

4 ALBERT EMBANKMENT LONDON SE1 7SR Telephone: +44 (0)20 7735 7611 Fax: -

XMENT /SR Fax: +44 (0)20 7587 3210

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REVISED STANDARDIZED LIFE-SAVING APPLIANCE EVALUATION AND TEST REPORT FORMS (LAUNCHING AND EMBARKATION APPLIANCES)

1 The Maritime Safety Committee, at its 102nd session (4 to 11 November 2020), approved the *Revised standardized life-saving appliance evaluation and test report forms*.

2 The original forms, as set forth in the Standardized life-saving appliance evaluation and test report forms (MSC/Circ.980) and its addenda, were developed on the basis of the requirements of the International Life-Saving Appliance (LSA) Code and the Revised recommendation on testing of life-saving appliances (resolution MSC.81(70)) by the Maritime Safety Committee, at its seventy-third session (27 November to 6 December 2000), with a view to providing guidance on how to conduct tests, record test data and verify tests. The Committee has since adopted seven amendments to the LSA Code and eight amendments to resolution MSC.81(70). These amendments have been incorporated in the original forms which, due to their volume, are now presented in six separate circulars, i.e. MSC.1/Circ.1628. MSC.1/Circ.1629, MSC.1/Circ.1630, MSC.1/Circ.1631. MSC.1/Circ.1632 and MSC.1/Circ.1633, pertaining to the equipment addressed in chapters II to VII of the LSA Code, respectively.

3 The forms annexed to this circular apply to the equipment addressed in chapter VI of the LSA Code, i.e. launching and embarkation appliances (launching and embarkation appliances; marine evacuation systems; and means of rescue).

4 The Committee, at its 109th session (2 to 6 December 2024), approved draft amendments to the evaluation and test report forms with respect to retro-reflective materials used on launching and embarkation appliances. The text of the *Revised standardized life* - *saving appliance evaluation and test report forms (launching and embarkation appliances)* is set out in the annex.

5 The use of the revised forms will continue to be of benefit to Administrations and other parties, such as manufacturers, test facilities, owners and surveyors, and will be a major help in mutually accepting the type approval of appliances approved by other Administrations.

6 Member Governments are invited to bring the annexed, revised forms to the attention of all parties concerned with approving, manufacturing and testing life-saving appliances and to encourage them to use the forms.

7 This circular applies to launching and embarkation appliances installed on or after 15 August 2025.

8 This circular supersedes MSC.1/Circ.1632 as of 15 August 2025.

ANNEX

REVISED STANDARDIZED LIFE-SAVING APPLIANCE EVALUATION AND TEST REPORT FORMS (LAUNCHING AND EMBARKATION APPLIANCES)

INTRODUCTION

Reference

These standardized life-saving appliance evaluation and test report forms have been revised on the basis of the requirements of the International Life-Saving Appliance (LSA) Code, as amended through resolution MSC.425(98), *the Revised recommendation on testing of life-saving appliances* (resolution MSC.81(70)), as amended through resolution MSC.427(98), and the *Recommendation on means of rescue on ro-ro passenger ships* (MSC/Circ.810).

Status

In general, the tests described in the Revised Recommendation (resolution MSC.81(70)) constitute the test procedures and the LSA Code sets the acceptance criteria. The evaluation and test report forms are guidelines on how to conduct tests, record test data and verify tests. These forms are not intended to change the standards given in the LSA Code and the Revised Recommendation, as amended. In the case of inconsistency between the forms and the LSA Code or the Revised Recommendation, the text of the Code/resolution should prevail over that of the forms.

Layout

Each Administration may use electronically distributed evaluation and test report forms as the basis for customising the layout to reflect the profile of the approving body, without changing the original contents.

Internal references

The evaluation and test report forms should be stand-alone documents. Therefore, all internal references in the original text from the LSA Code or the Revised Recommendation have been replaced by either the full-length text or a reference to other relevant evaluation and test report forms. However, in some of the forms, external references are kept for updating purposes.

Documentation of tests

For approval purposes, all detailed records of test data are to be enclosed with the report forms.

Verification of tests

Each test is to be verified passed or failed by an Administration representative's initials (e.g. recognized organization or surveyor) and date of testing. Each page is to be verified on completion by the Administration representative's signature and its date of completion.

Reporting of type approval

To facilitate unified reporting procedures, the completed evaluation and test report forms are to be seen as a documented verification of required type approval tests for each type of equipment. When documentation of type approval is required by a third party, the verified evaluation and test report forms should constitute the complete documentation of the type approval together with the relevant approval certificates.

REVISED STANDARDIZED LIFE-SAVING APPLIANCE EVALUATION AND TEST REPORT FORMS (LAUNCHING AND EMBARKATION APPLIANCES)

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- 6.2 Marine evacuation systems
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6 LAUNCHING AND EMBARKATION APPLIANCES

6.1 LAUNCHING AND EMBARKATION APPLIANCES

6.1.1 LAUNCHING AND RECOVERY APPLIANCES

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6.1.1 LAUNCHING AND RECOVERY APPLIANCES

EVALUATION AND TEST REPORT

Manufacturer	
System type	
Serial Number	
Maximum Working Load	
Maximum Turning Moment	
Winch type	
Serial number	
Date	
Place	
Name and signature of surveyor	
Approval Organization	

	aunching and recovery appliances		er: Date: Tir Surveyor: umber: Organization:				
6.1.1.1 Submitted drawings, reports and documents							
Submitted drawings and	documents						
Drawing No.	Revision N	lo. & date	Title of drawing		- Status		
Submitted reports and do							
Report/Document No.	Revision N	lo. & date	Title of report/document		Status		
			Maintenance Manual				
			Operations Manual				

Launching and recovery appliances	Manufacturer: Model: Lot/Serial Number:		Surveyor:	Time:
6.1.1.2 Quality assurance		Regulations: MSC.81(70) 2/1	.1 and 1.2	
Except where all appliances of a particular type are required by chapter III of the International Convention for the Safety of Life at Sea, 1974, as amended, or the International Life-Saving Appliance (LSA) Code, to be inspected, representatives of the Administration should make random inspection of manufacturers to ensure that the quality of life-saving appliances and the materials used comply with the specification of the approved prototype life-saving appliance. Manufacturers should be required to institute a quality control procedure to ensure that life-saving appliances are produced to the same standard as the prototype life-saving appliance approved by the Administration and to keep records of any production tests carried out in accordance with the Administration's instructions.		Quality assurance Standard Used: Quality assurance Procedure: Quality assurance Manual: Description of System:		
		Quality assurance System acc Yes/No Comments/Observations	eptable	

Launching and recovery appliances	Model:	acturer: : rial Number:		Surveyor:	Time:
6.1.1.3 Visual inspection				LSA Code 6.1;	
Test Procedure		Acceptanc	e Criteria		Significant Test Data
Confirm that installation has manufactured to approved drawings. Visually inspect the appliance. C measurements and verify clearance required.		Amount of maintenance should Parts which require maintenance and easily maintained. Effectiveness under icing condi The launching mechanism should be actuated by one person from craft or rescue boat.	ce should be eas tions. uld be so arrang	ily accessible ed that it may	Passed/Failed Passed/Failed Passed/Failed Passed/Failed
Remote control		Manual brakes should be so arranged that the brake is always applied, unless the operator or a mechanism activated by operator holds the brake control in the "off" position.		Туре:	
Limit switches		Where davit arms are recovered by power, safety devices should be fitted which will automatically cut off the power before the davit arms reach the stops in order to prevent over-stressing the falls or davits, unless the motor is designed to prevent such over-stressing.		Туре:	
Provisions for hanging off pendants		There should be provisions for the release gear for maintenance		ifeboat to free	Passed/Failed continued

Launching and recovery appliances	Manufacturer: Model: Lot/Serial Number:		Time: or: ation:
6.1.1.3 Visual inspection (continued)		Regulations: LSA Co	de 6.1.1.6; SOLAS III/16
Test Procedure	Acceptance	Criteria	Significant Test Data
	Structural members and all bli fastenings and all other fitting launching equipment should be safety on the basis of the maxi and the ultimate strengths of construction. A minimum factor applied to all structural member components and a minimum fa applied to falls, suspension chai	s used in connection e designed with a facto mum working load assig of the materials used of safety of 4.5 should rs including winch struct ctor of safety of 6 should	vith of Comments/Observations hed for be ural

Launching and recovery appliances	Manufacturer: Model: Lot/Serial Number:			Surveyor:	Time	
6.1.1.4 Static proof load test			Regulations: L	SA Code 6.1.1.	5 - 6.1.1.6; MSC.81(70)	1/8.1.1
Test Procedure		Acceptar	nce Criteria		Significant	Test Data
For lifeboats other than free-fall lifet davits and launching appliances, e winches, should be subjected to a static load of 2.2 times their maximum working With the load at the full outboard position load should be swung through an a approximately 10° to each side of verti- the intended fore and aft plane. The test should be done first in the u position, followed by tests simulatin shipboard condition of list of 20° both inl and outboard.	xcept proof load. n, the rc of cal in pright	The launching appliance an winches should be of sufficien proof load on test of not less working load. There should be no evidenc other damage as a result of th	nt strength to with s than 2.2 times t e of significant de	stand a static he maximum	MWL: Test load (2.2 x MWL There should be no e deformation or other Passed/Failed Upright 20 ^o inboard list 20 ^o outboard list	.): kN widence of significant

Launching and recovery appliances	Model	facturer: : erial Number:		Surveyor:	Time:
Launching and recovery appliances Model: Lot/Serial Number: 6.1.1.5 Operational load test		Acceptar Acceptar The appliance should success the conditions, and there shou deformation or other damage Each launching appliance to recovery gear should be so a survival craft or rescue boat i	Regulations: L ace Criteria sfully lower the loa ald be no evidence as a result of the f gether with all its gether with all its tranged that the f	SA Code 6.1.1.4 ad under all of e of significant tests.	I - 6.1.1.3; MSC.81(70) 1 /8.1.2 Significant Test Data weight of the lightest lifeboat / rescue boat ** intended for use: LWL:
means of operation that is used on the s The test should be repeated with the laun appliance positioned to simulate a com 20 ^o inboard list and 10 ^o trim. All the tests should be repeated with a equal to that of a fully equipped life without persons, or the lightest survival intended for the use with the davit to e the satisfactory functioning of the davit very light load conditions.	ching bined mass eboat, craft nsure	against a trim of up to 10 ^o and When boarded, as required by full complement of persons; a Without persons in the surviva	/ regulation III/23 ond	or III/33, by its	clear of davit horn?** Passed/ Failed Does the appliance successfully lower the load under these conditions without evidence of significant deformation or damage? Passed/Failed upright (1,1x MWL) Passed/Failed 20° inboard list + 10° trim (1.1xMWL) Passed/Failed 20° inboard list + 10° trim (LWL) Passed/Failed *** if applicable continued

Launching and recovery appliances	Mode	Manufacturer:		Surveyor:	Time:	_
6.1.1.5 Operational load test (continu	ued)		Regulations	s: LSA Code 6.1	I.1.1 - 6.1.1.3; MSC.81(70) 1 /8.1.2	
Test Procedure		Acceptance	Criteria		Test Procedure	
Note: Notwithstanding the 10 ^o trim and 20 requirements, lifeboat launching applia for oil tankers, chemical tankers and carriers with a final angle of heel greater 20 ^o should be capable of operating at the angle of heel on the lower side of the taking into consideration the final dam waterline of the ship.	ances I gas r than e final ship,	A launching appliance should not than gravity or stored mechanica of the ship's power supplies to rescue boat it serves in the condition and also in the light con	l power which is launch the sui fully loaded a	s independent rvival craft or	Stored power Passed/Failed Start pressure: k Pa Min. pressure: k Pa Pressure drop after one movement: k Pa Time from inboard to outboard: sec ** if applicable	

Launching and recovery appliances	Manufa Model: Lot/Set	Manufacturer: Model: Lot/Serial Number:		Date: Time: Surveyor: Organization:	
6.1.1.6 Turning in test	I		Regulations: L	SA Code 6.1.1.	3; MSC.81(70) 1 /8.1.3
Test Procedure		Acceptar	nce Criteria		Significant Test Data
A mass equal to 1.1 times the maxi working load should be suspended from lifting points with the launching applian- the full upright position. The load shoul moved from the full inboard position to the outboard using the means of operation the used on the ship.	n the ice in ild be ne full	The appliance should succ designed hoisting load from position without causing per damage.	the outboard to	the inboard	maximum designed hoisting load: kN Does the launching appliance successfully move the load from outboard to inboard? Passed/Failed Does the launching appliance show any evidence of significant deformation or other damage as a result of this test? Passed/Failed

Launching and recovery appliances	Manufacturer: Model: Lot/Serial Number:		Surveyor:	Time:
6.1.1.7 Winch brake test		Regulations: LS	A Code 6.1.2.5; MSC.81(70)) 1 /8.1.4
Test Procedure	Acceptance Criteria		Significant	Test Data
 Winch drums should be wound to maximum number of turns permitted a static test load of 1.5 times the maximum load should be applied and hele the brake. This load should then be low for at least one complete revolution of barrel shaft. A test load of 1.1 times maximum working load should then lowered at maximum lowering speed thrue a distance of at least 3 m and stoppe applying the hand brake sharply. This test should be repeated a number times. If the winch design incorporates an explorate, one of these tests should be carried. 	the nd a mumThe test load should drop than 1 m when the brake is (except that the stopping may be exceeded if an brake is wetted).id by 	no more weigh s applied : distance MWL: exposed Test 1 Static Does pass/f MWM Drum Wire o Numb should Max.	t of the lightest lifeboat/rescu kN kN : test load (1.5 x MWL): the brake test hold the test lo ail : kNm diam mm	ue boat* I I kN
 with the brake wetted but in this case stopping distance may be exceeded. The various tests should achieve a cumul lowering distance of at least 150 m. Operation of the winch with a load of a requal to that of a fully equipped life without persons, or the lightest survival intended for use with the winch should als demonstrated. 	e the that of a fully equipped without persons, or the light (or rescue boat) intended for the winch.	lifeboat, Test 2 test craft use with Dynar brake within Passe	nic Test load (1,1 x MWL): test carried out after > 3m 1 metre? ed/Failed	kN with max lowering speed Stop tinued

Launching and recovery appliances	Manufacturer: Model: Lot/Serial Number:	Surve	Time: yor: iization:
6.1.1.7 Winch brake test (continued)			e 6.1.2.5; MSC.81(70) 1 /8.1.4
Test Procedure	Acceptance		Significant Test Data
Following completion of these test (and 6			
6.1.1.9), the winch should be stripped			
inspection.		veai.	2 nd stop: m
			3 rd stop: m
			4 th stop: m
			5 th stop: m
			Total lowering distance > 150 m Passed/ Failed
			Test 3 (if applicable)
			Winch design incorporates an exposed brake? Yes / No
			Wet stopping distance m Passed/ Failed
			Test 4
			Test load (LWL) kN Lowering test with LWL satisfactory? Passed/ Failed
			Does the inspection of the stripped winch reveal any significant damage or undue wear? Passed/ Failed
			Remarks:

Launching and recovery appliances	Manufacturer: Model: Lot/Serial Number:		Surveyor:	Time:
6.1.1.8 Rescue boat launching applia	ance red	covery speed test Regulations: I	SA Code 6.1.1.9	; MSC.81(70) 1 /8.1.5
Test Procedure		Acceptance Criteria		Significant Test Data
It should be demonstrated that a winch intended for use with a rescue boat is capable of recovering the rescue boat with the number		Each rescue boat launching appliance should powered winch motor capable of raising the re the water with its full rescue boat complement	scue boat from	Hoisting load: measured recovering speed of the boat:
of persons for which it is to be approved its equipment or an equivalent mass at a of not less than 0.3 m/s.	d and	equipment at a rate of not less than 0.3 m/s.		m/s
6.1.1.9 Hand operation test		Regulations: L	SA Code 6.1.2.6	; MSC.81(70) 1 /8.1.6
Test Procedure		Acceptance Criteria		Significant Test Data
The hand operation of the winch shou demonstrated.	ld be	An efficient hand gear should be provided for re survival craft and rescue boat. Hand gear har should not be rotated by moving parts of the	ndles or wheels	Hoisting load: Test 1:
If the winch is designed for quick recover hand with no load, this should demonstrated with a load of 1.5 time mass of the empty lifting arrangements.	be	survival craft or rescue boat is being lowered or hoisted by power.		Test load (1 x hoisting load): winch can be operated satisfactorily by hand? Passed/ Failed Arrangement provided for protection against moving parts and rotating handles? Passed/ Failed Type: Test 2: Only for quick recovery Test load (1.5 x weight of empty lifting arrangement): kN Is quick recovery satisfactory?
				Passed/ Failed

