Loss Prevention Circular No. 02-08

# Lifeboat accidents with on-load release hooks

For the last 20 years, accidents during mandatory lifeboat drills have been an ongoing issue in the discussions of the safety of seafarers. This circular provides general advice on how to deal with this problem on board.

## Background

The lifeboat accidents are associated with the on-load release functions of the lifeboat hooks which are mandatory under IMO regulations for all ships built after 1 June 1986. On ships built before this date there are generally off-load hooks that cannot be released unless the lifeboat is fully supported by the water.

The number of accidents and the number of people killed or injured runs into the hundreds. However, there are no official records for the total numbers and the lack of such records may be one of the reasons why the regulators have not managed to change the situation. The end result is reduced confidence in davit launched lifeboats.

Gard has warned about the on-load release accidents for many years and hosted a conference in October 2007 to discuss these accidents with representatives of flag states, lifeboat manufacturers, P&I Clubs, class societies and various other international organisations attending. For the purposes of this conference, we reviewed Gard's losses over the years 1992- 2007. A total of 37 accidents, resulting in 13 people killed and 87 injured had been registered during this period. In addition, there will also have been lifeboats accidents without injuries to personnel and thus not resulting in notification to the P&I club.

During 2007, Gard registered two accidents resulting in 1 death and 6 people being injured. Compared to other types of accidents on board ships and in relation to the 6,200 vessels entered with Gard, one may consider these figures low. The dilemma is, however, that the accidents with lifeboats do not occur in normal work situations on board, but during mandatory drills with the vessel's lifesaving equipment. Due to the many accidents with lifeboats, IMO regulations no longer require people to be on board the lifeboats during lowering and hoisting. The crew members can be placed into the lifeboats by other means after launch, such as lifeboat ladders or taxi-boats in port.

Accidents with on-load release hooks are found to occur due to lack of maintenance, lack of knowledge or poor design. When complying with the IMO requirements for hooks to have both off-load and on-load capability, it has proved difficult to design sufficient barriers against the effects of poor maintenance and human error.

## General advice

Due to the increased attention to the problem of on-load release hooks, we have received many questions from Members about what to do. While Gard cannot recommend one manufacturer over another, we will in the following attempt to provide some general advice.

1. It is very important to know the type of hook release system which is installed on your lifeboats. While it would be natural in a shore based industry to have such an important item standardised, the Gard Conference last autumn revealed that there were 72 different systems in use, and the number is still growing.

For more information regarding the Gard loss prevention products, please contact:
Vice President Harald Fotland, ph: +47 55 17 40 67 or email harald.fotland@gard.no , or
Loss Prevention Manager Trygve C Nøkleby, ph.: +47 55 17 41 11 or email trygve.nokleby@gard.no.

2. Ensure you have clear and correct manuals and instructions about how to handle the hook release system on board and that such material is made available to the crew. Ensure that anyone who operates the lifeboat release gear has been trained on that particular system.

3. Do not allow anyone not trained in the operation of your vessel's particular hook system to operate it. If your crew is not trained in the operation of the system, send them for specific training or ask a specialist in that particular system to conduct training on board. Up till now, most seamen have only received mandatory shore-based training in the launching of lifeboats during their education and very rarely any training on the exact type of release gear found on board.

4. Give priority to the maintenance of lifeboats. Use strong hanging off pendants to secure the boat to the davit arm before any work is done on the hook release system. For instance, the Australian Maritime Safety Authority (AMSA) now requires such restraints to be present before their surveyors can enter a lifeboat. For the maintenance of hook release systems, engage service people from or approved by the manufacturer.

5. Do not have any people on board the lifeboat during lowering and hoisting, unless you know your hook release system is well maintained and that the crew on board both understands the mechanisms of the system and the risks represented by human error. The IMO regulations require the hook system to be capable of releasing the boat with the total load of boat, equipment and a full crew. However, if the boat is released before reaching sea level, people on board may be seriously injured or even killed.

6. Free-fall lifeboats should be considered for newbuildings. If davit launched lifeboats are selected, review the hook release systems available in the market and insist on the safest system available.

## Summary

A lot has been learned from 20 years of accidents, and there are today on-load release hooks in the market which are far safer than the first generation of hooks. We suggest that the old hook systems are replaced with new improved designs.

Since lifeboats with modern on-load release hook systems are still capable of being accidently released before they are lowered on the water, Gard strongly recommends that all owners and shipmanagers address this issue within their respective companies and ensure that adequate training is provided to the crew on the specific hook systems within their fleet.

The IMO Sub-committee on Design and Equipment is discussing the problem of lifeboat accidents and will be meeting in Bonn on 18 February 2008. It is hoped that this important meeting will result in new regulations to reduce the number of accidents and injuries occurring.

For more information regarding the Gard loss prevention products, please contact:
Vice President Harald Fotland, ph: +47 55 17 40 67 or email harald.fotland@gard.no , or
Loss Prevention Manager Trygve C Nøkleby, ph.: +47 55 17 41 11 or email trygve.nokleby@gard.no.