Maritime and Coastguard Agency

MARINE GUIDANCE NOTE

MGN 267 (F)

The Location and Stowage of Liferafts and Emergency Positioning Radio Beacons (EPIRBs) on UK Registered Fishing Vessels

Notice to Designers, Builders, Owners, Skippers and Crews, of Fishing Vessels.

This notice should be read in conjunction with MGN 104 Stowage and Float Free Arrangements for Inflatable Liferafts, and supersedes MGN 130 (F).

Summary

- This note gives guidance on suitable stowage positions and other measures that will significantly reduce the possibility of a liferaft or an EPIRB becoming trapped or snagged when being deployed automatically from a sinking fishing vessel.

1. LIFERAFTS

1.1 To enhance the chances of successful deployment in an abandon ship emergency, the Maritime and Coastguard Agency strongly recommends that for liferaft containers:

(a) The owner/skipper should review the liferaft stowage arrangement on the vessel and consider:

(i) Are the liferaft containers stowed in an area that is free from overhead obstructions, and as far away from bulkheads, railings and other vertical structures as is possible?

(ii) Does the vessel have rigging, equipment or structure which could interfere with the deployment of a liferaft?

(b) A liferaft container may be released when the vessel is on its side or at some other extreme angle of heel and trim. A deep cradle should allow for this but be designed to avoid inadvertent release.

(c) Manual launching may also be necessary, and any arrangement should allow this to be easily achieved.

(d) The arrangement should allow easy access for crew from their normal working positions.

1.2 Of the 104 fatalities from vessel losses between 1992 and 2000, 69 were never found, and it is possible that a significant proportion of these losses were because of the incorrect operation of life saving equipment. As a result of one of these incidents the Maritime and Coastguard Agency commissioned a research project to find out:

(a) why some liferafts failed to reach the surface; and

(b) the optimum positions for the stowage of inflatable liferaft containers.

1.3 Phase 1 was undertaken by the Wolfson Unit for Marine Technology and Industrial Aerodynamics, and involved conducting a series of tank tests using two models of common fishing vessel types. This investigated the behaviour of a sinking vessel.

1.4 This work concluded that a liferaft positioned away from fishing gear and structures would have a much greater chance of reaching the surface from a sinking vessel than a more traditional aft mounted liferaft.

1.5 The research from Phase 1showed that:

(a) Because of masts, rigging and fishing gear on beam trawlers, when compared with other fishing vessels, there is an increased likelihood of liferaft containers and/or painters becoming fouled and snagged on superstructure and/or fishing gear; and therefore being prevented from reaching the surface.

(b) Due to variations in fishing vessel design and operation, the attitude (angles to port, starboard, forward and aft) that the vessel takes up as it sinks is difficult to predict.

(c) In some cases the container may become so fouled or jammed that it cannot deploy automatically.

(d) More commonly, when the liferaft container is released by the Hydrostatic Release Unit, the painter becomes fouled as the liferaft ascends to the surface. As a result, the painter weak link does not break and the liferaft will not reach the surface.

1.6 Phase 2 was undertaken by the Inflatable Safety and Survival Equipment Trade Association (ISSETA), working with SEAFISH and the Maritime and Coastguard Agency.

1.7 A six person liferaft in a rectangular container was placed on the bow of a beam trawler for a trial period of two years, in addition to the existing liferafts, to prove that a liferaft could cope with the conditions encountered. (The report is attached).

1.8 The research from Phase 2 showed that:

(a) The trial of the liferaft on the bow showed that over the two years of service the case and liferaft itself remained in good condition with no degradation. The Hydrostatic Release Unit was also found to operate as required when tested. (The Hydrostatic Release Unit was of a type which would operate at 6-10 metres depth to avoid accidental operation caused by seas shipped over the bow).

(b) A liferaft stowed forward, properly fitted with a suitable Hydrostatic Release Unit and protection from waves will provide an effective alternative to stowing both liferafts aft.

1.9 For vessels with little rigging or obstruction, alternative actions could include:

(a) The possibility of local structures hindering the container's deployment can be minimised by incorporating angled stanchions to guide the container upwards and past the obstruction.

(b) To reduce the possibility of automatic deployment failure occurring as a result of the painter snagging on wires used for rigging etc., consideration should be given to the fitting of smooth sheathing over wires in areas close to where liferafts will float free.

2. EMERGENCY POSITIONING INDICATING RADIO BEACONS (EPIRBs).

2.1 Tank tests also provided information on the conditions for automatic deployment of EPIRBs. From this the following advice is given on the siting of this equipment:

2.2 To provide the best conditions for automatic deployment, the EPIRB should be sited so that it can float free and clear regardless of the attitude of the vessel during or following capsize. The wheelhouse top is the favoured position, although rigging, masts, equipment etc. could indicate that an alternative position should be found. Access should be easy so that the EPIRB can be manually activated and placed in the liferaft if abandoning ship.

2.3 If the EPIRB is placed on one side of the vessel, or immediately behind the wheelhouse then the likelihood of correct deployment is much reduced.

Further Information

Further information on the contents of this Notice can be obtained from:

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