

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB00001CH
Revision No:
1

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 Open reversible liferaft

with type designation(s)
SEA-AIR AOR-6/10/25/30/50/65/100

Issued to
Ningbo Neptune Life-Saving Equipment Co., Ltd.
Ningbo, 130, China

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2021/1158,**
item No. MED/1.39. SOLAS 74 as amended, Regulation III/4 & X/3, LSA Code and 2000 HSC Code 8, IMO MSC.1/Circ.1328.

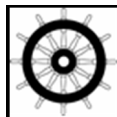
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2026-09-22.**

Issued at **Hamburg** on **2021-10-05**

DNV GL local station:
Ningbo FIS

Approval Engineer:
Peter Zell



Notified Body
No.: **0098**

for **DNV SE**

.....
Christine Mydlak-Roeder
Head of Notified Body

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.



Job Id: **344.1-005734-3**
Certificate No: **MEDB00001CH**
Revision No: **1**

Product description

Inflatable liferafts, open reversible, with the following type designations:
SEA-AIR AOR-6/10/25/30/50/65/100

Trade name: SEAWOLF ECE-R6/10/25/30/50/65/100

All these liferaft designs are complying with the HSC Code 2000 (MSC.97(73)) Annex 11.

Application/Limitation

Max. Stowage Height: 10 m

Type	Persons (82.5kg)	Weight [kg] HSC Pack	Required bollard pull [kN]	
			(2 kn)	(3kn)
AOR-6	6	49	0.40	0.90
AOR-10	10	56	0.50	1.00
AOR-25	25	92	0.75	1.50
AOR-30	30	109	1.00	1.90
AOR-50	50	168	1.50	2.10
AOR-65	65	215	1.70	2.65
AOR-100	100	293	2.15	5.00

- Liferafts are to be serviced annually, provided where in any case this is impracticable, the administration may extend this to a period by one month. They shall be serviced at approved service stations which are authorized by the manufacturer.
- Open reversible liferafts shall only be used as specified in HSC Code 8.10.2
- The liferaft shall be packed with an HSC emergency 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 tests are to be conducted in accordance with IMO Res. MSC.81(70), Part 2 and recorded by the manufacturer in compliance with the approved Production Quality Assurance System for Module D of the Marine Equipment Directive 2014/90/EU as amended.

The liferafts of type "AOR-65" and type "AOR-100", each having a mass of more than 185 kg, are not suitable for side-to-side transfer and have to be stowed for launching directly from the stowed position under unfavourable conditions of trim and list.

Type Examination documentation

Drawings: Technical file verified with ref.: 11-097571

This certificate replaces the previous MED-B certificate 20267-11HH.

Tests carried out

Test reports: Germanischer Lloyd Zhoushan of 2010-12 and 2011-06-11.

Inspection reports: No. 2010YW141 and 2010YW142 by The National Supervision and Testing Center of Fishery Machinery and Instrument/China.

Job Id: **344.1-005734-3**
Certificate No: **MEDB00001CH**
Revision No: **1**

Prototype tests and test reports in accordance with HSC Code 2000 (MSC.97(73)) Annex 11 and the relevant parts of Recommendations on Testing of Life-Saving Appliances, IMO Res. MSC.81(70) Part 1, including IMO Res. MSC.226(82), MSC.295(87) and MSC.323(89), have been witnessed and found to be in compliance.

The following tests of IMO Res. MSC.81(70), part 1 have been omitted in accordance with 2000 HSC Code Annex 11 paragraph 7:

- 5.5 Mooring out test
- 5.8 Closing arrangement test
- 5.12 Canopy closure test
- 5.16 Lifting components strength test
- 5.17.2 Righting test
- 5.17.10 Davit-launched inflatable liferafts – strength test
- 5.17.11 Cold overload test
- 5.17.12 Lowering abrasion test
- 5.18 Self-righting test
- 5.20 Wind velocity test

Marking of product

The product is to be indelibly marked with name and address of manufacturer, type designation, dimensions and date of manufacture. The marking shall be according to HSC Code 2000 Annex 11, item 4.2 and 5.