

CCS 技术通告

Technical Information

(2015 年) 技术通告第 30 号总第 191 号

2015 年 10 月 30 日 (共 2+2 页)

发：各有关船公司

关于自由降落救生艇安全的通告

近日，AMSA 发布了一期海事通告 (Marine Notice 15/2015)，提到了澳大利亚交通安全局 (ATSB) 和新西兰交通事故调查委员会 (TAIC) 分别对发生在澳大利亚、新西兰地区的两起自由降落救生艇安全事故的调查结果，提醒海事业界关注调查结果，重视自由降落救生艇的安全和维护保养问题，详情见附件。

根据 ATSB 和 TAIC 调查结果以及 AMSA 海事通告 15/2015，为避免类似事故再次发生，我们提请船公司、船员高度重视自由降落救生艇的艇钩装置、模拟释放钢索、吊艇索的技术状况：

- 1、在每次弃船演习后，应目视检查艇钩及液压油缸、止动块是否完全复位。
- 2、对于护套钢索（模拟释放钢索和吊艇索），建议割去外护套，以便确认内部钢丝状况良好，一旦发现问题，须立即更换。
- 3、船公司应需要及时更换，该钢索应为防旋转钢索并持有船级社船用产品证书。模拟释放钢索长度和连接方式应满足厂家说明书的规定。
- 4、船公司应必要时或按不超过五年间隔期更换吊艇索，该吊艇索应为防旋转钢索并持有船级社船用产品证书。
- 5、船上应建立有效的自由降落救生艇维护保养程序，并且检查该程序能够有效实施。船员应被培训并熟悉维护保养程序以减少他们在实施维护保养工作时的风险。
- 6、船员应严格按照 SOLAS 规定、以及生产厂家的维护保养手册要求，进行自由降落救生艇的日常维护保养与检查。

本通告在本社网站 (www.ccs.org.cn) 上发布，并由各分社转发所辖区域内

的相关船公司。

特此通告。

附件： 澳大利亚海事局海事通告 15/2015

中国船级社

本通告在实施过程中如有任何疑问，请与中国船级社船舶综合业务处联系。

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Marine Notice 15/2015

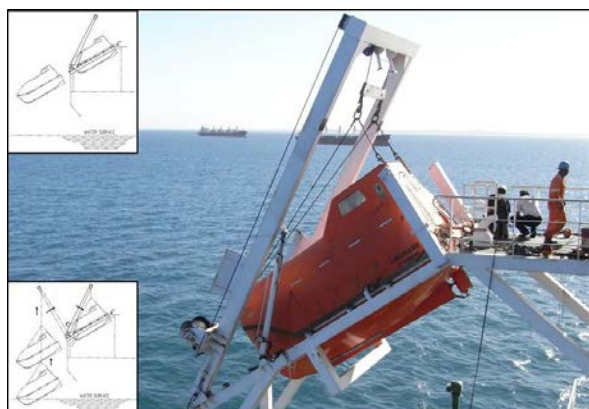
Free-fall lifeboat safety

Purpose

This Marine Notice alerts the maritime industry to findings of two recent accident investigations conducted by the Australian Transport Safety Bureau (ATSB) and the New Zealand Transport Accident Investigation Commission (TIAC). These investigations have highlighted ongoing safety issues related to free-fall lifeboats and identified maintenance issues that the maritime industry should be aware of.

The incidents

Aquarosa (IMO No. 9506708) - On 1 March 2014, Aquarosa's free-fall lifeboat was inadvertently released during a routine maintenance inspection while the ship was en route to Fremantle, Western Australia. One crew member was injured in the incident and it took 5 hours for the crew to recover the lifeboat.



Aquarosa's Free-fall Lifeboat arrangement

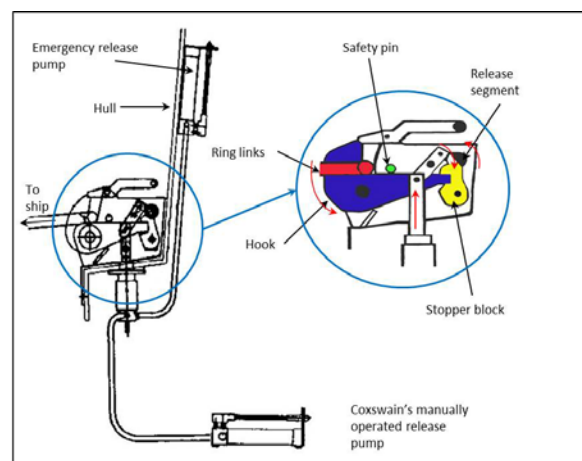
Da Dan Xia (IMO No. 9451290) - On 14 April 2014, the wire lifting sling for the ship's free-fall lifeboat failed catastrophically during recovery of the lifeboat after a routine launching exercise in Wellington, New Zealand. This resulted in the lifeboat falling several metres into harbour waters. One crew member was injured, and the lifeboat launching davit was rendered unserviceable.

