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> MSC.1/Circ.1631/Rev.1 22 January 2025

## 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*.

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

3 The forms annexed to this circular apply to the equipment addressed in chapter 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).

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

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

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

7 This circular applies to rescue boats installed on or after 15 August 2025.

8 This circular supersedes MSC.1/Circ.1631 as of 15 August 2025.

# 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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- 5.6 Inflated fast rescue boats
- 5.7 Rigid/inflated fast rescue boats

## 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/Seria	cturer:al Number:	Date: Surveyor: Organization:	Time:
5.1.1 Submitted	drawings, repo	orts and o	documents	·	
		5	Submitted drawings and documents	8	Status
Drawing No.	Revision No.	. & Date	Т	itle of drawing	Status
			Submitted reports and documents		Status
Report/Document No.	Revision No.	. & Date	Title o	f repot / document	Status
			Maintenance Manual -		
			Operations Manual -		

Outboard engines for rescue boats	Manufacturer: Model: Lot/Serial Number:		Date: Surveyor: Organization:	Time:	
5.1.2 Quality assurance		Regulations: MSC.8	31(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 inspections of manufacturers to ensur-	Quality assurance Standard Used:				
appliances and materials used comp approved prototype life-saving appliance	ly with the specification of the e.	Quality assurance Pi	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/Observat	tions		

Outboard engines for rescue boats	Manufacturer: Model: Lot/Serial Number:	Aanufacturer:		Date:            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.	The engine should be provided system, or a power starting sy rechargeable energy sources.	d with either a manual stem with two indepen	starting Ident	PassedFailed	
equipment as required.	Any necessary starting aids st	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 the propeller is completely submerged in	er, The rigid means of rescue sho damage from such a loading	The rigid means of rescue should not show any permanent damage from such a loading		Protection of propeller in place Passed Failed	
water tank, simulating service conditions.	The motor should not overhea	The motor should not overheat or be damaged.		Duration :min	
Propeller protection should be in plac during the test	ce			Any significant damage?	
				Passed Failed	
The motor should be run at the maximu continuous rated speed using the maximum power obtainable for 20 min.	m ne			Overheating?	
				Passed Failed	
				Comments/Observations	

Outboard engines for rescue boats	d engines for rescue boats       Manufacturer:       Date:         Model:       Survey         Lot/Serial Number:       Organiz		Date: Surveyo Organiza	Time: or: ation:
5.1.5 Water drench test		Regulations: LSA C	ode 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 thorough drenched with water, by hose, except the intake to the carburetor.	be The motor should not falter or hly for	be damaged by this te	est.	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.	at ng			Comments/Observations
5.1.6 Hot start test		Regulations: LSA C	ode 5.1.1	.8; MSC.81(70) 1 /7.7.5
Test Procedure	Acceptan	ce Criteria		Significant Test Data
<ul><li>While still in the test rig referred to in 5.1 (Power Test) 7.7.2, the motor should be r at idling speed in order to heat up the cylinder block.</li><li>At the maximum temperature achievab the motor should be stopped a immediately restarted.</li><li>This test should be carried out at least two stopped at least two</li></ul>	.4 The motor should not fail to reun end for the motor should not fail to react the should not fail to	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:		Date: Surveyc Organiz	Dr: Time: cr: ation:
5.1.7 Manual start test		Regulations: LSA Co	ode 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 p cord round the top flywheel of the motor.	The motor should not fail to st all ard anin art hall h it lly a ull	art within 2 minutes on a	any try.	Ambient temperature test carried out :times         Does the motor start twice within 2 min?         Passed

Outboard engines for rescue boats	Manufacturer: Model: Lot/Serial Number:		Date: _ Survey Organiz	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 lin and battery, should be placed in a chamb at a temperature of -15°C and allowed remain until the temperature of all parts h 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 operation speed. It is recommended that this period shou not exceed 15 s. Where lower temperature service intended, that lower temperature should is substituted for -15°C in the above-mentioned test.	The engine starting systems 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 spin is be	and starting aids shou berature of -15°C withi edure unless, in the op ard to the particular voy e rescue boat is con ure is appropriate.	uld start in 2 min vinion 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:       Ouration of first run:         Duration of second run:       seconds         Duration of last run:       seconds         Type of battery:       Required capacity of starting battery:         Passed

Outboard engines for rescue boats	Manufacturer: Model: Lot/Serial Number:	anufacturer: Date odel: Surv ot/Serial Number: Orga		Dr: Time: ation:
5.1.9 Engine-out-of-water test	.1.9 Engine-out-of-water test Regulations: LSA (			5.2; MSC.81(70) 1 /7.7.10
Test Procedure	Acceptan	ce Criteria		Significant Test Data
The engine should be operated for at lea 5 min at idling speed under condition simulating normal storage.	<ul> <li>The engine should be capable</li> <li>5 min after starting from cold v</li> <li>water.</li> <li>The engine should not be dam</li> </ul>	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. The engine should not be damaged as a result of this test.		Cooling water supplied during test? Yes/ No If so, by what method? Durationmin Any damage after this test?
				Passed Failed

		Manufac	turer:		_ Date: _	Time:
Outb	oard engines for rescue boats	Model: Lot/Seria	al Number: Organiz		_ Survey _ Organia	or: zation:
5.1.1	0 Extra test for outboard en	ngine for fa	ast rescue boats	Regulations: LS	SA Code 5.1.	.4.8; MSC.81(70) 1/7.7.11
	Test Procedure		Acce	eptance Criteria		Significant Test Data
Engin	e inversion test:					Means of stopping the engine in case of capsizing:
I he on a axis	engine and its fuel tank should be frame that is arranged to rotate a equivalent to the longitudinal axis of	mounted about an f the boat				Capable of restarting after re-righting:
at the	e height of the boat transom.					Amount of loss: ml
The heigh	propeller should be in a water bas nt of the cavitation plate.	sin to the				Passed Failed
						Comments/Observations
The follow for ex	engine should then be subjecter ving test procedures, and then dis xamination:	d to the smantled				Are all the tests carried out according to the procedure as prescribed? Passed/ Failed
.1	start the engine and run it at full s 5 min;	speed for				Does the engine stop when turned in either direction? Passed/Failed
.2	stop the engine and rotate it in a c direction through 360°;	lockwise				If it stops, does it easily restart? Passed/Failed
.3	restart the engine and run it at fu for 10 min;	ull speed				
.4	stop the engine and rotate counter- clockwise direction throu	it in a Igh 360°;				Does the engine fulfil the requirements after the tests have been carried out according to the procedure?
.5	restart the engine, run it at full s 10 min, and then stop the engine	peed for ;				Passed/Failed
.6	allow the engine to cool;					
.7	restart the engine and run it at fu for 5 min;	ull speed				

Outboard engines for rescue boats	Manufacturer:		Time: yor: ization:
5.1.10 Extra test for outboard engin (continued)	e for fast rescue boats	Regulations: LSA Code 5.	I.4.8; MSC.81(70) 1/7.7.11
Test Procedure Engine inversion test (continued):	Acceptant With regard to step .9, the	ce Criteria e engine should be stopped	Significant Test Data Amount of oil lost from engine during each inversion:
<ul> <li>.8 slowly rotate the running engine i a clockwise direction through 180° hold at the 180° position for 10 s and then rotate it 180° further in clockwise direction to complete on revolution;</li> <li>.9 if the engine is arranged to sto automatically when inverted, restai it;</li> <li>.10 allow the engine to continue to ru at full speed for 10 min;</li> <li>.11 shut the engine down and allow it t cool;</li> <li>.12 repeat the procedure in .7 throug .11 above, except that the engin should be turned in counter-clockwise direction;</li> <li>.13 restart the engine and run it at ful speed for 5 min;</li> </ul>	automatically or by the heli switch when inverted. When the rescue boat has reshould be capable of bein helmsman's emergency release The design of the fuel and lubrit the loss of more than 250 ml of propulsion system should the When examined after being the show no evidence of overheaters	righted each engine or motor ing restarted, provided the se, if fitted, has been reset. icating systems should preven f fuel or lubricating oil from the rescue boat capsize. at or fail to operate. dismantled the engine should ing or excessive wear.	<ul> <li>Provide the state of t</li></ul>

# 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
  - 5.2.1.7 Retro-reflective materials
- 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	Manufacturer: Model: Lot/Serial Numbe	er:		Date: Surveyor: Organization: _	Time:
5.2.0.1 General da	ta and specification	ons	Regulations:	LSA Code 4.4,	5.1, MSC.81(70) 1/7.1.9
General Info	ormation	Rescue be	oat Dimensions	6	Rescue boat Weight
Construction Material: Hull:		Dimensions:			Design Weight:
Canopy:		LOA:			Unloaded Boat:
Fire-retardancy docun	nentation:	Breadth Maximum:		_	Loose Equipment: Fuel: Persons:
Rescue Boat Inherent Bu (Type App.) Material: Weight: Occupancy: Persons (82.5 kg each	loyancy	Depth to Sill: Depth to Gunwale: Moulded Breadth:		_	Calculated Loaded Weight: Fully Equipped: With Persons:
Engine(s) Installed: Type App by: Manufacturer: Type: Power: Gear ratio (inboard eng	1 2  gine):	Moulded Depth: Provision for securing (if applicable):	hanging-off	pendant	Weight as Tested: Fully Equipped: Comments/Observations
Additional rigid or inflatat Release mechanism(s) (i Manufacturer: Type: SWL:	ble buoyancy: if applicable) 1 2				

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

Rigid rescue boats       Manufacturer:         Model:       Lot/Serial Number:	Date:         Time:           Surveyor:            Organization:				
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 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         Standard used:         Quality assurance procedure:         Quality assurance manual:         Description of system:				
	Quality assurance system acceptable Yes/No Comments/Observations				

Rigid rescue boats	Manufacturer:			Date:          Time:            Surveyor:          Organization:		
5.2.1.1 Occupant sp	oace		Regulations	: LSA Code 4.4	.2.2, 4.4.3.5, 5.1, MS	C.81(70) 1/7.1.9
Test Procedure		Acceptance Cr	iteria		Sigi	nificant Test Data
Visually inspect the rescu Conduct measurements verify clearances as require	ue boat. s and red.	General Unless the rescue boat has adequate s with a bow cover extending for not less Length is at least 3.8 m and not over 8. Seating Space Width – at least 430 mm Depth – at least 100 mm each side of a Knee Space (Seating on seats) at leas Knee Width – at least 250 mm Leg Space (Seating on floor) – at lea Overlapping Seat Vertical Separation – Seat Horizontal Overlap – 150 mm ma Each seating position should be clearly Stretcher(s) space: Rescue boats should be capable of car persons and a person lying on a stretch mm. Walkway Surfaces The surfaces on which persons might w finish.	theer, it should than 15% of it 5 m. 5 m. 5 m. 5 m. 5 m. 5 m. 635 mm from t 635 mm from st 1190 mm fr at least 350 m vindicated. 7 ying at least f her of minimun valk should har	l be provided ts length. n from the back n the back rom the back nm ive seated n 2130 x 610 ve a non-skid	Passed Passed Width: Depth: Knee Space: Knee Width: Leg Space: Vert. Separation: Overlap: Position Indication: Stretcher space: Location: Passed Non-Skid Surface: F Comments/Observa	Failed Failed Failed mm mm mm mm PASSED FAILED xmm Failed PassedFailed ations

Rigid rescue boats	Manufacturer: Model: Lot/Serial Numbe	Date: 			Tìi		
5.2.1.2 Fittings, pro	ovisions and ladd	ers	Regulations	: LSA Code 4.4.	3, 4.4.7, 5.1, MSC.8	31(70) 1/7.1.9	
Test Procee	dure	Acceptanc	e Criteria		S	Significant Test Data	
Visually inspect the rescue boat. Conduct measurements and verify clearances as required.		Fittings and Provisions Suitable handholds or buoyan outside rescue boat above the a person in the water, except in propeller	t lifeline becke waterline and h the vicinity of	eted around the within reach of the rudder and	Passed	Failed	
		On other than self-righting rescue boats, handhold underside arranged to break away without dama rescue boat			Passed	Failed	
		Weathertight stowage for small	Il 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 whe than 0.4 m below the light wate	any entrance en in place sho erline.	e should be on buld not be less	Passed	Failed	

Rigid rescue boats	Manufacturer: Model: Lot/Serial Numbe	r:		Time:			
5.2.1.2 Fittings, pr	ovisions and ladd	ers	Regulations	: LSA Code 4.4.	3, 4.4.7, 5.1, MSC.81(70) 1/7.1.9		
Test Proce	dure	Acceptano	ce Criteria		Significant Test Data		
Visual Inspection-Fittings ladders (continued)	a, provisions and	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 ble colour whe	o the hull of the hst damage and stowed on an afloat in all sea ere it will assist	Lowest stepm below waterline YES NO N/A Passed Failed Highly visible colour: PassedFailed Comments/Observations		

Rigid rescue boats	Manufacturer: Model: Lot/Serial Numbe	Date: Surveyor: Crganization:			Date:       Time:          Surveyor:       Organization:		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 Procee	dure	Acceptan	ce Criteria		Significant Test Data		
Visually inspect the resc measurements and veri required.	ue boat. Conduct fy clearances as	<ul> <li>Type of starting system</li> <li>Two independent rechargeal power starting systems</li> <li>Required starting aids provide</li> <li>Starting system is not impedent other obstructions</li> <li>Propeller arranged to be disprovision for ahead and astee</li> <li>Exhaust arranged to preven normal operation</li> <li>System designed with due react the water and to the possibil system from floating debris</li> <li>Engine casing made of fisuitable arrangements provide</li> <li>Personnel are protected from</li> <li>Shouted order can be heard necessary for 6 knot operation</li> <li>Watertight casing around batteries with a tightly fittin venting</li> <li>Means for recharging engine batteries not used to preven the system for the area for the system for the protected from the protecte</li></ul>	ble energy sou led ed by engine ca sengaged from rn propulsion t water from en egard to the saf ity of damage re-retardant m ding similar pro- n hot and movi d with engine r bottom and son bottom and son bottom and son bottom and son bottom and son bottom and son	rces provided for asing, thwarts, or a the engine and ntering engine in fety of persons in to the propulsion naterial or other otection ng parts running at speed sides of starter provides for gas b, and searchlight s power supply for engine starting	Manual Power         YES       NO       N/A         Passed       Failed         Passed       Failed		

Rigid rescue boats	Manufacturer: Model: Lot/Serial Numbe	r:		Date: Surveyor: Organization:		_ 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	dure	Acceptar	ce Criteria			Significant Test Data
Test Proce Visual Inspection-Engin system (continued)	dure ne and starting	Acceptar - Recharging for engine batter supply does not exceed 50 v - Recharging means for engin at the rescue boat embarkat - Instructions for starting and resistant and mounted in engine starting controls - Towing arrangements for magine	ice Criteria ies provided by e batteries can ion station operating the o a conspicuous arshalling lifera	the ship's power be disconnected engine are water place near the fts	Passed Passed Passed	Significant Test Data Failed Failed Failed

Rigid rescue boats	Manufacturer: Model: Lot/Serial Numbe	Date: Surveyor: er: Organization: _			Tir	me:
5.2.1.4 Steering mech	nanism and fuel ta	ink	Regulations	: LSA Code 4.4.	7.2, 5.1.1.8, MSC.8 <sup>-</sup>	1(70)1/7.1.9
Test Proce	dure	Acceptanc	e Criteria		Si	ignificant Test Data
Visually inspect the rescue boat. Conduct measurements and verify clearances as required.		Steering A tiller should be capable of and tiller may form part of outb	controlling the board motor).	rudder (rudder	Passed	_ Failed
		Rudder is permanently attache	ed to the rescue	e boat.	Passed	_ FailedN/A
		Except when remote steering is provided, the tiller is permanently attached or linked to the rudder stock.			Passed	N/A
		Rudder and tiller are arranged so as not to be damaged by 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 Number:				Date: Surveyor: Organization: _	Τ	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 Procee	dure	Acceptano	ce Criteria			Significant Test Da	ata
Visually inspect the rescue boat. Conduct measurements and verify clearances as required.		t       Clear operating instructions       F         c       Release control marked in a colour that contrasts with the surroundings       F		Passed	Failed		
		For on-load release mechanis	ms:				
		Suitably worded danger sign f	or on load relea	ase	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 pa on-load release capability is not required; in suc arrangement a single capability to release the boat only it is fully waterborne will be adequate.		uitable painter,	Comments/Obse	rvations	
				boat only when	Passed	Failed	N/A
NO boa		NOTE: Such single fall hook s	vstems mav be	attached to the	release mechanis	sm type (if installe	ed in boat):
		boat or to the davit fall wire.		Approval:			

Rigid rescue boats	Manufacturer: Model: Lot/Serial Numbe	Date:            Surveyor:            Organization: _			Time:
5.2.1.6 Drain valve			Regulations	: LSA Code 4.4.7	7.1, 5.1, MSC.81(70)1/7.1.9
Test Proce	dure	Acceptanc	e Criteria		Significant Test Data
Visually inspect the rescue boat. Conduct measurements and verify clearances as required (not applicable for self-bailing boats)		Fitted near the lowest point on Automatically opens when the closes to prevent water entry	the hull. e boat is not v vhen the boat i	vaterborne and is waterborne.	Passed Failed Passed Failed
		Cap or plug attached to the equivalent.	boat by a lar	nyard, chain or	Passed Failed
				at.	Passed Failed
		Position clearly marked.			Passed Failed
					Comments/Observations

5.2.1.7 Retro-reflective materials	Regulations: LSA Code I/1.2, 1.2.2.7	
Test Procedure	Acceptance Criteria	Significant Test Data
Retro-reflective tape	Be fitted with approved patches of retro-reflective material as per resolution MSC.481(102) as detailed below: Retro-reflective materials should be fitted on top of the gunwale as well as on the outside of the boat as near the gunwale as possible.	Type of retro-reflective tape Passed Failed Passed Failed
	The materials should be sufficiently wide and long to give a minimum area of 150 cm <sup>2</sup> and should be spaced at suitable intervals (approximately 80 cm from centre to centre). If a canopy is fitted, it should not be allowed to obscure the materials fitted on the outside of the boat, and the top of the canopy should be fitted with retro-reflective materials should be sufficiently wide and long to give a minimum area of 150 cm <sup>2</sup> and should be spaced at suitable intervals (approximately 80 cm from centre to centre). In the case of the rigid rescue boat is also a partially enclosed or totally enclosed lifeboats, such materials should be placed, as follows:	Tape sizes (LXB)         Total tape area         Centre-to-centre spacing:         Passed Failed         Tape sizes (LXB)         Total tape area         Centre-to-centre spacing:         Centre-to-centre spacing:         Obscured: - Yes/No?         Passed         Failed
	<ul> <li>.1 for detection by horizontal light beams - at suitable intervals at half the height between the gunwale and the top of the fixed cover;</li> <li>.2 for detection by vertical light beams (e.g. from helicopters) - at suitable intervals around the outer portion of the horizontal (or comparable) part of the top of the fixed cover; and</li> </ul>	Passed Failed Passed Failed
	.3 on the bottom of rigid rescue boats which are not self-righting.	Passed Failed Comments/Observations

Rigid rescue boats	Scue boats Manufacturer: Model: Lot/Serial Number:			Date:          Time:            Surveyor:              Organization:		
5.2.2.1 Flooded st	ability test		Regulations	: LSA Code 4.4.	1.1, MSC.81(70)1/6.8.1	3
Test Proce	dure	Acceptanc	e Criteria		Signi	ficant Test Data
The rescue boat should equipment. If provision lo and fuel tanks cannot If should be flooded or waterline resulting from boats fitted with wat compartments to accome drinking water contained these containers aboard stowage compartments sealed watertight during Ballast of equivalent we should be substituted for any other installed equip damaged by water. Weights representing per mass) who would be in the rescue boat is flooded than 500 mm above the omitted.	be loaded with its ckers, water tanks be removed, they filled to the final this test. Rescue tertight 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 82.5 kg he water when the (water level more seat pan) may be	When loaded as specified, t positive stability when filled wi which would occur when the re location below the waterline a material and no other damage	he rescue boa th water to rep escue boat is h ssuming no los	at should have present flooding oled in any one ss of buoyancy	Comments/Observation	ons Failed

Rigid rescue boats	Manufacturer: Model: Lot/Serial Number:			Date: Surveyor: Organization:	Time:
5.2.2.1 Flooded sta	ability test		Regulations	: LSA Code 4.4.1	1.1, MSC.81(70)1/6.8.13
5.2.2.1 Flooded sta Test Process Flooding Stability test (co Weights representing per- not be in the water when flooded (water level less above seat pan) should normal seating positions with their centre of grav 300 mm above the ser representing persons wh submerged in the water will flooded (water level between above the seat pan) should have an approximate der (for example water ballar represent a volume sime body. Note: Several tests me conducted if holes in different flooding of the seat pan of the seat pan of th	ability test dure ontinued): ersons who would the rescue boat is as than 500 mm be placed in the of such persons rity approximately eat pan. Weights o would be partly when the lifeboat is een 0 and 500 mm hould additionally ensity of 1 kg/dm <sup>3</sup> ast containers) to hilar to a human hay have to be erent areas would conditions.	Acceptant	<u>Regulations</u> ce Criteria	: LSA Code 4.4.	Significant Test Data

Manufacturer:         Model:         Lot/Serial Number:			Date: Surveyor: Organization: _	Time:		
5.2.2.2 Freeboard	test	Regulations: LSA Code 4.4.			5, MSC.81(70)1/6.8.45	
Test Procedure		Acceptance Criteria			Significant Test Data	
Lobolenair Number:		This test should be considere freeboard, on the low side, is no boat's length or 100 mm, whic	d successful, i ot less than 1.5 hever is greate	f the measured % of the rescue er.	Measured Freeboardmm 1.5% of Boat's Length:mm Passed Failed Comments/Observations	

Rigid rescue boats	Its Manufacturer: Model: Lot/Serial Number:			Date:          Time:            Surveyor:          Organization:		
5.2.2.3 Righting te	st (for non self-rig	hting rescue boats) Regulations: MSC.81(70)1/7			.1.7	
Test Procedure		Acceptance Criteria			Significant Test Data	
It should be demonstrat and without an engine equivalent mass in place fuel tank, the rescue b being righted by not more if it is inverted on the wat For rescue boats with in test without engine and fu This test is not required if 4.4.2.3 or 4.5.2.3 has be	red that both with and fuel or an of the engine and oat is capable of than two persons er. board engines, the rel is not applicable. The righting test in en performed.	The rescue boat is capable of two persons if it is inverted on	being righted b the water.	y not more than	Is the boat self-righting? (If YES, refer to lifeboat repo 4.4.2.3) Can the boat be righted by 2 With engine and fuel: Passed Without engine and fuel: Passed Method used to right boat:  Comments/Observations	YES NO ort 4.5.2.3 and persons? Failed

Rigid rescue boats       Manufacturer:         Model:       Lot/Serial Number:		er:		Date: Surveyor: Organization: _	Time:	
5.2.3.1 Seating str	ength test	Regulations: LSA Code 4.4.1.5, MSC.81(70)1/6.6.1				
Test Procedure		Acceptance 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.		The seating should be able to support this loading without any permanent deformation or damage.		Observed damage		
In the case of a rescue boat launched by falls, each type of seat should be loaded with a mass of 100 kg in any single seat location when dropped into the water from a height of at least 3 m. (This test may be performed in conjunction with the Drop Test in 5.2.7.1.)		The seating should be capable damage should be sustained efficient functioning.	of supporting that would a	this loading. No ffect the seat's	Passed Failed Passed FailedN/A Comments/Observations	

Rigid rescue boats       Manufacturer:         Model:       Lot/Serial Number:		er:		Date: Surveyor: Organization: _	Time:		
5.2.3.2 Seating spa	ace test	Regulations: LSA Code 5.1.			I.3.2, MSC.81(70)1/7.1.3		
Test Procedure		Acceptance Criteria		Significant Test Data			
Test ProcedureAcceptanThe rigid rescue boat should be fitted with its engine and all its equipment. The number of persons for which the rescue boat is to be approved, having an average mass of at least 82.5 kg, and all wearing lifejackets and immersion suits and any other essential equipment required, should 		without interfe pable of carryin own on a stretch is may be seat conforms to to 1.1. wale, transom boat.	erence with the ng at least five her. red on the floor, the leg space , or buoyancy	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 BuoyantImmersion suit– Uninsulated/Buoyant Insulated			
Rigid rescue boats       Manufacturer:         Model:       Lot/Serial Number:				Date: Surveyor: Organization: _	Ti	ime:	
--	--	--	--	--	---	--	---
5.2.4.1 Simultanec	ous release		Regulations	: LSA Code 4.4.	7.6, MSC.81(70)1/6	6.9.12	
Test Proce	dure	Acceptanc	ce Criteria		S	Significant Test Dat	а
For rescue boats launch the rescue boat with its en- 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 in operation are exempt fro	ed by fall or falls, 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 nultaneously from connected without part of the rescue anism.	It should be confirmed t simultaneously release from e without binding or damage to 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.	that the reso such fall which any part of the that the reso ach fall to which light condition e to the relea	cue boat will it is connected rescue boat or cue boat will in it is connected and in a 10% ase gear or its	Light condition Passed (N/A 1.1 x Loaded Mas Passed (N/A Comments/Obser	Failed Single fall, off ss: Failed Single fall, off vations	N/A -load only) _kg N/A -load only)

	Manufacturer:		Date:	Time:
	Model:		Surveyor:	
Rigid rescue boats	Lot/Serial Number:		Organization	
			Ū	
5.2.4.2 Towing release	e test		Regulations: L	SA Code 4.4.7.6.5; MSC.81(70) 1/6.9.3
Т	est Procedure	Acceptance Cri	iteria	Significant Test Data
With the operating me	chanism disconnected it should be	There should be no d	lamage as a	Operating mechanism disconnected and boat towed
demonstrated when the	rescue boat is loaded with its full	result of these tests.		at 5 kts:Pass Fail
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.
		satisfactorily by th	he release	
Furthermore, with the	operating mechanism connected, it	mechanism.		Test 1: 25% SWL, lengthwise to the boat at 45° to the
should be demonstrated	that the rescue boat when loaded with			vertical:
its full complement of pe	ersons and equipment when towed at			
speeds of 5 knots can be	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		Forward direction:PassFall
1 a force equal to 25%	of the cofe working load of the back	this test		
should be applied to	the book in the lengthwise direction			Test 2: 100% SWIL, athwartships at 20° to the vortical:
of the heat at an a	ade of 45° to the vertical. This test			Test 2. 100 % SVVL, all waltships at 20 to the vehical.
should be conducted	in the aftward as well as the forward			Force Applied: N
direction.			Starboard: Pass	
dirootion,				Port: Pass Fail
.2 a force equal to the	safe working load of the hook should			
be applied to the ho	ok in an athwartships direction at an			Test 3: 100% SWL, 45° to the longitudinal axis of the
angle of 20° to the ve	ertical. This test should be conducted			boat in plan view at an angle of $33^{\circ}$ 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
be applied to the hoo	ok in a direction halfway between the			Position 2:Pass Fail
positions of tests 1 a	and 2 (i.e. 45° to the longitudinal axis			Position 3:PassFail
of the boat in plan vi	ew) at an angle of 33° to the vertical.			Position 4:Pass Fail
This test should be c	conducted in four positions.			
				Comments/Observations

Rigid rescue boats	Manufacturer: Model: Lot/Serial Number:		Date: Surveyor: _ Organizatio	n:
5.2.4.3 Load and relea	se test	Regulations	: LSA Code	4.4.7.6.4; MSC.81(70) 1/6.9.4.1, 6.9.4.2
Test Pro	ocedure	Acceptance Criteria		Significant Test Data
A release mechanism sho tested as follows: The rescue boat release the longest used co associated with the syster adjusted according to ins equipment manufacturer of its safe working load at Load and release should The rescue boat release should then be disassem and wear recorded. Th system should then be re	and retrieval system and onnection cable/linkage n should be mounted and tructions from the original and then loaded to 100% nd released. be repeated 50 times. ee and retrieval system bled, the parts examined e release and retrieval assembled.	During the 50 releases, the rescue and retrieval system should b 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 o release occurs when load is app system has not yet been operated.	boat release e released which it is mage to any val system. as "failed" if r unintended lied but the	Working Load:       N         Force Applied:       N         Check the box for each release:       1:       2:       3:       4:       5:       6:       1         7:       8:       9:       10:       11:       12:       1         13:       14:       15:       16:       17:       18:       1         19:       20:       21:       22:       23:       24:       2         25:       26:       27:       28:       29:       30:       31:       32:       33:       34:       35:       36:       37:       38:       39:       40:       41:       42:       43:       44:       45:       46:       47:       48:       49:       50:       46:       47:       48:       49:       50:       46:       47:       48:       49:       50:       46:       47:       48:       49:       50:       46:       47:       48:       49:       50:

