

Maintenance and Inspection of Fire protection systems and Appliances

Maintenance, testing and inspections for fire protection systems as well as fire-fighting systems and appliances are required in accordance with SOLAS Chapter II-2/14.2.2 as quoted below.

2.2 Maintenance, testing and inspections

2.2.1 Maintenance, testing and inspections shall be carried out based on the guidelines developed by the Organization (Refer to MSC.1/Circ.1432 as amended, including the amendments by MSC.1/Circ.1516) and in a manner having due regard to ensuring the reliability of fire-fighting systems and appliances.

2.2.2 The maintenance plan shall be kept on board the ship and shall be available for inspection whenever required by the Administration.

The above maintenance plan onboard is to be prepared based on the instructions given by the flag administration as well as MSC.1/Circ.1432 and MSC.1/Circ.1516 as amended. Maintenance, testing and inspections of fire protection systems and fire-fighting systems as well as appliances are to be implemented based on the above plan.

In this connection, Table-1 gives an overview of maintenance, testing and inspections for main fire-fighting systems based on MSC.1/Circ.1432 and MSC.1/Circ.1516, as amended, as well as other applicable reference guidelines, while Table-2 summarizes instructions from different flag State Administrations.

ClassNK surveyors confirm that the maintenance, testing and inspections of fire protection systems as well as fire-fighting systems and appliances on board ship are carried out as part of the safety equipment survey, in accordance with the maintenance plan based on Flag Administration instructions.

Remarks

In principle, the inspection interval for new built ships carried out by shipyard staff or crew starts from delivery of a vessel, while inspections for such things as replaced items or hydrostatic tests starts from either the date when such an inspection was last carried out or from the date of manufacture. In case there are related instructions by administrations, the instruction should be followed.

ClassNK views MSC.1/Circ.1432 and MSC.1/Circ.1516, as amended, as minimum guidelines on which such inspection are to be based, In case there are any instructions by the manufacture, those instruction are to be followed, as well.

For any questions about the above, please contact:

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Table-1 Overview of maintenance, testing and inspections of main fire-fighting systems based on MSC.1/Circ.1432 and MSC.1/Circ.1516 as amended, as well as other relevant guidelines.

Equipment	Interval	Outline of Requirement	Guideline
Portable fire extinguishers	Annually	Inspections in accordance with the manufacturer's instructions, etc.	Res.A.951(23), para.9.1
	5-yearly	Discharged as part of fire drills, etc.	Res.A.951(23), para.9.1.1
	10-yearly	Hydrostatic test	Res.A.951(23), para.9.1.2
Wheeled (mobile) fire extinguishers	Monthly	Verification in place, etc.	MSC.1/Circ.1432, para.5.9
	Annually	Inspections in accordance with manufacturer's instructions, etc.	MSC.1/Circ.1432, para.7.12
	5-yearly	Visual inspection, etc.	MSC.1/Circ.1432, para.9.6
Portable foam applicator units	10-yearly	Hydrostatic test	MSC.1/Circ.1432, para.10.5
	Monthly	Inspections in accordance with manufacturer's instructions, etc.	MSC.1/Circ.1432, para.5.8
Fixed CO2 fire-extinguishing	Annually	foam control test, etc.	MSC.1/Circ.1432, para.7.11
	Monthly	Verification of each part, etc.	MSC.1/Circ.1318,

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- Common Structural Rules for Bulk Carriers and Oil Tankers(CSR BC & OT)

- Common Structural Rules for Bulk Carriers (CSR-BC) Common Structural Rules for Double Hull Oil Tankers (CSR-OT)

