DNV·GL

Certificate No:
MEDB00006HN

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)
RAFT-D-16, RAFT-D-20, RAFT-D-25

Issued to
Shanghai Star Rubber Products Co., Ltd.
Shanghai, China

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2019/1397,**
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 **2025-02-14**.
Issued at **Hamburg** on **2020-02-15**

DNV GL local station:
Shanghai

Approval Engineer:
Michael Oberländer

Notified Body
No.: **0098**

for **DNV GL SE**

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") 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.

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Job Id: **344.1-010471-1**
Certificate No: **MEDB00006HN**

Product description

The RAFT-D-16, RAFT-D-20 and RAFT-D-25 is a davit-launched, inflatable liferaft, available with SOLAS A or B pack.

Trade name: CSM

Application/Limitation

Type	Persons (82.5kg)	Weight [kg] SOLAS A /B	Required bollard pull [kN]		Maximum stowage height (m)
			2 kn	3 kn	
RAFT-D-16	16	185 / 150	1.1	1.9	40
RAFT-D-20*	20	218 / 172	1.7	2.3	40
RAFT-D-25*	25	256 / 185	1.8	2.5	40

*not suitable for side-to-side transfer in SOLAS A pack configuration

- The liferaft shall be packed with SOLAS A Pack or SOLAS B Pack.
- Gas cylinders shall be of an approved type.
- Components of 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 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 2014/90/EC as amended.

The design assessment is based 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 :
  - ABS(2009-11-19 until 2010-02-03)
  - GL: MSC/Circ.980/Add.1, 4.1.4 dated 2011-12-15
  - DNV GL: MSC/Circ.980/Add.1 4.1.4 dated 2014-10-27
- Material inspection report:
  - Wuhan Testing Center of Marine LSA, No.2019049
- - Drawings:
  - Design calculation book for RAFT-D
  - General drawing 274MQ-XX-00
  - Structure drawing 274MQ-XX-01
  - Liferaft canopy 274MQ-XX-02
  - Liferaft floor 274MQ-XX-03
  - Inflation system 278MQ-65-03

- This certificate is a renewal of previous MED-B 94888-10HH (Ref. 14-071262 and 14-109619) issued by DNV GL.

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 manufacturer, type designation, date of manufacture and the MED Mark of Conformity (see page 1). The marking shall comply with the LSA Code (IMO Res. MSC 48(66)) item 4.1.5, 4.2.6 and 4.2.7.