6.1.2 FREE-FALL LAUNCHING AND RECOVERY APPLIANCES EVALUATION AND TEST REPORT

- 6.1.2.1 Submitted drawings, reports and documents
- 6.1.2.2 Quality assurance
- 6.1.2.3 Visual inspection
- 6.1.2.4 Static proof load test
- 6.1.2.5 Operational load test (secondary means of launching)
- 6.1.2.6 Turning in test
- 6.1.2.7 Winch brake test

6.1.2 FREE-FALL LAUNCHING AND RECOVERY APPLIANCES

EVALUATION AND TEST REPORT

Manufacturer	
System type Serial number	
Maximum Working Load	
Maximum Turning Moment	
Winch type	
Serial number	
Date	
Place	
Name and signature of surveyor	
Approval Organization	

Free-fall launching and recovery appliances Manufacturer: Model: Lot/Serial Num		nber:	Date: Time: Surveyor: Organization:		
6.1.2.1 Submitted drawi	ngs, repor	ts and docume	nts		
Submitted drawings and					
Drawing No.	Revisior	n No. & date	Title of drawing		Status
Submitted reports and do					
Report/Document No.	Revisior	n No. & date	Title of report/document		Status
			Maintenance Manual		
			Operations Manual		

	Manufacturer:		Date:	Time:		
Free-fall launching and recovery	Model:					
appliances	Lot/Serial Number:		Organization:			
6.1.2.2 Quality assurance			.81(70) 2/1.1 and 1.2			
Except where all appliances of a particular		Quality assurance				
of the International Convention for the						
amended, or the International Life-Sa		Standard Used:				
inspected, representatives of the Adr inspection of manufacturers to ensur						
appliances and the materials used co		Quality assurance F	Procedure:			
approved prototype life-saving applian						
Manufacturers should be required to in		Quality assurance N	Manual:			
to ensure that life-saving appliances a as the prototype life-saving appliance a						
to keep records of any production tests		Description of Syste	em.			
Administration's instructions.						
		Quality assurance System acceptable				
		Yes/No				
		1 CO/INU				
		Comments/Observa	ations			
		Comments/Observa	3110115			

Free-fall launching and recovery appliances	Model:	al Number:		Surveyor:	Time:
6.1.2.3 Visual inspection			Regulations:	LSA Code 6.1.1.6	, 6.1.4
Test Procedure		Acceptano	ce Criteria		Significant Test Data
Confirm that installation has manufactured to approved drawings.	been	Amount of maintenance to be reparts which require maintenan and easily maintained.			Passed/Failed Passed/Failed Passed/Failed
	Visually inspect the launching appliance. Conduct measurements and verify clearance as required.		itomatically cu	safety devices t off the power	Туре
		before the davit arms reach over-stressing the falls or davits to prevent such over-stressing. Arrangements for simulated lar strength to withstand a static than 2.2 times the maximum we Structural members and all b	s, unless the m unching should proof load on orking load.	otor is designed be of sufficient test of not less	Passed/Failed Type Comments/Observations
Limit switches		fastenings and all other fittin launching equipment should be on the basis of the maximum ultimate strengths of the ma	ngs used in designed with working load a	connection with a factor of safety ssigned and the	
Arrangements for simulated launching		A minimum factor of safety of structural members including wi a minimum factor of safety of suspension chains, links and bl	 4.5 should b inch structural o 6 should be 	e applied to all components and	

Free-fall launching and recovery appliances			Surveyor:		
6.1.2.4 Static proof load test		Reg	ulations: LSA Code 6	5.1.1.5 - 6.1.1.6; MSC.81(70) 1 /8.1.1	
Test Procedure		Acceptance Crite		Significant Test Data	
The launching appliances for low free-fall lifeboat by falls, except should be subjected to a static pr of 2.2 times the maximum working lo full outboard position. The launching ramp and its connecti release mechanism should also be s to a static proof load of 2.2 times the r working load.	winches, oof load ad at the on to the subjected	Acceptance Criter The launching appliance and its atta winches should be of sufficient stre static proof load on test of not less maximum working load. There should be no evidence of sig or other damage as a result of this te	achments other than ength to withstand a s than 2.2 times the gnificant deformation	MWL :	

Free-fall launching and recovery appliances	Model: _	Surveyo		Time: or: ation:	
6.1.2.5 Operational load test (seco	ndary me	ans of launching)	Regulations:	LSA Code	e 6.1.4.7; MSC.81(70) 1 /8.1.2
Test Procedure		Acceptanc			Significant Test Data
A mass equal to 1.1 times the m working load should be suspended f lifting points. The load should be moved from inboard to the full outboard position u means of operation that is to be used ship. The test should be repeated with the la appliance positioned to simulate a co 5 degree list either way and 2 degree down trim. The test should be repeated with a mass to that of the fully equipped lifeboat, persons, to ensure the satisfactory fun of the appliance under light load condi-	the full sing the d on the unching ombined ees bow ss equal without actioning	The appliance should suc under all of the specified co be no evidence of signific damage as a result of the te	ccessfully lower th anditions and there ant deformation c	should	MWL:
					Comments/Observations

Free-fall launching and recovery appliances	Manufacturer: Model: Lot/Serial Number:		Surveyor:	Time:
6.1.2.6 Turning in test		Regulations:	LSA Code 6.1.1.3	; MSC.81(70) 1 /8.1.3
Test Procedure	Accep	otance Criteria		Significant Test Data
A mass equal to 1.1 times the m working load should be suspended f lifting points with the appliance in upright position, the maximum design load should be moved from the full out the full inboard position using the m operation that is used on the ship.	rom the designed hoisting load fr the full position without causing hoisting damage. board to	rom the outboard	to the inboard	 Hoisting load:

Free-fall launching and recovery appliances	Model:	turer:	Surveyor:	Time:
6.1.2.7 Winch brake test		Regulations:	LSA Code 6.1.2.5	i; MSC.81(70) 1 /8.1.4
Test Procedure		Acceptance Criteria		Significant Test Data
Winch drums should be wound maximum number of turns permitted static test load of 1.5 times the ma working load should be applied and the brake. This load should then be le for at least one complete revolution barrel shaft. A test load of 1.1 tim maximum working load should th lowered at maximum lowering speed a distance of at least 3 m and stop applying the hand brake sharply. This test should be repeated a nur times. If the winch design incorporates an e brake, one of these tests should be car	and a aximum held by owered of the nes the nen be through oped by mber of	The test load should drop no more than 1 m is applied (except that the stopping distance m if an exposed brake is wetted).		Weight of the lightest lifeboat / rescue boat* kN kN MWL : Test 1: Static test load (1.5 x MWL):kN Does the brake test hold the test load (1.5x MWL)? Passed/ Failed MWM: kNm Drum diam mm Wire diam. mm Number of turns m/s
with the brake wetted but in this castopping distance may be exceeded. The various tests should achieve a cur lowering distance of at least 150 m. Operation of the winch with a load of equal to that of a fully equipped without persons, or the lightest surviv intended for use with the winch should demonstrated.	ase the nulative a mass ifeboat, val craft	The launching appliance should successfull equal to that of a fully equipped lifeboat, with the lightest craft (or rescue boat) intended t winch.	nout persons, or	Test 2 Dynamic Test load (1.1 x MWL): kN Brake test carried out after > 3m with max lowering speed Stop within 1 metre? Passed/Failed Comments/Observations * delete as appropriate continued

Free-fall launching and recovery appliances	Model:	al Number:	Surveyor:	Time:
6.1.2.7 Winch brake test (continue	d)	Regulations: I	LSA Code 6.1.2.5;	MSC.81(70) 1 /8.1.4
Test Procedure		Acceptance Criteria		Significant Test Data
Following completion of these test (and as applicable), the winch should be str inspection.		Inspection of the stripped winch should reve damage or undue wear.	al no significant	1 st stop > 3m 2 nd stop: m 3 rd stop: m 4 th stop: m 5 th stop: m Total lowering distance > 150 m Passed/ Failed Test 3 (if applicable) Winch design incorporates an exposed brake? Yes/No Wet stopping distance m Passed/ Failed Test 4 Test load (LWL) kN Lowering test with LWL satisfactory? Passed/ Failed Does the inspection of the stripped winch reveal any significant damage or undue wear? Passed/Failed Comments/Observations

6.1.3 DAVIT-LAUNCHED LIFERAFT AUTOMATIC RELEASE HOOKS EVALUATION AND TEST REPORT

- 6.1.3.1 Submitted drawings, reports and documents
- 6.1.3.2 Quality assurance
- 6.1.3.3 Visual inspection
- 6.1.3.4 Corrosion resistance test
- 6.1.3.5 Maximum load for automatic release test
- 6.1.3.6 Dynamic forces release tests
- 6.1.3.7 Actuating force test
- 6.1.3.8 Securing force test
- 6.1.3.9 Manual release force test
- 6.1.3.10 Holding test, loaded
- 6.1.3.11 Holding test, light
- 6.1.3.12 Inertia test
- 6.1.3.13 Automatic release test
- 6.1.3.14 Automatic release test overloaded
- 6.1.3.15 Endurance test
- 6.1.3.16 Compatibility of liferaft and release hook test
- 6.1.3.17 Proof load test
- 6.1.3.18 Inadvertent release tests
- 6.1.3.19 Icing test
- 6.1.3.20 Impact test

6.1.3 DAVIT-LAUNCHED LIFERAFT AUTOMATIC RELEASE HOOKS

EVALUATION AND TEST REPORT

Manufacturer	
System Type	
Serial Number	
Maximum Working Load	
Maximum Turning Moment	
Winch type	
Serial Number	
Date	
Place	
Name Surveyor printed	
Signature	
Approving Organization	

Davit-launched liferaft automatic Manufacturer release hooks Model:		mber:	Date: Surveyor: Organization:	Time:	
6.1.3.1 Submitted drawi	ngs, repor	ts and docum	ents		
Submitted drawings and	document	S			
Drawing No.	Revision	n No. & date	Title of drawing		Status
Submitted reports and do					
Report/Document No.	Revision	n No. & date	Title of report/document		Status
			Maintenance Manual		
			Operations Manual		

	Manufacturer:		Date:	Time:		
Davit-launched liferaft automatic	Model: Lot/Serial Number:		Surveyor:			
release hooks	Lot/Serial Number:		Organization:			
6.1.3.2 Quality assurance		Regulations: MSC		70) 2/1.1, 1.2		
Except where all appliances of a parti		Quality assurance	· · · · ·			
III of the International Convention for t amended or the international Life-Sav	ving Appliance (LSA) Code, to be	Standard Used:				
inspected, representatives of the Adu inspections of manufacturers to ensu	ure that the quality of life-saving	Quality				
appliances and materials used com approved prototype life-saving applian		Quality assurance	Procedure:			
Manufacturers should be required to institute a quality control procedure to ensure that life-saving appliances are produced to the same standard as the prototype life-saving appliance approved by the Administration and		Quality assurance Manual:				
to keep records of any production tests Administration's instructions.		Description of Syst	em:			
		Quality assurance System acceptable				
		Yes/No				
		Comments/Observ	ations			

Davit-launched liferaft automatic release hooks	Manufacturer:		Date: Time: Surveyor: Organization:			
6.1.3.3 Visual inspection		Regulations: MSC.81(70) 1/8.2.2				
Test Procedure		Acceptance Criteria	Significant Test Data			
The hooks complete in every respect s given a visual and dimensional exami verify that they conform to the a drawings and specifications.	nation to	The hooks must conform with the manufac and specifications.	turer's drawings	Hook 1 PassedFailed Hook 2 PassedFailed Comments/Observations		
6.1.3.4 Corrosion Resistance Test		Regulations: MSC.81(70) 1/8.2.3, 8.2.4				
Test Procedure		Acceptance Criteria	Significant Test Data			
Two hooks should be submitted to a or resistance test which should be made mist chamber in accordance with the ISO 9227:2006 – Corrosion tests in atmospheres – Salt spray tests for 1,0 or equivalent national standard. Both hooks should be subjected five the tests required by 6.1.3.5 to 6.1.3.2 6.1.3.16.	in a salt standard artificial 00 hours times to	The hook should pass the test without failure).	Any corrosion effects and other damage to the hooks should be recorded: Hook 1: Hook 2:		

Davit-launched liferaft automatic release hooks	Manufacturer: Model: Lot/Serial Number:			Date: Time: Surveyor: Organization:		
6.1.3.5 Maximum Load for Automatic Release		e Test	Regulations: MSC	C.81(70) 1/8.2.5		
Test Procedure		Acceptance Criteria		Significant Test Data		
The maximum load on the hook to automatic release should be detern follows:		The minimum allowable release which should no 30 kg.			Hook 1 Hook 2 Test 1 Test 2	
.1 the hook should be loaded with of 200 kg and the actuating me set;		Record the maximum loa	ad "F" (5 tests).		Test 3 Test 4 Test 5	
.2 the load should be reduced gra stages until the hook automatically, but at not more th to establish load "F"; and	releases				Hook 1: Passed Failed Hook 2: Passed Failed Comments/Observations	
.3 the load "F" should be measu recorded.	ured and					
The test should be repeated five tin each hook.	nes with					

Davit-launched liferaft automatic release hooks				_ Surveyor:			
6.1.3.6 Dynamic Forces Release Tests		Regulations: MSC.81(70) 1/					
Test Procedure		Acceptance Criteria			Significant Test Data		
The load limit for automatic release, using dynamic loads, should be determined using both the following methods:					Record the number of cycles before hook released or test was discontinued (5 tests)		
 .1 The hook should be loaded with and the actuating mechanism should then be subjected t between 30 kg and 200 kg using ±0.2 Hz. The hook should not recycles. The number of cycles a opened or whether the test wa 300 cycles should be recorded. .2 The hook should then be reload the actuating mechanism set. The subjected to a cyclic loading, which is +200 kg, and the lower using a frequency of 1 ±0.2 H release should operate within number of cycles at which the whether the test was discont cycles should be recorded. "F1 the minimum load on the hautomatic release, as paragraph 6.1.3.5 reduced by 2 	h set. The hook o cyclic loading g a frequency of 1 elease before 300 at which the hook is discontinued at ded to 200 kg and he hook should be the upper limit of er limit being "F1" Iz. The automatic n 3 cycles. The e hook opened or inued after three " is to be taken as ook to allow for established in	cyclic load	natic release should		Hook 1Hook 2Test 1		

Davit-launched liferaft automatic release hooks	tic Manufacturer: Model: Lot/Serial Number:			Date: Time: Surveyor: Organization:		
6.1.3.7 Actuating force test		Regulations: LSA Co			de 4.1.1.2; MSC.81(70) 1/8.2.11	
Test Procedure		Acceptance Criteria		Significant Test Data		
 The actuating force for automatic release should be determined in the following way: .1 The hook should be loaded to 0%, 25%, 50%, 75% and 100% of the SWL of the hook; .2 At each load level the actuating force required at the actuation mechanism should be measured and recorded. 		The actuating force should in all tests be between 150 N and 250 N if lanyard operated, or the action required to set the actuating mechanism should be readily performed by a single person without difficulty.		Record actuating force (5 tests) when loaded to: Hook 1 Hook 2 0%		
6.1.3.8 Securing force test		Regulations: MSC.81(70) 1/8.2.12				
Test Procedure		Acceptance Criteria		Significant Test Data		
The securing force should be determi an unloaded hook. The securing force be recorded.		The securing force should be I measured securing force (five		Record	Hook 1 Hook 2 Test 1	

Davit-launched liferaft automatic release hooks	Model:	urer:			Time:			
6.1.3.9 Manual Release Force Test			Regulations	: MSC.81(70) 1/8.2	ISC.81(70) 1/8.2.13			
Test Procedure		Acceptar	ice Criteria		Significant Test Data			
 The manual release force sho determined as follows: .1 the hook should be loaded with of 150 kg; .2 the actuating mechanism shoul for automatic release; .3 the force required to release t manually should be establish recorded; and .4 the manual release force for a 150 kg on the hook should be 600 N but not more than 70 lanyard-operated designs. Al designs should be demonstrate satisfaction of the Participating to provide adequate protecti inadvertent release under load. 	a a mass d be set the hook ned and a load of at least 10 N for ternative ed to the Authority	For a load of 150 kg, the maileast 600N but not more that designs. Other designs shou from inadvertent release un release force (five tests).	nual release fo in 700 N for la ld provide ade	anyard operated quate protection	Hook 1 Hook 2 Test 1			

