



REPUBLIC OF CYPRUS
MINISTRY
OF
COMMUNICATIONS AND WORKS



DEPARTMENT
OF
MERCHANT SHIPPING
LIMASSOL

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Circular No. 14/2013

30 May 2013

Registered owners, registered bareboat charterers,
managers, operators and masters of
ships flying the Cyprus flag

Recognized and Authorized Classification Societies

Subject: **Periodical inspection and maintenance of:**

- (1) Fixed fire detection and extinguishing systems,
- (2) Portable and non-portable fire extinguishers,
- (3) Self-Contained Breathing Apparatus,
- (4) Emergency Escape Breathing Apparatus,
- (5) Oxygen bottles for medical use,
- (6) Self-contained air support systems for lifeboats, and
- (7) Compressed air cylinders used in inflatable liferafts

1 Introduction

1.1 The Maritime Safety Committee at its ninetieth session (16 to 25 May 2012) approved MSC.1/Circ.1432 on Revised Guidelines for the Maintenance and Inspection of Fire Protection Systems and Appliances.

1.2 The revised guidelines apply to all ships and provide the minimum recommended level of maintenance and inspections for fire protection systems and appliances. This information may be used as a basis for the ship's onboard maintenance plan required by SOLAS Regulation II-2/14.

1.3 The revised guidelines do not address maintenance and inspection of fixed carbon dioxide systems or of portable fire extinguishers. However, MSC.1/Circ.1318 on Guidelines for the maintenance and inspections of fixed carbon dioxide fire-extinguishing systems and Resolution A.951(23) on Improved Guidelines for marine portable fire extinguishers provide related guidance.



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1.4 Paragraph 3 of the annex to MSC.1/Circ.1432, on **maintenance and testing**, states that: “*Certain maintenance procedures and inspections may be performed by competent crew members who have completed an advanced fire-fighting training course, while others should be performed by persons specially trained in the maintenance of such systems. The onboard maintenance plan should indicate which parts of the recommended inspections and maintenance are to be completed by trained personnel.*”

2 General requirements

2.1 The guidelines set out in MSC.1/Circ.1432 should be applied as these are supplemented by the following paragraphs of this circular.

2.2 All fixed fire detection and extinguishing systems, including drenching systems, all portable and non-portable fire extinguishers and all other systems and appliances referred to in this circular should, as a rule, be inspected and maintained in accordance with their respective manufacturer’s recommendations.

2.3 Inspections and checks which are not explicitly stated as to be done by a third party may be done by a competent person who may be a senior member of the ship’s crew, who has successfully completed an appropriate training (at least an *advanced fire-fighting training course*).

2.4 In case the manufacturer of an equipment or system has specified intervals which are more frequent than those specified below or criteria which are more stringent than those specified below, such intervals or criteria shall apply in lieu of those specified below.

2.5 Inspections and checks should always be carried out in accordance with the recommendations or guidance provided by the manufacturer of the equipment or system.

2.6 In addition, as a rule, third party inspection and maintenance (third party inspection) should be done by a service provider which:

- (1) is authorized or accredited in this respect by the manufacturer of the system or of the appliances; or
- (2) in the absence of such service provider, by a service provider which is accredited in this respect by:
 - (a) the classification society which is issuing to the ship, on behalf of this Government, the related statutory certificate; or
 - (b) by one of the other classification societies which are authorized to issue, on behalf of this Government, the related statutory certificate to ships which are classed with them, provided the accreditation of the service provider by the other classification society is acceptable to the classification society which is issuing to the ship, on behalf of this Government, the related statutory certificate.

2.7 Third party inspection by a service provider which does not fall under any one of the categories listed above could be done, provided that the prior authorization of this Department has been obtained.

2.8 Furthermore, the following general rules apply:

- (1) the system or an individual part or unit of the system and appliance should be recharged when the loss of contents of the system as a whole or of an individual part or unit of the system or of an appliance exceeds 10 per cent; and
- (2) in all circumstances the attending surveyor may require, if he/she deems it fit, the thorough inspection, hydrostatic testing or the recharging of a system or of an individual part or unit of the system or of an appliance.

