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CONSIDERATION OF IACS UNIFIED INTERPRETATIONS

Load testing of hooks for primary release of free-fall lifeboats

Submitted by the International Association of Classification Societies (IACS)

SUMMARY

<i>Executive summary:</i>	This document provides at annex a draft IACS Unified Interpretation on the load testing of hooks for primary release of free-fall lifeboats for the consideration of the Sub-Committee
<i>Strategic direction:</i>	1.1
<i>High-level action:</i>	1.1.2
<i>Planned output:</i>	1.1.2.2
<i>Action to be taken:</i>	Paragraph 7
<i>Related documents:</i>	Resolutions MSC.81(70) and MSC.226(82)

Background

1 Chapter 5.3.4 of part 2 of resolution MSC.81(70), as amended by resolution MSC.226(82), states that:

“5.3.4 The connection of each release gear which is fixed to the boat should be subjected to a load equal to the weight of the boat with its full complement of persons and equipment (or two times the weight of the boat in the case of single fall systems). There should be no damage to the release gear or its connection to the boat.”

Discussion

2 Due to its arrangement a hook on a free-fall lifeboat is subject to different loads from those experienced by a hook that is part of a davit launched arrangement. Therefore, IACS believes that the “normal load” as experienced by the hook should be used as basis for the load testing.

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- 3 In this regard, IACS notes the following IMO references address “normal loads”:
- .1 paragraph 4.7.6.2 of the LSA Code that requires “Each free-fall lifeboat shall be fitted with a release system which shall ... be so arranged as to release the boat under any condition of loading from no load up to at least 200% of the normal load ...”; and
 - .2 paragraph 6.9.5 of part 1 (Prototype testing) of resolution MSC.81(70) that requires “It should be demonstrated that the free-fall release mechanism can operate effectively when loaded with a force equal to at least 200% of the normal load ...”.

4 Taking account of paragraphs 1 to 3 above, IACS understands that hooks intended for primary release of free-fall lifeboats should be tested with an applied load that shall be two times the normal load caused by the fully equipped lifeboat when loaded with the number of persons for which it is to be approved.

5 However, in cases where the testing of hooks is conducted on board ship with the weight in accordance with the above understanding, the loading/unloading of huge numbers of weights at elevated positions may be dangerous for those persons involved in this hook testing. In order to avoid such dangers, IACS believes that the following simulated test may be allowed. A simulated test by using a mock-up of the launch ramp, which is entirely identical to the launch ramp arrangement installed on board the ship, may be carried out ashore, either at the manufacturer’s works or at the shipyard.

6 Taking account of the above considerations, IACS has developed a draft Unified Interpretation and a copy is provided at annex to this document for the consideration of the Sub-Committee. In particular, IACS would welcome any comments the Sub-Committee may have on the views expressed in paragraphs 2 to 5 above.

Action requested of the Sub-Committee

7 The Sub-Committee is invited to consider the issues discussed above and, in particular, the draft IACS Unified Interpretation provided at annex, and take action as appropriate.

ANNEX**DRAFT IACS UI****LOAD TESTING OF HOOKS FOR PRIMARY RELEASE OF FREE-FALL LIFEBOATS**

(IMO resolution MSC.81(70), part 2, chapter 5.3.4, as amended by IMO resolution MSC.226(82))

Regulation:

5.3.4 The connection of each release gear which is fixed to the boat should be subjected to a load equal to the weight of the boat with its full complement of persons and equipment (or two times the weight of the boat in the case of single fall systems). There should be no damage to the release gear or its connection to the boat.

Interpretation:

Hooks intended for primary release of free-fall lifeboats shall be tested according to IMO resolution MSC.81(70), part 2, chapter 5.3.4 as amended by IMO resolution MSC.226(82). The load applied shall be two times the normal load caused by the launch ramp and the fully equipped lifeboat when loaded with the number of persons for which it is to be approved.

The test may be carried out on board the ship. Or, a simulated test by using a mock-up of the launch ramp which is identical to the actual launch ramp arrangement installed on board the ship may be carried out on shore, either at the manufacturer's plant or at the shipyard.