Davit-launched liferaft automatic release hooks	Manufacturer: Model: Lot/Serial Number:		Surve	Date: Time: Surveyor: Organization:		
6.1.3.10 Holding Test, loaded		Regu	lations: MSC.	81(70) 1/8.2	.2.10	
Test Procedure		Acceptance Crite	eria		Significant Test Data	
The automatic release hook should be attached to a test load of 1.1 times its maximum working load using an approved launching appliance. The load should be lowered at maximum lowering speed through a distance of at least 3 m and stopped by applying the hand break sharply. This test should be conducted twice, once with the release mechanism set for automatic release, and again with the mechanism set to closed.		est.	Hook 1Hook 2Test 1Test 2Test 3Test 4Test 5Hook 1: PassedFailedHook 2: PassedFailedComments/Observations			
6.1.3.11 Holding test, light			lations: MSC.	81(70) 1/8.2		
Test Procedure		Acceptance Crite			Significant Test Data	
The automatic release hook should be to a test load equal to the mass of the liferaft for which the automatic release to be approved, with the actuating me in the locked position (i.e. not set for a release). The load should then be raise it is clear of the ground. The a mechanism should then be set to a release.	e lightest e hook is echanism utomatic ed so that actuating	This should be easily accomplished should not release the load.	by a single pe	erson and	Hook 1Hook 2Test 1Test 2Test 3Test 4Test 5Hook 1: PassedFailedHook 2: PassedFailedComments/Observations	

Davit-launched liferaft automatic release hooks	Manufacturer: Model: Lot/Serial Number:			_ Surveyor:			
6.1.3.12 Inertia test			Regulations: MSC.81(70) 1/8.2.8				
Test Procedure		Acceptance Cr			Significant Test Data		
The hook should be attached to a short wire rope fall, approximately 1.5 m, and loaded with a mass of 10 kg. It should be secured and then lifted 1 m. From this position it should be released to perform a free fall before it is abruptly stopped by the wire rope fall.		The hook should not release as a result of this test.			Hook 1 Hook 2 Test 1		
6.1.3.13 Automatic release test		Regulations: MSC.81(70) 1/8.2.9					
Test Procedure		Acceptance Cr			Significant Test Data		
The automatic release hook should be to a test load equal to 1.1 times the S the actuating mechanism in the locked The load should be raised to a height of 6 m and then be lowered at a spee m/sec. When the load is 1.5 m al ground or water surface, the mechanism should be set for a release, and the lowering completed.	WL, with position. of at least ed of 0.6 bove the actuating	The automatic release hook load when it strikes the groun		ace.	Hook 1 Test 1 Test 2 Test 3 Test 4 Test 5 Passed		
					Passed Failed		

Davit-launched liferaft automatic release hooks	Manufacturer: Model: Lot/Serial Number:		Date: Time: Surveyor: Organization:			
6.1.3.14 Automatic release test - ov	/erloaded	Regulations:	MSC.81(70) 1/8	8.2.9		
Test Procedure		Acceptance Criteria		Significant Test Data		
The automatic release hook should be attached to a test load equal to 2.2 times the SWL, with the actuating mechanism in the locked position. The load should be raised to a height of at least 6 m and then be lowered at a speed of 0.6 m/sec. When the load is 1.5 m above the ground or water surface, the actuating mechanism should be set for automatic release, and the lowering completed.		There should be no evidence of permanent deformation and the hook should function after the test.		Hook 1 Hook 2 Test 1		
6.1.3.15 Endurance test		Regulations: MSC.81(70) 1/8.2.15				
Test Procedure		Acceptance Criteria	Significant Test Data			
The hook should be released 100 time failure by each of its modes of release maximum load permitting release mode. It should then be disassembled parts examined.	using the for that	There should be no evidence of excessive part.	wear on any	Hook 1 Hook 2 Test 1		

Davit-launched liferaft automatic release hooks	Model:	Number:	Time:		
6.1.3.16 Compatibility of liferaft and	d release h	ook test Regulations	: MSC.81(70)	1/8.2.18	
Test Procedure		Acceptance Criteria		Significant Test Data	
Where automatic release hooks are supplied for use with liferafts made by different manufacturers, operational tests with each type and size of lifting or attachment fitting used by the different manufacturers of the liferafts should be carried out before the particular combination of liferaft and release hook is accepted by the Administration.		The hook must be found to be compatible with each of the different lifting or attachment fittings used by the manufacturers for whom the hook is approved.		The hook can be used for rings with the following minimum and maximum diameter: Min. hole:mm Max. material φ:mm (optionally fill in attached list) Comments/Observations	
6.1.3.17 Proof load test		Regulations: Res. A.689 1/8.2.11 (missing in MSC.81(70) by mistake			
Test Procedure		Acceptance Criteria		Significant Test Data	
The automatic release hook should loaded to 6 times the SWL and this le for at least 5 min. After the removal of the hook should be dismantled and e for damage.	oad held the load,	Under the test load of 6xSWL for 5 min, t mechanism should not fail.	the release	Hook 1 Hook 2 Test 1	

Davit-launched liferaft automatic release hooks	Manufacturer: Model: Lot/Serial Number:			Date: Time: Surveyor: Organization:			
6.1.3.18 Inadvertent release tests			Regulations:	MSC.81(70) 1/8.2	.13.4		
Test Procedure		Acceptance	ce Criteria		Significant Test Data		
It should be demonstrated to the satisfaction of the Administration, that the automatic release hook cannot be inadvertently released while under load.		It must not be possible to inadvertently release the hook.		Hook 1 Hook 2 Test 1			
6.1.3.19 Icing test		Regulations: MSC.81(70) 1/8.2.16					
Test Procedure		Acceptance Criteria			Significant Test Data		
The hook should be arranged in a cold -30°C to simulate operational readin loaded with 25 kg. A 3.5 cm thick unifo of icing should be built onto it by spray water from angles above 45° from ho with intermittent pauses to let icing fo hook should then be actuated and as release the load without failure.	ess and orm layer ying cold orizontal, orm. The	As a result of this test the hook s	should release	the load without	Hook 1 Hook 2 Test 1		

Davit-launched liferaft automatic release hooks	Model: Surv		Surveyor:	Date: Time: Surveyor: Organization:	
6.1.3.20 Impact test Regulations: MSC.81(70)				MSC.81(70) 1/8.2	
Test Procedure		Acceptance			Significant Test Data
It should be demonstrated that the ho damaged as a result of 10 impact horizontal speed of 3.5 m/s on to a resembling a vertical ship's side. A practical all sides of the hook, especia with exposed controls, should imp structure.	cts at a structure s far as Illy areas	The hook must not sustain any with the normal function of the h		ich will interfere	Hook 1 Hook 2 Test 1

List of davit-launched liferafts for which the hook is approved:

Manufacturer:

6.1.4 LAUNCHING AND RECOVERY APPLIANCES FOR FAST RESCUE BOATS EVALUATION AND TEST REPORT

- 6.1.4.1 Submitted drawings, reports and documents
- 6.1.4.2 Quality assurance
- 6.1.4.3 Visual inspection
- 6.1.4.4 Static proof load test
- 6.1.4.5 Operational load test
- 6.1.4.6 Turning in test
- 6.1.4.7 Winch brake test
- 6.1.4.8 Rescue boat launching appliance recovery speed test
- 6.1.4.9 Hand operation test
- 6.1.4.10 Sea state test

6.1.4 LAUNCHING AND RECOVERY APPLIANCES FOR FAST RESCUE BOATS

	1
Manufacturer	
System type	
Serial number	
Maximum Working Load	
Maximum Turning Moment	
Winch type	
Serial number	
Date	
Place	
Name and signature of surveyor	
Approval Organization	
L	1

EVALUATION AND TEST REPORT

Launching and recovery appliances for fast rescue boats	Manufacturer: Model: Lot/Serial Number:		Date: Time: Surveyor: Organization:			
6.1.4.1 Submitted drawings, reports and documents						
Submitted drawings and documents						
Drawing No.	Revision No. & date	Title of drawing		Status		
Submitted reports and do						
Report/Document No.	Revision No. & date	Title of report/document		Status		
		Maintenance Manual				
		Operations Manual				

Launching and recovery appliances for fast rescue boats	Manufacturer: Model: Lot/Serial Number:		Date: Time: Surveyor: Organization:				
6.1.4.2 Quality assurance		Regulations: MSC.81(70) 2/1.1 and 1.2					
chapter III of the Internation 1974, as amended, or the Code, to be inspected, reprint random inspection of material	aces of a particular type are required by nal Convention for the Safety of Life at Sea, e International Life-Saving Appliance (LSA) esentatives of the Administration should make anufacturers to ensure that the quality of	Quality assurance Standard Used:					
	nd the materials used comply with the ed prototype life-saving appliance.	Quality assurance I	Procedure:				
to ensure that life-saving a	equired to institute a quality control procedure ppliances are produced to the same standard appliance approved by the Administration and	Quality assurance Manual:					
as the prototype life-saving appliance approved by the Administration and to keep records of any production tests carried out in accordance with the Administration's instructions.		Description of Syste	em:				
		Quality assurance System acceptable					
		Yes/No Comments/Observations					

Launching and recovery appliances for fast rescue boats	Manufacturer: Model: Lot/Serial Number:		Date: Surveyor: Organization:		
6.1.4.3 Visual inspection	١	Regulation	s: LSA Code 6.1; S	OLAS III/16.2	
Test Proce	dure	Acceptance Criteria		Significant Test Data	
Confirm that installation has been manufactured to approved drawings. Visually inspect the appliance.		Amount of maintenance should be restricted to a minimum. Parts which require maintenance should be easily accessible and easily maintained.		Passed/Failed	
Conduct measurements an as required.	Conduct measurements and verify clearances Effectiveness under icing conditions.			Passed/Failed	
	There sho		There should be provisions for hanging-off the fast rescue boat to free the release gear for maintenance.		
Remote control		The launching mechanism should be so an be actuated by one person from a position craft or rescue boat.	Passed/Failed		
Limit switches		Manual brakes should be so arranged that the brake is always applied, unless the operator or a mechanism activated by the operator holds the brake control in the "off" position. Where davit arms are recovered by power, safety devices should be fitted which will automatically cut off the power before the davit arms reach the stops in order to prevent over-stressing the falls or davits, unless the motor is designed to prevent such over-stressing.		Passed/Failed Type:	

Launching and recovery appliances for fast rescue boats	Model:			Surveyor:	Time:
6.1.4.3 Visual inspection	n (continued)		Regulations	s: LSA Code 6.1.1.6	; SOLAS III/16.2
Test Proce		Acceptar	nce Criteria		Significant Test Data
		Structural members and all fastenings and all other fitt launching equipment should b on the basis of the maximum ultimate strengths of the ma	tings used in e designed with working load	connection with h a factor of safety assigned and the	Passed/Failed Type:
		ultimate strengths of the materials used for construction. A minimum factor of safety of 4.5 should be applied to all structural members including winch structural components and a minimum factor of safety of 6 should be applied to falls, suspension chains, links and blocks.		Comments/Observations	

Launching and recovery appliances for fast rescue boats	Manufacturer: Model: Lot/Serial Number:			Surveyor: Organization: _	Tim	
6.1.4.4 Static proof load				s: LSA Code 6.	1.1.5 - 6.1.1.6; MSC.8	
Test Proce	dure	Acceptance C	Criteria		Significa	nt Test Data
For fast rescue boats, davits and launching appliances, except winches, should be subjected to a static proof load of 2.2 times their maximum working load.		The launching appliance and its attachments other than winches should be of sufficient strength to withstand a static proof load on test of not less than 2.2 times the maximum working load.		MWL: Test load (2.2 x MW		
With the load at the full outboard position, the load should be swung through an arc of approximately 10 ⁰ to each side of vertical in the intended fore and aft plane.		There should be no evidence of significant deformation or other damage as a result of this test.		There should be no deformation or othe Passed/Failed	evidence of significant r damage	
The test should be done position, followed by t shipboard condition of list and outboard.	first in the upright ests simulating a				Upright Pas 20 ⁰ inboard list 20 ⁰ outboard list Comments/Observa	Passed/Failed

Launching and recovery appliances for fast rescue boats	Manufacturer: Model: Lot/Serial Number:			Date: Surveyor: Organization:	
6.1.4.5 Operational load	test		Regul	ations: LSA Code 6.1.1.1 - 6.1.1.3; MS	C.81(70) 1 /8.1.2
Test Proce	dure	Acceptance Criteria		Significant Test	Data
For fast rescue boats, a mathe maximum working suspended from the liftin launching appliance in the The load should be moved to the full outboard position operation that is used on the The test should be repeated appliance positioned to si 20° inboard list and 10° trim All the tests should be re- equal to that of a fully fast persons, or the lightest intended for the use with the satisfactory functioning of light load conditions.	load should be ng points with the upright position. from the full inboard a using the means of e ship. d with the launching mulate a combined n. peated with a mass rescue boat, without fast rescue boat e davit to ensure the	The appliance should success lower the load under all of conditions, and there should evidence of significant deform or other damage as a result tests. Each launching appliance tog with all its lowering and rec gear should be so arranged th fully equipped fast rescue b serves can be safely low against a trim of up to 10° and of up to 20° either way: When boarded, as require regulation III/23 or III/33, by i complement of persons; -without persons in the fast re boat.	of the be no nation of the gether overy at the oat it vered I a list d by ts full	Weight of the lightest fast rescue boat LWL:	ver the load under these

Launching and recovery appliances for fast rescue boats	Model:			Date: Ti Surveyor: Organization:	
6.1.4.5 Operational load			Regulations	: LSA Code 6.1.1.1 - 6.1.1.3; MSC.	81(70) 1 /8.1.2
Test Proce	dure	Acceptance Crite	eria	Significant Te	est Data
		A launching appliance should any means other than gra mechanical power which is the ship's power supplies to rescue boat it serves in the f equipped condition and als condition.	wity or stored independent of launch the fast ully loaded and	Start pressure: Min. pressure: Pressure drop after one moven	

Launching and recovery appliances for fast rescue boats	Model:			Date: Time: Surveyor: Organization:
6.1.4.6 Turning in test			Regulation	ns: LSA Code 6.1.1.3; MSC.81(70) 1 /8.1.3
Test Proce		Acceptance Criteria		Significant Test Data
A mass equal to 1.1 tin working load should be s lifting points with the applian position, the maximum d should be moved from the full inboard position usi operation that is used on th	uspended from the nce in the full upright esign hoisting load full outboard to the ng the means of	The appliance should succ move the maximum designed load from the outboard to the position without causing per deformation or other damage.	hoisting inboard manent	Maximum designed hoisting load: kN Does the launching appliance successfully move the load from outboard to inboard? Passed/Failed Does the launching appliance show any evidence of significant deformation or other damage as a result of this test? Passed/Failed Comments/Observations

Launching and recovery appliances for fast rescue boats	Manufacturer: Model: Lot/Serial Number:			Date: Surveyor: Organization:
6.1.4.7 Winch brake test			Regulations	: LSA Code 6.1.2.5; MSC.81(70) 1 /8.1.4
Test Proce	edure	Acceptance Criteria		Significant Test Data
Winch drums should be we number of turns permitted of 1.5 times the maximum be applied and held by should then be lowered for revolution of the barrel sha times the maximum workin lowered at maximum lowe distance of at least 3 m and the hand brake sharply. This test should be repeated If the winch design incor brake, one of these tests a with the brake wetted be stopping distance may be end The various tests should a lowering distance of at leas Operation of the winch wi equal to that of a fully equi without persons, or the ligh intended for use with the demonstrated.	and a static test load working load should the brake. This load at least one complete aft. A test load of 1.1 g load should then be ring speed through a d stopped by applying ed a number of times. porates an exposed should be carried out ut in this case the exceeded. achieve a cumulative at 150 m. th a load of a mass oped fast rescue boat	The test load should drop no r m when the brake is applied (the stopping distance may be if an exposed brake is wetted) The launching appliance successfully lower a mass equ a fully equipped fast rescue be persons, or the lightest fast r intended for use with the wince Inspection of the stripped wi reveal no significant damage wear.	e should ial to that of oat, without escue boat th.	Weight of the lightest fast rescue boat* :

Launching and recovery appliances for fast rescue boats	Manufacturer: Model: Lot/Serial Number:		Date: Time: Surveyor: Organization:
6.1.4.7 Winch brake test			ns: LSA Code 6.1.2.5; MSC.81(70) 1 /8.1.4
Test Proce	dure	Acceptance Criteria	Significant Test Data
Following completion of th 6.1.4.9, 6.1.4.10), the wind for inspection.			1 st stop: > 3m 2 nd stop: m 3 rd stop: m 4 th stop: m 5 th stop: m Total lowering distance > 150 m Passed/ Failed Test 3 (if applicable) Winch design incorporates an exposed brake? Yes / No Wet stopping distance m Passed/ Failed Test 4 Test 4 Test load (LWL) kN Lowering test with LWL satisfactory? Passed/Failed Does the inspection of the stripped winch reveal any significant damage or undue wear? Passed/Failed Comments/Observations

