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TECHNICAL INFORMATION

NO. 2011-IMO-10

# Subject : Lifeboat on-load release mechanism (release and retrieval system) related matters adopted at MSC 89

Since 1999, the agenda for the prevention of lifeboat accidents had been discussed in IMO and several amendment to SOLAS regulations and various guidelines for training and maintenance had been developed for preventing lifeboat accidents. As one of fundamental measure for this issue, the design requirements for lifeboat on-load release mechanism had been reviewed for recent several years, whereupon the lifeboat on-load release mechanism (release and retrieval system) related matters were finalized with a package at this MSC 89.

## ◎ *What to do*

## Ship owner/manager

### New Ship

- Ship owner/manager should confirm that ship's lifeboat on-load release mechanisms complies with the requirements of the LSA Code, amended by Res.MSC.320(89) during initial statutory surveys(i.e. upon ship's delivery) for ships constructed (keel laid or a similar stage of construction) on or after 1 July 2014.

### Existing ship

- Not later than the first scheduled dry-docking after 1 July 2014, but not later than 1 July 2019, it should be confirmed that the ship's lifeboat on-load release mechanism is an evaluated type in accordance with the procedures of MSC.1/Circ.1392, and shall be replaced, if necessary.

- The evaluation result by administration or classification society, or necessity of replacement shall be confirmed through the manufacturer of the lifeboat or lifeboat release mechanism. In case that the existing release and retrieval system is

evaluated as not complying with paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the LSA Code, the release and retrieval system shall be replaced by equipment which complies with new LSA Code requirements. Before commencing the replacement, relevant engineering drawings shall be submitted to the Administration or classification society for review and approval. Upon completion of the replacement, the statement of acceptance of the installation of replacement release and retrieval system to an existing lifeboat should be issued by the administration or classification society and should be retained on board.

- In case that, by the result of the evaluation, the existing release and retrieval system can be used as it is or used with approved modification, the one-time follow-up overhaul examination shall be carried out according to annex 1 to the Measures to prevent accidents with lifeboats (MSC.1/Circ.1206/Rev.1). Upon completion of the overhaul examination, the factual statement which is issued by the manufacturer shall be retained onboard.

When the original manufacturer no longer exists or supports the equipment, any other person or entity which has taken responsibility for a range or type of lifeboat release and retrieval system is regarded as the manufacturer defined in MSC.1/Circ.1392. (Refer to paragraph 9.9 of MSC.1/Circ.1392)

## Shipbuilder

- Shipbuilder should confirm that ship's lifeboat on-load release mechanisms complies with the requirements of the LSA Code, amended by Res.MSC.320(89) before making purchase order to lifeboat or release mechanism manufacturer for ships constructed (keel laid or a similar stage of construction) on or after 1 July 2014.

- For the ships constructed before the date of mandatory application (1 July 2014), the application of this new requirements shall be discussed with ship owner/manager during building contract or kick-off meeting.

## Administration or classification society

As the evaluation should be completed not later than 1 July 2013, the application for evaluation from manufacturers may rush during a certain period. Evaluation procedures should be made in accordance with MSC.1/Circ.1392 including below items;

- Design review upon manufacturer's application and reporting of the result of the

design review to IMO

- Witness to Performance test and reporting of the result of the performance test (compliant or non-compliant) to IMO
- In case a release and retrieval system is replaced, the installation and test should be witnessed by administration or classification society and following completion of installation testing, the Administration or a classification society should issue a Statement of Acceptance for retention on board
- Reporting of the result of evaluation (compliant, non-compliant) to IMO

## Field Surveyor of classification society

### New Ship

- For the ships constructed before 1 July 2014, surveyor should confirm to owner and ship builder during kick-off meeting that the ship's lifeboat or on-load release mechanism will be compliant with new LSA Code requirements.
- For the ships constructed on or after 1 July 2014, surveyor shall confirm, during initial statutory survey (i.e. at ship's delivery), that ship's lifeboat or on-load release mechanism is compliant with new LSA Code requirements.

### Existing Ship

- During the first scheduled dry-dock survey (not including in-water survey) on or after 1 July 2014, surveyor should confirm that the type of ship's lifeboat on-load release mechanism is completed the evaluation in accordance with MSC.1/Circ.1392.
- By the evaluation result, in case that the release mechanism can be used as it is or can be used with modification, the surveyor should confirm that the evaluation report, which is issued by administration or classification society, and factual statement, which is issued by manufacturer after completion of on-board overhaul examination, are retained onboard.
- By the evaluation result, in case the release mechanism is replaced, the approval certificate for replacement equipment should be confirmed. The replacement should be carried out by the manufacturer in accordance with approved engineering plans ,witnessed by the Administration or classification society. After completion of the replacement and tests, the attending surveyor shall issue a statement of acceptance of the installation of replacement release and retrieval system for the existing lifeboat.

## Lifeboat or release mechanism manufacturer

- Manufacturer is encourage to develop new types of on-load release mechanism

which is compliant with the requirements of the amended LSA Code.

Also, the on-load release mechanism, which had been approved in accordance with previous requirements of the LSA Code, shall be reviewed and re-approved in accordance with the requirements of amended LSA Code for continuous installation to ships constructed on or after 1 July 2014.

- Manufacturer should carry out self-assessment for each type of their existing release and retrieval system and pass the design review and performance test by administration or classification society.

  After completion of evaluation, in case that the type of existing release and retrieval system found to be compliant with the paragraph 4.4.7.6.4 to 4.4.7.6.6 of amended LSA Code, manufacturer or by one of their representatives should carry out an overhaul examination according to annex 1 to the Measures to prevent accidents with lifeboats (MSC.1/Circ.1206/Rev.1) not later than the first scheduled dry-docking after 1 July 2014.

- In case that lifeboat release and retrieval system of a type found to be non-compliant in respect of the existing lifeboat release and retrieval system evaluation, manufacturer should modify the type of release and retrieval system and the release and retrieval system shall be re-evaluated by administration or classification society. Where modification or redesign to existing lifeboat release and retrieval system of a type is impossible, the type should be reported to IMO as non-compliant.

## ◎ *Further discussion in IMO*

Through the discussions in various IMO bodies for several years, a set of outcome was developed in MSC 89, however, further work is needed on matters related to the safety of lifeboat release and retrieval systems, in particular, the need for a permanent secondary safety system (e.g. a locking pin, etc.) for the design of new systems, an appropriate vibration test, standardization of life-saving appliances and training issues. DE Sub-Committee should further consider the above issues under its item on "Development of a new framework of requirements for life-saving appliances.

And the observer from IACS raised concerns that a factual statement to be issued by a manufacturer upon satisfactory completion of the overhaul examination would be sufficient evidence for the completion of evaluation or any amendment to the certificate forms (Form P, Form C and Form E) are necessary. Another concern raised by IACS is regarding conflicting reports case, for example, a party becomes aware that a specific model number of a release and retrieval system is found to be compliant by one Administration/RO and non-compliant by another Administration/RO. DE and FSI Sub-Committees will further consider the matter in detail.

