

QS - CERTIFICATE OF ASSESSMENT - EC (MODULE D)

Certificate No:
MEDD00000UH
Revision No:
1

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 Quality System for the products

with type designation(s) as specified in the Appendix to this Certificate

Issued to

Shanghai Haian Lifesaving Equipment Co., Ltd.
Shanghai, 020, China

is found to comply with the applicable requirements.

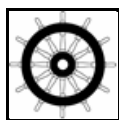
The quality system has been assessed with respect to the procedure of conformity assessment described in Annex II, Module D in the directive 2014/90/EU and regulation (EU) 2021/1158.

This Certificate is valid until **2026-11-09**.

Issued at **Hamburg** on **2021-11-10**

DNV local station:
Shanghai

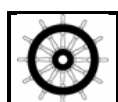
Approval Engineer:
Michael Oberländer



Notified Body
No.: **0098**

for **DNV SE**

Christine Mydlak-Roeder
Head of Notified Body



0098/yyyy

0098: Notified Body number undertaking quality surveillance
yyyy: The year in which the mark is affixed

The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.

This certificate authorizes the manufacturer in conjunction with the valid EC Type Examination (Module B) Certificate(s) of the equipment listed before to affix the Mark of Conformity (wheelmark) to the product described herein.

This certificate loses its validity if the manufacturer makes any changes to the approved quality system, which have not been notified to, and agreed with the notified body named on this certificate. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.

The Manufacturer has to apply for periodical audits to verify the maintenance and application of the quality system every 12 months.

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 300,000 USD.



APPENDIX

Item no. MED/1.12 Inflatable liferafts

Type designation	EC Type-Examination Certificate No.	Expiry date	Notified Body No.	USCG approval number
Davit launched type: HAF-D15, HAF-D16, HAF-D20, HAF-D25 and DFN-D15, DFN-D16, DFN-D20, DFN-D25 ¹	MEDB00001W5 Rev.1	2026-11-07	0098	N/A
Throw-over-board type: HAF-A6, HAF-A10, HAF-A15, HAF-A16, HAF-A20, HAF-A25 and DFN-T6, DFN-T10, DFN-T15, DFN-T16, DFN-T20, DFN-T25 ¹	MEDB00001W4 Rev.1	2026-11-07	0098	N/A

Places of production

- 1.Shanghai Haian Lifesaving Equipment Co., Ltd., 239, HaiGong Road, Shanghai, China



EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB00001W4
Revision No:
1

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 Inflatable liferafts

with type designation(s)

Throw-over-board type: HAF-A6, HAF-A10, HAF-A15, HAF-A16, HAF-A20, HAF-A25 and DFN-T6, DFN-T10, DFN-T15, DFN-T16, DFN-T20, DFN-T25

Issued to

Shanghai Haian Lifesaving Equipment Co., Ltd.
Shanghai, 020, China

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

Regulation **(EU) 2021/1158**,

item No. MED/1.12. SOLAS 74 as amended, Regulation III/4, III/13, III/21, III/26, III/31, III/34 & X/3, LSA Code, IMO MSC/Circ.811, IMO MSC.1/Circ.1328 and 2000 HSC Code 8

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

This Certificate is valid until **2026-11-07**.

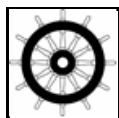
Issued at **Hamburg** on **2021-11-08**

DNV local station:

Shanghai

Approval Engineer:

Michael Oberländer



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 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 300,000 USD.



Product description

Inflatable liferafts, throw-over-board type (with SOLAS A and B Pack)
HAF-A6, HAF-A10, HAF-A15, HAF-A16, HAF-A20, HAF-A25 and
DFN-T6, DFN-T10, DFN-T15, DFN-T16, DFN-T20, DFN-T25

Trade Name: HAF (for HAF-A) and SEAMAN (for DFN-T)

Application/Limitation

Type	Persons (each 82.5 kg)	SOLAS A Weight [kg]	SOLAS B Weight [kg]	Required bollard pull [kN]		Maximum stowage height [m]
				2 kn	3 kn	
HAF-A6 (DFN-T6)	6	75	63	0.66	1.18	30
HAF-A10 (DFN-T10)	10	94	69	0.68	1.24	30
HAF-A15 (DFN-T15)	15	130	95	0.85	1.40	30
HAF-A16 (DFN-T16)	16	132	97	0.87	1.45	30
HAF-A20 (DFN-T20)	20	155	110	1.00	1.65	30
HAF-A25 (DFN-T25)	25	183	128	1.30	1.90	30

- The liferafts shall be packed with a SOLAS A- or SOLAS B 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.
- The liferafts are to be serviced annually, provided where in any case this is impracticable, the administration may extend this period to 17 month. They shall be serviced at approved service stations which are authorised by the manufacturer.
- Production tests are to be conducted in accordance with IMO Resolution MSC.81(70) Part 2 and recorded by the manufacturer in accordance with the approved Production Quality Assurance system for Module D of the Marine Equipment Directive 96/98/EC as amended.
- 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) and IMO Res. MSC.293(87).

