

# DON'T CURE PREVENT

**ISSUE 04** AUGUST 2020

**BREATHING APPARATUS AND LIFEBOAT'S AIR BOTTLES  
INSPECTION AND MAINTENANCE.**





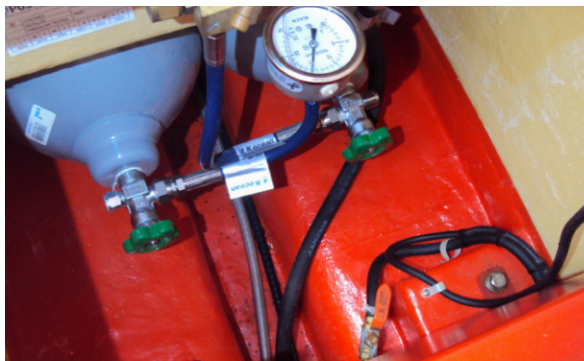
# BREATHING APPARATUS AND LIFEBOAT'S AIR BOTTLES INSPECTION AND MAINTENANCE.



## CASE

During an onboard H.EL.M.E.T. assessment, the P@S Assessor noticed that the Air Supply bottles in one of the lifeboats were not fully charged with air. In particular, they were filled at approximately 70% of their total capacity. The H.EL.M.E.T. Assessor pointed out the importance of keeping the air bottles in good condition and fully charged with oxygen. The lifeboat's air supply bottles were recharged according to Manufacturer's instructions.

*During a PSC inspection a few months later, the same lifeboat's Air Supply bottles were found to be filled at approximately 50% of their total capacity, resulting in an observation that was raised by the PSC Inspector.*



## REGULATORY FRAMEWORK

### AS PER LSA CODE 2017, CHAPTER 4, §4.8

A lifeboat with a self-contained air support system shall be so arranged that, when proceeding with all entrances and openings closed, the air in the lifeboat remains safe and breathable and the engine runs normally for a period of not less than 10 min. During this period the atmospheric pressure inside the lifeboat shall never fall below the outside atmospheric pressure nor shall it exceed it by more than 20 hPa. The system shall have visual indicators to indicate the pressure of the air supply at all times.

### AS PER SOLAS III/20.7.2

Inspection of the life-saving appliances, including lifeboat equipment, shall be carried out monthly using the checklist required by regulation 36.1 to ensure that they are complete and in good order. A report of the inspection shall be entered in the log-book.



## WHAT WENT WRONG?

- ❏ The maintenance of the equipment was not following the SMS and SOLAS procedures and requirements.
- ❏ Defective equipment in regards of integrity.
- ❏ Overconfidence on life saving appliances' proper condition.



## OUR SUGGESTION

Prevention at Sea suggests the following actions with the aim to avoid occurrence or prevent reoccurrence;

- ❏ Engage professionals aware and familiar with the proper operation and testing of the equipment.
- ❏ Follow the relevant inspection and testing procedures.
- ❏ Do not rely on other's advice or equipment superficial good condition and integrity.
- ❏ Faulty equipment or wear can render the equipment unreliable.
- ❏ Maintain the equipment as per manufacturer's instructions and standards.
- ❏ Cultivate a safety culture by encouraging/motivating the personnel to make the safety and environmental protection awareness their highest priorities.

*Note: Totally enclosed lifeboats should be equally treated as enclosed spaces thus proper air supply and adequate level of oxygen should be regularly checked and maintained*





## BEST PRACTICE

- ✓ When low air pressure is identified, proceed immediately to refill the bottles.
- ✓ The officer in charge for the maintenance of life saving appliances is skillful and well trained.
- ✓ Mark as “EMPTY” the equipment until refilling. In case of malfunctioning/defective equipment, condemn and decommission the subject equipment by placing proper marking on it and forward relevant report to the head office.
- ✓ Ensure that proper demonstration and familiarization with the proper operation of the compressor for the refilling of the bottles has been implemented.
- ✓ Usually there are more than one bottle in the lifeboat. Each bottle's pressure should be checked individually. After checking each bottle make sure that its valve is closed and the line is released from the pressure before moving to the next one.

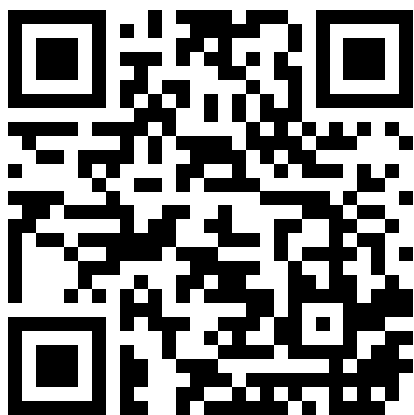
**REMEMBER:** Refilling of air bottles can be a dangerous operation as bottles may explode because of high pressure or high temperature. Before commencement of the process, proper operation of the relief valve and pressure gauge fitted on the compressor must be ensured. Furthermore, means for keeping the bottles' temperature low should be used as necessary.



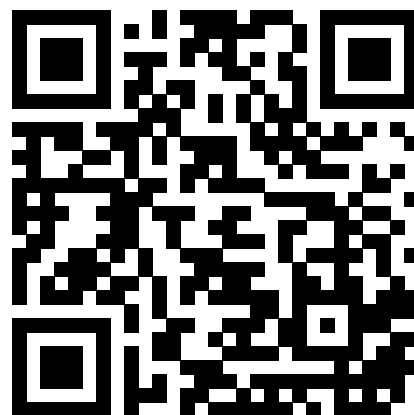
## TEST YOUR KNOWLEDGE

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**Q&A**



**SPOT THE DEFICIENCY**



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**FOR MORE INFORMATION,  
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