EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB00007V9

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)
A-60 WINDOW 1200 x 2200

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

"A-60 WINDOW 1200 x 2200"
is composed of steel frame incorporating a glass pane (manufactured by Vetrotech Saint-Gobain Int. AG) constructed of 27 mm fire glass (A-60 27, (5+3+4+3+4+3+5)), 10 mm air gap and 10 mm toughened glass. Silicon rubber gasket was mounted along the edges of the glass pane.

Total thickness of the glass pane is 47 mm.

The glass retaining frame consists of stainless steel lists fixed to the main frame with screws (M6x16, c/c max. 72.9 mm). The main frame consists of two steel profiles screwed together (M8x35, c/c max. 145 mm) and insulated with Promarine 640 (density 640 kg/m^3, manufactured by Promat GmbH) in between. Ceramic wool of type Insulfrax (96 kg/m^3, manufactured by Unifrax) is mounted between the glass pane and the main frame. The main frame is welded to the bulkhead.

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 fire glass (internal side).

Maximum size of window:	1318 x 2318 mm (W x H).
Maximum size of glazing unit:	1230 x 2230 mm (W x H).
Maximum size of glazing unit (clear view):	1200 x 2200 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. PGB10128A dated 25 August 2021 from DBI, Hvidovre, Denmark.

Drawing No. VA911700301 dated 17 May 2021 from manufacturer.
Drawing No. VA911700301IS dated 17 August 2021 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 and the MED Mark of Conformity (see first page).