3 Specific requirements

3.1.1 In the absence of related recommendations by the manufacturer of the system or of the appliance this should undergo third party inspection and/or testing as specified below.

3.1.2 The time interval specified below should be counted from the date of the completion of the construction of a system or of an appliance or from the date of the initial hydrostatic testing, as the case may be or in the absence of such date from the date of completion of the initial survey of the ship upon construction and thereafter from the date of completion of the previous third party inspection or testing.

3.1.3 The third party inspections should preferably be carried out within a window of “+/- three months” from the anniversary of the Cargo Ship Safety Equipment Certificate or of the Passenger Ship Safety Certificate, as the case may be. However, the “+/- three months” window does not apply to the anniversary date of the third party inspection of the system or of the appliance. This provision should be read *mutatis mutandis* in relation to ships or crafts which are neither cargo nor passenger ships.

3.1.4 The Department may, upon request and in exceptional cases, extend the time interval specified below for limited periods from the anniversary of the previous third party inspection.

3.2 Fixed fire detection and extinguishing systems

3.3.1 Fixed fire detection and extinguishing systems are subject to third party inspection at interval not exceeding 2 years.

3.3 Fixed gas fire fighting systems

3.3.1 The quantity of gas fire extinguishing medium should be checked at intervals not exceeding 2 years.

3.3.1.1 For ships which are fitted with a fixed carbon dioxide fire extinguishing system, in case the loss of content of the system as a whole or of an individual part or

unit of the system exceeds 10 per cent, the system or the individual part or unit of the system should be recharged.

3.3.1.2 For ships which are fitted with a fixed gas fire extinguishing system other than carbon dioxide, in case the loss of content of the system as a whole or of an individual part or unit of the system exceeds 5 per cent, the system or the individual part or unit of the system should be recharged.

3.3.2 The chemical composition of foam medium used in fixed fire extinguishing systems should be tested by a third party no later than three years after the date it was installed on board and, thereafter, at yearly intervals. For the various types of foam please referred to the related provisions of MSC.1/Circ.1432.

3.3.3 A hydrostatic test and internal examination of 10 per cent of cylinders containing the system's extinguishing agent and of the pilot cylinders should be carried out by a third party at intervals not exceeding 10 years. If one or more cylinders fail, a total of 50 per cent of the onboard cylinders should be tested. If further cylinders fail, all cylinders should be tested.

3.3.4 The control valves of fixed fire extinguishing systems should be internally inspected by a third party at interval not exceeding 5 years.

3.3.5 The flexible hoses should be internally inspected and hydrostatically tested by a third party or, alternatively, should be replaced, at intervals not exceeding every 10 years.

3.4 Portable and non-portable fire extinguishers

3.4.1 Portable and non-portable fire extinguishers are subject to third party inspection at intervals not exceeding 2 years.

3.4.2 The quantity of fire extinguishing medium and the quantity of propellant medium should be checked at yearly intervals. In case the loss of contents exceeds 10 per cent the extinguisher should be recharged.

3.4.3 The flexible hoses, applicators and control valves, including those of the propellant medium, should be visually inspected at yearly intervals and should be replaced when necessary.

3.4.4 All portable and non-portable fire extinguishers should be internally inspected and hydrostatically tested by a third party at interval not exceeding 10 years.

3.5 Spare charges for portable and non-portable fire extinguishers

3.5.1 Spare charges should be provided on board for 100 per cent for the first 10 portable and 50 per cent for the remaining extinguishers capable of being recharged on board. Not more than 60 total (fractions to be rounded off to next number) spare charges are required. Instructions for recharging shall be carried onboard.

3.5.2 For fire extinguishers which cannot be recharged on board, additional portable fire extinguishers of the same quantity, type, capacity and number as determined in paragraph 3.4.1 above shall be provided in lieu of spare charges.

3.6 Self-contained breathing apparatus

3.6.1 The self-contained breathing apparatus are subject to third party inspection at intervals not exceeding 2 years, unless a statutory requirement stipulates otherwise. For example, paragraph 14.2.6 of the IBC Code states that *“The breathing apparatus should be inspected at least once a month by a responsible officer, and the inspection recorded in the ship's log-book. The equipment should be inspected and tested by an expert at least once a year.”*

3.6.2 The mask, flexible hoses, breathing regulator, flow meters and control valves should be inspected and the quantity and quality of air of self-contained breathing apparatus should be checked:

- (1) at yearly intervals; and
- (2) by a third party at intervals not exceeding 2 years.

