

**Application:** All shipowner/operators, masters and officers of merchant ships and authorised classification societies

## Introduction

This Notice provides guidance on examination, testing, servicing, maintenance, and repairs to life saving appliances including survival craft, rescue boats and launching appliances aboard Barbados flagged vessels. For additional details, please refer to the list of references attached to this bulletin.

## BACKGROUND

In **MSC.1/Circ.1206/Rev.1** dated 11th June 2009, the IMO noted an unacceptably high number of accidents in which crew members were being injured whilst participating in routine lifeboat drills and/or inspections. The IMO identified the following leading categories of causes:

- Failure of lifeboat release mechanisms.
- Inadvertent operation of lifeboat release mechanisms.
- Inadequate maintenance of lifeboats, survival craft, launching appliances and release gear.
- Communication failure.
- Lack of familiarity with the lifeboats, launching appliances, equipment, and associated controls.
- Unsafe practices during lifeboat drills and inspections; and
- Design faults other than release mechanism.

- **A. Maintenance, Thorough Examination and Testing of Life Saving Appliances (LSA)** Consequently, during the Maritime Safety Committee's 96th session (MSC 96), the IMO adopted amendments to SOLAS Regulations III/3 and III/20 through **Resolutions MSC.402(96) and MSC.404(96)**. These amendments introduced mandatory requirements for maintenance, thorough examination, operational testing, overhaul, and repair of lifeboats including free-fall lifeboats, rescue boats, fast rescue boats, launching appliances and release gear for all ships on/after **1st January 2020**.
- **B. Lifeboat Release Mechanisms** Several accidents have been attributed directly to defective lifeboat on-load release hooks. As a result, IMO's MSC adopted **IMO Resolution MSC.317 (89)**, which added paragraph 5 in SOLAS 1974 Chapter III/1, requiring that lifeboat release mechanisms not complying with the new requirements found in the LSA Code, shall be replaced by the first scheduled dry docking after 1st July 2014, but not later than 1st July 2019. Ships must be fitted with LSA Code compliant on-load release mechanisms as required by SOLA Chapter III/1.5, taking into consideration **MSC.1/Circ.1392 and Corr.1** The MSC adopted amendments to the LSA Code in paragraph 4.4.7.6 related to the requirements for release mechanisms of lifeboats launched by a fall/falls to require new subparagraphs .2 to .6, representing important safety improvements of the release mechanisms. In the interim, to help protect the seafarer from injury due to defective on load release hooks, IMO developed **MSC.1/Circ. 1327**, recommending the use of Fall Preventer Devices (FPD) when needed.

## REQUIREMENTS

1. **Authorization of Life Saving Equipment (LSA) Service Providers** An authorized service provider is

an entity authorised by the flag Administration in accordance with the requirements given in IMO **Resolution MSC.402(96)**. Refer to **Barbados Maritime Ship Registry Bulletin 322 - Authorized Service Providers - Lifeboats, Appliances etc.**

2. **Maintenance, Examination, Testing, Servicing and Repair of Life Saving Appliances (LSA)**The maintenance, thorough examination, operational testing, overhaul and repair of lifeboats and rescue boats, launching appliances and release mechanisms, shall be conducted in accordance with the requirements given in **Resolution MSC.402(96)** and the instructions for onboard maintenance as required by regulation 36 of SOLAS 74 Chapter III (as amended). Weekly and monthly inspections and routine maintenance as specified in the equipment maintenance manual(s), shall be conducted by authorized service providers, or by shipboard personnel under the direction of a senior ship's officer, in accordance with the manufacturer's maintenance manual(s).As of 1st January 2020, the annual servicing and five yearly thorough examination of lifeboats, rescue boats, and the associated launching appliances including the release mechanisms, shall be carried out by service providers authorized by the flag Administration for each make and model in accordance with **Resolution MSC 402(96)**. Authorizations previously provided to third party lifeboat service providers under Annex I of **MSC.1 Circ. 1206/Rev.1** are no longer permitted. Annual thorough examination and operational testing shall be carried out by certified personnel employed by the manufacturer, or service providers authorized by the Administration in accordance with **Resolution MSC 402(96)**. Five-yearly thorough examinations, any overhaul, overload operational tests (as described in section 6.3, of **Resolution MSC.402(96)**), and repair, shall be conducted by certified personnel of either the manufacturer or a service provider authorized by the Administration The five yearly thorough examination, any overhaul, overload or operational tests test, must always be conducted in the presence of a class surveyor. A copy of valid documents of certification of personnel and authorization of the service provider shall be included with the statement issued by the manufacturer or authorized service provider who conducted the work. Personnel who perform the annual thorough examinations and operational test and five yearly thorough examinations, any overhaul, overload tests and repairs must be certified by the manufacturer or authorized service provider, for each make/type of the equipment to be worked on in accordance with the specified minimum capabilities, education, training and quality system requirements.
3. **HSSC and Harmonizing Servicing Intervals of LSAAs** Barbados has implemented the Harmonized System of Survey and Certification (HSSC) for ships registered under the Barbados flag and in pursuance of the HSSC's objectives to "simplify survey requirements, thereby reducing the burden on Administrations, operators of ships and the crews of ships" as outlined in **MSC/Circ.955**, the servicing intervals of inflatable life rafts and marine evacuation systems for ships may be in concert with the terms of the HSSC annual, periodical and renewal survey stipulated in the 1988 SOLAS Protocol notwithstanding regulation III/20.8 of the 1974 SOLAS Convention (as amended), which requires inflatable life rafts and MES to be serviced at intervals not exceeding 12 months. Therefore, the annual servicing interval may be carried out up to +/- 3 months of the due date for a ship implementing the HSSC and extended to 17 months for a ship not implementing the HSSC, where it is impracticable to carry out the service. In all cases a dispensation is required from the Administration when servicing of inflatable life rafts and/or MES will exceed the 12-month period.
4. **Examinations and Tests of Launching Appliances** Launching appliances shall be subjected to thorough examination at the annual surveys required by regulations 1/7 and 1/8 of SOLAS 74 Chapter III (as amended), and upon completion of the examination, subjected to a dynamic test of the winch brake at maximum lowering speed. The load applied shall be the mass of the survival craft or rescue boat without persons on board, except that, at intervals of at least once every five years, the test shall be carried out with a proof load equal to 1.1 times the mass of the survival craft or rescue boat and its

full complement of persons and equipment.

