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> MSC.1/Circ.1631 14 December 2020

REVISED STANDARDIZED LIFE-SAVING APPLIANCE EVALUATION AND TEST REPORT FORMS (RESCUE BOATS)

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*.

The original forms, as set forth in the Standardized life-saving appliance evaluation 2 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 in 2001, 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. The forms annexed to this circular apply to the equipment addressed in chapter V of the LSA Code, i.e. rescue boats (outboard engines for rescue boats; rigid rescue boats; inflated rescue boats; rigid/inflated rescue boats; rigid fast rescue boats; inflated fast rescue boats; and rigid/inflated fast rescue boats).

3 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.

4 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.

5 This circular supersedes MSC/Circ.980.

SUSTAINABLE SHIPPING FORA SUSTAINABLE PLANET

ANNEX

REVISED STANDARDIZED LIFE-SAVING APPLIANCE EVALUATION AND TEST REPORT FORMS (RESCUE BOATS)

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 customizing 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 (RESCUE BOATS)

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- 5.4 Rigid/inflated rescue boats
- 5.5 Rigid fast rescue boats
- 5.6 Inflated fast rescue boats
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5 RESCUE BOATS

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5.1 OUTBOARD ENGINES FOR RESCUE BOATS

EVALUATION AND TEST REPORT

Manufacturer	
Engine type	
Serial number	
Fuel type	
Design power output (kW)	
Propeller diameter and pitch	
Required battery capacity	
Starting aids	
Date	
Place	
Name and signature of surveyor	
Approving organization	

Outboard engines for rescue boats		Manufao Model: Lot/Seri	Surveyor:		: Time: eyor: nization:	
5.1.1 Submitted	drawings, repo	orts and o	documents			
Submitted drawings and documents						
Drawing No.	Revision No.	& Date	Title of	drawing		Status
			Submitted reports and documents			Status
Report/Document No.	Revision No.	& Date	Title of repo	t / document		Status
			Maintenance Manual -			
			Operations Manual -			

	Manufacturer: Model:		Date:	Time:			
Outboard engines for rescue boats	Model: Lot/Serial Number:		Surveyor: Organization:				
5.1.2 Quality assurance		Regulations: MSC.81(70) 2/1.1, 1.2					
Except where all appliances of a particu of the International Convention for the amended or the International Life-Savi inspected, representatives of the Adm	Quality assurance Standard Used:						
inspections of manufacturers to ensure that the quality of life-saving appliances and materials used comply with the specification of the approved prototype life-saving appliance.		Quality assurance P	rocedure:				
Manufacturers should be required to inst ensure that life-saving appliances are p the prototype life-saving appliance appr keep records of any production tests c Administration's instructions.	Quality assurance Manual: Description of System:						
		Quality assurance S	ystem acceptable				
		Yes/No					
		Comments/Observa	tions				

Outboard engines for rescue boats	Model:	Model:		Date: Time: Surveyor: Organization:	
5.1.3 Visual inspection	_	Regulations: LSA C	ode 1.2,	4.4.6; MSC.81(70) 1 /7.7	
Test Procedure	Acceptano	ce Criteria		Significant Test Data	
Visually inspect the engine. Conduct measurements and ver	system, or a power starting sy	system, of a power starting system with two independent		PassedFailed	
equipment as required.	Any necessary starting aids sh	nould be provided.		PassedFailed	
	Propeller protection should be	Propeller protection should be in place during test.		PassedFailed	
				Comments/Observations	
5.1.4 Power test		Regulations: LSA C	ode 5.1.	1.8; MSC.81(70) 1 /7.7.2 - 7.7.3	
Test Procedure	Acceptano	ce Criteria		Significant Test Data	
The motor, fitted with a suitable propelle should be placed in a test rig such that t propeller is completely submerged in	ne damage from such a loading	•		Protection of propeller in place Passed Failed	
water tank, simulating service conditions		The motor should not overheat or be damaged.		Duration :min	
Propeller protection should be in pla during the test.	ce			Any significant damage?	
				Passed Failed	
The motor should be run at the maximu continuous rated speed using t maximum power obtainable for 20 min.				Overheating?	
				Passed Failed	
				Comments/Observations	

Outboard engines for rescue boats	Manufacturer: Model: Lot/Serial Number:		Surveyor	Time: pr: ation:	
5.1.5 Water drench test Regulations: I			LSA Code 5.1.1.8; MSC.81(70) 1 /7.7.4		
Test Procedure	Acceptan	ce Criteria		Significant Test Data	
The motor protective cover should removed and the motor thoroug drenched with water, by hose, except the intake to the carburetor.	ly	be damaged by this te		Duration :min Any significant damage? PassedFailed	
The motor should be started and run speed for at least 5 min while it is still bei drenched.				Comments/Observations	
5.1.6 Hot start test		Regulations: LSA C	ode 5.1.1	1.8; MSC.81(70) 1 /7.7.5	
Test Procedure	Acceptan	ce Criteria		Significant Test Data	
While still in the test rig referred to in 5.7 (Power Test) 7.7.2, the motor should be rat idling speed in order to heat up to cylinder block.At the maximum temperature achievab the motor should be stopped a immediately restarted.This test should be carried out at least two stopped be carrie	un he le, nd	start.		Test carried out :times Restarts Passed Failed Any significant damage? Passed Failed Comments/Observations	

Outboard engines for rescue boats	Manufacturer: Model: Lot/Serial Number:	S	Surveyo	Time: r: ation:
5.1.7 Manual start test		Regulations: LSA Cod	de 5.1.1	.8; MSC.81(70) 1 /7.7.6 - 7.7.7
Test Procedure	Acceptan	ce Criteria		Significant Test Data
The motor should be started at ambie temperature by manual means. The means should be either a manu automatic-rewind system or a pull co round the top flywheel of the motor. The motor should be started twice with 2 minutes of commencement of the sta procedure. The motor should be run until norm operating temperatures are reached, ther should be stopped and started manua twice within 2 minutes, by means of manual automatic-rewind system or a pi cord round the top flywheel of the motor.	The motor should not fail to st al rd ain art al n it lly a ull		iny uy.	Ambient temperature test carried out :times Does the motor start twice within 2 min? Passed Failed Operating temperature Does the motor start twice within 2 min? Passed Failed Comments/Observations

Outboard engines for rescue boats	Manufacturer: Model: Lot/Serial Number:		Survey	or: Time: zation:
5.1.8 Cold start test		Regulations: LSA C	ode 4.4.	6.2; MSC.81(70) 1 /7.7.8 - 7.7.9
Test Procedure	Acceptano	ce Criteria		Significant Test Data
The motor, together with the fuel, fuel line and battery, should be placed in a chamb at a temperature of -15° C and allowed remain until the temperature of all parts he reached the temperature of the chamber The temperature of the fuel, battery at motor should be measured for this test. The motor should be started twice, with 2 min of commencement of the sta procedure, and allowed to run long enoug to demonstrate that it runs at operatin speed. It is recommended that this period shound not exceed 15 s. Where lower temperature service intended, that lower temperature should it substituted for -15° C in the above-mentioned test.	er the engine at an ambient temp of commencing the start proce the Administration having rega which the ship carrying the engaged, a different temperate and in art gh ng Id The engine must start at the s	perature of –15°C withi edure unless, in the op ard to the particular voy e rescue boat is co ure is appropriate.	in 2 min binion of vages in nstantly	Starting power Source: Starting aids used: Measured temperatures Chamber: °C Fuel: °C Lubricant oil: °C Cooling fluid: °C Number of starts: Duration of first run: seconds Duration of second run: seconds Duration of last run: seconds Type of battery: Required capacity of starting battery: Passed Failed Comments/Observations

Outboard engines for rescue boats	s for rescue boats Manufacturer:		Time: or: zation:	
5.1.9 Engine-out-of-water test		Regulations: LSA Co	6.2; MSC.81(70) 1 /7.7.10	
Test Procedure	Acceptano	ce Criteria		Significant Test Data
The engine should be operated for at lea 5 min at idling speed under condition simulating normal storage.		The engine should be capable of operating for not less than 5 min after starting from cold with the rescue boat out of the water.		Cooling water supplied during test? Yes/ No If so, by what method? Durationmin
	The engine should not be dam	naged as a result of this	s test.	Any damage after this test? Passed Failed
				Comments/Observations

Outboard engines for rescue boats	Manufacturer: Model: Lot/Serial Number:	
5.1.10 Extra test for outboard e	engine for fast rescue boats	Regulations: LSA Code 5.1.4.8; MSC.81(70) 1/7.7.11
Test Procedure	Acc	eptance Criteria Significant Test Data
 First Procedure Engine inversion test: The engine and its fuel tank should be on a frame that is arranged to rotate axis equivalent to the longitudinal axis of at the height of the boat transom. The propeller should be in a water ba height of the cavitation plate. The engine should then be subjected following test procedures, and then d for examination: 1 start the engine and run it at full 5 min; 2 stop the engine and rotate it in a direction through 360°; 3 restart the engine and run it at for 10 min; 4 stop the engine and run it at full 10 min, and then stop the engine. 6 allow the engine to cool; 7 restart the engine and run it at for 5 min; 	e mounted about an of the boat usin to the ed to the lismantled speed for clockwise full speed it in a ugh 360°; speed for e;	Amount of loss: ml Passed Failed Comments/Observations Are all the tests carried out according to the procedur as prescribed? Passed/Failed If it stops, does it easily restart? Passed/Failed Does the engine fulfil the requirements after the test have been carried out according to the procedure Passed/Failed Passed/Failed

Out	ooard engines for rescue boats		Ianufacturer: D. Iodel: Si ot/Serial Number: O		Date: Surveyor: Organization:	
5.1.10 Extra test for outboard engine for fast rescue boats (continued) Regulations: LSA Code 5.1.4			.8; MSC.81(70) 1/7.7.11			
	(continued) Test Procedure e inversion test (continued): slowly rotate the running engine a clockwise direction through 180 hold at the 180° position for 10 and then rotate it 180° further in clockwise direction to complete or revolution; if the engine is arranged to sto automatically when inverted, resta it; allow the engine to continue to ru at full speed for 10 min; shut the engine down and allow it cool; repeat the procedure in .7 throug .11 above, except that the engine	Acceptan With regard to step .9, the automatically or by the hel switch when inverted. when the rescue boat has should be capable of be helmsman's emergency relea The design of the fuel and lubr the loss of more than 250 ml of propulsion system should the The engine should not overhea when examined after being show no evidence of overhea	ce Criteria e engine should be s imsman's emergency ing restarted, provide se, if fitted, has been re icating systems should p of fuel or lubricating oil fi rescue boat capsize. eat or fail to operate. dismantled the engine	stopped release r motor ed the eset. prevent rom the should	Significant Test Data Amount of oil lost from engine during each inversion: .2 : ml .4 : ml .8 : ml .12 : ml Total amount of oil lost from engine: ml Evidence of overheating or excessive wear? Passed/ Failed Comments/Observations	

5.2 RIGID RESCUE BOATS

EVALUATION AND TEST REPORT

- 5.2.0 General information
 - 5.2.0.1 General data and specifications
 - 5.2.0.2 Submitted drawings, reports and documents
 - 5.2.0.3 Quality assurance
- 5.2.1 Visual inspection
 - 5.2.1.1 Occupant space
 - 5.2.1.2 Fittings, provisions and ladders
 - 5.2.1.3 Engine and starting system
 - 5.2.1.4 Steering mechanism and fuel tank
 - 5.2.1.5 Release mechanism
 - 5.2.1.6 Drain valve
- 5.2.2 Freeboard, stability and self-righting tests
 - 5.2.2.1 Flooded stability test
 - 5.2.2.2 Freeboard test
 - 5.2.2.3 Righting test (for non self-righting rescue boats)
- 5.2.3 Seating strength and space tests
 - 5.2.3.1 Seating strength test
 - 5.2.3.2 Seating space test
- 5.2.4 Release mechanism tests
 - 5.2.4.1 Simultaneous release
 - 5.2.4.2 Towing release test
 - 5.2.4.3 Load and release test
 - 5.2.4.4 Cyclic loading test
 - 5.2.4.5 Actuation force test
 - 5.2.4.6 Second release mechanism test actuation force and tensile strength
- 5.2.5 Operational tests
 - 5.2.5.1 Liferaft towing
 - 5.2.5.2 Endurance, speed and fuel consumption
 - 5.2.5.3 Engine out of water
 - 5.2.5.4 Compass test
 - 5.2.5.5 Helpless person recovery
 - 5.2.5.6 Manoeuvrability with paddles or oars
- 5.2.6 Towing and painter tests
 - 5.2.6.1 Towing test
 - 5.2.6.2 Painter release test
- 5.2.7 Strength tests
 - 5.2.7.1 Impact, drop and operation after impact and drop test
 - 5.2.7.2 Overload test

5.2 **RIGID RESCUE BOATS**

EVALUATION AND TEST REPORT

Manufacturer	
Туре	
Date	
Place	
Name Surveyor printed	
Signature	
Approving Organization	

Rigid rescue boats	Model:	er:		Surveyor:	Time:	
5.2.0.1 General da	ta and specification	ons	Regulations	ns: LSA Code 4.4, 5.1, MSC.81(70) 1/7.1.9		
General Info	ormation	Rescue bo	oat Dimensions	3	Rescue boat Weight	
Construction Material: Hull:		Dimensions:			Design Weight:	
Canopy:		LOA:			Unloaded Boat:	
Fire-retardancy docun	nentation:				Loose Equipment:	
		Breadth Maximum:			Fuel:	
					Persons:	
Rescue Boat Inherent Bu		Depth to Sill:				
(Type App.) Material:		Dopth to Cupwala:			Calculated Loaded Weight:	
Weight: Occupancy:		Depth to Gunwale:			Fully Equipped:	
Persons (82.5 kg each):	Moulded Breadth:			With Persons:	
Engine(s) Installed:		Moulded Depth:			Weight as Tested:	
Type App by: Manufacturer:		Provision for securing	hanging_off	pendant	Fully Equipped:	
Type:		(if applicable):				
Power:						
Gear ratio (inboard en	gine):				Comments/Observations	
Additional rigid or inflatat	ble buoyancy:					
Release mechanism(s) (if applicable) 1 2					
Manufacturer:						
Tupo:						
SWL:						

Rigid rescue boats	Manufacturer:		Date: Surveyor: Organization:	_ Time:			
5.2.0.2 Submitted of	drawings, reports and do						
Submitted drawings and documents							
Drawing No.	Revision No. & date	Tit	e of drawing	Status			
	S	ubmitted reports and documents		Status			
Report/Document No.	Revision No. & date	Title of	report / document	Status			
		Maintenance Manual -					
		Operations Manual -					

Rigid rescue boats Manufacturer: Model: Lot/Serial Number:	Date: Time: Surveyor:				
5.2.0.3 Quality assurance	Regulations: MSC.81(70) 2/1.1, 1.2				
Except where all appliances of a particular type are required by chapter of the International Convention for the Safety of Life at Sea, 1974, a amended, or the International Life-Saving Appliance (LSA) Code to be inspected, representatives of the Administration should make rando inspections of manufacturers to ensure that the quality of life-savin appliances and materials used comply with the specification of the approved prototype life-saving appliance. Manufacturers should be required to institute a quality control procedure ensure that life-saving appliances are produced to the same standard a the prototype life-saving appliance approved by the Administration and 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 acceptable Yes/No Comments/Observations				

Divid receive basts	Manufacturer: Model: _ot/Serial Number:	Surveyo	r: Time: r: ation:
5.2.1.1 Occupant spa	ace	de 4.4.2.2, 4.4.3.5, 5.1, MSC.81(70) 1/7.1.9	
Test Procedure	Acceptance Cr	iteria	Significant Test Data
Visually inspect the rescue Conduct measurements verify clearances as require	e boat. General and Unless the rescue boat has adequate s	theer, it should be provid than 15% of its length. 5 m. a point 215 mm from the t 635 mm from the back st 1190 mm from the back st 1190 mm from the back at least 350 mm ximum r indicated. rying at least five seated her of minimum 2130 x 6	led Passed Failed Passed Failed passed Failed back Width:mm Depth:mm mm ack Knee Space:mm Leg Space:mm Vert. Separation:mm Overlap:mm Position Indication: PASSED FAILED i10 Stretcher space:Xmm Location: Failed Passed Failed

Rigid rescue boats	Manufacturer: Model: Lot/Serial Numbe	turer:		Date: Time: Surveyor: Organization:			
5.2.1.2 Fittings, pro	ovisions and ladd	ers	Regulations	: LSA Code 4.4.	3, 4.4.7, 5.1, MSC.8	81(70) 1/7.1.9	
Test Proced	dure	Acceptanc	ce Criteria		S	Significant Test Data	
Visually inspect the rescue boat. Conduct measurements and verify clearances as required.						Failed	
			On other than self-righting rescue boats, handholds on the underside arranged to break away without damaging the rescue boat			Failed	
		Weathertight stowage for small	ll items of equi	pment	Passed	Failed	N/A
		Approved position indicating lig	ght provided at	t highest	Passed	Failed	
		Provided with effective means self-bailing.	of bailing or b	e automatically	Passed	Failed	
		Ladders Ladders that can be used at board and the lowest step who than 0.4 m below the light wate	en in place sho		Passed	Failed	

Rigid rescue boats	Model:	r:		Surveyor:	Time:
5.2.1.2 Fittings, pro	ovisions and ladd	ers	Regulations	LSA Code 4.4.	3, 4.4.7, 5.1, MSC.81(70) 1/7.1.9
Test Procee	dure	Acceptano	ce Criteria		Significant Test Data
Visual Inspection-Fittings ladders (continued)		Other Provisions Buoyant material may be insta boat, provided it is adequately is capable of withstanding ex- open deck on a ship at sea ar condition. Colour The boat is of a highly visit detection.	alled external to protected agair xposure when nd for 30 days	nst damage and stowed on an afloat in all sea	Lowest stepm below waterline YES NO N/A Passed Failed

5.2.1.3 Engine and starting system Regulations: LSA Code 4.4.6, 5.1, MSC.81(70)1/7.1.9 Test Procedure Acceptance Criteria Significant Test Data Visually inspect the rescue boat. Conduct Type of starting system Manual Power	Rigid rescue boats Man Lot/S
Visually inspect the rescue boat. Conduct Type of starting system Manual Power	5.2.1.3 Engine and start
	Test Procedure
measurements and verify clearances as required. - Two independent rechargeable energy sources provided for power starting systems YES NO N/A - Two independent rechargeable energy sources provided for power starting systems - Required starting gists provided YES NO N/A - Required starting system is not impeded by engine casing, thwarts, or other obstructions - Propeller arranged to be disengaged from the engine and provision for ahead and astern propulsion - Passed	Visually inspect the rescue bor measurements and verify clear

Rigid rescue boats	Model: Surveyor:			Surveyor:	Time:		
5.2.1.3 Engine and	starting system		Regulations:	LSA Code 4.4.6,	, 5.1, MSC.81((70)1/7.1.9	
Test Proce			ce Criteria			Significant Test Data	
Visual Inspection-Engir system (continued)	ne and starting	 Recharging for engine batter supply does not exceed 50 v 		by ship's power		Failed	
		- Recharging means for engin	e batteries can	be disconnected	Passed	Failed	
		at the rescue boat embarkat			Passed	Failed	
		 Instructions for starting an resistant and mounted in a engine starting controls Towing arrangements for magina starting controls 	a conspicuous	place near the			

Rigid rescue boats	Manufacturer: Model: Lot/Serial Number:			Surveyor:		ime:	
5.2.1.4 Steering mecl	hanism and fuel ta	ink	Regulations	: LSA Code 4.4.	7.2, 5.1.1.8, MSC.	81(70)1/7.1.9	
Test Proce	dure	Acceptanc	e Criteria		5	Significant Test Data	
Visually inspect the rescue boat. Conduct measurements and verify clearances as required.					Passed	Failed	
		Rudder permanently attached	to the rescue b	poat.	Passed	FailedN/A	
		Except when remote steering is provided, the tiller is permanently attached or linked to the rudder stock.			Passed	FailedN/A	
		Rudder and tiller arranged so as not to be damaged b operation of the release mechanism or propeller.			Passed	Failed	
		Fuel Tank					
		If fitted with petrol-driven outboard motor, the fuel tank(s			Passed	FailedN/A	
		should be specially protected against fire and explosion.			Comments/Observations		

Rigid rescue boats	Manufacturer: Model: Lot/Serial Numbe		Surveyor:		-ime:		
5.2.1.5 Release me	echanism	1	Regulations	: LSA Code 4.4.	7, 5.1, MSC.81(70)1/7.1.9	
Test Proce	dure	Acceptance	ce Criteria			Significant Test Da	ta
Visually inspect the rescue boat. Conduct measurements and verify clearances as required.		S				_ Failed	
		For on-load release mechanis	ms:				
		Suitably worded danger sign for on load release			Passed	Failed	N/A
		Mechanical protection (interlock) engages only when mechanism is completely and properly reset, to prevent accidental release during recovery			Passed	_ Failed	N/A
		On-load release mechanism needs deliberate and continued action by the operator			Passed	_ Failed	N/A
		Mechanical protection provided beyond that normally required for off load release			Passed	Failed	N/A
		For a single fall and hook system with suitable painter,			Comments/Obse	ervations	
		on-load release capability is not required; in such an arrangement a single capability to release the boat only when it is fully waterborne will be adequate.		Passed	Failed	N/A	
				release mechanism type (if installed in boat):		d in boat):	
		NOTE: Such single fall hook systems may be attached to the boat or to the davit fall wire.		Approval:			

Rigid rescue boats	Model:	anufacturer: odel: t/Serial Number:		Surveyor:	Time:
5.2.1.6 Drain valve			Regulations	LSA Code 4.4.	7.1, 5.1, MSC.81(70)1/7.1.9
Test Proce		Acceptanc	ce Criteria		Significant Test Data
Test Procee Visually inspect the resc measurements and veri required (not applicable boats)	ue boat. Conduct fy clearances as	Acceptance Fitted near lowest point on the Automatically opens when the closes to prevent water entry water Cap or plug attached to the equivalent. Readily accessible from inside Position clearly marked.	hull. e boat is not v when the boat i boat by a lar	is waterborne. nyard, chain or	Significant Test Data Passed Failed Passed Failed Passed Failed Passed Failed Passed Failed Comments/Observations

Rigid rescue boats	Model:	Number:		Date: Time: Surveyor: Organization:		:
5.2.2.1 Flooded st	ability test		Regulations	: LSA Code 4.4.	1.1, MSC.81(70)1/6.8.	13
Test Proce	dure	Acceptance	ce Criteria		Sign	ificant Test Data
The rescue boat should equipment. If provision lo and fuel tanks cannot I should be flooded or waterline resulting from boats fitted with wa compartments to accom drinking water contain these containers aboard stowage compartments sealed watertight during Ballast of equivalent w should be substituted fo any other installed equip damaged by water. Weights representing por mass) who would be in the rescue boat is flooded than 500 mm above the omitted.	ckers, water tanks be removed, they filled to the final this test. Rescue itertight stowage modate individual ers should have and placed in the which should be the flooding tests. eight and density or the engine and oment that can be ersons (of 82.5kg he water when the (water level more	When loaded as specified, to positive stability when filled we which would occur when the re- location below the waterline as material and no other damage	ith water to rep escue boat is h assuming no lo	oresent flooding loled in any one	Comments/Observat	ions Failed

Rigid rescue boats	Manufacturer:		Surveyor:	Time:
5.2.2.1 Flooded s	tability test		Regulations: LSA Code 4.4	4.1.1, MSC.81(70)1/6.8.13
Test Proc		Acceptar	nce Criteria	Significant Test Data
Flooding Stability test (c	continued):			
Weights representing p not be in the water when flooded (water level le above seat pan) should normal seating position with their centre of gra 300 mm above the s representing persons w submerged in the water flooded (water level betw above the seat pan) have an approximate of (for example water bal represent a volume si body. Note: Several tests conducted if holes in di create different flooding	the rescue boat is ess than 500 mm d be placed in the s of such persons avity approximately seat pan. Weights tho would be partly when the lifeboat is veen 0 and 500 mm should additionally lensity of 1 kg/dm ³ llast containers) to milar to a human			

Model:		ər:		Surveyor:	Time:		
5.2.2.2 Freeboard test			Regulations: LSA Code 4.4.5, MSC.81(70)1/6.8.45				
Test Proce	dure	Acceptance Criteria			Significant Test Data		
5.2.2.2 Freeboard test		ot less than 1.5	% of the rescue	Measured Freeboardmm 1.5% of Boat's Length:mm Passed Failed Comments/Observations			

Model: St			Date: Time: Surveyor: Organization:			
or non self-rig	hting rescue boats)					
	Acceptance Criteria			Significant Test Data		
should be demonstrated that both with The rescue boat is capable		peing righted by	y not more than	Is the boat self-righting? (If YES, refer to lifeboat repor 4.4.2.3) Can the boat be righted by 2 With engine and fuel: Passed Without engine and fuel:	YES N rt 4.5.2.3 and persons? Failed	
	el: Serial Numbe non self-rig at both with uel or an engine and capable of wo persons engines, the ot applicable. Jhting test in	el:	el:	el:	eliOrganization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organization:Organi	eli

Rigid rescue boats	rescue boats Manufacturer: Model: Lot/Serial Number:			Surveyor:		_ Time:	
5.2.3.1 Seating stre	ength test	-	Regulations	: LSA Code 4.4.	1.5, MSC.81(7	0)1/6.6.1	
Test Proced	lure	Acceptance Criteria		Significant Test Data			
		o support this damage.	this loading. No	Passed	mage Failed Failed		

Rigid rescue boats Manufacturer: Model: Lot/Serial Number:				Date: Time: Surveyor: Organization:				
5.2.3.2 Seating spa	ace test		Regulations: LSA Code 5.1.1.3.2, MSC.81(70)1/7.1.3					
Test Procee	dure	Acceptance Criteria		Significant Test Data				
		bable of carryin wn on a stretch s may be seat conforms to t 1.1. vale, transom,	ng at least five her. ed on the floor, he leg space	Equipment operated: YES NO Number of persons carried: Seated on seats Seated on floor Lying on a stretcher Total PassedFailed Lifejacket and immersion suit used during the test: Lifejacket– Inflatable/Inherently BuoyantInmersion suit– Uninsulated/Buoyant Insulated				

Rigid rescue boats	Manufacturer:			Date: Time: Surveyor:					
5.2.4.1 Simultaneous release Re			Regulations:	egulations: LSA Code 4.4.7.6, MSC.81(70)1/6.9.12					
Test Procee	lure	Acceptance Criteria		Significant Test Data					
For rescue boats launch the rescue boat with its er be suspended from the re just clear of the ground rescue boat should be lo total mass equals 1.1 time rescue boat, all its eq number of persons for boat is to be approved. should be released sim each fall to which it is of binding or damage to any boat or the release mech Single fall systems not int operation are exempt from	ngine fitted should lease mechanism or the water. The baded so that the es the mass of the uipment and the which the rescue The rescue boat iultaneously from ionnected without part of the rescue anism.	It should be confirmed t simultaneously release from e without binding or damage to a the release mechanism. It should be confirmed t simultaneously release from ea when fully waterborne in the overload condition. There should be no damage connection to the boat.	ach fall which any part of the hat the reso ach fall to which light condition	it is connected rescue boat or cue boat will n it is connected and in a 10%	Light condition Passed (N/A 1.1 x Loaded Mas Passed (N/A Comments/Obser	– Single fall, of s: Failed – Single fall, of	f-load only) _kg N/A		

	Manufacturer:		Date [.]	Time:
	Model:	· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · ·
Rigid rescue boats	Lot/Serial Number:	· · · · · · · · · · · · · · · · · · ·	Organization	:
		<u> </u>	Organization	·
5.2.4.2 Towing release	e test		Regulations: L	.SA Code 4.4.7.6.5; MSC.81(70) 1/6.9.3
	est Procedure	Acceptance C		Significant Test Data
With the operating me	chanism disconnected it should be	There should be no	damage as a	Operating mechanism disconnected and boat towed
	e rescue boat is loaded with its full	result of these tests.	-	at 5 kts:PassFail
complement of persons a	and equipment and towed at speeds of			
5 knots that the moveable	e hook component stays closed.	The rescue boat	is released	Operating mechanism connected tests.
		, , ,	the release	
	operating mechanism connected, it	mechanism.		Test 1: 25% SWL, lengthwise to the boat at 45° to the
	that the rescue boat when loaded with			vertical:
	ersons and equipment when towed at			
	released. Both of the above should be	Single fall systems not intended for		Force Applied: N.
demonstrated as follows:		on-load operation are exempt from		
1 a farma a gual ta 250/	of the option working load of the book	this test		Aft direction:Pass Fail
	o of the safe working load of the hook			Test 2: 100% SWIL athwartships at 20° to the vertical
	the hook in the lengthwise direction ngle of 45° to the vertical. This test			Test 2: 100% SWL, athwartships at 20° to the vertical:
	in the aftward as well as the forward			Force Applied: N.
direction;				Starboard:Pass Fail
direction,				Port: Pass Fail
2 a force equal to the	safe working load of the hook should			
	ok in an athwartships direction at an			Test 3: 100% SWL, 45° to the longitudinal axis of the
	ertical. This test should be conducted			boat in plan view at an angle of 33° to the vertical.
on both sides; and				
,				Force Applied: N.
.3 a force equal to the	safe working load of the hook should			Position 1: Pass Fail
	ok in a direction halfway between the			Position 2:PassFail
	and 2 (i.e. 45° to the longitudinal axis			Position 3:Pass Fail
	ew) at an angle of 33° to the vertical.			Position 4:Pass Fail
This test should be o	conducted in four positions.			
				Comments/Observations

Rigid rescue boats	Model:		Surveyor: _	Time: n:
5.2.4.3 Load and relea	ise test	Regulation	s: LSA Code	4.4.7.6.4; MSC.81(70) 1/6.9.4.1, 6.9.4.2
	ocedure	Acceptance Criteria		Significant Test Data
A release mechanism sh tested as follows: The rescue boat release the longest used co associated with the syste adjusted according to ins equipment manufacturer of its safe working load a Load and release should The rescue boat release should then be disassem	and retrieval system and onnection cable/linkage m should be mounted and tructions from the original and then loaded to 100% nd released. be repeated 50 times. se and retrieval system bled, the parts examined release and retrieval	During the 50 releases, the rescue and retrieval system should I simultaneously from each fall to connected without any binding or da part of the lifeboat release and retrie The system should be considered any failure during the conditioning or release occurs when load is app system has not yet been operated.	be released which it is image to any val system. as "failed" if ir unintended	· · · · · · · · · · · · · · · · · · ·

Rigid rescue boats	d rescue boats Manufacturer: Model: Lot/Serial Number:		Date: Surveyor: Organization:		
5.2.4.4 Cyclic loading	test		LSA Code 4	.4.7.6.4; MSC.81(70) 1/6.9.4.3	
Test Procee		Acceptance Criteria		Significant Test Data	
The hook assembly, while disconnected from the operating mechanism, should be tested 10 times with cyclic loading from zero load to 1.1 times the safe working		The specimen should remain closed during the test.		Working Load: N Force Applied: N Check the box for each release and/or strike out the	
load, at a nominal 10 se unless the release mech	anism has been	during this test or any unintended release occurs.	or opening	cam rotation if no applicable:	
specifically designed to off-load hook with on-loa the weight of the boat to this case the cyclic load s	d capability using close the hook, in			Cam rotation 0°: 1: 2: 3: 4: 5: 6: 7: 8: 9: 10: 10: 10: 10: 10: 10: 10: 10: 10: 10	
more than 1% to 1.1 time For cam-type designs, th	s the SWL. ne test should be			Cam rotation +45°: 1: 2: 3: 4: 5: 6: 7: 8: 9: 10: 10: 10: 10: 10: 10: 10: 10: 10: 10	
carried out at an initial cam rotation of (fully reset position), and repeated at 45° either direction, or 45° in one direction restricted by design.				Cam rotation -45°: 1: 2: 3: 4: 5: 6: 7: 8: 9: 10: 10: 10: 10: 10: 10: 10: 10: 10: 10	
				Passed: Failed:	
				Comments/Observations	

