



DET NORSKE VERITAS

EC TYPE-EXAMINATION CERTIFICATE

Application of: Council Directive 96/98/EC of 20 December 1996 on Marine Equipment as amended by directive 2002/75/EC, issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Directorate. This certificate is issued by Det Norske Veritas under the authority of the Government of the Kingdom of Norway.

CERTIFICATE NO. MED-B-4731

This Certificate consists of 3 pages

This is to certify that the product
Windows and side scuttles

with the type designation(s)
CCJ AL COW A0 02

Manufactured by
C.C. Jensen A/S
SVENDBORG, Denmark

is found to comply with the requirements in the following Regulations/Standards:
Annex A.1, item No. A.1/3.25 and Annex B, Module B in the Directive SOLAS 74 as amended, Regulation II-2/9.4.1.3, MSC/Circ.847 and IMO FTP Code.

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

Place and date

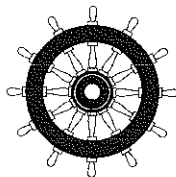
Høvik, 2008-05-09

for DET NORSKE VERITAS AS

Kristen Ulveseter

Manager, MTPNO370

Department Systems & Components



Notified Body No. 0575

This Certificate is valid until

2013-05-09

Øyvind Hoff

Surveyor

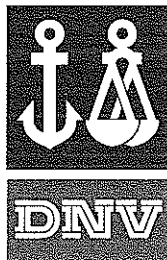
DNV local office:
DNV Fredericia



Notice: The certificate is subject to terms and conditions overleaf. Any significant changes in design or construction of the product, or amendments to the Directive or Standards referenced above may render this certificate invalid. The product liability rests with the manufacturer or his representative in accordance with Council Directive 96/98/EC, as amended.

The Mark of Conformity may only be affixed to the product and a Declaration of Conformity may only be issued when the production/product assessment module referred to in the council directive, is fully complied with.

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.



Cert. No.: MED-B-4731
Case No.: 344.1-000427-4
File No.: A.1/3.25

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 (seen from unexposed to exposed side): 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).

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 more details, see the approved drawings listed under Type Examination documentation on page 3.

Applications/Limitations

The window is approved for use as an integrated part of fire retarding bulkheads of class A-0. Fire against internal insulated side (against the 27 mm insulating glass). Bulkhead and insulation around window frame (fire side) to be as for A-60.

Maximum size of fire technical glazing unit:

Thermo glass: 1542 x 1342 mm (width x height).

Insulating glass: 1514 x 1314 mm (width x height).

Maximum exposed window size: 1438 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.





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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.


Drawings VA910700701 (Rev.3, 02.01.08) and VA910700701g (Drawn 25.09.07), both from C.C. Jensen.

Tested according to IMO FTPC Part 3 (IMO Res. A.754(18)).

Marking of product

The product is to be marked with name of manufacturer, type designation, fire technical rating and the Mark of Conformity (see below).

Mark of conformity

The manufacturer is allowed to affix the Mark of Conformity  according to Article 11 in the Council Directive 96/98/EC on Marine Equipment and issue a Declaration of Conformity, only when the module D or E or F of Annex B in the same directive is fully complied with.

- Module D: The quality system for production and testing shall be approved by the Notified Body.
- Module E: The quality system for inspection and testing shall be approved by the Notified Body.
- Module F: Compliance of the products to type as described in this EC Type-Examination Certificate must be verified by the Notified Body who also shall issue a Certificate of Conformity.

END OF CERTIFICATE

