

Subject:	Life-Saving Appliances - Lifeboats and Rescue Boats - Evaluation and Replacement of Lifeboat Release and Retrieval Systems (LRRS)
To:	Shipowners, Companies, Operators, Recognized Organizations and Masters

1. Background

1.1 The Maritime Safety Committee at its 89th session in May 2011 adopted MSC Resolution 317(89), introducing new requirements under SOLAS regulation III/1.5 for Lifeboat Release and Retrieval Systems (LRRS), which entered into force on 1 January 2013. The requirements apply to on-load release mechanisms installed on all ships, both new and existing vessels, either cargo or passenger ships.

1.2 The Committee also adopted Resolutions MSC.320(89) and MSC.321(89) which contain amendments to the Life Saving Appliances (LSA) Code requirements and the amendments to the “*REVISED RECOMMENDATION ON TESTING OF LIFE-SAVING APPLIANCES*” (RESOLUTION MSC.81(70)) as amended, respectively. Additionally the Committee also approved circular MSC.1/Circ.1392 “*Guidelines for Evaluation and Replacement of Lifeboat Release and Retrieval Systems*” and the associated corrigendum 1 to that circular.

1.3 The new requirement of SOLAS regulation III/1.5 requires that for all ships, existing systems (on-load release mechanisms - LRRS) not complying with paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the revised LSA Code, as amended by resolution MSC.320(89) and hereinafter called “the LSA Code”, are to be replaced or modified not later than the first scheduled dry-docking of the ship after 1 July 2014 but not later than 1 July 2019, where the “*first scheduled dry-docking*” means the “*first scheduled out of water survey of the ship's outer bottom*”.

1.4 In accordance with MSC.1/Circ.1392, the Portuguese Maritime Administration strongly urges that all vessels flying the Portuguese flag fitted with lifeboat on-load release systems should be equipped with 'Fall Preventer Devices' (FPD) to reduce the Danger of Accidental On-load Hook Release' in accordance with MSC.1/Circ.1327 entitled "*GUIDELINES FOR THE FITTING AND USE OF FALL PREVENTER DEVICES (FPDs)*". FPDs should be employed for each existing LRRS until the system is:

- found compliant with the LSA Code; or
- modified and found compliant with the LSA Code; or
- 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 MSC.1/Circ.1392; or
- 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 MSC.1/Circ.1392; or
- replaced with a new LRRS approved to Res. MSC.320(89)

2. New and Existing Vessels

2.1 Vessels built on or after 01.01.2013 (new vessels) and existing vessels fitted with lifeboats placed on-board on or after 01.01. 2013, should have lifeboats installed with LRRS compliant with IMO Res. MSC.320(89).

2.2 Products with a Declaration of conformity (DoC) issued under the Marine Equipment Directive (MED) dated after 1st January 2013, should be compliant. If there is any doubt as to the standards to which the LRRS has been approved then the Original Equipment Manufacturer should be contacted.

2.3 Existing vessels with lifeboats placed on-board before 1st January 2013, are advised to have lifeboats installed with LRRS compliant with IMO Resolution MSC.320(89). LRRS that are not compliant with MSC.320(89) will be subject to the evaluation and possible replacement as per MSC.1/Circ.1392 and this Circular.

3. Existing Vessels with davit-launched lifeboats fitted with on-load release hooks

3.1 Companies should approach their LRRS Original Equipment Manufacturer (OEM) to see if the model installed on their lifeboats will be evaluated against MSC.1/Circ.1392. If the OEM confirms that the LRRS model is not to be submitted for evaluation, the Company, as defined in SOLAS regulation IX/1.2, should prepare to change LRRS not later than the first scheduled dry-docking after 1 July 2014 but not later than 1 July 2019.

3.2 If the OEM confirms that the LRRS model is to be evaluated, then, after 1 July 2013 the Company should check the IMO list of accepted LRRS having passed MSC.1/Circ.1392 evaluations. If the LRRS model is not on the IMO list, then the Company should prepare to change LRRS not later than the first scheduled dry-docking after 1 July 2014 but not later than 1 July 2019.

3.3 If the LRRS model is on the IMO list of accepted LRRS (<https://gisis.imo.org/Public/>) having passed the MSC.1/Circ.1392 evaluation, then not later than the first scheduled dry-docking after 1 July 2014, every LRRS should have a one-time follow-up “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. This examination shall include verification that the system examined is of the same type as the system that passed the evaluation. Upon satisfactory completion of the overhaul examination, the manufacturer or their representatives shall issue a ‘Factual Statement’ to confirm that the system examined is of the same type as the system that passed the MSC.1/Circ.1392 evaluation for retention on board for each davit on every vessel.

Some OEMs may submit modifications to existing LRRS in order to make them compliant. Modifications to existing LRRS will be undertaken in the same way as a new LRRS being fitted as in section 4 below.

4. Replacement of non-compliant lifeboat release and retrieval systems

4.1 In all cases where a lifeboat is to be fitted with replacement lifeboat LRRS with on-load release capability the procedure outlined below should be followed. Considering that every

lifeboat, complete with LRRS, is type-approved at manufacture, it is also important to recognize that a lifeboat which is retro-fitted with a replacement lifeboat release and retrieval system to the satisfaction of the Recognized Organization (RO) that has signed an agreement with the Portuguese Maritime Administration should be regarded as offering a level of safety which is higher than that of the original installation.

