



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-4134

This Certificate consists of 5 pages

This is to certify that the product
"A" Class divisions, fire integrity

with the type designation(s)
A-30 Bulkhead, Steel

Manufactured by

Rockwool - Marine & Offshore A/S
Hedehusene, Denmark



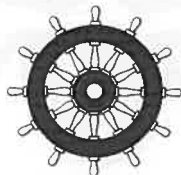
is found to comply with the requirements in the following Regulations/Standards:
Annex A.1, item No. A.1/3.11a and Annex B, Module B in the Directive. SOLAS 74 as amended, Regulation II-2/3.2.5 and IMO FTP Code.

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

Place and date

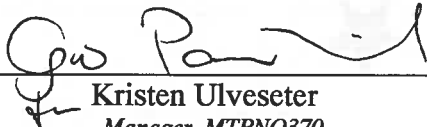
Høvik, 2007-03-27

for DET NORSKE VERITAS AS



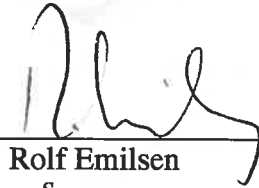
This Certificate is valid until

2011-12-20


Kristen Ulveseter
Manager, MTPNO370

Department Systems & Components

Notified Body No. 0575


Rolf Emilsen
Surveyor

DNV local office:



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-4134
Job No.: 344.1-000237-5
File No.: A1/3.11a

Product description

“A-30 Bulkhead, Steel”

Steel bulkheads with different insulation solutions are listed in enclosed appendix.

(For latest revision of the appendix, see <http://exchange.dnv.com/tari>).

Applications/Limitations

Approved for use as a class A-30 bulkhead. Applications/Limitations see appendix.

The insulation used have to be approved according to the Marine Equipment Directive and bear the Mark of Conformity.

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

Type Approval documentation

Given in enclosed appendix

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

Marking of product


The product or packing is to be marked with name of manufacturer, type designation, fire-technical rating, the Mark of Conformity and USCG approval (see page 3).





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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.

USCG Approval

An U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F), as allowed by the "Agreement between the United States of America and the EEA EFTA states on the mutual recognition of certificates of conformity for marine" signed 17 October 2005.





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Appendix Rev. No. 0

QS- Certificate of Assessment-EC, MED-B-4134

Common International Solutions:

Construction	Product Description	Applications / Limitations	Type Approval Documentation
Solution No. <u>1 - A30BH</u> A-30 Bulkhead, Steel Rockwool Marine Batts 45 50 mm / 25 mm	A-30 Bulkhead, Rockwool Marine Batts 45 Composed of steel bulkhead insulated on surface with minimum 50 mm mineral wool of type "Rockwool Marine Batts 45" of density 45 kg/m ³ between stiffeners, and minimum 25 mm around stiffeners. The bulkhead insulation is mounted with standard 3 mm steel pins and 38 mm steel clips (spring washers) at intervals of approx. 300 mm.	Approved for use as a Class A-30 bulkhead. General application: Fire against either side.	Test report No. G 01148 Ser. No 6100, dated 05.09.1996 from DIFT, Denmark. Drawing no 1, 2 and 3 of 1996-03-21 by Rockwool A/S.
Solution No. <u>2 - A30BH</u> A-30 Bulkhead, Steel Rockwool Marine Wired Mat 90 50 mm / 30 mm	A-30 Bulkhead, Rockwool Marine Wired Mat 90 Composed of steel bulkhead insulated on surface with minimum 50 mm mineral wool of type "Rockwool Marine Wired Mat 90" of density 90 kg/m ³ between stiffeners, and minimum 30 mm around stiffeners. The bulkhead insulation is mounted with standard 3 mm steel pins and 38 mm steel clips (spring washers) at intervals of approx 300 mm.	Approved for use as a Class A-30 bulkhead. General application: Fire against either side.	Test report No. GV95.33.1, dated 26.10.1995 from Brandversuchshaus Hamburg, Germany.

Local National Solutions:

Construction	Product Description	Applications / Limitations	Type Approval Documentation	National Country
Solution No. <u>A - A30BH</u> A-30 Bulkhead, Steel Rockwool Marine Firebatts 120 50 mm / 30 mm	A-30 Bulkhead, Rockwool Marine Firebatts 120 Composed of steel bulkhead insulated on surface with minimum 50 mm mineral wool of type "Rockwool Marine Firebatts 120" of density 120 kg/m ³ between stiffeners, and minimum 30 mm around stiffeners. The bulkhead insulation is mounted with standard 3 mm steel pins and 38 mm steel clips (spring washers) at intervals of approx. 300 mm.	Approved for use as a Class A-30 bulkhead. General application: Fire against either side.	Test report No. 846002.08 dated 27.11.1997 from SINTEF, Norway.	Norwegian solution: Trade name "Brannplate 110".





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Appendix Rev. No. 0

QS- Certificate of Assessment-EC, MED-B-4134 Local National Solutions:

Construction	Product Description	Applications / Limitations	Type Approval Documentation	National Country
<p>Solution No. <u>B – A30BH</u></p> <p>A-30 Bulkhead, Steel</p> <p>Rockwool Marine Firebatts 100</p> <p>40 mm / 25 mm</p>	<p>A-30 Bulkhead, Rockwool Marine Firebatts 100</p> <p>Composed of steel bulkhead insulated on surface with minimum 40 mm mineral wool of type "Rockwool Marine Firebatts 100" of density 100 kg/m3 between stiffeners, and minimum 25 mm around stiffeners. The bulkhead insulation is mounted with standard 3 mm steel pins and 38 mm steel clips (spring washers) at intervals of approx. 300 mm.</p>	<p>Approved for use as a Class A-30 bulkhead.</p> <p>General application: Fire against either side.</p>	<p>Test report No. 96-DG-813-TO/1 dated 24.02.1997 from RINA, Italy.</p>	<p>UK, Benelux, France solution.</p> <p>Trade names "Marine Firebatt 2000", "Marine Slab 758", Marine Slab 759".</p>
<p>Solution No. <u>C – A30BH</u></p> <p>A-30 Bulkhead, Steel</p> <p>Rockwool Marine Firebatts 100</p> <p>50 mm / 40 mm</p>	<p>A-30 Bulkhead, Rockwool Marine Firebatts 100</p> <p>Composed of steel bulkhead insulated on surface with minimum 50 mm mineral wool of type "Rockwool Marine Firebatts 100" of density 100 kg/m3 between stiffeners, and minimum 40 mm around stiffeners. The bulkhead insulation is mounted with standard 3 mm steel pins and 38 mm steel clips (spring washers) at intervals of approx. 300 mm.</p> <p>The tested bulkhead is of U-shaped boxes, 150 x 110 mm, 40 mm thick around stiffeners. Cavities inside stiffeners also filled with same mineral wool. 50 mm thick panels between boxes.</p>	<p>Approved for use as a Class A-30 bulkhead.</p> <p>General application: Fire against either side.</p> <p>All as per the testing description. Refer to the related drawings.</p>	<p>Test Report No. G10387/6801 dated 11.03.1998 from DIFT, Denmark.</p>	<p>France solution:</p> <p>Trade name "Marine Slab 759".</p>

Place and date
Høvik, 2007-03-27


Rolf Emilsen
Surveyor



END OF CERTIFICATE