



SURVIVAIR®



SAFETY NOTICE

March 1, 2006

Re: Survivair SCBA Cylinder Valve part numbers 921040, 921045, 961165, 921065, 920312, 920322, and 964833

It is highly recommended that users of Survivair fully wrapped or all aluminum cylinders that have had cylinder valves installed by repair or hydrostatic test centers get the cylinder valves checked to ensure they were installed properly.

Over the past five years Survivair has received reports of five cylinder valves on various fully wrapped and all aluminum cylinders rupturing and separating from the neck of pressurized cylinders. In the same period, we received reports of eight valves breaking while they were being reinstalled into cylinders. All of these valves had been removed from and reinstalled into cylinders by repair or hydrostatic test centers.

Failure analysis suggested that all of the valves that failed were over-tightened when they were reinstalled. Over-tightening the valve can cause the valve stem to crack or break.



WARNING: Over-tightening the valve may cause the valve to rupture which could cause serious injury or death.

The Survivair specified torque for installing these valves is 70 ft-lb. Measurements of the torque required to loosen valves (breakaway torque) on representative cylinders from departments where these ruptures occurred indicated that they had been installed at torque values as high as 200 ft-lb, again indicating over-tightening as the cause of the failures.

No valves installed at Survivair have ever failed, further suggesting that improper installation by repair and hydro centers caused the failures.

The 70 ft-lb torque specification was developed with no lubricant between the valve flange and cylinder top. If lubricant, solvent or other agent is present between the valve flange and cylinder top, the resulting stress on the valve stem at a given torque is much higher than without lubricant and can potentially lead to valve failure.



WARNING: The presence of lubricant, solvent or other agent between the valve flange and cylinder top can increase stress and lead to valve failure which may cause serious injury or death.



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Technical Bulletin 129 *TORQUE SPECIFICATIONS FOR SCBA CYLINDER AND VALVE ASSEMBLIES, INSTALLATION OF CYLINDER VALVES* has been issued to replace Technical Bulletin 93 *TORQUE SPECIFICATIONS FOR SCBA CYLINDERS AND VALVE ASSEMBLIES*. In Technical Bulletin 129 we have:

1. Added a requirement to check for the presence of lubricant on the valve flange and top of the cylinder.
2. Added a warning that over-tightening the valve may cause it to later rupture which could cause serious injury or death.

Survivair fully wrapped cylinders and Survivair all-aluminum cylinders with valves that have been reinstalled by repair or hydrostatic test centers or any other maintenance group should be checked to verify that the valves were reinstalled correctly and that the valve flange surface is free of lubricant where it mates against the cylinder. You should also verify that the valve has never been over tightened at any time during its history. If a valve was over tightened at any time during its history, it may have been permanently damaged and may rupture under pressure.

Technical Bulletin 128 provides instructions for checking breakaway torque. If the measured breakaway torque is greater than 80 ft-lb, if there is lubricant on the valve flange, or if you are not sure that the valve has never been over-tightened, we recommend that the valve be replaced because it may be damaged and could potentially rupture. If the breakaway torque is less than 80 ft-lb, the valve flange is free of lubricant, and you can determine that it has never been over-torqued, the valves may be reinstalled following the instructions in Technical Bulletin 129.

Improper installation of valves by repair or hydrostatic test centers is not covered by the Survivair warranty. Survivair will not reimburse for the cost of inspection or replacement. Inspection and replacement of these valves is the responsibility of the owner.



WARNING: Failure to inspect and replace these valves may cause serious injury or death.

This notice does not apply to valves used on Survivair hoop wrapped or Survivair steel cylinders. Technical Bulletin 128 includes a visual aid for identifying the type of cylinder. This notice also does not apply to valves that were installed at Survivair and have never been removed from the cylinder.



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Please report the results of all valve inspections, along with the number of valves inspected and the number of valves replaced by calling Survivair toll free at 1-800-394-0410. Please also report any incidence of valve rupture or separation to Survivair at this number and to NIOSH at 1-412-386-4000.

Please provide a copy of this Safety Notice and the attached Technical Bulletin to your repair and hydrostatic test centers and to anyone who services your cylinders.

If you have any questions concerning this Safety Notice, please contact Survivair Customer Service at 1-800-821-7236.

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