Launching and recovery appliances for fast	Manufacturer: Model:			Date: Surveyor:	Time:	
rescue boats	Lot/Serial Number:			Organization:		
6.1.4.8 Rescue boat lau	nching appliance recov	very speed test	Regulations	s: MSC/Circ.	.809 4.2.5; MSC.81(70) 1 /8.1.5	
Test Proce	edure	Acceptance	Criteria		Significant Test Data	
Fast rescue boat loaded with six persons to be hoisted. Demonstrate also the recovery of the fast rescue boat with the maximum number of persons that can be accommodated in the boat as calculated under par. 4.4.2 of the LSA code.		Notwithstanding 6.1.4.9 launching appliances should be capable of hoisting the fully equipped fast rescue boat loaded with six persons with a speed not less than 0.8 m/s. The appliance should be capable of hoisting the fast rescue boat with the maximum number of persons that can be accommodated in the boat as calculated under		Maximum load to be hoisted with a speed of at least 0.8 m/s: kN Appliance is able to hoist the fast rescue boat with maximum number of persons? Passed/ Failed Comments/Observations		
		par. 4.4.2 of the LSA code.				
6.1.4.9 Hand operation t			Regulations	s: LSA Code	e 6.1.2.6; MSC.81(70) 1 /8.1.6	
Test Proce		Acceptance			Significant Test Data	
The hand operation of t demonstrated. If the winch recovery by hand with no demonstrated with a load o of the empty lifting arrange	is designed for quick load, this should be of 1.5 times the mass	An efficient hand gear should of each fast rescue boat. Han should not be rotated by m when the fast rescue boat is is being hoisted by power.	d gear handles oving parts of t	or wheels the winch	Hoisting load: Test 1: Test load (1 x hoisting load): winch can be operated satisfactorily by hand? Passed/ Failed Arrangement provided for protection against moving parts and rotating handles? Passed/ Failed Type: Test 2: Only for quick recovery Test load (1.5 x weight of empty lifting arrangement): kN Is quick recovery satisfactory? Passed/ Failed	

applia	ching and recovery ances for fast ue boats	Model:			Surveyor:	Time:	
6.1.	4.10 Sea state test			Regulations	: LSA Code 6.1;	MSC.81(70) 1 /8.1.8	
	Test Proce	edure	Ac	ceptance Criteria		Significant Test Da	ata
be de force with test s	emonstrated in a sea s e 6 wind on the Beaufor a significant wave heig should include launchi rescue boat and demo satisfactory operatio dampen forces and interaction with the w satisfactory operatio The additional dyna the wire due to re	rt scale, in association the of at least 3 m. The ing and recovery of a nstrate: on of the device to d oscillations due to	device to damp the waves wher recovered. The element to sof element to minin .2 The winch shi high-speed ten	appliance should be en the forces due to in the fast rescue boat device should inclu- ten shock forces an nize oscillations. build be fitted with sioning device which slack in all sea state	nteraction with is launched or ude a flexible nd a damping an automatic prevents the	Working of winch brake satis Pas Gradual action? Pas Additional dynamic force in v kN	ssed/ Failed factory? sed/ Failed ssed/ Failed vire ssed/ Failed
	measured; and			escue boat is intended		Passed/ Failed	Satisfactory
.3	satisfactory operatio	on of the tensioning	the fast rescue brakes are appl force induced ir	e should have a gradua boat is lowered at full ied sharply, the addition the wire due to reta 5 times the working unce.	speed and the onal dynamical irdation should	Wire prevented from going s Passed/ Failed Comments/Observations	lack?

6.2 MARINE EVACUATION SYSTEMS

EVALUATION AND TEST REPORTS

6.2.1 General information

- 6.2.1.1 Submitted drawings, reports and documents
- 6.2.1.2 Quality assurance
- 6.2.1.3 General data and specifications
- 6.2.1.4 Platform carrying capacity
- 6.2.1.5 Markings on container
- 6.2.1.6 Markings on passage
- 6.2.1.7 Visual inspection

Test procedures

- 6.2.2 Material test
- 6.2.3 Deployment instructions
- 6.2.4 Container static load test
 - 6.2.4.1 Container door hose test
 - 6.2.4.2 Container door dry release test 6.2.4.3 Container door trim release test

Inclined inflated passages

6.2.5 Passage load test

- 6.2.5.1 Dry sliding test
 - 6.2.5.2 Loss of pressure test
 - 6.2.5.3 Load test of passage to container
 - 6.2.5.4 Cold inflation test
 - 6.2.5.5 Hot inflation test
 - 6.2.5.6 Wet sliding test
 - 6.2.5.7 Three times pressure test

Vertical descent passages

6.2.6 Two times sliding test6.2.6.1 Load test of passage to container6.2.6.2 Cold passage test6.2.6.3 Wet descent test

Platform (if fitted)

- 6.2.7 Platform carrying capacity
 - 6.2.7.1 Loaded freeboard and 50% buoyancy loss loaded test
 - 6.2.7.2 Self-draining test
 - 6.2.7.3 Cold inflation test
 - 6.2.7.4 Hot inflation test
 - 6.2.7.5 Three times overpressure test

Associated liferafts

6.2.8 Liferaft construction6.2.8.1 Liferaft release from stowage position6.2.8.2 Liferaft release from passage

Evacuation Trials

6.2.9 Timed evacuation test

Sea trails

6.2.10 Heavy weather sea trial 6.2.10.1 Heavy weather sea trial (Phase 1)

6.2.10.2 Heavy weather sea trial (Phase 2) 6.2.10.3 Heavy weather sea trial (Phase 3) 6.2.10.4 Heavy weather sea trial (Phase 4)

Data recording sheets

- 6.2.11 Evacuation trial timings (MES with platform and liferafts)
- 6.2.12 Evacuation trial timings (MES straight into liferafts)

6.2 MARINE EVACUATION SYSTEMS

EVALUATION AND TEST REPORTS

Manufacturer	
Type/Model	
Date of Approval	
Place	
Name Surveyor printed	
Signature	
Approving Organization	

	Manufacturer: Model: Lot/Serial Number: vings, reports and documents		Surveyor:	Time:
Submitted drawings and	documents			Status
Drawing No.	Revision No. & date	Title of drawing		
Submitted reports and do				
Report/Document No.	Revision No. & date	Title of report/document		Status
		Maintenance Manual		
		Operations Manual		

Marine evacuation systems	Manufacturer: Model: Lot/Serial Number:	Surveyor:			
6.2.1.2 Quality assuranc	e e	Regulations: SOLAS III/4; MSC.81(70) 2/1.1, 1.2			
Except where all appliance of the International Conver International Life-Saving inspected, representatives inspections of manufactur appliances and materials us prototype life-saving applian Manufacturers should be re ensure that life-saving app the prototype life-saving app	s of a particular type are required by chapter III ntion for the Safety of Life at Sea, 1974, or the Appliance (LSA) Code as amended, to be of the Administration should make random rers to ensure that the quality of life-saving sed comply with the specification of the approved nce. equired to institute a quality control procedure to liances are produced to the same standard as opliance approved by the Administration and to uction tests carried out in accordance with the	Quality assurance Standard Used: Quality assurance Procedure: Quality assurance Manual: Description of System: Quality assurance System acceptable Yes/No Comments/Observations			

Marine evacuation systems	Manufacturer: Model: Lot/Serial Number:		_ Surveyor:		Time:		
6.2.1.3 General data and	specifications		Regulations:	LSA Code I/1.2	A Code I/1.2 & VI/6.2		
General Inform		Dimen	sions				
	nation respects, in its fully subject to a detailed acturers' works to a re complied with. of the passage and satisfaction of the be: buoyancy will be ng load. In the case atform, the main which for this de thwarts or floor mbers, are to meet ection 4.4.3 based acity, except that the ained by dividing by	Dimen Length of passage: Vertical System Inclined System Inclined System Installation Height of System Diameter of Platform Diameter of Platform Carrying Capacity of Platform Number of passages	sions m _m m m		Weight of complete system Weight of associated liferafts		

Marine evacuation systems	Model:		Surveyor:	Time:
6.2.1.3 General data and	specifications (conti	nued)	Regulations: LSA Code I/1	.2 & VI/ 6.2
General Infor			ensions	Weight
.2 The angle of the sli should be within the when the ship is uprig seagoing condition. passenger ship, a ma	range of 30 [°] to 35 [°] oht and in the lightest In the case of a aximum of 55 [°] in the	Angle of Slide Path Inclined Slide:		
final stage of floo requirements in regula		PRV lifting pressure PRV re-seat pressure	k Pa k Pa	
.3 The term "operational same meaning as pressure"; i.e. the pre- the designed reseat p valves, if fitted, exce reseat pressure of determined by tes designed reseat pre- 15%, the higher figure	the term "working ssure determined by pressure of the relief pt that, if the actual the relief valve, ting, exceeds the ssure by more than			

Marine evacuation systems	Model:			Date: Time: Surveyor: Organization:		
COAA Distance commiss			Dogulations			
6.2.1.4 Platform carrying				s: LSA Code I/1.2 & VI/6.2; MSC.81(70) 1/12.4.1		
Test Procee		Acceptance Criteria		Significant Test Data		
Marine Evacuation Platform (if fitted) should be such that sufficient buoyancy will be provided for the working load. The number of persons which the platform should be permitted to accommodate should be equal to the lesser of:		This usable platform area should be at least equal to: (20% of total number of persons that the System is certified for)/4 m ² ; or 10 m ² whichever is the greater.		No. of persons platform is designed for .1 Capacity of platform using buoyancy .2 Capacity of platform using area		
The greatest whole number obtained by dividing by 0.096 the volume, measured in cubic metres of the main buoyancy tubes, including any thwarts or floor inflatable structures when		To fit whichever is the greate		Lesser of 1 and 2 above		
inflated; or				.4 Number of persons platform can actually carry.		
The greatest whole number by 0.25 the inner usable cro the platform measured in so for this purpose may inc thwarts, if fitted) measure edge of the buoyancy tubes	uss-sectional area of quare metres (which lude the thwart or d to the innermost			Comment/Observation		
However, Administration alternative arrangemen demonstrated to comply prescribed performance rec	ts which are with all of the					
				Passed Failed		

Marine evacuation systems	Manufacturer: Model: Lot/Serial Number:		Date: Time: Surveyor: Organization:			
6.2.1.5 Markings on cont	ainer		Regulations:LSA	SA Code I/1.2 & VI/6.2.4.2 & 6.2.4.3		
Test Proced	dure	Acceptance	e Criteria		Significant Test Data	
The container should be marked with; Maker's name or trademark; Serial number; Name of approval authority and the capacity of the system; (6.2.0.2) SOLAS; Date of manufacture (month and year); Date and place of last service; Maximum permitted height of stowage above waterline; and Stowage position on board.		All instructions and markings to	be indelible.		Indicate markings on container below: Passed Failed	
Launching and operating instructions should be marked on or in the vicinity of the container.						
6.2.1.6 Markings on pass			Regulations: LS	A Code I/1.2		
Test Proced		Acceptance Criteria		Significant Test Data		
	ademark; e (month and year); authority; of servicing station serviced, along with g; and	All instructions & markings to be	e indelible.		Indicate markings on container below: PassedFailed	

Marine evacuation systems	Model:		Date: Time: Surveyor: Organization:			
6.2.1.7 Visual inspection		Regulations: S	OLAS III/13.4;	LSA Code I/1.2 & VI/6.2; MSC.81(70) 1/12.5.5		
Test Proce		Acceptance Criteria		Significant Test Data		
Liferaft Release From Pass Inflatable liferafts associ evacuation systems Any inflatable liferaft used in marine evacuation system with pre-connected or retrieving lines to the platfor	ated with marine conjunction with the should be provided easily connected	If the passage is to give direct access to the should be demonstrated that it can be easily detached.		 .1 Are liferafts launched with passage Yes/No .2 Method of connection of liferafts to passage .3 Method of release from passage .4 Method of release acceptable? Yes/No Comments/observations PassedFailed 		
6.2.2 Material test		Regulations:LSA Code I/1.2 & VI/6.2; MSC.81(70) 1/ 5.17.13 & 12.1				
Test Procee	dure	Acceptance Criteria		Significant Test Data		
Inflated materials used in marine evacuation systems the standards laid down in t	are to be tested to	Fabric must be type approved in accordance Report 4.3.4, Material Tests for Liferafts.	e with Test	Fabric Complies Yes No		
				Comments/Observation		
				PassedFailed		

Marine evacuation systems	Manufacturer: Model: Lot/Serial Number:			Date: Surveyor: Organization:		
6.2.3 Deployment instr	uctions		Regulations:L	SA Code I/1.2 & VI/6.2.2.1; MSC.81(70) 1/12.2.1		
Test Procee	dure	Acceptance Crite	ria	Significant Test Data		
Marine evacuation system container; It should be demonstrated that the passage and platform if fitted, or liferafts in any other case, can be deployed from the container by one person in a sequence prescribed in the manufacturer's instruction. If more than one action is necessary to operate the system means should be provided to prevent incorrect operation.		The deployment of the system by one person and instructions to be acceptable to the administration.		.1 Number of sequences required to deploy system .2 Instruction adequate Yes No .3 Can system be deployed by one person? Yes/No. .4 If more than one operation Number of operations to deploy system Comments/Observations Passed Failed		
6.2.4 Container static I	oad test	Regulations: LSA Code I/ 1.2 & VI/6.2; MSC.81(70) 1/ 12.2.2		SA Code I/ 1.2 & VI/6.2: MSC.81(70) 1/ 12.2.2		
Test Procee		Acceptance Crite		Significant Test Data		
Marine evacuation system of A static load of 2.2 times the the system applied to its sit to the ship for a period of 30 load is to be equivalent to imposed by the maximum fully loaded liferafts for w designed, attached to the life the ship moving through the against a head wind of force scale.	e maximum load on tructural attachment minutes. This static the calculated load number and size of hich the system is oaded platform with ne water at 3 knots	There should be no evidence deformation or other damage a factory test.		.1 Calculated static loadtonnes .2 2.2 x calculated loadtonnes .3 Period of test loadmin Method used to calculate static load test Comments/Observations Passed Failed		

Marine evacuation systems	Model:			Surveyo	r: Time: r: ation:
6.2.4.1 Container door h	ose test		Regulations:L	SA Code	I/1.2 & VI/6.2; MSC8.1(70) 1/ 5.12 & 12.2.3
Test Procee		Acceptance (Significant Test Data
Marine evacuation system of To ensure the effectiveness preventing water entering efficiency of the sealing arra demonstrated by means of a other equally effective meth for the hose test is that ab per minute be directed at an arrangements through a 63 point 3.5 m away and 1.5 m of 5 min. Alternatively, wh required to verify the tightne the minimum pressure in the to 2 bar, is to be applied at a of 1.5 m. The nozzle diameter than 12 mm. (Note:- If the system is instatiship and the door is not structure then this test is	container; s of the closures in the container, the ngements should be a hose test or by any od. The requirement out 2,300 I of water d around the sealing 8.5 mm hose from a n above for a period ten hose testing is ess of the structures a hose, at least equal a maximum distance er should not be less alled internally in the s part of the ships	Acceptance (The container to remain reas prevent the ingress of water a significant accumulation of wa The accumulation of water insi exceed 4 I.	sonably weather and there should ter inside the cor	d be no ntainer.	Significant Test Data .1 Capacity of water hosemm Diameter of hosemm .2 Ingress of water in containerlitres .3 Drainage adequate Yes/No .4 Diameter of drain holesmm .5 Number of drain holesmm .5 Number of drain holesmm PassedFailed
carried out).					

