

Certificate No: MED-B-9535 Item No: A.1/3.25 Job Id:

EC TYPE EXAMINATION CERTIFICATE

344.1-002058-8

Application of: Council Directive 96/98/EC of 20 December 1996 on Marine Equipment as amended by directive 2012/32/EU, issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Directorate. This Certificate is issued by DNV GL under the authority of the Government of the Kingdom of Norway.

This is to certify:

That the Windows and side scuttles

with type designation(s) A-30 WINDOW 1500 x 1300

Issued to

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, IMO MSC/Circ.847, IMO MSC/Circ.1120 and IMO FTP Code

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

Høvik, 2014-12-02 for DNV GL

Marianne Strand Valderhaug

Head of Department

Notified Body No.: 0575

DNV GL local office: Fredericia

Rolf Emilsen

Surveyor

This Certificate is valid until

2019-11-25





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.

Revision: 2014-07 © DNV GL 2014. DNV GL and the Horizon Graphic are trademarks of DNV GL AS.

Certificate No: MED-B-9535
Item No: A.1/3.25

Job Id: **344.1-002058-8**

Product description

"A-30 Window 1500 x 1300"

composed of a steel frame incorporating a glass unit consisting of one of the following:

1. pressure glass, minimum 10 mm, an air cavity of 6 mm and a fire technical glass sheet unit made from "Contraflam N2" (4+4+4). Total glass unit thickness is 28 mm.

For more details, see approved drawings VA91902201 and VA91902201b listed under Type Examination documentation below.

a glass construction - SCHOTT Pyranova 45-S2 - with the following construction details: UV protective glass pane, min. 10 mm, an air cavity of 8 mm and a 19 mm insulating glass (consisting of 5 layers of glass with 1 layer of PVB foil and 3 layers of gel between them). Total glass unit thickness is 37 mm.

For more details, see approved drawings VA910700905 and VA910700905b listed under Type Examination documentation below.

Complete side of window frame to be insulated on exposed side to the same fire rating as that of the bulkhead, to which the window frame is welded.

Application/Limitation

The window is approved for installation in steel bulkheads of class A-30. Other applications are subject to case-by-case approval.

Maximum size of fire technical glazing unit: $1520 \times 1320 \text{ mm}$ (width x height).

Maximum exposed window size: 1500 x 1300 mm (width x height).

Fire against internal side only, i.e. the N2 glass side for the 28 mm thick glass unit (item 1 above), and against the 19 mm insulating glass pane for the 37 mm thick glass unit (item 2 above).

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.

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

Type Examination documentation

Test report No: File No. PG 10611 Serial No. 7473 dated 22 February 2000 and File No. PG 11834 Serial No. 11534 dated 15 May 2008, both from Danish Institute of Fire Technology (DIFT), Copenhagen, Denmark.

Drawings VA91902201 (drawn, 11.01.00), VA91902201b (drawn, 12.01.00), VA910700905 (rev.2, 18.02.08) and VA910700905b (rev.4, 20.02.08), all from C.C. Jensen.

Test 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 of manufacturer, type designation, fire technical rating and the MED Mark of Conformity (see page 3).



Form code: MED.Ba Revision: 2014-07 www.dnvgl.com



Certificate No: MED-B-9535 Item No: A.1/3.25

Job Id:

344.1-002058-8

Page 3 of 3

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 shall 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.



Form code: MED.Ba Revision: 2014-07 www.dnvgl.com