
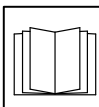








For Miller® Gasaver Models WDW100, WDW101, WDW103, and WDW104

1. Safety Symbol Definitions







	DANGER! – Indicates a hazardous situation which, if not avoided, will result in death or serious injury. The possible hazards are shown in the adjoining symbols or explained in the text. <small>Fsafe1 2013-10</small>		Have only trained and qualified persons install, operate, or service this unit. Read the safety information at the beginning of these instructions and in each section. Call your distributor if you do not understand the directions. <small>Fsafe15 2013-10</small>
	Indicates a hazardous situation which, if not avoided, could result in death or serious injury. The possible hazards are shown in the adjoining symbols or explained in the text. <small>Fsafe2 2013-10</small>		Cylinders contain gas under high pressure and can explode if damaged. Protect compressed gas cylinders from excessive heat, mechanical shocks, physical damage, slag, open flames, and sparks. Always secure cylinder to running gear, wall, or other stationary support. <small>Wiresafe1 2013-10</small>
NOTICE 	Indicates statements not related to personal injury. Indicates special instructions. <small>Fsafe3 2013-10</small>		Welding sparks can cause fire or explosion. Move flammables away. Do not weld on closed tanks or barrels, or on containers that have held combustibles – they can explode. Clean tanks or barrels properly. <small>Oxysafe4 2013-10</small>
	Arc rays can burn eyes and skin – wear a welding helmet with correct filter, and cover exposed skin with non-flammable clothing. <small>Oxysafe5 2013-10</small>		Build-up of gas can injure or kill. Shut off compressed gas supply when not in use. Always ventilate confined spaces or use approved air-supplied respirator. <small>Oxysafe3 2013-10</small>

CALIFORNIA PROPOSITION 65 WARNINGS

Welding or cutting equipment produces fumes or gases which contain chemicals known to the State of California to cause birth defects and, in some cases, cancer. (California Health & Safety Code Section 25249.5 et seq.)

This product contains chemicals, including lead, known to the state of California to cause cancer, birth defects, or other reproductive harm. Wash hands after use.

2. Safety Precautions – Read Before Using

			
	Do not use this equipment unless you are trained in its proper use or are under competent supervision. Follow the procedures described in this booklet every time you use the equipment. Failure to follow these instructions may cause fire, explosion, asphyxiation, property damage, or personal injury. This equipment must be used in accordance with all Federal, State, and local regulations as well as DOT (Department of Transportation) and CGA (Compressed Gas Association) regulations. Contact your gas supplier for more information on the proper use of compressed gases.		Do not use this equipment with gases and pressures other than those for which it is intended. Inspect all equipment before use. Do not use damaged, defective, or improperly adjusted equipment. Do not use if grease or oil is present on equipment or if equipment is damaged. Have equipment cleaned/repaired by a qualified person.
			Use the correct type hose connection for the specific gas service as listed in Section 3.
			Use an approved oil-free leak detection fluid to locate possible leaks. PTFE tape is an acceptable pipe
			<p>thread sealant. If other sealing materials are preferred, those materials must be compatible with the gas that is being used in the system.</p> <p>Check every connection and joint from the cylinder valve to the torch tip with an approved leak detection solution. If leaks are detected, eliminate them before proceeding. If leaks cannot be eliminated, do not put the equipment into service until it has been repaired or replaced.</p> <p>Always purge gas from the system before lighting torch to prevent a possible mixed-gas explosion. Purge gas in a well ventilated area and away from flame or sparks.</p>


3. Introduction

The Gasaver is an accessory for inside bench production and assembly line gas welding and heating applications. It is designed for use in the oxygen and fuel gas supply lines for hand welding torches. The inlet side of Models WDW100, WDW101, and WDW104 is connected to a fuel gas pilot light. Model WDW103 requires an additional hose to supply the pilot light (see Section 4). The Gasaver shut off valves can be individually adjusted by their seat adjustment screws and lock nuts (Ref. 12). See Section 7 for parts identification that will aid in installing/using this equipment.

Model	Fuel Gas Used	Fuel Hose Connection Size	Oxygen Hose Connection Size
WDW100	Propylene	CGA No. 023, Class B, 9/16–18, Left Hand (Female Nut–Grooved).	CGA No. 022, Class B, 9/16–18, Right Hand (Female Nut–Smooth)
WDW101	Acetylene		
WDW103	Natural Gas		
WDW104	Natural Gas Or Propane At 4 psig (27.6 kPa) Or Higher		

4. Installation




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

Secure the Gasaver on a bench, or other horizontal surface by 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.

The Gasaver is shipped with the lever rod (item 13) packed separately, but in the same carton as the main body. Insert the straight end of the rod, flat side up, into the hole in the saddle (item 9) on the side of Gasaver marked OUTLET. Push rod through saddle hole on opposite side and allow to protrude about 3 in. (76 mm). Tight-

en lever rod lock screw (item 12).

Connect the fuel gas hose from the regulator (grooved nut) to the connection marked INLET—L.H. Connect the oxygen hose from the regulator (Smooth Nut) to the connection marked INLET—R.H.

