

IMPORTANT WARNING!

- **READ ALL INSTRUCTIONS AND EQUIPMENT LIMITATIONS BEFORE USE.**
- **IMPROPER USE OF THIS OXYGEN CYLINDER VALVE ASSEMBLY MAY RESULT IN SERIOUS INJURY, ILLNESS, OR DEATH.**
- **DO NOT ALTER OR MODIFY ANY COMPONENT OF THIS OXYGEN SYSTEM.**
- **MAINTAIN 25 PSI PRESSURE. DEPLETING ALL OXYGEN FROM THE SYSTEM WILL REQUIRE O2 CLEANING OF THE CYLINDER.**

SYSTEM SPECIFICATIONS

Model 4110-843.....	For PB2 Outlets
Weight (Approximate).....	5.5 Lb
Material.....	(Cylinder - Aluminum DOT-3AL 2015) (Regulator – Nickel Plated Brass 360, Brass, Aluminum 6061-T6, Viton, Silicone) (Seat – Teflon)
Certified Maximum Altitude	40,000 Feet
Service Overhaul.....	Cylinder 5 years from manufacture date code No life limit. Regulator 5 years from manufacture date code No life limit.

Oxygen System Requirements

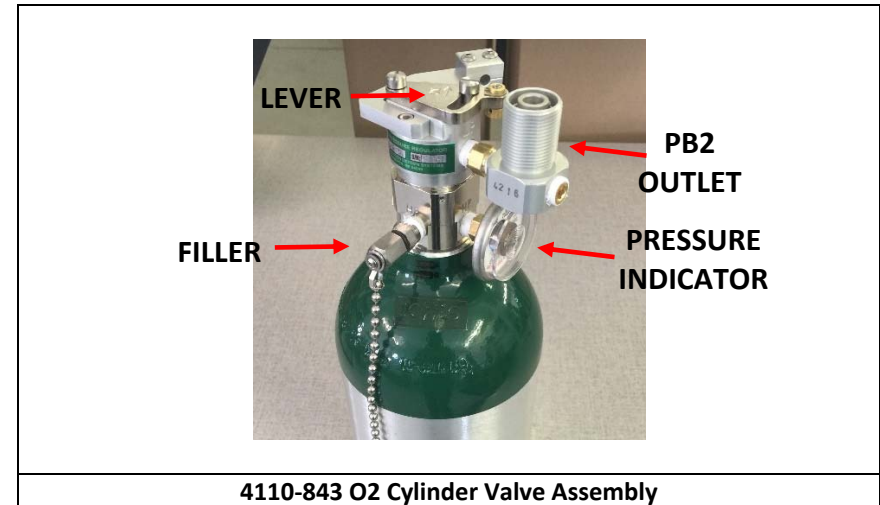
Breathing Oxygen	Aviators O2 per MIL-PRF-27210
Minimum Oxygen Flow.....	100 liters per minute
Normal Pressure	55 to 75 psi
Operating Pressure Range.....	250 - 2016 PSI (18 - 139 Bar)
Regulator Safety Relief.....	3025 – 3360 psi
Operating Temperature Range.....	+20° F to +120° F (-7° C to +49° C)
Relative Humidity.....	5 to 95 percent
	Storage Temperature
Normal.....	+20° F to +120° F (-7° C to +49° C)
Extreme (See Stowage).....	-20° F to +160° F (-55° C to +71° C)

PRINCIPLES OF OPERATION

The aerox® O2 Cylinder Valve System is intended to be used as a supplemental oxygen system when used with the aerox® 4110-711, 4110-712, or 4110-725 Series Oxygen Masks. The 4110-842 Regulator is a Step Down type device that reduces the 2015 psi cylinder pressure to 65 psi nominal pressure. By sliding the lever fully to the “ON” position, the flow of oxygen will be introduced to the regulator outlet. The flow of oxygen to this outlet ranges from 100 -150 Lpm @ 250 – 2015 psi cylinder pressure.

OPERATING INSTRUCTIONS

- Verify system oxygen contents on the pressure indicating gauge.
- Insert the PB2 bayonet fitting of the Oxygen Mask into the PB2 Outlet Port of the system regulator.
- Slide the Lever fully to the “ON” position.
- Verify the flow of oxygen on the mask assembly’s flow indicator.
- To terminate use, slide the Lever fully to the “OFF” position.



SYSTEM MAINTENANCE

CAUTION

Keep Hands And Filling Equipment Clean And Free From Oil. Keep Away From Flame Or Sources Of Ignition. Failure To Comply With All Cautions Could Result In Injury or Death.

Initial Filling

Charge the oxygen cylinder as follows;

- Remove Filler Cap
- Install Filling Adaptor on to Regulator Filler and tighten securely.
- Slowly pressurize the cylinder to the rated pressure of 2015 psi. Do not exceed the cylinders rated pressure. Compensate the target pressure for ambient conditions.
- To prevent overheating, caused by expansion, it is recommended that filling be accomplished in stages as shown in Table 1. Each stage should take no less than 3 minutes to accomplish with a 2 minute rest between each stage.

- Remove the Filling Adaptor. If a relief valve is not provided on the filling set-up, use a back-up wrench to hold the regulator filler while unthreading the filling adaptor.

Stage	PSI
1	500
2	1000
3	1500
4	1800
5	2000
6	2250

TABLE 1

Routine Maintenance

- It is important to maintain positive pressure in oxygen cylinders at all times.
- If possible do not allow the cylinder pressure to fall below 25 PSI. A fully depleted oxygen cylinder will require cleaning for O2 service.
- Where a cylinder has been exposed to an extended period of low storage pressure, a cleaning and inspection by a licensed maintenance facility is recommended.

Re-Filling

- Verify the condition and cleanliness of all ports and fittings prior to performing re-filling operations.
- When re-installing the regulator or valve, assure that a new, approved Teflon seal has been installed. Teflon seals are not to be reused.
- Charge the oxygen cylinder as discussed in *Initial Filling*, above.
- Upon completion of filling operations, check for leakage using a liquid leak detector or a mild soapy water formula.
- Fill only with Gaseous Aviators Breathing Oxygen, per MIL-PRF-27210.
- Note that certain state, federal and international regulations may apply to the handling and maintenance of oxygen cylinders based on installation and application.

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4110-843

SUPPLEMENTAL OXYGEN SYSTEM