Rigid rescue boats	Manufacturer: Model: Lot/Serial Number:	· · · · · · · · · · · · · · · · · · ·	Surveyor: _	Time: n:
5.2.4.5 Actuation for	ce test	Regulations	: LSA Code 4	4.4.7.6.4; MSC.81(70) 1/6.9.4.4
Test	Procedure	Acceptance Criteria		Significant Test Data
The cable and operating reconnected to the hoo boat release and retrie demonstrated to operate working load. The demonstration shou indicators and handles correctly positioned in ac	g mechanism should then be k assembly; and the rescue val system should then be e satisfactorily under its safe ald verify that any interlocks, are still functioning and are ccordance with the operation from the original equipment	The actuation force should be r 100 N and no more than 300 N, used it should be the maxir specified by the manufacturer, an the same manner it would be se rescue boat. The release mechanism is deen passed the testing in 5.2.4.3,	if a cable is num length d secures in cured in the ned to have 5.2.4.4 and n conducted should be e during this	Actuation Force:N Passed: Failed: Comments/Observations

Rigid rescue boats	Manufacturer: Model: Lot/Serial Number:		Date: Surveyor: Organization:		
5.2.4.6 Second releas	e mechanism test - actuation fo	rce and tensile strength	Regulations:	LSA Code 4.4.7.6.4, MSC.81(70)1/6.9.5.1, 6.9.5.2	
Tes	t Procedure	Acceptance Cri	teria	Significant Test Data	
 .1 the actuation force of be measured loaded load. If a cable is user length specified by the same manner it we demonstration shou indicators and handle correctly positioned if and safety instruction manufacturer; and .2 the release mechanist tensile strength testility. 	the release mechanism should with 100% of its safe working ed, it should be of the maximum ne manufacturer, and secured in ould be secured in a lifeboat. The ld verify that any interlocks, es are still functioning and are n accordance with the operation on from the original equipment the six should be mounted on a ng device. The load should be six times the working load of the	.1 The actuation force shoul 100 N and no more than The release mechanism doe	300 N.	Actuation Force: N Tensile strength @ 6xSWL. Force applied: N. Passed: Failed: Comments/Observations	

Rigid rescue boats			Surveyo	Time: or: ation:	
5.2.5.1 Liferaft tow	ving	-	Regulations	: LSA Co	de 4.4.6.8, 5.1.1.7, 5.1.1.9, MSC.81(70) 1/7.1.2
Test	Procedure		tance Criteria		Significant Test Data
The rescue boat should be loaded with weights equal to the mass of its equipment and the number of persons for which the rescue boat is to be approved. The maximum towing force of the rescue boat should then be determined.		The maximum towing force of the rescue boat should be recorded on the type approval certificate. There should be no damage to the towing fitting or its supporting structure.		d on the	Smallest Engine Largest Engine Make/model:
This information should b size of fully loaded lifera speed of at least 2 knots				Bollard pull: N (Record on type approval certificate)	
The fitting designated for towing other craft should be secured to a stationary object by a tow rope fitted with a means to measure bollard pull. The engine should be operated ahead at full speed for a period of at least 2 min. and the maximum force recorded.					Observed damage: Propeller: Pitch:
pull trials may be carried	bed with outboard motor, bollard ed out with engines of various scue boat's performance.)				Diameter: Passed Failed Comments/Observations

	_ Surv	e: Time: veyor: anization:
sumption	Regulations: LS	SA Code 4.4.6.8, 5.1.1.6, MSC.81(70)1/7.1.5, 1/7.1.6
Acceptance C	riteria	Significant Test Data
The boat should operate satisfac operation. The fuel tank should have sufficie	torily throughout t ent capacity to ope	the 4-h Make/model: Engine Speed: rpm Boat Speed: kts erate at
r: s	:	Sumption Regulations: Ls Acceptance Criteria The boat should operate satisfactorily throughout

Bigid receive booto		Diamond er: O		Date: Time: Surveyor: Organization:		
5.2.5.3 Engine out	of water		Regulations:	LSA Code 4.4	.6.3, MSC.81(70)1/6.10.5	
Test Proced	dure	Acceptanc	ce Criteria		Significant Test Data	
The engine should be op 5 minutes at idling speed simulating normal storage	l under conditions	The engine should not be dam	naged as a resu	ult of this test.	Passed Failed Comments/Observations	
Note: If a water flushing of to be used for this purp fitted during the test.						
5.2.5.4 Compass te	est		Regulations:	LSA Code 5.1	2.2.3, MSC.81(70)1/6.10.7	
Test Proced	dure	Acceptance Criteria		Significant Test Data		
It should be determined that the compass performance is satisfactory and that it is not unduly affected by magnetic fittings and equipment in the rescue boat.		The compass operates satisfactorily.		Compass Make:		
5.2.5.5 Helpless pe	erson recovery		Regulations:	LSA Code 4.4	4.3.4, 5.1.1.7, MSC.81(70)1/6.10.8, 7.1.1	
Test Proced	dure	Acceptano	ce Criteria		Significant Test Data	
It should be demonstrated by test that it is possible to bring helpless people on board the rescue boat from the sea.		Helpless people can be brought on board the rescue boat from the sea.		Method of recovery: Number of Persons required and any special equipment used: Comments/Observations		

	Manufacturer: Model:			Date: Survevor:	Time:	
Rigid rescue boats	Lot/Serial Number	/lodel: .ot/Serial Number:		Organizatio	on:	
5.2.5.6 Manoeuvrabil	ity with paddles o	r oars	Regulations	LSA Code	5.1.2.2.1, MSC.81(70)1/7.1.8	
Test Proce		Acceptance			Significant Test Data	
It should be demonstrated that the rescue boat can be propelled and manoeuvred by its oars or paddles in calm water conditions at a speed of at least 0.5 knots over a distance of at least 25 m. when laden with the number of persons, all wearing lifejackets and immersion suits, for which it is to be approved.		paddled and manoeuvred.		atisfactorily	Distance travelled: m Time Required: s Calculated speed: m/s =knots Lifejacket and immersion suit used during the test: knots Lifejacket and immersion suit used during the test: knots Immersion suit – Inflatable/Inherently Buoyant knots Immersion suit – Uninsulated/Buoyant Insulated knots Passed knots	
					Comments/Observations	
5.2.6.1 Towing test		1	Regulations:	LSA Code	4.4.1.3.2, 4.4.7.7, MSC.81(70)1/6.11.1	
Test Proce	dure	Acceptance	Criteria		Significant Test Data	
It should be demonstrated that the fully equipped rescue boat, loaded with a properly distributed mass equal to the mass of the number of persons for which it is to be approved, can be towed at a speed of not less than 5 knots in calm water and on an even keel using the rescue boat's painter securing device.		The rescue boat should not exhibit unsafe or un characteristics. There should be no damage to the rescue boat			Passed Failed Comments/Observations	

nber:	Surveyor: _	Time: n:
	Regulations: LSA Code	4.4.7.7, MSC.81(70)1/6.11.23
Acceptan	ce Criteria	Significant Test Data
The painter should release ar to the rescue boat or its equip bat ss be he he ue	nd there should be no damag	ge Passed Failed
int bo le d l tl tl	umber:Acceptan	umber: Organizatio Regulations: LSA Code Acceptance Criteria inter The painter should release and there should be no damage inter The rescue boat or its equipment as a result of this test. boat Its colspan="2">Its colspan="2" Inter Its colspan="2">Its colspan="2" Inter Its colspan="2" Its colspan="2" Is colspan="2" Its colspan="2" Its colspan="2" Is colspan="2" Its colspan="2" Its colspan="2" Is colspan="2">Its colspan="2" Is colspan="2" Its colspan="2" Its colspan="2" Is colspan="2">Its colspan="2" Is colspan="2" Its colspan="2" Is colspan="2" Its colspan="2" Its colspan="2" Is colspan="2" Its colspan="2" Its colspan="2" Is colspan="2" Its c

Rigi	Model:	Model: Survey	Time: or: zation:
5.2.	7.1 Impact, drop and operation after impact and drop to	p and operation after impact and drop test Regulations	s: LSA Code 4.4.1.7, MSC.81(70)1/6.4.1, 6.4.3, 6.4.5, 6.4.7
	Test Procedure		Significant Test Data
.1 .2 .3	For boats launched by fall or falls, the fully equipped rescue boat, including its engine, should be loaded with weights equal to the mass of the number of persons for which the rescue boat is to be approved. Included in this loading should be a weight of 100 kg loaded in one of each type of seat installed in the lifeboat. The remainder of the weights should be distributed to represent the normal loading in the rescue boat. (These weights need not be placed 300 mm above the seatpan.) Skates or fenders, if required, should be in position. The rescue boat, in a free hanging position, should be pulled laterally to a position so that when released it will strike a fixed rigid vertical surface at a velocity of 3.5 m/s. The boat should be released to impact against the rigic vertical surface. The same rescue boat with its engine, loaded as described above, should then be suspended above the water so that the distance from the lowest point of the rescue boat to the water is 3 m. The rescue boat should then be released so that it falls freely into the water. After the impact and drop tests, the boat should be examined to detect the position and extent of damage tha may have occurred as a result of the tests, and ar operational test should then be conducted in accordance with 5.2.5.2.	The impact and drop tests should be approved. Included in this loading should 00 kg loaded in one of each type of seat reboat. The remainder of the weights should represent the normal loading in the rescue ights need not be placed 300 mm above the ess or fenders, if required, should be in cue boat, in a free hanging position, should by to a position so that when released it will id vertical surface at a velocity of 3.5 m/s. d be released to impact against the rigid e boat with its engine, loaded as described in the lowest point of the rescue boat to the e rescue boat should then be released so into the water. ct and drop tests, the boat should be ect the position and extent of damage that urred as a result of the tests, and an	Id Load in boat:kg Observed Damage: en Increased Damage: ent Satisfactory Operation: YES he Satisfactory Operation: YES itly Ingress of Water: YES he NO he Satisfactory Operation: YES itly Ingress of Water: YES he Satisfactory Operation: YES itly Ingress of Water: YES he Satisfactory Operation: YES itly Ingress of Water: YES he Satisfactory Operation: YES itly Ingress of Water: YES he Satisfactory Operation: YES itly Ingress of Water: YES itly Ingress itly Ingre
.4	After the operational test, the rescue boat should be unloaded, cleaned, and carefully examined to detect the position and extent of damage that may have occurred as a result of the tests.	ed, and carefully examined to detect the ent of damage that may have occurred as	

Rigid rescue boats	Model:			Surveyor:	Time	
5.2.7.2 Overload te	est		Regulations	: MSC.81(70)1/7	.1.4	
Test Proce	edure	Acceptar	ice Criteria		Sign	ificant Test Data
The rescue boat should properly distributed load weight to represent the complement of person 82.5 kg for which it is to suspended for 5 minute hooks. The weights shou proportion to the loading service condition, but the represent the persons in 300 mm above the seat bridle or hooks and faste be examined after the conducted.	I of four times the equipment and full as each weighing b be approved and s from its bridle or uld be distributed in g of the boat in its ne weights used to need not be placed pan. The boat and ening device should	The rescue boat and its t should not show any signs o		ise mechanism	Load in boat:	
Testing by filling the boar not be accepted. This me not give the proper dis Machinery may be remove damage, in which case added to the boat to or removal of such machine The rescue boat and it (release mechanism) ar should be examined aft signs of damage.	thod of loading does tribution of weight. ved in order to avoid weights should be compensate for the ry. ts bridle or hooks ad fastening device				Passed	Failed

5.2.8 INFLATED RESCUE BOATS

EVALUATION AND TEST REPORT

- 5.3.0 General Information
 - 5.3.0.1 General data and specifications
 - 5.3.0.2 Submitted drawings, reports and documents
 - 5.3.0.3 Quality assurance
- 5.3.1 Visual inspection
 - 5.3.1.1 Occupant space
 - 5.3.1.2 Fittings, provisions and ladders
 - 5.3.1.3 Engine and starting system
 - 5.3.1.4 Steering mechanism and fuel tank
 - 5.3.1.5 Release mechanism
 - 5.3.1.6 Drain valve
- 5.3.2 Stability, damage, and loading tests
 - 5.3.2.1 Damage test
 - 5.3.2.2 Stability test
 - 5.3.2.3 Loading test
 - 5.3.2.4 Swamp test
 - 5.3.2.5 Righting test (for non self-righting rescue boats)
- 5.3.3 Seating strength and space tests
 - 5.3.3.1 Seating strength test
 - 5.3.3.2 Seating space test
- 5.3.4 Release mechanism tests
 - 5.3.4.1 Simultaneous release test
 - 5.3.4.2 Towing release test
 - 5.3.4.3 Load and release test
 - 5.3.4.4 Cyclic loading test
 - 5.3.4.5 Actuation force test
 - 5.3.4.6 Second release mechanism test actuation force and tensile strength
- 5.3.5 Operational tests
 - 5.3.5.1 Liferaft towing
 - 5.3.5.2 Endurance, speed and fuel consumption
 - 5.3.5.3 Engine out of water
 - 5.3.5.4 Compass test
 - 5.3.5.5 Manoeuvrability with paddles or oars
 - 5.3.5.6 Heavy weather/seas test
- 5.3.6 Towing and painter tests
 - 5.3.6.1 Towing test
 - 5.3.6.2 Painter release test
- 5.3.7 Strength tests
 - 5.3.7.1 Impact, drop and operation after impact and drop tests
 - 5.3.7.2 Ambient overload test
 - 5.3.7.3 Cold overload test
 - 5.3.7.4 Mooring out test
- 5.3.8 Materials tests
 - 5.3.8.1 Inflation chamber characteristics tests

5.3 INFLATED RESCUE BOATS

EVALUATION AND TEST REPORT

Manufacturer	
Туре	
Date	
Place	
Name Surveyor printed	
Signature	
Approving Organization	

Inflated receive boote Model	facturer: : erial Number:	Surveyor:
5.3.0.1 General data and sp	ecifications	Regulations: LSA Code 5.1
General Information	Rescue	boat Dimensions Rescue boat Weight
Construction Material:	Dimensions:	Design Weight:
Hull:	Breadth Maximum:	Loose Equipment: Fuel: Persons: Calculated Loaded Weight: Fully Equipped: With Persons:

Inflated rescue boats	Manufacturer: Model: Lot/Serial Number:		Date: Time: Surveyor: Organization:	
5.3.0.2 Submitted of	drawings, reports and do	cuments		Τ
	Su	bmitted drawings and documents		Status
Drawing No.	Revision No. & date	Title	e of drawing	Status
	S	ubmitted reports and documents		Ctatua
Report/Document No.	Revision No. & date	Title of r	eport / document	Status
		Maintenance Manual -		
		Operations Manual -		

Inflated rescue boats	Manufacturer: Model: Lot/Serial Number:						
5.3.0.3 Quality assur	ance	Regulations: MSC.81(70) 2/1.1,1.2					
of the International Conve amended or the Internatio inspected, representatives inspections of manufactur appliances and materials approved prototype life-sav Manufacturers should be re ensure that life-saving app the prototype life-saving app	equired to institute a quality control procedure to liances are produced to the same standard as opliance approved by the Administration and to action 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					

Inflated rescue boats	Model:	Manufacturer: Model: Lot/Serial Number:		Surveyor:			
5.3.1.1 Occupant sp	ace		Regulations:	LSA Code	5.1, MSC.81(70)1/7.2.16		
Test Procedu	re	Acceptance	Criteria		Significant Test Data		
Visually inspect the rescue Conduct measurements clearances as required.	boat.	General Unless the rescue boat has ad provided with a bow cover ex 15% of its length. Length is at least 3.8 m and n Seating Space Width – at least 430 mm Depth – at least 100 mm eac from the back Knee Space (Seating on seats back Knee Width – at least 250 mm Leg Space (Seating on floor) the back Overlapping Seat Vertical Sep Seat Horizontal Overlap – 150 Each seating position should b Stretcher(s) space: Rescue boats should be capa seated persons and a perso minimum 2130 x 610 mm. Walkway Surfaces The surfaces on which person a non-skid finish.	lequate sheer, it xtending for not ot over 8.5 m. ch side of a poin s) at least 635 mr – at least 1190 paration – at leas 0 mm maximum be clearly indicat ble of carrying at on lying on a str	should be less than t 215 mm n from the mm from t 350 mm ted. t least five retcher of	Passed Failed Passed Failed Passed Failed Width: mm Depth: mm Knee Space: mm Leg Space: mm Vert. Separation: mm Overlap: mm Position Indication: PASSED FAILED Stretcher space: mm Location: Passed Failed Non-Skid Surface: Passed Comments/Observations Failed		

Inflated rescue boats	Manufacturer: Model: Lot/Serial Number:						
5.3.1.2 Fittings, prov	isions and ladd	ers	Regulations:	LSA Code 4.4.	3.3, 5.1.3, MSC.8	1(70)1/7.2.16	
Test Procedu	re	Acceptano				Significant Test Data	а
Visually inspect the rescue	boat.	Colour: The boat is of inte orange, or a highly visible detection.			Passed	Failed	_
Conduct measurements	and verify	_			Passed	Failed	_
clearances as required.		Buoyancy compartments fitt Non-return valve for manual ir			Passed	Failed	_N/A
		Means for deflation			Passed	Failed	_
			Safety relief valve unless waived by Administration Suitable patches for securing painters fore and aft			Failed	-
		Fittings and Provisions Suitable handholds or buoyar outside of the rescue boat al reach of a person in the wate rudder and propeller	pove the waterli	ne and within	Passed	Failed	_N/A
		On other than self-righting rea	scue boats, han	dholds on the	Passed	Failed	
		underside arranged to break rescue boat Weathertight stowage for sma		0 0	Passed	Failed	_
		Approved position indicating li	ght provided at l	nighest point	Passed	Failed	_
		Rubbing strips on bottom a outside Transom, if fitted, not inset l length			Passed	Failed	-

.3.1.2 Fittings, provisions and ladders (cont'd)		Regulations: LSA Code 4.4.	3.3, 5.1.3, MSC.81(70)1/7.2.16
Test Procedure Acceptanc		ptance Criteria	Significant Test Data
Visually inspect the rescue boat. Conduct measurements and verify clearances as required.	Provided with effective mo self-bailing.	eans of bailing or be automatically	Passed Failed Comments/Observations
	Ladders		
		at any entrance should be on board n in place should not be less than	YES NO N/A
	0.4 m below the light wate		Lowest stepm below waterline
			Comments/Observations

Inflated receive basts Model:	urer: Number:	Surveyor:	Time:
5.3.1.3 Engine and starting sy	tem	Regulations: LSA Code 4.4.6,	5.1, MSC.81(70)1/7.2.16
Test Procedure	Accepta	nce Criteria	Significant Test Data
Visually inspect the rescue boat. Conduct measurements and clearances as required.	 Type of starting system Two independent rechargea power starting systems Required starting aids provi Starting system is not imper other obstructions Propeller arranged to be d provision for ahead and ast Exhaust arranged to preven normal operation System designed with due r the water and to the possib system from floating debris Engine casing made of f suitable arrangements prov Personnel are protected fro Shouted order can be hear necessary for 6 knot operat Watertight casing around batteries with a tightly fitti venting Means for recharging engin batteries provided by solar 	able energy sources provided for ded ded by engine casing, thwarts or isengaged from the engine and ern propulsion nt water from entering engine in regard to the safety of persons in ility of damage to the propulsion fire-retardant material or other iding similar protection m hot and moving parts rd with engine running at speed ion bottom and sides of starter ng top which provides for gas e starting, radio, and searchlight charger or ship's power supply provide power for engine starting	Manual Power YES NO N/A Passed Failed Passed Failed

Inflated rescue boats	Model:	ber:		Time:	
5.3.1.3 Engine and s	tarting system		Regulations:	LSA Code 4.4.6,	, 5.1, MSC.81(70)1/7.2.16
Test Procedu	re		ice Criteria		Significant Test Data
Visual Inspection-Engine system (continued)		 Acceptar Recharging for engine battle supply does not exceed 50 v Recharging means for engin at the rescue boat embarkat Instructions for starting an resistant and mounted in a engine starting controls 	eries provided l v e batteries can l ion station d operating en	pe disconnected gine are water	PassedFailed PassedFailed

Inflated rescue boats	Model:	ber:	Surveyor:				
5.3.1.4 Steering mechai	nism and fuel ta	nk	Regulations:	LSA Code 4.4.	7.2, 5.1.1.8, MSC.81(7	0)1/7.2.16	
Test Procedu	е	Acceptanc	ce Criteria		Signi	ificant Test Data	à
Visually inspect the rescue Conduct measurements clearances as required		Steering A tiller should be capable of and tiller may form part of outb Rudder permanently attached Except when remote steerin permanently attached or linked Rudder and tiller arranged s operation of the release mech Fuel Tank If fitted with petrol-driven our should be specially protected a	controlling the r board motor) to the rescue bo ng is provided, d to the rudder s o as not to be anism or propell tboard motor, th	the tiller is tock damaged by er ne fuel tank(s)	Passed Passed Passed Passed	Failed Failed Failed	N/A N/A
					Comments/Observati	ons	

Inflated rescue boats	Manufactur Model: Lot/Serial N	Ter: Date Surv Surv Number: Orga			e: /eyor: anization:	Time:		
5.3.1.5 Release mecl	hanism		Regulations:	LSA	Code 4.4.7, 5.1, MS	C.81(70)1/7.2.16		
Test Procedure		Acceptance Criter	ia		Sig	nificant Test Data		
Visually inspect the rescue	boat.	Clear operating instructions			Passed	Failed		
Conduct measurements clearances as required	and verify	Release control marked in a colour the surroundings	that contrasts	with	Passed	Failed		
		For on-load release mechanisms:						
		Suitably worded danger sign for or	load release		Passed	Failed	N/A	
		Mechanical protection (interlock) e mechanism is completely and prevent accidental release during r	properly reset,		Passed	Failed	N/A	
		On-load release mechanism nee continued action by the operator	ds deliberate	and	Passed	Failed	N/A	
		Mechanical protection provided be required for off load release	yond that norm	nally				
					Passed	Failed	N/A	
		For a single fall and hook system w on-load release capability is not re arrangement a single capability to only when it is fully waterborne will	equired; in such o release the t	n an	Passed Comments/Observa		N/A	
		NOTE: Such single fall hook system to the boat or to the davit fall wire	ns may be attac	hed				

Inflated recours heate Model: Surveyor:				Time:			
5.3.1.6 Drain valve			Regulation	s: LSA Code 4	4.4.7.1, 5. ⁻	1, MSC.81(70)1/7.	2.16
Test Proce	dure	Acceptar	nce Criteria			Significa	nt Test Data
Visually inspect the rescue	boat	Fitted near lowest point or	n the hull		Passed	F	ailed
Conduct measurements and verify clearances as required (not applicable for self-bailing boats)		Automatically opens wher and closes to prevent wa waterborne			Passed _	F	ailed
		Cap or plug attached to t	ha haat hu a k	anvard chain	Passed	F	ailed
		Cap or plug attached to the boat by a lanyard, chain or equivalent		Passed		ailed	
		Readily accessible from inside the rescue boat		Passed	F	ailed	
		Position clearly marked		Comments/Observations			
5.3.2.1 Damage test		Regulations: LSA Code 5.1.3.5, MSC.81(70)1/7.2.89					
Test Proce		Acceptance Criteria		Significant Test Data			
The following tests should be carried out with the In eac inflated rescue boat loaded with the number of person		In each of the conditions prescribed, the full number persons for which the rescue boat is to be appro- should be supported within the rescue boat.		be approved	1	nts/Observations With engine and f F Without engine ar	ailed
engine and fuel tank:	·				Passed		ailed
.1 with forward buoy deflated;	vancy compartment			2 Passed _	With engine and f F Without engine ar	ailed	
.2 with the entire buoya the rescue boat deflat					Passed _ 3	F	ailed
.3 with the entire buoyar the bow compartment						Without engine ar	ailed

Inflated rescue boats Manufacturer: Model: Lot/Serial Number:			Surveyor:	Time:	
5.3.2.2 Stability test			Regulations	LSA Code 4.4	4.5, MSC.81(70)1/6.10.8, 7.2.67
Test Procedure		Acceptan	ce Criteria		Significant Test Data
 The following tests should be called engine and fuel or an equivalent of the engine and fuel tanks: .1 the number of persons for inflated rescue boat is to should be crowded to one this complement seated on tube, and then to one end. In freeboard should be recorded 	for which the be approved side with half the buoyancy each case the	.1 Under these conditions everywhere positive.	the freeboard	should be	1 Freeboard crowded to one sidemm To bow:mm To stern:mm PassedFailed
.2 the stability of the rescue boarding should be ascerta persons in the rescue boat of that they can readily assist f a third person who is requ unconsciousness. The third have his back towards the rescue boat so that he can rescuers. All persons so approved lifejackets.	tained by two demonstrating from the water juired to feign person should e side of the not assist the should wear	.2 The rescue boat should	d be stable.		 Stability observations during recovery of unconscious person: Clothing/Suits on helpless person: Method of recovery: Number of persons required and any special equipment used:
These stability tests may be carrie rescue boat floating in still water.					Passed Failed Comments/Observations

Inflated rescue boats Manufacturer: Model: Lot/Serial Number:				Surveyor:	Time:
				Organization.	
5.3.2.3 Loading test		1	Regulations:	MSC.81(70)1/7	2.45
Test Proc	cedure	Acce	ptance Criteria		Significant Test Data
The freeboard of the inflated rescue boat should be taken in the various loading conditions as follows:		In each condition the minimum freeboard should be not less than 300 mm at the buoyancy tubes and not less than 250 mm from the lowest part of the		icy tubes and	.1 Freeboard at Buoyancy Tubes:mm Freeboard at Transom:mm
 .1 rescue boat with all its e .2 rescue boat with all its fuel, or an equivaler represent engine and fu 	equipment, engine and it mass positioned to	transom.			.2 Freeboard at Buoyancy Tubes:mm Freeboard at Transom:mm .3 Freeboard at Buoyancy Tubes:mm
having an average mas that a uniform freeboard buoyancy tubes; and	which it is to be approved s of 82.5 kg so arranged d is achieved at the side				Freeboard at Transom: mm .4 Freeboard at Buoyancy Tubes: mm Freeboard at Transom: mm Passed Failed
.4 rescue boat with the nur it is to be approved and and fuel or an equivalen engine and fuel and the re-trimmed as necessar	all its equipment, engine t mass to represent rescue boat being				Comments/Observations
5.3.2.4 Swamp test			Regulations:	MSC.81(70)1/7	
Test Proc	cedure	Acce	ptance Criteria		Significant Test Data
It should be demonstrated when fully swamped, is cap equipment, the number of 82.5 kg for which it is to b equivalent to its engine an should also be demonstrat does not seriously deform in	able of supporting its full persons each weighing e approved and a mass d fully filled fuel tank. It ted that the rescue boat	The rescue boat sho the full load and sho			Passed Failed Comments/Observations

Inflated rescue boats	Manufacturer: Model: Lot/Serial Number:			Date: Time: Surveyor: Organization:			
5.3.2.5 Righting test	(for non self-righting rescue b	oats)	Regulations: M	ISC.81(70)1/7.1	.7		
Test F	Procedure	A	Acceptance Criter	ria	Sign	ificant Test Data	
engine and fuel or an equencine and fuel tank, the rearighted by not more than two water. For rescue boats with inbe	d that both with and without uivalent mass in place of the escue boat is capable of being o persons if it is inverted on the oard engines, the test without cable. applicable for outboard engines.		oat should be ca t more than two e water.			oat report 4.5.2.3) ted by 2 persons? : Failed fuel: Failed	
					Comments/Observat	ions	
5.3.3.1 Seating stren	gth test	_	Regulations:	LSA Code 4.4.	1.5, MSC.81(70)1/6.6.1		
	Procedure		cceptance Criter		9	ficant Test Data	
	ded with a mass of 100 kg in a person to sit in the rescue		should be able t ut any permaner		Observed damage Passed	Failed	
seat should be loaded with seat location when dropped	t launched by falls, each type of a mass of 100 kg in any single l into the water from height of at e performed in conjunction with	this loading. N	hould be capable lo damage should affect the se	d be sustained	Passed Comments/Observatio		N/A

Inflated rescue boats Manufacturer: Model: Lot/Serial Number:				Date: Time: Surveyor: Organization:		
5.3.3.2 Seating space	ce test		Regulations:	LSA Code 5.1	.1.3.2, MSC.81(70)1/7.1.3	
Test Procedur	e	Acceptance	ce Criteria		Significar	nt Test Data
The rigid rescue boat sh with its engine and all its en- number of persons for whi boat is to be approved average mass of at least 8 wearing lifejackets and im and any other essentia required, should then boar should lie down on a stretch dimensions to those show and the others should be p in the rescue boat. The rig should then be manoeu equipment on board demonstrate that it can without difficulty or interfer occupants.	quipment. The ich the rescue d, having an 2.5 kg, and all mersion suits al equipment d; one person cher of similar n in the figure roperly seated id rescue boat ivred and all tested to be operated rence with the	Equipment can be operated occupants. The rescue boat must be of 5 persons and a person lying Except the helmsmen, pers floor, provided the space used requirements of test form 5.3 No seating is on the gunw chambers on the sides of the	capable of carry down on a street cons may be se d conforms with t .1.1. vale, transom, o	ying at least tcher. eated on the the leg space	Equipment operated: Number of persons carried: Seated on seats Seated on floor Lying on a stretcher Total Passed F Lifejacket and immersion su Lifejacket – Inflatable/Infl 	Failedit used during the test: nerently Buoyant

Inflated rescue boats	Model:	ər:		Surveyor:	Time:		
5.3.4.1 Simultaneou	is release test		Regulation	s: LSA Code 4.4	.7.6, MSC.81(70)1/6.9.12		
Test Procedu	ire	Acceptanc	e Criteria		Significan	t Test Data	
For rescue boats launched the rescue boat with its should be suspended fro mechanism just clear of th water. The rescue boat sh so that the total mass equa mass of the rescue boat, a and the number of person rescue boat is to be approvide boat should be released from each fall to which without binding or damage the rescue boat or the release (Single fall systems no on-load operation are ex- test.)	s engine fitted om the release e ground or the nould be loaded als 1.1 times the all its equipment is for which the yed. The rescue simultaneously it is connected e to any part of ase mechanism. t intended for	It should be confirmed to simultaneously release from e without binding or damage to or the release mechanism. It should be confirmed to simultaneously release from connected when fully waterboo in a 10% overload condition.	each fall which any part of th hat the resc n each fall to	it is connected le rescue boat ue boat will o which it is	Light condition PassedFailed_ (N/A – Single fall, off-load 1.1 x Loaded Mass: PassedFaile (N/A – Single fall, off-loa Comments/Observations	l only) kg ed	N/A

Inflated rescue boats	Manufacturer: Model: Lot/Serial Number:			Time:	
5.3.4.2 Towing release to	est	Regulations:	LSA Code 4.4.	7.6.5; MSC.81(70) 1/6.9.3	
	Procedure	Acceptance Criter		Significant Test Data	
With the operating mechan demonstrated when the res complement of persons a speeds of 5 knots that the m closed. Furthermore, with the oper should be demonstrated tha with its full complement of towed at speeds of 5 knots above should be demonstrated	ating mechanism connected, it at the rescue boat when loaded persons and equipment when s can be released. Both of the tted as follows:	There should be no damage a these tests. The rescue boat is released sa the release mechanism. Single fall systems not intende operation are exempt from this	s a result of atisfactorily by ed for on-load	Operating mechanism disconnected and boat towed at 5 kts:Pass Fail Operating mechanism connected tests. Test 1: 25% SWL, lengthwise to the boat at 45° to the vertical: Force Applied: N. Forward direction: Pass Fail Aft direction: Pass Fail	
 hook should be applied direction of the boat at This test should be coas the forward direction .2 a force equal to the should be applied to direction at an angle of should be conducted of the should be conducted of the	safe working load of the hook the hook in an athwartships of 20° to the vertical. This test			Test 2: 100% SWL, athwartships at 20° to the vertical: Force Applied:N. Starboard:PassFail Port:PassFail Test 3: 100% SWL, 45° to the longitudinal axis of the boat in plan view at an angle of 33° to the vertical. Force Applied:N.	
should be applied to t between the positions longitudinal axis of the	he hook in a direction halfway of tests 1 and 2 (i.e. 45° to the boat in plain view) at an angle This test should be conducted			Position 1:PassFail Position 2:PassFail Position 3:PassFail Position 4:PassFail Comments/Observations	

Inflated rescue boats	Model: 5		Date: Time: Surveyor:	
5.3.4.3 Load and relea	ase test	Regulations: L	SA Code 4.	.4.7.6.4; MSC.81(70) 1/6.9.4.1, 6.9.4.2
Test Proc		Acceptance Criteria		Significant Test Data
A release mechanism shou tested as follows: The rescue boat release ar the longest used con associated with the syster and adjusted according to original equipment manufa to 100% of its safe working Load and release should be The rescue boat release should then be disassembland wear recorded. The system should then be reas	Id be conditioned and nd retrieval system and nection cable/linkage m should be mounted o instructions from the cturer and then loaded load and released. e repeated 50 times. and retrieval system ed, the parts examined release and retrieval	Acceptance Criteria During the 50 releases, the rescue bo and retrieval system should be simultaneously from each fall to w connected without any binding or dam part of the lifeboat release and retrieva The system should be considered as any failure during the conditioning or u release occurs when load is applie system has not yet been operated.	released /hich it is age to any il system. s "failed" if unintended	v

Model:		acturer:		Time:
		ber:	Organizati	on:
5.3.4.4 Cyclic loading tes	st	Regulations: LS	SA Code 4.	4.7.6.4; MSC.81(70) 1/6.9.4.3
Test Procedu	re	Acceptance Criteria		Significant Test Data
The hook assembly, while				Working Load:N
from the operating mechar tested 10 times with cycli		The specimen should remain closed during the	e test.	Force Applied:N
zero load to 1.1 times the		The system should be considered as "failed" if a		
load, at a nominal 10 sec		during this test or any unintended release of	r opening	cam rotation if no applicable:
unless the release mecha specifically designed to op-		occurs.		Cam rotation 0°:
load hook with on-load cap				
weight of the boat to close				1: 2: 3: 4: 5: 6: 7: 8: 9: 10:
case the cyclic load shou				
more than 1% to 1.1 times	the SWL.			Cam rotation +45°:
For cam-type designs, the	test should be			1: 2: 3: 4: 5: 6: 7: 8: 9: 10:
carried out at an initial car				
(fully reset position), and re				Cam rotation -45°:
either direction, or 45° in	one direction if			1: 2: 3: 4: 5: 6: 7: 8: 9: 10:
restricted by design.				
				Passed: Failed:
				Comments/Observations

Inflated rescue boats	Manufacturer: Model: Lot/Serial Number:		Date: Time: Surveyor: Organization:	
5.3.4.5 Actuation force	test	Regulations:	LSA Code 4	1.4.7.6.4; MSC.81(70) 1/6.9.4.4
Test Pro	ocedure	Acceptance Criteria		Significant Test Data
The cable and operating m reconnected to the hook a boat release and retrieva demonstrated to operate s working load.	assembly; and the rescue I system should then be	The actuation force should be no less and no more than 300 N, if a cabl should be the maximum length spec manufacturer, and secures in manner it would be secured in the re	e is used it cified by the the same	Actuation Force: N Passed: Failed:
The demonstration should indicators and handles are correctly positioned in acco and safety instruction from manufacturer.	e still functioning and are		.3.4.4 and conducted hould be during this	Comments/Observations

Inflated rescue boats	Manufacturer: Model: Lot/Serial Number:		Date: Time: Surveyor: Organization:		
5.3.4.6 Second release	mechanism tests- actuation fo	orce and tensile strength	Regulations: LSA	Code 4.4.7.6.4, MSC.81(70)1/6.9.5.1, 6.9.5.2	
Test P	rocedure	Acceptance	Criteria	Significant Test Data	
 the actuation force of t be measured loaded v load. If a cable is used length specified by the the same manner it w The demonstration sho indicators and handles correctly positioned in and safety instruction manufacturer; and the release mechanis tensile strength testing 	n should be tested as follows: he release mechanism should with 100% of its safe working l, it should be of the maximum manufacturer, and secured in ould be secured in a lifeboat. ould verify that any interlocks, s are still functioning and are accordance with the operation from the original equipment m should be mounted on a g device. The load should be x times the working load of the	.1 The actuation force than 100 N and no m	should be no less ore than 300 N.		

