



Life-Saving Appliances - Lifeboats and Rescue Boats - Evaluation and Replacement of Lifeboat Release and Retrieval Systems (LRRS)

Notice to all Shipowners, Masters, Recognised Organisations, deck officers, and manufacturers / service agents of lifeboats and launching appliances

Summary

- New requirements from the International Maritime Organization (IMO), have introduced standards for all Lifeboat Release and Retrieval Systems (LRRS), including those installed on existing ships. This MGN is being issued retrospectively.

Existing systems that do not comply with the revised LSA Code as per SOLAS III/1.5, must be replaced by the first scheduled dry-docking after 1 July 2014, and not later than 1 July 2019.

The MCA strongly urges that all UK vessels fitted with lifeboat on-load release systems should be equipped with fall preventer devices (FPD) pending the evaluation of the systems for compliance with the requirements of the revised LSA Code. Separate MCA guidance has been issued on this subject in MGN540.

This notice is applicable to davit launched lifeboats fitted with on-load release hooks, and any similar on-load release systems if fitted to rescue boats.

1. Background

- 1.1 The Maritime Safety Committee at its 89th session adopted MSC Resolution 317(89), introducing new requirements under SOLAS regulation III/1.5 for Lifeboat Release and Retrieval Systems (LRRS). The requirements apply to on-load release mechanisms installed on all ships, i.e. both new and existing cargo and passenger ships. The Committee also adopted MSC/Res. 320(89) and 321(89) which contain amendments to the Life Saving Appliances (LSA) Code requirements and for the testing and approval of LRRS.
- 1.2 In addition, the Committee approved circular MSC.1/Circ.1392 'Guidelines for Evaluation and Replacement of Lifeboat Release and Retrieval Systems', and the



associated Corrigendum 1 of that Circular. Existing systems that do not comply with the revised LSA Code in accordance with SOLAS regulation III/1.5, are to be replaced no later than the first scheduled dry-docking of the ship after 1 July 2014, but in no case later than 1 July 2019 ("first scheduled dry-docking" means the "first scheduled out of water survey of the ship's outer bottom").

- 1.3 New SOLAS regulation III/1.5, which entered into force on 1 January 2013, requires that for all ships, on-load release mechanisms (LRRS) 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.
- 1.4 In accordance with MSC.1/Circ.1392, the MCA strongly urges that all UK vessels fitted with lifeboat on-load release systems should be equipped with FPDs. FPDs should be fitted in accordance with MCA guidance on the fitting of 'Fall Preventer Devices' to reduce the Danger of Accidental On-load Hook Release'. FPD should be used until the as fitted LRRS is one of the following:
 - .1 On the IMO list of accepted LRRS having passed the MSC.1/Circ.1392 evaluation (to be published after 1st July 2013) and has a 'Factual Statement' from the Manufacturer to confirm that the system onboard is of the same type as the system that passed the MSC.1/Circ.1392 evaluation (see paragraph 3.4)
 - .2 Replaced with a new LRRS approved to Res. MSC.320(89)

2. New Vessels & Equipment

- 2.1 New vessels, or existing vessels with lifeboats placed on-board on or after 01 January 2013, should have lifeboats installed with LRRS compliant with IMO Res. MSC.320(89). Any products with a Marine Equipment Directive (MED) Declaration of conformity (DoC) 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 (OEM) should be contacted.
- 2.2 New vessels, or 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). Those 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 MGN.

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

- 3.1 A flow chart for existing vessels with davit-launched lifeboats fitted with on-load release hooks can be found in Annex 1 to this Notice.
- 3.2 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 the ISM Code) 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 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.

- 3.4 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.
- 3.5 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 The procedure outlined below should be followed in all cases where a lifeboat is to be fitted with replacement lifeboat LRRS with on-load release capability. It is noted that every lifeboat, complete with LRRS, 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 a UK authorised Recognized Organization (RO) 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 LRRS, the Company may select an alternative LRRS provided it is approved. It’s the company’s 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 MED. Prior to the installation commencing, the Company (or the new LRRS OEM on their behalf) should submit to one of the UK authorised ROs (listed in MSN1672), 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.
- 4.4 The RO 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. 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 who approved the installation documentation.
- 4.7 Valid operating and safety instructions should be posted at the operating position and adjacent to the lifeboat release and retrieval system(s).
- 4.8 Post-installation testing should be carried out by the manufacturer or by one of their representatives and comprise the following on each davit on each vessel and witnessed by the RO:
- .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 MCA
 - .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.



- 4.9 A simulated launch test e.g. where a vessel creates approximately 5knot wash ahead of the launched craft, may be accepted as equivalent to launching requirement of MSC.81(70) part 2, paragraph 5.4. All proposed equivalent arrangements adequately demonstrating the launch retirement must be presented to MCA Marine Technology Branch, on case by case basis, before acceptance can be granted. Examples of assessment of this provision through calculation have been demonstrated but the MCA position is that this test must be physically conducted as far as is practicable because it is designed to assess the whole launching system for the boat.
- 4.10 All tests should be witnessed by the RO which approved the installation documentation. RO will also verify that the installation complies in all respects with the documentation submitted by the Company.
- 4.11 Following completion of installation testing, the RO will issue a Statement of Acceptance, using the template set out in Corrigendum 1 to MSC.1/Circ.1392, to the Company, for retention on board.

5 Documentation to be retained onboard

- 5.1 After the first scheduled dry-docking after 1 July 2014, vessels should have one of the following sets of documents onboard.
- .1 Vessels for which existing LRRS are found compliant with the evaluation in MSC.1/Circ.1392:
 - .1 'Factual Statement' from the Manufacturer to confirm that the system onboard is of the same type as the system that passed the MSC.1/Circ.1392 evaluation
 - .2 Copy of the document listing the accepted LRRS having passed MSC.1/Circ.1392 evaluations (to be published after 1st July 2013)
 - .3 MED Certificate and DoC for the LRRS
 - .2 Vessels which have had non-compliant LRRS replaced with new ones:
 - .1 RO issued 'Statement of Acceptance' as per Corrigendum 1 to MSC.1/Circ.1392.
 - .2 A copy of the engineering drawing(s) approved by the RO
 - .3 MED Certificate and DoC for the LRRS
 - .3 Vessels with lifeboats installed onboard with LRRS compliant with IMO RESOLUTION MSC.320(89):
 - .1 MED Certificates and DoC for the lifeboat and LRRS

6. Reference Documents:

- 6.1 MSC.1/Circ.1327 'Guidelines for the fitting and use of fall preventer devices (FPDs)'.
 6.2 MSC.1/Circ.1392 'Guidelines for Evaluation and Replacement of Lifeboat Release and Retrieval Systems'



More Information

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Annex 1
Existing Lifeboat Release and Retrieval Systems (LRRS) flow chart

