

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB00004HN
Revision No:
2

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV AS under the authority of the Government of Norway.

This is to certify:

That the Rigid rescue boats

with type designation(s)
Midget-530 MKI or MKII Waterjet/propeller

Issued to

VIKING NORSAFE LIFE-SAVING EQUIPMENT NORWAY AS
FÆRVIK, Norway

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

Regulation (EU) 2021/1158,

item No. MED/1.18. SOLAS 1974 as amended, Reg. III/4, III/21, III/31, III/34 & X/3, LSA Code, 2000 HSC Code 8 and IMO MSC/Circ.1006

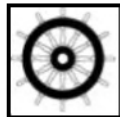
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2024-12-19**.

Issued at **Høvik** on **2021-09-02**

DNV local station:
Norway CMC, West

Approval Engineer:
Tessa Bieber



Notified Body
No.: **0575**



for **DNV AS**

Digitally Signed By: Øyvind Hoff
Location: DNV Høvik, Norway
on behalf of

Sverre Olav Bergli
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 AS 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

“Midget-530 MKI or MKII Waterjet/propeller”

a rigid rescue boat equipped with inboard engine with either waterjet or propeller and self-righting arrangement, with a single point lifting hook. MKI has a foam fender, while MKII has a PVC fender.

Material specification:

ASIA			
Material	Generic name	Type	Manufacturer
Polyester resin:	Polyester resin	FL-918 OR ETERSET 2929PT	Jiangsu Fullmark Chemical Co., Ltd. OR Eternal Materials Co.Ltd.
Gelcoat:		Enguard series: Enguard GE XXXXXS/HZ, Enguard TM XXXXXS/HZ	Ashland (Changzhou) Specialty Chemical Co., Ltd.
Gelcoat/topcoat		FL-NCxxxxG	Jiangsu Fullmark Chemicals Co., Ltd
Glass Fiber:	CSM	P-100g/m ² -- P-900g/m ² , chopped strand mat - powder bound	Jiangsu Changhai Composite Materials Holding Co., Ltd
		EMC (powder type), EMCL (emulsion type)	Taishan Fiberglass Inc.
Buoyant material:	Rigid polyurethane foam	Rigid polyurethane foam,	Jiangyin Tongqi Allied Chemical Factory OR
		Rigid polyurethane foam, LM- 206A/LM-206B	Qingdao Lianmei Chemical Co. Ltd..

Length over all: 5.32 m
 Breadth over all: 2.07 m
 Depth: 0.76 m
 Weight of boat, fully equipped: 1155 kg
 Weight of boat, fully manned (82.5 kg/person): 1815 kg

Hook manufacturer and type: Norsafe K4-D/K4-D FM, off-load
 Hook SWL: 4000 kg

Hull material: FRP

Propulsion system: Inboard engine with waterjet/propeller
 Engine manufacturer and type: NLDE-3 ⁽¹⁾
 SABB L3.139LB ⁽²⁾
 SABB L4.186TLB ⁽³⁾
 Steyr-MO94 ⁽⁴⁾
 Yanmar 4JH110 ⁽⁵⁾

Waterjet type: Alamarin-160 ^(a)
 Alamarin-185 ^(b)

Bollard pull: 4.1 kN ⁽¹⁾
 4.0 kN ⁽²⁾
 5.2 kN ⁽³⁾
 5.2 kN ^(4a)
 2.8 kN ^(5b)

Application/Limitation

Approved engine power, max: 20.6 kW ⁽¹⁾
 21.6 kW ⁽²⁾
 40.2 kW ⁽³⁾
 66.0 kW ⁽⁴⁾
 81.0 kW ⁽⁵⁾

Number of persons, max: 8
 Maximum load of persons (82.5 kg/person): 660 kg

Approved colour:

Orange

Rescue boat 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 rescue boat is fitted with a release hook without on-load release capabilities, in accordance with LSA Code 4.4.7.6.17. Hence, if it is to be combined with launching appliances with permanent high-speed tensioning device (LSA Code 6.1.7.3), compatibility must be assured.

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 as amended.

For the rescue boat equipped with engine with power of more than 36.8 kW there should be a hardware means limiting the maximum speed of the boat to maximum 20 knots (ref. MarED Approved Recommendation LSA-075).

Type Examination documentation

Document Index No. 12460 Rev.7 dated 2020-01-03 (Design documentation (drawings and calculations))

Document Index No. 12415 Rev.0 dated 2017-05-27 (Components data sheets and approval certificates)

Document Index No. 23387 Rev. A dated 2021-03-01 (Alternative Polyester Resin ETERTSET 2929PT).

Prototype test reports Nos.

- REP-1221 dated 2007-05-29.
- REP-1357 dated 2007-05-29.
- REP-1210 dated 2007-12-26.
- REP-1149 dated 2012-11-09.
- REP-1358 dated 2012-11-09.
- REP-1154 dated 2015-09-01.
- REP-1716 dated 2010-07-04.
- REP-1761 dated 2020-01-17.

Test reports Nos. acc. to IMO MSC/Circ.1006:

- 2016-05-M002 (REP-1218).
- 2018-07-M012 (REP-1509).
- 2018-07-M011 (REP-1510).
- 2018-07-M014 (REP-1511).
- 2018-07-M013 (REP-1512).

Laminate strength test report No.:

- 2016-06-0435 (REP-1219) dated 2016-06-02

Operation and maintenance manuals:

- MAN-0338 Rev.5 dated 2020-01-02
- MAN-0349 Rev.3 dated 2019-11-23

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.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 manufacturer, boat model and serial number, month and year of manufacturer, number of persons approved for and operational restrictions, if any, according to LSA code item 4.4.1.2 and the MED Mark of Conformity (see page 1).

List of rescue boat equipment to be posted in the boat.