

Release and retrieval systems: a recap



Richard Bell
Safety and loss prevention executive
+44 20 7680 5635
richard.bell@ctplc.com

A number of accidents have reduced confidence in release and retrieval systems.

New requirements were published by the IMO on 1 January 2013.

Fall prevention devices vital to safety during interim period.

A traumatic introduction

Lifeboat on-load release and retrieval systems (RRS) were introduced by SOLAS in the wake of the *Alexander Kielland* disaster, which cost the lives of 123 people. In 1980 the *Alexander Kielland*, a Norwegian offshore platform, suffered a series of catastrophic structural failures that caused it to list and eventually capsize. Whilst the platform was equipped with lifeboats, the lifeboat falls were not sufficiently long enough to reach the water. With no way of releasing the lifeboats 'on load', they were nullified as a viable means of escape. The result was that, of the 212 persons manning the platform, only 89 survived, many of whom resorted to life rafts or swimming to safety.

In order to prevent a similar tragedy from occurring, in 1986, the IMO made it mandatory for all new vessels to be fitted with on-load RRS. However, since their introduction, there has been a steady stream of accidents which have caused death and serious injury to a number of mariners.

New requirements

The IMO responded to these incidents by conducting research into the causes of RRS accidents. Its findings prompted it to issue new requirements for existing and future on-load RRS, designed to reduce the incidence of failure and to rebuild seafarer confidence. The new requirements took the form of amendments to SOLAS III/1.5 and the LSA Code. All existing and new on-load RRS were to be evaluated to determine whether they complied with these new requirements. The procedure for evaluating and replacing on-load RRS was detailed in MSC.1/Circ.1392, entitled 'Guidelines for evaluation and replacement of lifeboat release and retrieval systems'.



The key dates for shipowners are:

1. 1 January 2013
Date upon which the amendments to SOLAS III/1.5 and the LSA Code concerning RRS entered into force.
2. 1 July 2013
Date by which all RRS were to have been tested and evaluated in accordance with guidelines stated in MSC.1/Circ.1392.
3. 1 July 2014
Existing systems which have been deemed compliant with the new requirements should be subject to a (one-time) overhaul examination by the manufacturer or by one of its representatives no later than the first scheduled dry docking after 1 July 2014.

Systems which have been deemed non-compliant with the new requirements shall be replaced/modified no later than the first scheduled dry docking after 1 July 2014, but not later than 1 July 2019.

Full details of the procedure for the replacement of non-compliant lifeboat release systems and overhaul examinations can be found in MSC.1/Circ.1392.

Fall preventer devices

MSC.1/Circ.1392 urged the use of fall preventer devices (FPD) during the interim period prior to the replacement or modification of an existing RRS. FPD are intended to mitigate the risks posed to seafarers by RRS which have not been found compliant but may not be replaced/modified until 2019 (at the latest).

FPD are designed to prevent the lifeboat from falling in the event that the RRS hooks are inadvertently released or fail. FPD come in two main forms, strops/slings designed to provide an alternative load path and locking pins which prevent the physical movement of the RRS mechanism.

Fall preventer device tips

Strops/Slings

- do not use wire or chains;
- strops should be made from synthetic fibre;
- strop strength should be six times the total weight of lifeboat when loaded with its full complement of persons and equipment;
- strops should be properly certified for tensile strength;
- FPD should be inspected every six months;
- FPD must be permanently marked with the date of entry into service;
- do not use strops with spliced eyes;
- do not attach the FPD directly to the hooks;
- FPD should be tight with no slack for best effect.

Locking pins

- there should be clear operational instructions near point of insertion;
- pins to be colour coded;
- pin should be designed to avoid inadvertent insertion in wrong place;
- locking pin and release handle to be prominently marked with warning;
- pin removal should be achievable quickly/easily;
- pin removal should not expose operating crew to further danger;
- pins should not be used for any other purpose.

Launching

Crew members should be thoroughly trained in the use of FPD and how they fit into the scheme of the lifeboat drill. The FPD should be included in the pre-launch checks. During the drill, the FPD should remain attached until the lifeboat is a safe distance above the water line (less than 1 metre) or has reached the water. At this point, the FPD should be removed before the on-load release and retrieval system is operated.

Whilst FPD were originally intended to improve the safety of lifeboat drills, their use in an actual emergency abandonment situation is a matter of debate within the maritime industry. A ship's master must weigh the advantages (greater safety for crew) against the disadvantages (increased launch times) and decide which scenario is best suited for their vessel and the operating conditions they may experience in the future.

Recovery

Prior to recovery, the RRS should be reset and the boat manoeuvred, in the usual manner, to a position below the falls. FPD should be rigged after the hooks have been reattached to the falls but before the lifeboat is hoisted to the embarkation deck. All other checks on the RRS should be conducted in accordance with normal procedure, such as a check on the emergency release, once the vessel has been hoisted just clear of the waterline.

Conclusion

Members should take steps to ensure that they comply with the 1 July 2014 deadlines for both compliant and non-compliant RRS. Crew on board vessels fitted with non-compliant RRS should be properly trained in the use of FPD as a means of maximising safety until such time as the RRS are fully compliant.