Attachment : Annex 1

1. AMENDMENT TO SOLAS REG.III/1.5 (RES.MSC.317(89))
2. AMENDMENT TO PARA.4.4.7.6 OF LSA CODE (RES.MSC.320(89))
3. Amendment to the REVISED RECOMMENDATION ON TESTING OF LIFE-SAVING APPLIANCES, RESOLUTION MSC.81(70) (Res.MSC.321(89))
4. MSC.1/Circ.1392 GUIDELINES FOR EVALUATION AND REPLACEMENT OF LIFEBOAT RELEASE AND RETRIEVAL SYSTEMS
5. MSC.1/Circ.1393 EARLY APPLICATION OF NEW SOLAS REGULATION III/1.5

ANNEX II

Resolution MSC.317(89)
Resolution MSC.320(89)
Resolution MSC.321(89)
MSC.1/Circ.1392
MSC.1/Circ.1393 <End>

K. S. Kim

Kim Kyu-seob
Executive Vice President
Statutory Survey Division
Korean Register of Shipping

Distributions : KR surveyors, Ship owners, Other relevant parties

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# Annex I

## 1. AMENDMENT TO SOLAS REG.III/1.5 (RES.MSC.317(89))

The following new paragraph 5 is added after the existing paragraph 4:

"5 Notwithstanding paragraph 4.2, for all ships, not later than the first scheduled dry-docking after 1 July 2014, but not later than 1 July 2019, lifeboat on-load release mechanisms not complying with paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the Code shall be replaced with equipment that complies with the Code."

○ Application : All ships (passenger ships and cargo ships of 500 GT and upwards, existing ships and new ships)

○ Date of enter into force and application date

The amended regulation's enter into force date was set as 1 January 2013. However, this date represents only the fulfillment of procedural requirements of the Convention, the actual application date would be start as of 1 July 2014. Also, it was noted that the first scheduled dry-docking is the first scheduled out of water survey of the ship's outer bottom. (i.e. in-water survey will not be included. Refer to paragraph 6 of MSC 89/3/4)

## 2. AMENDMENT TO PARA.4.4.7.6 OF LSA CODE (RES.MSC.320(89))

The requirements in paragraph 4.4.7.6 of LSA Code which is applicable to on-load release mechanism of every lifeboat to be launched by fall or falls were amended, and the main items are as below. The paragraphs from 4.4.7.6.4 to 4.4.7.6.6 will be applicable retroactively to the on-load release mechanism of existing lifeboats.

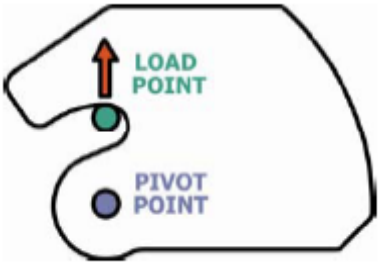
The paragraphs numbers below are re-numbered ones in accordance with this amendment.

- 4.4.7.6.2 : the mechanism shall only open when the release mechanism is operated with the boat fully waterborne or, if the boat is not waterborne, by multiple, deliberate and sustained action which shall include the removal or bypassing of safety interlocks designed to prevent premature or inadvertent release;
- 4.4.7.6.2.1 : the mechanism shall not be able to open due to wear, misalignment and unintended force within the hook assembly or operating mechanism, control rods or cables as may be connected to, or form part of the hook assembly and with trim of up to 10° and a list of

up to 20° either way; and

- 4.4.7.6.2.2 : the functional criteria of 4.4.7.6.2 and 4.4.7.6.2.1 apply for the range of loads, representing 0% to 100% of the safe working load of the lifeboat release and retrieval system for which it may be approved;
- 4.4.7.6.3 : unless a release mechanism is of the load over centre type[1)], which is held fully closed by the weight of the lifeboat, the hook assembly shall be designed so that the moveable hook component is kept fully closed by the hook locking parts capable of holding its safe working load under any operational conditions until the hook locking part is deliberately caused to open by means of the operating mechanism. For designs utilizing the tail of the movable hook component and cam either directly or indirectly securing the tail of the movable hook component, the hook assembly shall continue to be closed and hold its safe working load through rotation of the cam of up to 45 degrees in either direction, or 45 degrees in one direction if restricted by design, from its locked position;
- 4.4.7.6.4 : to provide hook stability, the release mechanism shall be designed so that, when it is fully reset in the closed position, the weight of the lifeboat does not cause any force to be transmitted to the operating mechanism;
- 4.4.7.6.5 : locking devices shall be designed so that they can not turn to open due to forces from the hook load
- 4.4.7.6.6 : if a hydrostatic interlock is provided, it shall automatically reset upon lifting the boat from the water.
- 4.4.7.6.7 : the mechanism shall have two release capabilities: normal (off-load) release capability and on-load release capability:
- 4.4.7.6.7.1 : normal (off-load) release capability shall release the lifeboat when it

1) load over centre type




load over centre type




hook tail + cam type

Load over center means that the load point of the hook is located directly above the center of the pivot point of the hook, such a design ensures that the weight of the boat keeps the hook closed during on-load. However, the bigger force is required to rotate the hook than conventional hook type which can be released by manual handle for on-load release. So, a mechanical arrangement which can provide such bigger force for on-load release may be required for this load over centre type hook.

is waterborne or when there is no load on the hooks, and not require manual separation of the lifting ring or shackle from the jaw of the hook

- 4.4.7.6.7.2 : on-load release capability shall release the lifeboat with a load on the hooks. This release mechanism shall be provided with a hydrostatic interlock unless other means are provided to ensure that the boat is waterborne before the release mechanism can be activated. In case of failure or when the boat is not waterborne, there shall be a means to override the hydrostatic interlock or similar device to allow emergency release. This interlock override capability shall be adequately protected against accidental or premature use. Adequate protection shall include special mechanical protection not normally required for off-load release, in addition to a danger sign. The protection shall be deliberately destroyed by applying a suitable minimum force, for instance by breaking a protection glass or translucent cover. A label or thin wire seal is not considered sufficiently robust. To prevent a premature on-load release, on-load operation of the release mechanism shall require multiple, deliberate and sustained action or actions by the operator.
- 4.4.7.6.8 : to prevent an accidental release during recovery of the boat, unless the hook is completely reset, either the hook shall not be able to support any load, or the handle or safety pins shall not be able to be returned to the reset (closed) position, and any indicators shall not indicate the release mechanism is reset *(Added)*. Additional danger signs shall be posted at each hook station to alert crew members to the proper method of resetting;
- 4.4.7.6.9 : all components of the hook unit, release handle unit, control cables or mechanical operating links and the fixed structural connections in a lifeboat shall be of material corrosion resistant in the marine environment without the need for coatings or galvanizing. Design and manufacturing tolerances shall be such that anticipated wear throughout the service life of the mechanism shall not adversely affect its proper functioning. Mechanical operating links such as control cables shall be waterproof and shall have no exposed or unprotected areas
- 4.4.7.6.15 : a hydrostatic interlock shall be designed for a factor of safety of not less than 6 times maximum operating force based on the ultimate strength of the materials used;
- 4.4.7.6.16 : the operating cables shall be designed for a factor of safety of not less than 2.5 times maximum operating force based on the ultimate

strength of the materials used

## 3. Amendment to the REVISED RECOMMENDATION ON TESTING OF LIFE-SAVING APPLIANCES, RESOLUTION MSC.81(70) (Res.MSC.321(89))

This amendment to the Revised recommendation on testing of life-saving appliances (Res.MSC.81(70), as amended) was adopted by 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). In case an on-load release mechanism is approved in accordance with the amended requirements of LSA Code, the lifeboat manufacturer or on-load release mechanism manufacturer should ensure that their products are in compliance with the test requirements of this amended recommendation on testing of life-saving appliances.

