serviceable parts. All repairs/calibrations must only be undertaken by a BCGA approved service agent.
- ✓ In case of backfire or flashback immediately turn off all cylinders.

## 2. INTRODUCTION

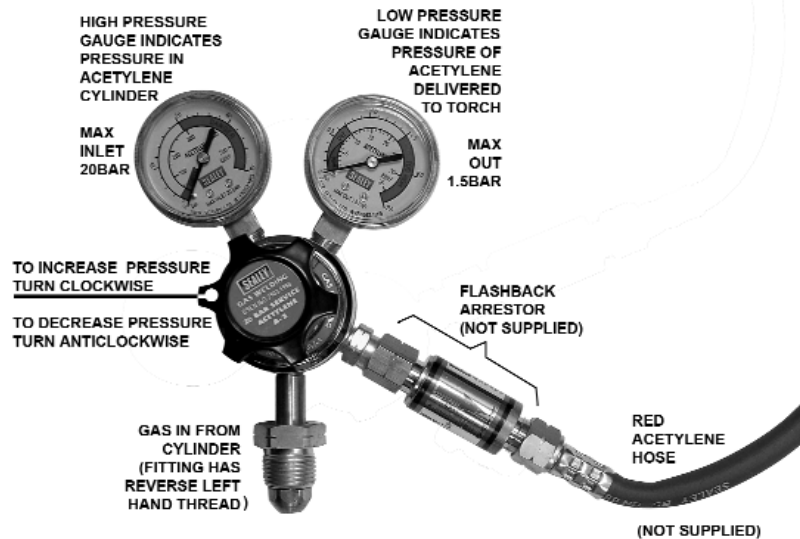
Twin gauge regulator to BS EN 2503,1998 complete with bull nose adaptor and 3/8" BSP hose union. Displays bottle pressure and working pressure for Acetylene gas. This type of regulator is intended to control the flow of oxygen gas in an oxyacetylene gas welding & cutting set-up and should be used for no other purpose and with no other gas. The person using this regulator should be fully trained in all aspects of gas welding and cutting including setting up, operation and safety procedures.

## 3. SET UP

**NOTE:** PRESSURE REGULATORS SHOULD BE TREATED AS PRECISION INSTRUMENTS AND SHOULD NOT BE JARRED OR KNOCKED.

- ☐ **WARNING!** DANGER OF EXPLOSION. All parts which come into contact with acetylene, including hands and tools, must be free from oil or grease.
- 3.1 **Function of the regulator.** Fitted to the outlet of the gas cylinder valve, the pressure regulator reduces the pressure of the gas from cylinder pressure to the constant lower pressure required for the operation of the equipment. Pressure reduction within the regulator occurs in a single stage.
- 3.2. **Preparing the cylinder.** Make sure that the cylinder to be used is safe and properly secured as noted in the safety precautions.
- 3.2.1 Whilst standing to one side 'crack' the cylinder valve. 'Cracking' is to quickly open and close the valve allowing gas to escape and clear the valve of any foreign bodies.
- ☐ **WARNING!** If grease or oil is found, cease use of cylinder immediately and contact your gas supplier.