Marine evacuation systems	Model:			Surveyo	Dr: ation:
6.2.4.2 Container door d				LSA Cod	e I/1.2 & VI/6.2; MSC.81(70) 1/ 12.2.4
Test Procedure		Acceptance Criteria		Significant Test Data	
Test Procee Marine Evacuation System After completing the test securing arrangements for external doors are to be sa 5 dry release operat consecutively.	Container; in the release and or any internal or tisfactorily tested by	Acceptance (The door should operate sa damaged as a result of this tes	atisfactory and	not be	Significant Test Data Door operation: .1 Pass/Fail .2 Pass/Fail .3 Pass/Fail .4 Pass/Fail .5 Pass/Fail Comments/Observations. PassedFailed

Marine evacuation systems	Manufacturer: Model: Lot/Serial Number:			Survey	or: Time: zation:		
6.2.4.3 Container door tr	im release test		Regulations:	LSA Co	de I/1.2 & VI/6.2; MSC.81(70) 1/ 12.2.5		
Test Proce	dure	Acceptance C	riteria		Significant Test Data		
It should be demonstrated by 2 dry deployments of the system, with the container angled back to simulate an unfavourable trim of up to 10 ⁰ and list of up to 20 ⁰ either way, that outer door, the passage and platform (if fitted), will not suffer damage which will render it unusable for its intended purpose.		There should be no damage to the outer door, passage and platform if fitted which will render the system unusable. The door of the container should open fully and the system deploy without interference.		r the .2	1 Height of deployment m 2 Adverse trim and list 10 ⁰ trim 20 ⁰ list (low side) 2 Operation of system Passed Failed 3 Adverse trim and list 10 ⁰ trim 20 ⁰ list (high side) 0peration of system Passed Failed Comments/Observation. Passed Failed		
6.2.5 Passage load tes	t	Regulations: LSA Code I/1.2 & VI/6.2; MSC.81(70) 1/ 12.3.1.1					
Test Proce	dure	Acceptance C	riteria		Significant Test Data		
Marine Evacuation Inclined A fully inflated passage sh solid base at the height at w on board. Each single path s 150 kg weight at mid length	ould be arranged on hich it is to be stowed should be loaded with	Slide path must be usable and distorted.	d not become un		.1 Height of slide above ground m .2 Length of slide m .3 Number of slide paths .4 Angle of slide path ⁰ Comments/Observations. Passed Failed		

Marine evacuation systems	Model: Surveyo			Time: or: zation:	
6.2.5.1 Dry sliding test			Regulations:	LSA Co	de I/1.2 & VI/6.2; MSC.81(70) 1/12.3.1.2
Test Proce	dure	Acceptance C	riteria		Significant Test Data
Marine Evacuation Inclined Inflated Passage; A fully inflated passage should be subjected to individual sliding operations twice the number for which it is to be certificated. For this test actual persons of varied physique and weight should be used.		On completion the passage pass	ath should remai	n in a	 Number of slide paths Number of persons passage is certified for Number of sliding operations Comments/Observations.
6.2.5.2 Loss of pressure	toot		Pogulationa		PassedFailed de I/1.2 & VI/6.2; MSC.81(70) 1/12.3.1.3
Test Proce		Acceptance Criteria		· · · · · · · · · · · · · · · · · · ·	
I est Proce Marine Evacuation Inclined It should be demonstrated that the loss of pressure in a passage will not limit its evacuation.	Inflated Passage; using actual persons ny one section of the	Acceptance C Passage should remain usab relevant section of the slide d	le throughout wit	th the	Significant Test Data .1 Height of slide above groundm. .2 No. of persons using system .3 Sequence of deflation of slide tubes; Section deflated 1. 2. 3. 4. .4 Angle of passage° Comments/Observations. Passed Failed

	Manufacturer:			Date:	Time:
Marine evacuation	Model:			Surveyor:	:
systems	Lot/Serial Number:			Organizat	tion:
6.2.5.3 Load test of pass	•			LSA Code	e I/1.2 & VI/6.2; MSC.81(70) 1/ 12.2.2 & 12.3.1.4
Test Proce		Acceptance		-	Significant Test Data
Marine Evacuation Inclined A static load of 2.2 times th		On completion there must be or stranding of its connection result of this factory test.	• •		.1 Calculated static loadtonnes
which the system is to be					.2 2.2 x calc. loadtonnes
applied for a period of connection between the container.					.3 Period of test loadmin
					.4 Calculated breaking load of connectionT.
This static load is to be calculated load imposed number and size of fully load	by the maximum				.5 Method used to calculate static load test
the system is designed, att platform with the ship movin at 3 knots against a head with Beaufort scale.	ng through the water				Comments/Observations.
					Passed Failed

Marine evacuation systems	Model:		Date: Time: Surveyor: Organization:		
6.2.5.4 Cold inflation tes			s: LSA Code I/1.2 & VI/6.2; MSC.81(70) 1/12.3.1.5		
Test Proce		Acceptance Criteria			
Marine Evacuation Inclined The uninflated passage w should be placed in a temperature of - 30°C. Afte than 24 hours at this temp should reach its working minutes.	rith its gas cylinders cold chamber at a r a period of not less perature the passage	The passage and components must show no sign of cracking, seam slippage or othe defects. The gas inflation system should show no sign of cracking or other defects.	Time in Time out Hours in chamber @ -30ºC		

Marine evacuation systems	Model:			Surveyor:	Time:
6.2.5.4 Cold inflation te	est (continued)		Regulations:	LSA Code I/1.	2 & VI/6.2; MSC.81(70) 1/12.3.1.5
Test Proc	cedure	Acceptanc			Significant Test Data
		Continued:			.8 Details of high-pressure hose .1 Material of hose .2 Pressure rating of hose .9 Details of Cylinder valve .10 Details of Operating Head .11 Details of Inflation Valve .12 Details of Pressure Relief Valve .1 Lifting pressure .2 Reseat pressure .13 Additional Inflatable Structures associated with passage and platform: Comments/Observations. Passed Failed

	Manufacturer:			Date: Time:			
Marine evacuation	Model:		Surv	urveyor:			
systems	Lot/Serial Number:			Organization:			
6.2.5.5 Hot inflation test			: LSA	Code I/1.2 & VI/6.2; MSC.81(70) 1/12.3.1.6			
Test Proce		Acceptance Criteria		Significant Test Data			
Marine Evacuation Inclined The uninflated passage w		On inflation the pressure relief valves on passage should be of sufficient capacity to pre pressure in excess of twice the designed wo	event	.1 Hot chamber temperature ⁰ C Time in Time out			
should be placed in a		pressure. The passage and components sh					
temperature of +65°C for no	ot less than 7 hours.	show no sign of cracking, seam slippage or defects.	other	Hours in chamber@ +65°C			
				.2 Design WPkPa			
		(The inflation system should be identical to system described in 6.2.4.4 above)	o the	.3 System usable insecs			
				.4 Time to reach working pressuresecs			
				.5 Maximum pressure reached during inflationkPa			
				.6 Relief valves blowing at: Comments/Observations.			
				Passed Failed			

Marine evacuation systems	Model:		Su	Date: Surveyor: Organization:		
6.2.5.6 Wet sliding test		Regulations: LSA Cod	e I/1.2	2 & VI/6.2; MSC.81(70) 1/12.3.1.7		
Test Proce	edure	Acceptance Criteria		Significant Test Data		
Test Proce Marine Evacuation Inclined I It should be demonstrated of operations on a slide path water to simulate wet weather	nflated Passage; with at least 10 sliding thoroughly wetted with	Acceptance Criteria The speed of descent should not considered excessive or dangerous.	be	Significant Test Data .1 Height of slide above groundm .2 Angle of slide path to horizontal0 .3 No. of persons sliding Comments/Observation Passed Failed		

6.2.5.7 Three times pressure test	& VI/6.2; MSC.81(70) 1/ 12.3.1.8, 5.17.7 & 5.17.8		
Test Procedure	Acceptance Criteria	Significant Test Data	
Marine Evacuation Inclined Inflated Passage; Each inflatable compartment in the passage should be tested to a pressure equal to three times the working pressure. Each pressure relief valve should be made inoperative, compressed air should be used to inflate the passage and the inflation source removed. The test should continue for at least 30 min. The measurement of pressure drop due to leakage can be started when it has been assumed that compartment material has completed stretching due to the inflation pressure and achieved equilibrium.	The pressure should not decrease by more than 5% as determined without compensating for temperature and atmospheric pressure changes, and there should be no seam slippage, cracking or other defect in the passage.	1. Passage .1 Design Working Pressurekpa .2 3 x working pressurekPa .3 Pressure at startkPa .4 Calculated 5% pressure drop maximumkPa .5 Pressure drop after 30 minuteskPa .6 Percentage drop% Comment/Observations Passed Failed	

Marine evacuation systems	Model:		Date: Time: Surveyor: Organization:	
6.2.6 Two times sliding	y test	Regulations	_SA Code I/1.2 & VI/6.2; MSC.81(70) 1/12.3.2.1	
Test Proce	dure	Acceptance Criteria	Significant Test Data	
Marine Evacuation Vertical The vertical passage sho individual descent operatio for which it is to be certif actual persons of varied p should be used.	uld be subjected to ns twice the number ricated. For this test	On completion the passage path should rema a serviceable condition.	n in .1 Number of vertical passages .2 Number of sliding operations per pass .3 Passage remains in serviceable con Comments/observations. Passed Failed	sage
6.2.6.1 Load test of pass	age to container	Regulations	LSA Code I/1.2 & VI/6.2; MSC.81(70) 1/12.3.2.2	
Test Proce		Acceptance Criteria	Significant Test Data	
Marine Evacuation Vertical A static load of 2.2 times th the system is to be designed for a period of 30 minute between the passage and th This static load is to be calculated load imposed number and size of fully load the system is designed, att platform with the ship movin at 3 knots against a head w Beaufort scale.	e maximum to which ed should be applied s to the connection he container. e equivalent to the by the maximum ded liferafts for which tached to the loaded ng through the water	On completion there must be no signs of fracture or stranding of its connections, or o damage as a result of this factory test.		min onT.

Marine evacuation	Manufacturer: Model:		Ş	e: Time: veyor:	
systems	Lot/Serial Number:			Organization:	
6.2.6.2 Cold passage tes	st		Regulations: L	SA Code I/1.2 & VI/6.2; MSC.81(70) 1/12.3.2.3	
Test Proce		Acceptance Crit		Significant Test Data	
Marine Evacuation Vertical The stowed passage shoul chamber at a temperature of 24 hours.	d be placed in a cold	At this temperature the passa signs of cracking or other defe		 Cold chamber temperature _0C Time inTime out Total time in chamberhr Total time to deploysecs Does passage show signs of cracking or other defects Yes/No Comments/observations. Passed Failed 	
6.2.6.3 Wet descent test			Regulations: L	SA Code I/1.2 & VI/6.2; MSC.81(70) 1/12.3.2.4	
Test Proce		Acceptance Criteria		Significant Test Data	
Marine Evacuation Vertical It should be demonstrate descent operations, in the passages with the path th water to simulate wet weath	Passage. ed with at least 10 case of open vertical oroughly wetted with	The speed of descent should excessive or dangerous.		V	

Marine evacuation systems	Model:		_	Surveyor:	Time:
6.2.7.1 Loaded freeboard	l and 50% buoyancy lo	oss loaded test	Regulations: L	SA Code I/1.2	& VI/6.2.1.3.3; MSC.81(70) 1/12.4.1, 12.4.2
Test Procee			ce Criteria		Significant Test Data
Marine Evacuation Platform The platform should be infla the number of persons ca with form 6.2.1.4. Free measured all round all we lifejacket. It should then be demonstra of the loss of 50% of the bu the platform should be capa number of persons spe approved lifejacket.	, if fitted ated and loaded with rried in accordance boards should be earing an approved ated that in the event loyancy in the tubes, ble of supporting the	Freeboard should be measu be less than 300 mm. and sho	red all round, ar		No. of persons on platform Freeboard in undamaged condition Freeboard recorded Positive Negative 12 o'clock mm

Marina avaquation	Manufacturer:				Time:
Marine evacuation systems	Lot/Serial Number:			Organization:	
-					
6.2.7.2 Self-draining test			Regulations:	LSA Code I/1.2	2 & VI/6.2; MSC.81(70) 1/12.4.3
Test Proce	dure	Acceptanc	e Criteria		Significant Test Data
Marine Evacuation Platform		There should be no appreciable accumulation of water on the platform. The platform should remain stable and usable		.1 Hose delivery rate I/min	
Water should be pumped ir platform, while it is afloat, a	t a rate of 2300 I per	during this test.			.2 Period of delivery of water min
minute for 1 minute, the w shut off.	ater should then be				.3 Area of platform m ²
If the platform is divided into					.4 Area of drainage point m ²
thwarts or other means, ea be subjected to the test.	ch such area shouid				.5 Drainage area sufficient to remove water Yes/No
					Comments/observations.
					Passed Failed

Manufacturer:					r:
systems					ation:
6.2.7.3 Cold inflation tes	t		Regulations:	LSA Cod	e I/1.2 & VI/6.2; MSC.81(70) 1/12.4.4
Test Proce	dure	Acceptance (Criteria		Significant Test Data
Marine Evacuation Platform		The passage and component cracking, seam slippage or ot		sign of	.1 Cold temperature0C Time in Time out
The uninflated platform wit					Hours in chamber @ -30ºC
should be placed in a temperature of -30°C.	cold chamber at a	The gas inflation system sh cracking or other defects.	ould show no	sign of	.2 Design WP kPa
After a period of not less t temperature the platform on		The Pressure Relief Valves se ensure that they operate sat			.3 System usable in min
reach its working pressure		and during the warming up of			.4 Time to reach working pressure min
					.5 Relief valves blowing at:
					Gas Inflation System Acceptable to Administration Yes/No
					.6 Details of gas inflation system
					.1 Platform - No. of cylinders Weight of cylinders Kg. Gas charge kg CO ₂ , kg N ₂ Bottle details
					.7 Details of high pressure hose
					.1 Material of Hose .2 Pressure rating of hose continued

Marine evacuation systems	Model:			Date: Surveyor: Organization:
6.2.7.3 Cold inflation tes	t (continued)		Regulations:	LSA Code I/1.2 & VI/6.2; MSC.81(70) 1/12.4.4
Test Proce		Acceptance Crite		Significant Test Data
Continued:		Continued:		.8 Details of Cylinder valve .9 Details of Operating Head .10 Details of Inflation Valve
				Passed Failed

Marine evacuation systems	Model:		Surveyor:	Time:	
-					
6.2.7.4 Hot inflation test			LSA Code I/1.	2 & VI/6.2; MSC.81(70) 1/12.4.5	
				Significant Test Data	
Test Proce Marine Evacuation Platform The platform with its inflation placed in a hot chamber +65°C for not less than 7 ho	n, if fitted: on system should be at a temperature of	Acceptance Criteria On being inflated the pressure relief valves or should be of sufficient capacity to prevent excess of twice the designed working pressur The passage and components should show cracking, seam slippage or other defects. The maximum pressure achieved during the align with the Pressure Relief Valves Lifting pressures. (The inflation system should be identical to described in 6.2.6.3 above)	pressure in e. w no sign of e hot should and Re-seat	Significant Test Data .1 Hot temperature	

Marine evacuation systems	Model:			Surve	Time: eyor: nization:
6.2.7.5 Three times over				SA Cod	de I/1.2 & VI/6.2; MSC.81(70) 1/ 5.17.7, 5.17.8 & 12.4.6
Test Proce Marine Evacuation Platform Each inflatable compartm should be tested to a pre times the working pressure valve should be made inop air should be used to inflate inflation source removed continue for at least 30 min The measurement of pro- leakage can be started assumed that compartr completed stretching due and achieved equilibrium.	n, if fitted; nent in the platform ssure equal to three . Each pressure relief perative, compressed the platform and the d. The test should intes. essure drop due to when it has been nent material has	Acceptance of The pressure should not de 5% as determined without temperature and atmosphere and there should be no sead or other defect in the platfor	ecrease by more th ut compensating ric pressure chang am slippage, crack	for [·] ges, king	Significant Test Data 1 Passage .1 Design Working Pressure

Marine evacuation	N 4 - 1 - 1			Date: Survevor:	Time:
systems				Organization:	
6.2.8 Liferaft construct	tion		Regulations:	LSA Code I/1.2	2 IV/4.2 & VI/6.2; MSC.81(70) 1/12.5.1
Test Proce		Acceptanc			Significant Test Data
Inflatable liferafts assoc evacuation systems Any inflatable liferaft used in marine evacuation system the requirements of the LSA	iated with marine n conjunction with the should conform with	Liferafts used in conjunction system should conform and requirements of section 4.2.	with the marin		Type approval certifications confirms compliance with LSA Code section 4.2 and liferafts testing consistent with section 4.1 of the Survival Craft Evaluation and Test Report Forms Conforms to LSA Code section 4.2? Yes/No Testing consistent with Test Reports in Section 4.1 Inflatable liferafts? Yes/No Comments/observations.

Marine evacuation Model:		Date: Time: Surveyor: Organization:		
6.2.8.1 Liferaft release from stowage position		ulations: SOLAS III/13.4; LSA Code I/1.2 & VI/6.2; MSC.81(70)		
Test Procedure	Acceptance Criteria	Significant Test Data		
Inflatable liferafts associated with marine evacuation systems	It should be demonstrated that the liferafts can be deployed from their	.1 Height of stowage position in lightest seagoing conditionm.		
Any inflatable liferaft used in conjunction with the	stowage position, and moored alongside the platform, if fitted,	.2 Certified drop height of liferaftm.		
marine evacuation system should, where applicable;	before being inflated, and bowsed in ready for boarding.	.3 Operation carried out successfully Yes/No		
.1 be sited close to the system container but be capable of dropping clear of the deployed	It should be demonstrated that the liferafts can be deployed from their	.4 Method of release automaticmanual		
system and boarding platform.	stowed positions independently of the marine evacuation system.	.5 Description of release method		
.2 be capable of release one at a time from its stowage rack with arrangements which will	It should be demonstrated that the	.6 Liferafts launched independently of the MES Yes/No		
enable it to be moored alongside the	liferafts will float free from their			
platform.	stowage positions, inflate and then break free in the event of the ship	Passed Failed		
.3 be provided with pre-connected or easily connected retrieving lines to the platform.	sinking.			