Rigid rescue boats       Manufacturer:         Model:       Lot/Serial Number	ər:	Date:          Time:            Surveyor:          Organization:	
5.2.4.4 Cyclic loading test	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 disconnected from the operating mechanism, should be tested 10 times with cyclic loading from	The specimen should remain closed during th	ne test.	Working Load:N Force Applied:N
zero load to 1.1 times the safe working load, at a nominal 10 seconds per cycle; unless the release mechanism has been	The system should be considered as "failed" if during this test or any unintended release occurs.	f any failure or opening	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: 10: 10: 10: 10: 10: 10: 10: 10: 10
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 $0^{\circ}$			Cam rotation +45°: 1: 2: 3: 4: 5: 6: 7: 8: 9: 10: 10: 10: 10: 10: 10: 10: 10: 10: 10
(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
			Passed: Failed:
			Comments/Observations

Rigid rescue boats	Manufacturer: Model: Lot/Serial Number:		Date: Surveyor: _ Organizatio	n:
5.2.4.5 Actuation forc	e test	Regulations	LSA Code	4.4.7.6.4; MSC.81(70) 1/6.9.4.4
Test F	Procedure	Acceptance Criteria		Significant Test Data
The cable and operating reconnected to the hool boat release and retriev demonstrated to operate working load. The demonstration shou indicators and handles a correctly positioned in ac and safety instruction fr manufacturer.	mechanism should then be a assembly; and the rescue val system should then be satisfactorily under its safe Id verify that any interlocks, are still functioning and are cordance with the operation rom the original equipment	The actuation force should be n 100 N and no more than 300 N, used it should be the maxin specified by the manufacturer, an the same manner it would be se- rescue boat. The release mechanism is deem passed the testing in 5.2.4.3, 5.2.4.5 when the tests have been successfully. The system se considered as "failed" if any failure test or any unintended release occurs.	o less than if a cable is num length d secures in cured in the secures in the secure is secure is secure in the secure is secure in the secure is secure is secure in the secure is secure is secure in the secure is secure is secure is secure is secure is secure is	Actuation Force: N Passed: Failed: Comments/Observations

Rigid rescue boats       Manufacturer:         Model:       Model:         Lot/Serial Number:       Model:			Date: Surveyor: Organization: _	Time:
5.2.4.6 Second release	se mechanism test - actuation fo	prce 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 Crite	eria	Significant Test Data
<ul> <li>A second release mechan</li> <li>.1 the actuation force of be measured loaded load. If a cable is used length specified by the the same manner it we demonstration shout indicators and handl correctly positioned in and safety instruction manufacturer; and</li> <li>.2 the release mechant tensile strength testing increased to at least release mechanism.</li> </ul>	hism should be tested as follows: f the release mechanism should d 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, les are still functioning and are n accordance with the operation on from the original equipment hism should be mounted on a ng device. The load should be six times the working load of the	.1 The actuation force should 100 N and no more than 3 The release mechanism does	be no less than 00 N.	Actuation Force:N Tensile strength @ 6xSWL. Force applied:N. Passed:Failed: Comments/Observations

Rigid rescue boats			Date: Surveyo Organiz	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	Accep	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.		of the d on the e to the tructure.	Smallest Engine Largest Engine Make/model:	
This information should be size of fully loaded liferal speed of at least 2 knots. The fitting designated for secured to a stationary of means to measure bolla				Bollard pull: N (Record on type approval certificate) Observed damage:		
operated ahead at full spo and the maximum force r (For rescue boats equipp pull trials may be carried powers to assess the res				Pitch: Diameter: Passed Failed Comments/Observations		

Rigid rescue boats	er:	-	Date: Surveyor: Organization	n:	
5.2.5.2 Endurance, s	peed and fuel co	nsumption	Regulation	ns: LSA Code	e 4.4.6.8, 5.1.1.6, MSC.81(70)1/7.1.5, 1/7.1.6
Test Proced	ure	Acceptance C	riteria		Significant Test Data
(Note: Run this test after drop tests in 5.2.7.1.) The rescue boat should weights equal to the mass and the number of perso rescue boat is to be appro- The engine should be sta manoeuvred for a per- 4 hours to demonstra operation. The rescue boat should be of not less than 6 knots for is sufficient to asce consumption and to estat tank has the requ (This determination may the 4-hour period of oper- For rescue boats equipper motor, speed and ma should be carried out various powers to ass boat's performance	r the impact and be loaded with of its equipment ins for which the oved. rted and the boat iod of at least ate satisfactory be run at a speed or a period which rtain the fuel olish that the fuel lifed capacity. be made during ation.) ed with outboard noeuvring trials with engines of ess the rescue	The boat should operate satisfact operation. The fuel tank should have sufficient a speed of 6 knots for a period of	ntena storily through ent capacity t 4 hours in ca	hout the 4-h to operate at alm water.	Significant Test Data         Smallest Engine       Largest Engine         Make/model:

Rigid rescue boats       Manufacturer:         Model:       Model:         Lot/Serial Number:       Manufacturer:			Date: Surveyor: Organization: _	Time:		
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 operated for at least 5 minutes at idling speed under conditions simulating normal storage.		The engine should not be dam	aged as a resu	ult of this test.	Passed Failed Comments/Observations	
Note: If a water flushing device is intended to be used for this purpose, it should be fitted during the test.						
5.2.5.4 Compass te	est	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 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 Procee	dure	Acceptanc	ce Criteria		Significant Test Data	
It should be demonstrated by testing that it is possible to bring helpless people on board the rescue boat from the sea.		Helpless people can be brought on board the rescu from the sea.		e rescue boat	Method of recovery: Number of Persons required and any special equipment used: Comments/Observations	

Rigid rescue boats       Manufacturer:         Model:       Lot/Serial Number:		pr:		Date: Surveyor: _ Organizatio	on:	Time:
5.2.5.6 Manoeuvrabil	ity with paddles o	r oars	Regulations	: LSA Code	5.1.2.2.1, MSC.8	1(70)1/7.1.8
Test Proce	dure	Acceptance	Criteria			Significant Test Data
Test Procedure 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 of being satisfactorily paddled and manoeuvred.		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         Operations of the constinue		
5.2.6.1 Towing test			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.		whibit unsafe or the rescue bo est.	unstable bat or its	Passed Comments/Obs	Failed	

Rigid rescue boats	Manufacturer: Model: Lot/Serial Numbe	er:		Date: Surveyor: Organization: _	Time:
5.2.6.2 Painter rele	ease test		Regulations	: LSA Code 4.4	.7.7, MSC.81(70)1/6.11.23
Test Proce	dure	Acceptance	ce Criteria		Significant Test Data
It should be demonstrated that the painter release mechanism can release the painter on a fully equipped and loaded rescue boat that is being towed at a speed of not less than 5 knots in calm water. The painter release mechanism should be tested in several distinct directions of the upper hemisphere not obstructed by the canopy or other constructions in the rescue		The painter should release an to the rescue boat or its equip	d there should ment as a resu	be no damage It of this test.	Passed Failed Test Direction PassedFailed PassedFailed Passed Failed
canopy or other construc boat. The directions spec should be used if possibl	tions in the rescue ified in test 5.2.4.2 e.				PassedFailed PassedFailed PassedFailed PassedFailed Comments/Observations

Rig	id rescue boats Manufacturer: Model: Lot/Serial Number:	Manufacturer:	
5.2.	7.1 Impact, drop and operation after impact and drop tes	ct, drop and operation after impact and drop test Regulations: LSA Code 4.4.1.7, MSC.81(70)1/6.	4.1, 6.4.3, 6.4.5, 6.4.7
	Test Procedure	Test Procedure Acceptance Criteria Significant Test	st Data
.1	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 rigid vertical surface.	Iaunched by fall or falls, the fully equipped rescue uding its engine, should be loaded with weights he mass of the number of persons for which the hat is to be approved. Included in this loading should ht of 100 kg loaded in one of each type of seat n the lifeboat. The remainder of the weights should uted to represent the normal loading in the rescue ese weights need not be placed 300 mm above the Skates or fenders, if required, should be in The rescue boat, in a free hanging position, should laterally to a position so that when released it will xed rigid vertical surface at a velocity of 3.5 m/s. should be released to impact against the rigid urface.The impact and drop tests should be considered successful if: .1 no damage has been sustained that would affect functioning;Load in boat:kg Observed Damage: Increased Damage: Satisfactory Operation: YES.2the damage caused by the impact and drop tests has not increased significantly as a result of the operational test in 5.2.5.2;Satisfactory Operation: YES.3machineryand other	s no NO
.2	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.	e rescue boat with its engine, loaded as described ould then be suspended above the water so that ce from the lowest point of the rescue boat to the m. The rescue boat should then be released so s freely into the water.	ed:
.3	After the impact and drop tests, the boat should be examined to detect the position and extent of damage that may have occurred as a result of the tests, and an operational test should then be conducted in accordance with 5.2.5.2.	impact and drop tests, the boat should be to detect the position and extent of damage that e occurred as a result of the tests, and an al test should then be conducted in accordance .2.	
.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.	operational test, the rescue boat should be , cleaned, and carefully examined to detect the nd extent of damage that may have occurred as f the tests.	

Rigid rescue boats	Manufacturer: Model: Lot/Serial Number:			Date: Surveyor: Organization: _	Time:	:	
5.2.7.2 Overload te	est		Regulations	: MSC.81(70)1/7			
Test Proce	edure	Acceptar	nce Criteria		Signi	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.	be loaded with a of four times the equipment and full as each weighing be approved and s from its bridle or ald be distributed in g of the boat in its be weights used to eed not be placed pan. The boat and ening device should e test has been	The rescue boat and its I should not show any signs o	oridle or relea f damage.	se mechanism	Load in boat:	kg ions	
Testing by filling the boar not be accepted. This mer not give the proper dis Machinery may be removed damage, in which case added to the boat to corremoval of such machine The rescue boat and if (release mechanism) and should be examined aft signs of damage.	t with water should thod of loading does tribution of weight. red in order to avoid weights should be ompensate for the ry. ts bridle or hooks d fastening device er the test for any				Passed	Failed	

### 5.3 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
  - 5.3.1.7 Retro-reflective materials
- 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	

Regulation Rescue boat Dimensi	ons: LSA Code 5.1
Rescue boat Dimensi	
	ions Rescue boat Weight
Dimensions:	Design Weight:
LOA: Breadth Maximum: Depth to Gunwale: Length to transom: Length of hull: (insert diagram of hull for reference) Provision for securing hanging-off pendar (if applicable):	Unloaded Boat:
	Dimensions: LOA: Breadth Maximum: Depth to Gunwale: Length to transom: Length of hull: (insert diagram of hull for reference) Provision for securing hanging-off penda (if applicable):

Inflated rescue boats	Manufacturer:		Date: Time: Surveyor: Organization:			
5.3.0.2 Submitted of	Irawings, reports and do	cuments		1		
Submitted drawings and documents						
Drawing No.	Revision No. & date	Title	e of drawing	Status		
	S	ubmitted reports and documents		01-11-12		
Report/Document No.	Revision No. & date	Title of re	eport / document	Status		
		Maintenance Manual -				
		Operations Manual -				

Inflated rescue boats	Manufacturer: Model: Lot/Serial Number:	Date:         Time:           Surveyor:         Organization:				
5.3.0.3 Quality assur	ance	Regulations: I	MSC.81(70) 2/1.1,1.2			
Except where all appliances 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 appl the prototype life-saving ap keep records of any produ Administration's instructions	s of a particular type are required by chapter III ntion for the Safety of Life at Sea, 1974, as nal Life-Saving Appliance (LSA) Code, to be of the Administration should make random ers to ensure that the quality of life-saving used comply with the specification of the ing appliance. quired to institute a quality control procedure to iances are produced to the same standard as pliance approved by the Administration and to ction tests carried out in accordance with the s.	Quality assuran Standard Used Quality assuran Quality assuran Description of S	nce I: nce Procedure: nce Manual: System:			
		Quality assura	nce System acceptable			
		Yes/No				
		Comments/Ob	servations			

Inflated rescue boats	s Manufacturer: Model: Lot/Serial Number:			Date:          Time:            Surveyor:          Organization:		
5.3.1.1 Occupant sp	ace		Regulations: I	_SA 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. and verify	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 no 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 capal seated persons and a perso minimum 2130 x 610 mm. Walkway Surfaces The surfaces on which person a non-skid finish.	equate sheer, it s stending for not ot over 8.5 m. h side of a point ) at least 635 mm – at least 1190 paration – at leas 0 mm maximum be clearly indicat ble of carrying at n lying on a str	should be less than : 215 mm n from the mm from t 350 mm ed. least five etcher of puld have	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:      mm         Passed       Failed         Non-Skid Surface:       Passed         Comments/Observations       Failed	

Inflated rescue boats	Manufacturer: _ Model: Lot/Serial Num	facturer: Date: :: Surveyor: erial Number: Organization: _			Time:		
5.3.1.2 Fittings, prov	isions and ladd	ers	Regulations:	LSA Code 4.4.3	3.3, 5.1.3, MSC.8	1(70)1/7.2.16	
Test Procedu	re	Acceptano	ce Criteria	e Criteria Significant Test			а
Visually inspect the rescue boat.		Colour: The boat is of international or vivid reddish orange, or a highly visible colour where it will assist detection.		Passed	Failed	_	
Conduct measurements	and verify	_			Passed	Failed	_
clearances as required.		Non-return valve for manual ir	ed with: iflation		Passed	Failed	_N/A
		Means for deflation			Passed	Failed	
		Safety relief valve unless waived by Administration Suitable patches for securing painters fore and aft		Passed	Failed	_	
		Fittings and Provisions Suitable handholds or buoyar outside of the rescue boat al reach of a person in the wate rudder and propeller	nt lifeline becket bove the waterli er, except in the	ed around the ne and within vicinity of the	Passed	Failed	_N/A
		On other than self-righting rea	scue boats, han	dholds on the	Passed	Failed	
		underside arranged to break away without damaging the rescue boat Weathertight stowage for small items of equipment		Passed	Failed	-	
		Approved position indicating li	ght provided at h	nighest point	Passed	Failed	_
		Rubbing strips on bottom an outside Transom, if fitted, not inset h length	nd vulnerable p by more than 2	olaces on the	Passed	Failed	_

5.3.1.2 Fittings, provisions and ladd	ers (cont'd)	Regulations: LSA Code 4.4.	3.3, 5.1.3, MSC.81(70)1/7.2.16
Test Procedure	Acceptan	ce Criteria	Significant Test Data
Visually inspect the rescue boat. Conduct measurements and verify clearances as required.	Provided with effective means of bailing or be automatically self-bailing.		Passed Failed Comments/Observations
	Ladders Ladders that can be used at ar	ny entrance should be on board	YES NO N/A
	and the lowest step when in place should not be less than 0.4 m below the light waterline.		Lowest stepm below waterline
			Comments/Observations

Inflated rescue boats	Manufacturer: _ Model: Lot/Serial Num	Date:            Surveyor:            Organization:			Time:
5.3.1.3 Engine and s	tarting system		Regulations: L	SA Code 4.4.6,	5.1, MSC.81(70)1/7.2.16
Test Procedu	re	Acceptan	nce Criteria		Significant Test Data
Visually inspect the rescue Conduct measurements clearances as required.	boat. and verify	<ul> <li>Type of starting system</li> <li>Two independent rechargea power starting systems</li> <li>Required starting aids provided Starting system is not impedent other obstructions</li> <li>Propeller arranged to be disprovision for ahead and astered Exhaust arranged to preven normal operation</li> <li>System designed with due reat the water and to the possibil system from floating debris</li> <li>Engine casing made of fisuitable arrangements provitiener of the suitable arrangement provision of the suitable arrangement provitiener of the suitable arrangement for matter of the suitabl</li></ul>	able energy source ded ded by engine cas isengaged from the ern propulsion int water from enter egard to the safet ility of damage to ire-retardant mat iding similar prote m hot and moving d with engine run ion bottom and sic ng top which pro- e starting, radio, a charger or ship's p provide power for rshalling liferafts	es provided for sing, thwarts or he engine and ering engine in ty of persons in the propulsion terial or other oparts nning at speed des of starter ovides for gas and searchlight oower supply engine starting	Manual Power         YES       NO         Passed       Failed         Passed       Failed

Inflated rescue boats	Manufacturer: Model: Lot/Serial Num	ber:		Date: Surveyor: Organization: _	Time:		
5.3.1.3 Engine and st	arting system		<b>Regulations:</b>	LSA Code 4.4.6,	5, 5.1, MSC.81(70)1/7.2.16		
Test Procedur	е	Acceptan	ice Criteria		Significant Test Data		
Visual Inspection-Engine system (continued)	and starting	<ul> <li>Recharging for engine battle supply does not exceed 50 v</li> <li>Recharging means for engin at the rescue boat embarkat</li> <li>Instructions for starting an resistant and mounted in a engine starting controls</li> </ul>	ice Criteria eries provided I v e batteries can b tion station d operating en a conspicuous	by ship's power be disconnected gine are water place near the	PassedFailed PassedFailed PassedFailed		

Inflated rescue boats	Manufacturer: _ Model: Lot/Serial Num	Aanufacturer:            Aodel:            .ot/Serial Number:			Time	9:	
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	re	Acceptanc	ce Criteria		Signi	ficant Test Data	
Visually inspect the rescue	boat.	Steering					
Conduct measurements clearances as required	and verify	A tiller should be capable of controlling the rudder (rudder and tiller may form part of outboard motor)			Passed	Failed	
		Rudder permanently attached to the rescue boat			Passed	FailedN/A	L
		Except when remote steerir permanently attached or linked	ng is provided, d to the rudder s	the tiller is tock	Passed	FailedN/A	L
		Rudder and tiller are arranged so as not to be damaged by operation of the release mechanism or propeller			Passed	Failed	
		Fuel Tank					
		If fitted with petrol-driven our should be specially protected a	tboard motor, th against fire and e	ne fuel tank(s) explosion	Passed	FailedN	Ά
					Comments/Observation	ons	

Inflated rescue boats	Manufacturer: Model: Lot/Serial Number:			Date Sur Org	Date: Time: Surveyor: Organization:			 
5.3.1.5 Release mech	nanism		<b>Regulations:</b>	LSA	Code 4.4.7, 5.1, MS	C.81(70)1/7.2.16		
Test Procedure		Acceptance Criter	ia		Sigi	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	n load release		Passed	Failed	N/A	
		Mechanical protection (interlock) e mechanism is completely and prevent accidental release during r	engages only w properly reset recovery	hen , to	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 syste painter, on-load release capability such an arrangement a single capa boat only when it is fully waterborn	m with a suita is not required bility to release e will be adequ	able d; in the ate	Passed Comments/Observa	Failed	N/A	
		NOTE: Such single fall hook system to the boat or to the davit fall wire	ns may be attac	hed				

Inflated rescue boats	Manufacturer: Model: Lot/Serial Number:			Date: Surveyor: Organization:	:	_ Time:	
5.3.1.6 Drain valve			Regulations: LSA Code 4.4.7.1, 5.1, MSC.81(70)1/7.2.16				
Test Proce	dure	Acceptar	nce Criteria			Significant Test Data	
Visually inspect the rescue boat Fitte		Fitted near the lowest point on the hull		Passed	Failed		
Conduct measurements and verify clearances as required (not applicable for self-bailing boats)		Automatically opens when the boat is not waterborne and closes to prevent water entry when the boat is waterborne		Passed	Failed		
		One of the shad to the best by a law and she		Passed	Failed		
c		or equivalent		Passed	Failed		
		Readily accessible from ir	side the rescu	e boat	Passed	Failed	
		Position clearly marked			Comments/Obs	servations	

Inflated rescue boats	Manufacture Model: Lot/Serial N	er: Da Su umber: Or	Date: Time: Surveyor: Drganization:		
5.3.1.7 Retro-reflective ma	aterials	Regulations: LSA Code I/1.2, 1.2.2.7			
Test Procedur	е	Acceptance Criteria		Significant Test Data	
Retro-reflective tape		<ul> <li>Be fitted with approved patches of retro-reflective resolution MSC.481(102) as detailed below:</li> <li>Retro-reflective materials should be fitted on top of well as on the outside of the boat as near the gunwa.</li> <li>The materials should be sufficiently wide and long to area of 150 cm<sup>2</sup> and should be spaced at su (approximately 80 cm from centre to centre).</li> <li>If a bow cover canopy is fitted, it should not be allot the materials fitted on the outside of the boat, and the cover canopy should be fitted with retro-reflective r be sufficiently wide and long to give a minimum area should be spaced at suitable intervals (approximation centre).</li> <li>In the case of inflated rescue boats which are not sematerials should be placed, on the bottom of inflated rescue boats wheth are not sematerials should be placed, on the bottom of inflated rescue boats wheth are not sematerials should be placed, on the bottom of inflated rescue boats wheth are not sematerials should be placed, on the bottom of inflated rescue boats wheth are not sematerials should be placed.</li> </ul>	e material as per f the gunwale as vale as possible. o give a minimum suitable intervals owed to obscure he top of the bow materials should a of 150 cm <sup>2</sup> and ately 80 cm from self-righting, such ed rescue boats.	Type of retro-reflective tape         Passed       Failed         Passed       Failed         Tape sizes (LXB)          Total tape area       Centre to centre spacing:         Passed Failed	

Inflated	rescue boats	Manufacturer: Model: Lot/Serial Number:			Date: Surveyor: Organization	n:	
5.3.2.1	Damage test			Regulations	LSA Code 5.	.1.3.5, MSC.81(70)1/7.2.89	
	Test Proce	dure	Acceptar	nce Criteria		Significant Test Data	
The follo inflated	owing tests should b rescue boat loaded	e carried out with the I with the number of	In each of the conditions p persons for which the res	rescribed, the cue boat is to	full number of be approved	Comments/Observations	
persons approve or an e	(of 82.5 kg mass) d both with and wit equivalent mass in	for which it is to be hout engine and fuel the position of the	should be supported within	n the rescue b	oat.	1 With engine and fuel: Passed Failed Without engine and fuel	
engine a	and fuel tank:					Passed Failed	
.1 wit de	th forward buoy flated;	ancy compartment				2 With engine and fuel: Passed Failed Without engine and fuel	
.2 wit the	th the entire buoya e rescue boat deflat	ncy on one side of ed; and				Passed Failed	
.3 wit the	th the entire buoyar e bow compartment	icy on one side and deflated.				3 With engine and fuel: Passed Failed Without engine and fuel Passed Failed	

Inflated rescue boats Manufacturer: Model: Lot/Serial Number: _		Date:		te: Time: rveyor: ganization:
5.3.2.2 Stability test			Regulations: LSA	A Code 4.4.5, MSC.81(70)1/6.10.8, 7.2.67
Test Proced	lure	Acceptan	ce Criteria	Significant Test Data
<ul> <li>The following tests should engine and fuel or an equivof the engine and fuel tanks</li> <li>.1 the number of person inflated rescue boat is should be crowded to this complement seate tube, and then to one enfreeboard should be red</li> </ul>	be carried out with alent mass in place : ons for which the s to be approved one side with half d on the buoyancy nd. In each case the corded; and	.1 Under these conditions everywhere positive.	the freeboard shoul	uld be 1 Freeboard crowded to one sidemm To bow:mm To stern:mm PassedFailed
<ul> <li>.2 the stability of the reboarding should be a persons in the rescue that they can readily as a third person who is unconsciousness. The have his back toward rescue boat so that he rescuers. All perso approved lifejackets.</li> <li>These stability tests may be rescue boat floating in still v</li> </ul>	escue boat during scertained by two boat demonstrating ssist from the water a required to feign third person should is the side of the e cannot assist the ns should wear carried out with the water.	.2 The rescue boat should	d be 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

Inflated rescue boats	s Manufacturer: Model: Lot/Serial Number:			Date: Surveyor: Organization:	Time:	
5.3.2.3 Loading test			Regulations:	MSC.81(70)1/7	.2.45	
Test Proc	edure	Acce	ptance Criteria		Significant Test Data	
<ul> <li>The freeboard of the inflated taken in the various loading</li> <li>.1 rescue boat with all its e</li> <li>.2 rescue boat with all its fuel, or an equivalent represent engine and fue</li> <li>.3 rescue boat with all in number of persons for whaving an average mass that a uniform freeboard buoyancy tubes; and</li> <li>.4 rescue boat with the numit is to be approved and and fuel or an equivalent engine and fuel and the</li> </ul>	d rescue boat should be conditions as follows: quipment; equipment, engine and it mass positioned to el; its equipment and the which it is to be approved s of 82.5 kg so arranged d is achieved at the side mber of persons for which all its equipment, engine t mass to represent rescue boat being	In each condition the not less than 300 m not less than 250 m transom.	minimum freebo m at the buoyar m from the lowe	ard should be acy tubes and est part of the	.1       Freeboard at Buoyancy Tubes:         Freeboard at Transom:         .2       Freeboard at Buoyancy Tubes:         Freeboard at Transom:         .3       Freeboard at Buoyancy Tubes:         Freeboard at Buoyancy Tubes:         Freeboard at Buoyancy Tubes:         Freeboard at Buoyancy Tubes:         Freeboard at Transom:         .4       Freeboard at Buoyancy Tubes:         Freeboard at Transom:         Passed       Failed         Comments/Observations	mm mm mm mm mm
5.3.2.4 Swamp test	y		Regulations:	MSC.81(70)1/7	.2.11	
Test Proc	edure	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 be equivalent to its engine an should also be demonstrated does not seriously deform in	d that the rescue boat, able of supporting its full persons each weighing e approved and a mass d fully filled fuel tank. It ed that the rescue boat n this condition.	The rescue boat shou the full load and shou	uld be capable c uld not seriously	f supporting deform.	Passed Failed Comments/Observations	

Inflated rescue boats	Manufacturer: Model:			Date: Surveyor: Organization:	Time:	·	-
					_		
5.3.2.5 Righting test	(for non self-righting rescue b	oats)	Regulations: N	ISC.81(70)1/7.1	.7		
Test F	Procedure	A	Acceptance Crite	ria	Sign	ificant Test Data	
It should be demonstrated engine and fuel or an equ engine and fuel tank, the re	d that both with and without uivalent mass in place of the escue boat is capable of being	The rescue be righted by not inverted on the	oat should be ca t more than two e water.	apable of being persons if it is	Is the boat self-rightin (If YES, refer to lifebo	ng? YES pat report 4.5.2.3)	NO
water.	o persons if it is inverted on the				Can the boat be right	ted by 2 persons?	
For rescue boats with inbo engine and fuel is not appli	pard engines, the test without				With engine and fuel Passed	: Failed	
Test without engine is only a	pplicable for outboard engines.				Without engine and f Passed	uel: Failed	
					Method used to right	boat:	
					Comments/Observat	ions	
5.3.3.1 Seating stren	gth test	1	Regulations:	LSA Code 4.4.	1.5, MSC.81(70)1/6.6.1		
Test F	Procedure	A	cceptance Criter	a	Signif	icant Test Data	
The seating should be load each position allocated for boat.	ded with a mass of 100 kg in a person to sit in the rescue	The seating s loading withou or damage.	should be able t ut any permaner	o support this at deformation	Observed damage Passed	Failed	
In the case of a rescue boat seat should be loaded with seat location when dropped	launched by falls, each type of a mass of 100 kg in any single into the water from a height of	The seating sl this loading. N that would	hould be capable to damage should affect the se	e of supporting d be sustained eat's efficient	Passed	Failed	N/A
with the Drop Test in 5.3.7.	y be performed in conjunction 1.)	iunctioning.			Comments/ObserVatio	DNS	

Inflated rescue boats Manufacturer: Model: Lot/Serial Number:				Date:          Time:            Surveyor:          Organization:		
5.3.3.2 Seating space	e test		Regulations:	LSA Code 5.1	.1.3.2, MSC.81(70)1/7.1.3	
Test Procedur	e	Acceptanc	ce Criteria		Significa	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 strete 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.	ould be fitted quipment. The ich the rescue d, having an 2.5 kg, and all imersion 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	without interfere capable of carry down on a stret ons may be se d conforms with t .1.1. vale, transom, o boat.	ince with the ving at least cher. ated on the he leg space or buoyancy	Equipment operated: Number of persons carried: Seated on seats Seated on floor Lying on a stretcher Total Passed H Lifejacket and immersion su Lifejacket – Inflatable/In 	YES NO

Inflated rescue boats	Manufacturer: Model: Lot/Serial Numbe	ər:		Date: Surveyor: Organization:	Time:	
5.3.4.1 Simultaneou	s release test		Regulation	s: LSA Code 4.4	.7.6, MSC.81(70)1/6.9.12	
Test Procedu	re	Acceptanc	e Criteria		Significant 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 approv boat should be released from each fall to which i without binding or damage the rescue boat or the relea (Single fall systems not on-load operation are ex- test.)	d by fall or falls, s engine fitted om the release e ground or the hould be loaded als 1.1 times the all its equipment is for which the yed. The rescue simultaneously it is connected to any part of ase mechanism. t intended for empt from this	It should be confirmed t simultaneously release from e without binding or damage to or the release mechanism. It should be confirmed t simultaneously release from connected when fully waterbo in a 10% overload condition.	hat the resc each fall which any part of th nat the resc n each fall to rne in the light	tue boat will it is connected are rescue boat tue boat will o which it is t condition and	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	A