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- Statutory Services
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 - [Information for Equipment of SOLAS Convention](#)
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 - [News of Lifeboat Release and Retrieval Systems](#)
 - MSC.1/Circ.1206/Rev.1-Flag Instruction
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systems	Annually	Visual inspection, etc.	para.4 MSC.1/Circ.1318, para.5
	2.5-yearly	Verification of contents, etc.	MSC.1/Circ.1318, para.6.1
	5-yearly	Operation test, etc.	MSC.1/Circ.1318, para.6.2
	10-yearly	Hydrostatic test, etc.	MSC.1/Circ.1318, para.6.1
Fixed dry chemical powder systems	Monthly	Verification of valves and gauges, etc.	MSC.1/Circ.1432, para.5.6
	Annually	Visual inspection, etc.	MSC.1/Circ.1432, para.7.9
	2-yearly	Testing a sample of dry chemical powder, etc.	MSC.1/Circ.1432, para.8.2
	10-yearly	Hydrostatic test or Non-destructive test	MSC.1/Circ.1432, para.10.3
Fixed foam fire-extinguishing systems	Monthly	Verification of valves and gauges, etc.	MSC.1/Circ.1432, para.5.3
	Quarterly	Verification of quantity of foam concentrate	MSC.1/Circ.1432, para.6.2
	Annually	Functional test, and taking sample, etc.	MSC.1/Circ.1432, para.7.4
	5-yearly	Inspection of each part	MSC.1/Circ.1432, para.9.2
SCBAs	Weekly	Examination of cylinder gauges	MSC.1/Circ.1432, para.4.5
	Annually	Checking of serviceable condition, etc.	MSC.1/Circ.1432, para.7.8.2
	5-yearly	Hydrostatic test	MSC.1/Circ.1432, para.9.4
EEBD	Weekly	Examination of cylinder gauges	MSC.1/Circ.1432, para.4.5
	Annually	Inspections in accordance with manufacturer's instructions, etc.	MSC.1/Circ.1432, para.7.8.3
	---	Hydrostatic test	IACS Rec.88
Water mist, water spray and sprinkler systems	Weekly	Visual inspection, etc.	MSC.1/Circ.1432, para.4.7
	Monthly	Verification of valves and gauges, etc.	MSC.1/Circ.1432, para.5.4
	Quarterly	Assessment of system water quality	MSC.1/Circ.1516, para 6.5
	Annually	Blowing air, blowing water test, etc.	MSC.1/Circ.1516, para 7.5
	5-yearly	Internal inspection of all control/section valves, etc.	MSC.1/Circ.1516, para 9.3
	10-yearly	Hydrostatic test for gas and water pressure cylinders.	MSC.1/Circ.1432, para.10.2

Table-2 Instructions from Flag State Administrations

Flag	Instruction	Updated date	Remarks
Antigua & Barbuda	CIRCULAR 2012-011	Oct. 2012	Special instruction referring to MSC.1/Circ.1432.
Australia	Marine Order 15	21 May 2014	Reference made to MSC.1/Circ.1432.
Bahamas	INFORMATION BULLETIN No.97	13 Feb. 2015	Special instruction referring to MSC.1/Circ.1432.
Bahrain	Directive No.SOLAS/12	29 Dec. 2016	Special instruction.
Bermuda	BERMUDA SHIPPING NOTICE 2018-021	01 Jun. 2018	Special instruction referring to MSC.1/Circ.1432 and MSC.1/Circ.1516.
	BERMUDA SHIPPING NOTICE 2018-027	01 Jun. 2018	(Additional instruction for fixed CO2 fire extinguishing system.)
	BERMUDA SHIPPING NOTICE 2018-028	01 Jun. 2018	(Additional instruction for portable fire extinguishers.)
Cayman Islands	SHIPPING NOTICE 01/2014	16 Jan. 2014	Reference made to MSC.1/Circ.1432.
Cook Islands	Circular 55/2013	10 Apr. 2015	Reference made to MSC.1/Circ.1432.