				Date	: Time:
Marine evacuation	Model:			Surve	eyor:
systems	Lot/Serial Number:			Orga	nization:
6.2.8.2 Liferaft release from	om passage		Regulations: SO	LAS III	I/13.4; LSA Code I/1.2 & VI/6.2; MSC.81(70) 1/12.5.5
Test Procee		Acceptance	Criteria		Significant Test Data
Inflatable liferafts associ evacuation systems	iated with marine	If the passage is to give liferaft(s), it should be der			Are liferafts launched with passage Yes/No
Any inflatable liferaft used in conjunction with the		be easily and quickly deta	iched.	.2	Method of connection of liferafts to passage
marine evacuation system with pre-connected or	easily connected			.3	Method of release from passage
retrieving lines to the platfor	m.				
				.4	Method of release acceptable Yes/No
				(Comments/observations
				Pa	assed Failed

Marine evacuation	Manufacturer:			Date: Time: Surveyor:	
systems	Lot/Serial Number:	·		Organization:	 -
6.2.9 Timed evacuation	n test		Regulations:	LSA Code I/1.2 & VI/6.2; MSC.81(70) 1/12.6.1	
Test Proce	dure	Acceptance Criteria	a -	Significant Test Data	
Performance of the marine	,	The passage of the marine system should provide for sa	fe decent of	No. of persons system is certificated for	
A marine evacuation system for capacity by mean c	of timed evacuation	persons of various ages, sizes capabilities, wearing approved	d lifejackets,	No. of platform crew	
deployments conducted in h		from the embarkation station to platform or survival craft.	o the floating	Number evacuated after 10 min (cargo	vessel)
It should be demonstrated deployment of a system, ind and inflation of all the assoc system will provide a sa evacuation.	cluding the launching iated liferafts, that the			Number evacuated after 30 min (passenger	vessel)
For this trial the number of should be that for which certificated.				Time taken	
The various stages of this tri as to permit the calculation	on of the number of			Carrying capacity of liferafts	
persons that can be evacu- period, a representative co	mposition of persons			Height of embarkation deck above water	m
with normal health, height a used in the demonstration, different sexes and ages so and reasonable.	and should consist of			Weather conditions: Comments/Observations	
Time Trial Sheets Attached	to be completed				
				Passed Failed	

Marine evacuation systems	Manufacturer: Model: Lot/Serial Number:		Date: Time: Surveyor: Organization:	
6.2.10.1 Heavy weather	er sea trial (Phase 1)	Regulation	ns: LSA Code I/1.2 & VI/6.2; MSC.81(70) 1/12.6.2.1	
	Test Procedure	Acceptance Criteria	Significant Test Data	
	neavy weather sea trial should not fall	System to remain usat		
	ociated with a wind of force 6 on the	throughout the trials and shou		
Beaufort scale.		not suffer damage to the platfor		
		passage, or liferafts, or oth	ner Wind speed at startm/s	
	ated at sea by a full deployment of a	defects.		
	unching and inflation of the associated		Wind speed at endm/s	
	m will provide a satisfactory means of te associated with a wind of force 6 on	System capable of providing a		
	in associated with a significant wave	metres significant wave heig satisfactory means of evacuati		
	During the sea trial, a spectrum analysis	in a sea state associated with		
	height should be performed. The signal	wind of force 6 on the Beauf	U	
	filtered at 0.08 Hz to exclude any	scale.	Method of measuring wave height	
	. The significant wave height should be			
calculated based on fill	ered spectrum and should not be less			
than 3.0 m.			Average drift of ship during trialm/s	
	ald be carried out in accordance with the		Time taken for system to become usablemin	
following procedures:			Marthan and the same in a lowith test limits Mar (NI)	
Dhase 1 Initial deploy	ment of avetem		Weather conditions remained with test limits Yes/No Comments/Observations	
Phase 1 – Initial deploy	ment of system.		Comments/Observations	
.1 with the vessel in	a simulated "dead ship" condition, and			
	nd the system (passage and platform or		Passed Failed	
	ation) should be deployed in its normal			
design manner; ar				
-				
	passage are to be observed from the			
	this condition that it forms a stable			
	n for the platform crew to descend and			
carry out their initia	al duties in preparation for evacuation;			

Marine e systems	evacuation	Manufacturer: Model: Lot/Serial Number:		Surv	e: Time: veyor: anization:
6.2.10.2	2 Heavy weather se	ea trial (Phase 2)	Regu	lations	:: LSA Code I/1.2 & VI/6.2 ; MSC.81(70) 1/12.6.2.2
	Test Pro		Acceptance Criteria		Significant Test Data
fall belo		weather sea trial should not siated with a wind of force 6	System to remain usable throughou trials and should not suffer damage to platform, passage, or liferafts, or defects.	o the	.2 Number of platform crew Number of liferafts deployed
Phase 2	2 – Lee Side Trial				Safe to evacuate 20 persons to liferafts
.1	.1 the ship to be manoeuvred to place the system mea on the lee side and then allowed to freely drift; asso		System capable of providing a satisfa means of evacuation in a sea associated with a wind of force 6 or Requirer tagele	state	Yes/No
.2 .3	nominated number descend via the pa two liferafts whice separately; where the system direct access to number of liferaft be via the passage. employed with the	employs a platform, the of the platform crew are to assage and retrieve at least ch have been launched employs a passage giving the liferaft, the nominated oarding crew are to descend If additional liferafts are system, then they should be by and be retrieved by the	Beaufort scale. (The design of marine evacuation sysmay vary, such that the configuration of arrangement of the liferafts as described the test procedure may not be appliced. The Heavy weather sea trial shoul based upon the manufacturers deconcept, for the system, for evacuatin number of persons in the required times.	of the ed in able. d be esign g the	.3 Evacuation satisfactory Yes/No Comments/Observations.
.4	deployed, dep considerations 2	have been satisfactorily endant upon safety 0 persons in suitable g are to evacuate to the e passage.			Passed Failed

Marine evacuation Mode	el:		Surv	e: Time: reyor: anization:
6.2.10.3 Heavy weather sea trial	(Phase 3)	Reç	gulations	: LSA Code I/1.2 & VI/6.2; MSC.81(70) 1/12.6.2.3
Test Procedure		Acceptance Criteria		Significant Test Data
Test Procedure Conditions during the heavy weather fall below a sea state associated w on the Beaufort scale. Phase 3 – Loaded trial lee side The platform, if fitted, and the liferafts are to be loaded to their c weights representing 75 kg/person When loaded with the required wei be observed for a period of 30 min free to drift. Vessel allowed to drift for a min minutes.	er sea trial should not with a wind of force 6 required number of certified capacity with dights the system is to nutes, with the vessel	Acceptance Criteria System to remain usable through trials and should not suffer damage platform, passage, liferafts, or defects. System capable of providing a satis means of evacuation in a sea associated with a wind of force 6 Beaufort scale. The system should continue to pro safe and stable evacuation system.	e to the other sfactory a state on the ovide a	Significant Test Data Number of persons platform can carry Platform weight loaded = persons X 75 kg = kg Number of liferafts inflated Carrying capacity of liferaft Liferaft weight loaded = persons X 75 kg =kg Method of loading liferafts Average drift speed during trialm/s Length of loaded trial lee sidemin Comments/Observations

	Manufacturer:		Date:	Time:
Marine evacuation	Model:			/or:
systems	Lot/Serial Number:			zation:
6.2.10.4 Heavy weather se				_SA Code I/1.2 & VI/6.2; MSC.81(70) 1/12.6.2.4
Test Pr	ocedure	Acceptance Crite	ria	Significant Test Data
	weather sea trial should not	System to remain usable t		Number of persons platform can carry
fall below a sea state assoc	ciated with a wind of force 6	trials and should not suffer of	•	Number of persons platform can carry
on the Beaufort scale.		platform, passage, liferafts, or	other defects.	Platform weight loaded = persons X 75 kg
Phase 4 – Loaded trial wea	ther side	System capable of providing	a satisfactorv	= kg
		means of evacuation in	a sea state	Number of liferafts inflated
	d the required number of	associated with a wind of for	orce 6 on the	
liferafts are to be loaded to weights representing 75 kg/	their certified capacity with	Beaufort scale.		Carrying capacity of liferaft
weights representing 75 kg/	person.	The system should be test	ed as far as	
The trials of phase 2 and 3	should be repeated with the	practicable, on a vessel h		Liferaft weight loaded = persons X 75 kg
	eather side of the ship. The	characteristics to the types	of ships the	= kg
	eather side trials may be	equipment is to be fitted to.		Method of loading liferafts
conducted in any convenier	nt order.			<u> </u>
Where ship manoeuvres	are required to place the			
system on any one side	e, any damage or failure			Average drift speed during trial m/s
	euvre should not constitute a			Average unit speed during that has
failure of the system.				Length of loaded trial weather side min
Vessel allowed to drift for	r a minimum period of 30			Commente/Observations
minutes.	·			Comments/Observations
				Passed Failed

Marine system	evacuation IS	Manufacturer: Model: Lot/Serial Number:	Surveyor:
6.2.11	Evacuation trial	timings (MES with platform and liferafts)	Regulations: SOLAS III/15; LSA Code I/1.2 & VI/6.2; MSC81(70) 1/6.1.5
			TIMINGS
1 ME	ES door open		
2 ME	ES in water		
3 ME	ES slide/platform infla	ated	
4 4 p	platform crew on plat	form	
5 Sig	gnal to release liferaf	ts given	
6 1 S	T LIFERAFT LAUN	CHED	
6.1	I ILR container bow	vsed in	
6.2	2 ILR boardable		
6.3	3 1st person descer	nds system	
6.4	4 Last person in life	raft No 1	
6.5	5 Liferaft marshalled	d clear	
7 2N	7 2ND LIFERAFT LAUNCHED		
7.1	7.1 ILR container bowsed in		
7.2	7.2 ILR boardable		
7.3	7.3 1st person descends system		
7.4	4 Last person in life	raft No 2	
7.5	5 Liferaft marshalled	d clear	

Continued.....

(C	ontinued)	TIMINGS
8	3RD LIFERAFT LAUNCHED	
	8.1 ILR container bowsed in	
	8.2 ILR boardable	
	8.3 1st person descends system	
	8.4 last person in liferaft No 3	
	8.5 Liferaft marshalled clear	
9	4TH LIFERAFT LAUNCHED	
	9.1 ILR container bowsed in	
	9.2 ILR boardable	
	9.3 1st person descends system	
	9.4 Last person in liferaft No 4	
	9.5 Liferaft marshalled clear	
10	5TH LIFERAFT LAUNCHED	
	10.1 ILR container bowsed in	
	10.2 ILR boardable	
	10.3 1st person descends system	
	10.4 Last person in liferaft No 5	
	10.5 Liferaft marshalled clear	

Continued.....

(Continued)	TIMINGS
11 6TH LIFERAFT LAUNCHED	
11.1 ILR container bowsed in	
11.2 ILR boardable	
11.3 1st person descends system	
11.4 Last person in liferaft No 6	
11.5 Liferaft marshalled clear	
12 7TH LIFERAFT LAUNCHED	
12.1 ILR container bowsed in	
12.2 ILR boardable	
12.3 1st person descends system	
12.4 Last person in liferaft No 7	
12.5 Liferaft marshalled clear	
13 8TH LIFERAFT LAUNCHED	
13.1 ILR container bowsed in	
13.2 ILR boardable	
13.3 1st person descends system	
13.4 Last person in liferaft No 8	
13.5 Liferaft marshalled clear	
Evacuation trial completed at hr min sec	
Total Time for Evacuation	hr min

Marine evacuation systems		Manufacturer: Model: Lot/Serial Number:	Surveyor:
6.2.12	Evacuation trial ti	mings (MES straight into liferafts)	Regulations: SOLAS III/15; LSA Code I/1.2 & VI/6.2; MSC81(70) 1/6.1.5
			TIMINGS
1 MES	S door open		
2 MES	S in water		
3 MES	S passage, liferafts in	flated and boardable	
4 MES	S crew descend		
4.1	Additional liferaft la	unched (if required)	
4.2	ILR container bows	sed in	
4.3	ILR boardable		
5 Sigr	nal to receive passen	gers given	
6 1 ST	PERSON DESCEN	DS (liferaft No 1)	
6.1	Last person in lifer	aft No 1	
6.2	Liferaft marshalled	clear	
7 1 ST	PERSON DESCEN	DS (liferaft No 2)	
7.1	Last person in lifer	aft No 2	
7.2	Liferaft marshalled	clear	
8 1 ST	PERSON DESCEN	DS (liferaft No 3)	
8.1	Last person in lifer	aft No 3	
8.2	Liferaft marshalled	clear	

Continued.....

Continued	TIMINGS
9 1ST PERSON DESCENDS (liferaft No 4)	
9.1 Last person in liferaft No 4	
9.2 Liferaft marshalled clear	
10 1ST PERSON DESCENDS (liferaft No 5)	
10.1 Last person in liferaft No 5	
10.2 Liferaft marshalled clear	
11 1ST PERSON DESCENDS (liferaft No 6)	
11.1 Last person in liferaft No 6	
11.2 Liferaft marshalled clear	
12 1ST PERSON DESCENDS (liferaft No 7)	
12.1 Last person in liferaft No 7	
12.2 Liferaft marshalled clear	
13 1ST PERSON DESCENDS (liferaft No 8)	
13.1 Last person in liferaft No 8	
13.2 Liferaft marshalled clear	
Evacuation trial completed at hr min sec	
Total Time for Evacuation hr min	

6.3 MEANS OF RESCUE

EVALUATION AND TEST REPORT

- 6.3.1 Submitted drawings, reports and documents
 - 6.3.1.1 General data and specifications
 - 6.3.1.2 Quality assurance
 - 6.3.1.3 Visual inspection
- 6.3.2 Means of rescue Marine evacuation systems
 - 6.3.2.1 Visual inspection of means of rescue types
 - 6.3.2.2 Means to ascend to the deck
 - 6.3.2.2.1 Visual inspection of means to ascend to the deck
 - 6.3.2.2.2 Handholds on inclined MESs
 - 6.3.2.2.3 Visual inspection of ladders (or equivalents)
 - 6.3.2.3 Mechanical hoist
 - 6.3.2.3.1 Static proof load test of safety hoist
 - 6.3.2.3.2 Operational load test
 - 6.3.2.3.3 Turning in test
 - 6.3.2.3.4 Winch brake test
 - 6.3.2.3.5 Safety hoist recovery speed test
 - 6.3.2.3.6 Hand operation test
- 6.3.3 Means of rescue Davit launching system
 - 6.3.3.1 Visual inspection of davit-launched means of rescue
 - 6.3.3.2 Markings on davit-launched means of rescue
 - 6.3.3.3 Impact test
 - 6.3.3.4 Inflatable means of rescue
 - 6.3.3.4.1 Damage test of inflatable means of rescue
 - 6.3.3.4.2 Inflation test
 - 6.3.3.4.3 Pressure test
 - 6.3.3.4.4 Strength test
 - 6.3.3.5 Rigid means of rescue
 - 6.3.3.5.1 Construction of rigid means of rescue
 - 6.3.3.5.2 Strength of rigid means of rescue
 - 6.3.3.6 Means of rescue launching appliance
 - 6.3.3.6.1 Static proof load test
 - 6.3.3.6.2 Operational load test
 - 6.3.3.6.3 Turning in test
 - 6.3.3.6.4 Winch brake test
 - 6.3.3.6.5 Means of rescue recovery speed test
 - 6.3.3.6.6 Hand operation test

6.3 MEANS OF RESCUE

EVALUATION AND TEST REPORT

Manufacturer	
System Type	
Serial Number	
Maximum Working Load	
Maximum Turning Moment	
Winch type	
Serial Number	
Date	
Place	
Name Surveyor printed	
Signature	
Approving Organization	

Means of rescue	Manufacturer: Model: Lot/Serial Number:		Surveyor:	Time:
6.3.1 Submitted drawi	ngs, reports and documen	ts		
Submitted drawings and	documents	1		
Drawing No.	Revision No. & date	Title of drawing		Status
Submitted reports and de				
Report/Document No.	Revision No. & date	Title of report/document		Status
		Maintenance Manual		
		Operations Manual		

Means of rescue	Model:		ate: Time: irveyor: ganization:			
6.3.1.1 General data and	d specifications	-	Surveyor: Organization: Organization: Organization: Regulations: LSA Code IV/4.4, V/5.1; MSC.81(70)1/7.2.16 MOR Weight Design Weight: Unloaded: Loose Equipment: Persons: Persons: Vith Persons: Sale With Persons: With Persons:			
General Information		MOR Dimensions		MOR Weight		
014/1	ntation: Fype App.) .: e buoyancy: applicable) 1 2	Dimensions:		Unloaded:		

