

## DIVING CYLINDERS – INTERNAL CORROSION



In 2006 a 3 litre steel pony cylinder exploded during filling. Fortunately no one was injured. The cylinder failed due to extensive internal corrosion weakening the cylinder wall. The cylinder was approximately 2 years old and externally appeared to be in very good condition. Research has shown that corrosion in compressed air and nitrox cylinders can be up to 1000x normal corrosion rates. The amount of water needed to produce this corrosion is very small and might not be enough to be identified by the owner, for example by shaking.

The HSE and the Diving Industry are monitoring feedback from cylinder test stations to identify if reducing the time between cylinder inspections is required. In the meantime divers need to be aware of the serious consequences that can result if water is allowed to enter their cylinders.

Divers should take the following precautions to minimize the chance of water entry:

- Avoid emptying cylinders underwater – if you do, have them internally examined before refilling.
- Do not charge cylinders (such as delayed SMB cylinders) that have been emptied underwater, by decanting from your main cylinder – water from the empty cylinder may enter the “charging cylinder” during the process. If you suspect your inflation cylinder was emptied underwater have it internally examined before filling.
- Before charging a cylinder always momentarily crack open the cylinder valve and supply valve to blow out any moisture.

**If you consider there is any chance of water having entered your cylinder have it internally inspected before it is filled.**