

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Class A Bulkhead**with type designation(s)
A-60 CLASS BULKHEAD BB-104

Issued to

Byucksan Youngdong Plant
Yeongdong-gun,, Chungcheongbuk-do, Republic of Korea

is found to comply with

DNV GL statutory interpretations DNVGL-SI-0364 – SOLAS interpretations
DNV GL rules for classification – Ships
DNV GL offshore standards**Application :****Approved for use as a vertical fire retarding division of class A-60.****This certificate is recognized by Transport Canada.****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**Issued at **Høvik** on **2019-01-01**This Certificate is valid until **2023-12-31**.for **DNV GL**DNV GL local station: **Seoul**Approval Engineer: **Thorvald Furuseth**

Mårten Schei-Nilsson
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



Product description

"A-60 Class Bulkhead BB-104"

composed of steel bulkhead insulated on stiffeners side with Rockwool board (made by Byucksan Youngdong Plant) of density 110 kg/m³, thickness 75 mm between stiffeners and 25 mm (200 mm in breadth) upon stiffeners.

Maximum pinning distance:

Horizontal: 300 mm between stiffeners and 150 mm upon and around stiffeners.

Vertical: 300 mm in general and 150 mm from edges.

For further details see approved drawing listed below.

Application/Limitation

Approved for use as a vertical fire retarding division of class A-60.

Any surface materials used have to be approved for smoke and toxicity and low flame-spread characteristics (IMO 2010 FTP Code Annex 1 Parts 2 and 5) when required according to relevant rules.

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

Type Approval documentation

Certification in accordance with Class Programme DNVGL-CP-0338, September 2018.

Test report No. AK2013-0225 dated 23 September 2013 from Fire Insurers Laboratories of Korea (FILK), Korea.

Drawing A-60 Bulkhead Type BB-104 Rockwool Board 110 kg/m³ page 1 and 2 dated 14 June 2013 from manufacturer.

Tests carried out

Tested according to IMO 2010 FTP Code part 3.

Marking of product

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

Transport Canada Approval

Based on the procedures laid down in the Transport Canada Publication entitled "Approval Procedures for, Life Saving Equipment and Structural Fire Protection Products (TP 14612)", DNV GL confirms that the product/s listed in this certificate is/are in accordance with Transport Canada's requirements.

Periodical assessment

DNV GL's surveyor is to be given permission to perform Periodical Assessments at any time during the validity of this certificate and at least every second year. The arrangement is to be in accordance with procedure described in Class Programme DNVGL-CP-0338, Section 4.