



EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB000033Y
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)
ZHR-A6, -A10, -A12, -A15, -A16, -A20, -A25, -A30 (throw-over-board type)

Issued to

Ningbo Zhenhua Life-saving Equipment Co., Ltd.
Ningbo, 130, China

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

Regulation (EU) 2022/1157,

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

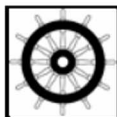
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2027-08-14**.

Issued at **Hamburg** on **2022-08-15**

DNV local station:
Ningbo CMC

Approval Engineer:
Michael Oberländer



Notified Body
No.: **0098**



for **DNV SE**

Digitally Signed By: Mydlak-Röder, Christine

Location: DNV GL SE Hamburg, Germany

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

Throw over-board inflatable liferaft: ZHR-A6, ZHR-A10, ZHR-A12, ZHR-A15, ZHR-A16, ZHR-A20, ZHR-A25, ZHR-A30. Equipped with SOLAS A or B Pack.

Trade names: ZHENHUA, EUROSUL

Application/Limitation

Type	Persons (82.5kg)	Weight [kg] SOLAS A /B	Required bollard pull [kN]		Maximum stowage height (m)
			2 kn	3 kn	
ZHR-A6	6	87 / 73	0.54	1.10	46
ZHR-A10	10	110 / 85	0.65	1.20	46
ZHR-A12	12	110 / 90	0.70	1.25	46
ZHR-A15	15	140 / 105	0.75	1.30	46
ZHR-A16	16	142 / 105	0.75	1.30	46
ZHR-A20	20	175 / 132	1.00	1.60	46
ZHR-A25	25	205 / 148	1.25	1.80	46
ZHR-A30	30	225 / 155	1.50	2.00	46

- 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 "ZHR-A25 and ZHR-A30 (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 Ningbo dated 2010-04-20, 2012-01-30 and 2012-11-16.

Additional inflation test at -30°C and +65° in accordance with MSC.81(70) 5.17.3, 5.17.5 and 5.17.6, witnessed by DNV on 2022-0817/18 and 2022-08-22 (report no. ZHBG-F01-22).

Design Calculation for ZHR-A Model Inflatable Liferaft,

Maintenance Manual for ZHR-A/D Inflatable Liferaft.,

Technical file with ref. 13-006161

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 batch or serial number or other elements allowing their identification and the MED Mark of Conformity (see first page). The marking shall comply with the LSA Code (IMO Res. MSC 48(66)) item 4.2.6.3 and 4.2.7.



EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB000033Z
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)
ZHR-D15, ZHR-D16, ZHR-D20, ZHR-D25 (davit launched type)

Issued to

Ningbo Zhenhua Life-saving Equipment Co., Ltd.
Ningbo, 130, China

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

Regulation (EU) 2022/1157,

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

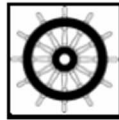
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Digitally Signed By: Mydlak-Röder, Christine

Location: DNV GL SE Hamburg, Germany

Christine Mydlak-Roeder
Head of Notified Body

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Product description

Davit launched inflatable liferaft: ZHR-D15, ZHR-D16, ZHR-D20, ZHR-D25. Equipped with SOLAS A or B Pack.

Trade names: ZHENHUA, EUROSUL

Application/Limitation

Type	Persons (82.5kg)	Weight [kg] SOLAS A /B	Required bollard pull [kN]		Maximum stowage height (m)
			2 kn	3 kn	
ZHR-D15	15	173 / 138	0.78	1.35	46
ZHR-D16	16	175 / 138	0.78	1.35	46
ZHR-D20	20	193 / 148	1.05	1.62	46
ZHR-D25	25	235 / 180	1.27	1.81	46

- 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 "ZHR-D20 and ZHR-D25 (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 Ningbo dated 2010-04-20 and 2012-01-30

Additional inflation test at -30°C and +65° in accordance with MSC.81(70) 5.17.3, 5.17.5 and 5.17.6, witnessed by DNV on 2022-0817/18 and 2022-08-22 (report no. ZHBG-F01-22).

Design Calculation for ZHR-D Model Inflatable Liferaft,

Maintenance Manual for ZHR-A/D Inflatable Liferaft.,

Technical file with ref. 12-059837

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

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