In case the loss of content of the system as a whole or of an individual part or unit of the system exceeds 10 per cent, the system or the individual part or unit of the system should be recharged.

3.6.3 The quality of air of shipborne air charging system should be checked at yearly intervals and by a third party at intervals not exceeding 2 years.

3.6.4 The air bottles of the self-contained breathing apparatus, including those provided as spares and any pressure vessels of the shipborne air charging system should be internally inspected and hydrostatically tested by a third party at interval not exceeding 5 years.

3.6.5 For every self-contained breathing apparatus, 200 per cent spare charged air bottles should be provided on board, unless there are means on board for charging the air bottles or unless the type of the ship requires more spare charged air bottles to be carried on board.

3.7 Emergency Escape Breathing Apparatus

3.8.1 Section 3.6 applies also *mutatis mutandis* in relation to Emergency Escape Breathing Apparatus.

3.8 Oxygen bottles for medical use

3.8.1 The mask, flexible hoses, breathing regulator, flow meters and control valves should be inspected and the quantity of medical oxygen should be checked:

- (1) at yearly intervals; and
- (2) by a third party at intervals not exceeding 2 years.

In case the loss of contents of the system as a whole or of an individual part or unit of the system exceeds 10 per cent, the system or the individual part or unit of the system should be recharged.

3.8.2 Medical oxygen has a limited shelf life of 3 years and should be replaced before the expiry date.

3.8.3 The cylinders containing medical oxygen should to be internally inspected and hydrostatically tested by a third party at intervals not exceeding 5 years.

3.8.4 For ships which are required to comply with the requirements of Column A or B of Appendix 14 of the Medical First Aid Guide (MFAG) the following should be available in the ship's hospital:

- .1 a quantity of medical oxygen not less than 40 litres @ 200 bar, in non portable medical oxygen cylinder assembled for direct use with 1 flow meter unit with two ports for supplying oxygen for 2 persons at the same time. If more than 1 non-portable cylinder is used there must be 2 flow meter units for supplying oxygen to 2 persons at the same time; and
- .2 one complete portable set with a quantity of medical oxygen not less than 2 litres @ 200 bar ready for use and a spare cylinder with a quantity of medical oxygen not less than 2 litres @ 200 bar.

3.8.5 For ships which are not required to comply with the requirements of the MFAG a quantity of medical oxygen not less than 2 litres @ 200 bar in a portable cylinder and a spare quantity medical oxygen not less than 2 litres @ 200 bar in a portable cylinder.

3.9 Self-contained air support system for lifeboats

3.9.1 The flexible hoses, breathing regulator, the control valves and any masks should be visually inspected and the quantity and quality of air should be checked:

- (1) at yearly intervals; and
- (2) by a third party at intervals not exceeding 2 years,

In case the loss of contents of the system as a whole or of an individual part or unit of the system exceeds 10 per cent, the system or the individual part or unit of the system should be recharged.

3.9.2 The air cylinders should be internally inspected and hydrostatically tested by a third party at intervals not exceeding 5 years.

3.10 Compressed air cylinders used in inflatable liferafts

3.10.1 The air cylinders used in inflatable liferafts should be internally inspected and hydrostatically tested by a third party at interval not exceeding 5 years.

4 Implementation

4.1 The provisions of this circular become applicable for each ship on the first safety equipment related survey on or after 31 May 2013.

5 Related documents

5.1 The related documents are SOLAS chapter II-2, FSS Code, Assembly resolution A.951(23), MSC circulars 670, 847, and 849 and MSC.1/Circulars 1312 and 1318 and 1432 published by the International Maritime Organization.

6 Previous circulars

6.1 This Circular supersedes Circular No. 23/2012 which is hereby revoked.

This Circular must be placed on board ships flying the Cyprus Flag.



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cc: Permanent Secretary, Ministry of Communications and Works
Permanent Secretary, Ministry of Foreign Affairs
Diplomatic and Consular Missions and Honorary Consular Officers of the Republic
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