	Manufacturer:	Date: Time:			
Means of rescue	Model: Lot/Serial Number:	Surveyor:			
	Lot/Serial Number:	Organization:			
6.3.1.2 Quality assurance	ce	Regulations: MSC.81(70) 2/1.1. 1.2			
	s of a particular type are required by chapter III	Quality assurance			
	ntion for the Safety of Life at Sea, 1974, as				
	nal Life-Saving Appliance (LSA) Code, to be	Standard Used:			
	of the Administration should make random rers to ensure that the quality of lifesaving				
appliances and materials	used comply with the specification of the	Surveyor:			
approved prototype life-sav	ving appliance.				
Manufacturers should be re	equired to institute a quality control procedure	Regulations: MSC.81(70) 2/1.1, 1.2 Quality assurance Standard Used: Quality assurance Procedure: Quality assurance Manual: Description of System: Quality assurance System acceptable Yes/No			
	ppliances are produced to the same standard				
	appliance approved by the Administration and duction tests carried out in accordance with the	Description of System:			
Administration's instruction					
		Commente (Observations			
		Comments/Observations			

Means of rescue Manufacturer: Model: Lot/Serial Number:			Surveyor:		me:	
6.3.1.3 Visual inspection	n	Regulations:SOLAS III/2	III/26.4; LSA Code I/1.2.2.9; MSC/Circ.810-2.2, 2.4.2.1, 2.4.2.4, 2.4.2.9 Criteria Significant Test Data al information including the it, date of manufacture and ons; Passed Failed Passed Failed Failed n the maximum number of Passed Failed			
Test Procee		Acceptance Crite	eria	Signific	ant Test Data	
1 Approval markings Be cl			early marked with approval information including the		Failed	
		expiry and operational restrictions; Markings are to be indelible;		Passed	Failed	
		Markings are to be indelible,				
pe Be life		Be conspicuously marked with the maximum number of persons the means of rescue is permitted to take;		Passed	Failed	
		Be conspicuously marked to prevent confusion with liferafts and, if applicable to a marine evacuation system, unless these also form part of the means of rescue; and		Passed	Failed	
.2 Operating instructions			provided with brief instructions or diagrams clearly rating the use of the means of rescue.		_ Failed	
				Comments/Observa	tions	

Means of rescue Manufacturer: Model: Lot/Serial Number:		Surveyor:			
6.3.2.1 Visual inspection	n of means of rescue	e types	Regulations:	SOLAS III/26.	4; LSA Code 1.2.2.9; MSC/Circ.810-2.4
Test Proced		Acceptance	e Criteria		Significant Test Data
 The means of rescue should be one of the following: .1 A marine evacuation system complying with the requirements of section 6.2 of the LSA Code providing a suitable floating platform, with a ladder or other means to ascend to the deck for able-bodied persons, and a mechanically powered means to safely hoist persons lying down. 		Is the MES Type Approved in a above? Is a suitable floating platform p Is a ladder or other means provided? Is a mechanical hoist provided	provided?		Yes/No Yes/No Yes/No
lying down. 2 A device complying with the requirements for davit-launched liferafts in paragraphs 4.1.3.1, 4.1.4.1, 4.1.5.1.1, and in the case of an inflatable device, 4.2.2, 4.2.2.1, 4.2.2.3, 4.2.2.4, 4.2.7, 4.2.8.1, 4.2.8.2 (if fitted) and 4.2.9.1, or in the case of a rigid device, 4.3.1, 4.3.2, 4.3.6.2, 4.3.6.3, 4.3.6.4, 4.3.6.6, 4.3.6.9, 4.3.6.10 and 4.3.7 of the LSA Code, to provide a suitable floating platform. The device should be used with a launching appliance, meeting the requirements of 6.1 or equivalent. A safety device should be fitted to prevent over stressing the launching appliance.		Is the device designed to com a davit-launched liferaft? Is the Means of Rescue ar device?			Yes/No Inflatable/Rigid Comments/Observations

Means of rescue	Model:		_	Surveyor:		_ Time:
6.3.2.2.1 Visual inspection	on of means to asce		Regulations:	MSC/Circ.810	-2.4.1	
Test Proced		Acceptance			Sigr	nificant Test Data
The MES is to be provide able-bodied persons to asc		A means of ascending to the deck is to be provided and corresponds to the approved drawings.		Passed	Failed	
In the case of a vertical M be a ladder or by other mea	-					
For inclined MESs, this can be either by providing suitable handholds or by portable ladders with steps having an efficient non-slip surface.		The amount of maintenance minimum.			Passed	Failed
Visually inspect the appliance. Conduct measurements and verify clearance as required.		Parts which require mainte accessible and easily maintain		be easily	Passed	Failed
					Means provided	to ascend to the deck:

Moone of receive Model:			Surveyor:	Time:
6.3.2.2.2 Handholds on	Inclined MESs	Regulations:	: MSC/Circ. 810) –2.4.1
Test Proced		Acceptance Criteria		Significant Test Data
Materials used for hand		Are handholds fitted?		Yes/No
suitable for the intended pu	irpose.			
		The material and its means of attachment used for the handholds is to be of sufficient strength to accommodate the expected use.		Passed Failed
	tion of ladders (or ec			
Test Proced		Acceptance Criteria		Significant Test Data
The steps of the ladder should be suitable for the in		The construction of the ladder and its means of are to be of sufficient strength to accome xpected use.		Passed Failed
				Comments/Observation

Moone of receive Model:	ber:	Date: Time: Surveyor: Organization:
6.3.2.3.1 Static proof load test of S Test Procedure For safety hoist and launching applia except winches, should be subjected static proof load of 2.2 times their max working load. With the load at the full outboard positic load should be swung through an a approximately 10° to each side of vert the intended fore and aft plane. The test should be done first in the u position, followed by tests simulati shipboard condition of list of 20° both in and outboard.	ber: Acceptance Cri Acceptance Cri es, The launching appliance and it a than winches should be of s withstand a static proof load on 2.2 times the maximum working the There should be no evide of deformation or other damage as in	Organization:

	Manufacturer:				Time:
Means of rescue	Model:			Surveyor:	
	Lot/Serial Number:			Organization:	
6.3.2.3.2 Operational lo	ad test		Regulations: LS	SA Code 6.1.1.1 - 6.1.1.3;	MSC.81(70) 1/8.1.2
Test Proce	dure	Acceptance C	riteria	Sig	nificant Test Data
For safety hoist a mass eq	ual to 1.1 times the	The appliance should su	ccessfully lower	Weight of the lightest sat	fety hoist intended for use:
maximum working load sh	ould be suspended	the load under all of the	conditions, and		
from the lifting points v	vith the launching	there should be no	evidence of	LWL:	kN
appliance in the upright po	sition.	significant deformation o	r other damage		
		as a result of the tests.	-	MWL:	kN
The load should be mo	oved from the full				
inboard to the full outboard	d position using the	Each launching appliance	e together with	Test load (1.1 x MWL)	: kN
means of operation that is	used on the ship.	all its lowering and recov	ery gear should		
		be so arranged that the	fully equipped	Clear of davit horn?*	Passed/Failed
The test should be repeate	d with the launching	safety hoist it serves	can be safely		
appliance positioned to sin		lowered against a trim of			ccessfully lower the load under these
20 ⁰ inboard list and 10 ⁰ trir	n.	list of up to 20 ⁰ either wa	y:		dence of significant deformation or ed/Failed
All the tests should be rep	peated with a mass	When boarded, as requir	ed by regulation	_	
equal to that of a fully equivitation without persons, or the sa		III/23 or III/33, by its full persons; and	complement of	Upright (1.1x MWL)	Passed/Failed
for the use with the da		•		20º inboard list +10° tri	m (1.1xMWL)Passed/Failed
satisfactory functioning of t	he davit under verv	Without persons in the sa	afety hoist.		· · · · · ·
light load conditions.				20º inboard list +10° trin	n (LWL) Passed/Failed
				Stored power	Passed/Failed
				Start pressure:	k Pa
				Min. pressure:	k Pa
				Pressure drop after one	movement: k Pa
				Time from inboard to out	tboard: sec
				Comments/Observations	5
				*if applicable	

Means of rescue	Manufacturer: Model: Lot/Serial Number: .			Surveyor:	Time:
6.3.2.3.3 Turning in test	t		Regulations:	LSA Code 6.1.1	.3; MSC.81(70) 1/8.1.3
Test Proce		Acceptance	e Criteria		Significant Test Data
A mass equal to 1.1 tir working load should be s lifting points with the laur the upright position. With t full upright position the hoisting load should be n outboard to the full inboard means of operation that is	uspended from the aching appliance in he appliance in the maximum design noved from the full d position using the	The appliance should succes designed hoisting load from t position without causing perm damage.	he outboard to	o the inboard	maximum designed hoisting load: kN Does the launching appliance successfully move the load from outboard to inboard? Passed/ Failed Does the launching appliance show any evidence of significant deformation or other damage as a result of this test? Passed/ Failed Comments/Observations

Means of rescue	Manufacturer: Model: Lot/Serial Number:		_	Date: Surveyor: Organization:		
6.3.2.3.4 Winch brake te	st		Regulations: I	.SA Code 6.1.2.5; MSC.81(70) 1/8.1.4		
Test Proced	lure	Acceptance Crite	eria	Significant Test Data		
Winch drums should b maximum number of turn static test load of 1.5 tir working load should be a the brake. This load shoul for at least one complete barrel shaft. A test load maximum working load lowered at maximum lowe a distance of at least 3 r applying the hand brake sh This test should be repe times. If the winch design incorp brake, one of these tests sh with the brake wetted bu stopping distance may be a The various tests should ac lowering distance of at leas Operation of the winch wit equal to that of a fully equ without persons, or the lin intended for use with the w demonstrated.	e wound to the s permitted and a nes the maximum oplied and held by d then be lowered e revolution of the of 1.1 times the should then be ring speed through n and stopped by arply. ated a number of orates an exposed hould be carried out t in this case the exceeded. shieve a cumulative et 150 m. h a load of a mass ipped safety hoist, ghtest safety hoist	The test load should drop no when the brake is applied stopping distance may be exposed brake is wetted). The launching appliance sho lower a mass equal to that of safety hoist, without persons safety hoist intended for use w Inspection of the stripped win no significant damage or undu	o more than 1 m (except that the exceeded if an ould successfully a fully equipped s, or the lightest vith the winch. ch should reveal	Weight of the lightest safety hoist * :		

Means of rescue Manufacturer: Model: Lot/Serial Number:			Surveyor:
6.3.2.3.4 Winch brake	e test (continued)		Regulations: LSA Code 6.1.2.5; MSC.81(70) 1/8.1.4
Test Pro		Acceptance Criteria	Significant Test Data
Following completion 6.3.2.3.5 and 6.3.2.3.6), stripped for inspection.			1 st stop > 3m 2 nd stop: m 3 rd stop: m 4 th stop: m 5 th stop: m Total lowering distance > 150 m Passed/ Failed Test 3 (if applicable) Winch design incorporates an exposed brake? Yes / No Wet stopping distance m Passed/ Failed Test 4 Test 4 Test load (LWL) kN Lowering test with LWL satisfactory? Passed/ Failed Does the inspection of the stripped winch reveal any significant damage or undue wear? Passed/ Failed Remarks:

Means of re	escue	Manufacturer: Model: Lot/Serial Number: .		Date: Time: Surveyor:			
6.3.2.3.5	Safety hoist re	ecovery speed test		Regulations:	LSA Co	de 6.1.1.9; MSC.81(70) 1/8.1.5	
	Test Proced		Acceptance C			Significant Test Data	
intended for of recoverin of persons its equipme	or use with a safe ng the safety ho for which it is to	ed that a winch ety hoist is capable ist with the number o be approved and lent mass at a rate	Each safety hoist launching fitted with a powered winch mo the safety hoist from the wat hoist complement of persons rate of not less than 0.3 m/s.	otor capable of r ter with its full s	aising safety	Hoisting load: Measured recovering speed of the safety hoist: m/s	
						Comments/Observations Passed Failed	

Means of rescue	Model:		_	Date: Surveyor: Organization:
6.3.2.3.6 Hand operation	on test		Regulations:	LSA Code 6.1.2.6; MSC.81(70) 1/8.1.6
Test Procee	dure	Acceptance Criter	а	Significant Test Data
The hand operation of the demonstrated. If the winch is designed fo hand with no load, demonstrated with a load mass of the empty lifting an	r quick recovery by this should be I of 1.5 times the	An efficient hand gear should for recovery of each safety hoi handles or wheels should not moving parts of the winch wh hoist is being lowered or who hoisted by power.	st. Hand gear be rotated by en the safety	Hoisting load: Test 1: Test load (1 x hoisting load): winch can be operated satisfactorily by hand? Passed/ Failed Arrangement provided for protection against moving parts and rotating handles? Passed/ Failed Type: Test 2: Only for quick recovery Test load (1.5 x weight of empty lifting arrangement): kN Is quick recovery satisfactory? Passed/ Failed Comments/Observations

		Manufactur	er:		Date:	Time:	
м	eans of rescue	Model:			Surveyor:		
IVI	earis of rescue	Lot/Serial N	umber:		Organization:		
6	.3.3.1 Visual inspectio (continued)	on of davit-l	ode - 1.2.2.9 MS	SC/Circular.810 -2.2, 2.4.2	.1, 2.4.2.4, 2.4.2.9		
	Test Procedure		Acceptance	- Critoria		Significant Test D	Jata
	isual examination.		The means of rescue should:	e Uniteria		Significant rest L	λαία
v	isual examination.		The means of rescue should.				
.1	Approval markings		Be clearly marked with approv Administration which approved expiry and operational restriction	t it, date of manufacture		5 Failed	
			Markings are to be indelible;		Passed	failed	
			Be conspicuously marked wit persons the means of rescue is		er of Passed	5 Failed	
			Be conspicuously marked to pr and, if applicable marine evac form part of the means of resc	uation system, unless th		d Failed	
.2	Operating instructions		Be provided with brief instru illustrating the use of the mean		early Passed	d Failed	
.3	Landing Area at water le	evel	The means of rescue is to have rescued persons:	ve at least 9m ² for recei	ving Passed	d Failed	
.4	Colour		Be of a highly visible colour:		Passed	failed	
.5	Protection		Be protected against damage ship's side;	e when moving against	the Passed	d Failed	N/A
			Offer protection to the rescue launching appliance;	d person from injury by	the Passed	d Failed	

Means of rescue	Su	Date: Time: Surveyor: Organization:				
6.3.3.1 Visual inspection (continued)	on of davit	-launched means of rescue	Regulations: MSC/Ci	rcular.810 -2.4.2.1, 2.4	I.2.2, 2.4.2.5 to 2	.4.2.8 & 2.4.2.11
Test Procedure		Acceptance C	riteria	S	ignificant Test Da	ata
Visual examination (cont.)		The means of rescue should (con			0	
.5 Protection (cont.)		Prevent occupants from falling fro should it come into contact with side;			_ Failed	
		Be arranged such that the rescue traverse any gaps between the n platform and/or the ship's deck:			_ Failed	
.6 Self-draining floor		The floor is to be self-draining:	Passed	_ Failed		
.7 Means provided for bowsing		Be provided with means of bowsing the means of rescue against the ship's side:		Passed	_ Failed	
.8 Equipment		Be provided with one knife, in accordance with 4.1.5.1.2 of the LSA Code, at each bowsing point:		f Passed	Failed	N/A
.9 Controls		The inflation system controls; if of an inflatable type, are to be manual controlled:		Passed	Failed	N/A
.10 Retro-reflective materi	al	Be fitted with retro-reflective ta resolution MSC.481(102), annex 2		Type of retro-refle	•	
		The materials should be sufficient a minimum area of 150 cm ²) and s buoyancy chamber at suitable 80 cm from centre to centre), in s are visible both from the air and fr	ly wide and long (to give should be attached to the intervals (approximately such a manner that they	e Tape sizes (LXB)_ / Total tape area	pacing:	_
.11 Boarding ramps		Be fitted with at least two boarding	g ramps.	Passed	Failed	N/A

Means of rescue Manufacturer: Model: Lot/Serial Number:				Sur	veyor:	Time:
6.3.3	.1 Visual inspecti (continued)	on of davit-launched	means of rescue	Regulations: LSA	Code – 4.1.3.1 and	4.1.5.1.1
	Test Pro	cedure	Accepta	ance Criteria		Significant Test Data
Visua	al examination (cont.)		The means of rescue sl	hould (cont.):		
.12		ecurely becketed around e of the means of rescue.	Lifelines provided and s	securely fitted.	Passed	Failed
.13	A buoyant rescue qu than 30m of buoyant	uoit, attached to not less line.	A buoyant rescue quoit, attached to not less than 30m of buoyant line is provided.		ss than Passed	Failed
.14	container of the mean are prevented from f	provided such that the ns of rescue or parts of it alling into the sea during nching of the means of	Fixing arrangements a adequate strength.	are provided which	are of Passed	Failed
.15	provided with at lea	ans of rescue is to be ast one repair outfit for res in buoyancy	A puncture repair kit is	provided.	Passed _	Failed
.16		ans of rescue is to be t one topping-up pump or	One topping-up pump o	or pair of bellows is pro		Failed

