



Certificate No:
TAF00001K4

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Horizontal Class A Hatches

with type designation(s)
A-60 Hydraulic Embedded Hatch Cover

Issued to

Wuxi Marine and Nuclear Equipment Technology Co.,Ltd.
Wuxi, Jiangsu, China

is found to comply with

DNV offshore standards
DNV statutory interpretations DNV-SI-0364 – SOLAS interpretations, Edition July 2021
DNV rules for classification – Ships

Application :

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

Issued at **Høvik** on **2021-10-04**

This Certificate is valid until **2026-10-03**.

DNV local station: **Jiangyin NB & CMC**

for **DNV**

Approval Engineer: **Marcin Tobiasz**

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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.



Form code: TA 251

Revision: 2021-03

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Product description

"A-60 Hydraulic Embedded Hatch Cover"

Composed of cover plate, coaming and sealing material.

Cover plate is made of 2 mm thick steel plate, 8mm thick YB type fireproof board with density of 1000 kg/m³ manufactured by Suzhou Youlian Ship Fitting Co., Ltd, TG-II ceramic wool with density of 170 kg/m³ manufactured by Yixing Ocean Ship Material Co., steel plate with 16 mm thick and 125 mm high used as reinforcement for cover plate and 12 mm thick steel plate.

The 50 x 30 mm rubber strip manufactured by Jiangyin Hengsheng Rubber&Plastic Product Co., Ltd is fixed at the perimeter of cover plate.

Fireproof strip of 20 x 4 mm, 8935 type manufactured by Shanghai Jiar Fu Decoration Material Co. Ltd. is fixed outside the groove.

The hatch coaming is made of 16 mm and 20 mm thick steel plates and fireproof seal strip of 20 x 4 mm, 8935 type manufactured by Shanghai Jiar Fu Decoration Material Co. Ltd. is fixed at the inside of coaming's perimeter.

Hatch coaming is fixed to the deck by welding.

Cover plate is fixed to the coaming by 4 steel hinges. Linkage locking mechanism and hydro cylinders are installed on the cover plate. Clips are motivated by the 3 hydro cylinders to lock the cover plate to the coaming tightly.

Total thickness of hatch leaf: 147 mm.

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

Application/Limitation

The hatch is approved for installation in steel decks of class A-60. Installation of the hatch in decks made of other materials (aluminium, FRP, etc.) are subject to case-by-case approval.

Max. clear opening: 1920 x 2500 mm (L x W).

Max. hatch cover plate size: 2116 x 2696 mm (L x W).

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 DNV-CP-0338, September 2021.

Test Report No. FT15119 date 1 April 2015 from Far East Fire Testing Centre, Shanghai, China.

Drawing No. 263WDL110-00, dated 20 January 2015 from manufacturer

Drawing No. 263WDL110-01, dated 20 January 2015 from manufacturer

Drawing No. 263WDL110-02-00, dated 20 January 2015 from manufacturer

Drawing No. 263WDL110-03-00, dated 20 January 2015 from manufacturer

Drawing No. 263WDL110-04-00, dated 20 January 2015 from manufacturer

Drawing No. 263WDL110-05-00, dated 20 January 2015 from manufacturer

Drawing No. 263WDL110-06, dated 20 January 2015 from manufacturer

Drawing No. 263WDL110-JB, dated 20 January 2015 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.

Periodical assessment

DNV's surveyor is to be given permission to perform Periodical Assessments at any time during the validity of this



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certificate and at least every second year. The arrangement is to be in accordance with procedure described in DNVCP-0338 Section 4.