Inflated rescue boats	Manufacturer: Model: Lot/Serial Number:		Time:	
5.3.4.2 Towing release te	est	Regulations:	LSA Code 4.4.	7.6.5; MSC.81(70) 1/6.9.3
Test P	rocedure	Acceptance Crite	ria	Significant Test Data
<ul> <li>With the operating mechanic demonstrated when the resist complement of persons and speeds of 5 knots that the method closed.</li> <li>Furthermore, with the operation of the set o</li></ul>	rocedure ism disconnected it should be cue boat is loaded with its full nd equipment and towed at oveable hook component stays ating mechanism connected, it t the rescue boat when loaded persons and equipment when can be released. Both of the ted as follows: If the safe working load of the d to the hook in the lengthwise an angle of 45° to the vertical. Inducted in the aftward as well n; afe working load of the hook the hook in an athwartships f 20° to the vertical. This test in both sides; and afe working load of the hook 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	Acceptance Crite There should be no damage a these tests. The rescue boat is released s the release mechanism. Single fall systems not intende operation are exempt from this	ria as a result of atisfactorily by ed for on-load s test.	Operating mechanism disconnected and boat towed at 5 kts:PassFail         Operating mechanism connected tests.         Test 1: 25% SWL, lengthwise to the boat at 45° to the vertical:         Force Applied:N.         Forward direction:PassFail         Aft direction:PassFail         Test 2: 100% SWL, athwartships at 20° to the vertical:         Force Applied:N.         Starboard:PassFail         Port: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.         Position 1:PassFail         Position 2:PassFail         Position 3:PassFail         Position 4:PassFail
in four positions.				Comments/Observations

Inflated rescue boats	Manufacturer:       Image: Constraint of the second s		Date:          Time:            Surveyor:          Organization:		
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 Proce	edure	Acceptance Criteria		Significant Test Data	
Test Proce A release mechanism shou tested as follows: The rescue boat release an the longest used com associated with the syster and adjusted according to original equipment manufac to 100% of its safe working Load and release should be The rescue boat release should then be disassemble and wear recorded. The system should then be reas	ad retrieval system and hection cable/linkage n should be mounted instructions from the cturer and then loaded load and released. A repeated 50 times. and retrieval system ed, the parts examined release and retrieval sembled.	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.	bat release released which it is lage to any al system. s "failed" if unintended ad but the	Significant Test Data         Working Load:      N         Force Applied:      N         Check the box for each release:      N         1:       2:       3:       4:       5:       6:      N         7:       8:       9:       10:       11:       12:      N         13:       14:       15:       16:       17:       18:      N         19:       20:       21:       22:       23:       24:      N         25:       26:       27:       28:       29:       30:      N         31:       32:       33:       34:       35:       36:      N         37:       38:       39:       40:       41:       42:          43:       44:       45:       46:       47:       48:          Passed       Failed	

Inflated rescue boats Manufacturer: Model: Lot/Serial Number:		ber:	Date: Surveyor: Organizati	Time: on:		
5.3.4.4 Cyclic loading tes	t	Regulations: L	SA Code 4	.4.7.6.4; MSC.81(70) 1/6.9.4.3		
Test Procedur	re	Acceptance Criteria		Significant Test Data		
The hook assembly, while from the operating mechan tested 10 times with cyclic zero load to 1.1 times the	e disconnected ism, should be c loading from e safe working	The specimen should remain closed during the	e test. anv failure	Working Load:N Force Applied:N Check the box for each release and/or strike out the		
load, at a nominal 10 seco unless the release mechan specifically designed to ope	nism has been erate as an off-	during this test or any unintended release o occurs.	or opening	cam rotation 0°:		
load hook with on-load capa weight of the boat to close t case the cyclic load shou	ability using the he hook, in this ld be from no			1:       2:       3:       4:       5:       6:         7:       8:       9:       10: $\bigcirc$		
For cam-type designs, the carried out at an initial can	test should be			1:       2:       3:       4:       5:       6:         7:       8:       9:       10: $\Box$		
(fully reset position), and repettion (fully reset position), and repetition, or 45° in a restricted by design.	peated at 45° in one direction if			Cam rotation -45°:         1:       2:       3:       4:       5:       6:       7:         7:       8:       9:       10:       10:       10:       10:       10:		
				Passed: Failed:		
				Comments/Observations		
Inflated rescue boats	Manufacturer: Model: Lot/Serial Number:		Date: Surveyor: Organizati	Time: on:		
--	---	---	--	------------------------------------	--	--
5.3.4.5 Actuation force	est	Regulations:	Regulations: LSA Code 4.4.7.6.4; MSC.81(70) 1/6.9.4.4			
Test Pro	cedure	Acceptance Criteria		Significant Test Data		
The cable and operating mechanism should then be reconnected to the hook assembly; and the rescue boat release and retrieval system should then be demonstrated to operate satisfactorily under its safe working load.		The actuation force should be no less than 100 N and no more than 300 N, if a cable is used it should be the maximum length specified by the manufacturer, and secures in the same manner it would be secured in the rescue boat.		Actuation Force: N Passed: Failed:		
The demonstration should indicators and handles are correctly positioned in acco and safety instructions fro manufacturer.	verify that any interlocks, e still functioning and are rdance with the operation m the original equipment	The release mechanism is deeme passed the testing in 5.3.4.3, 5 5.3.4.5 when the tests have been successfully. The system sl considered as "failed" if any failure test or any unintended release o occurs.	ed to have .3.4.4 and conducted hould be during this or opening	Comments/Observations		

Inflated rescue boats	rescue boats Manufacturer: Model: Lot/Serial Number:			Date:            Surveyor:            Organization:		
5.3.4.6 Second release	mechanism tests- actuation for	prce and tensile strength	Regulati	ions: LSA C	Code 4.4.7.6.4, MSC.81(70)1/6.9.5.1, 6.9.5.2	
Test F	Procedure	Acceptance (	Criteria		Significant Test Data	
<ul> <li>A second release mechanism</li> <li>1. the actuation force of the measured loaded be not load. If a cable is used length specified by the the same manner it work the same manner it work the demonstration she indicators and handle correctly positioned in and safety instruction manufacturer; and</li> <li>2. the release mechanism tensile strength testing increased to at least similar release mechanism.</li> </ul>	m should be tested as follows: the release mechanism should with 100% of its safe working d, it should be of the maximum e manufacturer, and secured in rould be secured in a lifeboat. ould verify that any interlocks, s are still functioning and are accordance with the operation from the original equipment as 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 The release mechanism d	should b ore than 3	pe no less 300 N.	Actuation Force: N Tensile strength @ 6xSWL. Force applied: N. Passed: Failed: Comments/Observations	

Inflated rescue boats	bats Manufacturer: Model: Lot/Serial Number:			Date: Surveyo Organiza	Time: or: ation:
5.3.5.1 Liferaft towin	g		Regulations: L	_SA Cod	le 4.4.6.8, 5.1.1.7, 5.1.1.9, MSC.81(70)1/7.1.2
Test Pro	ocedure	Accepta	ance Criteria		Significant Test Data
The rescue boat should be to the mass of its equipment for which the rescue boat maximum towing force of the be determined.	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	ving force of the re recorded on the e. o damage to the to rting structure.	escue type towing	Smallest Engine Largest Engine Make/model:
This information should be largest size of fully loaded tow at a speed of at least 2 The fitting designated for the secured to a stationary object a means to measure bollard operated ahead at full spect 2 minutes and the maximum (For rescue boats equipped bollard pull trials may be of various powers to assist performance.)	he used to determine the liferaft the rescue boat can knots. by the craft should be expected by a tow rope fitted with a pull. The engine should be ed for a period of at least in force recorded. bed with outboard motor, carried out with engines of less the rescue boat's		lung shuclure.		Bollard pull: N   (Record on type approval certificate)   Observed damage:   Propeller:   Pitch:   Diameter:   Passed   Failed   Comments/Observations

Inflated rescue boats	Manufacturer: _ Model: Lot/Serial Num		Date: Surveyor: _ Organizatio	n:	Time:		
5.3.5.2 Endurance, speed	and fuel consu	Imption Regulations: LSA Code			de 5.1.1.6, MSC.81(	(70)1/7.1.5, 1/7. <sup>4</sup>	1.6
Test Procedu	re	Acceptance Cri	teria		Si	gnificant Test D	ata
(Note: Run this test after in tests in 5.3.7.1.)	npact and drop	The boat should operate satisfactor operation.	orily through	out the 4-h	<u>Si</u> Make/model:	mallest Engine	Largest Engine
The rescue boat should to weights equal to the mass of and the number of persons rescue boat is to be approve	be loaded with of its equipment s for which the ed.	The fuel tank should have sufficien a speed of 6 knots for a period of 4	nt capacity to 4 hours in ca	o operate at Ilm water.	Engine Speed: rpm Boat Speed: kts		
The engine should be started manoeuvred for a period of demonstrate satisfactory op	ed and the boat f at least 4 h to peration.				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 of determination may be the 4-hour period of operati	run at a speed a period which ain the fuel sh that the fuel capacity. (This made during on )				Endurance: hrs Propeller: Pitch: Diameter:	Eailed	
For rescue boats equipped motor, speed and many should be carried out w various powers to assess th performance.	with outboard beuvring trials ith engines of e rescue boat's				Comments/Observa	ations	

Inflated rescue boats	Manufacturer:            Model:            Lot/Serial Number:			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	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.		aged as a resul	Passed Failed			
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	Acceptanc	ce Criteria		Significant Test Data	
It should be determined that performance is satisfactory unduly affected by magnet equipment in the rescue boo	at the compass and that it is not etic fittings and at.	The compass operates satisfa	ctorily.		Compass Make: Compass Model: Passed Failed Comments/Observations	

Inflated rescue boats	Manufacturer: _ Model: Lot/Serial Num	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	е	Acceptan	ce Criteria		Significant Test Data
It should be demonstrated boat can be propelled and r its oars or paddles in calm v at a speed of at least 0.5 distance of at least 25 m. w the number of persons lifejackets and immersion st is to be approved.	that the rescue manoeuvred by vater conditions 5 knots over a /hen laden with , all wearing uits, for which it	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	Manufacturer: _ Model: Lot/Serial Num	cturer: Date: Surveyou al Number: Organiza			Time: or: zation:	
5.3.5.6 Heavy weather/	seas test		Regulatio	ons: LSA Co	ode 5.1.3, MSC.81(70)1/7.2.10	
Test Procedu	е	Acceptance Crite	eria		Significant 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 4 or 5 or equivalent rough water for at least 30 minutes. For boats with inboard engines the power does not need to be greater than that intended to be used.		ow undue more tha	flexing or an minimal	Tube pressure before test:      mbar         Pressure relief valves open/closed?      m         Wave heightm      ms         Wind Speedm/s      mbar         PassedFailed      mas		
5.3.6.1 Towing test			Regulatio	ons: LSA Co	ode 4.4.1.3.2, 4.4.7.7, MSC.81(70)1/6.11.1	
Test Procedu	е	Acceptance Crite	eria		Significant Test Data	
It should be demonstrated equipped rescue boat, I properly distributed mass mass of the number of pers is to be approved, can be to of not less than 5 knots in a on an even keel using the painter securing device.	d that the fully oaded with a equal to the ons for which it wed at a speed calm water and e rescue boat's	The rescue boat should not exhib characteristics. There should be no damage to t equipment as a result of this test.	he rescue	or unstable boat or its	Passed Failed Comments/Observations	

Inflated rescue boats	Image:			Time:			
5.3.6.2 Painter release	se test		Regulations:	LSA Code 4.4.	.7.7, MSC.81(70) <sup>2</sup>	1/6.11.23	
Test Procedu	ire	Acceptan	ce Criteria			Significant T	est Data
It should be demonstrated release mechanism can rel on a fully equipped and loa that is being towed at a sp than 5 knots in calm water. The painter release mecha tested in several distinct of upper hemisphere not ob 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 an to the rescue boat or its equip	d there should b ment as a result	e no damage of this test.	Passed Test Direction	Passed Passed Passed Passed Passed Passed servations	Failed Failed Failed Failed Failed Failed

Inflated rescue boats Manufacturer: Model: Lot/Serial Number:			Date: Surveyor: Organizat	Date:            Surveyor:            Organization:			
5.3.7.1	Impact, drop	and operation after impac	t and drop tests	Regulation	ns: LSA Code 4.4.1.7, MS	C.81(70)1/6.4.1, 7.2.2. & 7.2.3	
	Test Pro	cedure	Acceptance Crite	ria	Significa	ant Test Data	
.1 For be equipp should of the boat is should each t weight norma weight seatpa be in p positio so tha vertica raised The be	oats launched bed rescue boa l be loaded with number of pers to be approved be a weight of type of seat ins ts should be dis l loading in th ts need not be p an.) Skates or fe position. The resc on, should be put t when released al surface at a v 0.624 m above oat should be re	by fall or falls, the fully at, including its engine, weights equal to the mass cons 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 illed 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	<ul> <li>The impact and drop tests sho considered successful if:</li> <li>.1 no damage has been would affect the efficient the rescue boat and its ed</li> <li>.2 the damage caused by the drop tests has not increas as a result of the open 5.3.5.2;</li> <li>.3 machinery and other efficient operated to full satisfaction</li> <li>.4 no significant ingress of occurred.</li> </ul>	uld be sustained that functioning of juipment; he impact and red significantly rational test in equipment has n; and seawater has	Load in boat: Observed Damage: Increased Damage: Satisfactory Operation: Ingress of Water: Weight of heaviest engin	_kg YES NO YES NO YES NO	
the rig	id vertical surfac	e.			Final Evaluation:		
.2 The re and wi in the be dro 3 m or 45-deg stern-o	scue boat comp ith a mass equiv position of its er pped three time n to water. The gree bow-down, down attitudes.	lete with all its equipment alent to its engine and fuel ngine and fuel tank should s from a height of at least drops should be from the level trim, and 45-degree			Passed Fa	aileds	
.3 On cor its equ	mpletion of these ipment should b	e tests the rescue boat and be carefully examined.					

Inflated rescue boats	Manufacturer: _ Model: Lot/Serial Num	turer:            Date:            Surveyor:            I Number:         Organization:			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	Acceptan	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.		or release mech e.	nanism should	Passed Comments/Observations	Failed			
The rescue boat and its b examined after the test is c	ridle should be onducted.							
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				
<ul> <li>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.</li> <li>The rescue boat and bridle should be examined after the test is conducted.</li> </ul>		or release mech	nanism should	Passed	Failed			

Inflated rescue boats	Manufacturer: Model: Lot/Serial Number:			Date: Surveyor: Organization: _	Time:
5.3.7.4 Mooring out t	est	R	egulations: L	SA Code 5.1.3	3.3, MSC.81(70)1/7.2.15, 5.5, 5.17.78
Test Procee	dure	Acceptance	e 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 its Each inflatable compartmer should be tested to a pres times the working pressure. valve should be made inope air should be used to inflate boat and the inflation sourc should continue for at least The measurement of pre leakage can be started assumed that compartmen completed stretching due pressure and achieved equ	loaded with a mass al number of persons ad and its equipment sea or in a seawater should remain afloat . The pressure may y using the manual 24-hour period the s shape. At in the rescue boat soure 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 ilibrium.	The rescue boat should not would impair its performance. The pressure should not dec determined without compens atmospheric pressure chang seam slippage, cracking or boat.	t sustain any e. crease by mor sating for tem jes, and there other defect	damage that re than 5% as operature and should be no in the rescue	Compartment 1         Initial Pressure:       mbar         Final 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 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       Decrease:         Passed       Failed
					Comments/Observations

Inflated rescue boats	Manufacturer: _ Model: Lot/Serial Num	Date:         Time:            Surveyor:         Organization:			r: Time: r: ation:
5.3.8.1 Inflation chan	nber characteris	stics tests	<b>Regulations:</b>	LSA Cod	e 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 be 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 resis	materials used boat should be racteristics:	The material characteristics sh ISO 15372:2000.	nould comply wit	th	.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

# 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
  - 5.4.1.7 Retro-reflective materials
- 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)
- 5.4.3 Seating strength and space tests
  - 5.4.3.1 Seating strength test
  - 5.4.3.2 Seating space test
- 5.4.4 Release mechanism tests
  - 5.4.4.1 Simultaneous release
  - 5.4.4.2 Towing release test
  - 5.4.4.3 Load and release test
  - 5.4.4.4 Cyclic loading test
  - 5.4.4.5 Actuation force test
  - 5.4.4.6 Second release mechanism test actuation force and tensile strength
- 5.4.5 Operational tests
  - 5.4.5.1 Liferaft towing
  - 5.4.5.2 Endurance, speed and fuel consumption
  - 5.4.5.3 Engine out of water
  - 5.4.5.4 Compass test
  - 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:			Date:          Time:            Surveyor:          Organization:	
5.4.0.1 General data and s	pecification	IS	Regulations: LS	A Code 4.4, 5.1, MSC.81(70)1/7.2.1	6
General Information		Rescue b	ooat Dimensions	Rescue	boat Weight
Construction Material:         Hull:         Canopy:         Fire-retardancy documentation         Rescue Boat Inherent Buoyancy (         App.) Material:         Weight:         Occupancy:         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         Manufacturer:         Type:         SWL:	Type 2 2 ncy: ble) 2	Dimensions: LOA: Breadth Maximum: Depth to Sill: Depth to Gunwale: Moulded Breadth: Moulded Depth: Provision for securing hangin applicable):	g-off pendant (if	Design Weight:         Unloaded Boat:         Loose Equipment:         Fuel:         Persons:         Calculated Loaded Weig         Fully Equipped:         With Persons:         Weight as Tested:         Fully Equipped:         Comments/Observations	ht:

Rigid/inflated rescue boa	ts Manufacturer: Model: Lot/Serial Number		Date: Time: Surveyor: Organization:	
5.4.0.2 Submitted dr	awings, reports and doc	uments		
_	Sub	mitted drawings and documents		Status
Drawing No.	Revision No. & date	Title o	f drawing	Status
	SL	bmitted reports and documents		
Report/Document No.	Revision No. & date	Title of repo	ort / document	Status
•		Maintenance Manual -		
		Operations Manual -		

Rigid/inflated rescue boats	Manufacturer: Model: Lot/Serial Number:		Date: Surveyor: Organization:	_ Time:
5.4.0.3 Quality assurance		Regulations: MS	SC.81(70) 2/1.1, 1.2	
Except where all appliances of a of the International Convention amended or the International Li inspected, representatives of th inspections of manufacturers to appliances and materials used approved prototype life-saving ap Manufacturers should be required ensure that life-saving appliance the prototype life-saving appliance keep records of any production Administration's instructions.	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 I comply with the specification of the opliance. If to institute a quality control procedure to s 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: stem:	
		Quality assurance System acceptable		
		Yes/No		
		Comments/Obser	rvations	

Rigid/inflated rescue boats Manuf Lot/Se	acturer: : rial Number:	Date: Tin Surveyor: Organization:	ne:
5.4.1.1 Occupant space	Regulations:	SA Code 4.4.2.2, 4.4.3.5, 5.1, MSC.8	1(70)1/7.2.16
Test Procedure	Acceptance Criteria	Significant	Test Data
Visually inspect the rescue boat. Conduct measurements and verticlearances as required.	fy <b>General</b> Unless the rescue boat has adequate sheer, it provided with a bow cover extending for not 15% of its length.	should be less than Passed	Failed
	Length is at least 3.8 m and not over 8.5 m.	Passed	Failed
	<ul> <li>Seating Space</li> <li>Width – at least 430 mm</li> <li>Depth – at least 100 mm each side of a point from the back</li> <li>Knee Space (Seating on seats) at least 635 mm</li> <li>back</li> <li>Knee Width – at least 250 mm</li> <li>Leg Space (Seating on floor) – at least 1190 the back</li> <li>Overlapping Seat Vertical Separation – at least Seat Horizontal Overlap – 150 mm maximum</li> <li>Each seating position should be clearly indicated the seated persons and a person lying on a staminimum 2130 x 610 mm.</li> <li>Walkway Surfaces</li> <li>The surfaces on which persons might walk shanon-skid finish.</li> </ul>	Width:	_mm _mm mm mm mm ED FAILED mm Failed Failed

Rigid/inflated rescue boats	Manufact Model: Lot/Serial	urer:        Date:          I Number:        Organization		on:	_ Time:		
5.4.1.2 Fittings, provisions	and ladd	ers	Regulations: LS	A Code 5.1.	3, MSC.81(70)1/7.2		
Test Procedure		Acceptanc	ce Criteria		S	ignificant Test Data	
Visually inspect the rescue boat.		Buoyancy compartments fitte Non-return valve for manual in	ed with: flation		Passed	_ Failed	-
Conduct measurements and clearances as required.	d verify	Means for deflation			Passed	Failed	-
		Safety relief valve unless waiv	ed by Administration	on	Passed	Failed	_N/A
		Suitable patches for securing	painters fore and af	ft	Passed	Failed	
		Fittings and Provisions	Fittings and Provisions				
		Suitable handholds or buoyan outside of rescue boat above t of a person in the water, exce and propeller	It lifeline becketed the waterline and w pt in the vicinity of	around the /ithin reach the rudder	Passed	_ Failed	-
		On other than self-righting res underside arranged to break rescue boat	scue boats, handho away without dar	olds on the naging the	Passed	_ Failed	-
		Weathertight stowage for sma	Il items of equipme	nt nest point	Passed	_ Failed	_N/A
		Provided with effective means self-bailing	of bailing or be au	itomatically	Passed	_Failed	-
					Comments/Obser	vations	-

Rigid/inflated rescue boats	Manufact Model: Lot/Serial	ufacturer:		Time: on:	
5.4.1.2 Fittings, provisions	and ladd	ers (cont'd)	Regula	tions: 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.	ance sho e should nal to the ed again when sto lays afloa	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         Manufacture           Model:            Lot/Serial		Manufacturer:		Time:	
		Number:	Organizatio	DN:	
5.4.1.3 Engine and starting	g system	Regulations: LS	A Code 4.4.	6, 5.1, MSC.81(70)1/7.2.16	
Test Procedure		Acceptance Criteria		Significant Test Data	
Visually inspect the rescue boat.	d verify	<ul> <li>Type of starting system</li> <li>Two independent rechargeable energy source for power starting systems.</li> </ul>	s provided	Manual Power YES NO N/A	
clearances as required.		- Required starting aids provided.		Passed Failed	
		<ul> <li>Starting system is not impeded by engine casil or other obstructions.</li> </ul>	ng, thwarts	PassedFailed	
		- Propeller arranged to be disengaged from the	engine and	PassedFailed	
		provision for ahead and astern propulsion.	0	PassedFailed	
		<ul> <li>Exhaust arranged to prevent water from enterin normal operation.</li> </ul>	g engine in	PassedFailed	
		<ul> <li>System designed with due regard to the safety in the water and to the possibility of dama propulsion system from floating debris.</li> </ul>	of persons age to the	PassedFailed	
		- Engine casing made of fire-retardant materia	al or other	PassedFailed	
		suitable arrangements providing similar protection - Personnel are protected from hot and moving p	ion. arts.	PassedFailed	
- S		- Shouted order can be heard with engine running at speed necessary for 6 knot operation.		PassedFailed	
		batteries with a tightly fitting top which provid venting.	es for gas	PassedFailed	
		<ul> <li>searchlight batteries provided by solar charge power supply.</li> <li>Radio batteries not used to provide power</li> </ul>	for engine	PassedFailed	
		starting Towing arrangements for marshalling liferafts.			

Rigid/inflated rescue boats	Manufacturer:         D           Model:         S           Lot/Serial Number:         C		Time:  ion:
5.4.1.3 Engine and starting	g system	Regulations: LSA Code 4.4	.6, 5.1, MSC.81(70)1/7.2.16
Test Procedure	Acceptar	nce Criteria	Significant Test Data
Visual Inspection-Engine and star system (continued)	<ul> <li>Recharging for engine batters supply does not exceed 50 v</li> <li>Recharging means for engine at the rescue boat embarked</li> <li>Instructions for starting an resistant and mounted in engine starting controls.</li> </ul>	eries provided by ship's powe v. le batteries can be disconnecte tion station. ld operating engine are wate a conspicuous place near th	er PassedFailed d PassedFailed er PassedFailed e

Rigid/inflated rescue boats       Manufacturer:         Model:       Lot/Serial Number:		Date: Surveyor: Organization:	Time:			
5.4.1.4 Steering mechanis	m and fuel	tank	Regulations: L	SA Code 4.4.7.2, 5.1.1.8,	MSC.81(70)1/7.2.16	
Test Procedure		Acceptance Crit	eria	Signi	ficant 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	ntrolling the rudde of outboard motor	er <sup>r)</sup> Passed	_ Failed	N/A
		Rudder permanently attached to	the rescue boat	Passed	Failed	N/A
		Except when remote steering is is permanently attached or lin stock	provided, the tille ked to the rudde	er <sup>er</sup> Passed	_ Failed	-
		Rudder and tiller are arrange damaged by operation of the rele propeller	d so as not to b ease mechanism o	or Passed	_ Failed	N/A
		If fitted with petrol-driven outboard motor, the fuel tank(s) should be specially protected against fire and explosion		Comments/Observati el re	ons	

Rigid/inflated rescue boats	Manufact Model: Lot/Serial	anufacturer: lodel: ot/Serial Number:		Date: Surveyor: _ Organizatio	on:	Time:	
5.4.1.5 Release mechanis	m		Regulations: LS	A Code 4.4.	7.6.5, MSC.81(70)1/7	.2.16	
Test Procedure		Acceptan	ce Criteria		Sigi	nificant Test Data	l
Visually inspect the rescue boat.		Clear operating instructions			Passed	Failed	
Conduct measurements and clearances as required.	Release control marked in a surroundings	Release control marked in a colour that contrasts with the Passe surroundings		Passed	Failed	_	
		For on-load release mechanis	sms:				
		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 n action by the operator	eeds deliberate and	d continued	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/Observa	Failed	N/A	
		NOTE: Such single fall hook s boat or to the davit fall wire	ystems may be atta	ached to the			

Rigid/inflated rescue boats	Manufacturer: Model: Lot/Serial Number:		Date:          Surveyor:          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 of	on the hull.	PassedFailed
Conduct measurements and verify clearances as required (not applicable for self-bailing boats).		Automatically opens when the boat is not waterborne and closes to prevent water entry when the boat is waterborne.		PassedFailed
			to the boat by a ent.	PassedFailed
		Readily accessible from boat.	inside the rescue	PassedFailed
		Position clearly marked.		PassedFailed
				Comments/Observations

Man		Manufacturer: [		Time:	
Rigid/inflated rescue boats	Lot/S	erial Number:	Surveyor: Organization:		
			-		
5.4.1.7 Retro-reflective materia	ls	Regulations: LSA Code I/1.2, 1.2.2.7			
Test Procedure		Acceptance Criteria	Acceptance Criteria		
Retro-reflective tape		Be fitted with approved patches of retro-reflective resolution MSC.481(102) as detailed below:	material as per	Type of retro-reflective tape	
				Passed Failed	
		Retro-reflective materials should be fitted on top of the	e gunwale as well		
		as on the outside of the boat as near the gunwale as	possible.	Passed Failed	
		The materials should be sufficiently wide and long to area of 150 cm <sup>2</sup> and should be spaced at s (approximately 80 cm from centre to centre). If a bow cover canopy is fitted, it should not be allowed materials fitted on the outside of the boat, and the top canopy should be fitted with retro-reflective mate sufficiently wide and long to give a minimum area should be spaced at suitable intervals (approximal centre to centre). In the case of rigid/inflated rescue boats which are such materials should be placed, on the bottom of rig	on the outside of the boat as near the gunwale as possible. e materials should be sufficiently wide and long to give a minimum a of 150 cm <sup>2</sup> and should be spaced at suitable intervals proximately 80 cm from centre to centre). a bow cover canopy is fitted, it should not be allowed to obscure the iterials fitted on the outside of the boat, and the top of the bow cover nopy should be fitted with retro-reflective materials should be ficiently wide and long to give a minimum area of 150 cm <sup>2</sup> and build be spaced at suitable intervals (approximately 80 cm from intre to centre).		
				Comments/Observations	

Rigid	/inflated rescue boats	Manufacturer:       Image: Constraint of the second s			Time:
5.4.2.	1 Damage test (Does r	lot apply if waterline is below low	ver side of inflated tube)	Regulations: LS	5A Code 5.1.3.5, MSC.81(70)177.2.89, 7.3.2
	Test Pro	ocedure	Acceptance	Criteria	Significant Test Data
The f rescu- for wh or an .1 .2	ollowing tests should be c e boat loaded with the num nich it is to be approved both equivalent mass in the posit with forward buoyancy con with the entire buoyancy or deflated; and	arried out with the rigid inflated ber of persons (of 82.5 kg mass) n with and without engine and fuel tion of the engine and fuel tank: npartment deflated; n one side of the rescue boat	In each of the conditions number of persons for wh is to be approved should the rescue boat.	prescribed, the full hich the rescue boat be supported within	Comments/Observations          With engine and fuel:         Passed       Failed         Without engine and fuel         Passed       Failed         With engine and fuel:         Passed       Failed         Without engine and fuel:         Passed       Failed         Without engine and fuel         Passed       Failed         Without engine and fuel         Passed       Failed         With engine and fuel
.3	with the entire buoyancy or compartment deflated.	n one side and the bow			Passed Failed Without engine and fuel Passed Failed