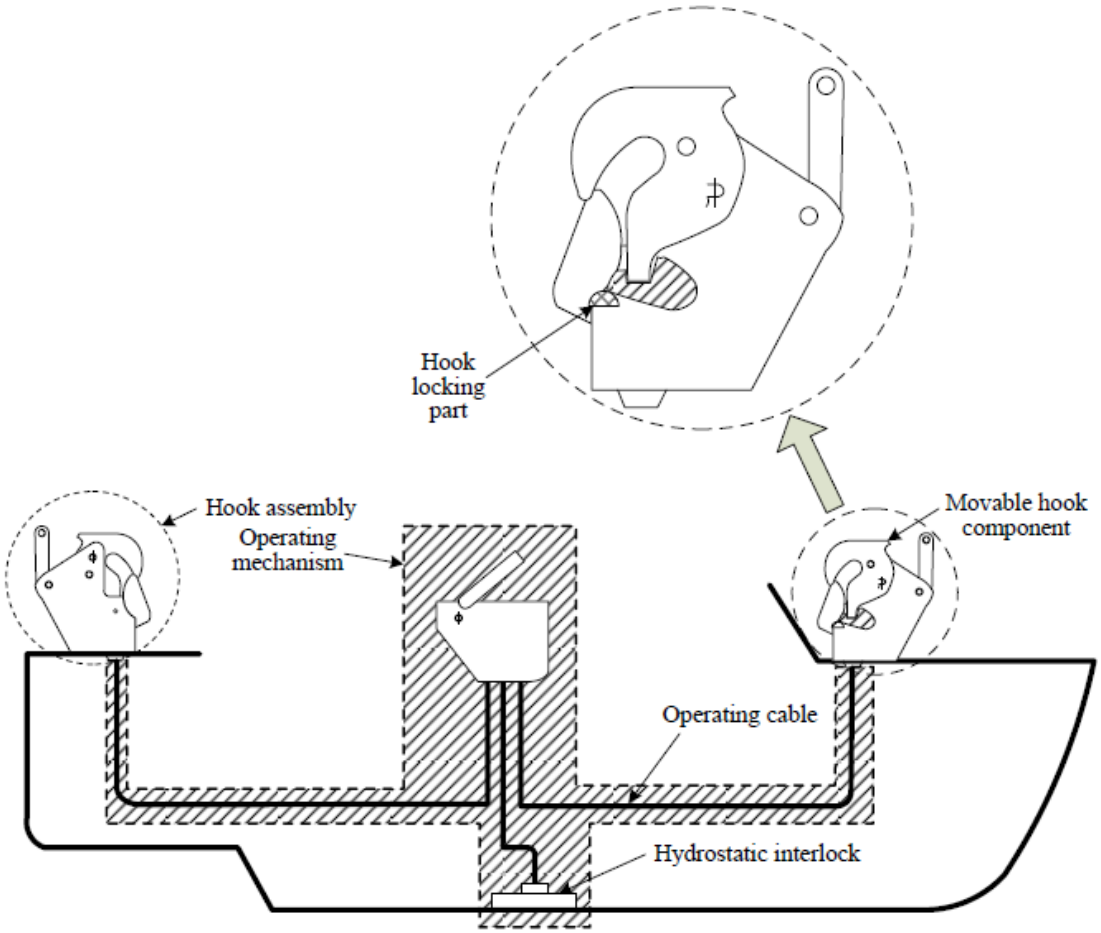
## 4. MSC.1/Circ.1392 GUIDELINES FOR EVALUATION AND REPLACEMENT OF LIFEBOAT RELEASE AND RETRIEVAL SYSTEMS

According to the amended SOLAS Reg.III/1.5, for all ships, not later than the first scheduled dry-docking after 1 July 2014, but not later than 1 July 2019, lifeboat on-load release mechanisms not complying with paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the Code shall be replaced with equipment that complies with the Code. For providing a guidelines to Member Governments, shipowners and manufacturers of lifeboat release and retrieval systems when applying the SOLAS regulation III/1.5, as adopted by resolution MSC.317(89), the MSC.1/Circ.1392 was approved at this session of MSC.

For the purpose of these Guidelines, the expression "on-load release mechanism" has been replaced by "lifeboat release and retrieval system" (refer paragraph 9.1 of this guidelines). The evaluation should be completed not later than 1 July 2013 and reported to IMO in accordance with this guidelines.

The belows are included in this guidelines ;

- Recommendation for the use of fall preventer devices (FPDs) (refer to MSC.1/Circ.1327)
- Modification to a lifeboat release and retrieval system that has been determined to be non-compliant in accordance with these Guidelines
- Definition for the terms used in this guidelines




**Lifeboat release and retrieval system**

- Design review
- Performance test
- Reporting of the results of evaluation of existing lifeboat release and retrieval system
- One-time follow-up overhaul examination
- Procedure for replacement of non-compliant lifeboat release and retrieval systems
- TEST REQUIREMENTS FOR THE EVALUATION OF LIFEBOAT RELEASE AND RETRIEVAL SYSTEMS (Appendix 1)
- EXISTING LIFEBOAT RELEASE AND RETRIEVAL SYSTEM EVALUATION PROCESS FLOW CHART (APPENDIX 2)
- INFORMATION ON THE EVALUATION OF EXISTING LIFEBOAT RELEASE AND RETRIEVAL SYSTEMS TO BE REPORTED (APPENDIX 3)
- STATEMENT OF ACCEPTANCE OF THE INSTALLATION OF REPLACEMENT RELEASE AND RETRIEVAL SYSTEM TO AN EXISTING LIFEBOAT (APPENDIX 4)

## 5. MSC.1/Circ.1393 EARLY APPLICATION OF NEW SOLAS REGULATION III/1.5

As the amended SOLAS Reg.III/1.5 is applicable to new ships and existing ships, a question regarding the application scheme for new ships had been raised that from which date a new ship shall fit with the amended LSA Code compliant on-load release mechanism mandatorily. The MSC.1/Circ.1393 was approved for providing clear guideline for the question and also encouraging member governments to ensure that ships constructed on or after 20 May 2011 but before 1 July 2014, on-load release and retrieval systems comply with the amended LSA Code, According to paragraphs 2.1 and 2.2 of this circular;

.1 for ships constructed[2] on or after 1 July 2014, on-load release and retrieval systems **shall** comply with the LSA Code, as amended by resolution MSC.320(89) *("shall" verb used for the meaning of mandatory application)*

.2 Member Governments **are encouraged to ensure** that ships constructed on or after 20 May 2011*(approval date of this circular, the last date of MSC 89)* but before 1 July 2014, on-load release and retrieval systems comply with the LSA Code, as amended by resolution MSC.320(89).
*(the expression of"Member Governments are encouraged to ensure..." means non-mandatory application)*

2) The expression "ships constructed" means ships the keels of which are laid or which are at a similar stage of construction.
"The term of "a similar stage of construction" means the stage at which:
.1 construction identifiable with a specific ship begins ; and
.2 assembly of that ship has commenced comprising at least 50 tonnes or 1% of the estimated mass of all structural material, whichever is less. (Refer to SOLAS Reg.III/1)

