SOS Service Our Ships
DGS MARINE GROUP

Lifeboats

IMPORTANCE OF MAINTENANCE & SAFE OPERATIONS

IN THIS ISSUE

Lifeboat accidents leading to death or serious injury to crew, during drills, maintenance and / or inspections are increasingly becoming an issue of grave concern for the Shipping Industry.

As per the latest report in Trade Winds, a two year old vessel lost three crew members during an abandon ship drill. As determined by various studies, where the root cause of lifeboat accidents were analysed, the main reasons for accidents that occur during drills maintenance and / or inspections comes down to the following three main factors;

- **Design of the hook**
- **Training of personnel**
- **Lack of Maintenance**

This article will endeavour to highlight the above issues and draw attention to simple, yet efficient, recommendations for our Assureds to have their lifeboats well maintained and, in effect, save lives when the time arises.

DESIGN OF THE HOOK

Following the unfortunate accident on board the "*Alexander L Kielland*" in 1980, where three lifeboats were unusable as the manual lifeboat hooks could not be released, killing 123 persons, the International Maritime Organisation (IMO) introduced the 'on load' hooks system. A number of designs, almost 80 variations from different manufacturers have since been used on ships. However, accidents resulting in crew death and / or serious injuries during lifeboat drills or during maintenance / inspections has since not reduced.

A ship owner in an ideal world would have tried to mitigate all the aforementioned three problems in order to have a safe lifeboat. However, unfortunately the ship owner is at the mercy of manufacturers, which even after designing hooks, in compliance with International Regulations, are unable to produce a failsafe hook releasing mechanism. In 2006, the Maritime and Coastguard Agency ("MCA") commissioned research project 555, 'Development of Lifeboat Design', whose findings reported that "*many existing on-load release hooks, while satisfying the current regulations, may be inherently unsafe and therefore not fit for purpose*". The aforementioned recent accident which killed three crew members on a two year old vessel reflects inconsistent and unsafe hook design and the dangers of having improperly tested hooks fitted on vessels.

TRAINING OF PERSONNEL

Further to various accidents, in order to reduce the number of crew members exposed to a dangerous situation during drills, IMO published MSC/Circ. 1326 which stated that;

'*SOLAS regulation III/19.3.3.3 requires each lifeboat to be launched, and manoeuvred in the water by its assigned operating crew, at least once every three months during an abandon ship drill. However, the regulation, whilst requiring each lifeboat to be manoeuvred in the water by its assigned operating crew, does not require the assigned operating crew to be on board when the lifeboat is launched…the assigned operating crew should not be required to be on board life boats during launching, unless the master, within the authority conferred to him by paragraph 5.5 of the ISM Code, considered, taking into account all safety aspects, that the lifeboat should be launched with the assigned operating crew onboard*'.

Additionally, IMO introduced the 'on-load' release mechanism to allow the crew to release the hooks when a life boat is subject to rough seas and / or the ship making way (up to 4 knots). However, this 'on load' release system had its own set of issues which resulted in poorly trained crew using the 'on load' system to release the hooks when the lifeboat was a meter above the water level and not yet water borne (bypassing the hydrostatic release mechanism). This is an extremely dangerous situation and can cause considerable damage to the life boat and in some cases cause serious injury to the crew in the boat.

LACK OF MAINTENANCE

The master and his crew bear the final brunt of poorly maintained lifeboats and davits. Having the correct hooks and well trained crew is not enough if maintenance on the lifeboats is not carried out thoroughly. To a certain extent the crew are reliant on companies to supply spare parts to the ship in order to carry out the required maintenance. However, most often the cause of wrongly supplied parts, or parts which do not fully comply with the required specifications is because the original manufacturer of the ships davit system is no longer in business, and there are no more original spare parts available in the market. Unfortunately, this vicious cycle continues to this day with the crew being exposed to unlimited danger.

RECOMMENDATIONS

a. Fall preventer devices

The use of Fall Preventer Devices ("FPD") is arguably one of the most fundamental solutions to mitigate the risk of a lifeboat falling from an unwanted height due to failure of hooks. IMO MSC 1/Circ.1327 (11th June 2009) gives guidelines for the fitting and use of all fall preventer devices. Further, the UK MCA Marine guidance note MGN388 gives guidance on the 'fitting of FPD to reduce danger of accidental on-load release'. It is recommended that the FPD should not be in place permanently and are to be used only when required.

b. Training and awareness

Operating manuals often confuse the crew and, given that the crew rotation on some vessels is very frequent with insufficient crew handing over periods, the manuals must be checked for clarity, with a copy of the operating manuals in the working language of the crew. Shipboard procedures must be concise and correct. Officers should educate the crew on the ship specific lifeboat hook release system at each abandon ship drill. If possible, a video must be obtained from the manufacturers for operating release hooks and viewed as part of familiarisation with the vessel.

c. Operations

A risk assessment of the release mechanism to determine if it is an inherently unstable design should be carried out prior use. This risk assessment should include the design and the maintenance aspects of the specific gear onboard. Depending on the results of this 'Risk Assessment', various risk reduction measures could be adopted such as hanging of pendants or having no personnel in the boat while raising or lowering.

d. Maintenance

Ship owners should not compromise on costs when sourcing out accredited maintenance technicians for lifeboat gear. Corrosion resistant materials should be used and chosen over poor quality materials.

e. Practical points

SOLAS no longer needs the crew to be on board during launching; however, care must be taken not to substitute one risk with another. For example, descending into a waterborne boat by ladder from a great height is an inherently risky operation and should be properly assessed prior to carrying out.

It is also highly recommended for the boat to be first lowered to the water level and recovered without persons onboard to ascertain that the arrangement functions correctly.

All moving parts of the davit should be observed for any failures during the lowering and recovery of the life boats.

To prevent lashings or gripes from getting entangled, proper release should be checked before swinging out the davit.

It is often a sentiment of the crew that no accident will occur on their ship, as they are well trained, and that all onboard equipment is well maintained. Without undermining the crew's motivation, they should be made aware that the highest level of precautions should be taken during every life boat operation. It is important for crews to know that drills are for training purposes and not just for fulfilling ISM requirements. The Master and his Officers should allocate sufficient time for drills and not push for speed.

FUTURE INITIATIVES

Lifeboat accidents during drills have been frowned upon since 1990, however 21 years on, not much has changed as Ships' crews are still being injured or killed. From accidents arising from lifeboat accidents, IMO recognises the importance of this issue and, as per Trade Winds recently, IMO has agreed to add new requirements to the SOLAS convention that will oblige owners and manufacturers to check that their lifeboat hooks are compliant with newly agreed guidelines. Owners do not have to complete an assessment of equipment until July 2013. However, non compliant equipment must be changed by the first dry docking after 2014 and owners have until 2019 to complete the task. However, many owners are expected to take the initiative and test and change equipment before the mandatory requirement.

The effectiveness of the aforementioned initiatives and any further recommendations will remain to be seen. However, the British European and Overseas P&I Club strongly urges our Assureds to comply with all regulations, recommendations and carry out the risk assessments, as mentioned earlier, to establish a 'Zero Lifeboat Accidents' policy in order to have lifeboats which save lives rather than take lives.

CONTACT INFORMATION

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