

Guideline No.: L-02(202109)



# **L-02**

# **LIFEBUOYS**

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## Foreword

CCS Product Inspection and Testing Guideline (hereinafter referred to as this Guideline) contains the technical requirements, inspection and testing criteria related to classification and statutory survey of marine products to be applied for CCS approval/inspection.

This Guideline frees the users to adopt other test methods and requirements which are equivalent to or are stricter than this Guideline.

This Guideline is published and updated by CCS, and is released at <http://www.ccs.org.cn>. Your comments or suggestions are welcomed and may be sent to our email addressed [mp@ccs.org.cn](mailto:mp@ccs.org.cn).

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### Main change:

1. 1.2.1 (4) is changed to: IMO Resolution MSC.481(102) Revised Recommendation on the Use and Fitting of Retro-reflective Materials on Life-saving Appliances;
2. Replace "A.658(16)" in Table 7.2 (1) with "MSC.481(102)".

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## **LIFEBOOYS**

### **1 Application**

1.1 This Guideline applies to the approval and inspection of the lifebuoys provided onboard ships engaged on international voyages.

### **2 Normative references**

2.1 For the purpose of this Guideline, the following documents apply:

- (1) Chapter III of the International Convention for the Safety of Life at Sea, 1974;
- (2) MSC.48(66), Chapters I and II of the International Life-saving Appliances Code (LSA Code), and MSC.207(81);
- (3) MSC.81(70), Recommendation on Testing of Life-saving Appliances, and MSC.200(80), MSC.226(82);
- (4) IMO Resolution MSC.481(102) Revised Recommendation on the Use and Fitting of Retro-reflective Materials on Life-saving Appliances;
- (5) IMO Resolution A.760(18), Symbols Related to Life-saving Appliances and Arrangements, and its amendments.

### **3 Definitions**

3.1 Lifebuoy means a lifebuoy have a mass of not less than 2.5 kg.

3.2 Lifebuoy with the quick release arrangement means a lifebuoy that have a mass sufficient to operate the quick release arrangement and that has a mass of not less than 4 kg.

### **4 Plans and documents**

4.1 The following documents are to be submitted to CCS for approval when applying for products approval:

- (1) products structural plan;
- (2) type test program.

4.2 The following documents are to be submitted to CCS for information when applying for products approval:

- (1) a list of materials and attachments;
- (2) molding technique documents;
- (3) instruction manual.

## 5 Materials and components

5.1 Materials and components are to comply with relevant requirements of CCS Rules.

## 6 Design and technical requirements

6.1 The design and manufacturing of the lifebuoys are to at least comply with the applicable requirements of 2.1(1), (2) and (3) of this Chapter.

## 7 Type test

7.1 Selection of samples

7.1.1 In type approval, each model of the lifebuoy is to be selected for type test.

7.2 Type test items

7.2.1 The test items of lifebuoys and the corresponding test methods are given in Table 7.2(1).

**Table 7.2(1)**

No.	Test items	Test methods
1	Visual examination	The color to be orange, and the retro-reflective tape to comply with MSC.481(102), Paragraph 2.1.1.2, Chapter II of MSC.48(66), and Paragraph 1.1, PART 1 of MSC.81(70)
2	Temperature cycling test	Paragraph 1.2, PART 1 of MSC.81(70) and Paragraph 1.2.2.2, Chapter I of MSC.48(66)
3	Drop test	Paragraph 1.3, PART 1 of MSC.81(70) and Paragraph 2.1.1.6, Chapter II of MSC.48(66)
4	Oil resistance test	Paragraph 1.4, PART 1 of MSC.81(70)
5	Fire test	Paragraph 1.5, PART 1 of MSC.81(70) and Paragraph 2.1.1.15, Chapter II of MSC.48(66)
6	Flotation test	Paragraph 1.6, PART 1 of MSC.81(70) and Paragraph 2.1.1.3, Chapter II of MSC.48(66)
7	Strength test	Paragraph 1.7, PART 1 of MSC.81(70)
8	Test for operation with a light and smoke signal	Paragraph 1.8, PART 1 of MSC.81(70)

## **8 Unit/batch inspection**

### 8.1 Ratio of sampling

8.1.1 The lifebuoys are not to be more than 5,000 pieces a batch and at least two samples are to be taken from each batch.

### 8.2 Inspection and test items

8.2.1 Lifebuoys are subject to the following inspection:

- (1) visual examination;
- (2) buoyancy test;
- (3) strength test.

8.2.2 Additional test items may be required where deemed necessary by the Surveyor.

8.2.3 The certificates of each batch of lifebuoy materials as specified in 5 are to be examined.

8.2.4 The markings of lifebuoys are to be inspected to ensure they comply with the 1.2.2.9 of LSA Code.