- 3.3. **Attaching the regulator.** Ensure the inlet filter is in place and is not blocked or contaminated. If an 'O' ring is fitted to the inlet, check for damage and replace if necessary with an 'O' ring recommended by the regulator manufacturer. **Do not use any form of jointing paste or tape between regulator and cylinder valve.** Before attaching the regulator wipe the fitting with a clean dry cloth. Screw the union at the base of the regulator to the cylinder by hand. Ensure that the gauges are correctly orientated so as to be seen properly by the operator. The regulator to cylinder fitting has a reverse left handed thread. To tighten turn anticlockwise. A wrench should be used to ensure tight connections.
- 3.3.1 Close the regulator by turning the adjusting knob anti-clockwise to relieve the pressure on the diaphragm before opening the cylinder valve. If this is not done, pressure from the cylinder can damage the diaphragm and render the regulator inoperative.
- 3.3.2 The cylinder valve-to-regulator connection should be checked for leaks using an approved leak detection spray or water and soap solution. Stand so that the cylinder valve is between you and the regulator. Slowly open the cylinder valve.
- 3.4 **Connecting a flashback arrestor.** According to safety regulations, when regulators are used with acetylene, it is compulsory to use a flashback arrestor. This should be connected directly to the gas outlet on the regulator as shown below and the gas hose should then be fitted to the flashback arrestor. The flash back arrestor should be colour coded RED for ACETYLENE and has to be fitted the right way round. It will have the direction of flow marked on it. Follow the instructions provided with the arrestor. The arrestor will have reverse threaded unions which have to be turned anticlockwise to attach them.
- 3.5 **Connecting a hose.**
- 3.5.1 **NOTE:** New hoses contain a preservative talc which must be blown out with compressed air before use.
- 3.5.2 Connect a hose coded RED for ACETYLENE to the flashback arrestor as shown below. Tighten nut securely with wrench. The nut will have a reverse thread which will have to be turned anticlockwise to attach it. If any sign of oil or grease is found, discontinue use immediately.
- 3.5.3 Prior to attaching the torch blow out the hose to eliminate any particles or debris. Perform this on the hose in a well ventilated area, otherwise you may create conditions for fire or explosion.
- Turn the regulator adjusting screw slowly clockwise until the outlet gauge registers 5psi and acetylene begins to pass through hose.
  - Allow the acetylene to flow for approximately 10 seconds to purge the hose.



## 4. OPERATION

- Ensure that the regulator is closed by turning the adjusting knob anti-clockwise to relieve the pressure on the diaphragm before opening the cylinder valve. If this is not done, pressure from the cylinder can damage the diaphragm and render the regulator inoperative.
  - Slowly open the acetylene cylinder valve. As you do so the high pressure gauge (left hand) will register the cylinder pressure.
  - Slowly open the regulator by turning the adjusting knob clockwise. As you do so the outlet pressure gauge (right hand) will register the outlet pressure of gas being fed to the torch. Adjust the pressure according to the size of nozzle in use and the thickness of the material to be cut or welded. The manufacturer of the torch will normally supply a data chart to refer to.
  - Shutting down process.** On completion close the cylinder valve.
  - Drain gas from the regulator and hose by opening the appropriate acetylene control valve on the torch for a few seconds.
- Ensure adequate ventilation when doing this.**
- Close the regulator by turning the adjusting knob anti-clockwise.

## 5. MAINTENANCE

- 5.1 Each time the equipment is used.**
- The regulator should be visually examined to determine its suitability for service. If any of the following conditions apply the regulator should be withdrawn from service:
    - There should be no contamination with oil or grease or solvents.
    - The inlet and outlet connections should be free from grit and other particles.
    - There should be no damage to threads, sealing surfaces, or seals.
    - There should be no visible damage to the pressure gauges or dials and indicators under the pressure gauge windows.
  - When assembled to an acetylene cylinder with flashback arrestor and hose attached all joints shall be leak tested.
- 5.3 Annually.**
- The gauge should be tested under known conditions to determine that it is still working properly.
- 5.4 Replacement/refurbishment intervals.**
- Subject to conditions of use the regulator should be replaced with a new, repaired, or service exchange unit every 5 years or in accordance with the manufacturer's recommendations. If regulators are repaired or refurbished this should be done in accordance with the BCGA (British Compressed Gas Association) Code of practice CP7.

## 6. DECLARATION OF CONFORMITY

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

**ACETYLENE REGULATOR**  
**Model: SGA4**  
 BS EN 2503,1998 Gas Welding  
 Equipment

Signed by Mark  
Sweetman

19th October 2005

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

**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 catalogue and latest promotions call us on 01284 757525 and leave your full name, address and postcode.

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