Cyprus	Circular No. 14/2013	30 May 2013	Special instruction referring to MSC.1/Circ.1432.
Dominica	CD-MS-C 33-01 Rev01	18 Apr. 2008	Special instruction referring to MSC.1/Circ.850.
Gibraltar	Shipping Guidance Notice-046	01 Oct. 2013	MSC.1/Circ.1432 is referred.
	Shipping Guidance Notice-028	Dec. 2011	Special instruction for SCBA cylinder and portable/fixed fire-fighting systems.
	Shipping Guidance Notice-028(a)	18 Jun. 2019	Amended instruction for fixed gas fire-extinguishing systems.
	Shipping Guidance Notice-028(b)	01 Aug. 2019	Additional instruction for fixed low pressure CO2 fire-fighting systems.
Hong Kong	Merchant Shipping Information Note (MSIN) No.14/2016	18 Jan. 2016	Reference made to MSC.1/Circ.1432 and MSC.1/Circ.1516.
Isle of Man	Isle of Man Ship Registry Manx Shipping Notice 057	18 Jan. 2016	Special instruction referring to MSC.1/Circ.1432 and MSC.1/Circ.1516.
Japan	Applied our rule part R 14.2.2.	30 June 2016	To be based on MSC.1/Circ.1432 and MSC.1/Circ.1516.
Kiribati	Marine Circular 16/2012	06 Mar. 2012	Special instruction.
Liberia	FIR-001 Rev.6/12	01 Jun. 2012	Special instruction referring to MSC.1/Circ.850.
Malaysia	MSN 11/2009	03 Sep. 2009	Special instruction.
Malta	Technical Notice SLS.6 Rev.3	11 Sep. 2015	Special instruction referring to MSC.1/Circ.1432 and MSC.1/Circ.1516.
Marshall Islands	Marine Notice No.2-011-14 Rev. June/2016	Jun. 2016	Special instruction referring to MSC.1/Circ.1432 and MSC.1/Circ.1516.
Myanmar	Directive (5/2016)	21 Nov. 2016	Reference made to MSC.1/Circ.1432 and SS3656 for portable fire extinguishers.
Oman	B09 B10		Special instruction.
Panama	Merchant Marine Circular No.281	Aug. 2019	Special instruction referring to MSC.1/Circ.1432.
Singapore	SHIPPING CIRCULAR TO SHIPOWNERS NO. 19 OF 2013	26 Sep. 2013	Reference made to MSC.1/Circ.1432.
	SURVEY CIRCULAR 3 OF 2014	05 Mar. 2014	(Additional instruction for fixed CO2 fire extinguishing system.)
Switzerland	Circular No CH50		Special instruction referring to MSC.1/Circ.1432.
	Swiss Maritime Navigation Office SMNO	01 Nov. 2016	
Tuvalu	MC-7/2011/1	Jun. 2018	Reference made to MSC.1/Circ.1432 and MSC.1/Circ.1516.
	MC-17/2011/1	Apr. 2018	Instruction for systems using halons and other ozone depleting substances.
UK	Instructions for the Guidance of Surveyors - Fire protection arrangement (MSIS 12)	-	Special instruction.
	UK Maritime & Coastguard Agency	-	
	MGN 258 (M+F)	Jul. 2003	
	MGN 276 (M+F)	Jun. 2004	
	MGN 355(M)	Nov. 2007	
	MGN 374 (M+F)	Aug. 2008	
USA	The CFRs are mandatory while MSC.1/Circ.1432 is a guideline that provides just the minimum level of maintenance.	-	MSC.1/Circ.1432 is guidelines and provides just the minimum level of maintenance.
Vanuatu	FLEET / SAFETY LETTER 2016-May-25	25 May 2016	Special instruction.
Vietnam	Technical Information 023TLE/12TB	20 July 2012	Reference made to MSC.1/Circ.1432.

IMO Circular referred

- MSC.1/Circ.1432
[REVISED GUIDELINES FOR THE MAINTENANCE AND INSPECTION OF FIRE PROTECTION SYSTEMS AND APPLIANCES](#)
- MSC.1/Circ.1516
[AMENDMENTS TO THE REVISED GUIDELINES FOR THE MAINTENANCE AND INSPECTION OF FIRE PROTECTION SYSTEMS AND APPLIANCES](#)

- MSC.1/Circ.1318
[GUIDELINES FOR THE MAINTENANCE AND INSPECTIONS OF FIXED CARBON DIOXIDE FIRE-EXTINGUISHING SYSTEMS](#)
- Resolution A.951(23)
[IMPROVED GUIDELINES FOR MARINE PORTABLE FIRE EXTINGUISHERS](#)
- MSC.1/Circ.1312
[REVISED GUIDELINES FOR THE PERFORMANCE AND TESTING CRITERIA, AND SURVEYS OF FOAM CONCENTRATES FOR FIXED FIRE-EXTINGUISHING SYSTEMS](#)
- MSC/Circ. 670
[GUIDELINES FOR THE PERFORMANCE AND TESTING CRITERIA, AND SURVEYS OF HIGH-EXPANSION FOAM CONCENTRATES FOR FIXED FIRE-EXTINGUISHING SYSTEMS](#)

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