 *The WDW103 pilot light (item 15) requires a fuel supply hose (3/16 I.D.), separate from the Gasaver fuel inlet hose, to connect the pilot light adapter (item 17) to a source of fuel. Another hose adapter may be installed on a main pipeline, regulator outlet, or small cylinder to supply the fuel.*

Connect torch hoses to the respective Gasaver outlets. Connect fuel gas hose (grooved nut) to OUTLET—L.H., and oxygen hose (smooth nut) to OUTLET—R.H. Connect torch to hoses. Close torch valves.

Close pilot light adjusting knob (item 15) by turning clockwise, as seen from above. Do not use excessive force. Place the torch on the lever rod (item 13).

Open cylinder or pipeline valves. Adjust regulators to operating pressures.


Lift torch from lever rod. Open torch valves one at a time and purge lines individually through the torch. Close torch valves (which pressurizes the system). Place torch on lever rod.

Check every connection and joint from the cylinder valve to the torch tip with an approved leak detection solution. If leaks are detected, eliminate them before proceeding. If leaks cannot be eliminated, do not put the equipment into service until it has been repaired or replaced.

5. Operation



 **Shut off equipment when not in use.**

 **Do not use matches or a cigarette lighter to ignite the gas.**

Pilot Light

Turn the pilot light adjusting knob counterclockwise and immediately light the pilot with a friction lighter. Use knob to adjust the flame.

Using The Torch

Use the torch as recommended by the manufacturer. When finished, instead of closing torch valves, place the torch on the lever rod to extinguish the flame. To resume work, remove the torch from lever rod and quickly relight torch at the pilot flame.

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).

Lever Rod Adjustment

When placing the Gasaver in operation,

adjust the lever rod so the weight of the torch closes the valves.

When the torch is placed on the lever rod, the torch flame should be extinguished. If the flame is not extinguished, adjust lever rod as follows:

Loosen the lever rod lock screw (item 12) and slide the lever rod (item 13) and torch forward in the saddle (item 9) to a point where the flame is extinguished.

Tighten the lever rod lock screw.

If either gas continues to flow, it may be necessary to adjust the seat pressure as described in the following section.

Seat Pressure Adjustment

Initial adjustment was made at the factory. This adjustment should be performed only if lever rod adjustment does not enable gas shut-off function or if the Gasaver has been rebuilt.

Loosen the lever-rod lock screw (item 12). Slide the lever rod (item 13) through the saddle (item 9) until about 3 in. (76 mm) of the rod protrudes on the side of the Gasaver marked INLET.

Tighten lever rod lock screw.

Loosen the adjusting screw lock nuts (item 10).

With the torch in place on the lever rod, turn the seat adjusting screws (item 11) clockwise until gas flow stops, then turn screws one-half turn farther. Retighten adjusting-screw lock nuts. Do not allow adjusting screws to turn while tightening lock nuts.

When both gases shut off simultaneously, a flash, or pop, may occur. This condition can be reduced 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, and turn screw further if necessary. Retighten lock nut.

Removal From Service

Shut off valves upstream of regulators.

Lift torch from Gasaver lever rod and open torch valves to bleed system. When regulator outlet pressure drops to zero (0) psig, release regulator adjusting screw pressure by turning handle counterclockwise.

Remove Gasaver from system.

6. Service



⚠ Except when testing for leaks, shut off gas supply at source before servicing equipment.

⚠ Use an approved oil-free leak detection fluid to locate possible leaks.

General

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

If the torch and cylinder outlet valves are closed and the regulator indicates a slow loss in pressure when the torch is lifted from the lever rod, the o-ring seal (item 7) may be damaged. Damaged o-rings allow gas to escape past the rod assembly. This condition may also occur at a hose connection (items 2 and 3). Test for leaks with an approved leak detection solution. If leaks are detected, eliminate them before proceeding.

If leaks cannot be eliminated, do not put the equipment into service until it has been repaired or replaced.

Valve Seat And O-Ring Replacement

Remove the pinion rod (item 4) after loosening lever rod lock screw (item 12) and adjusting screws (item 11). Remove saddle (item 9).

To replace o-ring, unscrew the packing nut (item 8) and the plunger rod bushing (item 6) counterclockwise. Remove nut and bushing. The o-ring is located in the recess in the bushing. Before installing a new o-ring, lubricate with a lubricant compatible with oxygen. **Do not use oil.**

To replace seat (item 5), remove parts as indicated in previous step. Remove plunger assembly (item 5). Unscrew the

seat (counterclockwise) and remove from rod assembly (item 13). Replace with new seat.

Prior to reassembly, clean all parts and the valve cavity with a clean, dry, oil-free cloth. Degrease parts if necessary.

