EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB00007VN

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 'A' and 'B' class fire proof windows and side scuttles

with type designation(s)
Fixed 3-Parted Alu Clamp On A-60 Window

Issued to
C.C. Jensen Window A/S
Svendborg, Syddanmark, **Denmark**

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2021/1158,**
item No. MED/3.25. SOLAS 74 as amended, Regulation II-2/9, IMO MSC/Circ.1120 and IMO 2010 FTP Code, IGC Code 3

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

This Certificate is valid until **2027-02-08**.

Issued at **Høvik** on **2022-02-09**

DNV local station:
Denmark CMC

Approval Engineer:
Kristin Grønnæss

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

"Fixed 3-Parted Alu Clamp On A-60 Window",
is composed of three glass panes (manufactured by Vetrotech Saint-Gobain Int. AG) each constructed from 27 mm fire glass (A60 27 (5+3+4+3+4+3+5)), 15 mm air gap and 10 mm toughened glass. The glass panes were glued to an aluminium frame with two vertical aluminium mullions (c/c 851 mm) welded to the frame.

Total thickness of the glass panes is 52 mm.

The mullions and the main frame were covered by a steel box and filled with the insulation Rockwool SeaRox SL 640 (density 130 kg/m^3, manufactured by Rockwool) and FireMaster Marine Plus Blanket (128 kg/m^3, manufactured by Thermal Ceramics) on one side. A silicone rubber gasket was mounted between the edges of the steel box and the glass panes. Supporting blocks of Promarine 640 board (manufactured by Promat) were mounted at the bottom of the glass panes.

The aluminium main frame was clamped on to the bulkhead with a 10x27x40 mm clamp, tightened by screws (M8x50) and additionally sealed with a butyl Ø6 mm sealing and a silicon rubber gasket.

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

Application/Limitation

The window is approved for installation in steel bulkheads of class A-60. Other applications are subject to case-by-case approval.

Restricted application: Fire against steel box and fire glass (internal side).

Maximum size of window:	2669 x 2368 mm (W x H)
Maximum size of each glazing unit:	828 x 2228 mm (W x H)
Maximum size of each glazing unit (clear view):	647 x 2048 mm (W x H)
Maximum size of total glazing frame (clear view):	2350 x 2048 mm (W x H)

The window has only been evaluated with respect to fire technical properties (e.g., strength requirements have not been considered). Arrangement and location of any window is subject to approval from relevant authorities in each case.

Hose-stream test was carried out with satisfactory results according to IMO Res. MSC.307(88), Appendix A.1.5.

Each product is to be supplied with its manual for installation, use and maintenance.

Type Examination documentation

Test report No. PGB10073A dated 3 March 2021 from DBI, Hvidovre, Denmark.

Drawing No. VA912000201 Rev. D dated 27 November 2020 from manufacturer.
Drawing No. VA912000201IS dated 14 August 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 and address of manufacturer, type designation, fire technical rating, the MED Mark of Conformity (see first page).