



Marine & Offshore

Certificate number: 42900/B0 BV

File number: AC11000/353/040

Product code: 5000H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

Rockwool International A/S

Hedehusene - DENMARK

for the type of product

A60 CLASS BULKHEADS

A-60 Class Steel Bulkheads insulated with SeaRox SL 620 / SeaRox SL 640 / SeaRox WM 620 / SeaRox WM 640
(general and restricted applications)

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships Part C, Chapter 4

SOLAS 74 Convention as amended, Regulations II-2/9, II-2/3.2

IMO Res MSC.307(88)

IMO Res. MSC.61(67)-(FTP Code) with IMO Res MSC.307(88) (2010 FTP Code) article 8

IMO MSC/Circ.1120

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 03 Jun 2026

For Bureau Veritas Marine & Offshore,

At BV FREDERICIA, on 03 Jun 2021,

Jesper JENSEN



This certificate is recognized by Transport Canada

This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

The electronic version is available at: <http://www.veristarnb.com/veristarnb/jsp/viewPublicPdfTypepec.jsp?id=nmbvd97ki7>

BV Mod. Ad.E 530 June 2017

This certificate consists of 4 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

A-60 Class Structural Steel Bulkheads insulated with various insulation.

Construction	Product Description	Tested side	Type Approval Documentation
Solution 1 A-60 Bulkhead, Steel SeaRox SL 640 2x30 mm / 30 mm	Insulated with: - 2x30 mm of mineral wool "SeaRox SL 640" (nominal density 130 kg/m ³) between stiffeners, - 2x30 mm of "SeaRox SL 640" in cavities, - 30 mm of "SeaRox SL 640" around stiffeners. Insulation is fixed to the bulkhead by means of 3 mm steel pins and washers with pitch ranging from 216 mm up to 400 mm (according to drawing).	Fire against non-insulated side.	Test report N°2010CS011159/1(1), dated 25/10/2010, from RINA, Italy
Solution 2 A-60 Bulkhead, Steel **Restricted application** SeaRox SL 640 40 mm / 2x30 mm	Insulated with: - 40 mm of mineral wool "SeaRox SL 640" (nominal density 130 kg/m ³) between and around stiffeners, - 2x30 mm of "SeaRox SL 640" in cavities. Insulation is fixed to the bulkhead by means of 3 mm steel pins and 30 mm washers with pitch ranging from 263 mm up to 400 mm (according to drawing).	Fire against insulated side.	Test report N°2010CS011159/3(1), dated 25/10/2010, from RINA, Italy
Solution 3 A-60 Bulkhead, Steel SeaRox SL 620 60 mm / 25 mm OR SeaRox SL 620/ST 620 60 mm /40 mm	Insulated with: - minimum 60 mm of mineral wool "SeaRox SL 620" (nominal density 100 kg/m ³) between stiffeners and in cavities, - minimum 25 mm of "SeaRox SL 620" or 40 mm of "SeaRox ST 620" (nominal density 100 kg/m ³) around stiffeners. Insulation is fixed to the bulkhead with standard 3 mm steel pins and 30 mm washers with pitch ranging of 300 mm, according to drawing.	Fire against non-insulated side.	Test report N°PGA10946A(2), dated 2016-12-16, from DBI, Denmark Assessment report N°PHA11188A (alternative SeaRox ST 620), dated 2019-04-01, from DBI, Denmark Assessment report N° PHA10905A (increase of thickness and/or density of insulation), dated 2017-02-23, from DBI, Denmark