# Annex II

Resolution MSC.317(89)

Resolution MSC.320(89)

Resolution MSC.321(89)

MSC.1/Circ.1392

MSC.1/Circ.1393

**ANNEX 1**

**RESOLUTION MSC.317(89)**
**(adopted on 20 May 2011)**

**ADOPTION OF AMENDMENTS TO THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974, 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 FURTHER article VIII(b) of the International Convention for the Safety of Life at Sea (SOLAS), 1974 (hereinafter referred to as "the Convention"), concerning the amendment procedure applicable to the Annex to the Convention, other than to the provisions of chapter I thereof,

HAVING CONSIDERED, at its eighty-ninth session, amendments to the Convention, proposed and circulated in accordance with article VIII(b)(i) thereof,

1. ADOPTS, in accordance with article VIII(b)(iv) of the Convention, amendments to the Convention, the text of which is set out in the Annex to the present resolution;

2. DETERMINES, in accordance with article VIII(b)(vi)(2)(bb) of the Convention, that the said amendments shall be deemed to have been accepted on 1 July 2012, unless, prior to that date, more than one third of the Contracting Governments to the Convention or Contracting Governments the combined merchant fleets of which constitute not less than 50% of the gross tonnage of the world's merchant fleet, have notified their objections to the amendments;

3. INVITES SOLAS Contracting Governments to note that, in accordance with article VIII(b)(vii)(2) of the Convention, the amendments shall enter into force on 1 January 2013 upon their acceptance in accordance with paragraph 2 above;

4. REQUESTS the Secretary-General, in conformity with article VIII(b)(v) of the Convention, to transmit certified copies of the present resolution and the text of the amendments contained in the Annex to all Contracting Governments to the Convention;

5. FURTHER REQUESTS the Secretary-General to transmit copies of this resolution and its Annex to Members of the Organization which are not Contracting Governments to the Convention.

ANNEX

**AMENDMENTS TO THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974, AS AMENDED**

**CHAPTER III**
**LIFE-SAVING APPLIANCES AND ARRANGEMENTS**

**Regulation 1 – Application**

The following new paragraph 5 is added after the existing paragraph 4:

"5 Notwithstanding paragraph 4.2, for all ships, not later than the first scheduled dry-docking after 1 July 2014, but not later than 1 July 2019, lifeboat on-load release mechanisms not complying with paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the Code shall be replaced with equipment that complies with the Code.*

* Refer to the Guidelines for evaluation and replacement of lifeboat release and retrieval systems (MSC.1/Circ.1392)."

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**ANNEX 4**

**RESOLUTION MSC.320(89)**
**(adopted on 20 May 2011)**

**ADOPTION OF AMENDMENTS TO THE INTERNATIONAL LIFE-SAVING APPLIANCE (LSA) CODE**

THE MARITIME SAFETY COMMITTEE,

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

NOTING resolution MSC.48(66), by which it adopted the International Life-Saving Appliance Code (hereinafter referred to as "the LSA Code"), which has become mandatory under chapter III of the International Convention for the Safety of Life at Sea, 1974 (hereinafter referred to as "the Convention"),

NOTING ALSO article VIII(b) and regulation III/3.10 of the Convention concerning the procedure for amending the LSA Code,

HAVING CONSIDERED, at its eighty-ninth session, amendments to the LSA Code, proposed and circulated in accordance with article VIII(b)(i) of the Convention,

1. ADOPTS, in accordance with article VIII(b)(iv) of the Convention, amendments to the LSA Code, the text of which is set out in the Annex to the present resolution;

2. DETERMINES, in accordance with article VIII(b)(vi)(2)(bb) of the Convention, that the amendments shall be deemed to have been accepted on 1 July 2012, unless prior to that date, more than one third of the Contracting Governments to the Convention or Contracting Governments the combined merchant fleets of which constitute not less than 50% of the gross tonnage of the world's merchant fleet, have notified their objections to the amendments;

3. INVITES Contracting Governments to note that, in accordance with article VIII(b)(vii)(2) of the Convention, the amendments shall enter into force on 1 January 2013 upon their acceptance in accordance with paragraph 2 above;

4. REQUESTS the Secretary-General, in conformity with article VIII(b)(v) of the Convention, to transmit certified copies of the present resolution and the text of the amendments contained in the Annex to all Contracting Governments to the Convention;

5. FURTHER REQUESTS the Secretary-General to transmit copies of this resolution and its Annex to Members of the Organization which are not Contracting Governments to the Convention.

ANNEX

**AMENDMENTS TO THE INTERNATIONAL LIFE-SAVING APPLIANCES (LSA) CODE**

**CHAPTER IV**
**SURVIVAL CRAFT**

1 In paragraph 4.4.7.6, the following new subparagraphs .2 to .6 are inserted after the existing subparagraph .1:

".2 notwithstanding subparagraph .7.2 the mechanism shall only open when the release mechanism is operated with the boat fully waterborne or, if the boat is not waterborne, by multiple, deliberate and sustained action which shall include the removal or bypassing of safety interlocks designed to prevent premature or inadvertent release;

.2.1 the mechanism shall not be able to open due to wear, misalignment and unintended force within the hook assembly or operating mechanism, control rods or cables as may be connected to, or form part of the hook assembly and with trim of up to 10º and a list of up to 20º either way; and

.2.2 the functional criteria of 4.4.7.6.2 and 4.4.7.6.2.1 apply for the range of loads, representing 0% to 100% of the safe working load of the lifeboat release and retrieval system for which it may be approved;

.3 unless a release mechanism is of the load over centre type, which is held fully closed by the weight of the lifeboat, the hook assembly shall be designed so that the moveable hook component is kept fully closed by the hook locking parts capable of holding its safe working load under any operational conditions until the hook locking part is deliberately caused to open by means of the operating mechanism. For designs utilizing the tail of the movable hook component and cam either directly or indirectly securing the tail of the movable hook component, the hook assembly shall continue to be closed and hold its safe working load through rotation of the cam of up to 45 degrees in either direction, or 45 degrees in one direction if restricted by design, from its locked position;

.4 to provide hook stability, the release mechanism shall be designed so that, when it is fully reset in the closed position, the weight of the lifeboat does not cause any force to be transmitted to the operating mechanism;

.5 locking devices shall be designed so that they can not turn to open due to forces from the hook load; and

.6 if a hydrostatic interlock is provided, it shall automatically reset upon lifting the boat from the water."

2 In paragraph 4.4.7.6, the existing subparagraph .2 is replaced by the following:

".7 the mechanism shall have two release capabilities: normal (off-load) release capability and on-load release capability:

.7.1 normal (off-load) release capability shall release the lifeboat when it is waterborne or when there is no load on the hooks, and not require manual separation of the lifting ring or shackle from the jaw of the hook; and

.7.2 on-load release capability shall release the lifeboat with a load on the hooks. This release mechanism shall be provided with a hydrostatic interlock unless other means are provided to ensure that the boat is waterborne before the release mechanism can be activated. In case of failure or when the boat is not waterborne, there shall be a means to override the hydrostatic interlock or similar device to allow emergency release. This interlock override capability shall be adequately protected against accidental or premature use. Adequate protection shall include special mechanical protection not normally required for off-load release, in addition to a danger sign. The protection shall be deliberately destroyed by applying a suitable minimum force, for instance by breaking a protection glass or translucent cover. A label or thin wire seal is not considered sufficiently robust. To prevent a premature on-load release, on-load operation of the release mechanism shall require multiple, deliberate and sustained action or actions by the operator;".