Inflated rescue boats	Manufacturer: Model: Lot/Serial Number:			Date: Time: Surveyor: Organization:		
5.3.5.1 Liferaft towin	g		Regulations:	LSA Co	de 4.4.6.8, 5.1.1.7, 5.1.1.9, MSC.81(70)1/7.1.2	
Test Pro	ocedure		ance Criteria		Significant Test Data	
for which the rescue boa	loaded with weights equal and the number of persons t is to be approved. The ne rescue boat should then	The maximum tow boat should be approval certificate There should be ne fitting or its suppor	recorded on the e. o damage to the	e type	Smallest Engine Largest Engine Make/model:	
	e used to determine the liferaft the rescue boat can knots.				Bollard pull: N (Record on type approval certificate)	
secured to a stationary obje a means to measure bollard operated ahead at full spe 2 minutes and the maximur (For rescue boats equipt bollard pull trials may be o	owing other craft should be ect by a tow rope fitted with I pull. The engine should be ed for a period of at least n force recorded. Ded with outboard motor, carried out with engines of sess the rescue boat's				Observed damage: Propeller: Pitch: Diameter: Passed Failed Comments/Observations	

Inflated rescue boats	Model:	ber:		Surveyor: _	Time: on:	
5.3.5.2 Endurance, speed	l and fuel consu	mption	Regulatio	ns: LSA Co	ode 5.1.1.6, MSC.81(70)1/7.1.5, 1/7.1.6	
Test Procedu	re	Acceptance Crit	teria		Significant Test Data	
(Note: Run this test after in tests in 5.3.7.1.)		The boat should operate satisfacto operation.	orily through		Smallest Engine Largest Engine Make/model:	<u>ne</u>
The rescue boat should l weights equal to the mass of and the number of person rescue boat is to be approv	of its equipment s for which the	The fuel tank should have sufficien a speed of 6 knots for a period of 4	it capacity to hours in ca	o operate at	Engine Speed: rpm	
The engine should be start manoeuvred for a period o demonstrate satisfactory op	f at least 4 h to				Consumption: L/h Fuel Tank Capacity: L	
The rescue boat should be of not less than 6 knots for is sufficient to ascert consumption and to establi tank has the required	a period which ain the fuel ish that the fuel capacity. (This				Endurance: hrs Propeller: Pitch: Diameter:	
determination may be the 4-hour period of operati	•				Passed Failed	
For rescue boats equipped motor, speed and man should be carried out w various powers to assess th performance.	oeuvring trials rith engines of				Comments/Observations	

Inflated rescue boats Model: Surveyor:			Surveyor:	Time:			
5.3.5.3 Engine out of	water		Regulations:	LSA Code 4.4.	6.3, MSC.81(70)1/6.10.5		
Test Procedu	re	Acceptan	ce Criteria		Significant Test Data		
 The engine should be operated for at least 5 minutes at idling speed under conditions simulating normal storage. Note: If a water flushing device is intended to be used for this purpose, it should be fitted during the test. 		The engine should not be damaged as a result of this test.		Passed Failed Comments/Observations			
5.3.5.4 Compass test	t		Regulations: LSA Code 5.1.2.2.3, MSC.81(70)1/6.10.7				
Test Procedu	re	Acceptance Criteria		Significant Test Data			
It should be determined the performance is satisfactory unduly affected by magne equipment in the rescue bo	and that it is not etic fittings and	The compass operates satisfa	ctorily.		Compass Make: Compass Model: Passed Failed Comments/Observations		

Inflated rescue boats	Manufacturer: _ Model: Lot/Serial Numl	ber:	Date: Time: Surveyor: Organization:		
5.3.5.5 Manoeuvrability	, with paddles o	r oars	Regulations:	LSA Code 5.1.	2.2.1, MSC.81(70)1/7.1.8
Test Procedu	re	Acceptano	e Criteria		Significant Test Data
It should be demonstrated boat can be propelled and its oars or paddles in calm v at a speed of at least 0.3 distance of at least 25 m. v the number of persons lifejackets and immersion s is to be approved.	manoeuvred by vater conditions 5 knots over a vhen laden with 5, all wearing	The rescue boat should be ca paddled and manoeuvred.	bable of being s	atisfactorily	Distance travelled:m Time Required:s Calculated speed:m/s =knots Lifejacket and immersion suit used during the test: Lifejacket – Inflatable/Inherently Buoyant Immersion suit – Uninsulated/Buoyant Insulated Passed Failed Comments/Observations

Inflated rescue boats	Model:	ber:	-	Surveyor:	n: Ti		
5.3.5.6 Heavy weather/	seas test		Regulatio	ons: LSA Co	de 5.1.3, MSC.81(70)1	/7.2.10	
Test Procedur	е	Acceptance Crite	eria			ificant Test Data	
To simulate use in heavy weather the inflated rescue boat should be fitted with a larger powered engine than is intended to be fitted and driven hard in a wind of force		The rescue boat should not sh permanent strain nor have lost pressure.		•	Pressure relief valves	e test:mba	
4 or 5 or equivalent rough w 30 minutes.					Wave height Wind Speed		
For boats with inboard engines the power does not need to be greater than that intended to be used.					Tube pressure after to Passed Comments/Observati	est:mbar Failed ions	
5.3.6.1 Towing test			Regulatio	ons: LSA Co	de 4.4.1.3.2, 4.4.7.7, N	/ISC.81(70)1/6.11.1	
Test Procedur	е	Acceptance Crite	eria		Signi	ificant Test Data	
It should be demonstrated equipped rescue boat, It properly distributed mass mass of the number of pers is to be approved, can be to of not less than 5 knots in of on an even keel using the painter securing device.	oaded with a equal to the ons for which it wed at a speed calm water and	The rescue boat should not exhib characteristics. There should be no damage to t equipment as a result of this test.					

Inflated rescue boats	Model:	ber:		Surveyor:			
5.3.6.2 Painter releas	se test		Regulations:	LSA Code 4.4.	.7.7, MSC.81(70) ²	1/6.11.23	
Test Procedur	re	Acceptanc	ce Criteria			Significant T	est Data
It should be demonstrated release mechanism can rele on a fully equipped and load that is being towed at a sp than 5 knots in calm water. The painter release mecha tested in several distinct d upper hemisphere not obs canopy or other construction boat. The directions specifie should be used if possible.	that the painter ease the painter ded rescue boat beed of not less anism should be directions of the structed by the ons in the rescue ed in test 5.3.4.2	The painter should release and to the rescue boat or its equipt	d there should b		Passed Test Direction	Passed Passed Passed Passed Passed Passed	Failed Failed Failed Failed Failed Failed

Model:			Date: Surveyor: Organizat	Tim ion:	ne:	
5.3.	7.1 Impact, drop a	and operation after impac	t and drop tests	Regulatior	ns: LSA Code 4.4.1.7, MS	C.81(70)1/6.4.1, 7.2.2. & 7.2.3
	Test Pro		Acceptance Criteria			ant Test Data
.1	For boats launched equipped rescue boa should be loaded with of the number of pers boat is to be approved should be a weight of each type of seat insi weights should be dis normal loading in th weights need not be p seatpan.) Skates or fe be in position. The resc position, should be pu so that when released vertical surface at a v raised 0.624 m above for the boat should be re- the rigid vertical surface	by fall or falls, the fully at, including its engine, weights equal to the mass ons for which the rescue d. Included in this loading 100 kg loaded in one of talled in the lifeboat. The stributed to represent the ne rescue boat. (These blaced 300 mm above the enders, if required, should cue boat, in a free hanging lled laterally to a position d it will strike a fixed rigid elocity of 3.5 m/s (keel is the free hanging position). eleased to impact against	 The impact and drop tests should considered successful if: .1 no damage has been sus would affect the efficient fur the rescue boat and its equipation. .2 the damage caused by the drop tests has not increased sas a result of the operation 5.3.5.2; .3 machinery and other equipation operated to full satisfaction; a .4 no significant ingress of set 	tained that nctioning of ment; impact and significantly onal test in pment has nd	Load in boat: Observed Damage: Increased Damage: Satisfactory Operation: Ingress of Water: Weight of heaviest engin Final Evaluation:	_kg YES NO YES NO YES NO
.3	and with a mass equivalent in the position of its ended by the dropped three time 3 m on to water. The 45-degree bow-down, stern-down attitudes.	alent to its engine and fuel igine and fuel tank should s from a height of at least drops should be from the level trim, and 45-degree			Comments/Observations	
	its equipment should b					

Inflated rescue boats	ed rescue boats Model: Surveyor:			Surveyor:	Time:	
5.3.7.2 Ambient over	load test	-	Regulations: LSA Code 5.1.3.2.2, MSC.81(70)1/7.2.12			
Test Procedu	re	Acceptanc	ce Criteria		Significant	Test Data
With all relief valves inoperative, the inflated rescue boat should be loaded with four times the mass of the full complement of persons and equipment for which it is to be approved and suspended for 5 minutes from its bridle at an ambient temperature of $+20 \pm 3^{\circ}$ C.			nanism should	Passed Comments/Observations	Failed	
The rescue boat and its bridle should be examined after the test is conducted.						
5.3.7.3 Cold overload	d test	Regulations: LSA Code 5.1.3.2.3, MSC.81(70)1/7.2.13				
Test Procedu	re	Acceptance Criteria		Significant Test Data		
 With all relief valves operative, after 6 hours conditioning at a temperature of -30°C, the inflated rescue boat should be loaded with 1.1 times the mass of the full complement of persons and equipment for which it is to be approved and suspended for 5 minutes from its bridle. The rescue boat and bridle should be examined after the test is conducted. 			nanism should	Passed	Failed	

Inflated rescue boats Manufacturer: Model: Lot/Serial Number:				Date: Surveyor: Organization: _	Time:
5.3.7.4 Mooring out t	est		Regulations:	LSA Code 5.1.	3.3, MSC.81(70)1/7.2.15, 5.5, 5.17.78
Test Proce	dure	Accepta	ance Criteria		Significant Test Data
The rescue boat should be equal to the mass of the tota for which it is to be approve and moored in a location at harbour. The rescue boat s in that location for 30 days be topped up once a day pump; however, during any rescue boat should retain it Each inflatable compartmen should be tested to a pres- times the working pressure. valve should be made inop air should be used to inflate boat and the inflation source should continue for at least The measurement of pre- leakage can be started assumed that compartmen completed stretching dur- pressure and achieved equal	al number of persons ed and its equipment sea or in a seawater should remain afloat a. The pressure may y using the manual y 24-hour period the s shape. In the rescue boat ssure equal to three Each pressure relief erative, compressed the inflatable rescue e removed. The test 30 minutes. ssure drop due to when it has been t material has been e to the inflation	The rescue boat should would impair its performa The pressure should not determined without comp atmospheric pressure cha seam slippage, cracking boat.	not sustain any nce. decrease by mo vensating for ter anges, and there	re than 5% as nperature and should be no	Compartment 1 Initial Pressure:mbar Final Pressure:mbar Calculated Decrease:Percent Compartment 2 Initial Pressure:mbar Final Pressure:mbar Calculated Decrease:Percent Compartment 3 Initial Pressure:mbar Calculated Decrease:Percent Compartment 4 Initial Pressure:mbar Calculated Decrease:Percent Compartment 5 Initial Pressure:mbar Calculated Decrease:Percent Percent 5 Initial Pressure:mbar Calculated Decrease:Percent Percent 5 Initial Pressure:mbar Calculated Decrease:Percent Percent 5 Initial Pressure:mbar Calculated Decrease:Percent Passed Failed
					Comments/Observations

Inflated rescue boats	Manufacturer: _ Model: Lot/Serial Num	r: mber:		Date: Surveyor: Organization:		
5.3.8.1 Inflation char	nber characteris	stics tests	Regulations:	LSA Code	1.2.2, MSC.81(70)1/7.2.14	
Test Procedu	re	Acceptance	Criteria		Significant Test Data	
The inflatable compartment to construct the rescue to tested for the following char .1 tensile strength .2 tear strength .3 heat resistance .4 cold resistance .5 heat ageing .6 weathering .7 flex cracking .8 abrasion .9 coating adhesion .10 oil resistance .11 elongation at break .12 piercing strength .13 ozone resistance .14 gas permeability .15 seam strength .16 ultraviolet light resistance	ooat should be racteristics:	The material characteristics st ISO 15372:2000.	nould comply wi		.1 tensile strengthN .2 tear strengthN .3 heat resistance – Blocking .4 cold resistance – Cracking .5 heat ageing% retained strength N/50 mm width .6 weathering% retained strength N/50 mm width .6 weathering% retained strength N/50 mm width .7 flex cracking – Cracking or deterioration .8 abrasionmg/rev.; Base fabric not visible .9 coating adhesionN/50 mm width .10 oil resistance – Tackiness or other deterioration .11 elongation at break% .12 piercing strength	

5.4 RIGID/INFLATED RESCUE BOATS EVALUATION AND TEST REPORT

- 5.4.0 General Information
 - 5.4.0.1 General data and specifications
 - 5.4.0.2 Submitted drawings, reports and documents
 - 5.4.0.3 Quality assurance
- 5.4.1 Visual inspection
 - 5.4.1.1 Occupant space
 - 5.4.1.2 Fittings, provisions and ladders
 - 5.4.1.3 Engine and starting system
 - 5.4.1.4 Steering mechanism and fuel tank
 - 5.4.1.5 Release mechanism
 - 5.4.1.6 Drain valve
- 5.4.2 Stability, damage and loading tests
 - 5.4.2.1 Damage test
 - 5.4.2.2 Stability test
 - 5.4.2.3 Loading test
 - 5.4.2.4 Swamp test
 - 5.4.2.5 Flooded stability test
 - 5.4.2.6 Righting test (for non self-righting rescue boats)
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 - 5.4.4.2 Towing release test
 - 5.4.4.3 Load and release test
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- 5.4.5 Operational tests
 - 5.4.5.1 Liferaft towing
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 - 5.4.5.5 Manoeuvrability with paddles or oars
 - 5.4.5.6 Heavy weather/seas test
- 5.4.6 Towing and painter tests
 - 5.4.6.1 Towing test
 - 5.4.6.2 Painter release test
- 5.4.7 Strength tests
 - 5.4.7.1 Impact, drop and operation after impact & drop test
 - 5.4.7.2 Overload test
 - 5.4.7.3 Mooring out test
- 5.4.8 Materials tests
 - 5.4.8.1 Inflation chamber characteristics tests

5.4 RIGID/INFLATED RESCUE BOATS

EVALUATION AND TEST REPORT

Manufacturer	
Туре	
Date	
Place	
Name Surveyor printed	
Signature	
Approving Organization	

Rigid/inflated rescue boats Manufacturer: Model: Lot/Serial Number:				Surveyor	Time: : tion:
5.4.0.1 General data and s	pecifications		Regulations: LS	A Code 4.	4, 5.1, MSC.81(70)1/7.2.16
General Information		Rescue b	oat Dimensions		Rescue boat Weight
Construction Material: Hull: Canopy: Fire-retardancy documentation Rescue Boat Inherent Buoyancy (App.) Material: Weight: Occupancy: Persons (82.5 kg each): Persons (82.5 kg each): Engine(s) Installed: 1 Type App by: Manufacturer: Type: Power: Gear ratio (inboard engine): Additional rigid or inflatable buoya Release mechanism(s) (if applica 1 Manufacturer: Type: SWL:	Di	imensions: LOA: Breadth Maximum: Depth to Sill: Depth to Gunwale: Moulded Breadth: Moulded Depth: rovision for securing hanging pplicable):	g-off pendant (if		Design Weight: Unloaded Boat: Loose Equipment: Fuel: Persons: Calculated Loaded Weight: Fully Equipped: With Persons: Weight as Tested: Fully Equipped: Comments/Observations

Rigid/inflated rescue boa	ats Ma Lot	nufacturer: del: /Serial Number		Date: Time: _ Surveyor: Organization:	
5.4.0.2 Submitted d	rawings, re	ports and doc	uments		
	-	Sub	mitted drawings and documents		Status
Drawing No.	Revisior	n No. & date	Title o	of drawing	Status
	-	Su	bmitted reports and documents		Statua
Report/Document No.	Revisior	n No. & date	Title of rep	oort / document	Status
			Maintenance Manual -		
			Operations Manual -		

Rigid/inflated rescue boats	Manufacturer: Model: Lot/Serial Number:		Date: Time: Surveyor:			
5.4.0.3 Quality assurance		Regulations: MS	6C.81(70) 2/1.1, 1.2			
of the International Convention amended or the International Lit inspected, representatives of the inspections of manufacturers to appliances and materials used approved prototype life-saving app Manufacturers should be required ensure that life-saving appliances the prototype life-saving appliances	particular type are required by chapter III for the Safety of Life at Sea, 1974, as fe-Saving Appliance (LSA) Code, to be the Administration should make random to ensure that the quality of life-saving comply with the specification of the pliance. It to institute a quality control procedure to a are produced to the same standard as the approved by the Administration and to tests carried out in accordance with the	Quality assurance Standard Used: Quality assurance Quality assurance Description of Sys	e Procedure: e Manual:			
		Quality assurance System acceptable				
	Yes/No					
		Comments/Observations				

Divid/inflated receive basts Model:			Survey		or: zation:
5.4.1.1 Occupant space	I	-	Regulations: LS	A Code	4.4.2.2, 4.4.3.5, 5.1, MSC.81(70)1/7.2.16
Test Procedure		Acceptance	Criteria		Significant Test Data
Visually inspect the rescue boat. Conduct measurements and clearances as required.	d verify	General Unless the rescue boat has ad provided with a bow cover ex 15% of its length.	xtending for not les		
		Length is at least 3.8 m and no	ot over 8.5 m.		Passed Failed
		Seating Space Width – at least 430 mm Depth – at least 100 mm eac from the back Knee Space (Seating on seats back Knee Width – at least 250 mm Leg Space (Seating on floor) the back Overlapping Seat Vertical Sep Seat Horizontal Overlap – 150 Each seating position should the Stretcher(s) space: Rescue boats should be capal seated persons and a perso minimum 2130 x 610 mm. Walkway Surfaces The surfaces on which person a non-skid finish.	at least 635 mm fr – at least 1190 m paration – at least 3 mm maximum be clearly indicated ble of carrying at lea n lying on a streto	om the m from 50 mm ast five cher of	Width: mm Depth: mm Knee Space: mm Leg Space: mm Vert. Separation: mm Overlap: mm Position Indication: PASSED FAILED Stretcher space: mm Passed

Rigid/inflated rescue boats	Model:	urer: Number:		Surveyor:		_ Time:
5.4.1.2 Fittings, provisions	s and ladd	ers	Regulations: LS	A Code 5.1.	3, MSC.81(70)1/7.2	2.16
Test Procedure			ce Criteria		S	ignificant Test Data
Visually inspect the rescue boat.		Buoyancy compartments fitte Non-return valve for manual in			Passed	_ Failed
Conduct measurements and clearances as required.	d verify	Means for deflation			Passed	_ Failed
•		Safety relief valve unless waiv	ed by Administratio	on	Passed	N/A
		Suitable patches for securing Fittings and Provisions	painters fore and af	Passed	_ Failed	
		Suitable handholds or buoyar outside of rescue boat above of a person in the water, exce and propeller	the waterline and w	ithin reach/	Passed	_ Failed
		On other than self-righting resunderside arranged to break rescue boat			Passed	_ Failed
		Weathertight stowage for sma Approved position indicating li		Passed	FailedN/A	
		Provided with effective means of bailing or be automatically self-bailing			Passed	_Failed
					Comments/Obser	vations

Rigid/inflated rescue boats	inid/inflated rescue beats Model: Survey		Surveyor: _	Time: on:	
5.4.1.2 Fittings, provisions	and ladd	ers (cont'd)	Regula	ations: LSA	Code 4.4.3.3, 5.1.3, MSC.81(70)1/7.2.16
Test Procedure		Acceptance Criteria			Significant Test Data
Visually inspect the rescue boat. Conduct measurements and clearances as required.	d verify	Ladders Ladders that can be used at any entr board and the lowest step when in place than 0.4 m below the light waterline. Other Provisions Buoyant material may be installed exter boat, provided it is adequately protect and is capable of withstanding exposure open deck on a ship at sea and for 30 c condition. Colour The boat should be of a highly visible assist detection.	e should nal to the ed again when sto ays afloa	not be less hull of the st damage owed on an at in all sea	Passed Failed Lowest stepm below waterline YES NO N/A Passed Failed Highly visible colour: PassedFailed Comments/Observations

Rigid/inflated rescue boats Manufacturer: Model: Lot/Serial Number:				Date: Time: Surveyor:				
5.4.1.3 Engine and starting	system		Regulations: LS	A Code 4.4.	6, 5.1, MS	SC.81(70))1/7.2.16	
Test Procedure		Acceptanc	e Criteria				Significant Test Data	
Test Procedure Visually inspect the rescue boat. Conduct measurements and clearances as required.	verify	Acceptance Type of starting system - Two independent rechargea for power starting systems. - Required starting aids provid - Starting system is not imped or other obstructions. - Propeller arranged to be dis- provision for ahead and aste - Exhaust arranged to prevent normal operation. - System designed with due re- in the water and to the propulsion system from float - Engine casing made of fire- suitable arrangements provid - Personnel are protected from - Shouted order can be heard necessary for 6 knot operatio - Watertight casing around batteries with a tightly fitting venting.	ble energy source led. led by engine casin engaged from the of rn propulsion. water from enterin egard to the safety bossibility of dama ing debris. e-retardant materia ding similar protect in hot and moving p with engine runnin on. bottom and sides	ng, thwarts engine and g engine in of persons age to the al or other ion. parts. ng at speed of starter	Manual YES Passed Passed Passed Passed Passed Passed Passed Passed	Power NO	Significant Test Data N/A _Failed Failed	
		 Means for recharging e searchlight batteries provide power supply. Radio batteries not used starting. Towing arrangements for magnetation 	ed by solar charge to provide power	er or ship's	-		_Failed	

Rigid/inflated rescue boats	Manufacturer: Model: Lot/Serial Number:	Date: Survey Organiz	
5.4.1.3 Engine and starting	g system	Regulations: LSA Code	4.4.6 <u>,</u> 5.1, MSC.81(70)1/7.2.16
Test Procedure	Acceptar	nce Criteria	Significant Test Data
Visual Inspection-Engine and sta system (continued)	rting - Recharging for engine batt supply does not exceed 50 - Recharging means for engin at the rescue boat embarka - Instructions for starting an resistant and mounted in engine starting controls.	v. ne batteries can be disconne tion station. nd operating engine are w	cted PassedFailed

Rigid/inflated rescue boats	Model:	S		Date: Surveyor: Organization:		
5.4.1.4 Steering mechanis	m and fue	tank	Regulations: L	SA Code 4.4.7.2, 5.1.1.8, MS	C.81(70)1/7.2.16	
Test Procedure		Acceptance Crit	eria	Significa	nt Test Data	
Visually inspect the rescue boat.		Steering		Passed	Failed	
Conduct measurements and clearances as required.	d verify	A tiller should be capable of co (rudder and tiller may form part			Failed	N/A
		Rudder permanently attached to	o the rescue boat	Passed	Failed	N/A
		Except when remote steering is provided, the tiller is permanently attached or linked to the rudder stock			Failed	
		Rudder and tiller arranged so as not to be damaged by operation of the release mechanism or propeller Fuel Tank			Failed	N/A
		If fitted with petrol-driven outboard motor, the fuel tank(s) should be specially protected against fire and explosion				

Division Model:			Surveyor		on:		
5.4.1.5 Release mechanisr	n		Regulations: LS	A Code 4.4.	7.6.5, MSC.81(70)1	/7.2.16	
Test Procedure		Acceptanc	ce Criteria		Si	gnificant Test Data	
Visually inspect the rescue boat.		Clear operating instructions			Passed	Failed	
Conduct measurements and clearances as required.	d verify	Release control marked in a surroundings	colour that contras	sts with the	Passed	_ Failed	
		For on-load release mechanis	ms:				
		Suitably worded danger sign f	or on load release		Passed	Failed	N/A
	Mechanical protection (interlock) engages only when mechanism is completely and properly reset, to prevent accidental release during recovery				Passed	Failed	N/A
		On-load release mechanism needs deliberate and continued action by the operator			Passed	_ Failed	N/A
		Mechanical protection provi required for off load release	ided beyond tha	t normally	Passed	_ Failed	N/A
	For a single fall system with suitable painter, on-lo capability is not required; in such an arrangeme capability to release the boat only when it is fully will be adequate			ent a single	Passed Comments/Observ		N/A
NOTE: Such single fall hook systems i boat or to the davit fall wire			ystems may be atta	ached to the			

[Manufacturer:		Date [.]	Time [.]			
	Manufacturer: Model:	· · · · · · · · · · · · · · · · · · ·	Date: Time: Surveyor:				
Rigid/inflated rescue boats	Lot/Serial Number:	· · · · · · · · · · · · · · · · · · ·	Organization:				
5.4.1.6 Drain valve			Regulations: LS	SA Code 4.4.7.1, 5.1, MSC.81(70)1/7.2.16			
Test Pro	ocedure	Acceptance (Criteria	Significant Test Data			
Visually inspect the rescue boat.		Fitted near lowest point o	n the hull.	Significant Test Data PassedFailed			
Conduct measurements and verify clearances as required (not applicable for self-bailing boats).		Automatically opens whe waterborne and closes entry when the boat is wa	to prevent water	PassedFailed			
		Cap or plug attached lanyard, chain or equivale		PassedFailed			
		Readily accessible from boat.	inside the rescue	PassedFailed			
				PassedFailed			
		Position clearly marked.		O meno entre (Ob e e mustion e			
5.4.2.1 Damage test (Does r	not apply if waterline is below low	war aida of inflated tuba)	Degulationa, LG	Comments/Observations			
.	ocedure	Acceptance		SA Code 5.1.3.5, MSC.81(70)1/7.2.89, 7.3.2 Significant Test Data			
				Comments/Observations			
	carried out with the rigid inflated	In each of the conditions		1 With engine and fuel:			
	ber of persons (of 82.5 kg mass)	number of persons for wh		Passed Failed			
	n with and without engine and fuel	is to be approved should l	be supported within	Without engine and fuel			
or an equivalent mass in the posit	tion of the engine and fuel tank:	the rescue boat.		Passed Failed			
.1 with forward buoyancy con	npartment deflated;			2 With engine and fuel:			
.2 with the entire buoyancy of deflated; and	n one side of the rescue boat			Passed Failed Without engine and fuel Passed Failed 3 With engine and fuel:			
.3 with the entire buoyancy of compartment deflated.	n one side and the bow			Passed Failed Without engine and fuel Passed Failed			

Rigid/inflated rescue boats	Model:	:: mber:		Surveyor:	Time: on:
5.4.2.2 Stability test			Regulations: LS	A Code 4.4.	.5, MSC.81(70)1/6.10.8, 7.2.67,
Test Procedure		Acceptan	ce Criteria		Significant Test Data
The following tests should be car engine and fuel or an equivalent m of the engine and fuel tanks: .1 the number of persons for rigid/inflated rescue boat approved should be crow side with half this comple on the buoyancy tube, and end. In each case the should be recorded; and	nass in place or which the at is to be wded to one ment seated d then to one	.1 Under these condition everywhere positive.	is the freeboard s	should be	.1 Freeboard crowded to one sidemm To bow:mm To stern:mm PassedFailed
.2 the stability of the rescue boarding should be ascert persons in the re- demonstrating that they assist from the water a who is required unconsciousness. The t should have his back towa of the rescue boat so tha assist the rescuers. All per wear approved lifejackets	ained by two scue boat can readily third person to feign third person ards the side at he cannot rsons should	.2 The rescue boat should	d be stable.		.2 Stability observations during recovery of unconscious person: Clothing/Suits on helpless person:
These stability tests may be carr the rescue boat floating in still wat					Comments/Observations

Rigid/inflated rescue boats	Manufacturer: Model: Lot/Serial Number:			Surveyor: _	n:
5.4.2.3 Loading test			Regulations: LS	A Code 5.1.3	3.6, MSC.81(70)1/7.2.45
Test Proc	edure		Acceptance Criteri	а	Significant Test Data
The freeboard of the rescue boat should be taken in the various loading conditions as follows: .1 rescue boat with all its equipment;		freeboard mm at the	In each condition the minimum freeboard should be not less than 300 mm at the buoyancy tubes and not less than 250 mm from the lowest part of the		.1 Freeboard at Buoyancy Tubes:mm Freeboard at Transom:mm .2 Freeboard at Buoyancy Tubes:mm .3 Freeboard at Buoyancy Tubes:mm .3 Freeboard at Buoyancy Tubes:mm .4 Freeboard at Buoyancy Tubes:mm Freeboard at Buoyancy Tubes:mm .4 Freeboard at Buoyancy Tubes:mm Passed Failed
boat being retrimmed as nece	ssary.				Comments/Observations
5.4.2.4 Swamp test			Regulations: M	SC.81(70)1/	7.2.11
Test Proc	edure		Acceptance Criter	ia	Significant Test Data
It should be demonstrated that the rescue boat, when fully swamped, is capable of supporting its full equipment, the number of persons each weighing 82.5 kg for which it is to be approved and a mass equivalent to its engine and fully filled fuel tank. It should also be demonstrated that the rescue boat does not seriously deform in this condition.			ue boat should be c g the full load and s deform.		Passed Failed Comments/Observations