Construction	Product Description	Tested side	Type Approval Documentation
<p>Solution 4</p> <p>A-60 Bulkhead, Steel</p> <p>**Restricted application**</p> <p>SeaRox SL 620</p> <p>40 mm / 25 mm</p>	<p>Insulated with:</p> <ul style="list-style-type: none"> - minimum 40 mm of mineral wool of "SeaRox SL 620" (nominal density 100 kg/m³) between stiffeners, - 40+25 mm (compressed) of "SeaRox SL 620" in cavities*, - minimum 25 mm of "SeaRox SL 620" around stiffeners. <p><i>*Alternative insulation depending on stiffener design (refer to drawings)</i></p> <p>Insulation is fixed to the bulkhead with standard 3 mm steel pins with 30-38 mm washers with pitch ranging from 300 mm up to 520 mm, according to drawings.</p>	<p>Fire against insulated side.</p>	<p>Test report N°PGA10985A(2), dated 2017-02-01, from DBI, Denmark</p> <p>Assessment reports N°PHA10907A (increase of thickness and/or density of insulation), PHA10907B (alternative stiffeners designs and insulation mounting), PHA10907C (alternative stiffeners designs and insulation mounting), PHA10907D (alternative stiffeners designs and insulation mounting, washer diameters) and PHA10907E (alternative pin pattern), all dated 2017-02-22, From DBI, Denmark</p>
<p>Solution 5</p> <p>A-60 Bulkhead, Steel</p> <p>SeaRox WM 620</p> <p>2x45 mm / 45 mm</p>	<p>Insulated with:</p> <ul style="list-style-type: none"> - minimum 2x45 mm of mineral wool "SeaRox WM 620" (nominal density 90 kg/m³) between stiffeners, - 2x45 mm of mineral wool "SeaRox WM 620", - minimum 45 mm of mineral wool "SeaRox WM 620" around stiffeners. <p>Insulation is fixed to the bulkhead with standard 3 mm steel pins and 38 mm steel clips (spring washers) with pitch ranging of 300 / 400 mm, according to drawing.</p>	<p>Fire against non-insulated side.</p>	<p>Test report N°2006CS013889-1(1), dated 2007-02-07, from RINA, Italy</p>
<p>Solution 6</p> <p>A-60 Bulkhead, Steel</p> <p>SeaRox WM 640</p> <p>75 mm / 30 mm</p>	<p>Insulated with:</p> <ul style="list-style-type: none"> - minimum 75 mm of mineral wool "SeaRox WM 640" (nominal density 105 kg/m³) between stiffeners, - 75 mm of mineral wool "SeaRox WM 640", - minimum 30 mm of mineral wool "SeaRox WM 640" around stiffeners. <p>Insulation is fixed to the bulkhead with standard 3 mm steel pins and 38 mm steel clips (spring washers) with pitch ranging of 300 mm, according to drawing.</p>	<p>Fire against non-insulated side.</p>	<p>Test report N°2006CS013889-2(1), dated 2007-02-07, from RINA, Italy</p>

2. DOCUMENTS AND DRAWINGS :

As per Manufacturer's drawings:

- Solution 1: N°10 MRJ 03 dated 11/08/2010
- Solution 2: N° 10 MRJ 02 dated 11/08/2010
- Solution 3: N°520 dated 16/12/2016
- Solution 4: N°2017006 dated 17/01/2017
- Solution 5: N°8.10.15 ed. 2 dated 29/12/2006
- Solution 6: N°7.10.15A ed. 2 dated 27/11/2006

3. TEST REPORTS :

As per tests reports mentioned in § 1.

- (1) Tests carried out as per IMO FTP Code, Annex 1, Part 3 [test standard : IMO Resolution A.754(18)]
- (2) Tests carried out as per IMO 2010 FTP Code, Annex 1, Part 3

4. APPLICATION / LIMITATION :

4.1 - The fitting aboard to be the same as used for the test.

4.2 - **Restricted application** (for solutions 2 and 4 only): the use is restricted to application where fire hazard has been identified as being from the insulated side only.

4.3 - The following component(s) shall have to comply with the requirements of relevant Bureau Veritas Rules and be type approved :

- the insulating material "SeaRox SL 620", "SeaRox ST 620", "SeaRox SL 640", "SeaRox WM 640" and "SeaRox WM 620",
- any added finish surface material(s).

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - The products are to be supplied by **Rockwool International A/S** in compliance with the type described in this certificate.

5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.