3 In paragraph 4.4.7.6, the existing subparagraph .3 is renumbered as subparagraph .8 and the words "without excessive force" are replaced by the words ", and any indicators shall not indicate the release mechanism is reset".

4 In paragraph 4.4.7.6, the following new subparagraph .9 is inserted after the renumbered subparagraph 8:

".9 all components of the hook unit, release handle unit, control cables or mechanical operating links and the fixed structural connections in a lifeboat shall be of material corrosion resistant in the marine environment without the need for coatings or galvanizing. Design and manufacturing tolerances shall be such that anticipated wear throughout the service life of the mechanism shall not adversely affect its proper functioning. Mechanical operating links such as control cables shall be waterproof and shall have no exposed or unprotected areas;".

5 In paragraph 4.4.7.6, the existing subparagraphs .4 to .8 are renumbered as subparagraphs .10 to .14, respectively.

6 In paragraph 4.4.7.6, in the renumbered subparagraph .10, the word "clearly" is replaced by the word "unambiguously".

7 In paragraph 4.4.7.6, in the renumbered subparagraph .14, the words "the load-bearing components of the release mechanism and" are added at the beginning and the words "of the release mechanism" are deleted.

8 In paragraph 4.4.7.6, the following new subparagraphs .15 and .16 are inserted after the renumbered subparagraph .14:

".15 a hydrostatic interlock shall be designed for a factor of safety of not less than 6 times maximum operating force based on the ultimate strength of the materials used;

.16 the operating cables shall be designed for a factor of safety of not less than 2.5 times maximum operating force based on the ultimate strength of the materials used; and".

9 In paragraph 4.4.7.6, the existing subparagraph .9 is renumbered as subparagraph .17 and in the renumbered subparagraph .17, the references to paragraphs "4.4.7.6.2.2 and 4.4.7.6.3" are replaced by the references to paragraphs "4.4.7.6.7, 4.4.7.6.8 and 4.4.7.6.15".

10 In paragraph 4.4.7.6, the referenced subparagraph .9 is replaced by .17.

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**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 0º (fully reset position), and repeated at 45º in either direction, or 45º 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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MSC.1/Circ.1392
27 May 2011

# GUIDELINES FOR EVALUATION AND REPLACEMENT OF LIFEBOAT RELEASE AND RETRIEVAL SYSTEMS

1 The Maritime Safety Committee, at its eighty-ninth session (11 to 20 May 2011), approved the Guidelines for evaluation and replacement of lifeboat release and retrieval systems, set out in the annex, as per SOLAS regulation III/1.5, following the recommendations made by the Sub-Committee on Ship Design and Equipment, at its fifty-fifth session, and the *Ad Hoc* Working Group on Lifeboat Release Hooks (16 to 18 March 2011).

2 Member Governments are invited to use the annexed Guidelines when applying SOLAS regulation III/1.5, as adopted by resolution MSC.317(89), and to bring them to the attention of all parties concerned.

3 Member Governments, shipowners and manufacturers of lifeboat release and retrieval systems are also strongly urged, pending the entry into force of SOLAS regulation III/1.5, to use the annexed Guidelines to evaluate existing lifeboat release and retrieval systems at the earliest available opportunity.*

4 Member Governments are strongly urged to ensure that all ships fitted with on-load release systems for lifeboats, are equipped with fall preventer devices as per paragraph 6 of these Guidelines at the earliest available opportunity.

5 Member Governments are encouraged to consider the results of evaluations reported to the Organization by other Member Governments on types of existing lifeboat release and retrieval systems.

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* Reference is made to MSC.1/Circ.1393 on Early application of new SOLAS regulation III/1.5.



PIRACY IMO ORCHESTRATING THE RESPONSE

**ANNEX**

# GUIDELINES FOR EVALUATION AND REPLACEMENT OF LIFEBOAT RELEASE AND RETRIEVAL SYSTEMS

## General

1 New SOLAS regulation III/1.5, which is expected to enter into force on 1 January 2013, requires that for all ships, on-load release mechanisms* not complying with paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the LSA Code, as amended by resolution MSC.320(89) (hereinafter called "the LSA Code"), be replaced or modified not later than the next scheduled dry-docking after 1 July 2014, but not later than 1 July 2019.

2 Considering that paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the LSA Code represent important safety improvements, manufacturers should carry out a self assessment of their types of existing lifeboat release and retrieval systems in accordance with these Guidelines at the earliest available opportunity.

3 An Administration, or a recognized organization acting on its behalf, should carry out a design review to check that the type of existing lifeboat release and retrieval systems comply with paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the LSA Code and should witness the performance test to check that it is performed in accordance with appendix 1 of these Guidelines. This evaluation should be completed not later than 1 July 2013 and the report should be submitted in accordance with paragraph 14 below.

4 Administrations, or recognized organizations acting on their behalf, should, when applying SOLAS regulation III/1.5, ensure that an evaluation of the type of existing lifeboat release and retrieval system is undertaken, for compliance with paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the LSA Code, in accordance with these Guidelines.

5 A flowchart of the lifeboat release and retrieval system evaluation process, is set out in appendix 2.

6 On each ship, fall preventer devices in accordance with the Guidelines for the fitting and use of fall preventer devices (FPDs) (MSC.1/Circ.1327) should be employed for each existing lifeboat release and retrieval system until the system is:

.1 found compliant with the LSA Code; or

.2 modified and found compliant with the LSA Code; or

.3 found compliant with paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the LSA Code and paragraphs 16 and 17 (overhaul examination) of these Guidelines; or

.4 modified and found compliant with paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the LSA Code and paragraphs 16 and 17 (overhaul examination) of these Guidelines; or

.5 replaced by a new lifeboat release and retrieval system.

* For the purpose of these Guidelines, the expression "on-load release mechanism" has been replaced by "lifeboat release and retrieval system" (see paragraph 9.1).