Rigid/inflated rescue boats       Manufacturer:         Model:       Model:         Lot/Serial Number:		Dat Sui Org	ate: Time: urveyor: ganization:	
5.4.2.2 Stability test			Regulations: LSA C	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 r of the engine and fuel tanks: .1 the number of persons for rigid/inflated rescue bo approved should be cro side with half this complet on the buoyancy tube, an end. In each case the should be recorded; and	rried out with nass in place for which the at is to be wded to one ement seated d then to one e freeboard	.1 Under these condition everywhere positive.	s the freeboard shou	uld be .1 Freeboard crowded to one sidemm To bow:mm To stern:mm PassedFailed
.2 the stability of the rescue boarding should be ascer persons in the re- demonstrating that they assist from the water a who is required unconsciousness. The should have his back tow of the rescue boat so th assist the rescuers. All per- wear approved lifejackets	e boat during tained by two escue boat can readily third person to feign third person ards the side at he cannot ersons should s.	.2 The rescue boat should	t be stable.	.2       Stability observations during recovery of unconscious person:         Clothing/Suits on helpless person:
These stability tests may be car the rescue boat floating in still wa	ried out with iter.			Comments/Observations

Rigid/inflated rescue boats	Manufacturer: Model: Lot/Serial Number:			Date: Surveyor: _ Organizatio	n:		
5.4.2.3 Loading test			Regulations: LSA Code 5.1.3.6, MSC.81(70)1/7.2.45				
Test Proc	edure		Acceptance Criteria	a	Significant Test Data		
<ul> <li>The freeboard of the rescue boat various loading conditions as follo</li> <li>.1 rescue boat with all its equipmed equivalent mass positioned to</li> <li>.3 rescue boat with all its equipmed for which it is to be approved 82.5 kg so arranged that a un the side buoyancy tubes; and</li> <li>.4 rescue boat with the number of approved and all its equipmed its equipmed its equipmed its equipmed and all its equipmed its equipmed its equipmed and all its equipmed its equipmed its equipmed its equipmed its equipmed its equipmed and all its equipmed its equi</li></ul>	should be taken in the ows: nent; ment, engine and fuel, or an represent engine and fuel; ent and the number of persons d having an average mass of iform freeboard is achieved at of persons for which it is to be nent, engine and fuel or an engine and fuel and the rescue	In each freeboard mm at the than 250 f transom.	condition the should be not less buoyancy tubes a mm from the lowest	minimum s than 300 nd not less t part of the	.1       Freeboard at Buoyancy Tubes: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: MSC.81(70)1		SC.81(70)1/	/7.2.11		
Test Procedure			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.		The rescue boat should be capable supporting the full load and should seriously deform.		apable of hould not	Passed Failed Comments/Observations		

Rigid/inflated rescue boats	gid/inflated rescue boats Manufacturer: Model: Lot/Serial Number:			or: ation: _	Time:	
5.4.2.5 Flooded stability te inflated tube)	est (Required only when	n waterline is below lower side of	F	Regula	tions: 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.	ed with its equipment. If ad fuel tanks cannot be ed 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 bove the seat pan) may	When loaded as specified, the should have positive stability wh water to represent flooding which when the rescue boat is holed location below the waterline assu of buoyancy material and no other	rescue b en filled v would oc in any o ming no l damage.	ooat F with cour one C oss	Passed Failed Comments/Observations	

Rigid/inflated rescue boats	Manufacturer: Model: Lot/Serial Number:		Date:          Time:            Surveyor:          Organization:	
5.4.2.5 Flooded stability test (Required only when waterline is below lower side of inflated tube) (cont'd)			F	Regulations: LSA Code 4.4.1.1, MSC.81(70)1/6.8.13
Test Procedure Weights representing persons we 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.	who would ue boat is 500 mm iced in the persons roximately Weights be partly lifeboat is d 500 mm dditionally 1 kg/dm <sup>3</sup> ainers) to a human	Acceptance Criteria		Significant Test Data
Note: Several tests may have conducted if holes in different are create different flooding condition	ve to be eas would ns.			

Rigid/inflated rescue boats	Manufact Model: Lot/Seria	/anufacturer: /odel: .ot/Serial Number:		Date:          Time:            Surveyor:          Organization:		
5.4.2.6 Righting test (for n	on-self-rig	hting rescue boats)	Regulations: MS	SC.81(70)1/7	<b>.</b> 1.7	
Test Procedure		Acceptan	ce Criteria	Significant Test Data		
It should be demonstrated that and without engine and fue equivalent mass in place of the en- fuel tank, the rescue boat is ca being righted by not more than two if it is inverted on the water.	both with I or an ngine and apable of o persons	The rescue boat should be ca more than two persons if it is i	pable of being right nverted on the wate	ted by not er.	Is the boat self-righting? (If YES, refer to lifeboat report Can the boat be righted by 2 With engine and fuel:	YES NO ort 4.5.2.3) 2 persons?
For rescue boats with inboard eng test without engine and fuel is not applicable.	gines, the				Passed	Failed
Note: Test without engine is only applicable					Without engine and fuel:	
for outboard engines.					Passed	Failed
					Method used to right boat:	
					Comments/Observations	

Rigid/inflated rescue boats	Manufact Model: Lot/Serial	Manufacturer: Model: Lot/Serial Number:			Time: 
5.4.3.1 Seating strength te	est		Regulations: LS	A Code 4.4.	.1.5, MSC.81(70)1/6.6.1
Test Procedure		Acceptan	ce Criteria		Significant Test Data
The seating should be loaded wit of 100 kg in each position alloca person to sit in the rescue boat.	h a mass ated for a	The seating should be able to any permanent deformation or	support this loadin r damage.	ig without	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 si location when dropped into the w a height of at least 3 m. (This test performed in conjunction with the in 5.4.7.1)	inched by be loaded ingle seat vater from st may be Drop Test	The seating should be capable No damage should be sustain efficient functioning.	e of supporting this ed that would affec	loading. t the seat's	Passed Failed Passed Failed N/A Comments/Observations

Rigid/inflated rescue boats       Manufacturer:         Model:       Lot/Serial Number:		Date: Surve Organ	Date:          Time:            Surveyor:          Organization:		
5.4.3.2 Seating space test		Regulations: LSA Code	e 5.1.1.3.2, MSC.81(70)1/7.1.3		
Test Procedure	Acceptan	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.	d with its e number boat is to nass of at ifejackets ny other ould then own on a to those the others re rescue then be on board can be erference m	without interference with apable of carrying at lead own on a stretcher. Ins may be seated on the f onforms with the leg sp 1.1. wale, transom, or buoya boat.	h the 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		

Rigid/inflated rescue boats       Manufacturer:         Model:       Lot/Serial Number:		[ [ [	Date:          Time:            Surveyor:          Organization:	
5.4.4.1 Simultaneous relea	ISE	Regulations: LSA	Code 4.4.7.6, MSC.81(70)1/6	<b>3.9.12</b>
Test Procedure	Acceptar	nce Criteria	S	Significant Test Data
For rescue boats launched by fa the rescue boat with its engine fitte be suspended from the release me just clear of the ground or the w rescue boat should be loaded so total mass equals 1.1 times the ma rescue boat, all its equipment number of persons for which th boat is to be approved. The res should be released simultaneou each fall to which it is connecte binding or damage to any part of th boat or the release mechanism.	Il or falls, ed should echanism rater. The o that the and the receive boat usly from d without he rescue	that the rescue to each fall which it is co o any part of the rescue that the rescue to each fall to which it is co e light condition and it	boat will connected ue boat or boat will connected in a 10% Light condition Passed	Failed _N/A off-load only) ss:kg Failed _N/A off-load only)
on-load operation are exempt test.)	from this			

Rigid/inflated rescue boats	Manufacturer: Model:		Date: Surveyor: Organizat	Time:		
			Organizat			
5.4.4.2 Towing release test		Regulations: LS	A Code 4.4	I.7.6.5; MSC.81(70) 1/6.9.3		
Test Proce	dure	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. The rescue boat is released satisfactorily		Operating mechanism disconnected and boat towed at 5 kts:PassFail Operating mechanism connected tests.		
<ul> <li>Furthermore, with the operating should be demonstrated that the with its full complement of pers towed at speeds of 5 knots can above should be demonstrated as</li> <li>.1 a force equal to 25% of the hook should be applied to direction of the boat at an This test should be conduce as the forward direction;</li> <li>.2 a force equal to the safe should be applied to the direction at an angle of 2 should be conducted on be should be applied to the labetween the positions of the longitudinal axis of the boat of 33° to the vertical. This in four positions.</li> </ul>	mechanism connected, it rescue boat when loaded ons and equipment when be released. Both of the follows: The safe working load of the the hook in the lengthwise angle of 45° to the vertical. Toted in the aftward as well working load of the hook e hook in an athwartships 0° to the vertical. This test both sides; and working load of the hook nook in a direction halfway ests 1 and 2 (i.e. 45° to the at in plan view) at an angle is test should be conducted	by the release mechanism. Single fall systems not inte on-load operation are exempt test	ended for from this	Test 1: 25% SWL, lengthwise to the boat at 45° to the vertical:         Force Applied:N.         Forward direction:PassFail         Aft direction:PassFail         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.         Position 1:PassFail         Position 2:PassFail         Position 3:PassFail         Position 4:PassFail		
				Comments/Observations		
Rigid/inflated rescue boats	Manufacturer: Model: Lot/Serial Number:		Date:          Time:            Surveyor:          Organization:			
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5.4.4.3 Load and release test		Regulations: LS	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 of tested as follows: The rescue boat release and retr the longest used connectio associated with the system should adjusted according to instructions equipment manufacturer and ther of its safe working load and relea Load and release should be repe The rescue boat release and should then be disassembled, the and wear recorded. The relea system should then be reassemb	conditioned and ieval system and n cable/linkage d be mounted and from the original n loaded to 100% sed. ated 50 times. retrieval system e parts examined se and retrieval led.	Acceptance Criteria During the 50 releases, the rescue boat and retrieval system should be r simultaneously from each fall to whit 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 release occurs when load is applied system has not yet been operated.	release released ch it is e to any ystem. failed" if ntended but the	Significant Test Data         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:         13:       14:       15:       16:       17:       18:         19:       20:       21:       22:       23:       24:         25:       26:       27:       28:       29:       30:       31:         31:       32:       33:       34:       35:       36:       37:       38:       39:       40:       41:       42:         43:       44:       45:       46:       47:       48:       49:       50:         Passed		

Rigid/inflated rescue boats	Manufacturer:		Date: _ Survey Organi	Time: /or: ization:
5.4.4.4 Cyclic loading test		Regulations: LS	A 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, s tested 10 times with cyclic load	connected should be ding from	The specimen should remain closed during the t	est.	Working Load:N Force Applied:N
zero load to 1.1 times the safe working load, at a nominal 10 seconds per cycle;		The system should be considered as "failed" if a failure during this test or any unintended release opening occurs.	ny or	Check the box for each release and/or strike out the cam rotation if no applicable:
specifically designed to operat off-load hook with on-load capab the weight of the boat to close th this case the cyclic load should b	te as an bility using e hook, in e from no			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 times the SV For cam-type designs, the test s carried out at an initial cam rota	VL. should be			Cam rotation +45°: 1: 2: 3: 4: 5: 6: 7: 8: 9: 10: 10: 10: 10: 10: 10: 10: 10: 10: 10
(fully reset position), and repeated either direction, or 45° in one d restricted by design.	d at 45º in lirection if			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

	Manufacturer:		Date: _	Time:	
Rigid/inflated rescue boats	Model:		Survey	or:	
	Lot/Serial Number:	Organiz	Organization:		
5 4 4 5 Actuation force test		Regulations: I S	A Code /	1 4 7 6 4 · MSC 81(70) 1/6 9 4 4	
Test Procedure	2	Acceptance Criteria	- 000e -	Significant Test Data	
The cable and operating mechan	ism should then be	The actuation force should be no less th	nan 100	eignilioant root bata	
reconnected to the hook assemble	oly; and the rescue	N and no more than 300 N, if a cable is	used it	Actuation Force: N	
boat release and retrieval syste	m should then be	should be the maximum length specified	d by the		
demonstrated to operate satisfac	torily under its safe	manufacturer, and secures in the	same	Passed: Failed:	
working load.		manner it would be secured in the rescu	le boat.		
The demonstration should verify indicators and handles are still f correctly positioned in accordance and safety instructions from the manufacturer.	that any interlocks, functioning and are e with the operation original equipment	The release mechanism is deemed to passed the testing in 5.4.4.3, 5.4.4 5.4.4.5 when the tests have been cor- successfully. The system shoul considered as "failed" if any failure dur test or any unintended release or co- occurs.	o have .4 and inducted ld be ing this opening	Comments/Observations	

Rigid/inflated rescue boats	Manufacturer:	Date:	Time:

Model: Lot/Serial Number:	Surveyor: Organization:		
5.4.4.6 Second release mechanism tests- actuation	on force and tensile strength	Regulations 6.9.5.2	s: LSA Code 4.4.7.6.4, MSC.81(70)1/6.9.5.1,
Test Procedure	Acceptance Criteria	a	Significant Test Data
<ul> <li>A second release mechanism should be tested as follows:</li> <li>1 the actuation force of the release mechanism should be measured loaded with 100% of its safe working load. If a cable is used, it should be of the maximum length specified by the manufacturer, and secured in the same manner it would be secured in a lifeboat. The demonstration should verify that any interlocks, indicators and handles are still functioning and are correctly positioned in accordance with the operation and safety instruction from the original equipment manufacturer; and</li> <li>2 the release mechanism should be mounted on a tensile strength testing device. The load should be increased to at least six times the working load of the release mechanism.</li> </ul>	.1 The actuation force should than 100 N and no more that The release mechanism does r	be no less an 300 N.	Actuation Force: N Tensile strength @ 6xSWL. Force applied: N. Passed: Failed: Comments/Observations

Rigid/inflated rescue boats	Manufacturer: Model: Lot/Serial Number:				Date: Surveyor: Organization:	Time:	
5.4.5.1 Liferaft towing			Regulatio	ns: LS	A Code 4.4.6.8, 5	.1.1.7, 5.1.1.9, MSC.8 <sup>-</sup>	1(70)1/7.1.2
Test Procedu	ure	Acceptance	Criteria		Signifi	cant 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 bollard pull trials may be carrier various powers to assess performance.)	led with weights equal and the number of oat is to be approved. The rescue boat should and the rescue boat should be to determine the which the rescue boat knots. If other craft should be or a period of at least ce recorded. With outboard motor, and out with engines of the rescue boat's	Acceptance of The maximum to force of the resor- type approval co There should damage to th fitting or its s structure.	Criteria owing cue boat ded on the ertificate. be no te towing supporting	Make, Bollar (Reco Obser Prope Pit Dia Passe Comm	Signifi /model: rd pull: N ord on type approva rved damage: eller: tch: ameter: ed nents/Observation:	cant Test Data <u>Smallest Engine</u> al certificate) Failed	Largest Engine

Rigid/inflated rescue boats	Manufacturer:		Date: Time: Surveyor: Organization:		
5.4.5.2 Endurance, speed	l and fuel c	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	
<ul> <li>(Note: Run this test after impadrop tests in 5.4.7.1.)</li> <li>The rescue boat should be load weights equal to the mass equipment and the number of p for which the rescue boat is approved.</li> <li>The engine should be started boat manoeuvred for a period of 4 hours to demonstrate sat operation.</li> <li>The rescue boat should be r speed of not less than 6 knop period which is sufficient to ascefuel consumption and to estab the fuel tank has the required of (This determination may be madd the 4-hour period of operation.)</li> <li>For rescue boats equipped with a motor, speed and manoeuvries to assess the boat's performance</li> </ul>	act and ded 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 e rescue	The boat should operate satisfactorily the 4-h operation. The fuel tank should have sufficient of operate at a speed of 6 knots for a po 4 hours in calm water.	y throughou capacity to eriod of	Smallest Engine       Largest Engine         Make/model:	

Rigid/inflated rescue boats	Manufact Model: Lot/Serial	:urer:		Time: on:			
5.4.5.3 Engine out of wat	er		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.		The engine should not be da	maged as a result	of this test.	Passed Failed Comments/Observations		
intended to be used for this pu should be fitted during the test.	irpose, it						
5.4.5.4 Compass test Regula			Regulations: L	tions: LSA Code 5.1.2.2.3, MSC.81(70)1/6.10.7			
Test Procedure	Test Procedure Acceptance		e 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.		factorily.		Compass Make: Compass Model: Passed Failed			
					Comments/Observations		

Rigid/inflated rescue boats	Manufacturer:			Date:            Surveyor:            Organization:		
5.4.5.5 Manoeuvrability w	vith paddle	s or oars	Regulation	ns: LSA Coc	le 5.1.2.2.1, MSC.81(70)1/7.1.8	
Test Procedure		Acceptance Cri	eria		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 nu persons, all wearing lifejacked immersion suits, for which it if approved. For boats with inboard engine power does not need to be great that intended to be used.	that the led and addles in sed of at of at least umber of ets and is to be mes the ater than	The rescue boat should be capable paddled and manoeuvred.	e of being sat	isfactorily	Distance travelled:	

Rigid/inflated rescue boats	d rescue boats Manufacturer: Date: Surve Lot/Serial Number: Organ		Date: _ Survey Organiz	Date: Time: Surveyor: Drganization:	
5.4.5.6 Heavy weather/seas	s test		Regulations: L	SA Code	e 5.1.3, MSC.81(70)1/7.2.10
Test Procedure		Acceptance	Criteria		Significant Test Data
To simulate use in heavy weather the rescue boat should be fitted with a larger powered engine than is intended to be fitted and driven hard in a wind of force 4 or 5 or equivalent rough water for at least 30 minutes.		show undue flexing or ost more than minimal       Tube pressure before test:         Pressure relief valves open/closed?         Wave height m         Wind Speed m/s         Tube pressure after test:         Passed Failed         Comments/Observations		Tube pressure before test:      mbar         Pressure relief valves open/closed?          Wave height      m         Wind Speed      m/s         Tube pressure after test:      mbar         Passed       Failed         Comments/Observations	
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 t it is to be approved, can be too speed of not less than 5 knots water and on an even keel u rescue boat's painter securing d	the fully d with a al to the for which wed at a in calm lising the levice.	The rescue boat should not exhibit unsafe or unstab characteristics. There should be no damage to the rescue boat or its equipment as a result of this test.		nstable t or its	Passed Failed Comments/Observations

Rigid/inflated rescue boats	s Manufacturer: Model: Lot/Serial Number:		Date:          Time:            Surveyor:          Organization:			
5.4.6.2 Painter release tes	st		Regulations: L	SA Code 4.4	.7.7, MSC.81(70)	1/6.11.23
Test Procedure		Acceptance	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 obstru- the canopy or other construction rescue boat. The directions spe- test 5.4.4.2 should be used if po	that the release bed and towed at s in calm n should ctions of ucted by ns in the ecified in issible.	The painter should release a damage to the rescue boat o this test.	nd there should be r its equipment as	a result of	Passed Test Direction	Failed PassedFailed PassedFailed PassedFailed PassedFailed Servations

Rigid/inflated rescue boats       Manufacturer:         Model:       Lot/Serial Number:	Manufacturer:			Date:          Surveyor:          Organization:		
5.4.7.1 Impact, drop and operation after impact	act and drop test	Regulations: LS	A Code 4.	4.1.7, MSC.81(70)1/6.4.1, 7.2.2, 7.2.3		
Test Procedure	Accepta	ance Criteria		Significant Test Data		
.1 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 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 rigid	The impact and drop successful if: .1 no damage has I affect the efficien boat and its equi .2 the damage caus tests has not in result of the oper .3 machinery and operated to full s .4 no significant in occurred.	been sustained that to tests should be cons been sustained that to functioning of the r pment; ed by the impact and creased significantly rational test in 5.4.5.2 other equipment atisfaction; and ngress of seawates	nsidered t would rescue nd drop y as a .2; t has er has	Load in boat:kg Observed Damage: Increased Damage: YES NO Satisfactory Operation: YES NO Ingress of Water: YES NO Weight of heaviest engine tested: Final Evaluation:		
<ul> <li>Vertical surface.</li> <li>2 The rescue boat complete with all its equipment and with a mass equivalent to its engine and fuel in the position of its engine and fuel tank should be dropped three times from a height of at least 3 m onto water. The drops should be from the 45-degree bow-down, level trim, and 45-degree stern-down attitudes.</li> <li>.3 On completion of these tests the rescue boat and its equipment should be carefully examined.</li> </ul>				Passed Failed Comments/Observations		

Rigid/inflated rescue boats	Manufacturer: _ Model: Lot/Serial Numl	Manufacturer: Model: Lot/Serial Number:		Date:            Surveyor:            Organization:	
5.4.7.2 Overload test	•		Regulations: MS	SC.81(70)1/7	.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 ful persons each weighing 82.5 kg 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 lo give the proper distribution of we may be removed in order to av which case weights should be acc to compensate for the rem machinery.	d with a properly 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. water should not beading does not eight. Machinery void damage, in dded to the boat	The rescue boat and its should not show any sig	bridle or release m gns of damage.	echanism	Load in boat:kg Comments/Observations
The rescue boat and its bridle or mechanism) and fastening de examined after the test for any si	r hooks (release vice should be igns of damage.				Passed Failed

Rigid/inflated rescue boats	Manufacturer: _ Model: Lot/Serial Numb	Manufacturer: Model: _ot/Serial Number:		Date:            Surveyor:            Organization:		
5.4.7.3 Mooring out test (E lower side of inflat	Ooes not apply if ed tube)	waterline is below	Regulations: LS	SA Code 5.1.3.3, 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 num 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 pe boat should retain its shape. Each inflatable compartment in t should be tested to a pressure times the working pressure. Each valve should be made inoperativa air should be used to inflate the in boat and the inflation source rem should continue for at least 30 mi The measurement of pressure leakage can be started when assumed that compartment mat completed stretching due to the in and achieved equilibrium.	ed with a mass nber of persons d its equipment or in a seawater remain afloat in ressure may be manual pump; riod the rescue the rescue boat equal to three n 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.	I not sustain any da ance. decrease by more pensating for tempe anges, and there sl g or other defect in	amage that than 5% as erature and hould be no the rescue	Compartment 1         Initial Pressure:       mbar         Final 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 3       Initial Pressure:         Initial Pressure:       mbar         Calculated Decrease:       Percent         Compartment 4       Initial Pressure:         Initial Pressure:       mbar         Calculated Decrease:       Percent         Compartment 5       Initial Pressure:         Final Pressure:       mbar         Calculated Decrease:       Percent         Passed       Percent	
					Comments/Observations	

Lot/Se	rial Number:		Surveyor:
5.4.8.1 Inflation chamber charact	ristics tests	Regulations: LS	SA Code 1.2.2, MSC.81(70)1/7.2.14
Test Procedure	Acceptance Crite	ria	Significant Test Data
The inflatable compartment materials us to construct the rescue boat should tested for the following characteristics: .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	d The material characteristics s with ISO 15372:2000.	hould comply .1 .2 .3 .4 .5 .6 .7 .8 .9 .1 .1 .1 .1 .1 .1 .1 .1 .1 .1 .1	<ul> <li>tensile strengthN/50 mm width</li> <li>tear strengthN</li> <li>heat resistance – Blocking</li> <li>cold resistance – Cracking</li> <li>heat ageing% retained strength N/50 mm width</li> <li>weathering% retained strength N/50 mm width</li> <li>flex cracking – Cracking or deterioration</li> <li>abrasionmg/rev.;</li> <li>Base fabric not visible</li> <li>coating adhesionN/50 mm width</li> <li>oil resistance – Tackiness or other deterioration</li> <li>elongation at break%</li> <li>piercing strength</li> <li>ozone resistance -Visible cracking</li> <li>gas permeabilitybubbles/min or I/m²/hr of</li> <li>seam strength% retained strength N/50 mm width</li> <li>ultraviolet light resistance% retained strength N/50 mm width</li> <li>Cracking% retained strength N/50 mm width</li> </ul>

# 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
  - 5.5.1.6 Retro-reflective materials

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

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

Rigid fast rescue boats	Manufacturer: Model: Lot/Serial Number:	Date:         Time:           Surveyor:
5.5.0.3 Quality assurar	nce	Regulations: MSC.81(70) 2/1.1, 1.2
5.5.0.3 Quality assurant Except where all appliances of of the International Convent amended or the International inspected, representatives of inspections of manufacturer appliances and materials u approved prototype life-savin Manufacturers should be requensure that life-saving applia the prototype life-saving applia the prototype life-saving applia the prototype life-saving applia the prototype life-saving applial the prototype life-saving applial the prototype life-saving a	of a particular type are required by chapter III ion for the Safety of Life at Sea, 1974, as al Life-Saving Appliance (LSA) Code, to be of the Administration should make random is to ensure that the quality of life-saving used comply with the specification of the g appliance. uired to institute a quality control procedure to inces are produced to the same standard as liance approved by the Administration and to ion tests carried out in accordance with the	Regulations: MSC.81(70) 271.1, 1.2         Quality assurance         Standard Used:         Quality assurance Procedure:         Quality assurance Manual:         Quality assurance Manual:         Description of System:         Quality assurance System acceptable         Yes/No         Comments/Observations
		Yes/No Comments/Observations

Rigid fast rescue boats	Manufacture Model: Lot/Serial Nu	Manufacturer:			Time: n:	
5.5.1.1 Occupant space	e		.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.Gene Unles provid of itsConduct measurements and verify clearances as required.of its		<b>General</b> Unless the rescue boat has adequate sheer, it should be provided with a bow cover extending for not less than 15% 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 ea from the back Knee Space (Seating on se the back Knee Width – at least 250 m Leg Space (Seating on floc the back Overlapping Seat Vertical S 350 mm Seat Horizontal Overlap – Each seating position shou	ach side of a poir eats) at least 635 mm or) – at least 1190 Separation – at le 150 mm maximu Id be clearly indic	nt 215 mm 5 mm from 0 mm from east m cated.	Width:      mm         Depth:      mm         Knee Space:      mm         Leg Space:      mm         Vert. Separation:      mm         Overlap:      mm         Position Indication:       PASSED FAILED         Stretcher space:      mm         Passed       Failed	
Rescue boats should be capable of carrying at least f         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 hat         a non-skid finish.		pable of carrying on lying on a stre	g at least five etcher of	Non-Skid Surface: PassedFailed Comments/Observations		
		should have				

Rigid fast rescue boats	Manufacturer:			Time: 			
5.5.1.2 Fittings, provis	ions and ladders	Regulations: L	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	keted around the each of a person ler.	e outside of in the water,	Passed Failed			
and verify clearances as required.	On other than self-righting rescue boats, arranged to break away without damaging the	handholds on th e rescue boat.	e underside	Passed FailedN/A			
	Weathertight stowage for small items of equip	Passed Failed					
	Approved position-indicating light provided at		Passed Failed				
	Automatically self-bailing or capable of rapidly	Passed FailedN/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	o the hull of the bo nd is capable of	oat, provided withstanding	Lowest stepm below waterline			
	exposure when stowed on an open deck on afloat in all sea condition.	a ship at sea and	d for 30 days	Passed Failed			
	<b>Colour</b> The boat is of a highly visible colour where it	will assist detection	on.	Highly visible colour: Passed Failed			
				Comments/observations:			

Rigid fast rescue boats	Manufacturer:				Time:	
5.5.1.3 Engine and sta	arting system	Regulations: L	SA Code 4.4.6	, 5.1, MSC.81(70)1/7.1.9		
Test Procedure	Acceptance Criter	ia			Significant Test Data	
Visually inspect the rescue boat.	<ul> <li>Type of starting system</li> <li>Two independent rechargeable energy source starting systems.</li> </ul>	Manual Power YES NO	N/A			
Conduct measurements	<ul> <li>Required starting aids provided.</li> </ul>		_	Passed	Failed	
and verify clearances as	<ul> <li>Starting system is not impeded by engine carbon system.</li> </ul>	sing, thwarts, or	other	Passed	Failed	
required.	<ul> <li>Propeller arranged to be disengaged from the ahead and astern propulsion.</li> </ul>	Passed	_Failed			
	- Exhaust arranged to prevent water from enter	ering engine in n	ormal.	Passed	Failed	
	<ul> <li>operation.</li> <li>System designed with due regard to the safe to the possibility of damage to the propulsion</li> <li>Engine casing made of fire-retardant material</li> </ul>	operation. System designed with due regard to the safety of persons in the water and to the possibility of damage to the propulsion system from floating debris			_Failed	
	arrangements providing similar protection.			Passed	Failed	
	- Personnel are protected from hot and movin	g parts				
	<ul> <li>Shouted order can be heard with engine run</li> <li>6 knot engration</li> </ul>	ning at speed ne	cessary for	Passed	Failed	
	<ul> <li>Watertight casing around bottom and sides (</li> </ul>	of starter batterie	s with a	Passed		
	<ul><li>tightly fitting top which provides for gas venting.</li><li>Means for recharging engine starting, radio, and searchlight batteries provided by solar charger or ship's power supply.</li></ul>			Passed	Failed	
				Passed	Failed	
	<ul> <li>Radio batteries not used to provide power to Recharging for engine batteries provided by</li> </ul>	or engine starting	Doly does not	Passad	Failed	
	exceed 50 v.	ship's power sup		Passed	Failed	
	Recharging means for engine batteries can be disconnected at the rescue boat embarkation station.			Passed	Failed	
	mounted in a conspicuous place near the en- - Towing arrangements for marshalling liferaft	gine starting con s.	trols.	Passed	_Failed	