5.3 - **Rockwool International A/S** has to make the necessary arrangements to have its works recognized by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

5.4 - For information, **Rockwool International A/S** has declared to Bureau Veritas the following production site(s):

**Rockwool A/S
Industrivej 9
6580 Vamdrup
DENMARK**

**Roxul Rockwool Insulation India Pvt. Ltd.
Plot No.- Z/4, Dahej SEZ
District Bharuch, Dahej
INDIA**

6. MARKING OF PRODUCT :

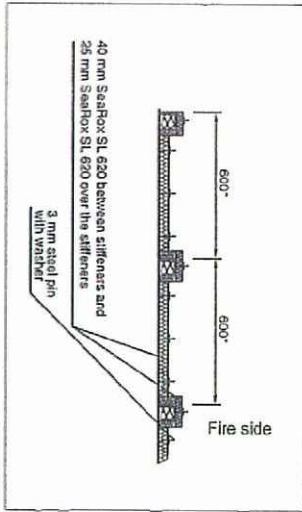
The product or packing is to be marked with manufacturer name, type, designation and fire-technical rating.

7. OTHERS :

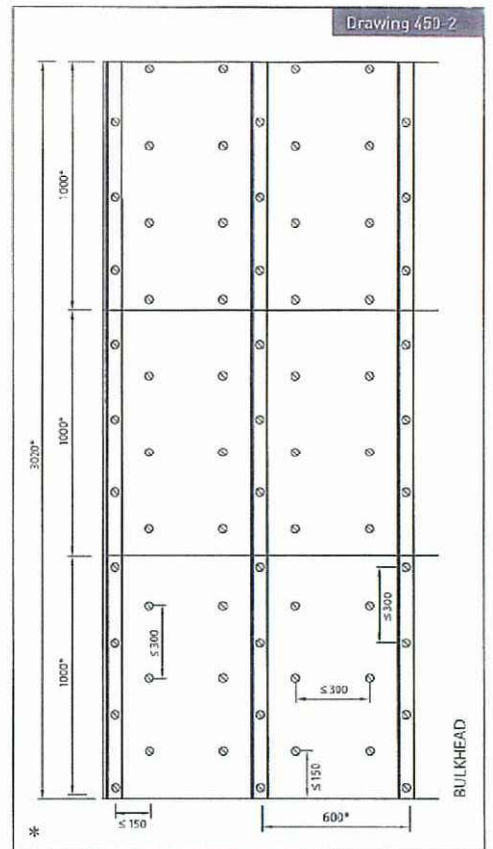
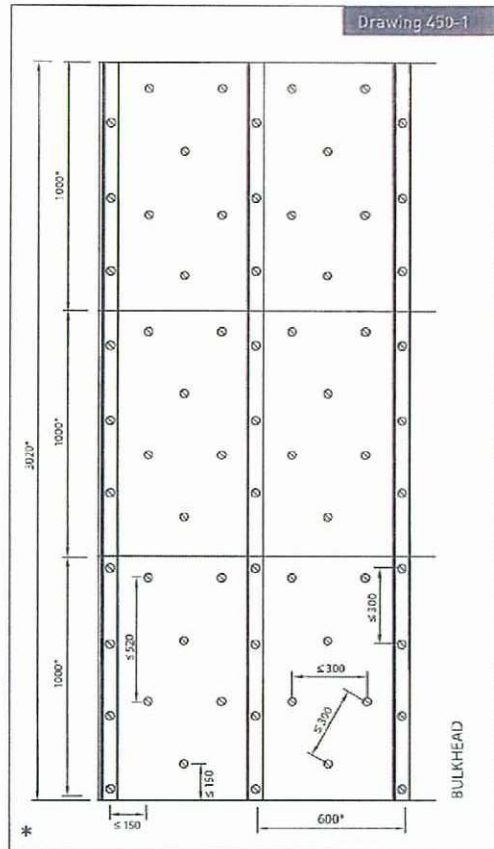
7.1 - It is **Rockwool International A/S's** responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

7.2 - This certificate is the renewal of Type Approval Certificates N° 42900/A0 BV, N° 42901/B0 BV and 19953/B0 BV, respectively issued on 18/03/2016, 30/09/2020 and 06/01/2016 by the Society.