Incident analysis – Aquarosa

The ATSB identified that the Second Engineer accidentally activated the lifeboat's on-load release mechanism while carrying out a test procedure. When the Second Engineer cycled the hydraulic system, the retaining hook was released allowing the lifeboat to move down the launch ramp.

The ATSB found that the hydrostatic on-load release mechanism hydraulic cylinder ram had not fully retracted after use, preventing the stopper block from resetting correctly. This left the release hook in a partially disengaged position.

The ATSB noted that the design of the release mechanism cover plate prevented visual confirmation that the hook was correctly reset.



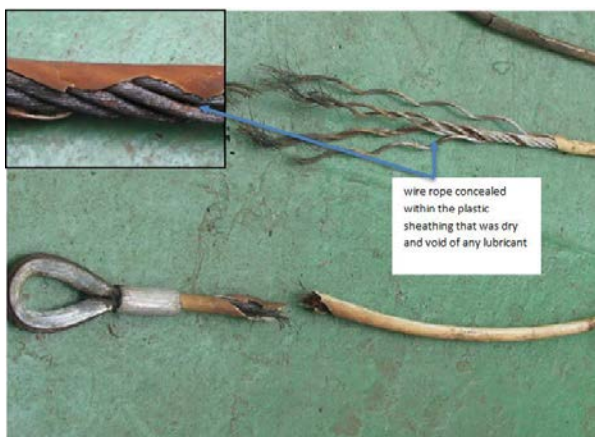
Aquarosa's free-fall lifeboat release system

The lifeboat was fitted with simulation wires to prevent it from launching under these circumstances. However, on this occasion, the simulation wires failed allowing the lifeboat to move down the guide rails into the sea. The ATSB found that the simulation wires failed due to a combination of incorrect installation and cumulative internal wear from numerous shock loading events that resulted from previous lifeboat launching drills.

Incident analysis – *Da Dan Xia*

TAIC identified that the wire pennants parted under tensile overload. Subsequent testing confirmed that the sling wires had been significantly weakened by severe corrosion. This corrosion had gone undetected inside a plastic sheathing that the manufacturer had fitted to the wire.

The sheathing prevented the crew from identifying the corrosion and did not allow for lubrication or the application of other corrosion-inhibiting substances. The crew were also unaware of the necessity for greater vigilance and the application of anticorrosive substances during inspections.



Examples of the damage to *Da Dan Xia*'s wire slings after failure (Courtesy TAIC)

TAIC found that the wires were of adequate strength when manufactured, but that the sheathing allowed saltwater ingress, aiding corrosion by retaining water, and prevented external observation.

IMO Convention requirements

Chapter III, Regulation 20 of the International Convention for the Safety of Life at Sea (SOLAS) requires operational readiness, maintenance, and inspection of lifeboats and rescue boats. Under applicable Australian law, owners and operators are responsible for implementing effective routines and procedures that meet SOLAS requirements. These incidents reinforce the need to ensure effective implementation of these processes.

On board safety management

AMSA continues to observe numerous defects and deficiencies related to ship's lifeboats and liferafts. This is difficult to understand given the IMO and AMSA focus on risks associated with the incorrect operation and maintenance of survival craft.

Wire failure was the critical factor in both the *Aquarosa* and *Da Dan Xia* incidents. This highlights the importance of:

- Ships' crews following established maintenance procedures and being vigilant and observant during all maintenance tasks.
- The examination of maintenance procedures to ensure they are effective.
- Effective crew familiarization and training, to minimise risk when crew are conducting test procedures and training drills.

AMSA inspections

Marine Notice 2/2014 highlighted the requirement for additional restraints to be installed on lifeboats during AMSA inspections. This requirement is a control mechanism that AMSA has implemented to reduce the AMSA inspector's exposure to risk. It is recommended that these restraints be used anytime maintenance is being carried out on lifeboats. The continued cooperation of all owners, operators and masters is appreciated.

More information regarding the details of each investigation can be found at:

www.taic.org.au/ReportsandSafetyRecs/
www.atsb.gov.au/publications/

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