4.2 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 one, provided it is approved, and if possible with the agreement of the lifeboat manufacturer. In such cases the company has the right to select alternative LRRS which may not be those as supplied or approved by the Lifeboat OEM but compatibility of such hooks must be assured by the RO.

4.3 The replacement equipment should be approved under the Maritime Equipment Directive (MED). Prior to the installation commencing, either the Company or the new LRRS OEM on their behalf should submit to the RO that has signed an agreement with the Portuguese Maritime Administration, as a minimum, the following information for review and approval:

4.3.1 The proposed replacement equipment including approval certification;

4.3.2 The engineering analysis of the replacement installation, including:

4.3.2.1 Drawings of the original lifeboat release and retrieval system arrangement;

4.3.2.2 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

4.3.2.3 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);

4.3.3 Having in mind 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;

4.3.4 Amended operating and training manuals; and

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

4.4 The RO may allow that hook fixed structural connections of the release mechanism and supporting structures 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. This does not apply to semi-enclosed lifeboats where greater exposure is of concern.

4.5 A copy of the engineering drawing(s) approved by the RO, should be used during installation and testing, and retained on board.

4.6 The installation should only be carried out by the OEM of the new LRRS or by one of their representatives. **A Lifeboat Service Supplier is not permitted to conduct this work.** All work carried out should be witnessed by the RO that has signed an agreement with the Portuguese Maritime Administration who approved the installation documentation. Valid operating and safety instructions should be posted at the operating position and adjacent to the lifeboat release and retrieval system(s).

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

- 4.7.1 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;
- 4.7.2 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
- 4.7.3 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.

4.8 All tests should be witnessed by the RO that has signed an agreement with the Portuguese Maritime Administration which should also verify that the installation complies in all respects with the documentation submitted by the Company and approved by the RO.

4.9 Following completion of installation testing, the RO should issue a Statement of Acceptance to the Company for retention on board, using the template set out in Corrigendum 1 to MSC.1/Circ.1392.

5 Exemption for the 5 knots launching test of lifeboats

5.1 Having in mind that IMO resolution MSC.81(70) part 2, paragraph 5.4 anticipates for fully equipped lifeboats on cargo ships of 20,000 GT and above and rescue boats a 5 knots launching test to be carried out in calm water and on even keel;

5.2 Noting also that MSC.1/Circ.1392, when dealing with evaluation and replacement of lifeboat release and retrieval systems, requires the 5 knots installation/launching test to be carried out upon replacement of a non-compliant lifeboat release and retrieval system;

5.3 Taking in due consideration that this test is considered very hazardous, in particular when it concerns recovery of the lifeboat/rescue boat after the test has taken place, the Portuguese Maritime Administration accepts the following approach:

5.3.1 For ships built according to the same plans and with identical installation of rescue boat(s) and launching arrangement(s), the successful results from the launch test at 5 knots headway speed on the mother ship are acceptable as documented evidence of the similar capacity to launch the rescue boat(s) from the sister ship(s) in the series. In this case the RO may, without having to consult the Portuguese Maritime Administration, issue an exemption for the 5 knots installation test on those sister ships. Nevertheless, the Portuguese Maritime Administration strongly recommends the test to be performed at the end of the sea-trials in case of new ships. A tug could be used to tow the boat(s) inside, or if the weather/sea state is favourable, the boat(s) could be recovered;

5.3.2 In the case of existing ships and in particular to address the problems with the application of MSC.1/Circ.1392, the Portuguese Maritime Administration allows the following test to be performed, **as an equivalent** to the 5 knots installation test: a tugboat shall be tied up alongside the ship at the quay, whereby the tug engines create a '5-knot wash'. In this '5-knot wash' the installation/launching test is performed.

6 Documentation to be retained on board

6.1 After the first scheduled dry-docking after 1 July 2014, vessels should have one of the following sets of documents on board.

6.1.1 Vessels for which existing lifeboat release and retrieval systems are found compliant with the evaluation in MSC.1/Circ.1392:

6.1.1.1 Factual Statement' from the Manufacturer to confirm that the system on board is of the same type as the system that passed the MSC.1/Circ.1392 evaluation;

6.1.1.2 Copy of the document listing the accepted lifeboat release and retrieval systems having passed MSC.1/Circ.1392 evaluations;

6.1.1.3 MED Certificate and DoC for the lifeboat release and retrieval systems;

6.1.2 Vessels which had non-compliant lifeboat release and retrieval systems replaced by new ones:

6.1.2.1 'Statement of Acceptance' issued by the RO, as per Corrigendum 1 to MSC.1/Circ.1392.

6.1.2.2 A copy of the engineering drawing(s) approved by the RO;

6.1.2.3 MED Certificate and DoC for the lifeboat release and retrieval systems.

6.1.3 Vessels with lifeboats installed on board with lifeboat release and retrieval systems compliant with IMO Resolution MSC.320(89):

6.1.3.1 MED Certificates and DoC for the lifeboat and lifeboat release and retrieval systems.

Lisbon, 22 April 2016

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