Certificate No: MEDB00005ZU

DNV.GL

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

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 GL 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) CCJ AL COW A0 02

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) 2019/1397, 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 **2025-01-08**. Issued at **Høvik** on **2020-01-09**

DNV GL local station: Denmark CMC

Approval Engineer: Joanna Kowalczuk



Notified Body No.: 0575 for DNV GL AS

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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



Form code: MED 201.NOR

Revision: 2017-07

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Job Id: **344.1-009880-1** Certificate No: **MEDB00005ZU**

Product description

"CCJ AL COW A0 02"

composed of an Aluminium clamping frame incorporating a glass unit consisting of a glass construction -SCHOTT Pyranova A-60 - with the following construction details:Toughened thermo glass, min. 10 mm, an air cavity of 10 mm and a 27 mm insulating glass (consisting of 7 layers of glass with 1 layer of PVB foil and 5 layers of gel between them).

The window pane and main frame are glued together along the edges of the thermal glass and insulated glass with 2 mm thick of Sikaflex-265.

Total glass unit thickness is 47 mm.

A cover box made from min. 1 mm thick steel plate - filled with Rockwool Marine Fire Batts 130 - is mounted around the exposed (internal) side of the window.

Promarine 640 window supporting blocks are used together with sealing materials inside the Al-frame. This Al-frame is fastened to the bulkhead using M8 A4 hex socket screws with external EPDM gasket and Butyl sealing.

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

Application/Limitation

The window is approved for installation in steel bulkheads of class A-0. Other applications are subject to case-by-case approval. Bulkhead surrounding the window to be insulated to A-60.

Fire against 27 mm insulating glass (fire from inside).

| Maximum size of fire technical glazing unit: | |
|--|-------------------------------------|
| Toughened thermo glass: | 1542 mm x 1342 mm (width x height). |
| Insulating glass: | 1514 mm x 1314 mm (width x height). |
| | |
| Maximum exposed window size: | 1438 mm x 1238 mm (width x height). |

Strength glass against weather side to be marked according to ISO 614.

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. A.754(18) Appendix A.I.5.

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

Type Examination documentation

Test report No: File No. PG 11457 Serial No. 11412 dated 3 January 2008 from Danish Institute of Fire and Security Technology, Copenhagen, Denmark.

Drawing No. VA910700701 (Rev.3), dated 02 January 2008 from manufacturer Drawing No. VA910700701g dated 25 September 2007 from manufacturer

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Tests carried out

Tested according to IMO FTPC Part 3, and in compliance with IMO 2010 FTP Code Ch. 8.

Marking of product

The product is to be marked with name and address of manufacturer, type designation, fire-technical rating and MED Mark of Conformity (see first page).