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Summary of Maintenance, Testing and Inspection Intervals of Life Saving Appliances

بازه زمانی بازرسی، تست و تعمیر و نگهداری سیستمهای نجات جان افراد

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A.M.Rezvan Panah
Manager of Convention & Legislation
Department
ICS

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موسسه رده بندی ایرانیان

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Annex – 3 Maintenance Requirements of Life Saving Appliances

Equipment/ Requirement	Regulation	Ship Type	Interval	By	Remark			
Means of Embarkation on and Disembarkation from ships (Gangways, accommodation ladders incl. Winch and fittings as well as use for pilot transfer)	Maintenance schedule : The maintenance to be undertaken as per manufacturer instruction and following to be done 1. Bent stanchions should be replaced or repaired and guard ropes should be inspected for wear and renewed where necessary. 2. Moving parts should be free to turn and should be greased as appropriate. 3. Hoist wire/falls condition to be examine for any deterioration specially in area of sheaves 4. Underside of gangway and accommodation to be examined 5. Any mild steel fitting use with aluminium accommodation ladder/gangway to be checked for corrosion . 6. Checking of any sign of distortion ,cracks and corrosion	SOLAS II-1/3-9.3 SOLAS III/20.4 SOLAS III/20.7.2 MSC.1/Circ. 1331, Annex, para. 4	All	Monthly	Ship	Record- maintenance and repair history to be recorded ,this include type of maintenance ,date , name of person and next date of inspection		
	Examination: A. Accommodation Ladder: 1. Following items should be thoroughly examined and checked for satisfactory condition of the accommodation ladder: a. Steps b. Platforms c. All support points such as pivots, rollers, etc. d. All suspension points such as lugs, brackets, etc. e. Stanchions, rigid handrails, hand ropes and turntables. f. Davit structure, wire and sheaves, etc.		All	During Annual SEQ survey	Ship + Shore			
	2. At every five yearly survey, upon completion of the examination required as above, the accommodation ladder should be operationally tested with the specified maximum load of the ladder.					SEQ Renewal 5 year	Shore	Wire fall to be renewed at intervals of not more than 5 year
	B. Gangway: 1. Following items should be thoroughly examined and checked for satisfactory condition of the gangway: a. treads b. side stringers, cross-members, decking, deck plates, etc.; c. All support points such as wheel, rollers, etc. d. Stanchions, rigid handrails, hand ropes.			SOLAS II-1/3-9.3 MSC.1/Circ. 1331, Annex, para. 5	All	During Annual SEQ survey	Ship + Shore	
	2. At every five yearly survey, upon completion of the examination required as above, the gangway should be operationally tested with the specified maximum load of the gangway.			SEQ Renewal 5 year		Shore		
	C. Winch: 1. Following items should be thoroughly examined and checked for satisfactory condition: a. Brake mechanism including condition of brake pads and band brake, if fitted; b. Remote control system; and c. Power supply system (motor).			During Annual SEQ survey		Ship + Shore		
2. At every five yearly survey, upon completion of the examination required as above, the winch should be operationally tested with the specified maximum load of the accommodation ladder.	SEQ renewal 5 year			Shore				
The load used for the test specified in A and B above should be; 1. The design load; or 2. The maximum operational load, if this is less than the design load; or 3. The load nominated by the shipowner or operator only in those cases where the design load or maximum operational load is not known(for								

