

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV GL SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

This is to certify:

That the Automatically self-righting liferafts

with type designation(s)

Lalizas Oceano, Throw over-board Self-Righting -6, -8, -10, -12, -15, -16, -20, -25, -30, -35, -50, -66, -100

Issued to

Lalizas Hellas S.A.
Piraeus, Greece

is found to comply with the requirements in the following Regulations/Standards:

Regulation **(EU) 2017/306,**

item No. MED/1.14. SOLAS 74 as amended, Regulation III/4, III/26, III/34 & X/3, LSA Code, IMO MSC/Circ.809 & 811 and 2000 HSC Code 8

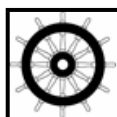
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2023-01-24.**

Issued at **Hamburg** on **2018-01-25**

DNV GL local station:
Piraeus

Approval Engineer:
Roland Priebe



Notified Body
No.: **0098**

for **DNV GL SE**

Sven Dudzus
Head of Notified Body

A U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F), as allowed by the "Agreement between the European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment", signed February 27th, 2004.

The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.

This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL SE of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.

Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.



Product description

"Lalizas Oceano, Throw over-board Self-Righting -6, -8,-10, -12, -15, -16, -20, -25, -30, -35, -50, -66, -100" are automatically self righting liferafts fabricated with following materials:

Container material:	GRP
Buoyancy tube fabric:	HSR-XB-A (black rubberized fabric) manufactured by Jiangsu Haining marine Equipment Co., Ltd.
Exterior canopy fabric:	2x3-2PU (orange rubberized fabric) manufactured by Wuxi Mingwei Textile Co., Ltd.
Interior canopy fabric:	100T (blue rubberized fabric) manufactured by Wuxi Mingwei Textile Co., Ltd.
Adhesive	Graft adhesive 800L manufactured by Fo Shan Nan Hai Hong Ming Adhesive Co., Ltd.

Application/Limitation

Type designation	Capacity (82,5 kg)	Towing strain 2 knots (kN)	Towing strain 3 knots (kN)	Max. stowage height
Lalizas Oceano 6	6 persons	0.62 kN	0.85 kN	50 m
Lalizas Oceano 8	8 persons	0.62 kN	0.90 kN	50 m
Lalizas Oceano 10	10 persons	0.8 kN	1.12 kN	50 m
Lalizas Oceano 12	12 persons	0.92 kN	1.25 kN	50 m
Lalizas Oceano 15	15 persons	1.10 kN	1.38 kN	50 m
Lalizas Oceano 16	16 persons	1.15 kN	1.43 kN	50 m
Lalizas Oceano 20	20 persons	1.20 kN	1.62 kN	50 m
Lalizas Oceano 25	25 persons	1.39 kN	2.12 kN	50 m
Lalizas Oceano 30	30 persons	1.83 kN	2.60 kN	50 m
Lalizas Oceano 35	35 persons	2.05 kN	2.85 kN	50 m
Lalizas Oceano 50	50 persons	1,80 kN	3,00 kN	50 m
Lalizas Oceano 66	66 persons	2,20 kN	3,35 kN	40 m
Lalizas Oceano 100	100 persons	3,20 kN	3,50 kN	40 m

- The liferaft shall be packed with a SOLAS A PACK or SOLAS B PACK.
- Gas cylinders shall be of an approved type
- Components in the gas inflation system should be approved according to ISO 15738:2002
- The liferaft is intended to be installed with external weak link and a hydrostatic release unit. Float free arrangement to be checked upon installation on board.
- Production testing shall be carried out according to IMO Res. MSC 81(70) part 2.

The liferafts may be approved for extended service intervals up to 30 months in accordance with SOLAS Ch. III, Regulation 20.8.3 provided that:

1. Such extended service intervals has been approved by the ships flag administration.
2. The liferafts are checked onboard in accordance with SOLAS Ch. III Regulation 20.8.3.2 at intervals in accordance with SOLAS Ch. III Regulation 20.8.1.1, according to procedures accepted by the Notified Body.
3. The liferafts shall be serviced at approved servicing stations in accordance with the recommendations in IMO Res. A.761(18) at intervals not exceeding 30 months.

