

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 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) 2017/306,**

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 and 2000 HSC Code 8

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

This Certificate is valid until **2022-09-04.**

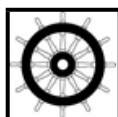
Issued at **Hamburg** on **2017-09-05**

DNV GL local station:

Ningbo

Approval Engineer:

Michael Oberländer



Notified Body
No.: **0098**

for **DNV GL SE**

Sven Dudzus

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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



Product description

Throw over board inflatable liferaft: ZHR-A6, ZHR-A10, ZHR-A12, ZHR-A15, ZHR-A16, ZHR-A20, ZHR-A25, ZHR-A30

Trade names: ZHENHUA , EUROSUL

Application/Limitation

Type:	Persons (82,5 kg)	Weight [kg] SOLAS A	Weight [kg] SOLAS B	Required bollard pull [kN] (2 kn) (3 kn)		max. Stowage Height
ZHR-A6	6	87	73	0.54	1.10	46 m
ZHR-A10	10	110	85	0.65	1.20	46 m
ZHR-A12	12	110	80	0.70	1.25	46 m
ZHR-A15	15	140	105	0.75	1.30	46 m
ZHR-A16	16	142	105	0.75	1.30	46 m
ZHR-A20	20	175	132	1.00	1.60	46 m
ZHR-A25	25	205	148	1.25	1.80	46 m
ZHR-A30	30	225	155	1.50	2.00	46 m

Remarks: The liferafts ZHR-A25 and ZHR-A30 with SOLAS emergency pack type A have a mass of 205 kg / 225 kg and may not be used for positions where side to side transferability is required.

This certificate replaces the previous DNV GL MED-B certificate 94714-10 HH.

The liferafts are to be serviced annually at approved service stations which are authorized by the manufacturer.

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 96/98/EC as amended.

The design assessment is base on IMO Res.MSC.48(66)-(LSA Code) Ch.I and IV, as amended by:

- IMO Res. MSC.207(81)
- IMO Res. MSC.218(82)
- IMO Res. MSC.293(87)

Type Examination documentation

Test reports from GL Ningbo dated 2010-04-20, 2012-01-30 and 2012-11-16

Technical file with ref. 13-006161

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

Tests carried out

The product has been tested in accordance with the Revised Recommendation on Testing of Life-saving Appliances, IMO Res. MSC.81(70), as amended by:

- IMO Res. MSC.226(82)
- IMO Res. MSC.295(87)
- IMO Res. MSC.323(89)

Marking of product

The product is to be indelibly marked with name and address of the manufacturer, type designation, date of manufacturer and batch or serial number or other elements allowing their identification. The marking shall comply the LSA Code (IMO Res. MSC.48(66)) item 4.2.6 and 4.2.7.