Rigid/inflated rescue boats	Manufacturer: Model: Lot/Serial Number:			Time: or: ation:
5.4.2.5 Flooded stability te inflated tube)	st (Required only when	n waterline is below lower side of	F	Regulations: LSA Code 4.4.1.1, MSC.81(70)1/6.8.13
Test Proced	ure	Acceptance Criteria		Significant Test Data
The rescue boat should be loade provision lockers, water tanks ar removed, they should be floode waterline resulting from this test. watertight stowage compartme individual drinking water contain containers aboard and plac compartments which should be s the flooding tests. Ballast of equiv- should be substituted for the installed equipment that can be d Weights representing persons (would be in the water when the (water level more than 500 mm a be omitted.	ad fuel tanks cannot be ad or filled to the final Rescue boats fitted with ents to accommodate ers should have these ed in the stowage sealed watertight during alent weight and density engine and any other amaged by water. of 82.5 kg mass) who rescue boat is flooded	When loaded as specified, the should have positive stability whe water to represent flooding which when the rescue boat is holed location below the waterline assur of buoyancy material and no other	en filled would oc in any o ming no l	with ccur one Comments/Observations oss

Rigid/inflated rescue boats	Model:		Date: Time: Surveyor: Organization:			
5.4.2.5 Flooded stability test (Required only when waterline is below lower side of inflated tube) (cont'd)			Regulations: LSA Code 4.4.1.1, MSC.81(70)1/6.8.13			
Test Procedure Weights representing persons w not be in the water when the resc flooded (water level more than above the seat pan) should be pla normal seating positions of such with their centre of gravity appr 300 mm above the seat pan. representing persons who would submerged in the water when the flooded (water level between 0 an above the seat pan) should a have an approximate density of (for example water ballast cont represent a volume similar to body.	ue boat is 500 mm iced in the n persons roximately Weights be partly lifeboat is d 500 mm dditionally 1 kg/dm ³ ainers) to	Acceptance Criteria		Significant Test Data		
Note: Several tests may have conducted if holes in different are create different flooding condition	eas would					

Rigid/inflated rescue boats	Manufact Model: Lot/Seria	lanufacturer: lodel: ot/Serial Number:			Date: Time: Surveyor: Organization:			
5.4.2.6 Righting test (for n	on-self-rig	ghting rescue boats) Regulations: MSC.81(70)1/7			.1.7			
Test Procedure		Acceptane	ce Criteria		Significant Test Data			
It should be demonstrated that and without engine and fue equivalent mass in place of the e fuel tank, the rescue boat is c being righted by not more than tw if it is inverted on the water.	el or an ngine and apable of	The rescue boat should be ca more than two persons if it is i			Is the boat self-righting? YES NO (If YES, refer to lifeboat report 4.5.2.3) Can the boat be righted by 2 persons? With engine and fuel:			
For rescue boats with inboard en- test without engine and fuel is not applicable.					Passed Failed			
Note: Test without engine is only a	applicable				Without engine and fuel:			
for outboard engines.					Passed Failed			
					Method used to right boat:			
					Comments/Observations			

Rigid/inflated rescue boats	boats Manufacturer: Model: Lot/Serial Number:			Date: Surveyor: Organization:			
5.4.3.1 Seating strength te	st		Regulations: LS	A Code 4.4.	1.5, MSC.81(70)1/6.6.1		
Test Procedure		Acceptanc	ce Criteria		Significant Test Data		
The seating should be loaded with a mass of 100 kg in each position allocated for a person to sit in the rescue boat.		any permanent deformation or damage.		Observed damage Passed Failed			
In the case of a rescue boat lau falls, each type of seat should b with a mass of 100 kg in any s location when dropped into the w height of at least 3 m. (This test performed in conjunction with the in 5.4.7.1)	be loaded ingle seat vater from it may be	The seating should be capable No damage should be sustain efficient functioning.			Passed Failed PassedN/A Comments/Observations		

Rigid/inflated rescue boats Manufacturer: Model: Lot/Serial Number:			Date: Time: Surveyor: Organization:			
5.4.3.2 Seating space test		Regulations: LSA Code 5.1.1.3.2, MSC.81(70)1/7.1.3				
Test Procedure	Acceptance	ce Criteria		Significant Test Data		
The rescue boat should be fitte engine and all its equipment. The of persons for which the rescue be approved, having an average r least 82.5 kg, and all wearing I and immersion suits and an essential equipment required, sh board; one person should lie do stretcher of similar dimensions shown in the figure below and t should be properly seated in th boat. The rescue boat should manoeuvred and all equipment tested to demonstrate that it operated without difficulty or int with the occupants.	e number boat is to nass of at lifejackets ny other ould then bown on a to those he others re rescue then be on board can be erference	apable of carrying own on a stretcher. Is may be seated of onforms with the 1.1. vale, transom, or	at least 5 n the floor, leg space	Equipment operated: YES NO Number of persons carried: Seated on seats		

Rigid/inflated rescue boats Manufacturer: Model: Model: Lot/Serial Number:				Date: Surveyor: Organization:		
5.4.4.1 Simultaneous release Regulations: L			Regulations: LS	A Code 4.4.	7.6, MSC.81(70)1/6.9.12	
Test Procedure		Acceptan	ce Criteria		Significant Test Data	
For rescue boats launched by fall the rescue boat with its engine fitte be suspended from the release me just clear of the ground or the wa rescue boat should be loaded so total mass equals 1.1 times the ma rescue boat, all its equipment number of persons for which the boat is to be approved. The res should be released simultaneou each fall to which it is connected binding or damage to any part of the boat or the release mechanism.	ed should simultar echanism without ater. The the rele- that the ass of the It shou and the simultar e rescue when fucue boat overload d without	uld be confirmed in neously release from e binding or damage to base mechanism. uld be confirmed in neously release from e ully waterborne in the d condition.	each fall which it is any part of the reso that the rescue ach fall to which it is	connected cue boat or boat will connected	Light condition PassedFailedN/A (N/A – Single fall, off-load only) 1.1 x Loaded Mass:kg PassedFailedN/A (N/A – Single fall, off-load only) Comments/Observations	
(Single fall systems not inter on-load operation are exempt f test.)						

		Date:	Time:		
	Madalı		Surveyor	Time,	
Rigid/inflated rescue boats	Lot/Serial Number:		Organizat	 tion:	
			5.3		
5.4.4.2 Towing release test		Regulations: LS	A Code 4.4	4.7.6.5; MSC.81(70) 1/6.9.3	
Test Proce		Acceptance Criteria		Significant Test Data	
With the operating mechanism		There should be no damage as	a result of	Operating mechanism disconnected and boat towed	
demonstrated when the rescue		these tests.		at 5 kts:Pass Fail	
complement of persons and equi					
of 5 knots that the moveable hoo	k component stays closed.	The rescue boat is released sat by the release mechanism.	tisfactorily	Operating mechanism connected tests.	
Furthermore, with the operating	mechanism connected, it			Test 1: 25% SWL, lengthwise to the boat at 45° to	
should be demonstrated that the	e rescue boat when loaded			the vertical:	
with its full complement of pers		Single fall systems not inte			
towed at speeds of 5 knots car		on-load operation are exempt	from this	Force Applied: N. Forward direction:Pass Fail	
above should be demonstrated a	s follows:	test		Forward direction:PassFail	
				Aft direction:Pass Fail	
.1 a force equal to 25% of t					
	the hook in the lengthwise			Test 2: 100% SWL, athwartships at 20° to the vertical:	
	angle of 45° to the vertical. ucted in the aftward as well				
as the forward direction;	ucted in the altward as well			Force Applied: N.	
				Starboard:Rass Fail	
.2 a force equal to the safe	e working load of the hook			Port: Pass Fail	
	e hook in an athwartships				
	20° to the vertical. This test			Test 3: 100% SWL, 45° to the longitudinal axis of	
should be conducted on				the boat in plan view at an angle of 33° to the	
				vertical.	
.3 a force equal to the safe					
	hook in a direction halfway			Force Applied: N.	
	between the positions of tests 1 and 2 (i.e. 45° to the			Position 1:Pass Fail	
longitudinal axis of the boat in plan view) at an angle				Position 2:PassFail	
	s test should be conducted			Position 3: Pass Fail	
in four positions.				Position 4:PassFail	
				Comments/Observations	

Rigid/inflated rescue boats	Manufacturer: Model: Lot/Serial Number:			Date: Surveyor: Organization:		
5.4.4.3 Load and release test			Regulations: LSA Code 4.4.7.6.4; MSC.81(70) 1/6.9.4.1, 6.9.4.2			
Test Procedure		Acceptance Criteria		Significant Test Data		
Test Procedure A release mechanism should be c tested as follows: The rescue boat release and retri- the longest used connection associated with the system should adjusted according to instructions equipment manufacturer and then of its safe working load and releas Load and release should be repea The rescue boat release and r should then be disassembled, the and wear recorded. The releas system should then be reassembled	eval system and n cable/linkage be mounted and from the original loaded to 100% sed. ated 50 times. retrieval system parts examined se and retrieval	Acceptance Criteria During the 50 releases, the rescue boat and retrieval system should be r simultaneously from each fall to whic connected without any binding or damage part of the lifeboat release and retrieval sy The system should be considered as "f any failure during the conditioning or unin release occurs when load is applied system has not yet been operated.	eleased ch it is e to any ystem. failed" if ntended	Working Load: N Force Applied: N Check the box for each release: 1: 1: 2: 3: 4: 5: 6: 7: 8: 9: 10: 11: 12: 12:		

Rigid/inflated rescue boats	Manufacturer: Model:		Date: _ Survey	Time: /or:		
Rigiu/imateu rescue boats	Lot/Serial	Number:	Organi	zation:		
5.4.4.4 Cyclic loading test		Regulations: LS	Regulations: LSA Code 4.4.7.6.4; MSC.81(70) 1/6.9.4.3			
Test Procedure		Acceptance Criteria		Significant Test Data		
The hook assembly, while disc from the operating mechanism, tested 10 times with cyclic loa	should be	The specimen should remain closed during the t	est.	Working Load:N Force Applied:N		
zero load to 1.1 times the safe load, at a nominal 10 seconds unless the release mechanism	per cycle;	The system should be considered as "failed" if a failure during this test or any unintended release opening occurs.		Check the box for each release and/or strike out the cam rotation if no applicable:		
specifically designed to operate as an off-load hook with on-load capability using the weight of the boat to close the hook, in this case the cyclic load should be from no				Cam rotation 0°: 1: 2: 3: 4: 5: 6: 7: 8: 9: 10: 7		
more than 1% to 1.1 times the SWL. For cam-type designs, the test should be carried out at an initial cam rotation of 0° (fully reset position), and repeated at 45° in either direction, or 45° in one direction if restricted by design.				Cam rotation +45°: 1: 2: 3: 4: 5: 6: 7: 8: 9: 10: 10: 10: 10: 10: 10: 10: 10: 10: 10		
				Cam rotation -45°: 1: 2: 3: 4: 5: 6: 7: 8: 9: 10: 10: 10: 10: 10: 10: 10: 10: 10: 10		
				Passed: Failed:		
				Comments/Observations		

Rigid/inflated rescue boats	Manufacturer: Model:			or: Time:			
	Lot/Serial Number:		Organi	zation:			
5.4.4.5 Actuation force test		Regulations: LS	Regulations: LSA Code 4.4.7.6.4; MSC.81(70) 1/6.9.4.4				
Test Procedur		Acceptance Criteria		Significant Test Data			
The cable and operating mechan reconnected to the hook assemi boat release and retrieval syste demonstrated to operate satisfac working load. The demonstration should verify indicators and handles are still correctly positioned in accordanc and safety instruction from the manufacturer.	hism should then be bly; and the rescue em should then be storily under its safe that any interlocks, functioning and are e with the operation	The actuation force should be no less the N and no more than 300 N, if a cable is should be the maximum length specifie manufacturer, and secures in the manner it would be secured in the rescured in the rescure the release mechanism is deemed the passed the testing in 5.4.4.3, 5.4.4 5.4.4.5 when the tests have been contact of the release mechanism is deemed the tests have been contact.	s used it d by the same ue boat. to have 4.4 and nducted ld be ring this				

Rigid/inflated rescue boats	Manufacturer: Model: Lot/Serial Number:			Time: on:
5.4.4.6 Second release m	nechanism tests- actuatio	on force and tensile strength	Regulation 6.9.5.2	s: LSA Code 4.4.7.6.4, MSC.81(70)1/6.9.5.1,
Test Proced	lure	Acceptance Criteri	a	Significant Test Data
 A second release mechanism should be measured loade working load. If a cable is u maximum length specified and secured in the same secured in a lifeboat. The verify that any interlocks, are still functioning and are accordance with the construction from the manufacturer; and .2 the release mechanism should the release mechanism. 	build be tested as follows: the release mechanism d with 100% of its safe used, it should be of the l by the manufacturer, e manner it would be e demonstration should indicators and handles e correctly positioned in operation and safety original equipment mould be mounted on a ice. The load should be	.1 The actuation force should than 100 N and no more the The release mechanism does	1 be no less an 300 N.	Actuation Force:N Tensile strength @ 6xSWL. Force applied:N. Passed:N Comments/Observations

Rigid/inflated rescue boats	Manufacturer: Model: Lot/Serial Number:			Surveyor:	Time:		
5.4.5.1 Liferaft towing			Regulatio	ns: LS	SA Code 4.4.6.8, 5	5.1.1.7, 5.1.1.9, MSC.8	1(70)1/7.1.2
Test Procedu	ure	Acceptance			Signifi	icant Test Data	
Test Procedul The rescue boat should be load to the mass of its equipment persons for which the rescue by The maximum towing force of the then be determined. This information should be us largest size of fully loaded liferaft can tow at a speed of at least 2 The fitting designated for towing secured to a stationary object by a means to measure bollard pull operated ahead at full speed for 2 minutes and the maximum for (For rescue boats equipped to bollard pull trials may be carried various powers to assess performance.)	led with weights equal t and the number of oat is to be approved. he rescue boat should sed to determine the twhich the rescue boat knots. g other craft should be y a tow rope fitted with . The engine should be or a period of at least ce recorded. with outboard motor, ed out with engines of	Acceptance of The maximum to force of the resor- type approval co There should damage to th fitting or its s structure.	owing cue boat ded on the ertificate. be no le towing	Bolla (Reco Obse Prope Pi D Pass	e/model: rd pull: N ord on type approv erved damage: eller: itch:	Smallest Engine	

Rigid/inflated rescue boats	Model:	urer: Number:		Date: Surveyor: Organization:
5.4.5.2 Endurance, speed	and fuel	consumption	Regulat	ations: LSA Code 5.1.1.6,MSC.81(70)1/7.1.5, 1/7.1.6
Test Procedure		Acceptance Criteria		Significant Test Data
 (Note: Run this test after impadrop tests in 5.4.7.1.) The rescue boat should be load weights equal to the mass equipment and the number of for which the rescue boat is approved. The engine should be started boat manoeuvred for a period of 4 hours to demonstrate sat operation. The rescue boat should be r speed of not less than 6 knd period which is sufficient to ascefuel consumption and to estab the fuel tank has the required of (This determination may be made the 4-hour period of operation.) For rescue boats equipped with a motor, speed and manoeuvries should be carried out with en various powers to assess the boat's performance. 	led with of its persons to be and the f at least isfactory un at a ts for a ertain the lish that capacity. le during putboard ng trials gines of	The boat should operate satisfactoril the 4-h operation. The fuel tank should have sufficient of operate at a speed of 6 knots for a p 4 hours in calm water.	capacity to	Make/model: Engine Speed: rpm

Rigid/inflated rescue boats	Model:	urer: Number:		Surveyor: _	Time: on:		
5.4.5.3 Engine out of wate	er		Regulations: L	SA Code 4.4	.6.3, MSC.81(70)1/6.10.5		
Test Procedure		Acceptanc	e Criteria		Significant Test Data		
The engine should be operated for at least 5 minutes at idling speed under conditions simulating normal storage. Note: If a water flushing device is intended to be used for this purpose, it should be fitted during the test.		The engine should not be da	naged as a result o	of this test.	Passed Failed Comments/Observations		
5.4.5.4 Compass test		Regulations: LSA Cod			5.1.2.2.3, MSC.81(70)1/6.10.7		
Test Procedure		Acceptance Criteria			Significant Test Data		
It should be determined th compass performance is sat and that it is not unduly affe magnetic fittings and equipmer rescue boat.	isfactory ected by	The compass operates satisf	actorily.		Compass Make: Compass Model: Passed Failed Comments/Observations		

Rigid/inflated rescue boats	Model:	urer: Number:		Surveyor: _	Time: on:
5.4.5.5 Manoeuvrability w	vith paddle	s or oars	Regulatio	ns: LSA Coo	de 5.1.2.2.1, MSC.81(70)1/7.1.8
Test Procedure		Acceptance Cr	iteria		Significant Test Data
It should be demonstrated to rescue boat can be propell manoeuvred by its oars or pa calm water conditions at a spe least 0.5 knots over a distance of 25 m. when laden with the nut persons, all wearing lifejacked immersion suits, for which it is approved. For boats with inboard engine power does not need to be great that intended to be used.	led and addles in eed of at f at least imber of ets and is to be nes the	The rescue boat should be capable paddled and manoeuvred.	e of being sat	tisfactorily	Distance travelled:m Time Required:s Calculated speed:m/s =knots Lifejacket and immersion suit used during the test: Lifejacket - Inflatable/Inherently Buoyant Immersion suit - Uninsulated/Buoyant Insulated Passed Failed Comments/Observations

Rigid/inflated rescue boats	d/inflated rescue boats Manufacturer: Model: Lot/Serial Number:			Survey	Time: or: zation:		
5.4.5.6 Heavy weather/seas	s test		Regulations: L	SA Code	∋ 5.1.3, MSC.81(70)1/7.2.10		
Test Procedure		Acceptance	Criteria		Significant Test Data		
To simulate use in heavy wea rescue boat should be fitted with powered engine than is intende fitted and driven hard in a wind 4 or 5 or equivalent rough wat least 30 minutes.	a larger ed to be of force	The rescue boat should not show undue fle permanent strain nor have lost more than in pressure.			Tube pressure before test:mbar		
5.4.6.1 Towing test			Regulations: L	SA Code	e 4.4.1.3.2, 4.4.7.7, MSC.81(70)1/6.11.1		
Test Procedure		Acceptance	Criteria		Significant Test Data		
It should be demonstrated that equipped rescue boat, loaded properly distributed mass equa mass of the number of persons f it is to be approved, can be tow speed of not less than 5 knots water and on an even keel u rescue boat's painter securing d	d with a al to the for which wed at a s in calm sing the	The rescue boat should not exhibit unsafe or u characteristics. There should be no damage to the rescue boat equipment as a result of this test.			Passed Failed Comments/Observations		

Rigid/inflated rescue boats	Model:	urer: Number:		Surveyor:	on:	Time:
5.4.6.2 Painter release te	st		Regulations: L	SA Code 4.4	I.7.7, MSC.81(70)	1/6.11.23
Test Procedure		Acceptanc	ce Criteria			Significant Test Data
It should be demonstrated to painter release mechanism can the painter on a fully equipp loaded rescue boat that is being a speed of not less than 5 knots water. The painter release mechanism be tested in several distinct dire the upper hemisphere not obstr the canopy or other construction rescue boat. The directions spe test 5.4.4.2 should be used if po	n release ped and towed at s in calm m should ections of ructed by ns in the ecified in	The painter should release a damage to the rescue boat o this test.	nd there should be		Passed Test Direction	Failed PassedFailed PassedFailed PassedFailed PassedFailed PassedFailed

Rigid/inflated rescue boats Manufacturer: Model: Model: Lot/Serial Number: Manufacturer:			Date: Time: Surveyor: Organization:				
5.4.7.1 Impact, drop and	operation after imp	act and drop test	Regulations:	LSA Code 4	4.4.1.7, MSC.81(70)1	.4.1.7, MSC.81(70)1/6.4.1, 7.2.2, 7.2.3	
Test Procedur		Accept	ance Criteria		S	ignificant Test Data	
.1 For boats launched by fal equipped rescue boat, ind should be loaded with we mass of the number of per rescue boat is to be approv loading should be a weight in one of each type of se lifeboat. The weights shoul represent the normal load boat. (These weights nee 300 mm above the sea fenders, if required, should rescue boat, in a free hangi be pulled laterally to a pos released it will strike a f surface at a velocity of 3 should be released to impa	cluding its engine, ights equal to the sons for which the ed. Included in this t of 100 kg loaded at installed in the d be distributed to ling in the rescue ed not be placed tpan.) Skates or be in position. The ng position, should dition so that when fixed rigid vertical 8.5 m/s. The boat	successful if: .1 no damage has affect the efficien boat and its equ .2 the damage caus tests has not in result of the ope .3 machinery and operated to full s	been sustained th nt functioning of th ipment; sed by the impact acreased significa rational test in 5.4 other equipm	hat would he rescue and drop antly as a 4.5.2; hent has	S Load in boat: Increased Damage Satisfactory Opera Ingress of Water: Weight of heaviest Final Evaluation:	e: YES NO tion: YES NO	
 vertical surface. .2 The rescue boat comp equipment and with a mas engine and fuel in the pos and fuel tank should be dr from a height of at least 3 r drops should be from bow-down, level trim, stern-down attitudes. .3 On completion of these tes and its equipment sho examined. 	es equivalent to its sition of its engine opped three times m on to water. The the 45-degree and 45-degree				Passed		

Rigid/inflated rescue boats	Manufacturer: _ Model: Lot/Serial Numb	per:		Surveyor:	Time: on:
5.4.7.2 Overload test	-		Regulations: MS	SC.81(70)1/7	7.1.4
Test Procedure		Accept	tance Criteria		Significant Test Data
The rescue boat should be loaded distributed load of four times represent the equipment and full persons each weighing 82.5 kg to be approved and suspended for its bridle or hooks. The weig distributed in proportion to the load in its service condition, but the represent the persons need 300 mm above the seat pan. The or hooks and fastening dev examined after the test has been Testing by filling the boat with w be accepted. This method of load give the proper distribution of we	the weight to I complement of for which it is to 5 minutes from ghts should be ading of the boat weights used to not be placed boat and bridle ice should be a conducted.	The rescue boat and its should not show any sig	bridle or release m	nechanism	Load in boat:kg Comments/Observations
may be removed in order to ave which case weights should be ac to compensate for the rem machinery.	dded to the boat				
The rescue boat and its bridle or mechanism) and fastening dev examined after the test for any si	vice should be				Passed Failed

Rigid/inflated rescue boats	Manufacturer: _ Model: Lot/Serial Numl	ber:		Date: Surveyor: _ Organizatio	Time: on:
5.4.7.3 Mooring out test (I lower side of inflat		f waterline is below Regulations: LSA Code 5.1.3			3.3, MSC.81(70)1/7.2.15, 5.5, 5.17.78
Test Procedure	•	Accept	ance Criteria		Significant Test Data
The rescue boat should be load equal to the mass of the total nur for which it is to be approved an and moored in a location at sea of harbour. The rescue boat should that location for 30 days. The pri topped up once a day using the however, during any 24-hour per boat should retain its shape. Each inflatable compartment in the should be tested to a pressure times the working pressure. Each valve should be made inoperative air should be used to inflate the i boat and the inflation source ren should continue for at least 30 m The measurement of pressure leakage can be started when assumed that compartment ma completed stretching due to the in and achieved equilibrium.	nber of persons d its equipment or in a seawater remain afloat in ressure may be a manual pump; driod the rescue the rescue boat equal to three on pressure relief ve; compressed inflatable rescue noved. The test inutes.	The rescue boat should would impair its perform The pressure should not determined without com atmospheric pressure ch seam slippage, cracking boat.	ance. decrease by more pensating for tempe nanges, and there sl	than 5% as erature and hould be no	Compartment 1 Initial Pressure: mbar Final Pressure: mbar Calculated Decrease: Percent Compartment 2 Initial Pressure: Initial Pressure: mbar Calculated Decrease: Percent Compartment 2 Initial Pressure: Initial Pressure: mbar Calculated Decrease: Percent Compartment 3 Initial Pressure: Initial Pressure: mbar Calculated Decrease: Percent Compartment 4 Initial Pressure: Initial Pressure: mbar Calculated Decrease: Percent Compartment 5 Initial Pressure: Initial Pressure: mbar Calculated Decrease: Percent Passed Percent Passed Failed Comments/Observations Failed

Rigid/inflated rescue boats	Manufact Model: Lot/Seria	urer: Number:		Date: Time: Surveyor: Organization:
5.4.8.1 Inflation chamber of	characteris	stics tests	Regulations:	: LSA Code 1.2.2, MSC.81(70)1/7.2.14
Test Procedure		Acceptance Criter	ia	Significant Test Data
The inflatable compartment mate to construct the rescue boat se tested for the following characteries 1 tensile strength 2 tear strength 3 heat resistance 4 cold resistance 5 heat ageing 6 weathering 7 flex cracking 8 abrasion 9 coating adhesion 10 oil resistance 11 elongation at break 12 piercing strength 13 ozone resistance 14 gas permeability 15 seam strength 16 ultraviolet light resistance	should be stics:	The material characteristics sl with ISO 15372:2000.	hould comply	.1 tensile strengthN .2 tear strengthN .3 heat resistance – Blocking

5.5 RIGID FAST RESCUE BOATS

EVALUATION AND TEST REPORT

- 5.5.0 General Information
 - 5.5.0.1 General data and specifications
 - 5.5.0.2 Submitted drawings, reports and documents
 - 5.5.0.3 Quality assurance
- 5.5.1 Visual inspection
 - 5.5.1.1 Occupant space
 - 5.5.1.2 Fittings, provisions and ladders
 - 5.5.1.3 Engine and starting system
 - 5.5.1.4 Steering mechanism and fuel tank
 - 5.5.1.5 Release mechanism
- 5.5.2 Freeboard, stability and self-righting tests
 - 5.5.2.1 Flooded stability test
 - 5.5.2.2 Freeboard test
 - 5.5.2.3 Righting test (for non self-righting fast rescue boats)
 - 5.5.2.4 Self-righting test (for self-righting fast rescue boats only)
 - 5.5.2.5 Flooded capsizing test
 - 5.5.2.6 Engine inversion test (inboard)
- 5.5.3 Seating strength and space tests
 - 5.5.3.1 Seating strength test
 - 5.5.3.2 Seating space test
- 5.5.4 Release mechanism tests
 - 5.5.4.1 Simultaneous release
 - 5.5.4.2 Towing release test
 - 5.5.4.3 Load and release test
 - 5.5.4.4 Cyclic loading test
 - 5.5.4.5 Actuation force test
 - 5.5.4.6 Second release mechanism test actuation force and tensile strength
- 5.5.5 Operational tests
 - 5.5.5.1 Liferaft towing
 - 5.5.5.2 Endurance, speed, and fuel consumption
 - 5.5.5.3 Engine out of water
 - 5.5.5.4 Compass test
 - 5.5.5.5 Helpless person recovery
 - 5.5.5.6 Manoeuvrability with paddles or oars
- 5.5.6 Towing and painter tests
 - 5.5.6.1 Towing test
 - 5.5.6.2 Painter release test
- 5.5.7 Strength tests
 - 5.5.7.1 Impact, drop and operation after impact & drop test
 - 5.5.7.2 Overload test

5.5 RIGID FAST RESCUE BOATS

EVALUATION AND TEST REPORT

Manufacturer	
Туре	
Date	
Place	
Name Surveyor printed	
Signature	
Approving Organization	

Rigid fast rescue boats	Model:	Manufacturer: Model: Lot/Serial Number:		Date: Time: Surveyor: Organization:	
5.5.0.1 General data ar	nd specification	cifications Regulations: LSA Code 4.			5.1, MSC.81(70)1/7.1.9
General Informa	tion	Rescue bo	oat Dimensions		Rescue boat Weight
General Informa Construction Material: Hull: Canopy: Fire-retardancy documenta Rescue Boat Inherent Buoyar (Type App.) Material: Weight: Occupancy: Persons (82.5 kg each): Engine(s) Installed: Type App by: Manufacturer: Type: Power: Gear ratio (inboard engine) Additional rigid or inflatable built Release mechanism(s) (if app	ation: ncy 2 : uoyancy:	Dimensions: LOA (including fixed fender Breadth Maximum: Depth to Sill: Depth to Gunwale: Moulded Breadth: Moulded Depth: Provision for securing hanging	ers, if any):	 	Design Weight: Unloaded Boat: Loose Equipment: Fuel: Persons: Calculated Loaded Weight: Fully Equipped: With Persons: Weight as Tested: Fully Equipped: Comments/Observations
Manufacturer: Type: SWL: Propeller	2				

Rigid fast rescue boats	Manufacturer: Model: Lot/Serial Number:	Date: Time: Surveyor: Organization: Organization:					
5.5.0.2 Submitted drawings, reports and documents							
Submitted drawings and documents							
Drawing No.	Revision No. & date	Title of drawing	Status				
	Su	bmitted reports and documents	Ctatura				
Report/Document No.	Revision No. & date	Title of report / document	Status				
		Maintenance Manual -					
		Operations Manual -					

Rigid fast rescue boats	Manufacturer: Model: Lot/Serial Number:	Surveyor:				
5.5.0.3 Quality assuran	ice	Regulations: MSC.81(70) 2/1.1, 1.2				
of the International Conventi amended or the International inspected, representatives of inspections of manufacturers appliances and materials u approved prototype life-saving Manufacturers should be requ ensure that life-saving appliant the prototype life-saving appliant	ired to institute a quality control procedure to nces are produced to the same standard as iance approved by the Administration and to	Quality assurance Standard Used: Quality assurance Procedure: Quality assurance Manual:				
Reep records of any products Administration's instructions.	ion tests carried out in accordance with the	Description of System: Quality assurance System acceptable Yes/No Comments/Observations				

Rigid fast rescue boats Model: Serial Number: Serial Number:				Date: Time: Surveyor: Organization:		
5.5.1.1 Occupant spac	е		Regulations: I	_SA Code 4.4	.2.2, 4.4.3.5, 5.1, MSC.81(70)1/7.1.9	
Test Procedure		Acceptanc	ce Criteria		Significant Test Data	
Visually inspect the rescue boat. Conduct measurements and verify clearances as required.		General Unless the rescue boat has ac provided with a bow cover ext of its length.			Passed Failed	
		Length is at least 6.0 m and n	ot over 8.5 m.		Passed Failed	
		 Seating Space Width – at least 430 mm Depth – at least 100 mm each side of a point 215 mm from the back Knee Space (Seating on seats) at least 635 mm from the back Knee Width – at least 250 mm Leg Space (Seating on floor) – at least 1190 mm from the back Overlapping Seat Vertical Separation – at least 350 mm Seat Horizontal Overlap – 150 mm maximum Each seating position should be clearly indicated. 			Width: mm Depth: mm Knee Space: mm Knee Width: mm Leg Space: mm Vert. Separation: mm Overlap: mm Position Indication: PASSED FAILED Stretcher space: mm Passed Failed	
		 Stretcher(s) space: Rescue boats should be capable of carrying at least five seated persons and a person lying on a stretcher of minimum 2130 x 610 mm. Walkway Surfaces The surfaces on which persons might walk should have a non-skid finish. 			Non-Skid Surface: PassedFailed Comments/Observations	

Rigid fast rescue boats	Manufacturer: Model: Lot/Serial Number:		Date: Surveyor: Organization	Time: on:			
5.5.1.2 Fittings, provis	ions and ladders	Regulations: LS	SA Code 4.4.	3, 4.4.7, 5.1, MSC.81(70)1/7.1.9			
Test Procedure	Acceptance Crite	ria		Significant Test Data			
Visually inspect the rescue boat.	Fittings and Provisions Suitable handholds or buoyant lifeline bec rescue boat above the waterline and within re except in the vicinity of the rudder and propel	Passed Failed					
Conduct measurements and verify clearances as required.	On other than self-righting rescue boats, arranged to break away without damaging the	e underside	Passed FailedN/A				
	Weathertight stowage for small items of equip	oment.		Passed Failed			
	Approved position-indicating light provided at	highest point.		Passed Failed			
	Automatically self-bailing or capable of rapidly	y clearing water.		Passed Failed N/A			
	Ladders Ladders that can be used at any entrance sho step when in place should not be less than 0. Other Provisions Buoyant material may be installed external to it is adequately protected against damage a exposure when stowed on an open deck on afloat in all sea condition. Colour The boat is of a highly visible colour where it	4 m below the ligh o the hull of the bo nd is capable of v a ship at sea and	nt waterline. bat, provided withstanding for 30 days	YES NO N/A Lowest stepm below waterline Passed Failed Highly visible colour: Passed Failed			
				Comments/observations:			

Rigid fast rescue boats	Manufacturer: Model: Lot/Serial Number:	Surveyor:		_ Time:	
5.5.1.3 Engine and sta	arting system	Regulations: L	SA Code 4.4.6	5, 5.1, MSC.81(7	0)1/7.1.9
Test Procedure	Acceptance Crite	ria			Significant Test Data
Visually inspect the rescue boat.	Type of starting system - Two independent rechargeable energy sour starting systems.	Manual Powe YES NO	r N/A		
Conduct measurements	- Required starting aids provided.			Passed	Failed
and verify clearances as	 Starting system is not impeded by engine ca obstructions. 	asing, thwarts, or	other	Passed	Failed
required.	 Propeller arranged to be disengaged from the ahead and astern propulsion. 	Passed	Failed		
	 Exhaust arranged to prevent water from ent operation. 	ormal.	Passed	Failed	
	 System designed with due regard to the safe to the possibility of damage to the propulsion Engine casing made of fire-retardant material 	ating debris	Passed	Failed	
	 arrangements providing similar protection. Personnel are protected from hot and movir 			Passed	Failed
	- Shouted order can be heard with engine rur	• •	ecessary for	Passed	Failed
	6 knot operation			Passed	Failed
	 Watertight casing around bottom and sides tightly fitting top which provides for gas vent Means for recharging engine starting, radio, 	ing.		Passed	Failed
	provided by solar charger or ship's power su	ipply.		Passed	Failed
	 Radio batteries not used to provide power for Recharging for engine batteries provided by 			Passed	Failed
	exceed 50 v.			Passed	Failed
	- Recharging means for engine batteries can be disconnected at the rescu boat embarkation station.				Failed
	 Instructions for starting and operating engine are water resistant and mounted in a conspicuous place near the engine starting controls. 			Passed	Failed
	- Towing arrangements for marshalling liferaf	IS.			

