

# TYPE APPROVAL CERTIFICATE

**This is to certify:****That the Rigid/inflated rescue boats**with type designation(s)  
**Narwhal SV-420**

Issued to

**NARWHAL BOATS, S.L.**  
**O 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****Application :****This certificate is recognized by Transport Canada.****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**Issued at **Høvik** on **2017-08-07**for **DNV GL**This Certificate is valid until **2021-11-02**.DNV GL local station: **Vigo**Approval Engineer: **Tomasz Werchowicz**

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**Mårten Schei-Nilsson**  
**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.



Job Id: **262.1-022713-2**  
Certificate No: **TALB000001B**  
Revision No: **1**

## Product description

NARWHAL SV-420 is a rigid/inflatable rescue boat with lifting sling.

Length over all, hull, max: 4.20 m  
Draught: 1.00 m  
Beam overall, including fenders, Bmax: 2.07 m  
Weight of boat, fully equipped: 421 kg  
Weight of boat, fully manned 82.5 kg: 916 kg

Lifting equipment: 4 polyester slings  
Hull material: GRP/Polyurethane foam

Propulsion system: Outboard engine  
Engine manufacturer and type: Yamaha 25 hp and 40 hp

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

## Application/Limitation

Approved engine power: 18.4 - 29.4 kW

Number of persons, max: 6  
Maximum load of persons 82.5 kg: 495 kg

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 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 Life saving equipment regulations C.R.C.1436 Schedule VII.

The various components transferring the load like wires, shackles, hooks etc. shall comply with international standard or code and shall be delivered with manufacturer's certificates confirming a safety factor of minimum 6 compared to the sustained load.

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

## Type Approval documentation

Certification in accordance with Class Programme DNVGL-CP-0338, October 2015.

Basis for approval:

NARWHAL SV - 400 Rescue Boat, Certification tests Report	
Prototype tests carried out witnessed by Spanish Maritime Authorities	Feb. 1989 and Oct. 1990
Drawing No. 385-182-2-A "Bote de Rescarte SV-400, Cotas y detalles de 2onstrucción"	
Drawing No. 2389-2005-AQ-BAR-ENAC "DETALLE FIJACIÓN ASIENTOS SV-400C"	2006-06-23
Technical documentation Narwhal SV 420	2016-09-28
Drawing No. 2389-2005-AQ-BAR-ENAC "POSICIÓN DE LOS PASAJEROS Y HERIDO EN SV 400-C"	2006-06-23
Reports from prototype tests ref. MSC Circ. 980, witnessed by DNV	2006-03-31 and 2006-06

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Reports from prototype tests ref. MSC Circ. 980, witnessed by DNV	Nov. 2008
Drawing Towing and hoisting arrangement	2014-03-21
Drawing Towing and hoisting arrangement 2	2014-03-21
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 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) and IMO Res. MSC.323(89).

### Transport Canada Approval

Based on the procedures laid down in the Transport Canada Publication entitled "*Approval Procedures for, Life Saving Equipment and Structural Fire Protection Products (TP 14612)*", DNV GL 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 with name 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 be marked in accordance with Transport Canada TP14475E item 15.1.2.

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" (TP14612E) Ch.2.2.1.3.

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