

Hydrostatic Requalification of Hot Dip Galvanized Cylinders

(DOT-3AA or DOT-SP14157)

All steel SCUBA cylinders manufactured by Worthington Cylinders and distributed by XS Scuba and Sea Pearls must be requalified a minimum of every five years, as specified by 49 CFR and the current Special Permit. All of said SCUBA cylinders have been hot-dip galvanized at time of manufacture for superior corrosion protection. This process requires additional prep work prior to requalifying each cylinder, in order for accurate test results to be achieved. Failure to perform the additional steps, as outlined below, may result in inaccurate results and rejections of perfectly acceptable cylinders.

- 1) All boots are to be removed from the cylinders and any build up of salt water deposits are to be removed. The galvanizing on the exterior is not considered to be a coating that would inhibit visual inspection of the cylinder and is not to be removed. Do not use harsh chemicals to clean the cylinder.
- 2) Perform visual inspection as per CGA pamphlet C-6 prior to filling the cylinder with water.
- 3) Perform a system check at or slightly below 90% of test pressure as stated and authorized in CGA pamphlet C-1 and 49CFR 180.205(g)(5).
 - For DOT-SP 14157 Cylinders with a service pressure of 3442 psi and a test pressure of 5250 psi, perform the system check at 4675 psi – 4725 psi.
DO NOT EXCEED 4725 PSI.
 - For DOT-3AA Cylinders with a service pressure of 2400psi and a test pressure of 4000 psi, perform the system check at 3550 psi – 3600 psi.
DO NOT EXCEED 3600 PSI.
 - Hold maximum pressure of system check a minimum of 30 seconds or as long as necessary to ensure complete expansion.
 - Record total expansion and permanent expansion from the system check.
- 4) REPEAT Step 3 above.
- 5) Perform the official hydrostatic test at the required test pressure as per CGA pamphlet C-1 and 49 CFR 180 subpart C.
- 6) Repeat entire procedure for each Worthington Steel SCUBA Cylinder to be re-qualified.

Following this procedure will ensure accurate results and reduce unnecessary rejections. Should you experience any difficulties or have any questions about the re-qualification procedure, please contact XS Scuba or Sea Pearls toll-free at 866 977-2822.