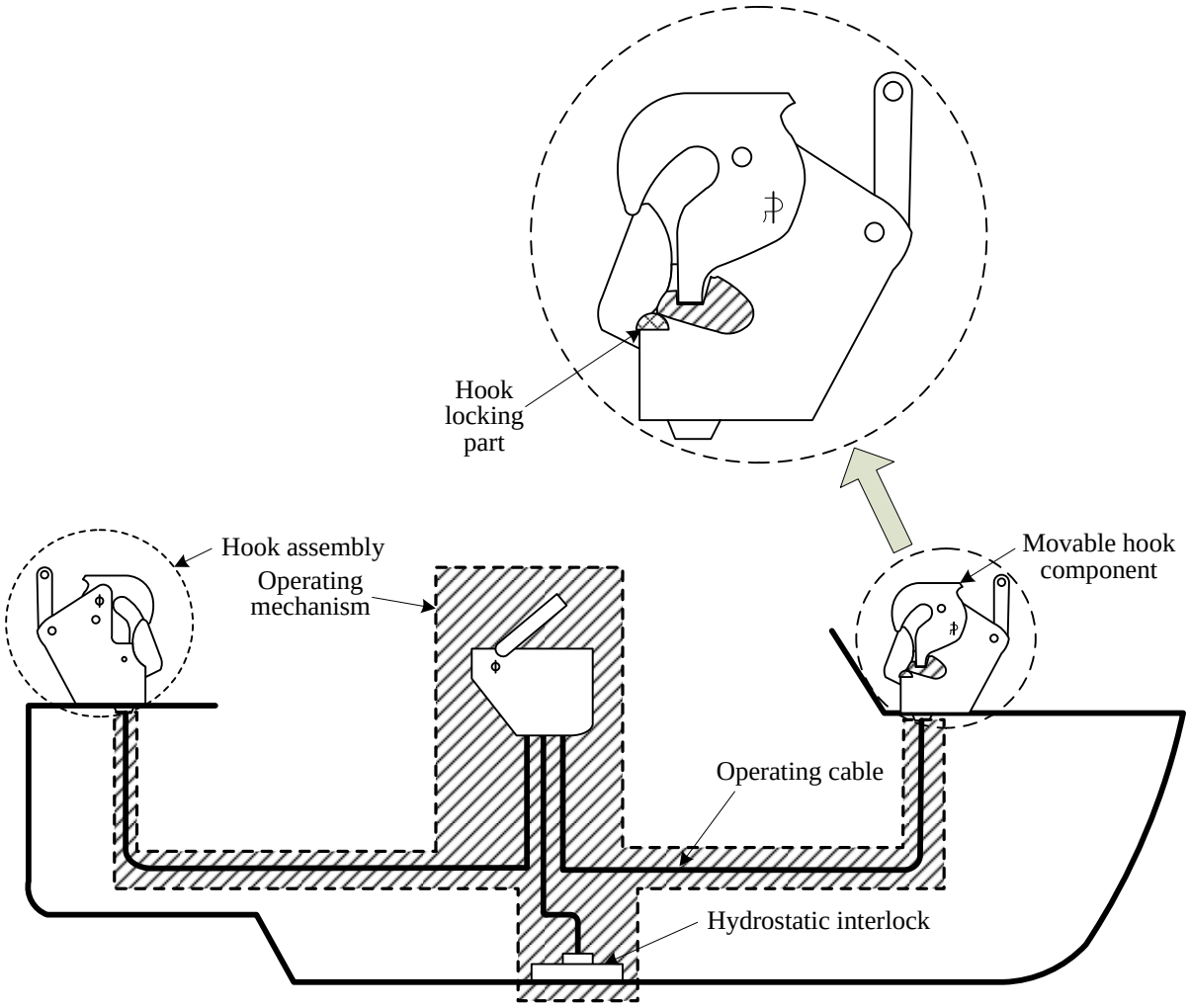
**Modifications**

7 A lifeboat release and retrieval system that has been determined to be non-compliant in accordance with these Guidelines may be modified to comply with the requirements of the revised paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the LSA Code and the requirements of the existing applicable Code, provided that the modified release and retrieval system is evaluated in accordance with these Guidelines.

8 A type of lifeboat release and retrieval system that, after modification, complies with the requirements of the revised paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the LSA Code and the requirements of the existing applicable Code should be identified as a system compliant after modification and reported as such. The report should include both the identification of the original type and the modified type.

**Definitions**

9 For the purpose of these Guidelines, the definitions given hereunder should apply, in accordance with the following figure.




**Lifeboat release and retrieval system**

9.1 *Lifeboat release and retrieval system* is the means by which the lifeboat is connected to, and released from, the lifeboat falls for lowering, launch and retrieval. It comprises the hook assembly and operating mechanism.

9.2 *Hook assembly* is the mechanism, attached to the lifeboat, which connects the lifeboat to the lifeboat falls.

9.3 *Movable hook component* is that part of the hook assembly in direct contact with the connection with the lifeboat falls which moves to enable release from the falls.

9.4 *Hook locking part* is the component(s) within a hook assembly which holds the movable hook component in the closed position until activated by the operating mechanism to release the hook. This activation may be performed through other components within the hook assembly.

9.5 *Operating mechanism* is the means by which the operator activates the opening, or release, of the movable hook component. It includes the operating handle, linkages/cables and hydrostatic interlock, if fitted.

9.6 *Type*, in relation to the design of a lifeboat release and retrieval system, means an identical lifeboat release and retrieval system of given safe working load, make and model (thus any change to the materials of construction, design arrangement or dimensions constitutes a change of type).

9.7 *On-load release* is the action of opening the lifeboat release and retrieval system whilst there is load on the hook assemblies.

9.8 *Evaluation* is a design review and a performance test of a type of lifeboat release and retrieval system.

9.9 *Manufacturer*, with respect to existing lifeboat release and retrieval systems, is:

.1 the original equipment manufacturer; or

.2 a manufacturer of lifeboat release and retrieval systems who has taken on the responsibility for a range or type of lifeboat release and retrieval system; or

.3 any other person or entity which has taken responsibility for a range or type of lifeboat release and retrieval system when the original manufacturer no longer exists or supports the equipment.

9.10 *Modifications* are changes to the design of an approved lifeboat release and retrieval system which may affect compliance with the original approval requirements or the prescribed conditions for the use of the product.

9.11 *New lifeboat release and retrieval system* is a lifeboat release and retrieval system that has been approved in accordance with paragraph 4.4.7.6 of chapter IV of the LSA Code, as amended by resolution MSC.320(89).

9.12 *Existing lifeboat release and retrieval system* is a lifeboat release and retrieval system that has not been approved in accordance with paragraph 4.4.7.6 of chapter IV of the LSA Code, as amended by resolution MSC.320(89).

9.13 *Company* means company as defined in SOLAS regulation IX/1.2.

**Design review**

10 Documentation and information for each type of lifeboat release and retrieval system should be submitted to the Administration, or recognized organization acting on its behalf, in order that an assessment can be carried out to determine compliance with paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the LSA Code. The manufacturer should submit the approval certificate, along with all associated supporting design calculations, plans and testing documentation to the Administration or recognized organization acting on its behalf. The design information should include the specification and the installation instructions for the complete operating system as well as all safety instructions regarding the operating system and any interlocks provided. Any submission for testing of a lifeboat release and retrieval system that cannot be supported with the above-mentioned information should not be eligible for testing against the requirements of the LSA Code.

11 If the outcome of the design review is non-compliance with the applicable paragraphs of the LSA Code, the lifeboat release and retrieval system should be replaced or modified to be made compliant.

**Performance test**

12 After a successful completion of the design review, a performance test should be conducted by the manufacturer for each type of lifeboat release and retrieval systems for compliance with paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the LSA Code, using the test specified in appendix 1 to these Guidelines. The performance test should be witnessed by the Administration or a recognized organization acting on its behalf.

13 Should any part of the lifeboat release and retrieval system fail at any stage during the test specified in paragraphs 1 to 4 of appendix 1, this type of lifeboat release and retrieval system should be deemed to be non-compliant and reported as such.

**Reporting of the results of evaluation of existing lifeboat release and retrieval system**

14 The Administration should report the results of each type of existing lifeboat release and retrieval system evaluation carried out in accordance with these Guidelines to the Organization, based on the reporting procedure, as set out in appendix 3.

