

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate no.:
MEDB0000AY8
Revision no.:
0

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

This is to certify:

that the **Open reversible liferafts**

with type designation(s)

HAF-K series (6,10,15,20,25,30,35,50,65,100,150 persons) and DFN-K series (6,10,15,20,25,30,35,50,65,100,150 persons)

issued to

Shanghai Haian Lifesaving Equipment Co., Ltd.
Shanghai, China

is found to comply with the Implementing Regulation (EU) 2025/1533 for
Item no. **MED/1.39** (Row 2 of 2)

according to the following requirements:

IMO Res. MSC.48(66)-(LSA Code) I, IMO Res. MSC.97(73)-(2000 HSC Code) 8, IMO Res. MSC.97(73)-(2000 HSC Code) Annex 11, IMO Res. MSC.481(102), SOLAS 74 Reg. III/4, SOLAS 74 Reg. X/3

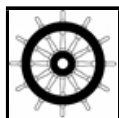
Further details of the equipment and conditions for certification are given overleaf.

Date of issue: **2025-11-17**

Expiry date: **2030-11-16**

DNV local unit:
Shanghai

Approval Engineer:
Michael Oberländer



Notified Body
no.: **0098**

for **DNV SE**

Christine Mydlak-Röder
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 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to USD 300 000.

Product description

HAF-K series (6,10,15,20,25,30,35,50,65,100,150 persons) and DFN-K series (6,10,15,20,25,30,35,50,65,100,150 persons) are open reversible liferafts with HSC Pack.

Trade name: HAF (for HAF-K) and SEAMAN (for DFN-K)

Application/Limitation

Approved as open reversible liferafts.

The liferafts shall be equipped with HSC emergency pack.

Gas cylinders shall be of an approved type.

Components in the gas inflation system should be approved according to ISO 15738:2019.

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.

The design assessment is based on International Life-Saving Appliances (LSA) Code, IMO Res. MSC.48(66) as amended by IMO Res. MSC.218(82), IMO Res. MSC.293(87) and IMO Res. MSC.481(102).

Production testing shall be carried out according to IMO Res. MSC.81(70) part 2 as amended.

Please see Appendix: Application/Limitation

Type Examination documentation

Tests carried out

The following testing has been witnessed and/or evaluated by DNV and found in compliance:

Prototype tests in accordance with relevant parts of the Recommendation on Testing of Lifesaving Appliances, IMO Res. MSC.81(70) part 1, as specified in above mentioned documentation. The testing has been carried out in accordance with IMO Res. MSC.97(73), annex 11, item 7, IMO Res. MSC.295(87), IMO Res. MSC.323(89) and IMO Res. MSC.481(102) - Type I.

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, date of manufacture and the MED Mark of Conformity (see first page). The marking shall be according to HSC Code Annex 11, items 4 and 5.

APPENDIX

Application/Limitation

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Max. Stowage Height: 30 m

Type	Persons (82.5 kg each)	Weight [kg] with cylindrical container HSC Pack	Required bollard pull [kN]	
			(2 kn)	(3kn)
HAF-K6 (DFN-K6)	6	65	0,71	1,03
HAF-K10 (DFN-K10)	10	65	0,71	1,03
HAF-K15 (DFN-K15)	15	78	0,84	1,18
HAF-K20 (DFN-K20)	20	95	0,96	1,31
HAF-K25 (DFN-K25)	25	103	1,05	1,45
HAF-K30 (DFN-K30)	30	115	1,16	1,60
HAF-K35 (DFN-K35)	35	132	1,25	1,74
HAF-K50 (DFN-K50)	50	180	1,60	2,20
HAF-K65 (DFN-K65)	65	210	1,79	2,64
HAF-K100 (DFN-K100)	100	317	2,24	3,13
HAF-K150 (DFN-K150)	150	472	3,35	4,85