6.3.3.2 Markings on davit-launched means of rescue Regulations: LSA Code Test Procedure Acceptance Criteria The means of rescue should be marked with: The means of rescue should be either	ation:
Serial number; Name of approval authority and the capacity of the system;hard wear under conditions encountered at sea and as far as practicable weathertight, except for drain holes in the container bottom.Serial No.: Approval authSOLAS;Date of manufacture (month and year); Date and place of last service; Maximum permitted height of stowage above waterline; andAll instructions and markings to be indelible.Serial No.: Approval authThe maximum number of persons the means of rescue is permitted to accommodate.Maximum permitted to accommodate.Maximum num Launching and operating instructions should be marked on or in the vicinity of the container.Maximum num Launching & c	Significant Test Data

Means of rescue				Surveyor:	Time:
6.3.3.3 Impact test			Regulations:	LSA Code IV/4	4.1.4.1.1; MSC.81(70) 5.16.2
Test Proce	dure	Acceptanc			Significant Test Data
The liferaft should be loaded to the mass of the number of it is to be approved and its of liferaft in a free hanging p pulled laterally to a posi- released it will strike a rigin a velocity of 3.5 m/s. The should then be released to rigid vertical surface.	of persons for which equipment. With the osition it should be tion so that when d vertical surface at Means of Rescue	After this test the means of res damage which would affect its			Passed Failed

Means of rescue	Model:	::mber:	_	Date: Surveyor: Organization:	
6.3.3.4.1 Damage test of	of inflatable m	eans of rescue	Regulations: L	_SA Code IV/4.2.2.1; MSC.81(7	0) 5.17.1
Test Procedure		Acceptance Criteria		Significant	Test Data
Test Procedure It should be demonstrated event of any one of the compartments being da failing to inflate, the intact or or compartments should si positive freeboard over the rescue's periphery, the persons for which the mean is to be approved. The demonstrated with pers having a mass of 82.5 kg an their normal positions or by distributed mass.	that, in the buoyancy maged or ompartment upport, with e means of number of ns of rescue is can be sons each nd seated in	Acceptance Criteria The intact compartments should support freeboard over the means of rescue's number of persons for which the means to be approved, with any one of compartments deflated. Compartment deflated:	s periphery, the ans of rescue is the buoyancy =>	Compartment deflated: Freeboards: 12 o'clock 3 o'clock 6 o'clock 9 o'clock Compartment deflated: Freeboards: 12 o'clock	mm mm mm mm
					mm
				12 o'clock 3 o'clock	mm
				6 o'clock	mm
				9 o'clock	
				Comments/Observations	
				Passed	Failed

Means of rescue Manufacturer: Model: Lot/Serial Number:		Date: Surveyor: Organization:		
6.3.3.4.2 Inflation test			: LSA Code IV/4.2.2.3; MSC.81(70) 5.17.3 to 5.17.6	
tubes are inflated to fu .2 for the cover to be ere .3 for the means of re operational pressure w	able, i.e. when buoyancy ll shape and diameter. ct; and escue to reach its full when tested: emperature of between of -30°C; and of +65°C. °C the packed means of room temperature for at a refrigerated chamber at 24 h prior to inflation by eans of rescue should be it this temperature. °C the packed means of room temperature for at a refrigerated chamber at 24 h prior to inflation by eans of rescue should be it this temperature.	Acceptance Criteria When inflated in an ambient temperature of between 18°C and 20°C it should achieve total inflation in not more than 1 min. When inflated at -30°C the means of rescue should reach working pressure in 3 min. There should be no seam slippage, cracking, or other defect in the means of rescue and it should be ready for use after the tests. When inflated at +65°C the gas pressure relief valves must be of sufficient capacity to prevent damage to the means of rescue by excess pressure and to prevent the maximum pressure during the inflation from reaching twice the re-seat pressure of the release valve. There must be no seam slippage, cracking or other defect in the means of rescue. The force to pull out the painter should not be more than 150 N.	Significant Test Data 1) Force to pull the painterN Inflation times: Container opensec Boardablesec Relief valves: Upper opensec Lights int./ext/sec Working PressureMPa 2) Cold temperature0°C Hours:h Inflation times: Raft 1 Raft 2 Container opensec Boardableh Inflation times: Raft 1 Relief valves: Upper opensec Lights int./ext/sec Working Pressureh Inflation times: Container opensec Working Pressureh Inflation times: Container opensec Hours: MPa 3) Hot temperature	

Means of rescue	Model:		Date: Surveyor: Organization:
6.3.3.4.3 Pressure test			LSA Code IV/4.2.2.4; MSC.81(70) 5.17.7 to 5.17.8
Test Proce		Acceptance Criteria	Significant Test Data
Each inflatable compartm rescue should be tested to three times the working pre- relief valve should be compressed air should be inflatable means of resc source removed. The test least 30 min.	o a pressure equal to ssure. Each pressure made inoperative, e used to inflate the ue and the inflation	The pressure should not decrease by more than 5% as determined without compensating for temperature and atmospheric pressure changes, and there should be no seam slippage, cracking or other defects in the means of rescue.	Design WPOC Design atmosbar 3 times WPbar Pressure drop after 30 min The above should cover each compartments 1, 2 3, etc.
The measurement of pro- leakage can be started assumed that compartment completed stretching due to and achieved equilibrium. The term "operational pre- meaning as the term "work pressure determined by to pressure of the relief valves if the actual re-seat pressure determined by testing, ex- re-seat pressure by more figure should be used.	when it has been of material has been of the inflation pressure ssure" has the same ing pressure"; i.e. the he designed re-seat s, if fitted, except that, re of the relief valves, acceeds the designed		Damage recorded:

Mea	ns of rescue	Model:		Surveyor:		
6.3.	3.4.4 Strength test			Regulations: I	LSA Code IV/4.2.8.1.1; MSC.81(70) 5.17.10	
	Test Proced	ure	Acceptance	e Criteria	Significant Test Data	
	ould be demonstrated b		During the test and after its			
	the means of rescue		inflatable means of rescue	should remain		
	tre support that the brid		suitable for its intended use.		Temperature:0C	
ade	quate factor of safety as	s follows:				
	d a l'fractional a bland				Time in temperatureh	
.1	the liferaft should				Number of persons	
	temperature of 20±3°C least 6 h;				Number of persons	
.2	following this period o	f conditioning the			Loadkg	
.2	liferaft should be su					
	lifting hook or bridle a				Time suspendedmin	
	chambers (not includ				······	
	floor) inflated;	5			Pressure before loading	
.3	when fully inflated an	nd when the relief			, i i i i i i i i i i i i i i i i i i i	
	valves have re-seate				Pressure suspended/loaded	
	relief valves should be	•				
.4	the liferaft should the				Pressure after test after unloading	
	loaded with a c					
	equivalent to four time				Dimensional deflections or distortions:	
	number of persons fo approved and its equip					
	each person being tak				Comments/Observations	
.5	the liferaft should the				Comments/Observations	
.0	remain suspended for					
.6	the pressure before a					
	after the weight is ren					
	remains suspended, sl				Passed Failed	
	and					
.7	any dimensional					
	distortions of the li	feraft should be				
	recorded.					

Means of rescue	Model:			Surveyor:	Time:
	of rigid means of re			SA Code IV/4.3.2	
Test Proced		Acceptance Cri			Significant Test Data
The buoyancy of the mear be provided by approved material placed as near periphery of the liferaft. Th should be fire-retardant or fire-retardant covering.	inherently buoyant as possible to the e buoyant material	Material to be certified as beir The rigid means of rescue		Passed	Failed
The floor of the means prevent the ingress of		ingress of water.	·	Passed	Failed
effectively support the oct water and insulate them from	cupants out of the	The rigid means of rescue occupant out of the water.	is to support th	Passed	Failed
				Comments/Obse	ervations
				Passed	Failed

:	_ Surve	T yor: iization:	
		Significan	it Test Data
		Passed	Failed
	(
r	r:Acceptance C Acceptance C The rigid means of rescue permanent damage from such	surve Surve r: Regulations: LSA Co Acceptance Criteria Image: State of the	Surveyor:

Means of rescue	Manufacturer: Model: Lot/Serial Number:		Surveyor:	Tim	
6.3.3.6.1 Static proof	load test	Regulatio	ons: LSA Code 6.1	.1.5 - 6.1.1.6; MSC.81	(70) 1/8.1.1
Test Proced	dure	Acceptance Criteria		Significa	nt Test Data
For rigid means of rescue d appliances, except wind subjected to a static proo their maximum working loa With the load at the full our	ches, should be f load of 2.2 times id.	The launching appliance and its attachr winches should be of sufficient strength static proof load on test of not less that maximum working load.	n to withstand a	MWL : Test load (2.2 x MWI	
load should be swung t approximately 10 ⁰ to each the intended fore and aft pl	hrough an arc of side of vertical in	There should be no evidence of significat other damage as a result of this test.	nt deformation or	deformation or other Passed/Failed	
The test should be done position, followed by te shipboard condition of list and outboard.	ests simulating a			Upright 20 ⁰ inboard list 20 ⁰ outboard list Comments/Observat	Passed/Failed Passed/Failed Passed/Failed

Model:	:	Date: Time: Surveyor:		
Means of rescue Lot/Serial Nu	mber:	Organization:		
6.3.3.6.2 Operational load test	Regulation	s: LSA Code 6.1.1.1 - 6.1.1.3; MSC.81(70) 1/8.1.2		
Test Procedure	Acceptance Criteria	Significant Test Data		
For rigid means of rescue a mass equal to	1.1 The appliance should successfully lower	Weight of the means of rescue intended for use:		
times the maximum working load should	the load under all of the conditions, and	LWL kN		
suspended from the lifting points with	the there should be no evidence of significant	MWL: kN		
launching appliance in the upright position	n. deformation or other damage as a result of the tests.	Test load (1.1 x MWL) : kN		
The load should be moved from the inboard to the full outboard position using		Clear of davit horn?** Passed/ Failed		
means of operation that is used on the sh	its lowering and recovery gear should be	Does the appliance successfully lower the load under these conditions without evidence of significant deformation or		
The test should be repeated with the laund		damage?		
appliance positioned to simulate a comb		Passed/Failed		
20 ⁰ inboard list and 10 ⁰ trim.	be safely lowered against a trim of up to 10° and a list of up to 20° either way:	Upright (1.1x MWL) Passed/Failed		
All the tests should be repeated with a n	nass			
equal to that of a fully equipped life		20 ^o inboard list +10 ^o trim (1.1xMWL)		
without persons, or the lightest survival	craft III/23 or III/33, by its full complement of	Passed/Failed		
intended for the use with the davit to en	sure persons; and			
the satisfactory functioning of the davit u		20 ⁰ inboard list +10 [°] trim (LWL) Passed/Failed		
very light load conditions.	without persons in the survival craft or			
	rescue boat.	Stored power Passed/Failed		
Note:		Start pressure: k Pa		
Notwithstanding the 10° trim and 20°		Min. pressure: k Pa		
requirements, lifeboat launching applia		Pressure drop after one movement: k Pa		
for oil tankers, chemical tankers and carriers with a final angle of heel greater	than the ship's power supplies to launch the	Time from inboard to outboard: sec		
20 ⁰ should be capable of operating at the angle of heel on the lower side of the s	ship, fully loaded and equipped condition and	Comments/Observations		
taking into consideration the final dama waterline of the ship.	aged also in the light condition.	** if applicable		

Means of rescue	Model:			Date: Surveyor: Organization:
6.3.3.6.3 Turning in to	est		Regulations: LSA	A Code 6.1.1.3; MSC.81(70) 1/8.1.3
Test Proced	lure	Acceptance (Significant Test Data
A mass equal to 1.1 tim working load should be su lfiting points with the laun- the upright position. With th full upright position the hoisting load should be m outboard to the full inboard means of operation that is u	nes the maximum uspended from the ching appliance in ne appliance in the maximum design loved from the full position using the	Acceptance of The appliance should s the maximum designed the outboard to the without causing permane other damage.	uccessfully move hoisting load from inboard position	Significant Test Data maximum designed hoisting load: Does the launching appliance successfully move the load from outboard to inboard? Passed/ Failed Does the launching appliance show any evidence of significant deformation or other damage as a result of this test? Passed/ Failed Comments/Observations

	Manufacturer:			Date: _	Time:
			_		/or:
Means of rescue Lot/Serial Number:				Organiz	zation:
				-	
6.3.3.6.4 Winch brake to	est		Regulations: L	SA Coc	de 6.1.2.5; MSC.81(70) 1/8.1.4
Test Proced	dure	Acceptance Crit	teria		Significant Test Data
Winch drums should b	e wound to the	The test load should drop no m	nore than 1 m wh	hen	Weight of the lightest safety hoist
maximum number of turn		the brake is applied (except			: kN
static test load of 1.5 tin		distance may be exceeded if a	n exposed brake		
working load should be ap		wetted).			MWL : kN
the brake. This load shoul					
for at least one complete					Test 1:
barrel shaft. A test load					Static test load (1.5 x MWL): kN
maximum working load					Does the brake test hold the test load (1.5x MWL)?
lowered at maximum lower					Passed/Failed
a distance of at least 3 r					
applying the hand brake sh	harply.				MWM: kNm
This test should be seen	atad a www.haa af				Drum diam. mm
This test should be repe	ated a number of				Wire diam. mm
times.		The lourships appliance should	d au aca a afully lay		Number of turns
If the winch design income	arataa an avraaad	The launching appliance should			Max. lowering speed m/s
If the winch design incorport brake, one of these tests sh		a mass equal to that of a ful hoist, without persons, or the l			Test 2
with the brake wetted bu		intended for use with the winch	• •		
stopping distance may be e			I.		Dynamic Test load (1.1 x MWL):
stopping distance may be e	Exceeded.	Inspection of the stripped winc	h should reveal	Ino	Brake test carried out after > 3m with max lowering
The various tests should ac	chieve a cumulative	significant damage or undue w			speed
lowering distance of at leas		significant damage of undue w	cal.		Speed
Operation of the winch with					Stop within 1 metre? Passed/Failed
equal to that of a fully equ					
without persons, or the light					continued
intended for use with the w					
demonstrated.					

	Manufacturer:			Date:	Time:		
	Model:				r:		
Means of rescue	Lot/Serial Number:			Organiza	ation:		
6.3.3.6.4 Winch brake test (continued) Regu		Regulations: L	LSA Code	6.1.2.5; MSC.81(70) 1/8.1.4			
Test Proce		Acceptance	e Criteria		Significant Test Data		
Following completion of					1 st stop > 3m		
6.3.3.6.5 and 6.3.3.6.6), th	ne winch should be				2 nd stop: m		
stripped for inspection.					3 rd stop: m		
					4 th stop: m		
					5 th stop: m		
					Total lowering distance > 150 m Passed/Failed		
					Test 3 (if applicable)		
					Winch design incorporates an exposed brake? Yes/No		
					Wet stopping distance m Passed/Failed		
					Test 4		
					Test load (LWL) kN Lowering test with LWL satisfactory? Passed/ Failed		
					Does the inspection of the stripped winch reveal any significant damage or undue wear? Passed/Failed		
					Comments/Observations		

Means of rescue				Date: Surveyor: Organization:
6.3.3.6.5 Means of rescue recovery speed t Test Procedure It should be demonstrated that a winch intended for use with a means of rescue is		est Acceptance Crit Each means of rescue laur should be fitted with a powe	Regulations: L eria nching appliance red winch motor	SA Code 6.1.1.9; MSC.81(70) 1/8.1.5 Significant Test Data Hoisting load:
capable of recovering the means of rescue with the number of persons for which it is to be approved and its equipment or an equivalent mass at a rate of not less than 0.3 m/s. 6.3.3.6.6 Hand operation test		capable of raising the means of rescue from the water with its full complement of persons and equipment at a rate of not less than 0.3 m/s.		Measured recovering speed of the boat: m/s Comments/Observations SA Code 6.1.2.6; MSC.81(70) 1/8.1.6
Test Procedure		Acceptance Crit		SA Code 6.1.2.0; MSC.81(70) 1/8.1.6 Significant Test Data
The hand operation of the winch should be demonstrated. An efficient hand gear should recovery of each means of rehandles or wheels should n moving parts of the winch wh rescue is being lowered or hoisted by power. If the winch is designed for quick recovery by hand with no load, this should be demonstrated with a load of 1.5 times the mass of the empty lifting arrangements. An efficient hand gear should recovery of each means of rehandles or wheels should n moving parts of the winch wh rescue is being lowered or hoisted by power.		be provided for scue. Hand gear ot be rotated by the means of	Hoisting load: Test 1: Test load (1 x hoisting load): winch can be operated	