

T E C H N I C A L B U L L E T I N

#93 May 18, 1995

TORQUE SPECIFICATIONS FOR SCBA CYLINDERS AND VALVE ASSEMBLIES (THIS BULLETIN REPLACES TB #14)

1. This bulletin modifies the torque specification for cylinder valves bearing the following part numbers: 921050, 921000, 920312, 921040. These cylinder valves must be tightened with a torque wrench to a torque valve of 70 ft-lb. The torque wrench must have a range of no more than 0-175 ft-lb and an accuracy of at least ± 4 ft-lb (a variation of no more than 6%).
2. Please update manuals and other technical documents to read "Torque to 70 ft-lb" where appropriate.
3. Valves must be checked for proper torque under the following conditions.
 - 3.1 The cylinder has been hydro-tested.
 - 3.2 The cylinder valve has been removed for overhaul.
 - 3.3 The cylinder valve appears loose.
 - 3.4 The cylinder valve o-ring has been replaced.
4. Follow the steps below when torquing the valve to the cylinder
 - 4.1 Purge all air from the cylinder.
 - 4.2 Place the cylinder in a suitable holding fixture.

*******WARNING*******

Do not over-tighten the holding fixture. Damage to the cylinder may result. If using a chain vice, use padding to prevent cylinder damage.

- 4.3 Place a 1 ¼" open end wrench on the back face of cylinder valve and unscrew counterclockwise.
- 4.4 Remove and discard the cylinder valve o-ring.

- 4.5 Lightly lubricate the new cylinder valve o-ring, P/N 820214, 957375, or 957032 with Christolube, P/N 910452 (.5cc), and install the o-ring on the valve.
- 4.6 Lubricate the lower five valve threads with Never Seez, P/N 820419.
- 4.7 Install the valve on the cylinder, clockwise.
- 4.8 Use a 1 ¼" crow's foot adapter with a torque wrench set to 70 ft-lb, and torque the valve to the cylinder.
- 4.9 Remove the cylinder from the holding fixture and pressurize to 100 psig.
- 4.10 Check for leaks with a liquid leak detector. Repeat the leak check at 1000 psig and at full working pressure.
- 4.11 If leaks are detected, purge all air from the cylinder, remove the cylinder valve, and check for scratches along the valve and cylinder seating surfaces.
 - 4.11.1 If no scratches are found, reassemble with a new o-ring.
 - 4.11.2 If scratches are found on the o-ring seating surfaces of the valve, it must be replaced.
 - 4.11.3 If scratches are detected on the o-ring seating surfaces of the cylinder, it must be replaced.

For further information, contact SURVIVAIR's Technical Services Department at 800.821.7236.