



IMPORTANT

These instructions are for EXPERIENCED operators. If you are not fully familiar with the principle of operation and safe practices of oxy-fuel gas equipment, we urge you not to use this product.

DO NOT permit untrained persons to install, operate or maintain this equipment.

DO NOT attempt to install or operate this equipment until you have read and understand these instructions. If you do not fully understand these instructions, contact your supplier for further information.

All Equipment to be COMPLETELY SHUT OFF When UNATTENDED

Carlisle Machine Works, Inc.,
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SAFETY

Comply all with all safety precautions below:

- A** Use the correct type hose connection for specific gas service as detailed below

For Natural Gas and Propane use CGA No. 023, Class B, 9/16—18, Left hand (Female Nut—Grooved).

For Oxygen use CGA No. 022, Class B, 9/16—18, Right Hand (Female Nut—Smooth).

For Water or Industrial Air use CGA No. 033 Class B, 5/8—18, Left hand (Male Nut—Grooved).

For Inlet Gases use CGA No. 032, Class B, 5/8—18 Right Hand (Male Nut—Smooth).

- B** Test equipment for leaks regularly with liquid soap solution (a capful per gallon of water)
- C** Do not use equipment unless it is free from leaks
- D** Before lighting pilot light, purge lines individually to eliminate any mixture of fuel gas and air, or oxygen .
- E** Keep combustibles away from pilot light or any open flame. Avoid releasing uncontrollable, flammable gases or vapors near the pilot light.
- F** Do not use oil, or oil bearing materials, on or near devices through which oxygen flows. Oil, or any other combustible material, can ignite readily and burn vigorously in the presence of oxygen. Use only lubricants compatible with oxygen.

1. INTRODUCTION

1.1 SCOPE

This manual provides installation and operation for the Carlisle Gasaver. The Gasaver is an accessory for inside bench production assembly line, gas welding, and heating applications. It is designed for use in the oxygen and fuel gas supply line for hand welding torches, and for inert gas-water applications. When a hand welding torch or inert gas welding torch is hung on the Gasaver lever rod, gas and water are shut off.

Model W-101-E Gasaver for Acetylene
Model W-102-EI Gasaver Inert Arc Welding
Model W-103-ELP Gasaver for Natural Gas
Model W-104-P Gasaver for Propane 4psi or more

1.2 DESCRIPTION

The inlet side of the Models W-101-E and W-104-P is connected to a fuel gas pilot light. Model W-103-ELP requires an additional hose to supply the pilot light. The inlet and outlet threads are Class B, 9/16-18 male, L. H. for fuel gas, R.H. for oxygen.

The Gasaver for inert gas-water applications, Model W-102-EI does not have a pilot light. The inlet and outlet threads are Class B, 9/16-18 male, L.H. for fuel gas, R.H. for oxygen. The shut off valve can be individually adjusted by their seat adjustment screws and lock nuts.

2. INSTALLATION

2.1 Installation

The Gasaver is a shut-off unit and not a pressure regulating device. It must be installed downstream of the pressure regulators.

- A** Secure the Gasaver on a bench, or other horizontal surface, using the four mounting holes in the body base. Position the Gasaver so that when the torch is hung on the lever rod, the torch and tip will point away from the operator and not toward any combustible material.

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3. OPERATION

The Gasaver is shipped with the lever rod packed separate but in the same carton as the main body. Insert the rod, straight end, flat side up, into the hole in the saddle on side of the Gasaver marked "OUTLET." Push the rod through the saddle hole on the opposite side and allow to produce about 3 inches. Tighten lever rod lock screw.

- B** On Models W-101-E, W-103-ELP, W-104-P, connect the fuel gas hose from the regulator (Grooved Nut) to the connection marked "INLET — L.H." and the oxygen hose from the regulator (Smooth Nut) to the connection marked "INLET — R.H." On Model W-102-EI connect the water hose (Grooved Nut) to the connecton marked "INLET—L.H." and the inert gas hose (Smooth Nut) to the connection marked "INLET—R.H." See "Safety A" for correct house nut size. NOTE: The Model W-103-ELP pilot light requires a fuel supply hose (3/16 I.D.), separate from the Gasaver fuel inlet hose, adapter may be installed on a main pipeline, regulator outlet, or small cylinder to supply the fuel.
- C** Connect torch hoses to the respective Gasaver outlets. Fuel gas hose (Grooved Nut) to "OUTLET—L.H.," and oxygen hose (Smooth Nut) to "OUTLET—R.H." Connect water hose (Grooved Nut) to "OUTLET—L.H." Connect torch to hoses. Close torch valves.
- D** Close pilot light adjusting knob by turning clockwise. Do not use excessive force. Place the torch on the lever rod.
- E** Open cylinder or pipeline valves. Adjust regulators to your operating pressures.
- F** Lift torch from lever rod. Open torch valves one at a time and purge lines individually through the torch. Close torch valves, pressurizing system. Place torch on lever rod. Test all joints for leaks, such as valves, stem packaging, hose connections, inlet and outlet fittings, and pilot light connections with soap solution.
- G** Turn Pilot Light off.

