EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB00007U8

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 Lifeboats: (b) Free-fall lifeboats

with type designation(s)
GFF5.8C17, GFF5.8C17-T and GFF5.8C21, GFF5.8C21-T

Issued to
Hatecke GmbH
Drochtersen, Niedersachsen, Germany

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2021/1158,**
item No. MED/1.17b. SOLAS 74 as amended, Regulation III/4, III/21, III/31, III/34 & X/3, LSA Code, IMO MSC/Circ. 1006 & 1423, and 2000 HSC Code 8

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

This Certificate is valid until **2027-02-20**.

Issued at **Hamburg** on **2022-02-21**

DNV local station:
Hamburg – CMC North/East

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

GFF5.8C17, GFF5.8C17-T, GFF5.8C21 and GFF5.8C21-T are totally enclosed GRP free-fall lifeboats for 25 persons, available as a dry-cargo version (GFF5.8C17 or GFF5.8C21) and a tanker version (GFF5.8C-T or GFF5.8C21-T) with a self-contained air support system and special fire-protection (water-spray system).

Materials: (for details see “SPC-GFF58C17-21-0 Material specification GRP-REV.0”)
Hull material: Glass fibre reinforced polyester (GRP)
Buoyant material: Polyurethane hard foam

Length over all	5.83 m
Breadth over all:	2.73 m
Height over all:	3.21 m

GFF5.8C21 / GFF5.8C21-T

Weight of boat, fully equipped:	3000 kg / 3230 kg (cargo / tanker version)
Max. launching weight, fully manned (82.5 kg/person):	5062.5 kg / 5292.5 kg (cargo / tanker version)

GFF5.8C17/GFF5.8C17-T

Weight of boat, fully equipped:	2910 kg / 3125 kg (cargo / tanker version)
Max. launching weight, fully manned (82.5 kg/person):	4972.5 kg / 5187.5 kg (cargo / tanker version)

Hook manufacturer and type:	Hatecke GFF-R8 (MEDB00001HX Rev.2)
Hook SWL:	7575 kg
Propulsion system:	Single inboard engine
Engine Manufacturer and type:	Bukh A/S, DV29RME 21.3kW (MEDB00003FK Rev.1)
Bollard pull:	3.25 kN

Application/Limitation

Approved engine power:		21.3 kW
Maximum number of persons (82.5 kg/person):		25
Maximum load of persons (82.5 kg/person):		2062.5 kg
Maximum free-fall certification height:	GFF5.8C21 or GFF5.8C21-T	21.0 m
	GFF5.8C17 or GFF5.8C17-T	17.0 m
Minimum launching ramp length:		6.265 m
Launching ramp angle:		35°
Heel angle:		20°

- Unless the free-fall lifeboat lashing can be released from inside it shall be arranged to preclude boarding until it is removed.
- For free-fall lifeboats inflatable lifejackets are recommended.
- Lifeboat equipment and marking/instructions to be inspected after installation onboard the ship. Equipment shall comply with LSA Code and IMO Res. MSC.81(70).
- The design assessment is based on IMO Res. MSC.48(66) as amended by IMO Res. MSC.207(81), IMO Res. MSC.218(82) and 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 with each lifeboat model.

Type Examination documentation

This approval is based on previous MED-B Certificate 400.167 and 400.159 issued by Notified Body BG-Verkehr on 2016-06-30 and 2016-09-12
Basis for approval:

Technical documentation as listed in LIS-GFF58C17-21-0-Drawing list DNV-REV.0	2021-10-01

Manual for operation, maintenance and training (acc. MSC.1/Circ.1205, 1206) MAN-GFF-C-0-Manual Rev.5	2020-01-21
Acceleration test report for GFF5.8C21 , no. CECS-2010-03	2010-07-21
Acceleration test report for GFF5.8C17 , no. CECS-2010-01	2010-05-12
Fire testing of lifeboat laminate acc. to IMO MSC/Circ. 1006, SINTEF, Trondheim, Norway	2010-11-08
Fire Test STB-1529-1987 by Germanischer Lloyd	1987-05-12

Main drawings:

General Arrangement Plan GFF5.8C17(Cargo) GGF58C17-001 Rev.1	2010-05-14
General Arrangement Plan GFF5.8C17-T(Tanker) GGF58C17-T-001 Rev.1	2010-06-02
Seating plan / Interior Plan PGFC58-011	2010-03-30
Hoisting Arrangement PGFC58-012	2010-03-30
Construction plan seat (480mm) GFF-C DBC-09	2010-01-25
Air Supply System Type ASS 3010 PGFC58-017	2010-04-06
Water Spray System PGFC58-016	2010-03-31
GRP-Plan I PGFC58-001	2010-03-04
GRP-Plan II (CFH=17.0m) PGFC58-007-17	2010-03-29
GRP-Plan III (canopy) (CHF=17.0m) PGFC58-006-17	2010-03-26
GRP-Plan IV (hull) (CHF=17.0m) PGFC58-005-17	2010-03-11
General Arrangement Plan GFF5.8C21(Cargo) GGF58C21-001	2010-06-08
General Arrangement Plan GFF5.8C21-T(Tanker) GGF58C21-T-001	2010-06-08
GRP-Plan II (CFH=21.0m) PGFC58-007-21	2010-05-21
GRP-Plan III (canopy) (CHF=21.0m) PGFC58-006-21	2010-05-21
GRP-Plan IV (hull) (CHF=21.0m) PGFC58-005-21	2010-05-21

Prototype test reports (acc. to MSC/Circ.980, witnessed by German Administration SBG / BG-Verkehr)

Report. No.	***Dated***
PTC-GFF58C17-2010-01	2010-05-12
PTC-GFF58C17-2010-02	2010-06-03
PTC-GFF58C21-2010-03	2010-07-02

Tests carried out

Tests are documented 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.323(89) and IMO MSC/Circ.1006.

Marking of product

The product is to be indelibly marked with name and address of manufacturer, boat model and serial number, month and year of manufacture, number of persons approved for and operational restrictions, if any, according to LSA code item 4.4.1.2 and the mark of conformity (see page 1).
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.

List of lifeboat equipment to be posted inside the boat.