

Recovery of persons from the water at sea

For the recovery of persons from the water, IMO intends to introduce new performance standards for maritime shipping as of 2012 (Report of the Maritime Safety Committee on its 81st Session (2006), MSC 81/25, para. 4.38) and has tasked the Sub-Committee on Ship Design and Equipment (DE) with the development of new standards. The DE Sub-Committee will probably discuss the development of new performance standards in October 2010 or the spring of 2011.

In autumn 2007, HANSA published an article series from Capt. Peer Lange (German Office for Ships Safety): » Recovery of persons at sea – an unsolved challenge«. This related to IMO recommendations MSC.1/Circ. 1182 and MSC.1/Circ. 1185 which became significant to support the work group »Rescuing Life at Sea«.

MSC.1/Circ. 1182: Guide To Recovery Techniques, 31. May 2006, Page 14, 15

9.6.5 »A purpose-built or improvised rescue basket, or a proprietary recovery device, is usually better than strops and loops.

9.6.6 People who have been in the water, the injured and the incapable, should be lifted in a horizontal or near-horizontal position if possible (for example, in a basket, or in two strops; one under the arms, the other under the knees). This minimizes the risk of shock induced by sudden transfer from the water and possible hypothermia.

9.7 The rescue basket mentioned above is a particularly useful recovery tool. It may be possible to improvise such a basket; but it is not an expensive piece of equipment and it is recommended that a purpose-built unit be carried on board.

9.8 The rescue basket usually takes the form of a metal frame with floats / fenders around its perimeter and the lifting hook made fast to the top of the frame, clear it of people inside. The basket floats partially submerged, so that people can easily enter it or be pulled into it. The floats double as fen-

ders during the lift, should be basket swing against the ship's side. Some baskets are designed to fold for ease of stowage. The size of the basket, and how many people it can lift at once, largely depends on the ship's lifting capability.«

Following the demands by IMO for the introduction of life-saving appliances on seagoing ships with the help of which up to 10 persons can be taken on board a ship within one hour with a significant wave height of 3 m, there have been extensive research and trial activities in Germany.

The research work is based on the problem analyses conducted at the University of Applied Sciences and Arts, Hildesheim, Germany, and the development of a new

port of the SARRAH project of Lübeck University Hospital and the German Coastguard / Maritime Centre of Training and other institutions.

The development has resulted in a robust, seaworthy, straightforward and low-maintenance appliance that can be easily operated by the crew. When lifted by the onboard crane, it unfolds automatically and is lowered down the side of the ship.

The crucial factor here is that the crew do not have to leave the ship, as they do in the case of a rescue boat, and can remain on deck where they are safe. Seafarers do not require any training in order to use this low-cost, space-saving appliance; they merely have to be instructed.

The appliance works with a collapsible frame across which is stretched a net to hold several persons in a horizontal position. It is lowered to a position approximately >2 m below the trough of the waves and acts as a counterweight on the crane cable, so that the cable always remains vertically taut as the ship rolls.

On the vertical crane cable, a padded rescue disc floats up and down automatically in the swell. Several persons adrift in the water can be simultaneously guided to this rescue disc (for instance with a line throwing appliance). As soon as the persons have been secured to the rescue disc, the crane lifts the frame and the persons are automatically supported by and secured on the net in a gentle horizontal position.

This system has been successfully trialled in numerous tests at sea with wave heights up to 4 m and in the Large Wave Channel at the Coastal Research Centre in Hannover. This research project is to be presented in a subsequent article.



RLS Rescue Star in der Erprobung

recovery technology that allows one or more persons to be lifted out of the water, including in a heavy swell, in the medically preferred horizontal position, which minimizes the risk of shock.

This research work has been ongoing since 2006 at the initiative of the Ship Safety Department of the Seerberufsgenossenschaft¹ Flag State Administration, Germany, in cooperation with and with the sup-

Authors:

Prof. Dipl. Päd. Michael Schwindt,
University of Applied Sciences and Arts,
Hildesheim / Holzminden, Germany
schwindt-rls@gmx.de

Dipl.-Ing. Dr. med. Wolfgang Baumeier
University of Luebeck, University Hospital,
Germany
baumeier@uni-luebeck.de, www.sarrah.de

¹ Since 01.01.2010: BG Transport – Ship Safety Division