

November MARS 201165 - Lifeboat damaged by ruptured air cylinders

MARS 201165 Lifeboat damaged by ruptured air cylinders

An oil tanker's totally enclosed fibreglass lifeboats were equipped with high-pressure air cylinders stowed beside the keel. One day at sea – shortly after the lifeboats had undergone a 5-yearly inspection by an accredited contractor – one of the compressed air cylinders suddenly and spontaneously burst, resulting in extensive damage to the lifeboat's keel and hull. Fortunately, no-one was injured. Once the vessel arrived in port, a local lifeboat service company was contracted to investigate the incident and assess the damage with a view to carrying out repairs. In the absence of supporting documents (certificates/ work reports etc.) and from the dates punched on the cylinders, it appeared that it was more than six years since the last hydraulic test of the air cylinders. (IACS Recommendation No.88: Air bottles for air supply in totally enclosed lifeboats should be hydraulic pressure tested by a competent service station recognised by a Recognised Organisation at intervals not exceeding 5 years and the hydrostatic test date must be permanently marked on the bottles.) The substantial corrosion of the cylinders' exteriors suggested that routine inspections and maintenance had also been seriously neglected. After the air cylinders were removed and closely examined, it was ascertained that the cylinder shells had suffered a 50% diminution in thickness in the corroded patches. After assessing the damage, the lifeboat was deemed to be beyond economical repair. It had to be scrapped and a replacement lifeboat obtained. The investigation report was forwarded to the fleet Head Office in order to instigate legal action against the original equipment manufacturer (OEM) for potential breach of code(s) in the material, design and construction of the cylinders, and against the authorised contractor who last serviced the lifeboats and equipment for negligence.



▲ View of localised corrosion on the exterior of air cylinders



▲ View of damaged hull and ruptured air cylinder



▲ Close-up view of damaged hull and ruptured air cylinder

Editor's note: As a consequence of this incident, it is presumed that all air cylinders in the other lifeboat were also renewed. This incident highlights the need for compressed air or gas cylinders, fire extinguishers and hydraulic systems to be regularly inspected, maintained and hydraulically tested at recommended intervals. They must be renewed if there are any signs of wastage or corrosion, which may be particularly serious in locations that are exposed or enclosed.



- [Terms & Conditions](#)

The Nautical Institute

202 Lambeth Road, London, SE1 7LQ

T: +44 (0)20 7928 1351 F: +44(0)20 7401 2817

E: sec@nautinst.org W: www.nautinst.org

© Copyright 2011 The Nautical Institute

Web Design by  Pixl8