15 Depending on the outcome of the evaluation, every lifeboat release and retrieval system should be categorized as being either compliant, compliant after modification or non-compliant. Thereafter:

.1 systems categorized as being compliant, or compliant after modification, may remain in service; and

.2 every system categorized as being non-compliant should be replaced with a new system or modified to be made compliant.

**One-time follow-up overhaul examination**

16 Not later than the first scheduled dry-docking after 1 July 2014, every lifeboat release and retrieval system of a type found to be compliant in respect of the existing lifeboat release and retrieval system evaluation should be subject to an overhaul examination according to annex 1 to the Measures to prevent accidents with lifeboats (MSC.1/Circ.1206/Rev.1) by the manufacturer or by one of their representatives. The examination also includes verification that

the system examined is of the same type as the system that passed the evaluation and is suitable for the ship.

17 The scope of the overhaul examination should also include a detailed assessment of the condition of the components of the lifeboat release and retrieval system to observe the extent of wear, corrosion, erosion and other types of material degradation that may have occurred. Upon satisfactory completion of the overhaul examination, the manufacturer or one of their representatives should issue a factual statement to confirm this, for retention on board.

**Procedure for replacement of non-compliant lifeboat release and retrieval systems**

18 The procedure outlined below should be followed in all cases where a lifeboat is to be fitted with replacement lifeboat release and retrieval systems with on-load release capability. It is noted that every lifeboat, complete with lifeboat release and retrieval system, is type-approved at manufacture and it is important to recognize that a lifeboat which is retro-fitted with a replacement lifeboat release and retrieval system to the satisfaction of the Administration should be regarded as offering a level of safety which is higher than that of the original installation.

19 Companies should, where possible, select replacement equipment acceptable to the lifeboat manufacturer. However, in cases where the lifeboat manufacturer is unable to offer a suitable replacement lifeboat release and retrieval system, the Company may select an alternative lifeboat release and retrieval system, with the agreement, if possible, of the lifeboat manufacturer.

20 The replacement equipment should be approved by the Administration or a recognized organization acting on its behalf, under the provisions of the LSA Code. Prior to the installation commencing, the Company should submit to the Administration, or a recognized organization acting on its behalf, for review and approval, as a minimum the following information:

.1 the proposed replacement equipment including approval certification;

.2 the engineering analysis of the replacement installation including:

.1 drawings of the original lifeboat release and retrieval system arrangement;

.2 detailed drawings showing clearly the proposed changes (e.g., position of suspension, lifeboat release and retrieval system, fixed structural connections of the release mechanism, link plates, including materials used for nuts and bolts with regard to strength and corrosion resistance); and

.3 if the drawings show that forces and/or force couples will change and/or the lifeboat release and retrieval system fixed structural connections of the release mechanism will change, calculation of static forces including a safety factor of 6, according to the LSA Code, from lifeboat release and retrieval system into lifeboat structure, including tension and shear forces in bolts, link plates, welds and keel shoe(s);

.3 considering that a lifeboat release and retrieval system does not consist just of the hook assemblies themselves, but also of release handles, cabling, etc., in the lifeboat, the evaluation of a replacement hook assembly other than that originally provided in the lifeboat should include such factors as loadings of the release handle on the console, efficiency of any hydrostatic interlock in light and

loaded conditions, whether the size/configuration of the replacement equipment would affect the stability or seating space of the lifeboat, and its compatibility with its launching appliance;

.4 amended operating and training manuals; and

.5 identification of the person(s) responsible for design appraisal, installation work and post-installation testing and evidence of their competence.

21 The Administration, or a recognized organization acting on its behalf, may allow that hook fixed structural connections of the release mechanism and supporting structure which are not made of material corrosion resistant in the marine environment, as required by paragraph 4.4.7.6.9 of the LSA Code, need not be replaced if they are in a good condition and installed in a sheltered position inside the lifeboat.

22 A copy of the engineering drawing(s) approved by the Administration, or by the recognized organization acting on its behalf, should be used during installation and testing and retained on board.

23 The installation should be carried out by the manufacturer or by one of their representatives. All work carried out should be witnessed by the Administration, or by a recognized organization acting on its behalf. Valid operating and safety instructions should be posted at the operating position and adjacent to the lifeboat release and retrieval system(s).

24 Post-installation testing should be carried out by the manufacturer or by one of their representatives and comprise the following:

.1 1.1 x load and simultaneous release test according to the Revised recommendation on testing of life-saving appliances (resolution MSC.81(70)), part 2, paragraph 5.3.1, or an equivalent method acceptable to the Administration;

.2 load test according to the Revised recommendation on testing of life-saving appliances (resolution MSC.81(70)), part 2, paragraph 5.3.4, as amended by resolution MSC.226(82), if the fixed structural connections of the release mechanism of the lifeboat is modified; and

.3 if the lifeboat is also a rescue boat and/or is installed on a cargo ship of 20,000 gross tonnage or above, the 5 knots installation test should be carried out, in accordance with the Revised recommendation on testing of life-saving appliances (resolution MSC.81(70)), part 2, paragraph 5.4.

25 All tests should be witnessed by the Administration, or by a recognized organization acting on its behalf, which should also verify that the installation complies in all respects with the documentation submitted by the Company and approved by the Administration, or a recognized organization acting on its behalf.

26 Following completion of installation testing, the Administration, or a recognized organization acting on its behalf, should issue a Statement of Acceptance, using the template set out in appendix 4, to the Company, for retention on board.

## APPENDIX 1

## TEST REQUIREMENTS FOR THE EVALUATION OF LIFEBOAT RELEASE AND RETRIEVAL SYSTEMS

A release and retrieval system 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;

