SUB-COMMITTEE ON SHIP DESIGN AND EQUIPMENT
51st Session
Agenda item 8

DE 51/8/xx
20 December 2007
Original: ENGLISH

MEASURES TO PREVENT ACCIDENTS WITH LIFEBOATS

Comment on the Report of the Correspondence Group on Life-saving appliances (LSA)

Submitted by ICS

SUMMARY	
Executive summary:	This document comments on the work of the Correspondence Group on lifesaving Appliances (LSA) formed by the DE Sub-Committee.
Action to be taken:	Paragraph 12
Related documents:	MSC83/INF.15, DE 51/8/XX

Introduction

1 This document is submitted in accordance with the provisions of paragraph 4.10.5 of the Guidelines on the Organization and method of work (MSC-MEPC.1/Circ.1) and provides comment on document DE 51/8/XX, submitted by the Correspondence Group (CG) established by DE 49 on Life-saving appliances.

2 The sponsors of this document contributed to the work of the CG and congratulate the Chairman of the Group regarding progress made. The sponsors together with BIMCO, CLIA, HSE, IACS, IFSMA, IG, ILAMA, INTERTANKO, IPTA, ITF, MAIB, MCA, OCIMF, SIGTTO and training providers agreed to form an Industry Lifeboat Group (ILG) details of which were submitted to the Organization in MSC 83/INF.15.

3 This document advises the Sub-Committee of the initial work of the ILG with regard to lifeboat release mechanism safety and Fall Preventer Devices (FPD).

4 Tragically lifeboat accidents leading to injury and death of ship's crews continue to occur. Regarding conventional davit launched lifeboats a common cause of such accidents is the premature opening of the lifeboat's on load release mechanism when the lifeboat is suspended during maintenance, testing, drills, and launching and recovery operations. This document provides initial proposals regarding design requirements for lifeboat release mechanisms that are safe in operation and in the event of a mechanical or operational failure will remain closed until the lifeboat is either afloat or is secured in an otherwise safe condition.

5 The ILG considers that FPD should have a role to play in the interim period before appropriate IMO measures have been introduced to ensure that only safe lifeboat release mechanisms are fitted to ship's lifeboats.

Comment

6 The ILG consider that a number of factors will contribute to ensuring ships are equipped with safe lifeboat release mechanisms. A significant majority of the group agree that a universal standardised release mechanism design holds significant potential for improving the safety of lifeboat operations. The group recognises the critical role that is played by the certification process and calls upon Administrations to ensure that all LSA equipment certification meets IMO requirements.

Proposal

7 A number of design characteristics for a safe lifeboat release mechanism have been identified that the ILG consider would contribute to improved lifeboat safety, including:

a. Universal standardised design and operability
b. Lifeboat vendor to be responsible for supply of hook connecting link and associated connection to davits
c. Fail to safe – stable and self closing/resetting
d. Durable corrosion resistant construction materials
e. Safe operation not reliant on maintenance of critical manufacturing tolerances
f. To release only at a safe height (on or immediately above the water)
g. Durable sealed hydrostatic interlocks without need for seals/diaphragms to be replaced on an annual basis
h. Safe operation in exposed marine environment in high and low ambient temperatures when wearing PPE including gloves
i. Standardised operational and control mechanism
j. Good access to and visibility of all controls and safety locks
k. Release control to be distinctly and unambiguously marked
l. Release mechanism status to be clearly visible from deck of ship and from within lifeboat
m. Operation of on-load release to require multiple separate actions
n. Sealed maintenance free, stainless steel, control and release cables
o. Release cables to be free of residual load when release mechanism connected
p. Lifeboat cannot be hoisted if release mechanism and lifting falls/wires are not correctly reset or attached
q. Intuitive operation and re-attachment
r. Facility to untwist rotated wires/falls under load
s. Operation of all components in all light conditions
t. Unambiguous photo-luminescent signage at point of operation
u. Training and maintenance manuals should be to a high standard of standardised format and structure
v. Routine maintenance requirements to be minimal and limited to greasing
w. Survey and load test cycle within existing 5 year survey cycle of ship.

8 Despite the need for urgent action it is recognised that the design and approval and widespread introduction of release mechanisms with the above characteristics will take some time. It is therefore proposed that in the interim period additional measures are urgently considered by the Sub-Committee so as to avoid further deaths and injuries caused by malfunctioning On Load release hooks.

9 The use of FPD such as synthetic safety strops or release mechanism 'locking pins' (with a similar functionality to the harbour pins provided for securing davits) could be strongly supported by the Sub-Committee. Guidance regarding use of such FPD should be very carefully considered to avoid introducing additional risks that may compound the dangers associated with the premature opening of release mechanisms. FPD may be used to stop lifeboats dropping in the event that the release mechanism fails or operates when the lifeboat is housed in the davit, suspended or otherwise not floating.

10 Guidance regarding the use of FPD should include requirements that:

a. Design and operation and installation of the FPD should be approved by class.
b. Operation of the FPD should not impede the correct operation of the release mechanism
c. Correct fitting of the FPD to be readily visible from the deck of the ship and from within the lifeboat
d. Release of the FPD should be easily and quickly achieved from within the lifeboat when it is floating. If release of the FPD requires opening of lifeboat hatches this should be readily achievable as a single person operation at location of each device from within the craft
e. Safe operation in exposed marine environment in high and low ambient temperatures when wearing PPE including gloves
f. Connection of FPD to be unambiguous and with design of components ensuring that only intended components can be connected to each other.
g. FPD devices should make use of standardised colour coded components
h. Where FPD utilises strops wire/fabric components including attachment points to be tested to required loads. Slack strops to be avoided to avoid shock loading
i. For there to be clear and unambiguous signs indicating FPDs need to be fitted

The ILG recognise that FPD may require seafarers to work outside of the protection provided by the totally enclosed lifeboat and during emergencies involving fire or the release of chemicals. It is further recognised that FPD might introduce new hazards nevertheless the ILG believe the hazards of using lifeboats without FPD are greater than the hazards posed in such emergency situations.

11 In the period of time before approved FPD are installed on ships fitted with davit launched lifeboats, where the lifeboat release mechanisms do not meet the requirements of paragraph 7, ship's masters should prior to non-emergency use of davit launched lifeboats conduct a risk assessment. It is anticipated that detailed guidance for the risk assessment will be proposed to the Sub-Committee in due time. It is suggested that elements of the risk assessment should take into account:

a. Until FPD are fitted and approved it is not required that lifeboats are swung out or launched and recovered during shipboard drills or training
b. It is recommended that no personnel should be aboard if lifeboats are swung out, launched and recovered.

c. Unless lifeboats can be secured with mechanisms additional to the hook release mechanism it is recommended that personnel should not enter lifeboats for training, maintenance or survey purposes

During emergency use of lifeboats, consideration should be given to launching and recovery of the lifeboat without crew or the minimum required crew and other personnel entering the lifeboat when it is floating

Action requested of the Sub-Committee

12 The Sub-Committee is invited to consider the proposed measures and decide as appropriate