Annex – 3 Maintenance Requirements of Life Saving Appliances

vessel keel laid prior 01/01/2010)						
Emergency escape breathing devices (EEBDS)	Examine cylinder gauges to confirm they are in the correct pressure range	MSC.1/Circ.14 32, para. 4.5	All	Weekly	Ship	
	Check according to makers instructions	MSC.1/Circ.14 32, para. 7.8.3	All	Annually	Ship	
	Hydrostatic test and internal inspection of cylinders	IACS Rec. No.88	All	As specified by the manufacturer	Approved Shore	
Testing of emergency lighting		SOLAS III/19.3.4.9	All	At each abandon ship drill	Ship	
Falls used in launching appliances	Maintenance: Inspection and Lubrication as required. Special concern to hidden areas and areas of end terminations.	SOLAS III/20.4 MSC.1/Circ.12 06/Rev.1	All	Weekly Monthly Annually	Ship	
	Renewal after 5 years or earlier when necessary due to deterioration.	SOLAS III/20.4	All	Not more than 5 years or earlier when necessary due to deterioration	Ship	
Replacements of first-aid outfit and anti-seasickness medicine of life boat equipment		LSA Code, para. 1.2.3	All	On expiry date	Ship	
Replacement of food rations of lifeboat equipment		LSA Code, para. 1.2.3	All	On expiry date	Ship	
Maintenance of hydrostatic release units (non-disposable)	Annual servicing	SOLAS III/20.9.1	All	Interval not exceeding 12 month	Approved service provider @B	a) Administration may extend up to 17 month. b)As per HSSC ,same may be done along with annual SEQ survey (Msc.1/circ 955) (as per flag requirement)
Immersion suits and anti-exposure suits	1.Check condition of storage bag as well as general condition of bag for ease of removal of suit 2.Ensure donning instructions are legible. 3.Confirm that suit is the type and size identified on the bag. 4. Visually check for damage , rip and tear any repair to be as per manufacturer and by service station authorised by manufacturer or acceptable by administration. 5.condition of zipper for ease of operation , if not functional same to be discarded or repaired at service station 6.check, if fitted any inflatable head support or buoyancy ring for damage and its proper attachment and inflation hose for any deterioration . 7. check condition of retro reflective tape for condition and adhesion 8. if fitted condition of whistle , expiry date of light and battery	SOLAS III/20.7.2 SOLAS III/36.1 MSC/Circ.1047	All	Monthly	Ship	During monthly inspection crew must practice donning the immersion suit or anti exposure suit .
	1.The head support/buoyancy ring to be inflated and tested for leaks	SOLAS II/20.7.2 MSC/CIRC 1047	All	Quarterly	ship	Not applicable for integral inflatable lifejacket

Annex – 3 Maintenance Requirements of Life Saving Appliances

	<p>1. Air pressure test (seams and closure) , suit to be inflated to a pressure of .1 to .2 psi and if auxiliary inflatable means of buoyancy is provided , it should be inflated through oral valve to a pressure of 0.1 psi.</p> <p>2. Each seam and closure of the suit and each seam, oral tube and attachment points , joint or valve of any auxiliary means of inflatable to be covered with soapy water to check leakage. if any repair needed , it is strongly recommended that any , repairs to a suit be carried out by a facility which has access to the original manufacturer's recommended servicing instructions, parts and adhesives, and suitably trained personnel.</p>	MSC/Circ.1114	All	3-yearly (Test more frequently for suits older than 10 years).	Ship / Shore @c	<p>1. Recommended that the air pressure test be performed at a suitable shore-based facility</p> <p>2. The air pressure test may be carried out on board ship if suitable equipment is available. (more frequently testing to be as per flag)</p>
Maintenance of inflatable life rafts, life jackets	Servicing of inflatable life raft , life jacket	SOLAS III/20.8.1.1	All	Interval not exceeding 12 month (administration may extend to 17 month)	Approved service provider @B	Administration can accept specific liferafts for extended service intervals according to SOLAS III/20.8.3 and MSC.1/Circ.1328 (applicable for new and novel inflatable life raft arrangement approved as per regulation 4.3 by administration)
Launching appliances	<p>Following to be examined for satisfactory condition and operation</p> <p>For Davit:</p> <ol style="list-style-type: none"> 1. Davit structure, in particular with regard to corrosion, misalignments, deformations and excessive free play; 2. Wires and sheaves, possible damages such as kinks and corrosion; 3. Lubrication of wires, sheaves and moving parts; 4. Functioning of limit switches; 5. Stored power systems; and 6. Hydraulic systems. 	SOLAS III/20.11.1.1 III/20.11.1.2 MSC.1/Circ.1206/Rev.1/Appendix of Annex 1, para. 2.8 and 2.9 as applicable	All	SEQ annually survey	Shore @A	Load on boat will be mass of life boat or rescue boat without person onboard.
	<p>For Winch:</p> <ol style="list-style-type: none"> 1. Open and inspect brake mechanism; 2. Replace brake pads, if necessary; 3. Remote control system; 4. Power supply system; and 5. Winch foundation. 					
	<p>Dynamic test of the winch brake:</p> <ol style="list-style-type: none"> 1. lowering the empty boat and when the boat has reached its maximum lowering speed and before the boat enters the water, the brake should be abruptly applied. 2. The brake pads and stressed structural parts should be re-inspected. 	SOLAS III/20.11.1.3 MSC.1/Circ.1206/Rev.1/Appendix of Annex 1, para. 3.1 & 3.3 as applicable				
	<p>A) On-load release gear to be examination for</p> <ol style="list-style-type: none"> 1. Operation of release gear for activation 	SOLAS III/20.11.2.1 III/20.11.2.2				