Rigid fast rescue boats	Manufacturer: Model: Lot/Serial Number:			Date: Time: Surveyor: Organization:		
5.5.1.4 Steering mech	5.5.1.4 Steering mechanism and fuel tank Regulations: LSA Code 4.4.					(70)1/7.1.9
Test Procedure	;	Acceptan	ce Criteria		Sigi	nificant Test Data
Visually inspect the rescue b Conduct measurements and clearances as required	oat. verify	Steering A tiller should be capable of and tiller may form part of outh Rudder permanently attached Rudder and tiller are arranged operation of the release mech Steered by wheel at helmsma Has emergency steering syst rudder, water jet or outboard r Hands-free, watertight VHF ra Fuel Tank If fitted with petrol-driven out should be specially protected	controlling the ru board motor) to the rescue board d so as not to be anism or propelle n's position tem providing dire motor adio provided tboard motor, the against fire and e	e fuel tank(s)	Passed Passed Passed Passed Passed Passed Passed Comments/Observa	FailedN/A FailedN/A FailedN/A Failed Failed Failed FailedN/A

Rigid fast rescue boats       Manufacturer:         Model:       Lot/Serial Number:		Date: Time: Surveyor: Organization:					
5.5.1.5 Release mecha	anism		<b>Regulations:</b>	LSA Code 4.4.	7, 5.1, MSC.81(70)1/7	7.1.9	
Test Procedure	е	Acceptance	ce Criteria		Sigi	nificant Test Da	ta
Visually inspect the rescue b	oat.	Clear operating instructions			Passed	Failed	
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 su capability is not required; in s capability to release the boat of will be adequate This capability to release the boat or to the davit	itable painter, c such an arrange only when it is fu boat may be a	on-load release ement a single ully waterborne attached to the	Passed Comments/Observa release mechanism Approval:	Failed itions type:	N/A

Rigid fast rescue boats	Manufac Model: Lot/Seria	turer:	Time:	
5.5.1.6 Retro-reflective mate	erials	Regulations: LSA Code I/1.2. 1.2.2.7		
Test Procedure		Acceptance Criteria		Significant Test Data
Retro-reflective tape		Be fitted with approved patches of retro-reflective resolution MSC.481(102) as detailed below:	ve material as per	Type of retro-reflective tape Passed Failed
		Retro-reflective materials should be fitted on top of as on the outside of the boat as near the gunwale a	the gunwale as well as possible.	Passed Failed
		The materials should be sufficiently wide and long area of 150 cm <sup>2</sup> and should be spaced at (approximately 80 cm from centre to centre).	Tape sizes (LXB) Total tape area Centre to centre spacing: Passed Failed	
		If a canopy is fitted, it should not be allowed to ob fitted on the outside of the boat, and the top of the fitted with retro-reflective materials should be suffici to give a minimum area of 150 cm <sup>2</sup> and should be intervals (approximately 80 cm from centre to centre	Tape sizes (LXB)         Total tape area         Centre to centre spacing:         Obscured: - Yes/No?         Passed       Failed	
		In the case of the rigid fast rescue boat is also a p totally enclosed lifeboats, such materials should be		
		.1 for detection by horizontal light beams - at suita the height between the gunwale and the top of the	ble intervals at half fixed cover;	Passed Failed
		.2 for detection by vertical light beams (e.g. from suitable intervals around the outer portion of comparable) part of the top of the fixed cover; and	m helicopters) - at the horizontal (or	Passed Failed
	.3 on the bottom of rigid fast rescue boats which are not self-righting.		e not self-righting.	Passed Failed
				Comments/Observations

Rigid fast rescue boats	Manufacturer: Model: Lot/Serial Number:	ufacturer:			Time	:
5.5.2.1 Flooded stabilit	ty test		Regulations: L	SA Code 4.4.1.	1, MSC.81(70)1/6.8.1	.3
Test F	Procedure		Acceptance Crit	eria	Signi	ficant Test Data
The rescue boat should be provision lockers, water tai 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 substit installed equipment that can b Weights representing persons in the water when the rescue than 500 mm above the sea representing persons who wo rescue boat is flooded (wate seat pan) should be placed i 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. Note: Several tests may ha different areas would create of	e loaded with its equipment. If hks and fuel tanks cannot be ded or filled to the final waterline scue boats fitted with watertight accommodate individual drinking ve these containers aboard and artments which should be sealed tests. Ballast of equivalent weight uted for the engine and any other be damaged by water. (of 82.5 kg mass) who would be boat is flooded (water level more at 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 cimate density of 1 kg/dm <sup>3</sup> (for ers) to represent a volume similar we to be conducted if holes in different flooding conditions.	When load should ha with wate would occ in any on assuming and no oth	ded as specified, t ve positive stabi er to represent f ur when the rescu e location below no loss of buoy ner damage.	he rescue boat lity when filled flooding which ie boat is holed the waterline yancy material	Comments/Observati	ons Failed

Rigid fast rescue boats	Manufacturer:       Dat         Model:       Sui         Lot/Serial Number:       Org				Date: Surveyor: Organization	Time:	
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	
The rescue boat with its engine should be loaded with a mass equal to that of all the equipment. One half of the number of persons for which the rescue boat is to be approved should be seated in a proper seating position on one side of the centreline. The freeboard should then be measured on the low side.			nould be co eeboard, on tl escue boat's	nsidered succes he low side, is n length or 100 mm	sful, if the ot less than n, whichever	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	t should be taken in vith all equipment, equivalent mass ngine and fuel.						
5.5.2.3 Righting test (for	or non self-righti	ing fast rescu	e boats)	Regulations:	MSC.81(70)1/7.1.7		
Test Pr	ocedure		Acceptance Criteria Significant Test Data		Significant Test Data		
It should be demonstrated that and fuel or an equivalent mat fuel tank, the rescue boat is of more than two persons if it is if The engine should be running stopping automatically or by release switch when inverted and run for 30 minutes after the the upright position. For rescue boats with inboat engine and fuel is not applicate (This test is not required if the performed.)	It both with and w ss in place of the apable of being r inverted on the w g in neutral positi the helmsman's , it should be ea he rescue boat ha ard engines, the ple. righting test in 5.8	vithout engine e engine and ighted by not ater. ion and, after s emergency sily restarted as returned to test without 5.2.4 has been	The rescue by no inverted by no inverted on the regime or more restarted, emergency restarted, emergency restarted, systems show than 250 ml propulsion systems show that show t	boat should be cap of more than two he water. escue boat has otor should be cap provided the elease, if fitted, ha of the fuel ar buld prevent the of fuel or lubricatin ystem.	pable of being persons if it is righted, each bable of being helmsman's as been reset. Ind lubricating loss of more ng oil from the	Can the boat be righted by 2 persons? With engine and fuel: Passed Failed Without engine and fuel: Passed Failed Method used to right boat: Comments/Observations	

Rigid fast rescue boats	Manufacturer: Model: Lot/Serial Number:		Date: Surveyor: Organization	Time:	
5.5.2.4 Self-Righting	test (for self-righting fast r	escue boats only)	Regulations: MSC/0	Circ.809, Annex, 4.1.5, 4.1.8; N	ISC.81(70)1/6.14
Test Proc	cedure	Acceptance	e Criteria	Significant 7	est Data
A suitable means should be rescue boat about a longitu heel and then release it. The incrementally rotated to an including 180° and should be These tests should be con- conditions of load: .1 when the rescue boat with the normal position weights representing the boat with a full compler The weight used to assumed to have an an should be secured at have its centre of graving above the seatpan so an on stability as when the with the number of per- approved; and	be provided to rotate the dinal axis to any angle of the rescue boat should be agles of heel up to and e released. Inducted in the following with its engine is loaded in with properly secured he fully equipped rescue ment of persons on board. represent each person, average mass of 82.5 kg, each seat location and ty approximately 300 mm as to have the same effect the rescue boat is loaded rsons for which it is to be	After release, the rescu return to the upright assistance of the occup At the beginning of the should be running in a r .1 unless arranged t when inverted, 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	e boat should always position without the pants. ese tests, the engine neutral position and: to stop automatically the engine should until stopped by the gency release switch; the helmsman's se, if necessary, the easily restarted and after the rescue boat e upright position. the engine.	Angle of Righting Moment Heel Loaded 45 <sup>0</sup> 90 <sup>0</sup> 135 <sup>0</sup> 180 <sup>0</sup> Result: PASSED FAILED Comments/Observations	Light PASSED FAILED
.2 when the rescue boat i	s in the light condition.	The design of the f systems should prevent 250 ml of fuel or lub	tuel and lubricating the loss of more than ricating oil from the		
In the case of open fast reso test should only be done in	ue boats, the self-righting the light condition.	propulsion system.			

Rigid fast rescue boats	Manufacturer:         []           Model:			Date: Surveyor: Organization	:	Time:
5.5.2.5 Flooded capsizing rescue boats only)	test (for self-	righting fully enclosed fast	Regulations	: MSC.81(70)	1/6.14.3, 6.14.4, 6. <sup>-</sup>	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	fast rescue r. This test is escue boats.	After release, the lifeboat sho provides an above-water escape	ould attain a for the occupa	position that ants.	Result: PASSED	FAILED
water and fully flooded until boat can contain no addition entrances and openings secured to remain open durir	al the rescue al water. All should be ng the test.				Comments/Obser	vations
Using a suitable means, the should be rotated about a axis to a heel angle of 180 released.	rescue boat longitudinal 0° and then					
For the purpose of this test, the distribution of the occupar disregarded. However, the eve equivalent mass, should be the rescue boat in the norm position.	ne mass and hts may be quipment, or secured in al operating					

Rigid fast rescue boats	Rigid fast rescue boats       Manufacturer:         Model:			Time:
5.5.2.6 Engine inversion	test (inboard) (for sel	f-righting fast rescue	Regulations: LSA Code	4.6.4.2; MSC.81(70) 1/6.14.6 - 6.14.8, 7.4.1
Test Proc	edure	Acceptar	nce Criteria	Significant Test Data
The engine and its fuel tank frame that is arranged to equivalent to the longitudinal A pan should be located un any oil which may leak fron quantity of such oil can be may The following procedure shou test:	should be mounted on a rotate about an axis axis of the boat. der the engine to collect in the engine so that the easured.	The engine and engine capable of running in ar and continue to run after to the upright or should capsizing and be easily boat returns to the uprige The design of the fuel should prevent the los more than 250 ml of lubit during capsize	he installation should be by position during capsize or the rescue boat returns Id automatically stop on restarted after the rescue ght. and lubricating systems s of fuel and the loss of ricating oil from the engine	PassedFailed Comments/Observations
<ul> <li>.1 start the engine and 5 minutes;</li> <li>.2 stop the engine and direction through 360°;</li> <li>.3 restart the engine and 10 minutes;</li> <li>.4 stop the engine counter-clockwise direction through 360°;</li> <li>.5 restart the engine, r 10 minutes, and then s</li> <li>.6 allow the engine to coordinate the engine and 5 minutes;</li> </ul>	run it at full speed for rotate it in a clockwise d run it at full speed for and rotate it in a ction through 360°; un it at full speed for top the engine; ol; d run it at full speed for	During these tests, overheat, fail to operate of oil during any one inv When examined after engine should show no or excessive wear.	the engine should not or leak more than 250 ml version. being dismantled the evidence of overheating	

Rigid fast rescue boats	Manufacturer: Model: Lot/Serial Number:	Date:            Surveyor:            Organization:		Time:	
5.5.2.6 Engine inversion t	est (inboard) (continued)	Regulations: LS	SA Code 4.6.4	4.2; MSC.81(70) 1/6.14.6 - 6.14.8, 7.4.1	
Test F	Procedure	Acceptance Criteria	а	Significant Test Data	
Test F The following procedure sho (Continued): .8 slowly rotate the runnin through 180°, hold at th rotate it 180° further in a one revolution; .9 if the engine is arrang inverted, restart it; .10 allow the engine to co 10 minutes; .11 shut the engine down a .12 repeat the procedure in that the engine should direction; .13 restart the engine and n .14 rotate the engine in a co and stop the engine. Ro full clockwise revolution .15 restart the engine and n	Procedure uld be followed during this test g engine in a clockwise direction e 180° position for 10 s, and then a clockwise direction to complete ged to stop automatically when ontinue to run at full speed for and allow it to cool; n .7 through .11 above, except be turned in a counter-clockwise run it at full speed for 5 minutes; clockwise direction through 180° otate it 180° further to complete a a; un it at full speed for 10 minutes;	Acceptance Criteria During these tests, the engine overheat, fail to operate or lea 250 ml of oil during any one ir When examined after being the engine should show no overheating or excessive wea	a e should not ak more than nversion. dismantled evidence of ar.	Significant Test Data         Are all the tests carried out according to the procedure as prescribed? Passed/Failed         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 tests have been carried out according to the procedure?         Passed/ Failed         Amount of oil lost from engine during each inversion:         .2 :       ml         .4 :       ml         .8 :       ml         .12 :       ml         .14 :       ml         .16 :       ml	
.16 repeat the procedure i counter-clockwise; .17 restart the engine, run i then shut it down; and	t at full speed for 10 minutes and			Total amount of oil lost from engine: ml Evidence of overheating or excessive wear? Passed/ Failed	
.18 dismantle the engine fo	or examination.			Amount of oil lost from engine ml Comments/Observations	

Rigid fast rescue boats	rescue boats Manufacturer:			Date:          Time:            Surveyor:          Organization:			
5.5.3.1 Seating strengt	th test		Regulations: L	SA Code 4.4	1.5, MSC.81(70) <sup>2</sup>	1/6.6.1	
Test Procedure		Acceptanc	e Criteria			Significant Test D	ata
Test Procedure The seating should be loaded of 100 kg in each position al person to sit in the rescue boat falls, each type of seat shou with a mass of 100 kg in an location when dropped into th a height of at least 3 m. (This performed in conjunction w Test in 5.5.7.1).	d with a mass llocated for a at. launched by ild be loaded y single seat he water from s test may be ith the Drop	Acceptance The seating should be able to any permanent deformation or The seating should be capable No damage should be sustain seat's efficient functioning.	e Criteria support this load damage. of supporting th ed that would affe	ing without is loading. ect the	Observed dama Passed Passed Comments/Obs	Significant Test D age Failed Failed ervations	<u>ata</u> N/A

Rigid fast rescue boats       Manufacturer:         Model:       Lot/Serial Number:				Date: Surveyor: Organization:	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	)	Acceptano	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 shoul 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 2130 Stretcher dimensions	be fitted with its The number of boat is to be ge mass of at lifejackets and other essential nen board; one a stretcher of shown in the d be properly ne rigid rescue auvred and all o demonstrate out difficulty or its.	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	without interference capable of carr down on a streto onforms with the 1.1. vale, transom, boat.	ence with the rying at least cher. d on the floor, ne leg space or buoyancy	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:       I         Model:       Model:       I         Lot/Serial Number:       I		Date:          Time:            Surveyor:             Organization:			
5.5.4.1 Simultaneous r	elease		Regulations: L	SA Code 4.4.	7.6, MSC.81(70)1/6.9.12
Test Procedure		Acceptanc	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 th rescue boat should be loade total mass equals 1.1 times th rescue boat, all its equipm number of persons for whic boat is to be approved. The should be released simultar each fall to which it is conne binding or damage to any part boat or the release mechanist Single fall systems not intende operation are exempt from this	e fitted should be mechanism he water. The d so that the he mass of the hent and the h the rescue rescue boat neously from ected without of the rescue m. ed for on-load is test.	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.	hat the rescue each fall which it any part of the re- hat the rescue ach fall to which it light condition a e to the release	e boat will is connected escue boat or e boat will is connected nd in a 10% e gear or its	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

Manufacturer: Model:			Date: Surveyor:	Time:	
Rigid fast rescue boats	Lot/Serial Number: Organization		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	
Test Pro	ocedure	Acceptance Criteria	a	Significant Test Data	
With the operating mechanis	m disconnected it should be	There should be no damage a	as a result of	Operating mechanism disconnected and boat	
complement of persons and	d equipment and towed at				
speeds of 5 knots that the mov	veable hook component stays	The rescue boat is released sat the release mechanism.	tisfactorily by	Operating mechanism connected tests.	
Furthermore, with the operat	ing mechanism connected, it			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 operation are exempt from this t	d for on-load test.	Force Applied: N. Forward direction: Pass Fail Aft direction:Pass Fail	
.1 a force equal to 25% of hook should be app lengthwise direction of to the vertical. This test	the safe working load of the lied to the hook in the the boat at an angle of 45° should be conducted in the			Test 2: 100% SWL, athwartships at 20° to the vertical: Force Applied: N.	
antward as well as the id	orward direction;			Pass Pail Port:Pass Fail	
.2 a force equal to the satisfied to the satisfied to the satisfied to the should be applied to the direction at an angle of should be conducted or	fe working load of the hook ne hook in an athwartships 20° to the vertical. This test n both sides; and			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 satisfied to the satisfied to the between the positions of the longitudinal axis of angle of 33° to the version conducted in four position	fe working load of the hook e hook in a direction halfway of tests 1 and 2 (i.e. 45° to the boat in plain view) at an ertical. This test should be ons.			Force Applied: N. Position 1:Pass Fail Position 2:Pass Fail Position 3:Pass Fail Position 4:Pass Fail Comments/Observations	

Rigid fast rescue boats	Manufacturer:		Date:          Surveyor:          Organization:		
5.5.4.3 Load and release te	st	Regulations: LS	A Code 4.	4.7.6.4; MSC.81(70) 1/6.9.4.1, 6.9.4.2	
Test Proced	lure	Acceptance Criteria		Significant Test Data	
A release mechanism should tested as follows: The rescue boat release and the longest used conne associated with the system and adjusted according to i original equipment manufactu to 100% of its safe working lo Load and release should be r The rescue boat release a should then be disassembled and wear recorded. The re system should then be reasse	be conditioned and retrieval system and action cable/linkage should be mounted nstructions from the urer and then loaded ad and released. epeated 50 times. and retrieval system l, the parts examined blease and retrieval embled.	During the 50 releases, the rescue boa and retrieval system should be simultaneously from each fall to wh connected without any binding or damag part of the lifeboat release and retrieval The system should be considered as any failure during the conditioning or un release occurs when load is applied system has not yet been operated.	at release released nich it is ge to any system. "failed" if nintended but the	Working Load:      N         Force Applied:      N         Check the box for each release:      N         1:       2:       3:       4:       5:       6:         7:       8:       9:       10:       11:       12:         13:       14:       15:       16:       17:       18:         19:       20:       21:       22:       23:       24:         25:       26:       27:       28:       29:       30:         31:       32:       33:       34:       35:       36:         37:       38:       39:       40:       41:       42:       43:         43:       44:       45:       46:       47:       48:       49:       50:         Passed       Failed	
Rigid fast rescue boats	Manufacturer: Model: Lot/Serial Number:			Date: Surveyor Organiza	Time: : tion:
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5.5.4.4 Cyclic loading test	t		Regulations: L	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 disconnected from the operating mechanism, should be tested 10 times with cyclic loading from zero load to 1.1 times the safe working load, at a nominal 10 seconds per cycle; unless the release mechanism has been 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 pe		The specimen should remain of The system should be consider failure during this test or any us opening occurs.	closed during the ered as "failed" if nintended releas	e test. any se or	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:       1:         7:       8:       9:       10:       1:
more than 1% to 1.1 times the For cam-type designs, the te carried out at an initial cam (fully reset position), and repe either direction, or 45° in or restricted by design.	e SWL. est should be rotation of 0° eated at 45° in he direction if				Cam rotation +45°:         1:       2:       3:       4:       5:       6:         7:       8:       9:       10:       10:       10:         Cam rotation -45°:       1:       2:       3:       4:       5:       6:       10:         7:       2:       3:       1:       5:       6:       10:       10:       10:         Passed:       9:       10:       10:       10:       10:       10:       10:         Passed:       Failed:         Failed:

Rigid fast rescue boats	Manufacturer: Model: Lot/Serial Number:	Date: Date: Survey	Dir: Time: Dir: zation:
5.5.4.5 Actuation force to	est	Regulations: LSA Code	4.4.7.6.4; MSC.81(70) 1/6.9.4.4
Test Proce	edure	Acceptance Criteria	Significant Test Data
The cable and operating med reconnected to the hook as boat release and retrieval	chanism should then be sembly; and the rescue system should then be	The actuation force should be no less that 100 N and no more than 300 N, if a cable is used it should be the maximum length	N Actuation Force: N
working load.	stactorily under its safe	the same manner it would be secured in the rescue boat.	Passed: Falled:
The demonstration should ve indicators and handles are a correctly positioned in accord and safety instructions from manufacturer.	erify that any interlocks, still functioning and are lance with the operation the original equipment	The release mechanism is deemed to have passed the testing in 5.5.4.3, 5.5.4.4 and 5.5.4.5 when the tests have been conducted successfully. The system should be considered as "failed" if any failure during this test or any unintended release or opening occurs.	Comments/Observations

Rigid fast rescue boats	Manufacturer: Model: Lot/Serial Number:		Date: Surveyor: Organization	Time:
5.5.4.6 Second release	e mechanism tests- actuatio	n 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 Pro	ocedure	Acceptance Crite	eria	Significant Test Data
<ul> <li>A second release mechanism</li> <li>.1 the actuation force of the be measured loaded wit load. If a cable is used, i length specified by the m the same manner it wou. The demonstration shou indicators and handles a correctly positioned in ac and safety instruction for manufacturer; and</li> <li>.2 the release mechanism tensile strength testing or increased to at least six to release mechanism.</li> </ul>	should be tested as follows: e release mechanism should th 100% of its safe working it should be of the maximum nanufacturer, and secured in all be secured in a lifeboat. Ild verify that any interlocks, are still functioning and are cordance with the operation rom the original equipment a should be mounted on a device. The load should be times the working load of the	.1 The actuation force shou than 100 N and no more	Id 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:		Date: Surveyor: Organization	
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	Acceptance 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.	aded with weights equal ent and the number of boat is to be approved. f the rescue boat should	The maximum towing force of the should be recorded on the typ certificate. There should be no damage to the t or its supporting structure.	rescue boat be approval towing fitting	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	used to determine the praft the rescue boat can nots.			Bollard pull: N (Record on type approval
The fitting designated for tow secured to a stationary object a means to measure bollard be operated ahead at full spec 2 minutes and the maximum f	ing other craft should be by a tow rope fitted with pull. The engine should ed for a period of at least force recorded.			certificate) Observed damage:
(For rescue boats equipped bollard pull trials may be car various powers to asses performance.)	with outboard motors, ried out with engines of s the rescue boat's			Propeller: Pitch: Diameter: Passed Failed Comments/Observations

Rigid fast rescue boats	Manufacturer: Model: Lot/Serial Num		Date: Surveyo Organiz	Dr: cr: cation:	
5.5.5.2 Endurance, spe	ed and fuel cor	nsumption	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	Э	Acceptance	Criteria		Significant Test Data
(Note: Run this test after the in tests in 5.5.7.1.) The rescue boat should b weights equal to the mass of and the number of persons rescue boat is to be approved The engine should be starter manoeuvred for a period of a to demonstrate satisfactory of The rescue boat should be run not less than 8 knots with a f of persons and equipment an a crew of 3 persons for a p sufficient to ascertain the fur and to establish that the fur required capacity. (This dete be made during the 4-h operation.) For rescue boats equipped motor, speed and manoeuvri be carried out with engines of to assess the rescue boat's p	mpact and drop e loaded with f its equipment f its equipment f its equipment f its equipment f its equipment d and the boat at least 4 hours peration. In at a speed of full complement d 20 knots with beriod which is el consumption el tank has the ermination may our period of with outboard ng trials should various powers erformance.	The boat should operate sat 4-hour operation. The fuel tank should have operate at a speed of 8 knot with its full complement of per- The fuel tank should have operate at a speed of 20 knot with a crew of 3 persons.	e sufficient capa s for a period of 4 ersons and equipt e sufficient capa	acity to 4 hours ment. acity to 4 hours	Smallest Engine       Largest Engine         Make/model:

Rigid fast rescue boats	Manufacturer: Model: Lot/Serial Number:			Date: Surveyor: Organization	Time:	
5.5.5.3 Engine out of w	vater		Regulations: L	SA Code 4.4.	6.3, MSC.81(70)1/6.10.5	
Test Procedure		Acceptance	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		The engine should not be damaged as a result of this test.		Passed Failed Comments/Observations		
fitted during the test.						
5.5.5.4 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 performance is satisfactory ar unduly affected by magnetic equipment in the rescue boat	the compass nd that it is not c fittings and	The compass operates satisfa	ctorily.		Compass Make: Compass Model: Passed Failed Comments/Observations	

Rigid fast rescue boats       Manufacturer:         Model:       Lot/Serial Number:				Date: Surveyor: Organization	Time:
5.5.5.5 Helpless Person	Recovery		Regulatio	ons: LSA Cod	de 4.4.3.4, 5.1.1.7, MSC.81(70)1/6.10.8, 7.1.1
Test Procedure	1	Acceptance Crit	eria		Significant Test Data
It should be demonstrated by testing 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.		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 Coo	de 5.1.2.2.1, MSC.81(70)1/7.1.8
Test Procedure		Acceptance Criteria			Significant Test Data
It should be demonstrated th boat can be propelled and m its oars or paddles in calm wa at a speed of at least 0.5 distance of at least 25 m. wh the number of persons, lifejackets and immersion sui is to be approved.	hat the rescue anoeuvred by ater conditions knots over a ten laden with all wearing ts, for which it	The rescue boat should be capable of paddled and manoeuvred.	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 fast rescue boats	Manufacturer: Model: Lot/Serial Number	r:		Date: Surveyor: Organization	:	_ Time:	
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 equipped rescue boat, loaded distributed mass equal to number of persons for which it can be towed at a speed of no in calm water and on an ev rescue boat's painter securing	d that the fully d with a properly the mass of the is to be approved, t less than 5 knots en keel using the g device.	The rescue boat should not exhibit unsafe or unstable characteristics. There should be no damage to the rescue boat or its equipment as a result of this test.			Passed Comments/Obs	servations	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	Accepta	ance Criteria			Significant T	est Data
It should be demonstrated release mechanism can release 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 l other constructions in the re- directions specified in test several 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 5.5.4.2 should be	The painter should releas damage to the rescue boo of this test.	e and there shou at or its equipmer	ld be no ht as a result	Passed Test Direction	Passed Passed Passed Passed Passed Passed servations	Failed Failed Failed Failed Failed Failed

		Manufacturer:			Date:	Time:		
<b>D</b>		Model:			Surveyor:			
RIG	d fast rescue boats	Lot/Serial Number:			Organization:			
					0			
5.5.	7.1 Impact, drop an	d operation after impact and drop test	Re	gulations: LSA	Code 4.4.1.7, MS	C.81(70)1/6.4.1, 6.4.3, 6	.4.5, 6.	4.7
	Те	est Procedure		Acceptance	e Criteria	Signifi	cant Te	st Data
.1	For boats launched by fa	all or falls, the fully equipped rescue boat,	The	e impact and dro	op tests should be	Load in boat:	_kg	
	including its engine, sho	ould be loaded with weights equal to the	cor	nsidered succes	sful if:			
	mass of the number of p	persons for which the rescue boat is to be				Observed Damage:	YES	NO
	approved. Included in th	his loading should be a weight of 100 kg	.1	no damage ha	s been sustained			
	loaded in one of each t	type of seat installed in the lifeboat. The		that would al	fect the rescue	Increased Damage:	YES	NO
	remainder of the weight	ts should be distributed to represent the		boat's efficient	functioning;			
	normal loading in the re	escue boat. (These weights need not be	2	the democra	acused by the			
	should be in position. The	le sealpan). Skales of fenders, il required,	.2	impact and dr	caused by the	Satisfactory Operation:	VES	NO
	should be nulled laterally	to a position so that when released it will		inpact and u	up lesis has hol		TE3	NO
	strike a fixed rigid vertica	I surface at a velocity of 3.5 m/s. The boat		result of the o	nerational test in			
	should be released to im	inact against the rigid vertical surface		5552		Ingress of Water	YES	NO
		paor againer the rigid vertical caracter.		0.0.0.2,			120	110
.2	The same rescue boat w	ith its engine. loaded as described above.	.3	machinerv	and other			
	should then be suspend	led above the water so that the distance		equipment has	s operated to full	Weight of heaviest engine tested:		ed:
	from the lowest point of	the rescue boat to the water is 3 m. The		satisfaction; ar	nd	Final Evaluation:		
	rescue boat should then	be released so that it falls freely into the		,				
	water.		.4	no significar	nt ingress of	Passed F	ailed	
				seawater has	occurred.			
.3	After the impact and dro	op tests, the boat should be examined to						
	detect the position and e	extent of damage that may have occurred				Comments/Observatior	าร	
	as a result of the tests,	and an operational test should then be						
	conducted in accordance	e with 5.5.5.2.						
.4	After the operational tes	st, the rescue boat should be unloaded,						
	cleaned, and carefully ex	xamined to detect the position and extent						
	or damage that may have	e occurred as a result of the tests.						