Type Examination documentation

Basis for approval:

Drawings for Lalizas Oceano- 6/8/10/12/15/16/20/25/30/35/50/66/100	See list below.
Prototype test report witnessed by GL	2013-09-11
Prototype test report witnessed by DNVGL Ningbo (15- 065264)	2016-01-18
Inspection report from National Supervision and Testing Center of Fishery Machinery and Instrument No. 2015YW003	
Asbestos free declaration from manufacturer	2013-09-20
Evaluation and test reports for inflatable liferaft materials:	
Test report no. 2015182 (HSR-XB-A (HN)),	2015-12-01/18
Test report no. 2015185 (HSR-B-W (2x3-2PU))	2015-12-07/18
Test report no. 2015187 (HSR-B-T (100T))	2015-12-21/22
from Wuhan Testing Centre of Marine Lifesaving Appliances, Wuhan district, Hubei Province, China	

Type	Drawing no.	Name
Lalizas Oceano -6	ASR-6-00	Type ASR-6 self-righting inflatable liferaft general drawing
	ASR-6-01	Type ASR-6 self-righting Assembly liferaft general drawing
	ASR-6-01-01	Upper buoyancy chamber
	ASR-6-01-02	Lower buoyancy chamber
	ASR-6-01-03	Floor
	ASR-6-01-04	Buoyancy tube
	ASR-6-02	Canopy
Lalizas Oceano -8	ASR-6-03	Inflation system description for ASR-6 self-righting inflatable liferaft
	ASR-8-00	Type ASR-8 self-righting inflatable liferaft general drawing
	ASR-8-01	Type ASR-8 self-righting Assembly liferaft general drawing
	ASR-8-01-01	Upper buoyancy chamber
	ASR-8-01-02	Lower buoyancy chamber
	ASR-8-01-03	Floor
	ASR-8-01-04	Buoyancy tube
Lalizas Oceano -10	ASR-8-02	Canopy
	ASR-8-03	Inflation system description for ASR-8 self-righting inflatable liferaft
	ASR-10-00	Type ASR-10 self-righting inflatable liferaft general drawing
	ASR-10-01	Type ASR-10 self-righting Assembly liferaft general drawing
	ASR-10-01-01	Upper buoyancy chamber
	ASR-10-01-02	Lower buoyancy chamber
	ASR-10-01-03	Floor
Lalizas Oceano -12	ASR-10-01-04	Buoyancy tube
	ASR-10-02	Canopy
	ASR-10-03	Inflation system description for ASR-10 self-righting inflatable liferaft
	ASR-12-00	Type ASR-12 self-righting inflatable liferaft general drawing
	ASR-12-01	Type ASR-12 self-righting Assembly liferaft general drawing
	ASR-12-01-01	Upper buoyancy chamber
	ASR-12-01-02	Lower buoyancy chamber
Lalizas Oceano -15	ASR-12-01-03	Floor
	ASR-12-01-04	Buoyancy tube
	ASR-12-02	Canopy
	ASR-12-03	Inflation system description for ASR-12 self-righting inflatable liferaft
	ASR-15-00	Type ASR-15 self-righting inflatable liferaft general drawing
	ASR-15-01	Type ASR-15 self-righting Assembly liferaft general drawing
	ASR-15-01-01	Upper buoyancy chamber