Rigid fast rescue boats Manufacturer: D Model: S S Lot/Serial Number: C				Date: Surveyor: Organization:			
5.5.1.4 Steering mecha	anism and fue	l tank	Regulations: L	SA Code 4.4.	7.2, 5.1.1.8, MSC.81(70)1/7.1.9	
Test Procedure		Acceptano	ce Criteria		Sigr	nificant Test Data	a
Visually inspect the rescue bo Conduct measurements and		Steering A tiller should be capable of		udder (rudder	Passed	Failed	_
clearances as required	verny	and tiller may form part of out	poard motor)				
		Rudder permanently attached	to the rescue bo	at	Passed	Failed	N/A
		Rudder and tiller arranged so as not to be damaged by operation of the release mechanism or propeller			Passed	Failed	
		Steered by wheel at helmsman's position			Passed	Failed	N/A
		Has emergency steering system providing direct control of rudder, water jet or outboard motor			Passed	Failed	
		Hands-free, watertight VHF radio provided			Passed	Failed	
		Fuel Tank					
		If fitted with petrol-driven out should be specially protected			Passed	Failed	N/A
			C .		Comments/Observa	tions	

Rigid fast rescue boats		Surveyor:	Т				
5.5.1.5 Release mecha	nism	-	Regulations:	LSA Code 4.4.	7, 5.1, MSC.81(70)1	1/7.1.9	
Test Procedure	9	Acceptano	ce Criteria		Si	gnificant Test Da	ta
Visually inspect the rescue bo	pat.	Clear operating instructions			Passed		
Conduct measurements and clearances as required	verify	Release control marked in a surroundings	colour that con	trasts with the	Passed	_ Failed	
		For on-load release mechanisms:					
		Suitably worded danger sign for on load release			Passed	Failed	N/A
		Mechanical protection (interlock) engages only when mechanism is completely and properly reset, to prevent accidental release during recovery			Passed	_ Failed	N/A
		On-load release mechanism needs deliberate and continued action by the operator			Passed	_ Failed	N/A
		Mechanical protection provided beyond that normally required for off load release		Passed	_ Failed	N/A	
		For a single fall system with suitable painter, on-load release capability is not required; in such an arrangement a single capability to release the boat only when it is fully waterborne will be adequate		Passed Comments/Observ release mechanisr	vations n type:		
		This capability to release the boat may be attached to the boat or to the davit			Approval:		

Rigid fast rescue boats	Manufacturer: Model: Lot/Serial Number:			Date: Surveyor: Organization: _	Time:	:
5.5.2.1 Flooded stabilit	y test	-	Regulations: L	SA Code 4.4.1.	1, MSC.81(70)1/6.8.1	3
Test F	Procedure		Acceptance Crite	eria	Signi	ficant Test Data
provision lockers, water tar removed, they should be floo resulting from this test. Res stowage compartments to a water containers should hav placed in the stowage compa- watertight during the flooding and density should be substitu- installed equipment that can b Weights representing persons in the water when the rescue than 500 mm above the sea representing persons who we rescue boat is flooded (wate seat pan) should be placed in such persons with their centre above the seat pan. Weights be partly submerged in the w (water level between 0 and 50 additionally have an approx example water ballast contain to a human body.	s (of 82.5 kg mass) who would be boat is flooded (water level more it pan) may be omitted. Weights buld not be in the water when the r level less than 500 mm above in the normal seating positions of e of gravity approximately 300 mm representing persons who would vater when the lifeboat is flooded 00 mm above the seat pan) should timate density of 1 kg/dm ³ (for ers) to represent a volume similar ve to be conducted if holes in	should ha with wate would occ in any on assuming		he rescue boat lity when filled looding which e boat is holed the waterline		ons Failed

Rigid fast rescue boats	Manufacturer: Model: Lot/Serial Number:							
5.5.2.2 Freeboard test				Regulations: L	SA Code 4.4.	5, MSC.81(70)1/6.8.45		
Test Procedure	e		Accepta	nce Criteria		Significant Test Data		
loaded with a mass equal to that of all the measured fre			eeboard, on t	nsidered succes he low side, is n length or 100 mm	ot less than	Measured Freeboard:mm 1.5% of Boat's Length:mm PassedFailed Comments/Observations		
The freeboard of the boat sho the loading condition with engine and fuel, or eq positioned to represent engine	all equipment, uivalent mass							
5.5.2.3 Righting test (for	or non self-righti	ing fast rescu	e boats)	e boats) Regulations: MSC.81(70)1/7.1.7				
Test Pr	ocedure		Acceptance Criteria			Significant Test Data		
Test Procedure It should be demonstrated that both with and without engine and fuel or an equivalent mass in place of the engine and fuel tank, the rescue boat is capable of being righted by not more than two persons if it is inverted on the water. The engine should be running in neutral position and, after stopping automatically or by the helmsman's emergency release switch when inverted, it should be easily restarted and run for 30 minutes after the rescue boat has returned to the upright position. For rescue boats with inboard engines, the test without engine and fuel is not applicable. (This test is not required if the righting test in 5.5.2.4 has been performed.)			righted by no inverted on t When the r engine or mo restarted, emergency r The design systems sho than 250 ml	escue boat has otor should be cap provided the release, if fitted, ha of the fuel an ould prevent the of fuel or lubricatir	persons if it is righted, each bable of being helmsman's as been reset. Ind lubricating loss of more	With engine and fuel: Failed Passed Failed Without engine and fuel: Failed Passed Failed Method used to right boat:		

Rigid fast rescue boats Manufacturer: Model: Lot/Serial Number:			Date: Surveyor: Organization:				-
5.5.2.4 Self-Righting t	est (for self-righting fast r	escue boats only)	Regulations: MSC/	Circ.809, An	nnex, 4.1.5, 4.1.8;	MSC.81(70)1	/6.14
Test Proc	edure	Acceptance	e Criteria		Significant	Test Data	
the normal position weights representing the boat with a full complem The weight used to assumed to have an a should be secured at have its centre of gravit above the seatpan so a on stability as when the	dinal axis to any angle of e rescue boat should be gles of heel up to and e released.	continue to run u helmsman's emerg and .2 after resetting emergency releas engine should be run for 30 minutes has returned to the Water should not enter	position without the ants. ese tests, the engine utral position and: o stop automatically the engine should until stopped by the gency release switch; the helmsman's e, if necessary, the easily restarted and after the rescue boat e upright position. the engine.	Heel L 45° 90° 135° 180° Result: PA	Righting Moment Loaded		FAILED
.2 when the rescue boat is	s in the light condition.	The design of the systems should prevent 250 ml of fuel or lub	the loss of more than				
In the case of open fast resc test should only be done in t		propulsion system.	-				

Rigid fast rescue boats	Model: Surv					Time:
5.5.2.5 Flooded capsizing rescue boats only)		righting fully enclosed fast	Regulations	: MSC.81(70)	1/6.14.3, 6.14.4, 6. ⁻	14.5, 7.4.1
Test Procedure		Acceptance	Criteria		S	ignificant Test Data
Perform the following for boats with a closable canopy not applicable to open fast re The rescue boat should be p	. This test is scue boats. placed in the	After release, the lifeboat sho provides an above-water escape			Result: PASSED	
water and fully flooded until boat can contain no addition entrances and openings secured to remain open durir	al water. All should be				Comments/Obser	vations
Using a suitable means, the should be rotated about a axis to a heel angle of 180 released.	longitudinal					
For the purpose of this test, the distribution of the occupan disregarded. However, the en- equivalent mass, should be the rescue boat in the norm position.	nts may be quipment, or secured in					

Rigid fast rescue boats	M	lodel:							
-	L	ol/Senai Num	ber:			Organization	•		
5.5.2.6 Engine invers boats only)	ion tes	st (inboard)	(for self	f-righting fast rescue	Regulation	ns: LSA Code	4.6.4.2; MS	C.81(70) 1/6.14	.6 - 6.14.8, 7.4.1
Test I	rocedu	re		Acceptar	ice Criteria		Significant Test Data		
The engine and its fuel t frame that is arranged equivalent to the longitud	to ro	tate about a		The engine and engin capable of running in ar and continue to run afte	ny position d	uring capsize		Failed	
A pan should be located any oil which may leak quantity of such oil can b	under from th	the engine to e engine so		to the upright or shou capsizing and be easily boat returns to the uprig	ld automation restarted aff	cally stop on	Commenta		
The following procedure test:			ring this	The design of the fuel should prevent the lose more than 250 ml of lubr during capsize.	s of fuel an	d the loss of			
.1 start the engine a 5 minutes; .2 stop the engine a	ind rota								
.3 restart the engine 10 minutes;	10 minutes;			overheat, fail to operate	During these tests, the engine should not overheat, fail to operate or leak more than 250 ml of oil during any one inversion.				
.4 stop the engin counter-clockwise				When examined after	being dis	mantled the			
.5 restart the engin 10 minutes, and th	en stop		eed for	engine should show no or excessive wear.					
.6 allow the engine to									
.7 restart the engine 5 minutes;	and ru	n it at full sp	eed for						

Rigio	l fast rescue boats	ast rescue boats Manufacturer: Model: Lot/Serial Number:		Surveyor:	Time:
				Organization	·
5.5.2		est (inboard) (continued)	Regulations: L	SA Code 4.6.4	4.2; MSC.81(70) 1/6.14.6 - 6.14.8, 7.4.1
		rocedure	Acceptance Criter		Significant Test Data
		uld be followed during this test	During these tests, the engir		
(Con	tinued):		overheat, fail to operate or leads of the second se		procedure as prescribed? Passed/Failed
.8		g engine in a clockwise direction			Does the engine stop when turned in either
		e 180° position for 10 s, and then	When examined after being		direction?
		a clockwise direction to complete	the engine should show no		Passed/ Failed
0	one revolution;		overheating or excessive we	ear.	If it stops, does it easily restart? Passed/Failed
.9	inverted, restart it;	jed to stop automatically when			Does the engine fulfil the requirements after the tests have been carried out according to the
10		ontinue to run at full speed for			procedure?
.10	10 minutes;	intillue to full at full speed for			Passed/ Failed
.11		nd allow it to cool:			
.12		n .7 through .11 above, except			Amount of oil lost from engine during each
		be turned in a counter-clockwise			inversion:
	direction;				.2 : ml
		un it at full speed for 5 minutes;			.4 : ml
.14		clockwise direction through 180°			.8: ml
		otate it 180° further to complete a			.12: ml
15	full clockwise revolution	; un it at full speed for 10 minutes;			.14 : ml .16 : ml
		n .14 above, turning the engine			.16 : ml
.10	counter-clockwise;	1.14 above, turning the engine			Total amount of oil lost from engine: ml
.17		t at full speed for 10 minutes and			Evidence of overheating or excessive wear?
	then shut it down; and				Passed/ Failed
.18	dismantle the engine fo	r examination.			
	5				Amount of oil lost from engine ml
					Comments/Observations

Rigid fast rescue boats	ts Manufacturer: Model: Lot/Serial Number:			Surveyor:			
5.5.3.1 Seating strengt	h test		Regulations: L	SA Code 4.4.	1.5, MSC.81(70)	1/6.6.1	
Test Procedure		Acceptanc	e Criteria			Significant Test D	ata
The seating should be loaded with a mass of 100 kg in each position allocated for a person to sit in the rescue boat.		any permanent deformation or damage.		Observed dama	°		
In the case of a rescue boat falls, each type of seat shou	ld be loaded	The seating should be capable No damage should be sustain			Passed Passed		N/A
with a mass of 100 kg in an location when dropped into th height of at least 3 m. (This performed in conjunction w Test in 5.5.7.1).	test may be	seat's efficient functioning.			Comments/Obs	ervations	

Rigid fast rescue boats Manufacturer: Model: Lot/Serial Number:			Surveyor:	Time:	
5.5.3.2 Seating space t	est	-	Regulations:	LSA Code 5.1.	1.3.2, MSC.81(70)1/7.1.3
Test Procedure		Acceptan	ce Criteria		Significant Test Data
The rigid rescue boat should be engine and all its equipment. persons for which the rescue approved, having an average least 82.5 kg, and all wearing immersion suits and any of equipment required, should the person should lie down on similar dimensions to those figure and the others should seated in the rescue boat. The boat should then be manore equipment on board tested to that it can be operated without interference with the occupant 2130 2130	The number of boat is to be mass of at lifejackets and ther essential ther essential then board; one a stretcher of shown in the d be properly the rigid rescue to demonstrate but difficulty or ts.	Equipment can be operated occupants. The rescue boat must be of 5 persons and a person lying Except the helmsmen, person provided the space used correquirements of test form 5.5. No seating is on the gunv chambers on the sides of the	capable of carr down on a streto is may be seated onforms with th 1.1. vale, transom,	rying at least cher. d on the floor, ne leg space	Equipment operated: YES NO Number of persons carried: Seated on seats Seated on floor Lying on a stretcher Total PassedFailed Lifejacket and immersion suit used during the test: Lifejacket– Inflatable/Inherently Buoyant Immersion suit– Uninsulated/Buoyant Insulated Comments/Observations

Rigid fast rescue boats Manufacturer: Model: Lot/Serial Number:			Date: Surveyor: Organization	Time:	
5.5.4.1 Simultaneous r	elease		Regulations: L	SA Code 4.4.	7.6, MSC.81(70)1/6.9.12
Test Procedure		Acceptano	ce Criteria		Significant Test Data
For rescue boats launched b the rescue boat with its engine be suspended from the releas just clear of the ground or the rescue boat should be loade total mass equals 1.1 times the rescue boat, all its equipment number of persons for whice boat is to be approved. The should be released simultant each fall to which it is connect binding or damage to any part boat or the release mechanist Single fall systems not intended operation are exempt from this	e fitted should e mechanism he water. The d so that the e mass of the hent and the h the rescue rescue boat neously from ected without of the rescue m.	It should be confirmed to simultaneously release from ea without binding or damage to the release mechanism. It should be confirmed to simultaneously release from ea when fully waterborne in the overload condition. There should be no damage connection to the boat.	each fall which it any part of the re that the rescue ach fall to which it light condition a	is connected escue boat or e boat will is connected nd in a 10%	Light condition PassedFailedN/A (N/A – Single fall, off-load only) 1.1 x Loaded Mass:kg PassedFailedN/A (N/A – Single fall, off-load only) type of release system:Comments/Observations

Rigid fast rescue boats Manufacturer: Model: Lot/Serial Number:			Date:	Time:
		Organization:		:
5.5.4.2 Towing release tes	st	Regulations: L	SA Code 4.4.	7.6.5; MSC.81(70) 1/6.9.3
	ocedure	Acceptance Criteria	а	Significant Test Data
	m disconnected it should be	There should be no damage a	as a result of	Operating mechanism disconnected and boat
	ue boat is loaded with its full	these tests.		towed at 5 kts:Pass Fail
	d equipment and towed at			
speeds of 5 knots that the mov	veable hook component stays	The rescue boat is released sa the release mechanism.	atisfactorily by	Operating mechanism connected tests.
				Test 1: 25% SWL, lengthwise to the boat at 45° to
	ing mechanism connected, it the rescue boat when loaded	Single fall systems not intende	d for on load	the vertical:
	ersons and equipment when	operation are exempt from this		Force Applied: N.
	can be released. Both of the			Force Applied: N. Forward direction:PassFail
above should be demonstrate	ed as follows:			Aft direction:Pass Fail
	the safe working load of the lied to the hook in the			Test 2: 100% SWL, athwartships at 20° to the vertical:
	the boat at an angle of 45°			
	should be conducted in the			Force Applied: N.
aftward as well as the fo	orward direction;			Starboard:PassFail Port: Pass Fail
.2 a force equal to the sa	fe working load of the hook			
should be applied to the	he hook in an athwartships			Test 3: 100% SWL, 45° to the longitudinal axis of
	20° to the vertical. This test			the boat in plan view at an angle of 33° to the
should be conducted or	n both sides; and			vertical.
	fe working load of the hook			Force Applied: N.
	e hook in a direction halfway			Position 1:PassFail
	of tests 1 and 2 (i.e. 45° to the boat in plain view) at an			Position 2:PassFail Position 3:PassFail
	ertical. This test should be			Position 3: Pass Fail
conducted in four positi				
· ·				Comments/Observations

Model:			Date: Surveyor: Organization:		
	Regulations: LSA	A Code 4.4	4.7.6.4; MSC.81(70) 1/6.9.4.1, 6.9.4.2		
е	Acceptance Criteria		Significant Test Data		
e conditioned and etrieval system and ion cable/linkage hould be mounted structions from the er and then loaded d and released. beated 50 times. d retrieval system he parts examined ease and retrieval holed.	During the 50 releases, the rescue boat and retrieval system should be r simultaneously from each fall to whic connected without any binding or damag part of the lifeboat release and retrieval s The system should be considered as " any failure during the conditioning or uni	released l ch it is le to any system. failed" if intended but the	Working Load:N Force Applied:N		
	Aodel: ot/Serial Number: e conditioned and trieval system and on cable/linkage bould be mounted tructions from the rr and then loaded and released. eated 50 times. retrieval system he parts examined ase and retrieval	Model: Regulations: LSA action Acceptance Criteria be conditioned and During the 50 releases, the rescue boat and retrieval system should be simultaneously from each fall to whi connected without any binding or damag part of the lifeboat release and retrieval system should be considered as " any failure during the conditioning or uni released. eated 50 times. The system has not yet been operated.	Model: Surveyor: tot/Serial Number: Regulations: LSA Code 4. e Acceptance Criteria e conditioned and During the 50 releases, the rescue boat release and retrieval system should be released simultaneously from each fall to which it is connected without any binding or damage to any part of the lifeboat release and retrieval system. tructions from the r and then loaded and released. The system should be considered as "failed" if any failure during the conditioning or unintended release occurs when load is applied but the system has not yet been operated. eated 50 times. retrieval system has not yet been operated.		

	Manufacture	·		Date:	Time:
	Model:			Surveyor	·······
Rigid fast rescue boats	Lot/Serial Nu	mber:		Organiza	tion:
5.5.4.4 Cyclic loading tes				SA Code	4.4.7.6.4; MSC.81(70) 1/6.9.4.3
Test Procedure		Acceptance	Criteria		Significant Test Data
The hook assembly, while					Working Load:N
from the operating mechanis		The specimen should remain of	closed during the	e test.	Force Applied:N
tested 10 times with cyclic					
zero load to 1.1 times the		The system should be conside			Check the box for each release and/or strike out the
load, at a nominal 10 secor unless the release mechani		failure during this test or any u opening occurs.	nintended releas	se or	cam rotation if no applicable:
specifically designed to op		opening occurs.			Cam rotation 0°:
off-load hook with on-load ca					
the weight of the boat to close					1: 2: 3: 4: 5: 6: 7: 8: 9: 10:
this case the cyclic load should					
more than 1% to 1.1 times th					Cam rotation +45°:
					1: 2: 3: 4: 5: 6: 7: 8: 9: 10:
For cam-type designs, the t					7: 🔲 8: 🔲 9: 🗌 10: 🗌
carried out at an initial cam					
(fully reset position), and repe					Cam rotation -45° :
either direction, or 45° in or restricted by design.	ne airection ii				1: 2: 3: 4: 5: 6: 7: 8: 9: 10: 10:
restricted by design.					
					Passed: Failed:
					Comments/Observations

Rigid fast rescue boats		Surve	Date: Surveyor: Organization:		
5.5.4.5 Actuation force te	est	Regulations: LSA Cod	e 4.4.7.6.4; MSC.81(70) 1/6.9.4.4		
Test Proce		Acceptance Criteria	Significant Test Data		
	edure chanism should then be sembly; and the rescue system should then be sfactorily under its safe erify that any interlocks, still functioning and are ance with the operation		Significant Test Data Significant Test Data Actuation Force: N th in Passed: Failed: Comments/Observations ve nd ed be nis		

Rigid fast rescue boats	Manufacturer: Model: Lot/Serial Number:		Surveyor:	Time:	
5.5.4.6 Second release	mechanism tests- actuatio	n force and tensile strength	Regulations: I	LSA Code 4.4.7.6.4, MSC.81(70)1/6.9.5.1, 6.9.5.2	
Test Pro		Acceptance Crite		Significant Test Data	
 A second release mechanism s .1 the actuation force of the be measured loaded wit load. If a cable is used, it length specified by the measured by the measured loaded withe same manner it would be the same manner it would be demonstration should indicators and handles a correctly positioned in action and safety instruction from manufacturer; and .2 the release mechanism tensile strength testing of the same manner is the same manner is the same manufacturer. 			ld be no less than 300 N.	Actuation Force: N Tensile strength @ 6xSWL. Force applied: N. Passed: Failed: Comments/Observations	

Rigid fast rescue boats	Manufacturer: Model: Lot/Serial Number:			Surveyor:	Time:
5.5.5.1 Liferaft towing			Regulations: L	SA Code 4.4.	6.8, 5.1.1.7, 5.1.1.9, MSC.81(70)1/7.1.2
Test Proce	edure		eptance Criteria		Significant Test Data
The rescue boat should be lo to the mass of its equipme persons for which the rescue The maximum towing force of then be determined.	ent and the number of boat is to be approved.	The maximum tow should be record certificate. There should be no or its supporting str	led on the typ o damage to the	pe approval	Smallest Engine Largest Engine Make/model:
This information should be largest size of fully loaded life tow at a speed of at least 2 kr	raft the rescue boat can				Bollard pull: N (Record on type approval
The fitting designated for town secured to a stationary object a means to measure bollard be operated ahead at full spee 2 minutes and the maximum f	by a tow rope fitted with pull. The engine should ed for a period of at least				certificate) Observed damage:
(For rescue boats equipped bollard pull trials may be car various powers to asses performance.)	ried out with engines of				Propeller: Pitch: Diameter: PassedFailed Comments/Observations

Divid fact measure bacts	/anufacturer: _ /odel: ot/Serial Num		Date: Surveyor: Organization:		
5.5.5.2 Endurance, speed	and fuel con	sumption	Regulations: L	SA Code	e 4.4.6.8, 5.1.1.6 MSC.81(70)1/7.1.6, 7.4.2.12
Test Procedure		Acceptance			Significant Test Data
 (Note: Run this test after the impattests in 5.5.7.1.) The rescue boat should be levelights equal to the mass of its and the number of persons for rescue boat is to be approved. The engine should be started at manoeuvred for a period of at le to demonstrate satisfactory operation. The rescue boat should be run at not less than 8 knots with a full of persons and equipment and 20 a crew of 3 persons for a period sufficient to ascertain the fuel ta required capacity. (This determine be made during the 4-hour operation.) For rescue boats equipped with motor, speed and manoeuvring to be carried out with engines of variation of the set of the set	loaded with s equipment or which the and the boat east 4 hours at a speed of complement 20 knots with iod which is consumption ank has the ination may period of ith outboard trials should rious powers	The boat should operate sat 4-hour operation. The fuel tank should hav operate at a speed of 8 knot with its full complement of po The fuel tank should hav operate at a speed of 20 knot with a crew of 3 persons.	isfactorily through e sufficient capa ts for a period of 4 ersons and equipt e sufficient capa	acity to 4 hours ment.	

Rigid fast rescue boats Manufacturer: Model: Lot/Serial Number:			Surveyor:	Time:		
5.5.5.3 Engine out of water			Regulations: L	SA Code 4.4.	6.3, MSC.81(70)1/6.10.5	
Test Procedure		Acceptanc	ce Criteria		Significant Test Data	
The engine should be operated for at least 5 minutes at idling speed under conditions simulating normal storage. Note: If a water flushing device is intended to be used for this purpose, it should be fitted during the test.				Passed Failed Comments/Observations		
5.5.5.4 Compass test		Regulations: LSA Code 5.1.2.			2.2.3, MSC.81(70)1/6.10.7	
Test Procedure		Acceptance Criteria		Significant Test Data		
It should be determined that performance is satisfactory ar unduly affected by magnetic equipment in the rescue boat	nd that it is not c fittings and	The compass operates satisfa	ctorily.		Compass Make: Compass Model: Passed Failed Comments/Observations	

Model:		r: ımber:		Surveyor:	Time:	
5.5.5.5 Helpless Person	Recovery		Regulatio	ons: LSA Co	de 4.4.3.4, 5.1.1.7, MSC.81(70)1/6.10.8, 7.1.1	
Test Procedure		Acceptance Crit	eria		Significant Test Data	
It should be demonstrated by test that it is possible to bring helpless people on board the rescue boat from the sea.				Number of Persons required and any special equipment used: Passed Failed Comments/Observations		
5.5.5.6 Maneuverability	With Paddles	Or Oars	Regulatio	ons: LSA Co	de 5.1.2.2.1, MSC.81(70)1/7.1.8	
Test Procedure		Acceptance Crit			Significant Test Data	
It should be demonstrated that the rescue boat can be propelled and manoeuvred by its oars or paddles in calm water conditions at a speed of at least 0.5 knots over a distance of at least 25 m. when laden with the number of persons, all wearing lifejackets and immersion suits, for which it is to be approved.		The rescue boat should be capable paddled and manoeuvred.		tisfactorily	Distance travelled:m Time Required:s Calculated speed:m/s = knots Lifejacket and immersion suit used during the test: Lifejacket – Inflatable/Inherently Buoyant Immersion suit – Uninsulated/Buoyant Insulated Passed Failed Comments/Observations	

Rigid fast rescue boats	Model: Surveyor:		:				
5.5.6.1 Towing test			Regulations: L	SA Code 4.4.	1.3.2, 4.4.7.7, MS	SC.81(70)1/6	.11.1
Test Procedu	re	Accepta	ance Criteria			Significant T	est Data
It should be demonstrated that the fully equipped rescue boat, loaded with a properly distributed mass equal to the mass of the number of persons for which it is to be approved, can be towed at a speed of not less than 5 knots in calm water and on an even keel using the rescue boat's painter securing device.		characteristics. There should be no damage to the rescue boat or its equipment as a result of this test.		Passed Failed Comments/Observations		Failed	
5.5.6.2 Towing & Painter	Tests—Painter rele	ease test	Regulations: LSA Code 4.4.7.7, MSC.81(70)1/6.11.23				
Test Procedu	re	Acceptance Criteria			Significant T		
It should be demonstrated release mechanism can releas fully equipped and loaded re- being towed at a speed of nor in calm water. The painter release mecha tested in several distinct direct hemisphere not obstructed lo other constructions in the directions specified in test s used if possible.	that the painter se the painter on a escue boat that is t less than 5 knots anism should be ctions of the upper by the canopy or rescue boat. The	The painter should releas damage to the rescue box of this test.	e and there shou		Passed Test Direction	Passed Passed Passed Passed Passed Passed	Failed Failed Failed Failed Failed Failed

		Manufacturer:			Date:	Time:		
Dia	d fast rescue boats	Model:			Surveyor:			
RIY	u last rescue boats	Lot/Serial Number:			Organization:			
5.5.		d operation after impact and drop test	Re			<u>5C.81(70)1/6.4.1, 6.4.3, 6</u>		
		est Procedure		Acceptance				st Data
.1		all or falls, the fully equipped rescue boat,			op tests should be	Load in boat:	_kg	
		ould be loaded with weights equal to the	cor	nsidered succes	sful if:			
		persons for which the rescue boat is to be				Observed Damage:	YES	NO
		his loading should be a weight of 100 kg	.1		s been sustained			NO
		ype of seat installed in the lifeboat. The		boat's efficient	fect the rescue	Increased Damage:	YES	NO
		ts should be distributed to represent the escue boat. (These weights need not be		boats enicient	functioning,			
		e seatpan). Skates or fenders, if required,	2	the damage	caused by the			
		le rescue boat, in a free hanging position,	.2		op tests has not	Satisfactory Operation:	YES	NO
		to a position so that when released it will			inificantly as a		0	
		I surface at a velocity of 3.5 m/s. The boat			perational test in			
		pact against the rigid vertical surface.		5.5.5.2;	1	Ingress of Water:	YES	NO
.2		ith its engine, loaded as described above,	.3	machinery	and other			
		led above the water so that the distance	equipment has operated to full					
		the rescue boat to the water is 3 m. The		satisfaction; ar	nd	Final Evaluation:		
		be released so that it falls freely into the			,			
	water.		.4	no significar	•	Passed F	ailed	
2	After the impact and dra	on tasts, the bast should be evenined to		seawater has	occurred.			
.3		op tests, the boat should be examined to extent of damage that may have occurred				Comments/Observatior		
		and an operational test should then be				Comments/Observation	15	
	conducted in accordance	•						
.4	After the operational tes	st, the rescue boat should be unloaded,						
		xamined to detect the position and extent						
		e occurred as a result of the tests.						