Rigid fast rescue boats	Anufacturer: Anufacturer: Model: Lot/Serial Number:			Date:          Time:            Surveyor:          Organization:		
5.5.7.2 Overload test			Regulations: M	ASC.81(70)1/7	.1.4	
Test Procedure		Acceptanc	e Criteria		Test Pro	ocedure
The rescue boat should be properly distributed load of f weight to represent the equip complement of persons each kg for which it is to be a suspended for five minutes f or hooks. The weights should in proportion to the loading of service condition, but the we represent the persons need 300 mm above the seat pan. bridle or hooks and fastening be examined after the test conducted.	loaded with a our times the oment and full weighing 82.5 pproved and from its bridle be distributed the boat in its eights used to not be placed The boat and device should st has been	The rescue boat and its bridle not show any signs of damage	or release mech	anism should	Load in boat:	_kg
Testing by filling the boat with not be accepted. This meth does not give the proper of weight. Machinery may be order to avoid damage, in weights should be added to compensate for the remo machinery. The rescue boat and its br (release mechanism) and fas should be examined after the signs of damage.	water should od of loading distribution of removed in which case the boat to val of such idle or hooks tening device e test for any				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
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#### 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
  - 5.6.4.2 Towing release test
  - 5.6.4.3 Load and release test
  - 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
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- 5.6.6 Towing and painter tests
  - 5.6.6.1 Towing test
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# 5.6.7 Strength tests 5.6.7.1 Imp

- 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
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## 5.6 INFLATED FAST RESCUE BOATS

## **EVALUATION AND TEST REPORT**

Manufacturer	
Туре	
Date	
Place	
Name Surveyor printed	
Signature	
Approving Organization	

Inflated fast rescue boats	Manufacturer: Model: Lot/Serial Number:	Date:         Time:           Surveyor:         Organization:
5.6.0.1 General data and	specifications	Regulations: LSA Code 4.4, 5.1, MSC.81(70) 1/7.2
General Information	n Rescue b	boat dimensions Rescue boat weight
Construction Material: Hull:	Dimensions:	Design Weight:
Canopy:	LOA:	Unloaded Boat:
	Breadth Maximum:	Loose Equipment: Fuel:
Rescue Boat Inherent Buoyancy	y Destitute Off	Persons:
(Type App.) Material:	Depth to Sill:	Calculated Loaded Weight:
	Depth to Gunwale:	Fully Equipped:
Persons (82.5 kg each):		With Persons:
	Moulded Breadth:	
Engine(s) Installed: 1	2	Weight As Tested:
Type App by: Manufacturer:	Moulded Depth:	Fully Equipped:
Type:	Provision for securing hangir	ng-off pendant
Power:	(if applicable):	Comments/Observations
Gear ratio (inboard engine):		
Additional rigid or inflatable buo	yancy:	
Release mechanism(s) (if applie	cable) 2	
Manufacturer:		
Туре:		
SWL:		
Propeller:		

Inflated fast rescue boat	Manufacturer: Model: Lot/Serial Number		Date: Time: Surveyor: Organization:					
5.6.0.2 Submitted of	5.6.0.2 Submitted drawings, reports and documents							
	Su	bmitted drawings and documents		Status				
Drawing No.	Revision No. & date	Title of	drawing	Status				
	S	ubmitted reports and documents		Status				
Report/Document No.	Revision No. & date	Title of repo	rt / document	Status				
		Maintenance Manual -						
		Operations Manual -						

Inflated fast rescue boats	Manufacturer: Model: Lot/Serial Number:	Date:         Time:            Surveyor:         Organization:				
5.6.0.3 Quality assurance	e	Regulations: M	SC.81(70) 2/1.1, 1.2			
Except where all appliances of of the International Convention amended or the International inspected, representatives of inspections of manufacturers appliances and materials use approved prototype life-saving a Manufacturers should be require ensure that life-saving applian the prototype life-saving applian keep records of any production Administration's instructions.	a particular type are required by chapter III n for the Safety of Life at Sea, 1974, as Life-Saving Appliance (LSA) Code, to be the Administration should make random to ensure that the quality of life-saving ed comply with the specification of the appliance. ed to institute a quality control procedure to ses are produced to the same standard as nce approved by the Administration and to in tests carried out in accordance with the	Quality assurance Standard Used: Quality assurance Quality assurance Description of Sy	ce Procedure: ce Manual: ystem:			
		Quality assurance System acceptable				
		Yes/No				
		Comments/Observations				

Inflated fast rescue boats Manufact Lot/Seria		ufacturer:        Date:         el:        Surve         Serial Number:        Organ		Date: Surveyor: Organizat	e: Time: veyor: anization:	
5.6.1.1 Occupant space			Regulations: LS	SA 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.	boat. verify	<b>General</b> Unless the rescue boat has ade provided with a bow cover extend its length.	equate sheer, it s ing for not less tha	Passed Failed Passed Failed		
		Length is at least 6.0 m and not ov Seating Space Width – at least 430 mm Depth – at least 100 mm each side back Knee Space (Seating on seats) at Knee Width – at least 250 mm Leg Space (Seating on floor) – at le Overlapping Seat Vertical Separat Seat Horizontal Overlap – 150 mm Each seating position should be c	ver 8.5 m. e of a point 215 mm least 635 mm from east 1190 mm from tion – at least 350 n maximum learly indicated.	n from the n the back n the back mm	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 capabl seated persons and a person lying 2130 x 610 mm.	<b>aretcher(s) space:</b> escue boats should be capable of carrying at least five eated persons and a person lying on a stretcher of minimum 30 x 610 mm.		Stretcher space:xmm Passed Failed Non-Skid Surface: PassedFailed	
		Walkway Surfaces The surfaces on which persons m non-skid finish.	ight walk should h	ave a	Comments/Observations	

Inflated fast rescue boats	Aanufacturer:            Aodel:            Jodel:            Jot/Serial Number:		n:	Time:		
5.6.1.2 Fittings, provisions and ladders Regulations: LSA Code 5.1.3,			3, MSC.81(70)1/7	7.2.16		
Test Procedure	Acceptance Cr	iteria			Significant Test Dat	a
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	re and aft		Passed	Failed	_
	Fittings and Provisions Suitable handholds or buoyant lifeline be rescue boat above the waterline and w water, except in the vicinity of the rudder	ecketed around th ithin reach of a po and propeller	e outside of erson in the	Passed	Failed	_
	On other than self-righting rescue boats arranged to break away without damagir	, handholds on th ng the rescue boat	e underside t	Passed	Failed	N/A
	Weathertight stowage for small items of	equipment		Passed	Failed	_
	Approved position indicating light provide	ed at highest point	t	Passed	Failed	_
	Rubbing strips on bottom and vulner	Rubbing strips on bottom and vulnerable places on the outside			_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 ervations	_

Inflated fast rescue boats Manufacture Lot/Serial N		rer:		Date: Surveyor: Organizatio	n:
5.6.1.2 Fittings, provisio	ns 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		Acceptan	ce Criteria		Significant Test Data
Visually inspect the rescue bo measurements and verify cle required.	at. Conduct arances as	Ladders         Ladders that can be used a board and the lowest step wh than 0.4 m below the light wat         Colour         The boat should be of a hig assist detection.	<u>ce Criteria</u> It any entrance sh Ien in place should terline.	nould be on I not be less where it will	Significant Test Data         Passed Failed         Lowest stepm below waterline         Highly visible colour:         PassedFailed         Comments/Observations
		<b>Colour</b> The boat should be of a hig assist detection.	hly visible colour v	where it will	Highly visible colour: PassedFailed Comments/Observations

Inflated fast rescue boats	Inflated fast rescue boats Manufacturer: Date: Model: Date: Surveyor: Organization:			Tim	ne:
5.6.1.3 Engine and starting system Regulations: LSA Code 4.4.6			A Code 4.4.6, 5.1, N	ISC.81(70)1/7.2	.16
Test Procedure	Acceptance Criteria				Significant Test Data
Visually inspect the rescue boat. Conduct measurements and	Type of starting system - Two independent rechargeable energ	d for power starting	Manual Powe YES NO	er N/A	
venity clearances as required.	<ul> <li>Required starting aids provided</li> <li>Starting system is not impeded by obstructions</li> </ul>	y engine casing,	thwarts, or other	Passed Passed	Failed Failed
	<ul> <li>Propeller arranged to be disengaged fr and astern propulsion</li> </ul>	om the engine and	provision for ahead	Passed	Failed
	<ul> <li>Exhaust arranged to prevent water from</li> <li>System designed with due regard to t</li> </ul>	m entering engine he safety of perso	in normal operation ns in the water and	Passed	Failed
	<ul> <li>to the possibility of damage to the prop</li> <li>Engine casing made of fire-retardant m providing similar protection</li> </ul>	oulsion system from naterial or other sui	n floating debris table arrangements	Passed	Failed
	<ul> <li>Personnel are protected from hot and</li> <li>Shouted order can be heard with end</li> </ul>	moving parts iine running at spe	ed necessarv for 6	Passed	Failed
	knot operation	3	,	Passed	Failed
	<ul> <li>Watertight casing around bottom and fitting top which provides for gas ventir</li> </ul>	sides of starter baing	tteries with a tightly	Passed	Failed
	- Means for recharging engine starting provided by solar charger or ship's pow	ng, radio, and se wer supply	earchlight batteries	Passed	Failed
	- Radio batteries not used to provide po	wer for engine star	rting ver supply does not	Passed	Failed
	exceed 50 v			Passed	Failed
	- Recharging means for engine batterie	es can be disconne	ected at the rescue	Passed	Failed
	<ul> <li>boat embarkation station</li> <li>Instructions for starting and operation</li> <li>mounted in a conspicuous place pear</li> </ul>	ng engine are w	ater resistant and	Passed	Failed
	- Towing arrangement for marshalling life	ferafts		Passed	Failed

Inflated fast rescue boats	Manufacturer: Model: Lot/Serial Number:		Date:          Time:            Surveyor:          Organization:			
5.6.1.4 Steering mechanis	m and fuel tank	Regulations:	LSA Code 4	4.4.7.2, 5.1.1.8, MSC	.81(70)1/7.2.16	
Test Procedure	Acceptance Criter	ia		Sig	nificant Test Data	
Visually inspect the rescue boat. Conduct measurements and verify clearances as required.	Steering A tiller should be capable of controlling the ru form part of outboard motor)	Steering A tiller should be capable of controlling the rudder (rudder and tiller may form part of outboard motor)				
	Rudder permanently attached to the rescue	e boat		Passed	Failed	N/A
	Rudder and tiller are arranged so as not to of the release mechanism or propeller	Rudder and tiller are arranged so as not to be damaged by operation of the release mechanism or propeller				
	Steered by wheel at helmsman's position			Passed	Failed	N/A
	Has emergency steering system providing water jet or outboard motor	g direct control	l of rudder,	Passed	Failed	
	Hands-free, watertight VHF radio provided			Passed	Failed	
	Fuel Tank					
	If fitted with petrol-driven outboard motor, the fuel tank(s) should be specially protected against fire and explosion			Passed	Failed	_N/A
				Comments/Observa	tions	

Inflated fast rescue boats	Manufactu Model: Lot/Serial I	anufacturer: lodel: ot/Serial Number:		Date: Surveyor: Organizatio	n: T	-ime:	
5.6.1.5 Release mechani	sm		Regulations: LS	SA Code 4.4.	7,.6.5, MSC.81(70)1/7	7.2.16	
Test Procedure		Acceptan	ce Criteria		Sigr	nificant Test Dat	ta
Visually inspect the rescue boa measurements and verify clea required.	at. Conduct arances as	Clear operating instructions Release control marked in a	Clear operating instructions F Release control marked in a colour that contrasts with the		Passed Passed	Failed	
		surroundings 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 prov required for off load release	ided beyond tha	at normally	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.	uitable painter, on- such an arrangem only when it is fully	load release ent a single waterborne	Passed Comments/Observa	Failed	N/A

Inflated fast rescue boats	Manufa Model: Lot/Se	acturer: : rial Number:	Date: Surveyor: Organization:	Time:
5.6.1.6 Retro-reflective mater	ials	Regulations: LSA Code I/1.2, 1.2.2.7	l .	
Test Procedure		Acceptance Criteria		Significant Test Data
Retro-reflective tape		Be fitted with approved patches of retro-reflective resolution MSC.481(102) as detailed below:	e material as per	Type of retro-reflective tape Passed Failed
		Retro-reflective materials should be fitted on top of the as on the outside of the boat as near the gunwale as	ne gunwale as well s possible.	Passed Failed
The matarea of (approxi If a bow materials canopy sufficien should b centre to In the ca materials		The materials should be sufficiently wide and long t area of 150 cm <sup>2</sup> and should be spaced at (approximately 80 cm from centre to centre).	Tape sizes (LXB)         Total tape area         Centre to centre spacing:         Passed       Failed	
		If a bow cover canopy is fitted, it should not be allowed to obscure the materials fitted on the outside of the boat, and the top of the bow cover canopy should be fitted with retro-reflective materials should be sufficiently wide and long to give a minimum area of 150 cm <sup>2</sup> and should be spaced at suitable intervals (approximately 80 cm from centre to centre).		Tape sizes (LXB)         Total tape area         Centre to centre spacing:         Obscured: - Yes/No?         Passed       Failed
		In the case of inflated fast rescue boats which are not materials should be placed, on the bottom of inflated	self-righting, such fast rescue boats.	Passed Failed Comments/Observations

Inflated fast rescue boats Manufactur Lot/Serial N		rer: Number:		Date: Surveyor: Organizatio	n:
5.6.2.1 Damage test		-	Regulations: LS	SA Code 5.1.	3.5, MSC.81(70)1/7.2.89
Test Procedure		Acceptano	ce Criteria		Significant Test Data
<ul> <li>The following tests should be with the inflated rescue boat the number of persons (of 82.51 which it is to be approved bo without engine and fuel or ar mass in the position of the eng tank:</li> <li>.1 with forward buoyancy condeflated;</li> <li>.2 with the entire buoyancy of the rescue boat deflated;</li> <li>.3 with the entire buoyancy of and the bow compartment</li> </ul>	carried out loaded with kg mass) for th with and r equivalent ine and fuel ompartment on one side l; and on one side deflated.	In each of the conditions pr persons for which the rescue be supported within the rescue	<u>ce Criteria</u> rescribed, the full boat is to be appro e boat.	number of oved should	Significant Test Data         Comments/Observations         1       With engine and fuel:         Passed

Inflated fast rescue boats Manufacturer: Lot/Serial Nur		: Date: 		n:	
5.6.2.2 Stability test			Regulations: LS	SA Code 4.4.	5, MSC.81(70)1/6.10.8, 7.2.67
Test Procedure		Accepta	nce Criteria		Test Procedure
The following tests should be engine and fuel or an equivaler of the engine and fuel tanks: .1 the number of person inflated rescue boat is should be crowded to half this complement buoyancy tube, and th In each case the freeb recorded; and	carried out with at mass in place s for which the to be approved one side with seated on the en to one end. oard should be	.1 Under these conditions everywhere positive.	the freeboard sho	uld be	.1 Freeboard crowded to one sidemm To bow:mm .2 To stern:mm PassedFailed
<ul> <li>.2 the stability of the rescue boarding should be two persons in the demonstrating that the assist from the water who is required unconsciousness. The should have his back to of the rescue boat so assist the rescues. should wear approved</li> <li>These stability tests may be of the rescue boat floating in still</li> </ul>	cue boat during ascertained by rescue boat ey can readily a third person to feign third person owards the side that he cannot All persons lifejackets. carried out with water.	.2 The rescue boat should	be stable.		.3       Stability observations during recovery of unconscious person:         Clothing/Suits on helpless person:

				Data	Time
	Model:			Surveyor:	IIme:
Inflated fast rescue boats Lot/Serial Number:				Organizatio	DN:
				_	
5.6.2.3 Loading test			Regulations: M	SC.81(70)1/7	7.2.45
Test Procedu	re	Acce	ptance Criteria		Significant Test Data
The freeboard of the inflated re-	scue boat should be	In each condition the not less than 300 m	minimum freeboar	rd should be v tubes and	.1 Freeboard at Buoyancy Tubes:mm
.1 rescue boat with all its equip	oment;	not less than 250 m	m from the lowest	t part of the	2 Erecheard at Puevenav Tubas:
.2 rescue boat with all its equipation of an equivalent of	ipment, engine and				Freeboard at Transom:mm
represent engine and fuel;					.3 Freeboard at Buoyancy Tubes:mm
.3 rescue boat with all its number of persons for which	equipment and the n it is to be approved				A Freeboard at Proveney Tubes:
having an average mass of that a uniform freeboard is	82.5 kg so arranged achieved at the side				Freeboard at Transom:mm
.4 rescue boat with the numbe	r of persons for which				Passed Failed
it is to be approved and all it and fuel or an equivalent ma engine and fuel and the reso	s equipment, engine ass to represent cue boat being				Comments/Observations
5.6.2.4 Swamp test			Regulations: M	SC.81(70)1/7	7.2.11
Test Procedu	ire	Acce	ptance Criteria		Significant Test Data
It should be demonstrated th	at the rescue boat,	The rescue boat sho	uld be capable of s	supporting	Passed Failed
when fully swamped, is capable equipment, the number of per 82.5 kg for which it is to be ap equivalent to its engine and fu should also be demonstrated to does not seriously deform in thi	e of supporting its full sons each weighing oproved and a mass illy filled fuel tank. It hat the rescue boat s condition.	the full load and shou	uid not seriously de	etorm.	Comments/Observations

Inflated fast rescue boats	Manufacturer: Model: Lot/Serial Number:			Date: Surveyor: Organizatio	n:	
5.6.2.5 Righting test (for	non self-rig	hting fast rescue boats)	Regulations: M	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 fur equivalent mass in place of the of fuel tank, the rescue boat is being righted by not more than tw if it is inverted on the water. The engine should be running position and, after stopping au or by the helmsman's emergent switch when inverted, it should restarted and run for 30 minuter rescue boat has returned to the position. For rescue boats with inboard end test without engine and fur applicable. (This test is not required if the rig 5.6.2.6 has been performed.)	t both with iel or an engine and capable of wo persons in neutral itomatically ncy release d be easily es after the the upright ingines, the iel is not ghting test in	Acceptant The rescue boat should be ca more than two persons if it is in When the rescue boat has r should be capable of bein helmsman's emergency releas The design of the fuel and prevent the loss of more than from the propulsion system.	ce Criteria apable of being rig inverted on the wat ighted, each engir ing restarted, pr se, if fitted, has bee d lubricating syste 250 ml of fuel or lu	hted by not ter. ne or motor rovided the en reset. ems should ubricating oil	Significant Test Data         Can the boat be righted by 2 persons?         With engine and fuel:         Passed         Without engine and fuel:         Passed         Passed         Failed         Method used to right boat:         Comments/Observations	

Inflated fast rescue boats	Manufacturer: Model: Lot/Serial Number:		Date: Surveyor Organiza	Time: : tion:
5.6.2.6 Self-righting test	t (for self-righting fast re	escue boats only)	Regulations: MSC	.81(70)1/6.14
Test Procee	dure	Acceptanc	e Criteria	Significant Test Data
A suitable means should be rescue boat about a longitudir heel and then release it. The incrementally rotated to angli including 180° and should be r These tests should be condiconditions of load: .1 when the rescue boat with the normal position w weights representing the boat with a full compleme The weight used to re assumed to have an ave should be secured at en have its centre of gravity above the seatpan so as to on stability as when the with the number of perso approved; and	provided to rotate the nal axis to any angle of rescue boat should be es of heel up to and eleased. ucted in the following n its engine is loaded in rith properly secured fully equipped rescue nt of persons on board. present each person, rage mass of 82.5 kg, ach seat location and approximately 300 mm to have the same effect rescue boat is loaded ns for which it is to be	After release, the rescureturn to the upright assistance of the occup At the beginning of the should be running in net of the should be run for should be run for 30 minutes has returned to the Water should not enter of the should be run for the should not enter the should not	the helmsman's set if necessary, the easily restarted and the engine should the engine should until stopped by the gency release switch the helmsman's se, if necessary, the easily restarted and after the rescue boat e upright position.	Angle of Righting Moment Heel Loaded Light 45° 90° 135° 180° Result : PASSED FAILED PASSED FAILED Comments/Observations
.2 when the rescue boat is in the light condition.		The design of the fuel and lubricating systems should prevent the loss of more than 250 ml of fuel or lubricating oil from the		
In the case of open fast rescue test should only be done in the	boats, the self-righting light condition.	propulsion system.	-	

Inflated fast rescue boats	Manufactu Model: Lot/Serial I	rer: Number:		Date: Surveyor: Organizatio	n:
5.6.2.7 Flooded capsizing te 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		Acceptan	ce Criteria		Significant Test Data
Perform the following for fully rigid fast rescue boats. This is applicable to open fast rescue bo The rescue boat should be pla water and fully flooded until t boat can contain no additional entrances and openings s 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 sec rescue boat in the normal position.	r enclosed test is not coats. aced in the he rescue water. All hould be the test. escue boat udinal axis a released. mass and a may be ipment, or ured in the operating	After release, the lifeboat s provides an above-water esca	should attain a p pe for the occupar	osition that nts.	Result: PASSED FAILED Comments/Observations

Inflated fast rescue boats Manu Mode Lot/Se	ufacturer: bl: Gerial Number:			Date: Surveyor: Organizatior	Time:
5.6.2.8 Engine inversion test (for s	self-righting fast res	cue 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	otance Criteria		Significant Test Data
<ul> <li>The engine and its fuel tank should be n that is arranged to rotate about an axi longitudinal axis of the boat.</li> <li>A pan should be located under the engine which may leak from the engine so that to oil can be measured.</li> <li>The following procedure should be for test: <ul> <li>1 start the engine and run it a 5 minutes;</li> <li>2 stop the engine and rotate it in a c through 360°;</li> <li>3 restart the engine and rotate it in a c direction through 360°;</li> <li>5 restart the engine, run it at full spe and then stop the engine;</li> <li>6 allow the engine to cool;</li> <li>7 restart the engine and run it a 5 minutes;</li> </ul> </li> </ul>	mounted on a frame tis equivalent to the pine to collect any oil the quantity of such ollowed during this at full speed for clockwise direction at full speed for counter-clockwise eed for 10 minutes, at full speed for	The engine and er capable of runnir capsize and contin boat returns to automatically stop restarted after the upright. The design of the f should prevent the more than 250 m engine during cap During these test overheat, fail to c 250 ml of oil during When examined a engine should overheating or exc	ngine installation ng in any posi- nue to run after the upright on capsizing ar rescue boat ref uel and lubricati e loss of fuel and l of lubricating of size. es, the engine operate or leak g any one inverse after being dism show no ev-	n should be tion during the rescue or should nd be easily turns to the ng systems d the loss of oil from the should not more than sion. nantled the ridence of	Passed Failed Comments/Observations

Manufacturer:	Date:	Time:
Inflated fast rescue boats	Surveyor:	
Lot/Serial Number:	Organizatio	on:
5.6.2.8 Engine inversion test (continued)	Regulations: LSA Code 4.6.4	.2: MSC.81(70) 1/6.14.6 - 6.14.8. 7.4.1
Test Procedure	Acceptance Criteria	Significant Test Data
The following procedure should be followed during this	During these tests, the engine should not	Are all the tests carried out according to the
test (Continued):	overheat, fail to operate or leak more than	procedure as prescribed? Passed/Failed
	250 ml of oil during any one inversion.	
.8 slowly rotate the running engine in a clockwise	When every and often being discounted the	Does the engine stop when turned in either
for 10 s and then rotate it 180° further in a	when examined after being dismantied the	direction? Passed/Falled
clockwise direction to complete one revolution:	or excessive wear	Does the engine fulfil the requirements after the
9 if the engine is arranged to stop automatically		tests have been carried out according to the
when inverted, restart it;		procedure? Passed/Failed
.10 allow the engine to continue to run at full speed for		<b>'</b>
10 minutes;		Amount of oil lost from the engine during each
.11 shut the engine down and allow it to cool;		inversion:
.12 repeat the procedure in .7 through .11 above,		.2 : ml
except that the engine should be turned in a		.4 : ml
counter-clockwise direction;		.8: ml
.13 restart the engine and run it at full speed for		.12: mi
5 minutes;		16: ml
180° and stop the engine Rotate it 180° further to		.10. 111
complete a full clockwise revolution.		Total amount of oil lost from engine: ml. Evidence
.15 restart the engine and run it at full speed for		of overheating or excessive wear?
10 minutes;		Passed/Failed
.16 repeat the procedure in .14 above, turning the		
engine counter-clockwise;		Amount of oil lost from engine ml
.17 restart the engine, run it at full speed for		Comments/Observations
10 minutes and then shut it down; and		
.18 dismantle the engine for examination.		

