



TYPE APPROVAL CERTIFICATE

Certificate No:
TALB000001B
Revision No:
2

This is to certify:

That the Rigid/inflated rescue boats

with type designation(s)
Narwhal SV-420

Issued to

NARWHAL BOATS, S.L.
Porriño, Pontevedra, Spain

is found to comply with

**SOLAS 74 as amended, Regulation III/4, III/21, III/31, III/34 & X/3 LSA Code and 2000 HSC Code 8
TP14475E Ed.1 (2010-03) Canadian life saving appliance standard**

Application :

Approved for use as a rigid/inflated rescue boat.

This certificate is recognized by Transport Canada.

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Issued at **Høvik** on **2021-11-18**

for **DNV**

This Certificate is valid until **2026-11-17**.

DNV local station: **NB/CMC Team West**

Approval Engineer: **Lars Erik Hallbeck Parelius**

Helene David-Andersen
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

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

“NARWHAL SV-420”, is a rigid/inflatable rescue boat with 4-point lifting sling.

Material	Type	Manufacturer
Polyester resin	BÜFA Firestop 8175-W-1	BÜFA Composite Systems GmbH & Co. KG
	P54-10	AOC Resins
Glass fibre	E-600G/M2	Jiangsu Changhai Composite Materials Holding Co., Ltd.
	M705	Owens-Corning Private Ltd.
	E-6CR	Jushi Group
	Rovimat	Chomarat Textiles Industries
	EMK	Jiangsu Changhai Composite Materials Holding Co., Ltd.
Gelcoat	E8640 (POLYCOR)	POLYNT COMPOSTES SPAIN
	Neogel 8373	BÜFA Composite Systems GmbH & Co. KG
Buoyancy material	1PU4-U4 AR/GR (ARTICOLO)	CHIORINO S.p.A.

Length: 4.20 m
 Breadth: 2.07 m
 Depth: 1.00 m

Weight of boat, fully equipped: 421 kg
 Weight of boat, fully manned (82.5 kg/person): 916 kg

Lifting equipment: 4 polyester slings

Hull material: GRP/Polyurethane foam

Propulsion system: Outboard engine
 Engine manufacturer and type: Yamaha F25A (25 hp) ⁽¹⁾
 Yamaha F40B (40 hp) ⁽²⁾

Bollard pull (Yamaha F25A (25 hp), propeller (3 x 9 7/8 x 10 1/2F)): 1.8 kN ⁽¹⁾
 Bollard pull (Yamaha F40B (40 hp), propeller (3 x 11 1/8 x 13)): 2.2 kN ⁽²⁾
 Bollard pull (Yamaha F40B (40 hp), propeller (3 x 11 5/8 x 11)): 2.6 kN ⁽²⁾
 Bollard pull (Yamaha F40B (40 hp), propeller (3 x 11 3/4 x 10)): 3.0 kN ⁽²⁾

Application/Limitation

Approved engine power: 18.4 kW ⁽¹⁾
 29.4 kW ⁽²⁾

Maximum number of persons: 6
 Maximum load of persons (82.5 kg/person): 495 kg

Approved colour: Orange

Rescue boat equipment and marking/instructions to be inspected after installation onboard the ship. Equipment shall comply with the International Life-Saving Appliances (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), IMO Res. MSC.272(85), IMO Res. MSC.320(89) and the Canadian Lifesaving Appliance Standard TP 14475E Ch.V and Transport Canada Life-Saving Equipment Regulations (C.R.C., c. 1436) Schedule VII.

Various components transferring the load (“loose gear”) such as shackles, chains, links, blocks, etc. shall comply with recognised standard or code and shall be delivered with manufacturer’s certificate confirming a safety factor of minimum 6 compared to the sustained load (LSA Code Ch.6 §6.1.1.6).

Production and installation testing shall be carried out according to IMO Res. MSC.81(70) Part 2, as amended.

The manufacturing of the rescue boat shall meet the requirements in DNV Standard for Certification of Lifeboats 2007, Ch.12 and 13 (manufacturer’s quality assurance of production).

The rescue boat shall be delivered together with DNV boat certificate.

Type Approval documentation

Certification in accordance with Class Programme DNV-CP-0338, September 2021.

Basis for approval:

General	Date
Technical documentation Narwhal SV 420	2016-09-28
Drawings	
Drawing No. 2389-2005-AQ-BAR-ENAC "Detalle Fijación Asientos SV-400C"	2006-06-23
Drawing No. 2389-2005-AQ-BAR-ENAC "POSICIÓN DE LOS PASAJEROS Y HERIDO EN SV 400-C"	2006-06-23
Drawing Towing and hoisting arrangement	2014-03-21
Drawing Towing and hoisting arrangement 2	2014-03-21
Drawing No. 385-182-2-A "Bote de Rescate SV-400, Cotas y detalles de construcción"	
Test reports	
Prototype tests carried out witnessed by Spanish Maritime Authorities	1989-02, 1990-10
Reports from prototype tests ref. MSC Circ. 980, witnessed by DNV	2006-03-31, 2006-06
Reports from prototype tests ref. MSC Circ. 980, witnessed by DNV	2008-11
NARWHAL SV – 400 Rescue Boat, Certification tests Report	
Fire test IMO MSC/Circ.1006 from Exova Warringtonfire, UK	2014-11-25, 2014-12-02
Calculations	
Calculations sling arrangement SV-420	2014-03-21
Structural analysis of hoisting points to laminate, ISONAVAL Naval architecture office-surveyors, Barcelona, Spain	2014-03-21

Tests carried out

Tests are documented in accordance with Recommendation on Testing of Life-Saving 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) and IMO Res. MSC.323(89), IMO MSC/Circ.1006 and Transport Canada Life-Saving Equipment Regulations (C.R.C., c. 1436) Schedule VII (Section 121).

Transport Canada Approval

Based on the procedures laid down in the Transport Canada Publication entitled "Procedures for Approval of Life-Saving Appliances, Fire Safety Systems, and Products (TP 14612E)", DNV confirms that the product listed in this certificate is in accordance with Transport Canada's requirements.

Marking of product

The product is to be indelibly marked according to LSA Code item 4.4.1.2, Transport Canada TP 14475E item 15.1.2 and Transport Canada Life-Saving Equipment Regulations (C.R.C., c. 1436) Schedule VII (Section 121) item 5.

All instructions and markings accompanying the rescue boats, or printed directly on the rescue boats, shall be in both English and French, as per "Procedures for Approval of Life-Saving Appliances and Fire Safety Systems, Equipment and Products" (TP 14612E) item 2.2.1.3.

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

Periodical assessment

DNV's surveyor is to be given permission to perform periodical assessments at any time during the validity of this certificate and at least every second year. The arrangement is to be in accordance with procedure described in Class Programme DNV-CP-0338, Section 4.