

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Horizontal Class A Hatches**with type designation(s)
WRH-S-A60

Issued to

Libra-Plast A/S
HAREID, Norway

is found to comply with

DNV GL rules for classification – Ships**DNV GL offshore standards****DNV GL statutory interpretations DNVGL-SI-0364 – SOLAS interpretations****Application :****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.****Approved for use as an integrated part of a horizontal fire retarding division of class A-60.**Issued at **Høvik** on **2020-09-09**This Certificate is valid until **2025-09-08**.for **DNV GL**DNV GL local station: **Norway Newbuilding**Approval Engineer: **Thorvald Furuseth**

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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") 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

"WRH-S-A60"

composed of single leafed hinged hatch with outer and inner steel sheets made of 8 mm and 1.25 mm respectively. The hatch blade is insulated with 40 + 40 mm thick insulation layers of type "Ultimate Marine Slab U Sea Protect 96-40" of density 96 kg/m³ (manufactured by Saint-Gobain Isover G+H AG). The 8 mm thick steel sheet is fitted with internal stiffeners (for details see detailed drawings).

Total thickness of hatch leaf: 89 mm.

The hatch leaf is fixed to the 12 mm thick coaming with multiple hinges. The hatch coaming may be welded or bolted (for details see detailed drawings) to the deck. The connection between hatch leaf and coaming is sealed with neoprene gasket and intumescent gasket.

The hatch is equipped with a locking system consisting of main handle or wheel connected to several fixing points.

For further details, see drawings listed under Type Approval documentation below.

Application/Limitation

The hatch is approved for installation in steel decks of class A60. Installation of the hatch in decks made of other materials (aluminium, FRP, etc.) are subject to case-by-case approval.

Max. clear opening: 800 x 800 mm (L x W)
Max. hatch cover plate size: 898 x 898 mm (L x W)
Max. coaming depth: 65 mm (non-insulated)
Max. coaming depth: 600 mm (insulated*)

* inside of coaming shall be insulated by 30 + 30 mm thick insulation layers of type "Ultimate Marine Slab U Sea Protect 96" (same as above) covered by 1 mm thick steel sheet.

Any surface materials used have to be approved for smoke and toxicity and low flame spread characteristics (IMO 2010 FTP Code parts 2 and 5 or IMO FTPC Parts 2 and 5 when in compliance with the 2010 FTP Code Ch. 5.2 and 8) when required according to relevant rules and regulations.

Note that this is a fire safety certificate which only covers fire technical properties (i.e. not to cover any evaluations related to watertightness, weathertightness, etc.).

The construction and installation are to be in accordance the type approval documents listed below and with the manufacturer's manual for installation.

Type Approval documentation

Certification in accordance with Class Programme DNVGL-CP-0338, September 2018.

Test report No. 150071-27 dated 12 June 2017 from RISE, Trondheim, Norway.

Assessment No. 150101-51-Ver2 dated 13 March 2020 from RISE, Trondheim, Norway.

Drawing No. A-3-01518 Rev. 1 dated 17 February 2020 from manufacturer.
Drawing No. A-3-01519 Rev. 1 dated 17 February 2020 from manufacturer.

Tests carried out

Tested according to IMO 2010 FTP Code Part 3.

Marking of product

The product is to be marked with name of manufacturer, type designation and fire-technical rating.



Job Id: **262.1-033257-1**
Certificate No: **TAF00001ES**

Periodical assessment

DNV GL'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 DNVGL-CP-0338 Section 4.