Inflated fast rescue boats       Manufacturer:         Model:       Lot/Serial Number:			Date: Surveyor: Organizatio	Ti n:	ime:	
5.6.3.1 Seating strength	test		Regulations: LS	SA Code 4.4.	1.5, MSC.81(70)1/6.6. <sup>,</sup>	1
Test Procedure		Acceptance	ce Criteria		Signi	ificant 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.		The seating should be able to any permanent deformation or	o support this load damage.	ding without	Observed damage	
In the case of a rescue hoat la	aunched by				Passed	Failed
falls, each type of seat should be loaded with a mass of 100 kg in any single seat		The seating should be capable of supporting this loading. No damage should be sustained that would affect the seat's		Passed	FailedN/A	
location when dropped into the a height of at least 3 m. (This t performed in conjunction with the in 5.6.7.1).	water from est may be e Drop Test	efficient functioning.			Comments/Observati	ions

Inflated fast rescue boats	Manufacturer:			Date: Surveyor: Organization	Time: n:
5.6.3.2 Seating space tes	st		Regulations: LS	SA Code 5.1.	1.3.2, MSC.81(70)1/7.1.3
Test Procedure		Acceptanc	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 a mass of at least 82.5 kg, and lifejackets and immersion suit other essential equipment requi then board; one person should I a stretcher of similar dimensior shown in the figure and the oth be properly seated in the rescue rigid rescue boat should manoeuvred and all equipment tested to demonstrate that operated without difficulty or in with the occupants.	e fitted with ment. The the rescue an average all wearing s 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 of 5 persons and a person lying of Except the helmsmen, person provided the space used correquirements of test form 5.6. No seating is on the gunv chambers on the sides of the b	without interferen capable of carryin down on a stretche is may be seated of onforms with the 1.1. vale, transom, or boat.	nce with the ng at least er. on the floor, leg space r buoyancy	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

Inflated fast rescue boats	Manufacturer:			Date: Surveyor: Organizatio	n:
5.6.4.1 Simultaneous rel	ease		Regulations: LS	SA Code 4.4.	7.6, MSC.81(70)1/6.9.12
Test Procedure		Acceptance	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 equipme 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.)	fall or falls, itted should mechanism water. The so that the mass of the nt and the the rescue escue boat cously from ted without f the rescue tended for t from this	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.	hat the rescue each fall which it is any part of the res hat the rescue ach fall to which it is light condition an	boat will s connected scue boat or boat will s connected d in a 10%	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	Model:		Surveyor:		
				l	
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	edure	Acceptance Criteria	a	Significant Test Data	
With the operating mechanism	disconnected it should be	There should be no damage a	as a result of	Operating mechanism disconnected and boat	
demonstrated when the rescue	boat is loaded with its full	these tests.		towed at 5 kts:Pass Fail	
complement of persons and	equipment and towed at	The receive best is released as	tiofoctorily by	Operating mechanism connected tests	
closed	able hook component stays	the release mechanism	listactorily by	Operating mechanism connected tests.	
				Test 1: 25% SWL, lengthwise to the boat at 45° to	
Furthermore, with the operating	g mechanism connected, it			the vertical:	
should be demonstrated that th	e rescue boat when loaded	Single fall systems not intende	d for on-load		
with its full complement of per	sons and equipment when	operation are exempt from this	test.	Force Applied: N.	
towed at speeds of 5 knots ca	in be released. Both of the			Forward direction:Pass Fail	
above should be demonstrated	as follows.				
.1 a force equal to 25% of the	e safe working load of the			Test 2: 100% SWL, athwartships at 20° to the	
hook should be applied to t	the hook in the lengthwise			vertical:	
This test should be conducted	and in the aftward as well as			Force Applied: N	
the forward direction:				Starboard: Pass Fail	
				Port:PassFail	
.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	
should be conducted on bot	h sides: and			the boat in plan view at an angle of 33° to the	
				Vertical.	
.3 a force equal to the safe	working load of the hook			Force Applied: N.	
should be applied to the he	ook in a direction halfway			Position 1:PassFail	
between the positions of tes	sts 1 and 2 (i.e. 45° to the			Position 2:PassFail	
of 33° to the vertical. This to	in plain view) at an angle			Position 3:PassFall	
four positions.				r usiliun 4r ass r an	
				Comments/Observations	

Inflated fast rescue boats	Manufacturer: Model: Lot/Serial Number:		Date:            Surveyor:            Organization:		
5.6.4.3 Load and release tes	st	Regulations: LSA Code 4.4.7.6.4; MSC.81(70) 1/6.9.4.1, 6.9.4.2			
Test Procedur	e	Acceptance Criteria		Significant Test Data	
Test Procedur A release mechanism should be tested as follows: The rescue boat release and re- the longest used connect associated with the system shou adjusted according to instruction equipment manufacturer and th of its safe working load and rele Load and release should be rep The rescue boat release and should then be disassembled, t and wear recorded. The rele system should then be reassem	e conditioned and etrieval system and ion cable/linkage uld be mounted and ns from the original en loaded to 100% eased. beated 50 times. d retrieval system he parts examined ease and retrieval abled.	Acceptance Criteria During the 50 releases, the rescue boa and retrieval system should be simultaneously from each fall to wh 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 un release occurs when load is applied system has not yet been operated.	t release released ich it is ge to any system. "failed" if intended but the	Significant Test Data         Working Load:      N         Force Applied:      N         Check the box for each release:	
Inflated fast rescue boats	Manufactur Model: Lot/Serial N	rer:		Date: Surveyo Organiza	r:ation:
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5.6.4.4 Cyclic loading test			Regulations: LS	A 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 to 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 the 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.	onnected a, 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° ed at 45° direction	The specimen should remain of The system should be conside during this test or any uninte occurs.	closed during the t red as "failed" if an ended release or	est. ny failure opening	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         1       2       3       4       5       6         7       8       9       10

Inflated fast rescue boats	Manufacturer: Model: Lot/Serial Number:		Date: Surveyo Organiz	r: Time: ation:		
5.6.4.5 Actuation force test		Regulations: L	SA Code	4.4.7.6.4; MSC.81(70) 1/6.9.4.4		
Test Procedu	ure	Acceptance Criteria	Significant Test Data			
The cable and operating mecha reconnected to the hook asser boat release and retrieval sys demonstrated to operate satisfa working load. The demonstration should verif indicators and handles are stil correctly positioned in accordar and safety instruction from th manufacturer.	anism should then be nbly; and the rescue stem should then be actorily under its safe by that any interlocks, I functioning and are nee with the operation e original equipment	The actuation force should be no 100 N and no more than 300 N, if a used it should be the maximur 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 5.6.4.5 when the tests have been c successfully. The system sho considered as "failed" if any failure d test or any unintended release or occurs.	less than a cable is n length ecures in ed in the l to have 5.4.4 and onducted ould be uring this opening	Actuation Force: N Passed: Failed: Comments/Observations		

Inflated fast rescue boats	boats Manufacturer: Model: Lot/Serial Number:			Date:         Time:           Surveyor:		
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	ria	Significant Test Data		
<ul> <li>A second release mechanism s</li> <li>1 the actuation force of the re be measured loaded with a load. If a cable is used, it sh length specified by the man the same manner it would The demonstration should w indicators and handles are correctly positioned in account and safety instruction from manufacturer; and</li> <li>2 the release mechanism sh tensile strength testing dew increased to at least six time release mechanism.</li> </ul>	hould be tested as follows: lease mechanism should 100% 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 rdance with the operation in the original equipment hould be mounted on a vice. The load should be es the working load of the	.1 The actuation force shou than 100 N and no more t	Ild be no less han 300 N. s not fail.	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 Test Proced The rescue boat should be load to the mass of its equipmen persons for which the rescue b The maximum towing force of t then be determined.	ure led with weights equal t and the number of oat is to be approved. he rescue boat should	Acceptar The maximum to rescue boat shou type approval cer There should be towing fitting	Regulations: La nce Criteria towing force of the ld be recorded on the tificate.	SA Code 4.4.6.8, 5.1.1.7, 5.1.1.9, MSC.81(70)1/7.1.2           Significant Test Data           Smallest Engine         Largest Engine           Make/model:
This information should be u largest size of fully loaded liferat tow at a speed of at least 2 km The fitting designated for towin secured to a stationary object with a means to measure bo should be operated ahead at 1 of at least 2 minutes and recorded. (For rescue boats equipped w bollard pull trials may be carrie various powers to assess performance.)	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 rescue boat's	structure.		Bollard pull: N

Inflated fast rescue boats	Manufacturer:			Time: or: zation:			
5.6.5.2 Endurance, spee	ed and fuel co	nsumption	Regulation	ns: LSA	Code MSC.81(70)1/7	7.1.6, 7.4.2.12	
Test Procedure		Acceptance Crite	eria		Si	ignificant Test D	ata
(Note: Run this test after the drop tests in 5.6.7.1.)	impact and	The boat should operate satisfac 4-hour operation.	torily through	nout the	Make/model:	Smallest Engin	e Largest Engine
The rescue best should be l	ooded with				Fuel Tank Capacity:		L
weights equal to the mass of its and the number of persons for rescue hoat is to be approved	r which the				Propeller: Pitch:		
					Diameter:		
The engine should be started a manoeuvred for a period of at le to demonstrate satisfactory ope	and the boat east 4 hours eration.				@8 knots: Engine speed (RPM)	):	
The rescue boat should be run	at a speed	The fuel tank should have sufficient canacity to			Boat speed (kts)		
of not less than 8 knots complement of persons and	with a full equipment	operate at a speed of 8 knots for with its full complement of perso	a period of 4	hours ment.	Consumption (L/h)		
and 20 knots with a crew of 3 a period which is sufficient to a	persons for scertain the				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)	):	
4-hour period of operation.)	during the				Boat speed (kts)		
For rescue boats equipped wi	th outboard	The fuel tank should have su	fficient capac	city to	Consumption (L/h)		
motor, speed and manoeu should be carried out with	vring trials engines of	operate at a speed of 20 knots for with a crew of 3 persons.	a period of 4	hours	Endurance (hrs.)		
various powers to assess the re performance.	escue boat's				Comments/Observat	ions	

nflated fast rescue boats       Manufacturer:         Model:       Lot/Serial Number:		Date: Surveyor: Organization	n:		
5.6.5.3 Engine out of wat	ter		Regulations: LS	A 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 5 minutes at idling speed under simulating normal storage. Note: If a water flushing device to be used for this purpose, it fitted during the test.	for at least r conditions is intended should be	e engine should not be dam	aged as a result o	f this test.	Passed Failed Comments/Observations
5.6.5.4 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 th performance is satisfactory and unduly affected by magnetic f equipment in the rescue boat.	e compass that it is not fittings and	e compass operates satisfa	ctorily.		Compass Make: Compass Model: Passed Failed Comments/Observations

Inflated fast rescue boats	Manufactur Model: Lot/Serial N	irer:          Date:             Surveyor:            Number:         Organization:			n:		
5.6.5.5 Manoeuvrability v	with paddles	or oars	Regulati	tions: LSA Code 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 water at a speed of at least 0.5 km distance of at least 25 m. when the number of persons, a lifejackets and immersion suits, is to be approved.	the rescue oeuvred by r conditions ots over a laden with II wearing for which it	The rescue boat should be capable of paddled and manoeuvred.	f being sat	isfactorily	Distance travelled:m Time required:s Calculated speed:m/s = knots Lifejacket and immersion suit used during		
is to be approved.					the test: Lifejacket – Inflatable/Inherently Buoyant Immersion suit – Uninsulated/Buoyant Insulated Passed Failed Comments/Observations		

Inflated fast rescue boats	Manufactur Model: Lot/Serial N	rer:          Date:            Surveyor:          Surveyor:            Number:          Organization			n:	
5.6.5.6 Heavy weather/seas	test	Regulations: LSA Code 5.1.3			3, MSC.81(70)1/7.2.10	
Test Procedure		Acceptan	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.	eather the itted with a ntended to nd of force for at least the power than that	The rescue boat should not show undue permanent strain nor have lost more than minim		flexing or al pressure.	Tube pressure before test:mbar         Pressure relief valves open/closed?         Wave heightm         Wind Speedm/s         Tube pressure after test:mbar         PassedFailed         Comments/Observations	
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		Acceptan	ce 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 res- painter securing device.	at the fully ed with a ual to the for which it at a speed water and scue boat's	The rescue boat should no characteristics. There should be no damag equipment as a result of this to	ot exhibit unsafe le to the rescue est.	or unstable boat or its	Passed Failed	

Inflated fast rescue boats	Manufactur Model: Lot/Serial N	er:		Date: Surveyor: Organizatio	n:	Time:	
5.6.6.2 Painter release te	est		Regulations: L	SA Code 4.4.	7.7, MSC.81(70) <sup>2</sup>	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 r that is being towed at a speed than 5 knots in calm water. The painter release mechanism tested in several distinct direct upper hemisphere not obstruct	the painter the painter rescue boat of not less n should be tions of the cted by the	The painter should release an to the rescue boat or its equip	d there should be ment as a result o	e no damage f this test.	Passed Test Direction	Passed Passed Passed	Failed Failed Failed Failed
canopy or other constructions in boat. The directions specified in should be used if possible.	the rescue test 5.6.4.2					Passed Passed Passed	Failed Failed Failed
					Comments/Obs	servations	

Inflated fast rescue boats Manufacturer: Model: Lot/Serial Number:				Date: Surveyo Organiz	Time: or: ation:		
5.6.7.1	Impact, drop and	operation after impa	ct and drop test	Reg	gulations: LSA Code 4.4.1.7, MSC.81(70)1/6.4.1, 7.2.2 & 7.2.3		
	Test Procedu	re	Acceptance Criteria			Significant Test Data	
.1 For equ sho of tl boa sho eac weig norr weig sea be han pos fixe m/s aga	boats launched by fa upped rescue boat, in puld be loaded with weigh the number of persons at is to be approved. Inco- puld be a weight of 100 ch type of seat installed ights should be distribut mal loading in the re- ights need not be placed atpan.) Skates or fender in position. The resco- nging position, should be sition so that when releved rigid vertical surface s. The boat should be ainst the rigid vertical surface	all or falls, the fully ncluding its engine, hts equal to the mass for which the rescue cluded in this loading kg loaded in one of d in the lifeboat. The ted to represent the escue boat. (These d 300 mm above the rs, if required, should sue boat, in a free e pulled laterally to a eased it will strike a at a velocity of 3.5 released to impact rface.	<ul> <li>The impact and drop tests considered successful if:</li> <li>.1 no damage has been sustain affect the efficient functio rescue boat and its equipment.</li> <li>.2 the damage caused by the drop tests has not increased as a result of the operation 5.6.5.2;</li> <li>.3 machinery and other equipment operated to full satisfaction; and the substant of the substant of the substant of the substant operated to full satisfaction; and the substant operated to full satisfaction; and substant operated.</li> </ul>	shou ed tha ning nt; impa I signi onal iipmer and eawat	uld be at would of the act and ificantly test in nt has ter has	Load in boat:kg Observed Damage: Increased Damage: YES NO Satisfactory Operation: YES NO Ingress of Water: YES NO Weight of heaviest engine tested:	
.2 The and in th be o 3 m 45-o ster .3 On and exa	e rescue boat complete y d with a mass equivalent he position of its engine dropped three times from n on to water. The drops degree bow-down, leve rn-down attitudes. completion of these te d its equipment sh amined.	with all its equipment to its engine and fuel and fuel tank should m a height of at least s should be from the l trim, and 45-degree ests the rescue boat ould be carefully				Final Evaluation: Passed Failed Comments/Observations	

Inflated fast rescue boats	Manufactu Model: Lot/Serial I	rer: Number:		Date: Surveyor: Organizatio	Date:          Surveyor:          Drganization:		
5.6.7.2 Ambient overload	test	-	Regulations: LSA Code 5.1.3.2.2, MSC.81(70)1/7.2.12				
Test Procedure		Acceptano	ce Criteria		Significant Test Data		
With all relief valves inope inflated rescue boat should be a four times the mass of the full c of persons and equipment for w be approved and suspended fo from its bridle at an ambient tem $+20 \pm 3^{\circ}$ C.	rative, the loaded with complement hich it is to r 5 minutes operature of	The rescue boat and its bridle not show any signs of damage	or release mechai e.	nism should	Passed Failed		
The rescue boat and its bridle examined after the test is condu	should be ucted.						
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 of inflated rescue boat should be 1 1.1 times the mass of the full c 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	e, after 6 h f -30°C, the loaded with complement /hich it is to d for five should be ucted.	The rescue boat and its bridle not show any signs of damage	or release mechai	nism should	Passed Failed		

Inflated fast rescue boats	Manufacturer: _ Model: Lot/Serial Numb	per:		Date: Surveyor: Organization	n:
5.6.7.4 Mooring out test		1	Regulations: LS	SA Code 5.1.	3.3, MSC.81(70)1/7.2.15, 5.5, 5.17.78
Test Procedure	9	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. The 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. Eact valve should be made inoperate air should be used to inflate the boat and the inflation source re- should continue for at least 30 The measurement of pressur leakage can be started whe assumed that compartment m completed stretching due to pressure and achieved equilibr	ded with a mass unber of persons nd its equipment or in a seawater and remain afloat the pressure may sing the manual thour period the nape. In the rescue boat e equal to three ch pressure relief tive, compressed inflatable rescue emoved. The test minutes. The drop due to en it has been aterial has been to the inflation ium.	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 d nce. decrease by more bensating for temp anges, and there s or other defect in	damage that than 5% as berature and should be no in the rescue	Compartment 1         Initial Pressure:      mbar         Final Pressure:      mbar         Calculated Decrease:      Percent         Compartment 2      mbar         Initial Pressure:      mbar         Calculated Decrease:      Percent         Compartment 3      mbar         Calculated Decrease:      Percent         Compartment 3      mbar         Initial Pressure:      mbar         Calculated Decrease:      Percent         Compartment 4      mbar         Calculated Decrease:      Percent         Compartment 5      mbar         Calculated Decrease:      Percent         Compartment 5      mbar         Calculated Decrease:      Percent         Passed      mbar         Calculated Decrease:      Percent         Passed      mbar         Calculated Decrease:      Percent         Passed      Percent

Inflated fast rescue boats	Manufactur Model: Lot/Serial N	rer:		Date:            Surveyor:            Organization:
5.6.8.1 Inflation chamber	r characteris	stics tests	<b>Regulations:</b>	LSA Code 1.2.2, MSC.81(70)1/7.2.14
Test Procedure		Acceptance Crite	ria	Significant Test Data
The inflatable compartment mat 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 resistance	terials used should be pristics:	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
- 5.7.1.6 Retro-reflective materials
- 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 tests

- 5.7.7.1 Impact, drop and operation after impact and drop test
- 5.7.7.2 Overload test
- 5.7.7.3 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:	Date:       Time:          Surveyor:          Organization:
5.7.0.1 General data and spe	cifications	Regulations: LSA Code 4.4, 5.1, MSC.81(70)1/7.2.16
General Information	Rescue	e boat 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:	Depth to Gunwale:	Calculated Loaded Weight: Fully Equipped:
Persons (82.5 kg each):	Moulded Breadth:	
Engine(s) Installed: 1 2 Type App by: Manufacturer:	Moulded Depth: Provision for securing hang	ging-off pendant
Type: Power: Gear ratio (inboard engine):	(if applicable):	Comments/Observations
Additional rigid or inflatable buoyand	cy:	
Release mechanism(s) (if applicable 1 Manufacturer:	<ul> <li>⇒)</li> <li>2</li> <li></li> </ul>	
SWL:	—	

Rigid/inflated fast reso	cue boats	Manufacturer: Model: Lot/Serial Number:		Date:          Time:            Surveyor:          Organization:	
5.7.0.2 Submittee	l drawings, r	eports and doc	uments	<u> </u>	
		S	ubmitted drawings and documents		Status
Drawing No.	Revision N	No. & date	Title	of drawing	Status
			Submitted reports and documents		
Report/Document No.	Revisio	on No. & date	Title of re	port / document	Status
			Maintenance Manual -		
			Operations Manual -		

Rigid/inflated fast rescue boats		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 par of the International Convention for amended or the International Life-S inspected, representatives of the appliances and materials used co approved prototype life-saving applia Manufacturers should be required to ensure that life-saving appliances a the prototype life-saving appliance a keep records of any production test Administration's instructions.	ticular type are required by chapter III the Safety of Life at Sea, 1974, as Saving Appliance (LSA) Code, to be Administration should make random nsure that the quality of life-saving omply with the specification of the ance. institute a quality control procedure to re produced to the same standard as approved by the Administration and to ts 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/Observ	vations			

Rigid/inflated fast rescue boats       Manufacturer:         Model:       Lot/Serial Number:		Da Su Or	Date:         Time:           Surveyor:	
5.7.1.1 Occupant space		Regulations: LSA Cod	le 4.4.2.2, 4.4.3.5, 5.1, MSC.81(7	0)1/7.2.16
Test Procedure	Acceptance	e Criteria	Significant <sup>-</sup>	Test Data
Visually inspect the rescue boat. Con- measurements and verify clearances required.	duct <b>General</b> as Unless the rescue boat has a provided with a bow cover extended of its length.	<b>General</b> Unless the rescue boat has adequate sheer, it should be provided with a bow cover extending for not less than 15%		ailed
	Length is at least 6.0 m and n	ot over 8.5 m.	PassedF	Failed
	Seating Space Width – at least 430 mm Depth – at least 100 mm each the back Knee Space (Seating on seats back Knee Width – at least 250 mm Leg Space (Seating on floor) – 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 non-skid finish.	side of a point 215 mm from t s) at least 635 mm from t – at least 1190 mm from t paration – at least 350 mm 0 mm maximum be clearly indicated. able of carrying at least f on lying on a stretcher	Width:	nm nm im im im im D FAILED mm mm Failed

Rigid/inflated fast rescue boats Manufa Lot/Se		ufacturer:         D           lel:         S           Serial Number:         C		Date: Surveyor Organiza	Date: Time: Surveyor: Organization:	
5.7.1.2 Fittings, provisions ar	nd ladd	ers	Regulations: LSA	Code 5.1.	3, MSC.81(70)1/7.	2.16
Test Procedure		Acceptano	ce Criteria			Significant Test Data
Visually inspect the rescue boat.		Buoyancy compartments fitt Non-return valve for manual ir	ed with: flation		Passed	Failed
Conduct measurements and clearances as required.	verify	Means for deflation			Passed	Failed
		Safety relief valve unless waiv	ed by Administration		Passed	FailedN/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	nt lifeline becketed and the waterline and wit apt in the vicinity of the	round the hin reach ne rudder	Passed	Failed
		On other than self-righting resunderside arranged to break rescue boat	scue boats, handholo away without dama	ds on the aging the	Passed	Failed
		Weathertight stowage for sma	Il items of equipment	t	Passed	FailedN/A
		Approved position indicating li	ght provided at highe	est point		
		Provided with effective means of bailing or be automatically self-bailing		Passed	Failed	
					Passed	Failed
					Comments/Obse	ervations

Rigid/inflated fast rescue boats	Manu Mode Lot/S	acturer: Date: 			Time: 	
5.7.1.2 Fittings, provisions an	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.		Ladders			Passed Failed	
Conduct measurements and clearances as required.	verify	Ladders that can be used at any entrabolar board and the lowest step when in place than 0.4 m below the light waterline.	ance shou should no	ld be on ot be less	Lowest stepm below waterline	
		Other Provisions			YES 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 d condition.	hal to the h ed against when stow ays afloat	null of the damage ved on an in all sea	Passed Failed Highly visible colour: PassedFailed	
		<b>Colour</b> The boat should be of a highly visible assist detection.	colour whe	ere it will	Comments/Observations	

Rigid/inflated fast rescue boats	Manufacturer: Model: Lot/Serial Number:		Date: Surveyor: Organization:		Time:	
5.7.1.3 Engine and starting	system	Regulations: LSA	Code 4.4.6, 5.1,	MSC.81(7	0)1/7.2.16	
Test Procedure	Acceptance	e Criteria			Significant Test Dat	ta
Visually inspect the rescue boat. Conduct measurements and	Type of starting system - Two independent rechargeable energ	y sources provided fo	or power starting	Manual YES	Power NO N/A	
venty clearances as required.	<ul> <li>Required starting aids provided.</li> <li>Starting system is not impeded by enconstructions</li> </ul>	gine casing, thwarts,	or other	Passed_ Passed_	Failed Failed	_
	<ul> <li>Propeller arranged to be disengaged to ahead and astern propulsion</li> </ul>	from the engine and <sub>l</sub>	provision for	Passed_	Failed	_
	<ul> <li>Exhaust arranged to prevent water fro operation.</li> </ul>	om entering engine in	normal	Passed_	Failed	
	<ul> <li>System designed with due regard to the to the possibility of damage to the pro</li> <li>Engine casing made of fire-retardant to the procession of the process</li></ul>	he safety of persons pulsion system from material or other suita	in the water and floating debris able	Passed_	Failed	
	arrangements providing similar protected	ction. moving parts		Passed_	Failed	
	- Shouted order can be heard with engi	necessary for 6	Passed	Failed		
	knot operation				Failed	
	<ul> <li>Watertight casing around bottom and fitting top which provides for gas venti</li> <li>Means for recharging engine starting,</li> </ul>	sides of starter batter ing. radio, and searchligh	ries with a tightly	Passed_	Failed	
	provided by solar charger or ship's po	wer supply.	na	Passed_	Failed	
	<ul> <li>Recharging for engine batteries provided by ship's power supply does</li> </ul>			Passed	Failed	
	exceed 50 v		1. 4.4	Passed_	Failed	_
	- Recharging means for engine batterie boat embarkation station	es can be disconnecte	ed at the rescue	Passed	Failed	
	<ul> <li>Instructions for starting and operating mounted in a conspicuous place near</li> <li>Towing arrangement for marshalling li</li> </ul>	Instructions for starting and operating engine are water resistant and mounted in a conspicuous place near the engine starting controls Towing arrangement for marshalling liferafts				

Rigid/inflated fast rescue boats	Manu Mode Lot/S	Manufacturer:          Model:          Lot/Serial Number:		Date: Surveyor Organiza	Date:        Time:          Surveyor:           Organization:		
5.7.1.4 Steering mechanism a	and fue	l tank	Regulations: LSA C	ode 4.4.7	2, 5.1.1.8, , MSC.81(7	70)1/7.2.16	
Test Procedure		Accepta	nce Criteria		Sigr	nificant Test Da	ta
Visually inspect the rescue boat. Conduct measurements and clearances as required.	verify	Acceptal         Steering         A tiller should be capable or and tiller may form part of our Rudder permanently attache         Rudder permanently attache         Rudder and tiller are arrange operation of the release mech         Steered by wheel at helmsm         Has emergency steering systemetric or outboard         Hands-free, watertight VHF methods         Fuel Tank         If fitted with petrol-driven outshould be specially protected	f controlling the rudde tboard motor) d to the rescue boat ed so as not to be dan hanism or propeller an's position stem providing direct of motor radio provided	er (rudder naged by control of el tank(s) psion.	Passed Passed Passed Passed Passed Passed Passed Passed	Failed Failed Failed Failed Failed Failed	N/AN/AN/A
					Comments/Observat	tions	

Rigid/inflated fast rescue boats     Mar Moc Lot/		Manufacturer:         []           Model:		Date:          Surveyor:          Organization:			
5.7.1.5 Release mechanism			Regulations: LSA	Code 4.4.	7.6.5, MSC.81(70)	1/7.2.16	
Test Procedure		Acceptance	ce Criteria		9	Significant Test Da	ita
Visually inspect the rescue boat. Conduct measurements and	verify	Clear operating instructions			Passed	Failed	
clearances as required.		Release control marked in a surroundings	colour that contrasts	s 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 (inte mechanism is completely an accidental release during reco	rlock) engages on d properly reset, to very	ly when prevent	Passed	Failed	N/A
		On-load release mechanism nation by the operator	eeds deliberate and o	continued	Passed	Failed	N/A
		Mechanical protection provi required for off load release	ided beyond that	normally	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.	uitable painter, on-loa such an arrangement only when it is fully wa	id release t a single aterborne	Passed	Failed	N/A

Rigid/inflated fast rescue boats	Manufacturer: Model: Lot/Serial Number:	Date:            Surveyor:            Organization:				
5.7.1.6 Retro-reflective materials	Regulations: LSA Code I/1.2, 1.2.2.7					
Test Procedure	Acceptance Criteria		Significant Test Data			
Retro-reflective tape	Be fitted with approved patches of retro-reflective resolution MSC.481(102) as detailed below:	material as per	Type of retro-reflective tape Passed Failed			
	Retro-reflective materials should be fitted on top of the as on the outside of the boat as near the gunwale as p	Retro-reflective materials should be fitted on top of the gunwale as well as on the outside of the boat as near the gunwale as possible.				
	The materials should be sufficiently wide and long to g area of 150 cm <sup>2</sup> and should be spaced at su (approximately 80 cm from centre to centre).	The materials should be sufficiently wide and long to give a minimum area of 150 cm <sup>2</sup> and should be spaced at suitable intervals (approximately 80 cm from centre to centre). If a bow cover canopy is fitted, it should not be allowed to obscure the materials fitted on the outside of the boat, and the top of the bow cover canopy should be fitted with retro-reflective materials should be sufficiently wide and long to give a minimum area of 150 cm <sup>2</sup> and should be spaced at suitable intervals (approximately 80 cm from centre to centre).				
	If a bow cover canopy is fitted, it should not be allowed materials fitted on the outside of the boat, and the top of canopy should be fitted with retro-reflective mater sufficiently wide and long to give a minimum area of should be spaced at suitable intervals (approximate centre to centre).					
	Passed Failed Comments/Observations					

Rigid/inflated fast rescue boats	Manu Mode Lot/S	facturer: I: erial Number:	Date: Surveyor Organiza	Time: r: ation:
5.7.2.1 Damage test (Does not 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 carrie with the inflated rescue boat loaded the number of persons (of 82.5 kg mas which it is to be approved both with without engine and fuel or an equiv mass in the position of the engine an tank: with forward buoyancy compar deflated; .1 with the entire buoyancy or side of the rescue boat def and .2 with the entire buoyancy or side and the bow compar deflated.	ed out d with ss) for h and valent d fuel tment n one flated; n one tment	In each of the conditions prescribed, the full ne persons for which the rescue boat is to be approve be supported within the rescue boat.	umber of ed should	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         3       With engine and fuel:         Passed       Failed         Without engine and fuel       Passed

Rigid/inflated fast rescue boats Manufa Model: Lot/Ser		acturer:          Date:		Date: _ Survey Organiz	Time: yor: nization:		
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	ce Criteria		Significant Test Data		
The following tests should be carried engine and fuel or an equivalent in place of the engine and fuel tanks: .1 the number of persons for which inflated rescue boat is to be a should be crowded to one side this complement seated of buoyancy tube, and then to one each case the freeboard shourd the recorded; and .2 the stability of the rescue boat boarding should be ascertained persons in the rescue demonstrating that they can assist from the water a third person is required to feign unconscion The third person should have he towards the side of the rescue	5.7.2.2       Stability test         Test Procedure       Acceptance         The following tests should be carried out with engine and fuel or an equivalent mass in place of the engine and fuel tanks:       .1         .1       the number of persons for which the inflated rescue boat is to be approved should be crowded to one side with half this complement seated on the buoyancy tube, and then to one end. In each case the freeboard should be recorded; and       .1       Under these conditions everywhere positive.         .2       the stability of the rescue boat during boarding should be ascertained by two persons in the rescue boat demonstrating that they can readily assist from the water a third person who is required to feign unconsciousness. The third person should have his back       .2       The rescue boat during boarding should be ascertained by two persons in the rescue boat during boarding should be ascertained by two persons in the rescue boat much be ascertained by two persons in the rescue boat during that they can readily assist from the water a third person who is required to feign unconsciousness. The third person should have his back       .2		s the freeboard sho	ould be	1       Freeboard crowded to one sidemm         To bow:mm To stern:mm         PassedFailed         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:		
persons should wear a lifejackets. These stability tests may be carried the rescue boat floating in still water.	pproved out with				Passed Failed Comments/Observations		