Rigid fast rescue boats	Manufacturer:		or: Time: or: zation:		
5.5.7.2 Overload test		Regulations: MS	SC.81(70)1/7	.1.4	
Test Procedure	Acceptanc	e Criteria		Test Pro	ocedure
The rescue boat should be loade properly distributed load of four weight to represent the equipmen complement of persons each weig kg for which it is to be appro- suspended for five minutes from or hooks. The weights should be d in proportion to the loading of the l service condition, but the weights represent the persons need not k 300 mm above the seat pan. The bridle or hooks and fastening device be examined after the test h conducted.	times the ent and full ighing 82.5 roved and n its bridle distributed boat in its ts used to be placed e boat and vice should		nism should	Load in boat:	_kg
Testing by filling the boat with wat not be accepted. This method of does not give the proper distri weight. Machinery may be rer order to avoid damage, in wh weights should be added to the compensate for the removal machinery. The rescue boat and its bridle (release mechanism) and fastenin should be examined after the tes signs of damage.	of loading ribution of emoved in hich case ne boat to of such or hooks ing device			Passed	Failed

5.6 INFLATED FAST RESCUE BOATS

EVALUATION AND TEST REPORT

- 5.6.0 General information
 - 5.6.0.1 General data and specifications
 - 5.6.0.2 Submitted drawings, reports and documents
 - 5.6.0.3 Quality assurance
- 5.6.1 Visual inspection
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 - 5.6.1.2 Fittings, provisions and ladders
 - 5.6.1.3 Engine and starting system
 - 5.6.1.4 Steering mechanism and fuel tank
 - 5.6.1.5 Release mechanism
- 5.6.2 Stability, damage and loading tests
 - 5.6.2.1 Damage test
 - 5.6.2.2 Stability test
 - 5.6.2.3 Loading test
 - 5.6.2.4 Swamp test
 - 5.6.2.5 Righting test (for non self-righting fast rescue boats)
 - 5.6.2.6 Self-righting test (for self-righting fast rescue boats only)
 - 5.6.2.7 Flooded capsizing test (for self-righting fully enclosed fast rescue boats only)
 - 5.6.2.8 Engine inversion test (for self-righting fast rescue boats only)
- 5.6.3 Seating strength and space tests
 - 5.6.3.1 Seating strength test
 - 5.6.3.2 Seating space test
- 5.6.4 Release mechanism tests
 - 5.6.4.1 Simultaneous release
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 - 5.6.4.4 Cyclic loading test
 - 5.6.4.5 Actuation force test
 - 5.6.4.6 Second release mechanism test actuation force and tensile strength
- 5.6.5 Operational test
 - 5.6.5.1 Liferaft towing
 - 5.6.5.2 Endurance, speed and fuel compensation
 - 5.6.5.3 Engine out of water
 - 5.6.5.4 Compass test
 - 5.6.5.5 Manoeuvrability with paddles or oars
 - 5.6.5.6 Heavy weather/seas test
- 5.6.6 Towing and painter tests
 - 5.6.6.1 Towing test
 - 5.6.6.2 Painter release test

- 5.6.7.1 Impact, drop & operation after impact and drop test
- 5.6.7.2 Ambient overload test
- 5.6.7.3 Cold overload test
- 5.6.7.4 Mooring out test
- 5.6.8 Materials tests
 - 5.6.8.1 Inflation chamber characteristics tests

5.6 INFLATED FAST RESCUE BOATS

EVALUATION AND TEST REPORT

Manufacturer	
Туре	
Date	
Place	
Name Surveyor printed	
Signature	
Approving Organization	

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Inflated fast rescue boats	Manufacturer: Model: Lot/Serial Number:	Surveyor:
5.6.0.1 General data and	specifications	Regulations: LSA Code 4.4, 5.1, MSC.81(70) 1/7.2
General Informatio	n Rescue b	oat dimensions Rescue boat weight
Construction Material: Hull:	Dimensions:	Design Weight:
Canopy:	LOA:	Unloaded Boat:
	Breadth Maximum:	Loose Equipment: Fuel:
Rescue Boat Inherent Buoyanc		Persons:
(Type App.) Material:		Calculated Loaded Weight:
Weight: Occupancy:	 Depth to Gunwale:	
Persons (82.5 kg each):		With Persons:
	Moulded Breadth:	
Engine(s) Installed: 1 Type App by: Manufacturer:	Moulded Depth:	Weight As Tested: Fully Equipped:
Туре:	Provision for securing hangin	g-off pendant
Power:	(if applicable):	Comments/Observations
Gear ratio (inboard engine):_		
Additional rigid or inflatable buo	yancy:	
Release mechanism(s) (if applie		
Manufacturer:		
Туре:		
SWL:		
Propeller:		

Inflated fast rescue boat	Manufacturer: Model: Lot/Serial Number	· · · · · · · · · · · · · · · · · · ·	Date: Time: Surveyor: Organization:	
5.6.0.2 Submitted of	Irawings, reports and do	cuments		
Submitted drawings and documents				Status
Drawing No.	Revision No. & date	Title of drawing		Status
	S	ubmitted reports and documents		Statua
Report/Document No.	Revision No. & date	Title of re	port / document	Status
		Maintenance Manual -		
		Operations Manual -		

Inflated fast rescue boats	Manufacturer: Model: Lot/Serial Number:	Survevor:				
5.6.0.3 Quality assurance	9	Regulations: MSC.8	81(70) 2/1.1, 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 inspections of manufacturers to ensure that the quality of life-saving appliances and 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 Pro	ocedure:anual:			
		Quality assurance System acceptable				
		Yes/No				
		Comments/Observations				

Inflated fast rescue boats		Model:		Time: ion:
5.6.1.1 Occupant space		Regulations: LSA	Code 5.	1, MSC.81(70)1/7.2.16
Test Procedure		Acceptance Criteria		Significant Test Data
Visually inspect the rescue Conduct measurements and clearances as required.		General Unless the rescue boat has adequate sheer, it sho provided with a bow cover extending for not less than its length. Length is at least 6.0 m and not over 8.5 m. Seating Space Width – at least 430 mm Depth – at least 100 mm each side of a point 215 mm fr back Knee Space (Seating on seats) at least 635 mm from th Knee Width – at least 250 mm Leg Space (Seating on floor) – at least 1190 mm from th Overlapping Seat Vertical Separation – at least 350 mm Seat Horizontal Overlap – 150 mm maximum Each seating position should be clearly indicated.	15% of from the he back he back	Passed Failed Passed Failed Width: mm Depth: mm Knee Space: mm Knee Width: mm Leg Space: mm Vert. Separation: mm Overlap: mm Position Indication: PASSED FAILED
		Stretcher(s) space: Rescue boats should be capable of carrying at lease ated persons and a person lying on a stretcher of m 2130 x 610 mm.		Stretcher space:xmm Passed Failed Non-Skid Surface: PassedFailed
		Walkway Surfaces The surfaces on which persons might walk should hav non-skid finish.	/e a	Comments/Observations

Inflated fact recouse basts	Model:	el: Surveyor:		Time: on:		
5.6.1.2 Fittings, provisions	and ladders	Regulations: LS	SA Code 5.1.	3, MSC.81(70)1/7.	2.16	
Test Procedure	Acceptance Cr	iteria			Significant Test Dat	а
Visually inspect the rescue boat. Conduct measurements and	Buoyancy compartments fitted with: Non-return valve for manual i	nflation		Passed	Failed	_
verify clearances as required.	Means for deflation			Passed	Failed	_
	Safety relief valve unless waived by Adn	ninistration		Passed	Failed	_N/A
	Suitable patches for securing painters for	Suitable patches for securing painters fore and aft			Failed	_
	Fittings and Provisions Suitable handholds or buoyant lifeline becketed around the outside of rescue boat above the waterline and within reach of a person in the water, except in the vicinity of the rudder and propeller			Passed	Failed	_
	On other than self-righting rescue boats arranged to break away without damagin			Passed	Failed	_N/A
	Weathertight stowage for small items of	equipment		Passed	_Failed	_
	Approved position indicating light provide	Approved position indicating light provided at highest point		Passed	_Failed	_
	Rubbing strips on bottom and vulnerable places on the outside		Passed	_Failed	_	
	Transom, if fitted, not inset by more	Transom, if fitted, not inset by more than 20% of overall length			_Failed	_
	Automatically self-bailing or capable of r	apidly clearing wa	ter	Passed Comments/Obse	_Failed	_

Inflated fast rescue boats	ted fact rescue heate Model: Surveyor:		Time: on:		
5.6.1.2 Fittings, provisio	ons and ladd	ers (cont'd)	Regulations: LS	SA Code 4.4.	.3.3, 5.1.3, MSC.81(70)1/7.2.16
Test Procedure					Significant Test Data
Visually inspect the rescue boat. Conduct measurements and verify clearances as required.		board and the lowest step when in place should not be less		Passed Failed Lowest stepm below waterline	
		Colour The boat should be of a high assist detection.	nly visible colour v	where it will	Highly visible colour: PassedFailed
					Comments/Observations

Inflated fact was also heats	Inflated fast rescue boats Manufacturer: Model: Lot/Serial Number:				le:		
5.6.1.3 Engine and startin	g system	Regulations: LS	A Code 4.4.6, 5.1, N	5.1, MSC.81(70)1/7.2.16			
Test Procedure	Acceptance	e Criteria			Significant Test Data		
Visually inspect the rescue boat. Conduct measurements and verify clearances as required.		y sources provide	d for power starting	Manual Powe YES NO	er N/A		
venty clearances as required.	 Required starting aids provided Starting system is not impeded by obstructions 	y engine casing,	thwarts, or other	Passed Passed	Failed Failed		
	 Propeller arranged to be disengaged fr and astern propulsion 	om the engine and	provision for ahead	Passed	Failed		
	 Exhaust arranged to prevent water from System designed with due regard to t 			Passed	Failed		
	 to the possibility of damage to the prop Engine casing made of fire-retardant m providing similar protection 	oulsion system from	n floating debris	Passed	Failed		
	 Personnel are protected from hot and Shouted order can be heard with eng 		ed necessary for 6	Passed	Failed		
	knot operation			Passed	Failed		
	- Watertight casing around bottom and fitting top which provides for gas ventir		tteries with a tightly	Passed	Failed		
	- Means for recharging engine starting provided by solar charger or ship's power of the solar charger of the	- Means for recharging engine starting, radio, and searchlight batteries			Failed		
	 Radio batteries not used to provide po Recharging for engine batteries provi 	wer for engine sta		Passed	Failed		
	exceed 50 v	ded by ship's pow	ler supply uses not	Passed	Failed		
	- Recharging means for engine batterie	es can be disconn	ected at the rescue	Passed	Failed		
	 boat embarkation station Instructions for starting and operati mounted in a conspicuous place near 			Passed	Failed		
	- Towing arrangement for marshalling lit		,	Passed	Failed		

Inflated fact recours bacto	Manufacturer: Model: Lot/Serial Number:		Surveyor: _	n:			
5.6.1.4 Steering mechanis	m and fuel tank	Regulations	: LSA Code 4	.4.7.2, 5.1.1.8, MSC.81(70)1/7.2.16			
Test Procedure	Acceptance Criteria			Significant Test Data			
Test Procedure Visually inspect the rescue boat. Conduct measurements and verify clearances as required.	Acceptance Criter Steering A tiller should be capable of controlling the reform part of outboard motor) Rudder permanently attached to the rescue Rudder and tiller arranged so as not to be darelease mechanism or propeller Steered by wheel at helmsman's position Has emergency steering system providing water jet or outboard motor Hands-free, watertight VHF radio provided Fuel Tank If fitted with petrol-driven outboard motor, specially protected against fire and explosite	udder (rudder a boat amaged by ope g direct contro the fuel tank(s	eration of the	Passed Passed Passed Passed Passed Passed Passed	Failed Failed Failed Failed Failed	N/A N/A 	
				Comments/Observa	ations		

Inflated fast rescue boats	Manufactur Model: Lot/Serial N	r: Date: Jumber: Organiza		Date: Surveyor: Organizatio	Time: on:		
5.6.1.5 Release mechanism Regulations:				LSA Code 4.4.7,.6.5, MSC.81(70)1/7.2.16			
Test Procedure		Acceptan	Acceptance Criteria		Sigr	nificant Test Dat	ta
Visually inspect the rescue boat. Conduct measurements and verify clearances as		Clear operating instructions	Clear operating instructions P		Passed		
required.		Release control marked in a surroundings	colour that contra	ists with the	Passed	Failed	
		For on-load release mechanis	ms:				
Suitably worded danger sign for on load release			Passed	Failed	N/A		
		Mechanical protection (interlock) engages only when mechanism is completely and properly reset, to prevent accidental release during recovery		Passed	Failed	N/A	
		On-load release mechanism needs deliberate and continued action by the operator		Passed	Failed	N/A	
		Mechanical protection provided beyond that normally required for off load release		Passed	Failed	N/A	
		For a single fall system with su capability is not required; in s capability to release the boat of will be adequate.	such an arrangem	ent a single	Passed Comments/Observa		N/A

Inflated fast rescue boats	Model:	rer: Number:		Surveyor: _	n:	
5.6.2.1 Damage test			Regulations: LS	SA Code 5.1.3.5, MSC.81(70)1/7.2.89		
Test Procedure		Acceptanc	ce Criteria			
Test Procedure The following tests should be with the inflated rescue boat I the number of persons (of 82.5k which it is to be approved bot without engine and fuel or an mass in the position of the engineration tank: .1 with forward buoyancy con- deflated; .2 with the entire buoyancy con- of the rescue boat deflated .3 with the entire buoyancy con- and the bow compartment	oaded with g mass) for th with and equivalent ne and fuel ompartment on one side ; and on one side	Acceptance In each of the conditions propersons for which the rescue be supported within the rescue	escribed, the full boat is to be appre	number of	Comments/Observations 1 With engine and fuel: Passed Failed Without engine and fuel Passed Failed 2 With engine and fuel: Passed Failed Without engine and fuel: Passed Without engine and fuel	
					Passed Failed Without engine and fuel Passed Failed	

Model:		Surveyor:		n:		
5.6.2.2 Stability test		Re	Regulations: LSA Code 4.4.5, MSC.81(70)1/6.10.8, 7.2.67			
Test Procedure		Acceptance Criteria		Test Procedure		
The following tests should be of engine and fuel or an equivalent of the engine and fuel tanks: .1 the number of persons inflated rescue boat is t should be crowded to half this complement buoyancy tube, and the In each case the freeboor recorded; and	for which the o be approved one side with seated on the en to one end.	.1 Under these conditions the everywhere positive.	freeboard shou	uld be	.1 Freeboard crowded to one sidemm To bow:mm .2 To stern:mm PassedFailed	
		.2 The rescue boat should be s	table.		.3 Stability observations during recovery of unconscious person: Clothing/Suits on helpless person:	

				Date:	Time:	-
Inflated fast rescue boats	Model:			Surveyor:		_
	Lou/Serial Number.		·····	Organizatio	on:	
5.6.2.3 Loading test			Regulations: MSC.81(70)1/7.2.45			
Test Procedu	re	Acce	ptance Criteria	• •	Significant Test Data	
The freeboard of the inflated rescue boat should be taken in the various loading conditions as follows: .1 rescue boat with all its equipment;		In each condition the minimum freeboard shoul not less than 300 mm at the buoyancy tubes not less than 250 mm from the lowest part of transom.		y tubes and	.1 Freeboard at Buoyancy Tubes: Freeboard at Transom: .2 Freeboard at Buoyancy Tubes:	<u> </u>
.2 rescue boat with all its equ fuel, or an equivalent m represent engine and fuel;					.2 Freeboard at Buoyancy Tubes: Freeboard at Transom: .3 Freeboard at Buoyancy Tubes:	mm
.3 rescue boat with all its e number of persons for which having an average mass of that a uniform freeboard is a buoyancy tubes; and	it is to be approved 82.5 kg so arranged				.4 Freeboard at Buoyancy Tubes: Freeboard at Buoyancy Tubes: Freeboard at Transom:	mm mm
.4 rescue boat with the number it is to be approved and all it and fuel or an equivalent ma engine and fuel and the resc re-trimmed as necessary.	s equipment, engine ss to represent				Passed Failed Comments/Observations	
5.6.2.4 Swamp test			Regulations: M	SC.81(70)1/7	7.2.11	
Test Procedu	re	Acce	ptance Criteria		Significant Test Data	
It should be demonstrated that when fully swamped, is capable equipment, the number of pers 82.5 kg for which it is to be ap equivalent to its engine and ful should also be demonstrated to does not seriously deform in this	of supporting its full sons each weighing proved and a mass lly filled fuel tank. It hat the rescue boat	The rescue boat shout the full load and shout			Passed Failed Comments/Observations	

Inflated fast rescue boats	Manufactur Model: Lot/Serial N	er: Date: Surveyor: Iumber: Organization		Time:		
5.6.2.5 Righting test (for	non self-rig	hting fast rescue boats)	Regulations: MS	SC.81(70)1/7	.1.7	
Test Procedure		Acceptan	ce Criteria		Significant	Test Data
Test Procedure It should be demonstrated that and without engine and fit equivalent mass in place of the fuel tank, the rescue boat is being righted by not more than t if it is inverted on the water. The engine should be running position and, after stopping at or by the helmsman's emerger switch when inverted, it should restarted and run for 30 minute rescue boat has returned to position. For rescue boats with inboard et test without engine and fit applicable. (This test is not required if the ri 5.6.2.6 has been performed.)	uel or an engine and capable of wo persons g in neutral utomatically ncy release d be easily es after the the upright engines, the uel is not	The rescue boat should be c more than two persons if it is When the rescue boat has r should be capable of be helmsman's emergency relea The design of the fuel and prevent the loss of more than from the propulsion system.	apable of being rig inverted on the wat ighted, each engir ing restarted, pr se, if fitted, has bee d lubricating syste	ter. ne or motor rovided the en reset. ems should	v	

Model					Date: Survevor:	Time:
Inflated fast rescue	boats				Organizatio	n:
5.6.2.6 Self-r	ighting tes	t (for self-righting fast re	escue boats only)	Regulati	ons: MSC.81	1(70)1/6.14
	Test Proce	dure	Acceptanc	e Criteria		Significant Test Data
rescue boat about heel and then rele incrementally rotat including 180° and These tests shoul conditions of load: .1 when the resc the normal weights repre boat with a ful The weight of assumed to h should be se have its centro above the sea on stability as	a longitudii ase it. The ted to angl should be r d be cond cue boat wit position w senting the l complement used to re- nave an aver e of gravity atpan so as s when the per of perso	provided to rotate the nal axis to any angle of rescue boat should be les of heel up to and released. Aucted in the following h its engine is loaded in with properly secured e fully equipped rescue ent of persons on board. epresent each person, erage mass of 82.5 kg, each seat location and approximately 300 mm to have the same effect rescue boat is loaded ons for which it is to be	After release, the rescureturn to the upright assistance of the occure At the beginning of the should be running in model. 1 unless arranged when inverted, continue to run helmsman's emergand .2 after resetting emergency releatengine should be run for 30 minutes has returned to the Water should not enter the should not ent	position wo pants. ese tests, feutral positi to stop au the engir until stopp gency releat the h se, if nece e easily res s after the re e upright po	vithout the the engine on and: tomatically ne should ed by the ase switch; elmsman's essary, the tarted and escue boat psition.	Angle of Heel Righting Moment Light 45°
.2 when the resc	ue boat is i	n the light condition.	The design of the systems should prever 250 ml of fuel or lul	t the loss of	more than	
In the case of open test should only be		e boats, the self-righting e light condition.	propulsion system.	5		

Inflated fast rescue boats Manufacturer: Model: Lot/Serial Number:			Surveyor: _	Time: n:	
5.6.2.7 Flooded capsizing to rescue boats only)	est (for self-	righting fully enclosed fast	Regulations: M	SC.81(70) 1/6	6.14.3, 6.14.4, 6.14.5, 7.4.1
Test Procedure		Acceptano	ce Criteria		Significant Test Data
Perform the following for fully rigid fast rescue boats. This applicable to open fast rescue The rescue boat should be pla water and fully flooded until the boat can contain no additional entrances and openings as secured to remain open during Using a suitable means, the re- should be rotated about a longit to a heel angle of 180° and ther For the purpose of this test, the distribution of the occupants disregarded. However, the equivalent mass, should be second rescue boat in the normal position.	test is not boats. aced in the the rescue water. All hould be the test. escue boat udinal axis n released. mass and s may be ipment, or ured in the	After release, the lifeboat s provides an above-water esca	hould attain a p		

Inflated fact receive basts Model:		Surveyor: _	n:
5.6.2.8 Engine inversion test (for self-righting fa	st rescue boats only)	Regulations: LSA Code	4.6.4.2; MSC.81(70) 1/6.14.6 - 6.14.8, 7.4.1
Test Procedure	Acce	ptance Criteria	Significant Test Data
The engine and its fuel tank should be mounted on a f	ame The engine and e	ngine installation should be	Passed Failed
that is arranged to rotate about an axis equivalent to longitudinal axis of the boat.	capsize and cont	ing in any position during inue to run after the rescue the upright or should	Comments/Observations
A pan should be located under the engine to collect a which may leak from the engine so that the quantity of oil can be measured.	y oil automatically stop	o on capsizing and be easily e rescue boat returns to the	
 The following procedure should be followed during test: .1 start the engine and run it at full speed 5 minutes; .2 stop the engine and rotate it in a clockwise direct through 360°; 	should prevent th more than 250 m for engine during cap	fuel and lubricating systems e loss of fuel and the loss of nl of lubricating oil from the osize.	
 .3 restart the engine and run it at full speed 10 minutes; .4 stop the engine and rotate it in a counter- clocky direction through 360°; 	overheat, fail to	sts, the engine should not operate or leak more than ng any one inversion.	
.5 restart the engine, run it at full speed for 10 minu and then stop the engine;	engine should	after being dismantled the show no evidence of	
.6 allow the engine to cool; .7 restart the engine and run it at full speed 5 minutes;	overheating or ex	cessive wear.	

		Manufacturer:	· · · · · · · · · · · · · · · · · · ·	Date:	Time:
Infla	ted fast rescue boats	Model:		Surveyor: _	n:
			· · · · · · · · · · · · · · · · · · ·	Organizatio	
5.6.2.	8 Engine inversion test	(continued)	Regulations: I	SA Code 4.6.4	.2; MSC.81(70) 1/6.14.6 - 6.14.8, 7.4.1
	Test Proced		Acceptance Criteria		Significant Test Data
	following procedure should (Continued):	be followed during this	During these tests, the engir overheat, fail to operate or le 250 ml of oil during any one inver	ak more than	Are all the tests carried out according to the procedure as prescribed? Passed/Failed
.8	slowly rotate the running direction through 180°, ho for 10 s, and then rotate clockwise direction to com	ld at the 180° position e it 180° further in a	When examined after being of engine should show no evidence or excessive wear.	lismantled the	Does the engine stop when turned in either direction? Passed/Failed If it stops, does it easily restart? Passed/Failed Does the engine fulfil the requirements after the
.9	if the engine is arranged when inverted, restart it;				tests have been carried out according to the procedure? Passed/Failed
	allow the engine to continue 10 minutes;				Amount of oil lost from engine during each
.12	shut the engine down and repeat the procedure in except that the engine s counter-clockwise direction	.7 through .11 above, hould be turned in a n;			inversion: .2 : ml .4 : ml .8 : ml
	restart the engine and ru 5 minutes;				.12 : ml .14 : ml
.14	rotate the engine in a clock 180° and stop the engine. complete a full clockwise ro	Rotate it 180° further to			.16 : ml Total amount of oil lost from engine: ml Evidence
.15	restart the engine and ru 10 minutes;				of overheating or excessive wear? Passed/Failed
	repeat the procedure in . engine counter-clockwise;				Amount of oil lost from engine ml
	restart the engine, run 10 minutes and then shut i	t down; and			Comments/Observations
.18	dismantle the engine for ex	kamination.			

Inflated fact receive bacto Model:		: mber:		Surveyor: _	n: T		
5.6.3.1 Seating strength	test		Regulations: LS	SA Code 4.4.	1.5, MSC.81(70)1/6.6.	.1	
Test Procedure		Acceptanc	e Criteria		Sign	nificant Test Data	
The seating should be loaded of 100 kg in each position allo person to sit in the rescue boat In the case of a rescue boat I falls, each type of seat should with a mass of 100 kg in any location when dropped into the height of at least 3 m. (This t performed in conjunction with th in 5.6.7.1).	aunched by d be loaded T single seat da water from ei test may be	The seating should be able to any permanent deformation or The seating should be capable lamage should be sustained officient functioning.	damage.	loading. No	Observed damage Passed Passed Comments/Observat		

Inflated fast rescue boats Manufacturer: Model: Lot/Serial Number:			Surveyor: _	n:	
5.6.3.2 Seating space tes	st	1	Regulations: LS	SA Code 5.1.	1.3.2, MSC.81(70)1/7.1.3
Test Procedure		Acceptan	ce Criteria		Significant Test Data
The rigid rescue boat should be its engine and all its equip number of persons for which boat is to be approved, having mass of at least 82.5 kg, and lifejackets and immersion suit other essential equipment requi then board; one person should a stretcher of similar dimension shown in the figure and the oth be properly seated in the rescu rigid rescue boat should manoeuvred and all equipment tested to demonstrate that operated without difficulty or i with the occupants.	ment. The the rescue an average all wearing is and any red, should lie down on ns to those hers should e boat. The then be t on board it can be nterference	Equipment can be operated occupants. The rescue boat must be 5 persons and a person lying Except the helmsmen, person provided the space used c requirements of test form 5.6. No seating is on the gunv chambers on the sides of the b	capable of carryin down on a stretche ns may be seated o onforms with the 1.1. wale, transom, on	ng at least er. on the floor, leg space	Equipment operated: YES NO Number of persons carried: Seated on seats Seated on floor Lying on a stretcher Total Passed Failed Lifejacket and immersion suit used during the test: Lifejacket– Inflatable/Inherently Buoyant Immersion suit– Uninsulated/Buoyant Insulated Comments/Observations

Inflated fast rescue boats	fast rescue boats Manufacturer: Model: Lot/Serial Number:			Date: Time: Surveyor: Organization:		
5.6.4.1 Simultaneous rel	ease		Regulations: LS	SA Code 4.4.	7.6, MSC.81(70)1/6.9.12	
Test Procedure		Acceptan	ce Criteria		Significant Test Data	
For rescue boats launched by the rescue boat with its engine f be suspended from the release just clear of the ground or the rescue boat should be loaded total mass equals 1.1 times the rescue boat, all its equipmen number of persons for which boat is to be approved. The r should be released simultance each fall to which it is connect binding or damage to any part o boat or the release mechanism (Single fall systems not in on-load operation are exemp test.)	itted should mechanism water. The so that the mass of the nt and the the rescue escue boat ously from ted without f the rescue	It should be confirmed to simultaneously release from e without binding or damage to the release mechanism. It should be confirmed to simultaneously release from ea when fully waterborne in the overload condition.	each fall which it is any part of the res that the rescue ach fall to which it is	s connected scue boat or boat will s connected	Light condition Passed FailedN/A (N/A – Single fall, off-load only) 1.1 x Loaded Mass:kg Passed FailedN/A (N/A – Single fall, off-load only) Comments/Observations	

	Manufacturer:		Date:	Time:	
Inflated fast rescue boats	Madali	Surveyor:			
			Organization		
5.6.4.2 Towing release test		Regulations: L	SA Code 4.4.	7.6.5; MSC.81(70) 1/6.9.3	
Test Proc		Acceptance Criteria		Significant Test Data	
With the operating mechanism demonstrated when the rescue	e boat is loaded with its full	There should be no damage a these tests.	s a result of	Operating mechanism disconnected and boat towed at 5 kts:Pass Fail	
complement of persons and speeds of 5 knots that the move closed.		The rescue boat is released sat the release mechanism.	tisfactorily by	Operating mechanism connected tests.	
Furthermore, with the operating		Single fall systems not intended	d for on-load	Test 1: 25% SWL, lengthwise to the boat at 45° to the vertical:	
should be demonstrated that the rescue boat when loaded with its full complement of persons and equipment when towed at speeds of 5 knots can be released. Both of the above should be demonstrated as follows:		Single fall systems not intended for on-load operation are exempt from this test.		Force Applied: N. Forward direction:Pass Fail Aft direction:Pass Fail	
.1 a force equal to 25% of the hook should be applied to t direction of the boat at an a This test should be conducte the forward direction;	the hook in the lengthwise ingle of 45° to the vertical.			Test 2: 100% SWL, athwartships at 20° to the vertical: Force Applied: N. Starboard:Pass Fail	
.2 a force equal to the safe should be applied to the direction at an angle of 20 should be conducted on bot	hook in an athwartships ° to the vertical. This test			Port:Pass Fail Test 3: 100% SWL, 45° to the longitudinal axis of the boat in plan view at an angle of 33° to the vertical.	
.3 a force equal to the safe should be applied to the he between the positions of tes longitudinal axis of the boat of 33° to the vertical. This te four positions.	ook in a direction halfway sts 1 and 2 (i.e. 45° to the in plain view) at an angle			Force Applied:N. Position 1:PassFail Position 2:PassFail Position 3:PassFail Position 4:PassFail Comments/Observations	

	Manufacturer:		Date:	Time:
	Ma dali			۲:
Inflated fast rescue boats	Lot/Serial Number	•	Organiz	ation:
5.6.4.3 Load and release tes	st	Regulations: L	SA Code 4	4.4.7.6.4; MSC.81(70) 1/6.9.4.1, 6.9.4.2
Test Procedur		Acceptance Criteria		Significant Test Data
A release mechanism should be	e conditioned and	During the 50 releases, the rescue boa		
tested as follows:		and retrieval system should be		Force Applied:N
		simultaneously from each fall to wh		
The rescue boat release and re		connected without any binding or damage		Check the box for each release:
the longest used connect associated with the system should be associated with the system should be associated with the system should be associated by the system should by the system should by		part of the lifeboat release and retrieval	system.	
adjusted according to instruction		The system should be considered as	"failed" if	1: 2: 3: 4: 5: 6: 7: 8: 9: 10: 11: 12: 12:
equipment manufacturer and th		any failure during the conditioning or ur		13: 14: 15: 16: 17: 18: 1
of its safe working load and rele		release occurs when load is applied		19: 20: 21: 22: 23: 24:
		system has not yet been operated.		25: 🗍 26: 🗍 27: 🗍 28: 🗍 29: 🗍 30: 🗍
Load and release should be rep	peated 50 times.			31: 🛄 32: 🛄 33: 🛄 34: 🛄 35: 🛄 36: 🛄
				37: 38: 39: 40: 41: 42:
The rescue boat release and				43: 44: 45: 46: 47: 48:
should then be disassembled, t and wear recorded. The rele				49: 50: 4
system should then be reassem				Passed Failed
system should then be reassen	ibled.			
				Comments/Observations

Inflated fact was and bacts	Manufacturer: Model: Lot/Serial Number:		Date: Time: Surveyor: Organization:		
5.6.4.4 Cyclic loading test			SA Code 4	4.4.7.6.4; MSC.81(70) 1/6.9.4.3	
Test Procedure		Acceptance Criteria		Significant Test Data	
The hook assembly, while disco from the operating mechanism be tested 10 times with cyclic from zero load to 1.1 times working load, at a nominal 10 per cycle; unless the release me has been specifically desig operate as an off-load hook with capability using the weight of the close the hook, in this case th load should be from no more tha 1.1 times the SWL. For cam-type designs, the test s carried out at an initial cam rotat (fully reset position), and repeate in either direction, or 45° in one if restricted by design.	n, should c loading the safe seconds echanism gned to n on-load e boat to he cyclic an 1% to should be tion of 0° red at 45°	The specimen should remain closed during the f The system should be considered as "failed" if an during this test or any unintended release or occurs.	ny failure	Working Load: N Force Applied: N Check the box for each release and/or strike out the cam rotation if no applicable: Cam rotation 0° : 1: 2: 3: 4: 7: 8: 9: 10: Cam rotation +45°: 1: 2: 3: 4: 5: 6: 7: 8: 9: 10: Cam rotation +45°: 1: 2: 3: 4: 5: 6: 7: 8: 9: 10: Cam rotation -45°: 6: 1: 2: 1: 2: 1: 2: 1: 2: 1: 2: 1: 1: 2: 1: 1: 2: 1: 2: 1: 2: 1: 1: 2: 1: 2: 1: 2: 1:	

Inflated fast rescue boats	Model:		Date: Surveyor: Organization:			
5.6.4.5 Actuation force test		Regulations: L	SA Code 4	4.4.7.6.4; MSC.81(70) 1/6.9.4.4		
Test Proced		Acceptance Criteria		Significant Test Data		
The cable and operating mech reconnected to the hook asse boat release and retrieval sy demonstrated to operate satisf working load. The demonstration should veri indicators and handles are sti correctly positioned in accordan and safety instruction from the manufacturer.	mbly; and the rescue stem should then be actorily under its safe fy that any interlocks, Il functioning and are nce with the operation	100 N and no more than 300 N, if a used it should be the maximum specified by the manufacturer, and s the same manner it would be secur rescue boat. The release mechanism is deemed passed the testing in 5.6.4.3, 5.6	to have .4.4 and onducted uring this	Actuation Force: N Passed: Failed: Comments/Observations		

Inflated fast rescue boats	Model:		Surveyor:	Date: Surveyor: Organization:		
5.6.4.6 Second release me	chanism tests- actuation	force and tensile strength	Regulations:	LSA Code 4.4.7.6.4, MSC.81(70)1/6.9.5.1, 6.9.5.2		
Test Proce	edure	Acceptance Crite		Significant Test Data		
 A second release mechanism sl .1 the actuation force of the release measured loaded with 1 load. If a cable is used, it sh length specified by the many the same manner it would 1 The demonstration should v indicators and handles are correctly positioned in accor and safety instruction from manufacturer; and .2 the release mechanism sh tensile strength testing dev increased to at least six time 	hould be tested as follows: lease mechanism should 00% of its safe working hould be of the maximum ufacturer, and secured in be secured in a lifeboat. verify that any interlocks, still functioning and are dance with the operation in the original equipment hould be mounted on a ice. The load should be	.1 The actuation force shou than 100 N and no more t	ld be no less han 300 N.	Actuation Force: N Tensile strength @ 6xSWL. Force applied: N. Passed: Failed: Comments/Observations		