Annex – 3 Maintenance Requirements of Life Saving Appliances

	<p>2. check for any free play 3. hydrostatic interlock system , if fitted 4. Cables for control and release 5..Hook fastening</p> <p>ON load release gear to be operational tested for 1. operational test with lifeboat partially in water so mass of boat is supported by falls and hydrostatic interlock (where fitted) , and same should not triggered. 2.operation of on load gear 3. reset the on load gear and examine the release gear and hook fastening that the hook is completely reset and no damage</p>	MSC.1/Circ.1206/Rev.1/ Appendix of Annex 1, para. 2.4 / 2.5				Load on boat will be mass of life boat or rescue boat without person onboard
	<p>B) off-load release gear to be examined for . 1.Operation of release gear for activation 2. check for any free play 3. Cables for control and release OFF load release gear to be operational tested 1. Position the life lifeboat fully waterborne and operate the release gear 2. Reset the release gear and lifeboat in stowed position.</p>	SOLAS III/20.11.2.1 III/20.11.2.2 III/36 MSC.1/Circ.1206 /Rev.1/ Appendix of Annex 1, para2.4/. 2.6				Load on boat will be mass of life boat or rescue boat without person onboard
	<p>C) free fall life boat release gear to be examination for . 1. check for any free play 2. Cables for control and release Release gear to be operational tested</p> <p>1. engage the simulated launching arrangement as specified by manufacturer. 2. Operate the release mechanism . 3.Reset the lifeboat in stowed configuration. 4.. sequence 2 and 3 to be done with backup release mechanism. 5.Remove simulated launching arrangement. 6.lifeboat to be placed in stowed position.</p>	SOLAS III/20.11.2.1 III/20.11.2.2 MSC.1/Circ.1206 /Rev.1/ Appendix of Annex 1, para. 2.4/2.7				
	<p>D) davit launched life raft automatic release hook checked for examination and operational test . 1. operational test for hook and rest operation 2. check for any free play 3. Cables for control and release</p>	SOLAS III/20.11.3.1 III/20.11.3.2				
<p>Dynamic test of the winch brake: 1.lowering the boat loaded and when the boat has reached its maximum lowering speed and before the boat enters the water, the brake should be abruptly applied. 2.The brake pads and stressed structural parts should be re-inspected.</p>	SOLAS III/20.11.1.3 MSC.1/Circ.1206/Rev.1/Appendix of Annex 1, para. 3.2 & 3.3 as applicable	All	5-yearly	Shore @A	Load will be 1.1 times (weight of life boat or rescue boat + weight of full complement +boat equipment) For testing purpose , 75 kg to be taken as weight for each person For cargo ship built after 1 July 2010 , 82.5 kg be taken as weight for each person . For Passenger ship 75 kg to taken as weight for each person	

