EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB000086V

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 Davit-launched lifeboats used as a rescue boat: partially enclosed/ totally enclosed

with type designation(s)
GSL5.5L

Issued to
Hatecke GmbH
Drochtersen, Niedersachsen, Germany

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2022/1157,**
item No. MED/1.17c. SOLAS 74 as amended, Regulation III/4, III/21, III/31, III/34 & X/3, LSA Code, IMO MSC.1/Circ. 1423,1630, 1631 , IMO MSC/Circ.1006, 2000 HSC Code 8

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

This Certificate is valid until **2027-11-23**.

Issued at **Hamburg** on **2022-11-24**

DNV local station:
Hamburg – CMC North/East

Approval Engineer:
Roland Priebe

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

The lifeboat GSL5.5L is a davit launched, totally enclosed lifeboat which is designed to accommodate max. 26 persons. The lifeboat also fulfils the functionality of a rigid rescue boat in accordance with LSA-Code 5.1.

Material	Type description	Manufacturer
Fire retardant polyester resin	820 Series containing ATH	Reichhold AS
Polyester resin	POLYTE 516 Series with variants	Reichhold AS
Fire retardant gelcoat	NORPOL SVG X2 & NORPOL SVG X3	Reichhold AS
Glass fiber: Chopped strand mat	E-Glass Chopped Strand M; EMC Series (20-900 g/m²)	Changsu Dongyu Insulated Compound Materials Co., Ltd.
Glass fiber: Combined woven rovings	Woven Rovings (270-1800 g/m²) with or without CSM (50-600 g/m²)	Vitrulan Composites Oy, Mikkeli Plant
Buoyancy material	LAMOLTAN-Polyurethane-Rigid-Foam-System NG55-40-5	Lackfa Isolierstoff GmbH & Co. KG

Dimension: L : 5.64 m B : 2.35 m H : 2.52 m

Max. number of persons: 26 persons or 6 persons when used as a rescue boat.

Weight (fully equipped): 2100 kg
Weight (fully manned): 4245 kg (incl. 26 pers. x 82.5 kg)

Hoisting hooks: DUPLEX 3.0 (SWL 2.8 to) (MED-B: MEDB00004NR)

Hull colour: orange (RAL 2004)

Engine: Nanni N3.30KC with 21,7 kW (MED-B: 09576/E0 MED) is a fixed installed water-cooled diesel engine covered by GRP-casing

Bollard pull: 3.4 kN

Application/Limitation

- Lifeboat and rescue boat equipment and marking/instructions to be inspected after installation on board the ship. Equipment shall comply with LSA-Code and IMO Res.81(70). A list of the equipment to be posted inside the boat.
- The design assessment is based on IMO Res. MSC.48(66) as amended by IMO Res. MSC.207(81), IMO Res. MSC.218(82), IMO Res. MSC.272(85) and IMO Res. MSC.320(89).
- Production and installation testing shall be carried out according to IMO Res. MSC.81(70), Part 2.
- An operation and maintenance manual to be delivered together with each boat.
- We recommend that solely seawater resistant bolts and screws are used and that the holes are carefully pre-drilled to prevent delamination (especially for self-cutting screws).
- Screws and bolts are to be inserted with a suitable sealant. Drilling holes and cutting edges are to be sealed.
- The structural testing is based on the hull strength of the boat.
- The prototype has to pass all IMO LSA code required load tests without damage.
- All used materials shall be approved for use on lifeboats.

Type Examination documentation

Basis for approval:

- Design documentation as listed in “LIS-GSL55L-0-Drawing list DNV.pdf”.

- Main drawings:

Title	***Dated***
General Arrangement Plan PGLL5500 Rev.0	2022-09-02
GRP-Plan III (laminate) PGLL5503	2022-08-29
GRP-Plan IV (assembly / foaming) PGLL5504 Rev.0	2022-08-09
Hoisting Hook Foundation (Duplex 3.0) PGLL5518 Rev.1	2022-09-02

- Prototype test reports:

Report. No.	***Dated***
PTC-GSL55L-2022-01	2022-09-30
Fire testing of lifeboat laminate according to IMO MSC/Circ.1006 102010.80/10.086 Rev.1	2010-11-08
REP-Risk-Assessment MED1.17a	2022-09-16

Tests carried out

The product has been tested in accordance with Recommendation on Testing of Lifesaving Appliances, IMO Res. MSC.81(70) part 1, as amended by IMO Res. MSC.226(82), IMO Res. MSC.274(85), IMO Res. MSC.321(89), IMO Res. MSC.323(89) and IMO MSC/Circ.1006.

Marking of product

The product is to be indelibly marked with name and address of the manufacturer, type designation, dimensions, date of manufacture, boat model and serial number or other elements allowing their identification in accordance with LSA Code (IMO Res. MSC.48(66)) 4.4.1.2. Further it shall be marked with the max. number of persons, the name and port of registry of the mother ship and means of identifying according to LSA Code (IMO Res. MSC.48(66)) 4.4.9.