Inflated fast rescue boats	Manufacturer: Model: Lot/Serial Number:			Date: Surveyor: Organization:		
5.6.5.1 Liferaft towing				LSA	Code 4.4.6.8, 5.1.1.7, 5.1.1.9, MSC.81(70)1/7.1.2	
Test Proced The rescue boat should be load to the mass of its equipment persons for which the rescue b The maximum towing force of t then be determined. This information should be us largest size of fully loaded liferat tow at a speed of at least 2 known The fitting designated for towing secured to a stationary object with a means to measure bold should be operated ahead at f of at least 2 minutes and recorded. (For rescue boats equipped w bollard pull trials may be carried various powers to assess performance.)	led with weights equal t and the number of oat is to be approved. he rescue boat should sed to determine the aft the rescue boat can ots. g other craft should be t by a tow rope fitted lard pull. The engine full speed for a period the maximum force with outboard motors, ed out with engines of	The maximum rescue boat shou type approval cer There should be	nce Criteria towing force of Id be recorded on tificate. e no damage to t or its supporti	the the	Significant Test Data Smallest Engine Largest Engine Make/model:	

Inflated fast rescue boats	Manufacturer: Model: Lot/Serial Number:			Date: Time: Surveyor:			
5.6.5.2 Endurance, spee	ed and fuel co	nsumption	Regulatio	ns: LSA	Code MSC.81(70)1/	7.1.6, 7.4.2.12	
Test Procedure		Acceptance Crit				Significant Test D	ata
(Note: Run this test after the drop tests in 5.6.7.1.)	impact and	The boat should operate satisfact 4-hour operation.	ctorily through	nout the	Make/model:	Smallest Engin	e Largest Engine
The rescue boat should be	loaded with				Fuel Tank Capacity:		L
weights equal to the mass of its and the number of persons for	s equipment or which the				Propeller: Pitch:		
rescue boat is to be approved.					Diameter:		
The engine should be started a manoeuvred for a period of at le to demonstrate satisfactory op	east 4 hours				@8 knots: Engine speed (RPM		
The rescue boat should be run at a speed		The fuel tank should have sufficient capacity to		city to	Boat speed (kts)		
of not less than 8 knots complement of persons and		operate at a speed of 8 knots for a period of 4 hours with its full complement of persons and equipment.			Consumption (L/h)		
and 20 knots with a crew of 3 a period which is sufficient to a				Endurance (hrs.)			
fuel consumption and to estab fuel tank has the required cap determination may be made	lish that the bacity. (This				@20 knots: Engine speed (RPM	l):	
4-hour period of operation.)	daning the				Boat speed (kts)		
For rescue boats equipped wi		The fuel tank should have su			Consumption (L/h)		
motor, speed and manoeu should be carried out with	engines of	operate at a speed of 20 knots fo with a crew of 3 persons.	r a period of 4	hours	Endurance (hrs.)		
various powers to assess the re performance.	escue doat s				Comments/Observa	tions	

Inflated fast rescue boats	Model: Sur		Date: Time: Surveyor: Organization:			
5.6.5.3 Engine out of wat	ter		Regulations: LS	SA Code 4.4.	6.3, MSC.81(70)1/6.10.5	
Test Procedure		Acceptano	ce Criteria		Significant Test Data	
The engine should be operated for at least 5 minutes at idling speed under conditions simulating normal storage.				Passed Failed Comments/Observations		
Note: If a water flushing device to be used for this purpose, it fitted during the test.						
5.6.5.4 Compass test		Regulations: LSA Code 5.1			2.2.3, MSC.81(70)1/6.10.7	
Test Procedure		Acceptance Criteria			Significant Test Data	
It should be determined that th performance is satisfactory and unduly affected by magnetic equipment in the rescue boat.	that it is not	The compass operates satisfa	ctorily.		Compass Make: Compass Model: Passed Failed Comments/Observations	

Inflated fast rescue boats	Model:	: Survey		Surveyor:	Date: Time: Surveyor: Organization:		
5.6.5.5 Manoeuvrability v	with paddles	or oars	Regulati	ons: LSA Co	de 5.1.2.2.1, MSC.81(70)1/7.1.8		
Test Procedure		Acceptance Crite	ria		Significant Test Data		
It should be demonstrated that boat can be propelled and man its oars or paddles in calm wate at a speed of at least 0.5 kn distance of at least 25 m. when the number of persons, a lifejackets and immersion suits, is to be approved.	oeuvred by r conditions nots over a n laden with ill wearing	The rescue boat should be capable of paddled and manoeuvred.	f being sati	isfactorily	Distance travelled:n Time required:s Calculated speed:m/s =knots Lifejacket and immersion suit used during the test: Lifejacket – Inflatable/Inherently Buoyant Immersion suit – Uninsulated/Buoyant Insulated Passed Failed Comments/Observations		

Inflated fast rescue boats	Model:	acturer: 		Date: Time: Surveyor: Organization:		
5.6.5.6 Heavy weather/seas	test		Regulations: LS	SA Code 5.1.	3, MSC.81(70)1/7.2.10	
Test Procedure		Acceptano	ce Criteria		Significant Test Data	
To simulate use in heavy w inflated rescue boat should be f larger powered engine than is i be fitted and driven hard in a wi 4 or 5 or equivalent rough water 30 minutes. For boats with inboard engines does not need to be greater intended to be used.	itted with a intended to ind of force for at least the power	permanent strain nor have los	not show undue flexing or t more than minimal pressure.		Tube pressure before test:mb Pressure relief valves open/closed? Wave heightm Wind Speedm/s Tube pressure after test: PassedFailed Comments/Observations	_mbar
5.6.6.1 Towing test			Regulations: LS	SA Code 4.4.	1.3.2, 4.4.7.7, MSC.81(70)1/6.11.1	
Test Procedure		Acceptance Criteria		Significant Test Data		
It should be demonstrated that equipped rescue boat, loaded properly distributed mass equipass of the number of persons is to be approved, can be towed of not less than 5 knots in calm on an even keel using the resp painter securing device.	ed with a ual to the for which it at a speed water and	The rescue boat should no characteristics. There should be no damag equipment as a result of this te	e to the rescue		Passed Failed Comments/Observations	

Inflated fast rescue boats Manufacturer: Model: Lot/Serial Number:			Surveyor: _	n:			
5.6.6.2 Painter release te	st	-	Regulations: LS	SA Code 4.4.	7.7, MSC.81(70)	1/6.11.23	
Test Procedure		Acceptano	ce Criteria			Significant T	est Data
It should be demonstrated that release mechanism can release on a fully equipped and loaded that is being towed at a speed than 5 knots in calm water. The painter release mechanism tested in several distinct direc upper hemisphere not obstruct canopy or other constructions in boat. The directions specified in should be used if possible.	e the painter rescue boat of not less n should be tions of the cted by the n the rescue	The painter should release an to the rescue boat or its equip	d there should be	-	Passed Test Direction	Passed Passed Passed Passed Passed Passed	Failed Failed Failed Failed Failed Failed

		Survey	Time: /or: ization:	
5.6.7.1 Impact, drop and operative	ration after impac	ct and drop test	Regulation	s: LSA Code 4.4.1.7, MSC.81(70)1/6.4.1, 7.2.2 & 7.2.3
Test Procedure		Acceptance Criteria		Significant Test Data
.1 For boats launched by fall or equipped rescue boat, includi should be loaded with weights ec of the number of persons for wi boat is to be approved. Included should be a weight of 100 kg lo each type of seat installed in th weights should be distributed to normal loading in the rescue weights need not be placed 300 seatpan.) Skates or fenders, if r be in position. The rescue b hanging position, should be pull position so that when released fixed rigid vertical surface at a m/s. The boat should be relea against the rigid vertical surface	ding its engine, equal to the mass which the rescue ed in this loading loaded in one of the lifeboat. The to represent the e boat. (These 0 mm above the required, should boat, in a free lled laterally to a ed it will strike a a velocity of 3.5 eased to impact	 The impact and drop tests considered successful if: .1 no damage has been sustained affect the efficient function rescue boat and its equipment. .2 the damage caused by the drop tests has not increased as a result of the operation 5.6.5.2; .3 machinery and other equipment operated to full satisfaction; and occurred. 	ed that would hing of the ht; impact and significantly onal test in ipment has ind	Observed Damage: Increased Damage: YES NO Satisfactory Operation: YES NO Ingress of Water: YES NO
 .2 The rescue boat complete with a and with a mass equivalent to its in the position of its engine and f be dropped three times from a h 3 m on to water. The drops sho 45-degree bow-down, level trim, stern-down attitudes. .3 On completion of these tests th and its equipment should examined. 	s engine and fuel fuel tank should height of at least ould be from the n, and 45-degree the rescue boat			Final Evaluation: Passed Failed Comments/Observations

Inflated fast rescue boats Manufacturer: Lot/Serial Number:				Surveyor: _	n:		
5.6.7.2 Ambient overload	test		Regulations: LSA Code 5.1.3.2.2, MSC.81(70)1/7.2.12				
Test Procedure		Acceptanc	ce Criteria		Significant Test Data		
		not show any signs of damage.		Passed Failed Comments/Observations			
The rescue boat and its bridle examined after the test is condu							
5.6.7.3 Cold overload test		Regulations: LSA Code 5.1.3.2.3, MSC.81(70)1/7.2.13					
Test Procedure		Acceptance Criteria		Significant Test Data			
With all relief valves operative conditioning at a temperature or inflated rescue boat should be 1.1 times the mass of the full of of persons and equipment for w be approved and suspende minutes from its bridle. The rescue boat and bridle examined after the test is condu	f -30°C, the loaded with complement which it is to d for five should be	The rescue boat and its bridle not show any signs of damage		nism should	Passed Failed		

Inflated fast rescue boats Manufacturer: Lot/Serial Numb		oer:		Surveyor: _	n:
5.6.7.4 Mooring out test			Regulations: LS	SA Code 5.1.	3.3, MSC.81(70)1/7.2.15, 5.5, 5.17.78
Test Procedure)	Accepta	ance Criteria		Significant Test Data
The rescue boat should be loa equal to the mass of the total nu- for which it is to be approved a and moored in a location at sea harbour. The rescue boat shou in that location for 30 days. Th be topped up once a day us pump; however, during any 24 rescue boat should retain its sh Each inflatable compartment in should be tested to a pressur times the working pressure. Eac valve should be made inoperat air should be used to inflate the boat and the inflation source re should continue for at least 30 The measurement of pressu leakage can be started whe assumed that compartment m completed stretching due to pressure and achieved equilibri	imber of persons nd its equipment or in a seawater uld remain afloat ne pressure may sing the manual -hour period the ape. the rescue boat e equal to three ch pressure relief ive, compressed inflatable rescue moved. The test minutes. re drop due to en it has been aterial has been o the inflation	The rescue boat should would impair its performa The pressure should not determined without comp atmospheric pressure cha seam slippage, cracking boat.	nce. decrease by more pensating for temp anges, and there s	than 5% as berature and should be no	

Inflated fast rescue boats	Manufacturer: Model: Lot/Serial Number:		Date: Time: Surveyor: Organization:	
5.6.8.1 Inflation chambe	r characteris	stics tests	Regulations:	LSA Code 1.2.2, MSC.81(70)1/7.2.14
Test Procedure		Acceptance Crite	ria	Significant Test Data
The inflatable compartment mate to construct the rescue boat tested for the following character .1 tensile strength .2 tear strength .3 heat resistance .4 cold resistance .5 heat ageing .6 weathering .7 flex cracking .8 abrasion .9 coating adhesion .10 oil resistance .11 elongation at break .12 piercing strength .13 ozone resistance .14 gas permeability .15 seam strength .16 ultraviolet light resistan	should be eristics:	The material characteristics sh with ISO 15372:2000.	nould comply	.1 tensile strengthN .2 tear strengthN .3 heat resistance – Blocking

5.7 RIGID/INFLATED FAST RESCUE BOATS

EVALUATION AND TEST REPORT

- 5.7.0 General information
 - 5.7.0.1 General data and specifications
 - 5.7.0.2 Submitted drawings, reports and documents
 - 5.7.0.3 Quality assurance
- 5.7.1 Visual inspection
 - 5.7.1.1 Occupant space
 - 5.7.1.2 Fittings, provisions and ladders
 - 5.7.1.3 Engine and starting system
 - 5.7.1.4 Steering mechanism and fuel tank
 - 5.7.1.5 Release mechanism
- 5.7.2 Stability, damage and loading tests
 - 5.7.2.1 Damage test
 - 5.7.2.2 Stability test
 - 5.7.2.3 Loading test
 - 5.7.2.4 Swamp test
 - 5.7.2.5 Flooded stability test
 - 5.7.2.6 Righting test (for non self-righting fast rescue boats)
 - 5.7.2.7 Self-righting test (for self-righting fast rescue boats only)
 - 5.7.2.8 Flooded capsizing test (for self-righting fully enclosed fast rescue boats only)
 - 5.7.2.9 Engine inversion test (for self-righting fast rescue boats only)
- 5.7.3 Seating strength and space tests
 - 5.7.3.1 Seating strength test
 - 5.7.3.2 Seating space test
- 5.7.4 Release mechanism tests
 - 5.7.4.1 Simultaneous release
 - 5.7.4.2 Towing release test
 - 5.7.4.3 Load and release test
 - 5.7.4.4 Cyclic loading test
 - 5.7.4.5 Actuation force test
 - 5.7.4.6 Second release mechanism tests- actuation force and tensile strength
- 5.7.5 Operational tests
 - 5.7.5.1 Liferaft towing
 - 5.7.5.2 Endurance, speed and fuel consumption
 - 5.7.5.3 Engine out of water
 - 5.7.5.4 Compass test
 - 5.7.5.5 Manoeuvrability with paddles or oars
 - 5.7.5.6 Heavy weather/seas test
- 5.7.6 Towing and painter tests
 - 5.7.6.1 Towing tests
 - 5.7.6.2 Painter release test

5.7.7	Strength t 5.7.7.1 5.7.7.2 5.7.7.3	ests Impact, drop and operation after impact and drop test Overload test Mooring out test	
5.7.8	Materials	tests	

5.7.8.1 Inflation chamber characteristics tests

5.7 RIGID/INFLATED FAST RESCUE BOATS

EVALUATION AND TEST REPORT

Manufacturer	
Туре	
Date	
Place	
Name Surveyor printed	
Signature	
Approving Organization	

Rigid/inflated fast rescue boats	Manufacturer: Model: Lot/Serial Number:	Surveyor:
5.7.0.1 General data and spec	cifications	Regulations: LSA Code 4.4, 5.1, MSC.81(70)1/7.2.16
General Information		oat Dimensions Rescue boat Weight
Construction Material: Hull:	Dimensions:	Design Weight:
Canopy:	LOA:	Unloaded Boat:
Fire-retardancy documentation:	Breadth Maximum:	Loose Equipment: Fuel: Persons:
Rescue Boat Inherent Buoyancy	Depth to Sill:	
(Type App.) Material: Weight: Occupancy: Persons (82.5 kg each):	Depth to Gunwale:	Calculated Loaded Weight:
Engine(s) Installed: 1 2 Type App by: Manufacturer: Type:		g-off pendant Comments/Observations
Power: Gear ratio (inboard engine):		
Additional rigid or inflatable buoyanc	sy:	
Release mechanism(s) (if applicable 1	2	
Manufacturer: Type: SWL:		

Rigid/inflated fast rescue boats Manufacturer: Model: Lot/Serial Num			Date: Time: Surveyor: Organization:			
5.7.0.2 Submittee	d drawings,	reports and doo	uments			
	1	S	ubmitted drawings and documents			Otatura
Drawing No.	Revision	No. & date	Title	of drawing		Status
	• •		Submitted reports and documents			Otatus
Report/Document No.	Revisio	on No. & date	Title of re	port / document		Status
			Maintenance Manual -			
			Operations Manual -			

Rigid/inflated fast rescue boats Manufacturer: Model: Lot/Serial Number:			Date: Surveyor: Organization:	Time:	
5.7.0.3 Quality assurance		Regulations: MSC	C.81(70) 2/1.1, 1.2		
Except where all appliances of a part of the International Convention for amended or the International Life-S inspected, representatives of the A inspections of manufacturers to er appliances and materials used co approved prototype life-saving applia Manufacturers should be required to ensure that life-saving appliances ar the prototype life-saving appliance a keep records of any production test Administration's instructions.	Quality assurance Standard Used: Quality assurance Procedure: Quality assurance Manual: Description of System:				
		Quality assurance Yes/No Comments/Observ	System acceptable		

Rigid/inflated fast rescue boats	Manufacturer: Model: Lot/Serial Number:		te: Time: veyor: ganization:	
5.7.1.1 Occupant space		Regulations: LSA Code 4	.4.2.2, 4.4.3.5, 5.1, MSC.81(70)1/7.2	.16
Test Procedure	Acceptanc	ce Criteria	Significant Test Da	ta
Visually inspect the rescue boat. Co measurements and verify clearanc required.	es as Unless the rescue boat has a	Unless the rescue boat has adequate sheer, it should be provided with a bow cover extending for not less than 15%		
	Length is at least 6.0 m and r	not over 8.5 m.	Passed Failed _	
	Seating Space Width – at least 430 mm Depth – at least 100 mm each the back Knee Space (Seating on seat back Knee Width – at least 250 mm Leg Space (Seating on floor) back Overlapping Seat Vertical Se Seat Horizontal Overlap – 15 Each seating position should Stretcher(s) space: Rescue boats should be cap seated persons and a pers minimum 2130 x 610 mm. Walkway Surfaces The surfaces on which perso non-skid finish.	ats) at least 635 mm from the m – at least 1190 mm from the eparation – at least 350 mm 0 mm maximum be clearly indicated. Dable of carrying at least five son lying on a stretcher of	Leg Space:mm Vert. Separation:mm	

Bigid/inflated fast rescue beats Model: Sur			Surveyor	Date: Time: Surveyor: Drganization:			
5.7.1.2 Fittings, provisions an	d ladd	ers	Regulations: LSA	Code 5.1.	3, MSC.81(70)1/7	.2.16	
Test Procedure			ce Criteria			Significant Test Dat	a
Visually inspect the rescue boat.		Buoyancy compartments fitt Non-return valve for manual ir			Passed	Failed	
Conduct measurements and clearances as required.	verify	Means for deflation			Passed	Failed	
		Safety relief valve unless waiv	ved by Administration		Passed	Failed	N/A
		Suitable patches for securing	painters fore and aft		Passed	Failed	
		Fittings and Provisions					
		Suitable handholds or buoyar outside of rescue boat above of a person in the water, exce and propeller	the waterline and with	hin reach	Passed	Failed	
		On other than self-righting resunderside arranged to break rescue boat			Passed	Failed	
		Weathertight stowage for sma			Passed	Failed	N/A
		Provided with effective means self-bailing				Failed	
					Comments/Obse	ervations	

Rigid/inflated fast rescue boats Model:			r: Time: r: ation:			
5.7.1.2 Fittings, provisions and	d ladd	ers (cont'd)	Regulati	ons: LSA	Code 4.4.3.3, 5.1.3, MSC.81(70)1/7.2.16	
Test Procedure		Acceptance Criteria			Significant Test Data	
Visually inspect the rescue boat. Conduct measurements and victure of the second secon	verify	Ladders Ladders that can be used at any entrance should be on board and the lowest step when in place should not be less than 0.4 m below the light waterline.			Passed Failed Lowest stepm below waterline	
					YES NO N/A	
		Other Provisions			TES NO N/A	
		Buoyant material may be installed extern boat, provided it is adequately protecte and is capable of withstanding exposure open deck on a ship at sea and for 30 da condition.	d against when stow	damage /ed on an	Passed Failed Highly visible colour: PassedFailed	
		The boat should be of a highly visible of a ssist detection.	colour wh	ere it will	Comments/Observations	

Rigid/inflated fast rescue boats	Manufacturer: Model: Lot/Serial Number:	Date: Time: Surveyor: Organization:				
5740 Facility and starting						
5.7.1.3 Engine and starting s			Code 4.4.6, 5.1,	MSC.81(70)1/7.		
Test Procedure	Acceptance Criteria			Manual Pow	Significant Test Data	
	Type of starting system - Two independent rechargeable energ systems	Two independent rechargeable energy sources provided for power starting				
	- Required starting aids provided.			Passed	Failed	
	- Starting system is not impeded by eng	gine casing, thwarts, o	or other	Passed	Failed	
	obstructions			1 03300		
	 Propeller arranged to be disengaged the ahead and astern propulsion 	Passed	Failed			
	- Exhaust arranged to prevent water from entering engine in normal operation.				Failed	
	- System designed with due regard to the to the possibility of damage to the pro			Passed	Failed	
	 Engine casing made of fire-retardant r 					
	arrangements providing similar protec	tion.		Passed	Failed	
	 Personnel are protected from hot and Shouted order can be heard with engi 		necessary for 6	Passed	Failed	
	knot operation	eard with engine running at speed necessary for o			Failed Failed	
	- Watertight casing around bottom and	sides of starter batter	ries with a tightly	Passed		
	fitting top which provides for gas venti		liee mar a agray	Passed	Failed	
	- Means for recharging engine starting,		nt batteries			
	provided by solar charger or ship's po			Passed	Failed	
	 Radio batteries not used to provide po 					
	- Recharging for engine batteries provid	ded by ship's power s	supply does not	Passed	Failed	
	exceed 50 v			Passed	Failed	
	- Recharging means for engine batterie	s can be disconnecte	ed at the rescue	Desert	E - U - J	
	boat embarkation station	angina ara watar raa	istant and	Passed	Failed	
	 Instructions for starting and operating engine are water resistant and mounted in a conspicuous place near the engine starting controls 				Failed	
	 Towing arrangement for marshalling li 					

Rigid/inflated fast rescue boats	Rigid/inflated fast rescue boats Model: Survey Lot/Serial Number: Organ		Surveyor	Date: Time: Surveyor: Organization:			
5.7.1.4 Steering mechanism a	and fue	l tank	tank Regulations: LSA Code 4.4.7.2			70)1/7.2.16	
Test Procedure	Test Procedure Acceptance Criteria					nificant Test Data	
Visually inspect the rescue boat. Conduct measurements and clearances as required.	verify	Steering A tiller should be capable of and tiller may form part of ou Rudder permanently attached Rudder and tiller arranged operation of the release mec Steered by wheel at helmsma Has emergency steering sys rudder, water jet or outboard Hands-free, watertight VHF r Fuel Tank If fitted with petrol-driven ou should be specially protected	f controlling the rudde tboard motor) d to the rescue boat so as not to be dam hanism or propeller an's position stem providing direct of motor adio provided	control of	Passed	FailedN/A FailedN/A FailedN/A Failed Failed	
					Comments/Observat	tions	

Rigid/inflated fast rescue boats	Mode	facturer: l: erial Number:		Surveyor	:: tion:			
5.7.1.5 Release mechanism		-	Regulations: LSA	Code 4.4.	7.6.5, MSC.81(70)1/7.2.16			
Test Procedure		Acceptance Criteria			Significant Test Data			
Visually inspect the rescue boat. Conduct measurements and	verify	Clear operating instructions			Passed			
clearances as required.		Release control marked in a surroundings	colour that contrasts	s with the	Passed	Failed		
		For on-load release mechanis	or on-load release mechanisms:					
		Suitably worded danger sign f	Suitably worded danger sign for on load release			Failed	N/A	
		mechanism is completely ar	Mechanical protection (interlock) engages only when mechanism is completely and properly reset, to prevent accidental release during recovery			Failed	N/A	
		On-load release mechanism n action by the operator	eeds deliberate and o	continued	Passed	Failed	N/A	
		Mechanical protection prov required for off load release	Mechanical protection provided beyond that normally required for off load release			Failed	N/A	
		For a single fall system with su capability is not required; in s capability to release the boat of will be adequate.	such an arrangemen	t a single	Passed		N/A	

Rigid/inflated fast rescue boats	rescue boats Model: Surveyor:			Time: :: ttion:
5.7.2.1 Damage test (Does no tube)	t apply	if waterline is below lower side of inflated	Regulat	ions: LSA Code 5.1.3.5, MSC.81(70)1/7.2.89, 7.3.2
Test Procedure		Acceptance Criteria		Significant Test Data
The following tests should be carried with the inflated rescue boat loaded the number of persons (of 82.5 kg main which it is to be approved both with without engine and fuel or an equinass in the position of the engine and tank: with forward buoyancy compare deflated; .1 with the entire buoyancy of side of the rescue boat defined and .2 with the entire buoyancy of side and the bow compare deflated.	d with ss) for h and valent id fuel tment n one flated; n one			1 With engine and fuel: Passed Failed Without engine and fuel Passed Failed 2 With engine and fuel: Passed Failed Without engine and fuel Passed

Rigid/inflated fast rescue boats	Model:	Surveyo		Time: or: ration:		
5.7.2.2 Stability test			Regulations: LSA	Code 4	.4.5, MSC.81(70)1/6.10.8, 7.2.67	
Test Procedure		Acceptanc	e Criteria		Significant Test Data	
The following tests should be carried engine and fuel or an equivalent r place of the engine and fuel tanks:	mass in					
.1 the number of persons for wh inflated rescue boat is to be a should be crowded to one side v this complement seated of buoyancy tube, and then to one each case the freeboard sho recorded; and	pproved with half on the e end. In	.1 Under these conditions everywhere positive.	s the freeboard sho	ould be	1 Freeboard crowded to one sidemm To bow:mm To stern:mm PassedFailed	
 .2 the stability of the rescue boar boarding should be ascertained persons in the rescue demonstrating that they can assist from the water a third persons is required to feign unconscio. The third person should have h towards the side of the rescue that he cannot assist the rescupersons should wear a lifejackets. These stability tests may be carried the rescue boat floating in still water. 	l by two boat readily son who usness. his back boat so uers. All pproved out with	.2 The rescue boat should b	e stable.		2 Stability observations during recovery of unconscious person: Clothing/Suits on helpless person: Method of recovery: Number of persons required and any special equipment used: Passed Failed Comments/Observations	

Digid/inflated fact receive basts Model:		Surv		Surveyo	Dr: Time: ation:
5.7.2.3 Loading test			Regulations: MSC	.81(70)1/7	7.2.45
Test Procedure		Ac	ceptance Criteria		Significant Test Data
The freeboard of the inflated rescue boat should be taken in the various loading conditions as follows:		In each condition the minimum freeboa should be not less than 300 mm at t		n at the	.1 Freeboard at Buoyancy Tubes:mm Freeboard at Transom:mm
.1 rescue boat with all its equipment	,		and not less than part of the transom.	250 mm	.2 Freeboard at Buoyancy Tubes:mm
.2 rescue boat with all its equipment, an equivalent mass positioned to	nom the lowest			Freeboard at Transom:mm	
and fuel;	1 0				.3 Freeboard at Buoyancy Tubes:mm
.3 rescue boat with all its equipment and the number of persons for which it is to be approved having an average mass of 82.5 kg so arranged that a uniform freeboard is achieved at the side buoyancy tubes;					Freeboard at Transom:mm .4 Freeboard at Buoyancy Tubes:mm Freeboard at Transom:mm
and .4 rescue boat with the number of p to be approved and all its equipm or an equivalent mass to represen the rescue boat being re-trimmed	ersons for which it is nent, engine and fuel t engine and fuel and				Passed Failed Comments/Observations
5.7.2.4 Swamp test			Regulations: MS	C.81(70)1/	/7 <mark>.2.11</mark>
Test Procedure		Acceptar	nce Criteria		Significant Test Data
It should be demonstrated that the boat, when fully swamped, is capa supporting its full equipment, the nur persons each weighing 82.5 kg for v is to be approved and a mass equiva its engine and fully filled fuel tank. It also be demonstrated that the rescu does not seriously deform in this con-	able of load and sh nber of vhich it alent to should ie boat	e boat should be c nould not seriously	apable of supporting y deform.	the full	Passed Failed Comments/Observations

Rigid/inflated fast rescue boats	Manufacturer: Model: Lot/Serial Number:		Date: Surveyor: Organization:	Time:		
5.7.2.5 Flooded stability test below lower side of in	s Regulations: LSA	A Code 4.4.1.1, MSC.	81(70)1/6.8.13			
Test Proce	edure	Acceptance	Criteria	Significant Test Data		
The rescue boat should be loaded lockers, water tanks and fuel tanks of be flooded or filled to the final wa Rescue boats fitted with watertig accommodate individual drinking with these containers aboard and placed which should be sealed watertight d of equivalent weight and density shou and any other installed equipment th Weights representing persons (of 82, water when the rescue boat is flo 500 mm above the seat pan) may be persons who would not be in the with flooded (water level more than 500 m be placed in the normal seating posi- centre of gravity approximately 300 m representing persons who would be when the lifeboat is flooded (water above the seat pan) should additional	with its equipment. If provision cannot be removed, they should terline resulting from this test. ht stowage compartments to water containers should have d in the stowage compartments uring the flooding tests. Ballast uld be substituted for the engine at can be damaged by water. .5 kg mass) who would be in the boded (water level more than e omitted. Weights representing water when the rescue boat is nm above the seat pan) should tions of such persons with their nm above the seat pan. Weights partly submerged in the water level between 0 and 500 mm lly have an approximate density	Acceptance When loaded as specifi should have positive sta water to represent floodir when the rescue boat location below the waterl of buoyancy material and	ed, the rescue boat bility when filled with ng which would occur is holed in any one ine assuming no loss			
of 1 kg/dm ³ (for example water bal volume similar to a human body. Note: Several tests may have to be areas would create different flooding	conducted if holes in different					

Rigid/inflated fast rescue boats		l: Surveyor:			Time: :: tion:
5.7.2.6 Righting test (for non-	self-rig	hting fast rescue boats)	Regulations: MSC	.81(70)1/7	.1.7
Test Procedure		Acceptan	ce Criteria		Significant Test Data
It should be demonstrated that both and without engine and fuel of equivalent mass in place of the engine fuel tank, the rescue boat is capa being righted by not more than two per if it is inverted on the water.	or an ne and ble of	The rescue boat should be ca more than two persons if it is i When the rescue boat has r should be capable of be helmsman's emergency releas	nverted on the water. ighted, each engine ing restarted, provi	or motor ided the	Can the boat be righted by 2 persons? With engine and fuel:
The engine should be running in r position and, after stopping automa or by the helmsman's emergency re switch when inverted, it should be restarted and run for 30 minutes aft rescue boat has returned to the u position. For rescue boats with inboard engine test without engine and fuel is applicable. (This test is not required if the rightir	atically elease easily eer the upright es, the s not	The design of the fuel and prevent the loss of more than from the propulsion system.			Passed Failed Without engine and fuel: Passed Failed Method used to right boat:
in 5.7.2.7 has been performed.)	ig test				Comments/Observations

Bigid/inflated fact recours basts	/inflated fast rescue boats Manufacturer:			Surveyo	Date: Surveyor: Organization:				
5.7.2.7 Self-righting test (for self-righ	nting fast rescu	ue boats only)	Regulations: MS	SC.81(70)1/6	14				
Test Procedure		Acc	eptance Criteria			S	ignificant T	est Data	
A suitable means should be provided rescue boat about a longitudinal axis to heel and then release it. The rescue boat incrementally rotated to angles of hee including 180° and should be released. These tests should be conducted in conditions of load: .1 when the rescue boat with its engine the normal position with properly sec representing the fully equipped rescu full complement of persons on board used to represent each person, assi an average mass of 82.5 kg, should each seat location and have its cer approximately 300 mm above the sea have the same effect on stability rescue boat is loaded with the numb for which it is to be approved; and .2 when the rescue boat is in the light of In the case of open fast rescue boats, the test should only be done in the light cond	any angle of oat should be el up to and the following the following the is loaded in cured weights the boat with a rd. The weight sumed to have be secured at ntre of gravity eatpan so as to as when the ber of persons condition.	After release, the return to the u assistance of the o At the beginning should be running .1 unless arrang inverted, the until stopp emergency running .2 after resettin release, if ne easily restart	e rescue boat sho pright position v occupants. of these tests, in neutral position ged to stop automa engine should cor ed by the l elease switch; and g the helmsman's cessary, the engin ed and run for 30 m pat has returned to enter the engine.	vithout the the engine and: tically when tinue to run helmsman's emergency e should be hinutes after the upright ng systems n 250 ml of	Angle o Heel 45 ⁰ 90 ⁰ 135 ⁰ 180 ⁰ Result: F Commer	f Loade 	Righting d FAILED	Moment Light	FAILED