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	ASR-15-01-02	Lower buoyancy chamber
	ASR-15-01-03	Floor
	ASR-15-01-04	Buoyancy tube
	ASR-15-02	Canopy
	ASR-15-03	Inflation system description for ASR-15 self-righting inflatable liferaft
Lalizas Oceano -16	ASR-16-00	Type ASR-16 self-righting inflatable liferaft general drawing
	ASR-16-01	Type ASR-16 self-righting Assembly liferaft general drawing
	ASR-16-01-01	Upper buoyancy chamber
	ASR-16-01-02	Lower buoyancy chamber
	ASR-16-01-03	Floor
	ASR-16-01-04	Buoyancy tube
	ASR-16-02	Canopy
Lalizas Oceano -20	ASR-16-03	Inflation system description for ASR-16 self-righting inflatable liferaft
	ASR-20-00	Type ASR-20 self-righting inflatable liferaft general drawing
	ASR-20-01	Type ASR-20 self-righting Assembly liferaft general drawing
	ASR-20-01-01	Upper buoyancy chamber
	ASR-20-01-02	Lower buoyancy chamber
	ASR-20-01-03	Floor
	ASR-20-01-04	Buoyancy tube
	ASR-20-02	Canopy
Lalizas Oceano -25	ASR-20-03	Inflation system description for ASR-20 self-righting inflatable liferaft
	ASR-25-00	Type ASR-25 self-righting inflatable liferaft general drawing
	ASR-25-01	Type ASR-25 self-righting Assembly liferaft general drawing
	ASR-25-01-01	Upper buoyancy chamber
	ASR-25-01-02	Lower buoyancy chamber
	ASR-25-01-03	Floor
	ASR-25-01-04	Buoyancy tube
	ASR-25-02	Canopy
Lalizas Oceano -30	ASR-25-03	Inflation system description for ASR-25 self-righting inflatable liferaft
	ASR-30-00	Type ASR-30 self-righting inflatable liferaft general drawing
	ASR-30-01	Type ASR-30 self-righting Assembly liferaft general drawing
	ASR-30-01-01	Upper buoyancy chamber
	ASR-30-01-02	Lower buoyancy chamber
	ASR-30-01-03	Floor
	ASR-30-01-04	Buoyancy tube
	ASR-30-02	Canopy
Lalizas Oceano -35	ASR-30-03	Inflation system description for ASR-30 self-righting inflatable liferaft
	ASR-35-00	Type ASR-35 self-righting inflatable liferaft general drawing
	ASR-35-01	Type ASR-35 self-righting Assembly liferaft general drawing
	ASR-35-01-01	Upper buoyancy chamber
	ASR-35-01-02	Lower buoyancy chamber
	ASR-35-01-03	Floor
	ASR-35-01-04	Buoyancy tube
	ASR-35-02	Canopy
Lalizas Oceano -50	ASR-35-03	Inflation system description for ASR-35 self-righting inflatable liferaft
	ASR-50-00	Type ASR-50 self-righting inflatable liferaft general drawing
	ASR-50-01	Type ASR-50 self-righting inflatable liferaft assembling drawing
	HSR-R-100	Container drawing for ASR-50/66 liferafts (SOLAS B PACK)
Lalizas Oceano -66	HSR-S-50-00	Container drawing for ASR-50/66 liferafts
	ASR-66-01-01	Type ASR-66 self-righting inflatable liferaft general drawing
	ASR-66-01-02	Type ASR-66 self-righting inflatable liferaft assembling drawing
Lalizas Oceano -100		
	ASR-100-01-03	Type ASR-100 self-righting inflatable liferaft general drawing
	ASR-100-01-04	Type ASR-100 self-righting inflatable liferaft assembling drawing
	HSR-S-100-00	Container drawing for ASR-100 liferafts

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All types	HSR-PJ-004 (II)	Ballast water bag for ASR/ADLSR type inflatable liferafts
	HSR-PJ-004 (III)	Ballast water bag for ASR-50/66/100 type inflatable liferafts
	HSR-PJ-012 (II)-00	Boarding ladder
	HSR-PJ-025	Sea-anchor
	GDF-I + II	Various drawings for non-return inlet valve

Tests carried out

Prototype tests and test reports in accordance with the Recommendation on Testing of Life-Saving Appliances, IMO Res. MSC 81(70) part 1, including IMO Res. MSC 226(82), IMO Res. MSC 295(87) and MSC. 323(89), have been witnessed and evaluated and found to be in compliance.

Marking of product

The product is to be indelibly marked with name and address of manufacturer, type designation and date of manufacture. The marking shall comply with the LSA Code (IMO Res. MSC. 48(66)) item 4.2.6 and 4.2.7.