	Manufacturer:			Date:	Time:		
<b>Digid/inflated fact receive boots</b>	Model:			Surveyo	or:		
Rigiu/imateu last lescue boats	Lot/Serial Number:	erial Number:			ation:		
5.7.2.3 Loading test			Regulations: MSC 81/70)1/7 2 4- 5				
Test Procedure		Aco	ceptance Criteria		Significant Test Data		
The freeboard of the inflated rescue b in the various loading conditions as for	oat should be taken blows:	In each condit should be not	ion the minimum f less than 300 mn	reeboard n at the	.1 Freeboard at Buoyancy Tubes:mm Freeboard at Transom: mm		
.1 rescue boat with all its equipment	•	buoyancy tubes	and not less than	250 mm	2 Freeboard at Rubyanay Tubas		
.2 rescue boat with all its equipment	, engine and fuel, or	from the lowest part of the transom.			Freeboard at Transom:mm		
and fuel;					.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					Passed Failed		
.4 rescue boat with the number of persons for which it is to be approved and all its equipment, engine and fuel or an equivalent mass to represent engine and fuel and the rescue boat being re-trimmed as necessary.					Comments/Observations		
5.7.2.4 Swamp test			Regulations: MS	C.81(70)1/	/7.2.11		
Test Procedure		Acceptar	nce Criteria		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		le boat should be capable of supporting should not seriously deform.		the full	Passed Failed		
					Comments/Observations		

Rigid/inflated fast rescue boats	Manufacturer: Model: Lot/Serial Number:			Date:          Time:            Surveyor:          Organization:		
5.7.2.5 Flooded stability test below lower side of in	(Required only when waterline flated tube)	is R	Regulations: LSA	Code 4.4.1.1, MSC.8	81(70)1/6.8.13	
Test Proce	edure		Acceptance C	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 these containers aboard and placed which should be sealed watertight of of equivalent weight and density sho and any other installed equipment the	When I should I water to when th location of buoya	loaded as specifie have positive stabi o represent flooding he rescue boat is o below the waterlin rancy material and	d, the rescue boat lity when filled with which would occur holed in any one e assuming no loss no other damage.	Comments/Observations		
and any other installed equipment that can be damaged by water. Weights representing persons (of 82.5 kg mass) who would be in the water when the rescue boat is flooded (water level more than 500 mm above the seat pan) may be omitted. Weights representing persons who would not be in the water when the rescue boat is flooded (water level more than 500 mm above the seat pan) should be placed in the normal seating positions of such persons with their centre of gravity approximately 300 mm above the seat pan. Weights representing persons who would be partly submerged in the water when the lifeboat is flooded (water level between 0 and 500 mm above the seat pan) should additionally have an approximate density of 1 kg/dm <sup>3</sup> (for example water ballast containers) to represent a volume similar to a human body.					PassedFailed	

Rigid/inflated fast rescue boats	Manu Mode Lot/Se	facturer: l: erial Number:		Date:          Time:            Surveyor:          Organization:		
5.7.2.6 Righting test (for non-	self-rig	hting fast rescue boats)	Regulations: MSC	.81(70)1/7	.1.7	
Test Procedure		Acceptano	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.	h with or an he and ble of ersons	The rescue boat should be ca more than two persons if it is i When the rescue boat has ri should be capable of bei helmsman's emergency releas	apable of being righten nverted on the water. ighted, each engine ng restarted, provi se, if fitted, has been	or motor ided the reset.	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 rightin in 5.7.2.7 has been performed.)	eutral atically elease easily er the upright es, the s not og test	The design of the fuel and prevent the loss of more than from the propulsion system.	I lubricating systems 250 ml of fuel or lubri	s should icating oil	Passed    Failed      Without engine and fuel:      Passed    Failed      Method used to right boat:      Comments/Observations	

Rigid/inflated fast rescue boats	r:		Date: Surveyor Organiza	Date:          Time:            Surveyor:          Organization:					
5.7.2.7 Self-righting test (for self-	-righting fast resc	ue boats only)	Regulations: MS	C.81(70)1/6	5.14				
Test Procedure		Acc	eptance Criteria			S	ignificant T	est Data	
A suitable means should be provid rescue boat about a longitudinal axi heel and then release it. The rescu incrementally rotated to angles of including 180° and should be release These tests should be conducted conditions of load: .1 when the rescue boat with its e the normal position with propert representing the fully equipped to full complement of persons on I used to represent each person, an average mass of 82.5 kg, sho each seat location and have its approximately 300 mm above th have the same effect on stab rescue boat is loaded with the m for which it is to be approved; an .2 when the rescue boat is in the lint In the case of open fast rescue boat test should only be done in the light of	ded to rotate the is to any angle of the boat should be heel up to and ad. in the following ngine is loaded in y secured weights rescue boat with a board. The weight assumed to have build be secured at a centre of gravity e seatpan so as to wility as when the number of persons and ght condition.	After release, the return to the u assistance of the At the beginning should be running .1 unless arrang inverted, the until stopp emergency r .2 after resettin release, if ne easily restart the rescue b position. Water should not The design of the should prevent th fuel or lubricating	e rescue boat shou pright position wi occupants. I of these tests, the in neutral position a ged to stop automati engine should conti- bed by the he elease switch; and og the helmsman's e ecessary, the engine red and run for 30 mi oat has returned to enter the engine. e fuel and lubricatin e loss of more than oil from the propulsio	Ild always thout the ne engine and: cally when inue to run elmsman's emergency should be nutes after the upright g systems 250 ml of on system.	Angle of Heel 90° – 135° – 180° – Result: PA Comments	Loade ASSED ASSED	Righting d FAILED ations	Moment Light PASSED	FAILED

Rigid/inflated fast rescue boats	Manu Mode Lot/Se	anufacturer: odel: t/Serial Number:			Date:          Time:            Surveyor:          Organization:		
5.7.2.8 Flooded capsizing test (fo	or self-i	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 enc rigid fast rescue boats. This test is applicable to open fast rescue boats.	losed s not	After release, the lifeboat should attain a pos provides an above-water escape for the occupants	sitior S.	n that	Result: PASSED FAILED		
The rescue boat should be placed i water and fully flooded until the rescue can contain no additional water entrances and openings should be see to remain open during the test.	n the e boat : All cured				Comments/Observations		
Using a suitable means, the rescue should be rotated about a longitudina to a heel angle of 180° and then relea	boat I axis ased.						
For the purpose of this test, the mass distribution of the occupants may disregarded. However, the equipment equivalent mass, should be secured in rescue boat in the normal open position.	s and y be nt, or in the rating						

Rigid/inflated fast rescue boats	Date: Date: Surveyc		Date: Surveyor Organiza	r: Time: r: ation:		
5.7.2.9 Engine inversion test (for	self-righting fast res	cue boats only)	Regulations: L	SA Code	4.6.4.2; MSC.81(70) 1/6.14.6 - 6.14.8, 7.4.1	
Test Procedure		Accept	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 engine which may leak from the engine so that oil can be measured.	mounted on a frame xis equivalent to the gine to collect any oil t the quantity of such	The engine and eng capable of running capsize and continu- boat returns to automatically stop of restarted after the r upright.	jine installation s in any positio ue to run after th the upright or n capsizing and escue boat retur	should be on during ie rescue r should be easily rns to the	PassedFailed	
<ul> <li>The following procedure should be test:</li> <li>.1 start the engine and run it at full</li> <li>.2 stop the engine and rotate it in a through 360°;</li> <li>.3 restart the engine and run i 10 minutes;</li> <li>.4 stop the engine and rotate it in a direction through 360°;</li> <li>.5 restart the engine, run it at full s and then stop the engine;</li> <li>.6 allow the engine to cool;</li> <li>.7 restart the engine and run i 5 minutes;</li> </ul>	followed during this speed for 5 minutes; a clockwise direction it at full speed for a counter- clockwise peed for 10 minutes, it at full speed for	The design of the fu should prevent the I more than 250 ml engine during capsi During these tests overheat, fail to op 250 ml of oil during When examined af engine should s overheating or exce	el and lubricating oss of fuel and th of lubricating oil ze. , the engine sh erate or leak m any one inversio ter being disma how no evide ssive wear.	systems he loss of from the hould not hore than on. ntled the ence of		

		Manufacturer:			Date:	Time:		
Rigid/inflated fast rescue boats					Surveyor	:		
•		Lot/Senai Numbe				tion:		
5.7.2	.9 Engine inversion test (cor	ntinued)		Regulations: LSA	Code 4.6.4	4.2; MSC.81(70) 1/6.14.6 - 6.14.8, 7.4.1		
	Test Procedure	•	Acce	eptance Criteria		Significant Test Data		
The f	ollowing procedure should be fol	lowed during this	During these tes	ts, the engine sh	ould not	Are all the tests carried out according to the		
test (	Continued):		overheat, fail to ope	erate or leak more that	an 250 ml	procedure as prescribed? Passed/Failed		
			of oil during any on	e inversion.				
.8	slowly rotate the running engin	ne in a clockwise				Does the engine stop when turned in either		
	direction through 180°, hold at	the 180° position	When examined	after being dismar	ntled the	direction?		
	for 10 s, and then rotate it 1	180° further in a	engine should sho	w no evidence of ov	erneating	Passed/Falled		
0	clockwise direction to complete	e one revolution;	or excessive wear.			If it stops, does it easily restart? Passed/Falled		
.9	when inverted restart it:	op automatically				tosts have been carried out according to the		
10	allow the engine to continue to	run at full sneed				procedure?		
.10	for 10 minutes:	run at fui opeeu				Passed/Failed		
.11	shut the engine down and allow	v it to cool:						
.12	repeat the procedure in .7 thr	ough .11 above,				Amount of oil lost from the engine during each		
	except that the engine should	d be turned in a				inversion:		
	counter-clockwise direction;					.2 : ml		
.13	restart the engine and run it	at full speed for				.4 : ml		
	5 minutes;					.8 : ml		
.14	rotate the engine in a cloo	ckwise direction				.12: ml		
	through 180° and stop the engin	ne. Rotate it 180°				.14: ml		
45	further to complete a full clocky	vise revolution;				.16: ml		
.15	restant the engine and run it	at full speed for				Total amount of ail last from anging, ml Evidence		
16	repeat the precedure in 14 at	oovo turning the				of overheating or excessive wear?		
.10	engine counter-clockwise:	Jove, turning the				Di Overnicaling ur excessive wear: Passed/ Failed		
17	restart the engine run it at	t full speed for						
	10 minutes and then shut it do	wn: and				Amount of oil lost from engine ml		
.18	dismantle the engine for exami	nation.				Comments/Observations		

Rigid/inflated fast rescue boats	Manufacturer: Model: Lot/Serial Number:	ufacturer: D el: S Serial Number: C		Date:          Time:            Surveyor:          Organization:		
5.7.3.1 Seating strength test	·	Regulations: LSA Cod	de 4.4.1.5, MSC.81(70)1/6	6.6.1		
Test Procedure	Acceptan	ce Criteria	S	Significant Test Data		
The seating should be loaded with a of 100 kg in each position allocated person to sit in the rescue boat.	mass The seating should be able to any permanent deformation of	support this loading with r damage.	out Observed damag	e		
In the case of a rescue boat launch falls, each type of seat should be lo with a mass of 100 kg in any single location when dropped into the wate	ed by The seating should be capable oaded No damage should be sustain e seat efficient functioning.	The seating should be capable of supporting this loading. No damage should be sustained that would affect the seat's efficient functioning.			_	
a height of at least 3 m. (This test m performed in conjunction with the Dro in 5.7.7.1.)	nay be p Test		Passed	Failed	N/A	
			Comments/Obser	vations		
Rigid/inflated fast rescue boats	Manufacturer: Model: Lot/Serial Number:	anufacturer:		Time: ::		
--	---	--	---	---	--	
5.7.3.2 Seating space test	·	Regulations: LSA Co	ode 5.1.1.3.2,	MSC.81(70)1/7.1.3		
Test Procedure	Accept	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 do 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.	d with . The escue rerage earing d any should wn on those should t. The n be board an be requirements of test form 5.7.1 No seating is on the gunwale, the sides of the boat.	ed without interference bable of carrying at leas stretcher. ons may be seated o conforms with the 1.1. transom, or buoyancy o	ice with the st 5 persons on the floor, leg space chambers on	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:            Surveyor:            Organization:	
5.7.4.1 Simultaneous release Regu		Regulations: LSA C	ode 4.4.7.6, MSC.81(70)1/6.9.12	
Test Procedure	Acceptance C	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.)	<ul> <li>falls, hould be confirmed that simultaneously release from connected without binding or the rescue boat or the release</li> <li>It should be confirmed that simultaneously release from connected when fully waterbor and in a 10% overload condition it from ithout escue</li> <li>d for n this</li> </ul>	the rescue boat wil 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 on.	Light condition PassedN/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	

			I Ime:			
Pigid/inflated fast rescue boats		Surveyor:				
Lot/Serial Numb	er:	Organiza	ation:			
742 Towing release test	Regulations: LSA	Regulations: I SA Code 4 4 7 6 5: MSC 81(70) 1/6 9 3				
Test Procedure	Acceptance Criteria		Significant Test Data			
Vith the operating mechanism disconnected it should	be There should be no damage as a	a result of	Operating mechanism disconnected and boat			
lemonstrated when the rescue boat is loaded with its	full these tests.		towed at 5 kts:Pass Fail			
complement of persons and equipment and towed	at					
peeds of 5 knots that the moveable hook component st	ys The rescue boat is released satisf	actorily by	Operating mechanism connected tests.			
losed.	the release mechanism.		Test 1, 25% SW/L lengthwise to the best of 45% to			
urthermore, with the operating mechanism connected	it		the vertical:			
hould be demonstrated that the rescue boat when load	ed Single fall systems not intended for	or on-load				
vith its full complement of persons and equipment whether the second sec	en operation are exempt from this test	t.	Force Applied: N.			
owed at speeds of 5 knots can be released. Both of	he		Forward direction:Pass Fail			
bove should be demonstrated as follows:			Aft direction:Pass Fail			
a force equal to 25% of the safe working load of the hook should be applied to the hook in the lengthwise direction of the boat at an angle of 45° to the vertice	e e I.		Test 2: 100% SWL, athwartships at 20° to the vertical:			
This test should be conducted in the aftward as we as the forward direction;	3H		Force Applied: N. Starboard:Pass Fail Port:Pass Fail			
a force equal to the safe working load of the hoc should be applied to the hook in an athwartship direction at an angle of 20° to the vertical. This te should be conducted on both sides; and	k is st		Test 3: 100% SWL, 45° to the longitudinal axis of the boat in plan view at an angle of 33° to the vertical.			
a force equal to the safe working load of the hor should be applied to the hook in a direction halfwa between the positions of tests 1 and 2 (i.e. 45° to the longitudinal axis of the boat in plan view) at an ang of 33° to the vertical. This test should be conducted four positions.	k y e e n		Force Applied: N. Position 1:Pass Fail Position 2:Pass Fail Position 3:Pass Fail Position 4:Pass Fail Comments/Observations			

Rigid/inflated fast rescue boats	Manufacturer: Model: Lot/Serial Number:		Date:          Time:            Surveyor:          Organization:	
5.7.4.3 Load and release test		Regulations: LSA (	ode 4.	4.7.6.4; MSC.81(70) 1/6.9.4.1, 6.9.4.2
Test Procedure		Acceptance Criteria		Significant Test Data
A release mechanism should be contested as follows: The rescue boat release and retrievative 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 retrishould then be disassembled, the parand wear recorded. The release system should then be reassembled.	nditioned and al system and cable/linkage be mounted ons from the d then loaded released. d 50 times. rieval system arts examined and retrieval	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 to part of the lifeboat release and retrieval sys The system should be considered as "fai any failure during the conditioning or uninter release occurs when load is applied but system has not yet been operated.	elease eased it is to any tem. led" if ended ut the	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:         13:       14:       15:       16:       17:       18:         19:       20:       21:       22:       23:       24:         25:       26:       27:       28:       29:       30:         31:       32:       33:       34:       35:       36:       37:         38:       39:       40:       41:       42:       43:       44:       45:       46:       47:       48:       49:       50:          Passed

Rigid/inflated fast rescue boats	Manufacturer: Model: Lot/Serial Number:		: Time: eyor: nization:
5.7.4.4 Cyclic loading test	Regulations: L	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 disconnect from the operating mechanism, should tested 10 times with cyclic loading fr zero load to 1.1 times the safe work load, at a nominal 10 seconds per cyc unless the release mechanism has be specifically designed to operate as off-load hook with on-load capability us the weight of the boat to close the hook this case the cyclic load should be from more than 1% to 1.1 times the SWL. For cam-type designs, the test should 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.	The specimen should remain closed during the om ing The system should be considered as "failed" if a during this test or any unintended release or occurs. an ing , in no be 0° 0 in n if	test. ny failure opening	Working Load:       N         Force Applied:       N         Check the box for each release and/or strike out the cam rotation if no applicable:         Cam rotation $0^\circ$ :         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:       2:         1:       1:         1:       1:         2:       1:         2:       1:         2:       1:         2:       1:         1:       2:         1:       2:         2:       1:         2:       1:         1:       1:

Rigid/inflated fast rescue boats	Manufacturer: _ Model: Lot/Serial Numb	per:	Date:          Time:            Surveyor:          Organization:		
5.7.4.5 Actuation force test		Regulations: LSA Code 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 should then be	The actuation force should be no less 100 N and no more than 300 N, if a ca used it should be the maximum	s than able is length	Actuation Force: N	
demonstrated to operate satisfactorily under its safe working load.		specified by the manufacturer, and secute the same manner it would be secured rescue boat.	ures in in the	Passed: Failed:	
The demonstration should verify tha indicators and handles are still func- correctly positioned in accordance wi and safety instructions from the ori- manufacturer.	t any interlocks, ctioning and are ith the operation ginal equipment	The release mechanism is deemed to passed the testing in 5.7.4.3, 5.7.4. 5.7.4.5 when the tests have been cond successfully. The system should considered as "failed" if any failure durin test or any unintended release or op occurs.	have 4 and ducted 1 be ng this bening	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	Regulations:	LSA Code 4.4.7.6.4, MSC.81(70)1/6.9.5.1, 6.9.5.2		
Test Procedure		Acceptance Crite	ria	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 manufactu the same manner it would be se The demonstration should verify indicators and handles are still f correctly positioned in accordance and safety instruction from the manufacturer; and	be tested as follows: 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 original equipment	1. The actuation force should 100 N and no more than 300 N The release mechanism does	be no less than I. not fail.	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.	be mounted on a The load should be working load of the					

Rigid/inflated fast rescue boats	Manufacturer: Model: Lot/Serial Number:			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		Accepta	ance Criteria	Significant Test Data		
Test Procedure The rescue boat should be loaded with to the mass of its equipment and the mathematic for which the rescue boat is to be maximum towing force of the rescue be determined. This information should be used to largest size of fully loaded liferaft the tow at a speed of at least 2 knots. The fitting designated for towing others secured to a stationary object by a too a means to measure bollard pull. The operated ahead at full speed for a per- minutes and the maximum force record (For rescue boats equipped with of bollard pull trials may be carried out various powers to assess the performance.)	ith weights equal umber of persons approved. The boat should then o determine the rescue boat can er craft should be wrope fitted with engine should be eriod of at least 2 rded. butboard motors, t with engines of rescue boat's	Accepta The maximum rescue boat shou type approval cer There should be towing fitting structure.	ance Criteria towing force of the Id be recorded on the tificate. no damage to the or its supporting	Significant Test Data         Smallest Engine       Largest Engine         Make/model:		

Rigid/inflated fast rescue boats       Manufacturer:         Model:       Lot/Serial Number:			Date:          Time:            Surveyor:          Organization:		
5.7.5.2 Endurance, speed and	d 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 equipr and the number of persons for which rescue boat is to be approved. The engine should be started and the manoeuvred for a period of at lea hours to demonstrate satisfact	with nent the boat st 4		Fuel Tank Capacity:       L         Propeller:          Pitch:          Diameter:          @8 knots:		
<ul> <li>operation.</li> <li>The rescue boat should be run at a sp of not less than 8 knots with a complement of persons and equipr and 20 knots with a crew of 3 person a period which is sufficient to ascertain fuel consumption and to establish tha fuel tank has the required capacity. (determination may be made during th hour period of operation.)</li> <li>For rescue boats equipped with outb motor, speed and manoeuvring the should be carried out with engine various powers to assess the rest boat's performance.</li> </ul>	The fuel tank should have sufficient can operate at a speed of 8 knots for a period of with its full complement of persons and equal the the This ie 4- The fuel tank should have sufficient can operate at a speed of 20 knots for a period of with a crew of 3 persons.	pacity to f 4 hours ipment. pacity to f 4 hours	Engine speed (RPM):		

Rigid/inflated fast rescue boats	Manufacturer: Model: Lot/Serial Number:		Date:            Surveyor:            Organization:	
5.7.5.3 Engine out of water	Regulations: LSA	Code 4.4	.6.3, MSC.81(70)1/6.10.5	
Test Procedure	Acceptance	ce Criteria		Significant Test Data
The engine should be operated for at 5 minutes at idling speed under condi simulating normal storage. Note: If a water flushing device is inter to be used for this purpose, it shoul fitted during the test.	least The engine should not be dam tions nded d be	aged as a result of this	is test.	Passed Failed Comments/Observations
5.7.5.4 Compass test		Regulations: LSA	Code 5.1	.2.2.3, MSC.81(70)1/6.10.7
Test Procedure	Acceptance	ce 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.	pass it is tings	ctorily.		Compass Make: Compass Model: Passed Failed Comments/Observations

Rigid/inflated fast rescue boats	nufacturer: del: /Serial Number:		Date: Surveyor: Organizat	Time: tion:
5.7.5.5 Manoeuvrability with pad	lles or oars	Regulatior	ns: LSA Co	de 5.1.2.2.1, MSC.81(70)1/7.1.8
Test Procedure	Acceptance Crit	eria		Significant Test Data
It should be demonstrated that the rescue boat can be propelled and manoeuvred by its oars or paddles in calm wate conditions at a speed of at least 0.5 knots over a distance of at least 25 m. wher laden with the number of persons, al wearing lifejackets and immersion suits for which it is to be approved.	The rescue boat should be capable of paddled and manoeuvred.	of being satisfa	actorily	Distance travelled:m   Time Required:s   Calculated speed:m/s =knots   Lifejacket and immersion suit used during the test: Lifejacket – Inflatable/Inherently   Buoyant

Rigid/inflated fast rescue boats	Manu Mode Lot/S	ufacturer: Date: el: Surve Serial Number: Organ			Date: Time: Surveyor: Organization:		
5.7.5.6 Heavy weather/seas test Regulations: I			Regulations: LSA	A Code 5.	1.3, MSC.81(70)1/7.2.10		
Test Procedure		Acceptanc	e Criteria	eria 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 win force 4 or 5 or equivalent rough wate at least 30 minutes. For boats with inboard engines the po does not need to be greater than intended to be used.	the with nded of er for ower that	The rescue boat should no permanent strain nor have lost	ot show undue fle more than minimal pi	xing or ressure.	Tube pressure before test:mbar         Pressure relief valves open/closed?         Wave heightm         Wind Speedm/s         Tube pressure after test:mbar         PassedFailed         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		Acceptanc	e Criteria		Significant Test Data		
It should be demonstrated that the equipped rescue boat, loaded wit properly distributed mass equal to mass of the number of persons for w it is to be approved, can be towed speed of not less than 5 knots in of water and on an even keel using rescue boat's painter securing device	fully th a the hich at a calm the e.	The rescue boat should not characteristics. There should be no damage equipment as a result of this te	exhibit unsafe or u to the rescue boa est.	unstable	Passed Failed Comments/Observations		

Rigid/inflated fast rescue boats	Manufacturer: Model: Lot/Serial Number:	Da Su Ou	Date: Time: Surveyor: Organization:		
5.7.6.2 Painter release test		Regulations: LSA Co	ode 4.4.7.7, MSC.81(70)	1/6.11.23	
Test Procedure	Acceptan	ce Criteria		Significant Test Data	
It should be demonstrated that the parelease mechanism can release painter on a fully equipped and loar rescue boat that is being towed at a sport of not less than 5 knots in calm water. The painter release mechanism should tested in several distinct directions of upper hemisphere not obstructed by canopy or other constructions in rescue boat. The directions specifie test 5.7.4.2 should be used if possible.	inter the aded peed r. Id be f the y the the ed in e.	d there should be no dan ment as a result of this te	mage est. Passed Test Direction	Failed PassedFailed PassedFailed PassedFailed PassedFailed PassedFailed servations	

igid/inflated fast rescue boats Manufacturer: Model: Lot/Serial Number:				Date:        Time:          Surveyor:        Organization:		
5.7.7.1 Impact, drop and operation	ind drop test Regulat		tions: LSA Code 4.4.1.7, MSC.81(70)1/6.4.1, 7.2.2			
Test Procedure		Acceptance Criteria		Significant Test Data		
.1 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 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		<ul> <li>.1 no damage has been sustained that would affect the efficient functioning of the rescue boat and its equipment;</li> <li>.2 the damage caused by the impact and drop tests has not increased significantly as a result of the operational test in 5.7.5.2;</li> <li>.3 machinery and other equipment has operated to full satisfaction; and</li> </ul>		be Load in boat:kg Observed Damage: at g Increased Damage: YES NO s Satisfactory Operation: YES NO d e Ingress of Water: YES NO s		
<ul> <li>surface at a velocity of 3.5 should be released to impact a vertical surface.</li> <li>.2 The rescue boat complete equipment and with a mass e engine and fuel in the positio and fuel tank should be dropp from a height of at least 3 r The drops should be from bow-down, level trim, ar stern-down attitudes.</li> <li>.3 On completion of these tests t and its equipment should examined.</li> </ul>	m/s. The boat against the rigid with all its equivalent to its of its engine bed three times of three times of the etimes of the 45-degree of 45-degree he rescue boat be carefully	.4 no significant ingress of s occurred.	eawater ha	as Weight of heaviest engine tested: Final Evaluation: Passed Failed Comments/Observations		

Rigid/inflated fast rescue boats	ts Manufacturer: Model: Lot/Serial Number:		Date: Surveyo Organiz:		Time: r: ation:	
5.7.7.2 Overload test		Regulations: MSC.81(70)1/		7.1.4		
Test Procedure		Acceptance Criteria		Significant Test Data		
The rescue boat should be loaded with a properly distributed load of four times the weight to represent the equipment and full complement of persons each weighing 82.5 kg for which it is to be approved and suspended for 5 minutes from its bridle or hooks. The weights should be distributed in proportion to the loading of the boat in its service condition, but the weights used to represent the persons need not be placed 300 mm above the seat pan. The boat and bridle or hooks and fastening device should be examined after the test has been conducted.		The rescue boat and its b should not show any sign	ridle or release mech s of damage.	nanism	Load in boat:kg Comments/Observations	
Testing by filling the boat with water s be accepted. This method of loading give the proper distribution of Machinery may be removed in order damage, in which case weights s added to the boat to compensate removal of such machinery. The rescue boat and its bridle of (release mechanism) and fastenin should be examined after the test for a of damage.	hould not does not weight. to avoid hould be for the or hooks g device any signs				Passed Failed	

Rigid/inflated fast rescue boats	Manufacturer: Model: Lot/Serial Number:			Date: Surveyor: Organiza	Time:  tion:
5.7.7.3 Mooring out test (Does not appl side of inflated tube)		y if waterline is below lower Regulations: LSA Cod		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 it Each inflatable compartment in the re should be tested to a pressure equa times the working pressure. Each relief valve should be made inter compressed air should be used to it 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 h assumed that compartment material completed stretching due to the pressure and achieved equilibrium.	th a mass umber of ed and its at sea or pat should days. The day using by 24-hour its shape. scue boat at to three pressure operative, nflate the on source or at least p due to has been has been inflation	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 g or other defe	age that than 5% perature e should ct in the	Compartment 1         Initial Pressure:       mbar         Final Pressure:       mbar         Calculated Decrease:       Percent         Compartment 2       Initial Pressure:         Initial Pressure:       mbar         Final Pressure:       mbar         Calculated Decrease:       Percent         Compartment 3       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       Failed
					Comments/Observations

Rigid/inflated fast rescue boats	Manufacturer: Model: Lot/Serial Number:		Date:          Time:            Surveyor:          Organization:			
5.7.8.1 Inflation chamber chara	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 materiaused to construct the rescue boat shoube 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	als uld cs: The material characteristics sh with ISO 15372:2000.	Nould comply .1 .2 .3 .4 .5 .6 .7 .8 .9 .10 .11 .12 .13 .14 .15 .16 SAT Com	tensile strengthN/50 mm width tear strengthN heat resistance – Blocking cold resistance – Cracking heat ageing% retained strength N/50 mm width weathering% retained strength N/50 mm width flex cracking – Cracking or deterioration abrasionmg/rev.; Base fabric not visible coating adhesionN/50 mm width oil resistance – Tackiness or other deterioration elongation at break% piercing strength ozone resistance -Visible cracking gas permeabilitybubbles/min or I/m²/hr of seam strength% retained strength N/50 mm width Cracking% TISFACTORY UNSATISFACTORY			