

MSA Safety Precautions

for MSA Self-Contained Breathing Apparatus Cylinders

Breathing apparatus cylinders should be recharged as soon as practicable after use. Cylinders should not be stored partially charged, for two reasons:

1. If used without recharge, the duration of the apparatus is reduced.
2. The safety relief device (cylinder burst disc) is designed to vent the air from a full cylinder when the cylinder is exposed to fire or heat. If the cylinder is not full, damage to the cylinder's strength may occur before the burst disc vents when exposed to fire or heat.

For maximum safety the cylinders should be stored full or empty (pressure above ambient but less than 100 psig).

Prior to recharging, cylinders must be examined externally for evidence of high heat exposure, corrosion, or other evidence of significant damage.

⚠ WARNING

CYLINDERS WHICH SHOW EVIDENCE OF EXPOSURES TO HIGH HEAT OR FLAME, E.G., PAINT TURNED TO A BROWN OR BLACK COLOR, DECALS CHARRED OR MISSING, GAUGE LENS MELTED, OR ELASTOMERIC MATERIALS DISTORTED, SHALL BE REMOVED FROM SERVICE AND RE-HYDROSTATIC TESTED PRIOR TO RECHARGING.

Additional information of value when performing external and internal inspections of cylinders may be found in CGA Pamphlet C-6, "Standards for Visual Inspection of Compressed Gas Cylinders" and/or CGA Pamphlet C-6.2-1982, "Visual Inspection for Fiberglass Reinforced High Pressure Cylinders", available from the Compressed Gas Association, Inc., 500 Fifth Avenue, New York, New York 10036.

If there is any doubt about the suitability of the cylinder for recharge, it should be returned to a certified hydrostatic test facility for expert examination and retesting.

Always check to be sure the retest date is within the prescribed period and that the cylinder is properly labeled to indicate its gaseous service. New labels are restricted items which are not available except through certified hydrostatic test facilities.

Establish the service pressure of the cylinder. Type 3AA steel cylinders that bear a plus (+) sign after the latest retest date may be recharged to a pressure 10% greater than the stamped service pressure; i.e., a cylinder stamped 3AA 2015 with a (+) sign after the latest test date may be recharged to 2216 psig. All other cylinders which are not type 3AA shall be filled to the designated service pressure only (as found on the DOT approval label).

Appropriately connect the cylinder to the filling recharge system and refill. Terminate the filling when the pressure reaches service pressure and allow the cylinder to cool to room temperature. If necessary, top-off the cylinder such that service pressure is attained with the cylinder at a temperature of 70°F.