Type Examination documentation

- Test reports from GL Shanghai dated 2009-11-30, 2011-09-21 (Ref.11-153105) and 2015-02-11 (Ref.15-020877 for modified boarding platform)
- The National Supervision and Testing Center of Fishery Machinery and Instrument (No.2014YW107)
- Inspection report for high/low inflation 2021SW026 dated 2021-08-24
- Fabric Test Report (2009-11-17~2010-01-11) witnessed by GL Shanghai
- Design Calculation for HAF-A / DFN-T Type Inflatable Liferaft
- Servicing Manual and User Manual

Tests carried out

Prototype tests and test reports in accordance with the Recommendations on Testing of Life-Saving Appliances, IMO Res.MSC.81(70) Part 1, including IMO Res.MSC.218(82), MSC.226(82), MSC.295(87) and MSC.323(89), have been witnessed and found to be in compliance.

Marking of product

The product is to be indelibly marked with name and address of the manufacturer, type designation, date of manufacture and the MED Mark of Conformity (see first page). The marking shall comply with the LSA Code (IMO Res.MSC48(66) item 4.2.6.3 and 4.2.7.

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB00001W5
Revision No:
1

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 Inflatable liferafts

with type designation(s)

Davit launched type: HAF-D15, HAF-D16, HAF-D20, HAF-D25 and DFN-D15, DFN-D16, DFN-D20, DFN-D25

Issued to

Shanghai Haian Lifesaving Equipment Co., Ltd.
Shanghai, 020, China

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

Regulation (EU) 2021/1158,

item No. MED/1.12. SOLAS 74 as amended, Regulation III/4, III/13, III/21, III/26, III/31, III/34 & X/3, LSA Code, IMO MSC/Circ.811, IMO MSC.1/Circ.1328 and 2000 HSC Code 8

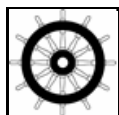
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2026-11-07**.

Issued at **Hamburg** on **2021-11-08**

DNV local station:
Shanghai

Approval Engineer:
Michael Oberländer



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 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.

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Product description

Inflatable Liferrafts, davit launched type (with SOLAS A and B Pack)

Product Name: HAF-D15, HAF-D16, HAF-D20, HAF-D25

DFN-D15, DFN-D16, DFN-D20, DFN-D25

Trade Name: HAF (for HAF-D) and SEAMAN (for DFN-D)

Application/Limitation

Type	Persons (each 82.5 kg)	SOLAS A Weight [kg]	SOLAS B Weight [kg]	Required bollard pull [kN]		Maximum stowage height [m]
				2 kn	3 kn	
HAF-D15 (DFN-D15)	15	165	135	0.95	1.55	30
HAF-D16 (DFN-D16)	16	168	138	1.10	1.80	30
HAF-D20 (DFN-D20)	20	180	137	1.25	1.95	30
HAF-D25 (DFN-D25)	25	210	155	1.45	2.40	30

- The liferafts shall be packed with a SOLAS A- or SOLAS B 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 are to be serviced annually, provided where in any case this is impracticable, the administration may extend this to a period to 17 months. They shall be serviced at approved service stations which are authorized by the manufacturer.
- The liferafts of type "HAF-D25 (DFN-D25)25" (with SOLAS A Pack)" 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 unfavorable conditions of trim and list, according to SOLAS Reg. III/16.1.2.
- 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) and IMO Res. MSC.293(87).

Type Examination documentation

Test reports from GL Shanghai dated 2009-11-30, 2011-09-21 (Ref.11-153105) and 2015-02-11

(Ref.15-020877 for modified boarding platform)

- The National Supervision and Testing Center of Fishery Machinery and Instrument (No.2014YW107)
- Inspection report for high/low inflation no.2021SW026 dated 2021-08-24
- Fabric Test Report (2009-11-17~2010-01-11) witnessed by GL Shanghai
- Design Calculation for HAF-D / DFN-D Type Inflatable Liferaft
- Servicing Manual and User Manual

Tests carried out

Prototype tests and test reports in accordance with the Recommendations on Testing of Life-Saving Appliances, IMO Res. MSC.81(70)Part 1, including IMO Res. MSC.218(82), MSC.226(82), MSC.295(87) and MSC.323(89), have been witnessed and found to be in compliance.

Marking of product

The product is to be indelibly marked with name and address of the manufacturer, type designation, date of manufacture and the MED Mark of Conformity (see first page). The marking shall comply with the LSA Code (IMO Res.MSC48(66) item 4.2.6.3 and 4.2.7.