CDAS SAFETY FLASH 2023-04 |

Information sourced from IMCA

Near miss: Foreign body in diver's helmet, resulting in fall of gas pressure

What happened
During a routine dive at a depth of 18m (60'), the diver reported to the Dive Supervisor a drop in breathing gas pressure. The diver switched to bailout gas which did not solve the problem. The diver opened the free flow which increased gas pressure to a suitable level. The diver left the sea bottom and returned safely to the vessel deck. Upon removal of the diving helmet (a Kirby Morgan 37) a foreign body was found in the demand valve chamber section of the helmet regulator.

What went right?
The diver remained composed and took the correct emergency actions.

What went wrong?

- A foreign body found its way undetected into the helmet during pre/post-dive cleaning. It is thought that the likely cause was the foreign body – a small shard of plastic – entered the regulator body and restricted the action of the lever arm.
    - The bowl or utensil used for cleaning helmet parts was an old and broken plastic pot;
    - The foreign body was identified as being part of the old and broken plastic pot used as a cleaning utensil;

Plastic pot used to wash the internals of the hat.

Foreign body from the plastic pot broken off (22mm).

What was the cause

Inappropriate or sub-standard cleaning technique for such an item as literally vital as a diver's helmet.

Lessons and actions

- Consider how something so minor could have such an impact on a diver's gas supply;
- Reiterate the importance of pre-dive checks and of the need for absolute cleanliness in divers' life-saving equipment;
- Our member introduced spray bottles to eliminate the chance of particles entering the helmet during cleaning.