

**ANNEX 5**

**RESOLUTION MSC.321(89)  
(adopted on 20 May 2011)**

**ADOPTION OF AMENDMENTS TO THE REVISED RECOMMENDATION ON TESTING OF  
LIFE-SAVING APPLIANCES (RESOLUTION MSC.81(70)), AS AMENDED**

THE MARITIME SAFETY COMMITTEE,

RECALLING Article 28(b) of the Convention on the International Maritime Organization concerning the functions of the Committee,

RECALLING ALSO resolution A.689(17) entitled "Testing of life-saving appliances", by which the Assembly, at its seventeenth session, adopted the Recommendation on testing of life-saving appliances,

RECALLING FURTHER that the Assembly, when adopting resolution A.689(17), authorized the Committee to keep the Recommendation on testing of life-saving appliances under review and to adopt, when appropriate, amendments thereto,

NOTING resolution MSC.81(70), by which, at its seventieth session, it adopted the Revised recommendation on testing of life-saving appliances, introducing more precise provisions for the testing of life-saving appliances based on the requirements of the International Life-Saving Appliances (LSA) Code,

RECOGNIZING the need to appropriately align the relevant provisions of the Revised recommendation on testing of life-saving appliances with the associated amendments to the LSA Code adopted by resolution MSC.320(89),

HAVING CONSIDERED, at its eighty-ninth session, proposed amendments to the Revised recommendation on testing of life-saving appliances, prepared by the Sub-Committee on Ship Design and Equipment at its fifty-fifth session,

1. ADOPTS amendments to the Revised recommendation on testing of life-saving appliances (resolution MSC.81(70)), the text of which is set out in the Annex to the present resolution;
2. RECOMMENDS Governments to apply the annexed amendments when testing life-saving appliances.

ANNEX

**AMENDMENTS TO THE REVISED RECOMMENDATION ON TESTING OF  
LIFE-SAVING APPLIANCES (RESOLUTION MSC.81(70)), AS AMENDED**

**PART 1  
PROTOTYPE TESTS FOR LIFE-SAVING APPLIANCES**

- 1 The existing paragraphs 6.9.3 and 6.9.4 are replaced by the following:

"6.9.3 With the operating mechanism disconnected it should be demonstrated when the lifeboat is loaded with its full complement of persons and equipment and towed at speeds of 5 knots that the moveable hook component stays closed. Furthermore, with the operating mechanism connected, it should be demonstrated that the lifeboat when loaded with its full complement of persons and equipment when towed at speeds of 5 knots can be released. Both of the above should be demonstrated as follows as follows:

- .1 a force equal to 25% of the safe working load of the hook should be applied to the hook in the lengthwise direction of the boat at an angle of 45° to the vertical. This test should be conducted in the aftward as well as the forward direction;
- .2 a force equal to the safe working load of the hook should be applied to the hook in an athwartships direction at an angle of 20° to the vertical. This test should be conducted on both sides; and
- .3 a force equal to the safe working load of the hook should be applied to the hook in a direction halfway between the positions of tests 1 and 2 (i.e. 45° to the longitudinal axis of the boat in plan view) at an angle of 33° to the vertical. This test should be conducted in four positions.

There should be no damage as a result of these tests.

- 6.9.4 A release mechanism should be conditioned and tested as follows:

- .1 the lifeboat release and retrieval system and the longest used connection cable/linkage associated with the system should be mounted and adjusted according to instructions from the original equipment manufacturer and then loaded to 100% of its safe working load and released. Load and release should be repeated 50 times. During the 50 releases, the lifeboat release and retrieval system should be released simultaneously from each fall to which it is connected without any binding or damage to any part of the lifeboat release and retrieval system. The system should be considered as "failed" if any failure during the conditioning or unintended release occurs when load is applied but the system has not yet been operated;
- .2 the lifeboat release and retrieval system should then be disassembled, the parts examined and wear recorded. The release and retrieval system should then be reassembled;

- .3 the hook assembly, whilst disconnected from the operating mechanism, should then be tested 10 times with cyclic loading from zero load to 1.1 times the safe working load, at a nominal 10 seconds per cycle; unless the release mechanism has been specifically designed to operate as an off-load hook with on-load capability using the weight of the boat to close the hook, in this case the cyclic load should be from no more than 1% to 1.1 times the SWL. For cam-type designs, the test should be carried out at an initial cam rotation of 0° (fully reset position), and repeated at 45° in either direction, or 45° in one direction if restricted by design. The specimen should remain closed during the test. The system should be considered as "failed" if any failure during this test or any unintended release or opening occurs; and
- .4 the cable and operating mechanism should then be reconnected to the hook assembly; and the lifeboat release and retrieval system should then be demonstrated to operate satisfactorily under its safe working load. The actuation force should be no less than 100 N and no more than 300 N, if a cable is used it should be the maximum length specified by the manufacturer, and secures in the same manner it would be secured in the lifeboat. The demonstration should verify that any interlocks, indicators and handles are still functioning and are correctly positioned in accordance with the operation and safety instruction from the original equipment manufacturer. The release mechanism is deemed to have passed the testing under paragraph 6.9.4 when the tests have been conducted successfully. The system should be considered as "failed" if any failure during this test or any unintended release or opening occurs.

6.9.5 A second release mechanism should be tested as follows:

- .1 the actuation force of the release mechanism should be measured loaded with 100% of its safe working load. The actuation force should be no less than 100 N and no more than 300 N. If a cable is used, it should be of the maximum length specified by the manufacturer, and secured in the same manner it would be secured in a lifeboat. The demonstration should verify that any interlocks, indicators and handles are still functioning and are correctly positioned in accordance with the operation and safety instruction from the original equipment manufacturer; and
- .2 the release mechanism should be mounted on a tensile strength testing device. The load should be increased to at least six times the working load of the release mechanism without failure of the release mechanism."

2 The existing paragraphs 6.9.5 and 6.9.6 are renumbered as 6.9.6 and 6.9.7, respectively.

3 In paragraph 6.11.3, the referenced paragraph number "6.9.4" is replaced with "6.9.3".

4 In paragraphs 7.1.1 and 7.4.1, the referenced paragraph numbers "6.9.5" and "6.9.6" are replaced by "6.9.6" and "6.9.7", respectively.

5 In paragraphs 7.2.1, 7.3.1, 7.5 and 7.6, the referenced paragraph numbers "6.9.1 to 6.9.4" are replaced by "6.9.1 to 6.9.5".

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