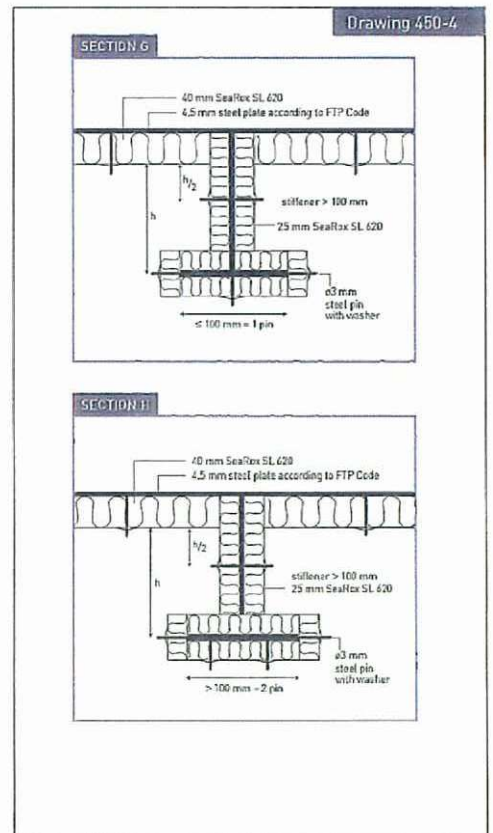
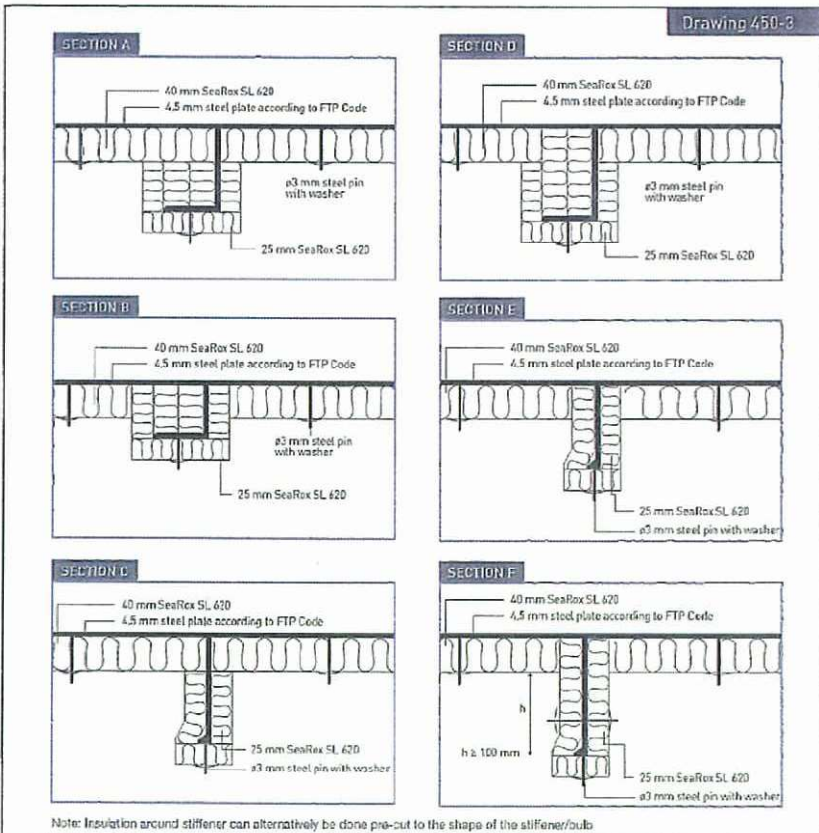
*** END OF CERTIFICATE ***



Danish Institute of Fire and Security Technology
File no. PHA10907B



* Dimensions may vary depending on structural design and size of insulation slab.



All measurements in mm

Date: 2017/02/09

Subject: A-60 Bulkhead Restricted SeaRox SL 620/
SeaRox SL 620

Assessment
Report Nos.:

ROCKWOOL®
TECHNICAL INSULATION