5. **Examination and Tests of Lifeboat and Rescue Boat Release Gear**Lifeboat and rescue boat release gear including fast rescue boat and free-fall lifeboat release systems, shall be subjected to a thorough examination and operational test during the annual surveys required by regulations 1/7 and 1/8 of SOLAS 74, Chapter III (as amended). On-load release gear shall be operationally tested under a load of 1.1 times the total mass of the boat (loaded with its full complement of persons and equipment) whenever the release gear is overhauled. Such overhauling and operational testing shall be carried out at least once every five years. The operational testing of free-fall lifeboat release mechanisms shall be performed either by free fall launching with only the operating crew on board, or by a test without launching the lifeboat carried out based on the requirements in **Resolution MSC. 402(96)**.
6. **Examination and Tests of Davit-Launched Life Raft Automatic Release Hooks**Shall be subjected to a thorough examination and operational test during the annual surveys required by regulations 1/7 and 1/8 of SOLAS 74 Chapter III (as amended) and operationally tested under a load of 1.1 times the total mass of the life raft when loaded with its full complement of persons and equipment whenever the automatic release hook is overhauled. Such overhauling and operational test shall be carried out at least once every five years.
7. **Examination and Tests of Lifeboats and Rescue Boats, including Fast Rescue Boats**Lifeboats and rescue boats, including fast rescue boats, shall be subject to a thorough examination and operational test during the annual surveys required by regulations 1/7 and 1/8 of SOLAS 74 Chapter III (as amended).
8. **Examination and Tests of Lifeboat Air Support Systems**In accordance with the manufacturer's instructions and guidelines, the air support system shall be subject to periodic inspection carried out by the vessel's crew monthly, as required by Regulation 20.7 of SOLAS 74 Chapter III (as amended). All lifeboat air support systems and bottles shall be examined at least annually by the attending class society surveyor, as part of the annual Safety Equipment Survey. If the air pressure in the cylinders should fall below ten percent (10%) of the normal air pressure, they should be recharged in accordance with the manufacturer's instructions and guidelines. When applicable, the on-board air recharging systems should be checked for air quality as part of the annual statutory survey for the SEC or MODU Code certificate. If the ship is not equipped with such an air compressor then the cylinders must be sent ashore to an authorized service facility for recharging or exchange. Hydrostatic testing of lifeboat air support cylinders shall be carried out once every five years or in accordance with the recommendations of the cylinder manufacturer, whichever is due first. The air receivers shall be hydrostatically tested prior to refilling a discharged receiver. The hydrostatic test date must be permanently stamped on the receiver or on a tag indicating the hydrostatic test date, securely attached to the cylinder.
9. **Operation and Maintenance Manuals**Owners/managers are encouraged to develop manuals for operation and maintenance of lifeboat systems including launching appliances. These manuals should be easy to understand and reflect the equipment used on board the ship. The use of video materials in conjunction with printed manuals is advised. The manual for a lifeboat system including launching appliance should be developed with the collaboration of the manufacturers and preferably be a single document.
10. **General Safety Precautions Concerning Lifeboats**Officers and crewmembers should be confident that they will be able to safely use the lifesaving appliances. When servicing davits in the stowed position, the harbour safety pins or other similar safety devices, shall be in place to ensure the davits cannot be accidentally moved. When personnel are in the stowed lifeboats, the hanging-off pendants should be used to prevent the boat from being accidentally released. All launching appliances should receive regular maintenance by persons who are familiar with and able to follow the manufacturer's

instructions. Checklists should be used to ensure that all safety precautions are in place before personnel perform maintenance or inspections and that operating procedures are followed including proper stowing/securing after use. No additional securing arrangements should be used which are not included in the lowering/free-fall instructions except for additional securing devices during extreme heavy weather, which must be removed as soon as the weather moderates. These standard procedures should be included in each vessel's safety management system as applicable.

*BMSR 02/07/2021*

### **References**

1. MSC.402(96) - Requirements for Maintenance, Thorough Examination, Operational Testing, Overhaul and Repair of Lifeboats and Rescue Boats, Launching Appliances and Release Gear.
2. MSC.404(96) - Amendments to the International Convention for the Safety of Life at Sea 1974 (as amended).
3. MSC.317(89) - Adoption of Amendments to the International Convention for the Safety of Life at Sea 1974 (as amended).
4. MSC.1/Circ.1392 and Corr,1 - Guidelines for Evaluation and Replacement of Lifeboat Release and Retrieval Systems
5. MSC.1/Circ.1327 - Guidelines for the Fitting and Use of Fall Preventer Devices (FPDs)
6. MSC.1/Circ.1206/Rev.1 - Measures to Prevent Accidents with Lifeboats.
7. MSC/Cir.955 - Servicing of Life-Saving Appliances and Radio Communications Equipment Under the Harmonized System of Survey and Certification (HSSC).
8. The International Convention for the Safety of Life at Sea 1974 (as amended).
9. The International Life Saving Appliances Code (as amended).