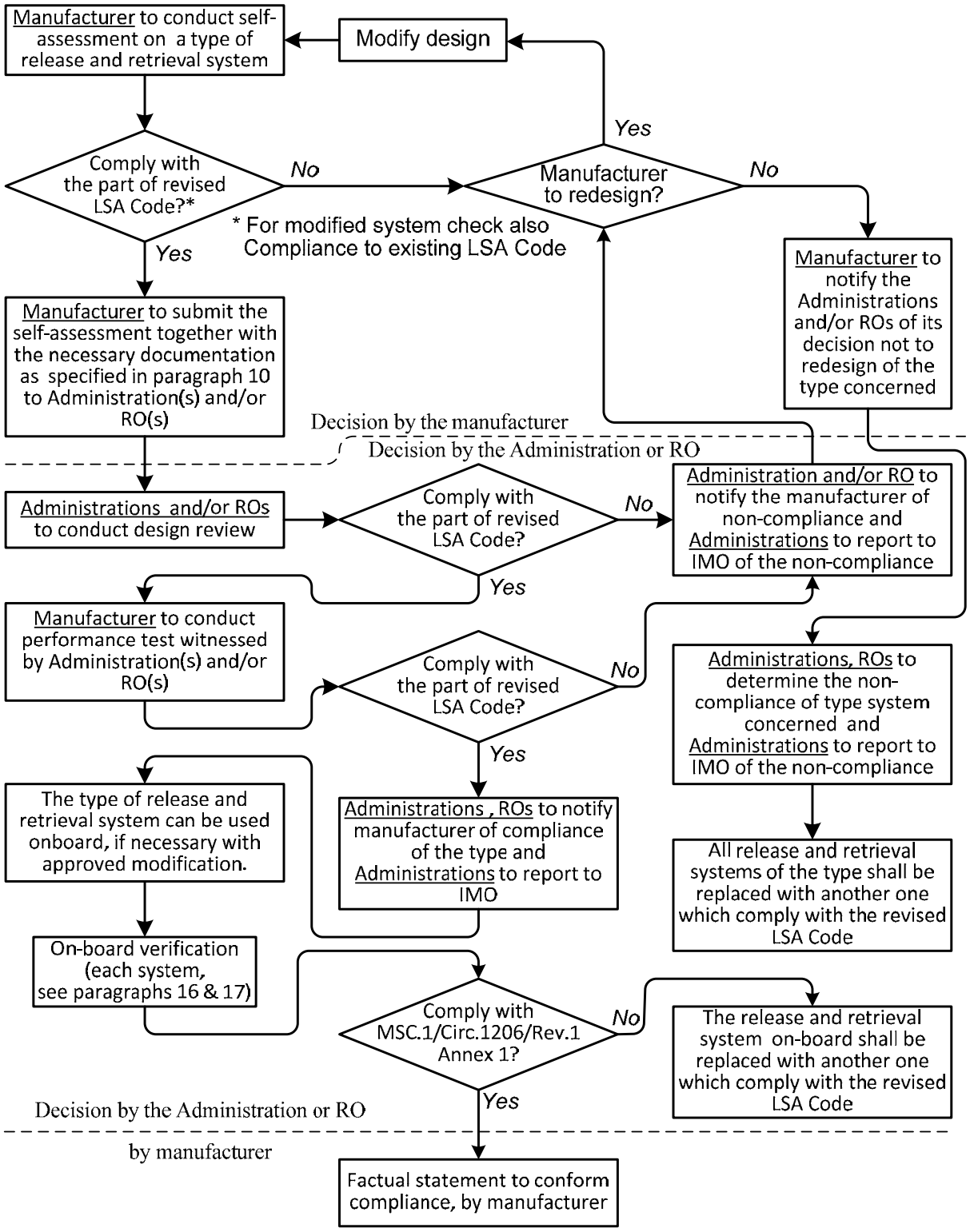
.2 the lifeboat release and retrieval system should then be disassembled, the parts examined and wear recorded. The release and retrieval system should then be reassembled;

.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 and retrieval system 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; 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, including hydrostatic interlocks, where fitted, 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 and retrieval system is deemed to have passed the testing under this appendix 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.

## APPENDIX 2

## EXISTING LIFEBOAT RELEASE AND RETRIEVAL SYSTEM EVALUATION PROCESS FLOW CHART



## APPENDIX 3

## INFORMATION ON THE EVALUATION OF EXISTING LIFEBOAT RELEASE AND RETRIEVAL SYSTEMS TO BE REPORTED

The following information should be provided for each lifeboat release and retrieval system:

| | |
|---|---|
| Manufacturer's Details | **Name** |
| | **Address** |
| | **E-mail address** |
| Lifeboat release and retrieval system | **Type (see paragraph 9.6) and identification** |
| In case of modification | **Original type and identification** |
| | **Details of modification** |
| Specification of type (e.g., Maximum Safe Working Load (SWL)) | |
| Details of the Administration, or recognized organization acting on its behalf, undertaking the evaluation of the lifeboat release and retrieval system | **Name** |
| | **Address** |
| | **E-mail address** |
| Evaluation report details | **No.** |
| | **Date** |
| Evaluation result | **Compliant / Non-compliant / Compliant after modification** |
| Report information | **Link to the relevant report (url)** |
| Reported by | **Name of the Administration** |

## APPENDIX 4

## STATEMENT OF ACCEPTANCE OF THE INSTALLATION OF REPLACEMENT RELEASE AND RETRIEVAL SYSTEM TO AN EXISTING LIFEBOAT

*Issued in accordance with the provisions of regulation I/5 of the International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended, under the authority of [Administration]*[*]

Name of ship:
Port of registry:
IMO Number:

Lifeboat details:
Replacement release and retrieval system details:

| Lifeboat identity | Lifeboat serial number | Release and retrieval system serial number (fwd) | Release and retrieval system serial number (aft) |
|---|---|---|---|
| No.1 (Stbd) | | | |
| No.2 (Port) | | | |

The above release and retrieval system has been installed and tested under the supervision of the [Administration, or a recognized organization authorized to act on its behalf][*], as documented in Survey report no...; certificate no.... dated ... and [installation] drawing(s) no(s) ... dated ... .

This statement is to confirm that:

.1 The replacement release and retrieval system meets the relevant requirements of the LSA Code, chapter IV, section 4.4.7.6.

.2 The replacement release and retrieval system construction and the equipment of the above-mentioned ship was found to comply with the provisions of SOLAS regulation III/4 when tested in accordance with the Revised recommendation on testing of life-saving appliances (resolution MSC.81(70)), part 2, section 5.3.1. [The test required by paragraph 5.3.4 is waived as impracticable for this replacement procedure.][*]

.3 The validity of the relevant Safety Certificate is not affected by the installation of the replacement release and retrieval system.

.4 The installation of the replacement release and retrieval system offers a level of safety which is at least as effective as the original manufacturer's equipment.

The [Administration, or a recognized organization authorized to act on its behalf][*] certifies that this Statement of Acceptance augments and supersedes the affected sections of the original lifeboat approval certification. The statement must be kept on board the ship with all other relevant documentation at all times.

…….. …… (Stamp)
(Date)

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[*] Insert as appropriate.

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MSC.1/Circ.1393
27 May 2011

# EARLY APPLICATION OF NEW SOLAS REGULATION III/1.5

1 The Maritime Safety Committee, at its eighty-ninth session (11 to 20 May 2011), adopted, by resolution MSC.317(89), new SOLAS regulation III/1.5 and, by resolution MSC.320(89), related amendments to chapter IV of the LSA Code, which are expected to enter into force on 1 January 2013. The Committee also approved the associated Guidelines for evaluation and replacement of lifeboat release and retrieval systems (MSC.1/Circ.1392).

2 In light of the provision of the new SOLAS regulation III/1.5, the Committee agreed that:

.1 for ships constructed on or after 1 July 2014, on-load release and retrieval systems shall comply with the LSA Code, as amended by resolution MSC.320(89); and

.2 Member Governments are encouraged to ensure that ships constructed on or after 20 May 2011 but before 1 July 2014, on-load release and retrieval systems comply with the LSA Code, as amended by resolution MSC.320(89).

3 In order for parties concerned to take relevant actions with regard to paragraph 2 above, Member Governments are encouraged to initiate, at the earliest opportunity, approval processes for new on-load release and retrieval systems, which comply with the LSA Code, as amended by resolution MSC.320(89).

4 In adopting the aforementioned amendments, the Committee agreed to the recommendation by the Sub-Committee on Ship Design and Equipment, at its fifty-fifth session (21 to 25 March 2011), that parties concerned should be encouraged to take necessary action to evaluate existing lifeboat release and retrieval systems, based on the aforementioned Guidelines, at the earliest available opportunity, pending the entry into force of new SOLAS regulation III/1.5.

5 Member Governments, shipyards and shipowners are invited to take account of this circular and bring it to the attention of all parties concerned. In particular, manufacturers are urged to evaluate existing lifeboat release and retrieval systems at the earliest available opportunity, in accordance with the aforementioned Guidelines.

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