Rigid/inflated fast rescue boats	Mode	Model:		Date: Time: Surveyor: Organization:		
5.7.2.8 Flooded capsizing test (for self-righting fully enclosed fast rescue boats only)				Regu	Ilations: MSC.81(70) 1/6.14.3, 6.14.4, 6.14.5, 7.4.1	
Test Procedure		Acceptance Criteria			Significant Test Data	
Perform the following for fully end rigid fast rescue boats. This test i applicable to open fast rescue boats.	is not	After release, the lifeboat should attain a posi provides an above-water escape for the occupants.		n that	Result: PASSED FAILED	
The rescue boat should be placed water and fully flooded until the rescue can contain no additional water entrances and openings should be se to remain open during the test.	e boat r. All				Comments/Observations	
Using a suitable means, the rescue should be rotated about a longitudina to a heel angle of 180° and then relea	al axis					
For the purpose of this test, the mas distribution of the occupants ma disregarded. However, the equipme equivalent mass, should be secured rescue boat in the normal ope position.	ay be ent, or in the					

Rigid/inflated fast rescue boats	Manufacturer: Model: Lot/Serial Number:			Date: Surveyor Organiza	Time: : tion:
5.7.2.9 Engine inversion test (for	self-righting fast res			SA Code	4.6.4.2; MSC.81(70) 1/6.14.6 - 6.14.8, 7.4.1
Test Procedure			ance Criteria		Significant Test Data
The engine and its fuel tank should be that is arranged to rotate about an a longitudinal axis of the boat. A pan should be located under the en which may leak from the engine so tha oil can be measured.	ixis equivalent to the gine to collect any oil	The engine and eng capable of running capsize and continu- boat returns to automatically stop o restarted after the re- upright.	in any positio le to run after th the upright or n capsizing and	n during e rescue should be easily	PassedFailed
 The following procedure should be test: .1 start the engine and run it at full .2 stop the engine and rotate it in through 360°; .3 restart the engine and run 10 minutes; .4 stop the engine and rotate it in direction through 360°; .5 restart the engine, run it at full s and then stop the engine; .6 allow the engine to cool; .7 restart the engine and run 5 minutes; 	I speed for 5 minutes; a clockwise direction it at full speed for a counter- clockwise speed for 10 minutes,	should prevent the la more than 250 ml of engine during capsis During these tests overheat, fail to op 250 ml of oil during When examined af	uel and lubricating systems loss of fuel and the loss of of lubricating oil from the ize. s, the engine should not perate or leak more than any one inversion. fter being dismantled the show no evidence of		

		Manufacturer:	· · · · · · · · · · · · · · · · · · ·	Date:	Time:
Rigid	l/inflated fast rescue boats	Model: Lot/Serial Number	er:	Organiza	::
570	.9 Engine inversion test (co	ntinued)	Pogulations: L S		4.2; MSC.81(70) 1/6.14.6 - 6.14.8, 7.4.1
5.7.2	Test Procedure	intiliueu)	Acceptance Criteria	- Coue 4.0.	Significant Test Data
The f	ollowing procedure should be fo	llowed during this		should not	Are all the tests carried out according to the
	Continued):		overheat, fail to operate or leak more the of oil during any one inversion.		
.8	slowly rotate the running engine direction through 180°, hold at for 10 s, and then rotate it clockwise direction to complete	the 180° position 180° further in a	When examined after being disma engine should show no evidence of c or excessive wear.		Does the engine stop when turned in either direction? Passed/Failed If it stops, does it easily restart? Passed/Failed
.9 .10	if the engine is arranged to s when inverted, restart it; allow the engine to continue to	top automatically			Does the engine fulfil the requirements after the tests have been carried out according to the procedure?
44	for 10 minutes;				Passed/Failed
.12	shut the engine down and allow repeat the procedure in .7 the except that the engine should counter-clockwise direction;	rough .11 above, d be turned in a			Amount of oil lost from engine during each inversion: .2 : ml
.13	restart the engine and run it 5 minutes;	at full speed for			.4 : ml .8 : ml
	rotate the engine in a clo through 180° and stop the engi further to complete a full clocky restart the engine and run it	ne. Rotate it 180° wise revolution;			.12 : ml .14 : ml .16 : ml
	10 minutes; repeat the procedure in .14 a				Total amount of oil lost from engine: ml Evidence of overheating or excessive wear?
	engine counter-clockwise;				Passed/ Failed
	restart the engine, run it a 10 minutes and then shut it do dismantle the engine for exam	wn; and			Amount of oil lost from engine ml Comments/Observations

Rigid/inflated fast rescue boats	Manufacturer: Model: Lot/Serial Number:	Surveyor:		Time: :: tion:		
5.7.3.1 Seating strength test	Regulations: LSA C	Code 4.4.	1.5, MSC.81(70)1/6.6.	1		
Test Procedure	Acceptance	ce Criteria		Sign	iificant Test Dat	а
The seating should be loaded with a of 100 kg in each position allocated person to sit in the rescue boat.			vithout	Observed damage		
In the case of a rescue boat launch falls, each type of seat should be k with a mass of 100 kg in any single location when dropped into the wate height of at least 3 m. (This test m performed in conjunction with the Drop	baded No damage should be sustain e seat efficient functioning. r from ay be			Passed	Failed	
in 5.7.7.1.)				Comments/Observat	ions	

Rigid/inflated fast rescue boats	Model: 8		Time:
5.7.3.2 Seating space test		Regulations: LSA Code 5.1.1.3.2,	MSC.81(70)1/7.1.3
Test Procedure	Accepta	ance Criteria	Significant Test Data
The rigid rescue boat should be fitted its engine and all its equipment. number of persons for which the re- boat is to be approved, having an av- mass of at least 82.5 kg, and all we lifejackets and immersion suits and other essential equipment required, s- then board; one person should lie dow a stretcher of similar dimensions to shown in the figure and the others s- be properly seated in the rescue boar rigid rescue boat should ther manoeuvred and all equipment on tested to demonstrate that it ca operated without difficulty or interfer with the occupants.	The occupants. escue erage earing d any should wn on those should t. The n be board in be in be	ons may be seated on the floor, conforms with the leg space	Equipment operated: YES NO Number of persons carried: Seated on seats Seated on floor Lying on a stretcher Total PassedFailed Lifejacket and immersion suit used during the test: Lifejacket– Inflatable/Inherently Buoyant Immersion suit– Uninsulated/Buoyant Insulated Comments/Observations

Rigid/inflated fast rescue boats Manufacturer: Model: Lot/Serial Number:			Date: Time: Surveyor: Organization:
5.7.4.1 Simultaneous release		Regulations: LSA C	ode 4.4.7.6, MSC.81(70)1/6.9.12
Test Procedure	Acceptance (Criteria	Significant Test Data
For rescue boats launched by fall or the rescue boat with its engine fitted s be suspended from the release mecha just clear of the ground or the water rescue boat should be loaded so that total mass equals 1.1 times the mass rescue boat, all its equipment and number of persons for which the re- boat is to be approved. The rescue should be released simultaneously each fall to which it is connected w binding or damage to any part of the re- boat or the release mechanism. (Single fall systems not intended on-load operation are exempt from test.)	should simultaneously release from connected without binding or the rescue boat or the release at the of the It should be confirmed that simultaneously release from connected when fully waterboa and in a 10% overload conditi from vithout escue	each fall which it is damage to any part of mechanism. the rescue boat will each fall to which it is rne in the light condition	FailedN/A (N/A – Single fall, off-load only)

demonstrated when the rescue boat is loaded with its full complement of persons and equipment and towed at speeds of 5 knots that the moveable hook component stays closed. these tests. these tests. towed at 5 kts:PassFail Furthermore, with the operating mechanism connected, it should be demonstrated that the rescue boat when loaded with its full complement of persons and equipment when towed at speeds of 5 knots can be released. Both of the above should be demonstrated as follows: The rescue boat is released satisfactorily by the release mechanism. Test 1: 25% SWL, lengthwise to the boat at 45° to the vertical: Force Applied: N. Force Applied: N. Forward direction: Pass Fail
5.7.4.2 Towing release test Regulations: LSA Code 4.4.7.6.5; MSC.81(70) 1/6.9.3 Test Procedure Acceptance Criteria Significant Test Data With the operating mechanism disconnected it should be demonstrated when the rescue boat is loaded with its full complement of persons and equipment and towed at speeds of 5 knots that the moveable hook component stays closed. There should be no damage as a result of these tests. Operating mechanism connected tests. Furthermore, with the operating mechanism connected, it should be demonstrated that the rescue boat when loaded with its full complement of persons and equipment when towed at speeds of 5 knots can be released. Both of the above should be demonstrated as follows: Single fall systems not intended for on-load operation are exempt from this test. Force Applied: N. Forward direction: Pass Fail
Test ProcedureAcceptance CriteriaSignificant Test DataWith the operating mechanism disconnected it should be demonstrated when the rescue boat is loaded with its full complement of persons and equipment and towed at speeds of 5 knots that the moveable hook component stays closed.There should be no damage as a result of these tests.Operating mechanism disconnected and boat towed at 5 kts:PassFailFurthermore, with the operating mechanism connected, it should be demonstrated that the rescue boat when loaded with its full complement of persons and equipment when towed at speeds of 5 knots can be released. Both of the above should be demonstrated as follows:Single fall systems not intended for on-load operation are exempt from this test.Test 1: 25% SWL, lengthwise to the boat at 45° to the vertical:Force Applied:N. Forward direction:PassFailFail Aft direction:PassFail
demonstrated when the rescue boat is loaded with its full complement of persons and equipment and towed at speeds of 5 knots that the moveable hook component stays closed. these tests. these tests. towed at 5 kts:PassFail Furthermore, with the operating mechanism connected, it should be demonstrated that the rescue boat when loaded with its full complement of persons and equipment when towed at speeds of 5 knots can be released. Both of the above should be demonstrated as follows: The rescue boat is released satisfactorily by the release mechanism. Test 1: 25% SWL, lengthwise to the boat at 45° to the vertical: Force Applied: N. Force Applied: N. Forward direction: Pass Fail
demonstrated when the rescue boat is loaded with its full complement of persons and equipment and towed at speeds of 5 knots that the moveable hook component stays closed. these tests. towed at 5 kts:PassFail Furthermore, with the operating mechanism connected, it should be demonstrated that the rescue boat when loaded with its full complement of persons and equipment when towed at speeds of 5 knots can be released. Both of the above should be demonstrated as follows: The rescue boat is released satisfactorily by the release mechanism. Test 1: 25% SWL, lengthwise to the boat at 45° to the vertical: Furthermore, with the operating mechanism connected, it should be demonstrated that the rescue boat when loaded with its full complement of persons and equipment when towed at speeds of 5 knots can be released. Both of the above should be demonstrated as follows: Single fall systems not intended for on-load operation are exempt from this test. Force Applied: N. Forward direction:Pass Fail Aft direction:Pass Fail
demonstrated when the rescue boat is loaded with its full complement of persons and equipment and towed at speeds of 5 knots that the moveable hook component stays closed. these tests. towed at 5 kts:PassFail Furthermore, with the operating mechanism connected, it should be demonstrated that the rescue boat when loaded with its full complement of persons and equipment when towed at speeds of 5 knots can be released. Both of the above should be demonstrated as follows: The rescue boat is released satisfactorily by the release mechanism. Test 1: 25% SWL, lengthwise to the boat at 45° to the vertical: Furthermore, with the operating mechanism connected, it should be demonstrated that the rescue boat when loaded with its full complement of persons and equipment when towed at speeds of 5 knots can be released. Both of the above should be demonstrated as follows: Single fall systems not intended for on-load operation are exempt from this test. Force Applied: N. Forward direction:Pass Fail Aft direction:Pass Fail
speeds of 5 knots that the moveable hook component stays closed.The rescue boat is released satisfactorily by the release mechanism.Operating mechanism connected tests.Furthermore, with the operating mechanism connected, it should be demonstrated that the rescue boat when loaded with its full complement of persons and equipment when towed at speeds of 5 knots can be released. Both of the above should be demonstrated as follows:The rescue boat is released satisfactorily by the release mechanism.Deerating mechanism connected tests.Furthermore, with the operating mechanism connected, it should be demonstrated that the rescue boat when loaded with its full complement of persons and equipment when towed at speeds of 5 knots can be released. Both of the above should be demonstrated as follows:Single fall systems not intended for on-load operation are exempt from this test.Deerating mechanism connected tests.Force Applied:N.Forward direction:PassPassFailAft direction:PassFail
closed. Furthermore, with the operating mechanism connected, it should be demonstrated that the rescue boat when loaded with its full complement of persons and equipment when towed at speeds of 5 knots can be released. Both of the above should be demonstrated as follows: the release mechanism. Single fall systems not intended for on-load operation are exempt from this test. Single fall systems not intended for on-load operation are exempt from this test. Force Applied: N. Forward direction:Pass Fail Aft direction:Pass Fail
Furthermore, with the operating mechanism connected, it should be demonstrated that the rescue boat when loaded with its full complement of persons and equipment when towed at speeds of 5 knots can be released. Both of the above should be demonstrated as follows:Single fall systems not intended for on-load operation are exempt from this test.Test 1: 25% SWL, lengthwise to the boat at 45° to the vertical:Force Applied:N.Forward direction:PassFailAft direction:PassFail
Furthermore, with the operating mechanism connected, it should be demonstrated that the rescue boat when loaded with its full complement of persons and equipment when towed at speeds of 5 knots can be released. Both of the above should be demonstrated as follows: Single fall systems not intended for on-load operation are exempt from this test. the vertical: Single fall systems not intended for on-load operation are exempt from this test. Force Applied: N. Forward direction: Pass Fail Aft direction: Pass Fail
with its full complement of persons and equipment when towed at speeds of 5 knots can be released. Both of the above should be demonstrated as follows: operation are exempt from this test. Force Applied: N. Forward direction: Pass Fail Aft direction: Pass Fail
towed at speeds of 5 knots can be released. Both of the above should be demonstrated as follows:
above should be demonstrated as follows: Aft direction: Pass Fail
.1 a force equal to 25% of the safe working load of the Test 2: 100% SWL, athwartships at 20° to the
hook should be applied to the hook in the lengthwise vertical:
direction of the boat at an angle of 45° to the vertical.
This test should be conducted in the aftward as well as the forward direction; Force Applied:N. Starboard:PassFail
Port: Pass Fail
.2 a force equal to the safe working load of the hook
should be applied to the hook in an athwartships Test 3: 100% SWL, 45° to the longitudinal axis of
direction at an angle of 20° to the vertical. This test the boat in plan view at an angle of 33° to the
should be conducted on both sides; and vertical.
.3 a force equal to the safe working load of the hook Force Applied: N.
should be applied to the hook in a direction halfway Position 1: Pass Fail
between the positions of tests 1 and 2 (i.e. 45° to the Position 2: Pass Fail
longitudinal axis of the boat in plan view) at an angle Position 3:Pass Fail
of 33° to the vertical. This test should be conducted in four positions.
four positions. Comments/Observations

Rigid/inflated fast rescue boats	Model: 8		Date: Surveyor: Organization:		
5.7.4.3 Load and release test		Regulations: LSA C	ode 4.	.4.7.6.4; MSC.81(70) 1/6.9.4.1	, 6.9.4.2
Test Procedure				Significant T	「est Data
A release mechanism should be cor tested as follows: The rescue boat release and retrieva the longest used connection associated with the system should and adjusted according to instruction original equipment manufacturer and to 100% of its safe working load and Load and release should be repeated The rescue boat release and retr should then be disassembled, the pa and wear recorded. The release system should then be reassembled.	I system and cable/linkage be mounted ons from the then loaded released. d 50 times. ieval system rts examined and retrieval	Acceptance Criteria During the 50 releases, the rescue boat re and retrieval system should be rele simultaneously from each fall to which connected without any binding or damage t part of the lifeboat release and retrieval sys The system should be considered as "fail any failure during the conditioning or uninte release occurs when load is applied bu system has not yet been operated.	elease eased it is o any tem. led" if ended	Working Load: N Force Applied: N Check the box for each releating 1: 2: 3: 4: 1 7: 8: 9: 10: 1 1 13: 14: 15: 16: 1 13: 14: 15: 16: 1 1 19: 20: 21: 22: 2 2 2 2 2 2 2 2 2 2 2 3 3 34: 3 3 34: 3 3 3 3 34: 3 3 34: 3 3 3 40: 4 4 45: 46: 4 4 45: 46: 4 4 45: 46: 4 4 45: 46: 4 4 45: 46: 4 4 45: 46: 4 4 45: 46: 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	NN ase: 5:6: 11:12: 17:18: 23:24: 29:30: 35:36: 41:42:

Rigid/inflated fast rescue boats	Model:	r: mber:		Surve	Time: eyor: nization:
5.7.4.4 Cyclic loading test			Regulations: LSA	Code 4	4.4.7.6.4; MSC.81(70) 1/6.9.4.3
Test Procedure		Acceptance			Significant Test Data
The hook assembly, while disconner from the operating mechanism, shou tested 10 times with cyclic loading zero load to 1.1 times the safe wo load, at a nominal 10 seconds per of unless the release mechanism has specifically designed to operate a off-load hook with on-load capability the weight of the boat to close the hoot this case the cyclic load should be fro more than 1% to 1.1 times the SWL. For cam-type designs, the test shou carried out at an initial cam rotation (fully reset position), and repeated at 4 either direction, or 45° in one direct restricted by design.	Id be from brking The sy cycle; during been occurs s an using ok, in m no Id be of 0° 45° in	pecimen should remain o ystem should be conside y this test or any uninte	closed during the tes red as "failed" if any f	failure	Working Load: N Force Applied: N Check the box for each release and/or strike out the cam rotation if no applicable: Cam rotation 0° : 1: 2: 3: 4: 5: 6: 7: 8: 9: 10: Cam rotation +45°: 5: 1: 2: 3: 4: 5: 6: 7: 8: 9: 10: Cam rotation -45°: 1: 2: 1: 2: 1: 2: 1: 2: 1: 2: 1: 2: 1: 2: 1: 10: Passed: Failed: Comments/Observations

Rigid/inflated fast rescue boats	Manufacturer: Model: Lot/Serial Number:		Date: Time: Surveyor: Organization:	
5.7.4.5 Actuation force test		Regulations: LSA	Code 4	4.4.7.6.4; MSC.81(70) 1/6.9.4.4
Test Procedure		Acceptance Criteria		Significant Test Data
The cable and operating mechanism reconnected to the hook assembly; boat release and retrieval system	and the rescue	The actuation force should be no les 100 N and no more than 300 N, if a c used it should be the maximum	able is	
demonstrated to operate satisfactori working load.	ly under its safe	specified by the manufacturer, and sec the same manner it would be secured rescue boat.		Passed: Failed:
The demonstration should verify tha indicators and handles are still func correctly positioned in accordance w and safety instruction from the original manufacturer.	tioning and are ith the operation	The release mechanism is deemed to passed the testing in 5.7.4.3, 5.7.4	.4 and iducted d be ing this	Comments/Observations

Rigid/inflated fast rescue boats	Anufacturer: Model: Lot/Serial Number:		-	Date: Time: Surveyor: Organization:	
5.7.4.6 Second release mechan	ism tests- actuation	force and tensile strength	Reg	gulations:	LSA Code 4.4.7.6.4, MSC.81(70)1/6.9.5.1, 6.9.5.2
Test Procedure		Acceptance Crite			Significant Test Data
A second release mechanism should .1 the actuation force of the release be measured loaded with 100% load. If a cable is used, it should length specified by the manufacture the same manner it would be see The demonstration should verify indicators and handles are still correctly positioned in accordance and safety instruction from the manufacturer; and	e mechanism should of its safe working be of the maximum urer, and secured in ecured in a lifeboat. that any interlocks, functioning and are e with the operation	1. The actuation force should 100 N and no more than 300 N The release mechanism does	J.		Actuation Force: N Tensile strength @ 6xSWL. Force applied: N. Passed: Failed: Comments/Observations
.2 the release mechanism should tensile strength testing device. T increased to at least six times the release mechanism.	The load should be				

Rigid/inflated fast rescue boats	igid/inflated fast rescue boats Manufacturer: Image: Constraint of the second se		Date: Surveyor: Organization:	
5.7.5.1 Liferaft towing			Regulations: LSA	Code 4.4.6.8, 5.1.1.7, 5.1.1.9, MSC.81(70)1/7.1.2
Test Procedure			ance Criteria	Significant Test Data
The rescue boat should be loaded w to the mass of its equipment and the r for which the rescue boat is to b maximum towing force of the rescue be determined.	number of persons e approved. The boat should then	rescue boat shou type approval cer There should be	towing force of the ld be recorded on the tificate. no damage to the or its supporting	
This information should be used largest size of fully loaded liferaft the tow at a speed of at least 2 knots.				Bollard pull: N (Record on type approval certificate)
The fitting designated for towing oth secured to a stationary object by a to a means to measure bollard pull. The operated ahead at full speed for a p minutes and the maximum force reco (For rescue boats equipped with bollard pull trials may be carried ou various powers to assess the performance.)	ow rope fitted with e engine should be eriod of at least 2 orded. outboard motors, ut with engines of			Observed damage: Propeller: Pitch: Diameter: Passed Failed Comments/Observations

Rigid/inflated fast rescue boats	Manufacturer: Model: Lot/Serial Number:	Su	Date: Time: Surveyor: Organization:		
5.7.5.2 Endurance, speed and	fuel consumption	Regulati	ons: LSA Code 5.1.1.6,MSC.81(70)1/7.1.5, 1/7.1.6		
Test Procedure	Acceptance Criteria		Significant Test Data		
(Note: Run this test after the impact drop tests in 5.7.7.1.)	and The boat should operate satisfactorily throu 4-hour operation.	ighout the	Smallest Engine Largest Engine Make/model:		
The rescue boat should be loaded weights equal to the mass of its equipm and the number of persons for which rescue boat is to be approved. The engine should be started and the l manoeuvred for a period of at leas hours to demonstrate satisfact operation. The rescue boat should be run at a sp of not less than 8 knots with a complement of persons and equipm and 20 knots with a crew of 3 persons a period which is sufficient to ascertain fuel consumption and to establish that fuel tank has the required capacity. (determination may be made during th hour period of operation.) For rescue boats equipped with outbor motor, speed and manoeuvring to should be carried out with engines various powers to assess the rest	hent the boat st 4 ctory heed full nent s for h the t the This e 4- bard operate at a speed of 8 knots for a period of with its full complement of persons and equ the the This e 4- bard s of s of	f 4 hours ipment. pacity to	Fuel Tank Capacity: L Propeller:		
boat's performance.					

Rigid/inflated fast rescue boats	Manufacturer: Model: Lot/Serial Number:	[[[ate: urveyor: rganization:	Time:		
5.7.5.3 Engine out of water		Regulations: LSA Code 4.4.6.3, MSC.81(70)1/6.10.5				
Test Procedure	Acceptanc	e Criteria	S	Significant Test Data		
The engine should be operated for at least 5 minutes at idling speed under conditions simulating normal storage. Note: If a water flushing device is intended to be used for this purpose, it should be fitted during the test.		aged as a result of this	est. Passed Comments/Obser			
5.7.5.4 Compass test		Regulations: LSA (ode 5.1.2.2.3, MSC.81(70) ²	1/6.10.7		
Test Procedure	Acceptanc	Acceptance Criteria		Significant Test Data		
It should be determined that the com performance is satisfactory and that not unduly affected by magnetic fit and equipment in the rescue boat.	at it is					

Rigid/inflated fast rescue boats	Manufacturer: Model: Lot/Serial Number:			Surveyor	Time: : tion:
5.7.5.5 Manoeuvrability with	paddle	es or oars	Regulatior	ns: LSA Co	ode 5.1.2.2.1, MSC.81(70)1/7.1.8
Test Procedure		Acceptance Criteria		Significant Test Data	
It should be demonstrated that the re- boat can be propelled and manoeuvre- its oars or paddles in calm w conditions at a speed of at least 0.5 k over a distance of at least 25 m. w laden with the number of persons wearing lifejackets and immersion s for which it is to be approved.	ed by vater knots when s, all	The rescue boat should be capable of paddled and manoeuvred.	f being satisf	actorily	Distance travelled:m Time Required:s Calculated speed:m/s =knots Lifejacket and immersion suit used during the test: Lifejacket – Inflatable/Inherently Buoyant Immersion suit – Uninsulated/Buoyant Insulated Passed Failed Comments/Observations

Divid/inflated fact recouse basts	Manufacturer: Model:			Date: Surveyor	Time:	
Rigid/inflated fast rescue boats	Lot/Serial Number:			Organiza	ation:	
5.7.5.6 Heavy weather/seas tes	t	Regulations: LSA Code 5.1			.3. MSC.81(70)1/7.2.10	
Test Procedure	A	Acceptance Criteria			Significant Test Data	
To simulate use in heavy weather						
inflated rescue boat should be fitted a larger powered engine than is inter to be fitted and driven hard in a wir	nded	have lost	more than minimal p	ressure.	Pressure relief valves open/closed?	
force 4 or 5 or equivalent rough wate at least 30 minutes.					Wave height m	
					Wind Speed m/s	
For boats with inboard engines the p					Tube pressure offer test	
does not need to be greater than intended to be used.	เกลเ				Tube pressure after test:mbar	
					Passed Failed	
					Comments/Observations	
5.7.6.1 Towing test			Regulations: LSA	A Code 4.4	4.1.3.2, 4.4.7.7, MSC.81(70)1/6.11.1	
Test Procedure	A	Acceptance Criteria			Significant Test Data	
It should be demonstrated that the equipped rescue boat, loaded wi properly distributed mass equal to	h a characteristics.	ould not	exhibit unsafe or u	unstable	Passed Failed	
mass of the number of persons for w it is to be approved, can be towed	hich There should be no at a equipment as a result	There should be no damage to the rescue equipment as a result of this test.		at or its	Comments/Observations	
speed of not less than 5 knots in water and on an even keel using						
rescue boat's painter securing device						

Model:		Date: Time: Surveyor: Organization:			
	Regulations: LS	A Code 4.4	.7.7, MSC.81(70)	1/6.11.23	
Acceptan			Significant Test Data		
inter The painter should release an	d there should be no		Passed	Failed PassedFailed PassedFailed PassedFailed PassedFailed PassedFailed	
a D f f	Model: Lot/Serial Number: Acceptan nter The painter should release an to the rescue boat or its equip ded eed d be the the the the the the the the	Lot/Serial Number: Regulations: LSA Acceptance Criteria nter The painter should release and there should be no to the rescue boat or its equipment as a result of th ded eed d be the the the the the the the th	Model:	Model:	

Rigid/inflated fast rescue boa	Model:	ber:	Date: Time: Surveyor: Organization:	
5.7.7.1 Impact, drop and op	peration after impact	and drop test	Regulati	ions: LSA Code 4.4.1.7, MSC.81(70)1/6.4.1, 7.2.2
Test Proced		Acceptance Criteri		Significant Test Data
.1 For boats launched by equipped rescue boat, should be loaded with mass of the number of p rescue boat is to be appr loading should be a wei in one of each type of lifeboat. The weights sho represent the normal lo boat. (These weights n	including its engine, weights equal to the bersons for which the oved. Included in this ght of 100 kg loaded seat installed in the ould be distributed to bading in the rescue	 The impact and drop tests considered successful if: .1 no damage has been sus would affect the efficient of the rescue boat equipment; .2 the damage caused by and drop tests has not 	stained that functioning and its the impact	Observed Damage: Increased Damage: YES NO Satisfactory Operation: YES NO
300 mm above the s fenders, if required, shou rescue boat, in a free har be pulled laterally to a p released it will strike a surface at a velocity o	eatpan.) Skates or ild be in position. The nging position, should position so that when a fixed rigid vertical f 3.5 m/s. The boat	significantly as a res operational test in 5.7.5.2 .3 machinery and other equ operated to full satisfaction	ult of the ; ipment has on; and	Ingress of Water: YES NO
should be released to impact against the rigid vertical surface. .2 The rescue boat complete with all its		occurred.		Weight of heaviest engine tested:
				Final Evaluation:
equipment and with a m engine and fuel in the p and fuel tank should be from a height of at lea The drops should be bow-down, level trim stern-down attitudes.	bosition of its engine dropped three times st 3 m on to water. from the 45-degree n, and 45-degree			Passed Failed Comments/Observations
.3 On completion of these tand its equipment s examined.				

Rigid/inflated fast rescue boats	Manufacturer: Model: Lot/Serial Number:			Surveyor	Time: :: tion:	
5.7.7.2 Overload test			Regulations: MS	C.81(70)1/	7.1.4	
Test Procedure		Accepta	nce Criteria		Significant Test Data	
		The rescue boat and its b should not show any sign:		nanism	Load in boat:kg Comments/Observations	
Testing by filling the boat with water should not be accepted. This method of loading does not give the proper distribution of weight. Machinery may be removed in order to avoid damage, in which case weights should be added to the boat to compensate for the removal of such machinery. The rescue boat and its bridle or hooks (release mechanism) and fastening device should be examined after the test for any signs of damage.					Passed Failed	

Rigid/inflated fast rescue boats	Manufacturer: Model: Lot/Serial Number:			Date: Surveyor Organiza	Time: : tion:
5.7.7.3 Mooring out test (Doe side of inflated tube)		y if waterline is below lower Regulations: LSA Code		e 5.1.3.3, MSC.81(70)1/7.2.15, 5.5, 5.17.78	
Test Procedure		Acceptance Criteria			Significant Test Data
The rescue boat should be loaded wi equal to the mass of the total n persons for which it is to be approve equipment and moored in a location in a seawater harbour. The rescue boat remain afloat in that location for 30 of pressure may be topped up once a the manual pump; however, during an period the rescue boat should retain Each inflatable compartment in the re- should be tested to a pressure equa- times the working pressure. Each relief valve should be made in- compressed air should be used to i inflatable rescue boat and the inflation removed. The test should continue for 30 minutes. The measurement of pressure dro leakage can be started when it fl assumed that compartment material completed stretching due to the pressure and achieved equilibrium.	umber of ed and its at sea or pat should days. The day using by 24-hour its shape. escue boat at to three pressure operative, inflate the on source or at least	The rescue boat should not so would impair its performance. The pressure should not decr as determined without compe and atmospheric pressure cha be no seam slippage, crackin rescue boat.	ustain any dama rease by more t nsating for temp anges, and there	han 5% perature e should	Compartment 1 Initial Pressure:mbar Final Pressure:mbar Calculated Decrease:Percent Compartment 2 Initial Pressure:mbar Final Pressure:mbar Calculated Decrease:Percent Compartment 3 Initial Pressure:mbar Calculated Decrease:Percent Compartment 4 Initial Pressure:mbar Calculated Decrease:Percent Compartment 5 Initial Pressure:mbar Calculated Decrease:Percent Percent 5 Initial Pressure:mbar Calculated Decrease:Percent Passed Failed
					Comments/Observations

	Manufacturer: Model: Lot/Serial Number:	Surveyor:
5.7.8.1 Inflation chamber char	acteristics tests	Regulations: LSA Code 1.2.2, MSC.81(70)1/7.2.14
Test Procedure	Acceptance Criter	ia Significant Test Data
The inflatable compartment materiused to construct the rescue boat shobe tested for the following characteristic.1tensile strength.2tear strength.3heat resistance.4cold resistance.5heat ageing.6weathering.7flex cracking.8abrasion.9coating adhesion.10oil resistance.11elongation at break.12piercing strength.13ozone resistance.14gas permeability.15seam strength.16ultraviolet light resistance	uld with ISO 15372:2000.	ould comply .1 tensile strengthN .2 tear strengthN .3 heat resistance – Blocking .4 cold resistance – Cracking .5 heat ageing% retained strength N/50 mm width .6 weathering% retained strength N/50 mm width .7 flex cracking – Cracking or deterioration .8 abrasionmg/rev.; Base fabric not visible .9 coating adhesionN/50 mm width .10 oil resistance – Tackiness or other deterioration .11 elongation at break% .12 piercing strength .13 ozone resistance - Visible cracking .14 gas permeability