Annex – 3 Maintenance Requirements of Life Saving Appliances

	Operational test at 1.1time of load for On-load release gear, automatic release hooks for davit launched life raft and free fall life boat release mechanism whenever release gear overhauled . The following to be done during overhaul Of release system a) dismantling of hook release b) checking of tolerance requirement c) adjustment of release gear d) visual examination e) operational test with load e) NDT testing , such as DPT	SOLAS III/20.11.2.3 III/20.11.3.3 MSC.1/Circ.12 06/Rev.1/Appendix of Annex 1, para. 4				Load will be 1.1 times (weight of life boat or rescue boat + weight of full complement +boat equipment) For testing purpose , 75 kg to be taken as weight for each person For cargo ship built after 1 July 2010 , 82.5 kg be taken as weight for each person . For Passenger ship 75 kg to taken as weight for each person
Examination of lifeboats(All)	The following items to be examined and checked for satisfactory condition and operation: 1. Condition of structure including fixed and loose equipment; 2. Engine and propulsion system 3. Manoeuvring system 4. Power supply system 5. Bailing system.	MSC.1/Circ.12 06/Rev.1	All	Within window period of SEQ	Shore @A	.
Lifeboats (except free fall lifeboats)	The following item to be examined and checked for satisfactory condition and operation. 1.Inspection of hook , their attachment 2.On load release gear and reset operation . 3.Running for 3 min for life boat engine and verifying gear box and gear train are engaged satisfactorily. 4 .For cargo ships moved from their stowed position, without any persons on board, to the extent necessary to demonstrate satisfactory operation of launching appliances, if weather and sea conditions so allow.	SOLAS III/20.6	All	Weekly	Ship	
	1.Turned out from their stowed position, without any persons on board if weather and sea conditions so allow.	SOLAS III/20.7.1	All	Monthly	Ship	
Inspection of lifeboat equipment	1.Verification of satisfactory condition of item as per checklist require by regulation 36.1	SOLAS III/20.7.2	All	Monthly	Ship	A report of the inspection shall be entered in the log-book.
Lifeboats with self-contained air support system	Examination	MSC.1/Circ. 1206/Rev.1	Tanker (chem./gas)	SEQ survey annually	Ship / Shore @A	Incl. External inspection of air cylinders
	Hydrostatic test of air cylinders	IACS Rec. No. 88	Tanker (chem./gas)	5-yearly	Shore	
Examination of lifeboats with sprinkler system	Examination (Monthly testing of water spray systems on lifeboats in accordance with manufacturer's instructions and then flushed through with fresh water)	MSC.1/Circ 1206/Rev.1	Tanker (oil)	SEQ survey annually	Ship / Shore @A	
Battery replacement of lifebuoy lights		LSA Code, para 1.2.3	All	on expiry date	Ship	Annually, if not marked with expiration date.
Marine evacuation Systems (MES)	Annual Servicing	SOLAS III/20.8.1.1	Passenger Ships	Interval not exceeding 12 month (administration may be extended to 17 month	Shore @B	

Annex – 3 Maintenance Requirements of Life Saving Appliances

	Each MES shall be deployed from the ship on a rotational basis so that each system is deployed at least once every six years.	SOLAS III/20.8.2	Passenger Ships	6-yearly	Shore @ B	Deployment of rotational basis at intervals to be agreed by Administration, however each system to be deployed at least once every six years.
Testing of public address system and general alarm systems	Functional testing public address and general alarm	SOLAS III/20.6.4 MSC.1/Circ1432 para 4.4	All	Weekly	Ship	
Replacement of rocket parachute flares and rockets line throwing appliances		LSA Code, para 1.2.3	All	on expiry date	Ship	
Replacement of smoke Signals		LSA Code, para, 1.2.3	All	on expiry date	Ship	
Inspection of rescue boats	The following item to be examined and checked for satisfactory condition and operation. 1. Inspection of hook , their attachment 2. On load release gear and reset operation , if fitted 3. Running for 3 min for life boat engine and verifying gear box and gear train are engaged satisfactorily	SOLAS III/20.6	All	Weekly	Ship	Outboard motor fitted with rescue boat to be run for 3 min when only when suitable water supply provided . In special case administration may waived requirement of running of engine for ship keel laid prior 1 July 1986

@A)For Lifeboat, Launching appliance and on load release gear

Service provider- Life boat , launching appliance and on load release gear examination to be carried out by service provider authorised by administration and are qualified for each make and type for above activity by manufacturer OR by OEM authorised by administration .

Competent person-The examination should be conducted by the manufacturer's representative or other person appropriately trained and certified for the work to be done in accordance with MSC.1/Circ.1277.[MSC.1/CIRC 1277 , MSC.1/CIRC/1206/1]

@B) For Inflatable life raft ,life jacket , Marine evacuation system

Service provider- Servicing to be carried out an approved servicing station authorised by administration and to be approved by manufacturer.[Solas Reg.III/20.8.1, A 761(18) ,MSC 55(66)]

Competent person-The examination to be carried out by person certified and trained by manufacturer

@C) For Immersion suit

Suitable repair station/ shore based facility- facility which is approved by suit manufacturer and or acceptable to administration .

Reports and record

1. Record of inspection, servicing , repair and maintenance to be updated and maintained
2. All checklist and reports to be filled correctly and signed by person who carries inspection and maintenance work and signed by Master as required by III/36
3. On completion of annual through examination and servicing of launching appliance , statement of confirm that lifeboat arrangement fit for purpose to be issued by service provider

Certification

1. Personnel engage for servicing/ annual though examination of launching appliance and lifeboat to have certificate in accordance as per MSC .1/Circ.1277 , valid for 3 year.