3.1 PILOT LIGHT

Lift the torch from the lever rod, turn the pilot light adjusting knob clockwise and immediately light the pilot with a spark lighter. Adjust the flame with the knob.

3.2 USE

Use the torch according to shop practice. When finished, instead of closing torch valves, place the torch on the lever rod to extinguish the flame. For reuse, remove the torch from lever rod and, without delay, relight torch at pilot flame.

3.3 PRESSURE SETTINGS

The Gasaver does not affect regulator pressure settings for the torch. Use the regulator pressure settings you currently use for each regulator, as if the Gasaver were not in the system .

3.4 LEVER ROD ADJUSTMENT

When placing the Gasaver in operation, the lever rod should be adjusted so that the torch will close the valves with its own weight.

When the torch is placed on the lever rod, the torch flame should be extinguished. If the flame is not extinguished, perform the following operations:

- A** Loosen the lever rod lock screw and slide the lever rod and torch forward in the saddle to a point where the flame is extinguished.
- B** Tighten the lever rod lock screw
- C** If either gas continues to flow, it may be necessary to adjust the seat pressure. This operation is described in "3.5 Seat Pressure Adjustment."

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3.5 SEAT PRESSURE ADJUSTMENT

Initial adjustment was made at the factory. This adjustment should be performed only if lever rod adjustment fails to provide shut-off of gases or if the Gasaver has been rebuilt.

- A Loosen the lever rod lock screw. Slide the lever rod through the saddle until 3 inches protrude on the side of the Gasaver marked "Inlet"
- B Tighten lever rod lock screw.
- C Loosen the adjusting screw lock nuts
- D With the torch in place on the lever rod, turn the seat adjusting screws clockwise until gas flow ceases, then turn one-half turn farther. Retighten adjusting screw lock nuts. Do not allow adjusting screws to turn while tightening lock nuts.
- E When both gases shut off simultaneously, a flash, or pop, may occur. This can be eliminated by lagging the shut-off of fuel. Loosen the lock nut for the fuel seat adjusting screw. Turn adjusting screw counterclockwise one-half turn, test torch, turn farther if necessary. After desired results are obtained retighten lock nut.

3.6 REMOVAL FROM SERVICE

- A Shut off valves upstream of regulators
- B Lift torch from Gasaver lever rod and open torch valves to bleed system. When regulator outlet pressure drops to zero, release regulator adjusting screw pressure by turning counterclockwise.
- C Remove Gasaver from system.

4. Service

IMPORTANT

Replace faulty equipment and send to Carlisle Machine Works, Inc. for repairs, as special tools, techniques and personnel are required.

CAUTION

Shut off gas supplies at source before attempting inspection, or service, unless leak testing with soap solution.

4.1 GENERAL

Servicing is required if gas escaped from the torch when it is on the lever rod.

If the torch and cylinder outlet valves are closed and the regulator indicated a slow loss in pressure when the torch is lifted from the lever rod, the "O" ring seal may be damaged, allowing gas to escape past the rod assembly. This condition may also occur at a hose connection. Test with soap solution.

USER RESPONSIBILITIES

This equipment will perform safely and reliably only when installed, operated, maintained, and repaired in accordance with the instructions provided. Equipment must be checked periodically and repaired, replaced or reset as necessary for continued safe and reliable performance. Defective equipment should not be used. Parts that are broken, missing, plainly worn, distorted, or contaminated should be replaced immediately with parts that are manufactured or sold by Carlisle Machine Works, Inc. The equipment or any of its parts should not be modified without prior written approval. The user of this equipment shall have the sole responsibility for any malfunction which results from improper use, faulty maintenance, or repair by anyone other than Carlisle Machine Works, Inc., or from parts that have been damaged or modified by anyone other than Carlisle Machine Works, Inc.

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