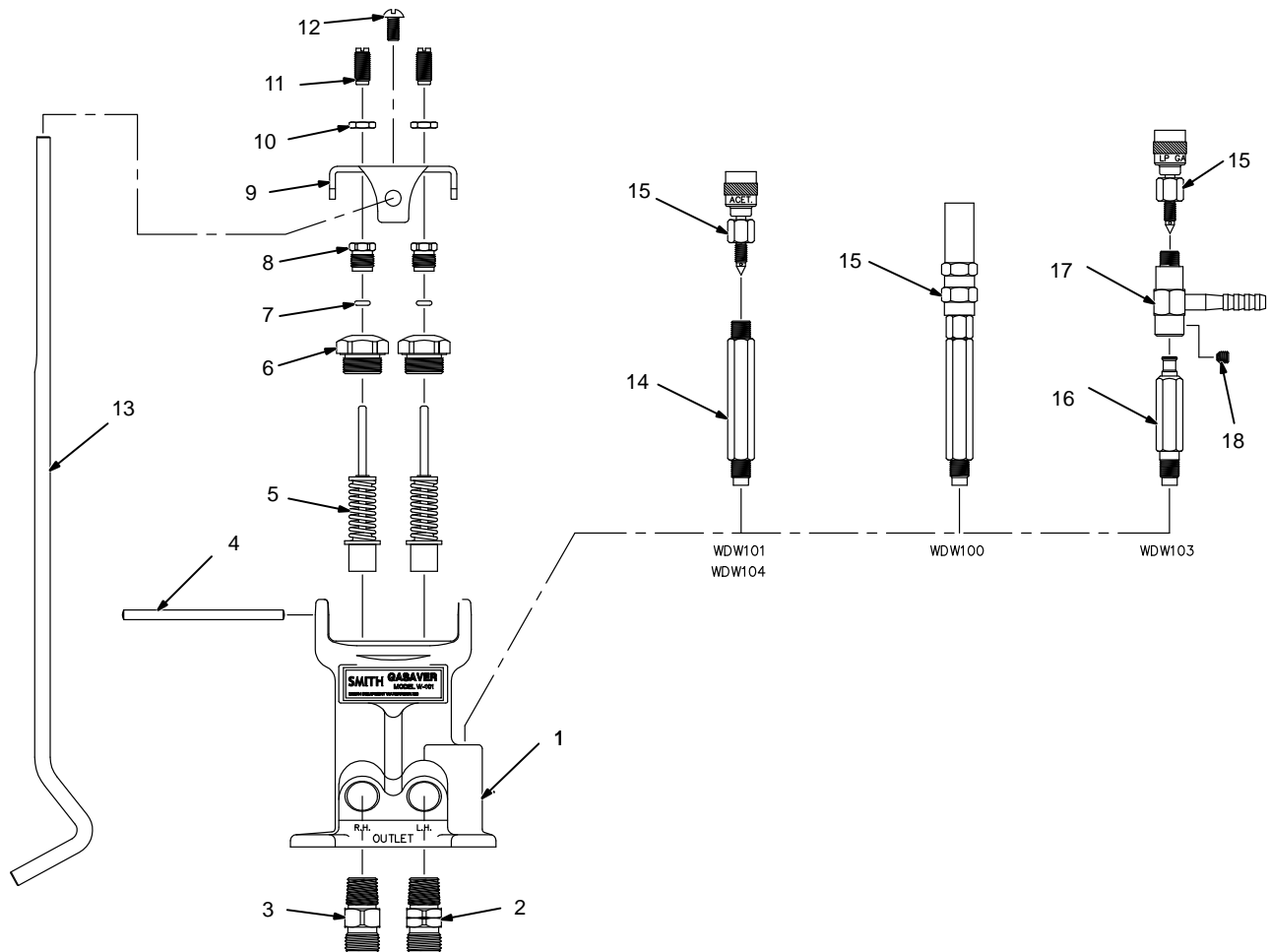
Apply a lubricant compatible with oxygen to the rod assembly and o-rings. Reassemble components.

Adjust seat pressure and lever rod (see Section 5).

Check every connection and joint from the cylinder valve to the torch tip with an approved leak detection solution. If leaks are detected, eliminate them before proceeding. If leaks cannot be eliminated, do not put the equipment into service until it has been repaired or replaced.

Notes

7. Parts List



Item No.	Dia. Mkgs.	Part No.	Description	Quantity			
				WDW100	WDW101	Model	
						WDW103	WDW104
Gasaver Assembly							
1		WDW9303	Body	1	1	1	1
2		13897	Connection	1	1	1	1
3		13896	Connection	1	1	1	1
4		WDW9315	Pinion Rod	1	1	1	1
5		WDW15661	Plunger Assembly	2	2	2	2
6		WDW6183	Bushing	2	2	2	2
7		14613-18	O-Ring	2	2	2	2
8		WDW6045	Nut	2	2	2	2
9		WDW880510	Saddle	1	1	1	1
10		WDW7887	Nut	2	2	2	2
11		WDW7736	Screw	2	2	2	2
12		WDW7730	Screw	1	1	1	1
13		WDW9286	Rod	1	1	1	1
14		15163	Pilot Tube		1		1
15		WDW17401	Pilot Light	1			
15		WDW1507	Pilot Light		1		
15		WDW1508	Pilot Light			1	1
16		WDW6702	Pilot Rod			1	
17		WDW1506	LP Pilot Adaptor			1	
18		7613	Screw			1	

BE SURE TO PROVIDE MODEL AND SERIAL NUMBER WHEN ORDERING REPLACEMENT PARTS.