DNV·GL

Certificate No:
TAF00000YW

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Class A Door

with type designation(s)
SM-A60-B1

Issued to
Sung Mi Co., Ltd.
Gimhae-si, Gyeongsangnam-do, Republic of Korea

is found to comply with
DNV GL offshore standards
DNV GL rules for classification – Ships
DNV GL statutory interpretations DNVGL-SI-0364 – SOLAS interpretations

Application :

Approved for use as an integrated part of 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 **2018-06-27**
This Certificate is valid until **2023-06-26**.
DNV GL local station: **Gimhae Station**

Approval Engineer: **Krzysztof Kolakowski**

for **DNV GL**

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

"SM-A60-B1"
a single leaf hinged door composed of an insulating core of 50 mm mineral wool of density 200 kg/m^3 from KCC Corporation faced on each side with 0.6 mm steel sheets. The door leaf is equipped with 3 pcs. of "SM-3101" type hinges and a door lock type "SM-1105".

The door frame is composed of 1.2 mm folded steel sheets. The door frame can be either welded or bolted with M5x20 bolts (pitch 250-300mm) to the bulkhead.

The door may be fitted with:

- A hose port with same thickness and composition as the door leaf, side position (opposite to hinge side) in the lower end of the door;
- A 27 mm thick fire glass, model "Contraflan marine A60" from Saint-Gobain Int. AG., centered position in the upper region of the door;
- Optional 2-point or 3-point latch system.

Total thickness of door is 50 mm.

For further details, see drawings and test report listed under Type Approval documentation below.

Application/Limitation

The door is approved for installation in steel bulkheads of class A-60. Installation of the door in bulkheads made of other materials (aluminium, FRP, etc.) are subject to case-by-case approval.

Any surface materials used have to be approved for smoke and toxicity and low flame spread characteristics (IMO 2010 FTP Code parts 2 and 5 or IMO FTPC Parts 2 and 5 when in compliance with the 2010 FTP Code Ch. 5.2 and 8) when required according to relevant rules and regulations.

Max. size of door leaf: 1238 mm x 2210 mm (W x H)

Max. size of clear opening: 1200 mm x 2200 mm (W x H)

Max. clear window opening: 440 mm x 440 mm (W x H)

Max. size of hose port: 150 x 150 mm (W x H)

External windows to comply with ISO 3903 (Ref. DNV GL rules for classification: Ships, Pt.3, Ch.12, Sec.6 [1.1.4]).

A fire door of marginally larger dimensions than a fire-tested fire door may be individually assessed and accepted by Flag Administration (or Recognized Organization acting on its behalf) for a specific project with the same classification, provided documented compliance with IMO MSC.1/Circ.1319.

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

Type Approval documentation

Certification in accordance with Class Programme DNVGL-CP-0338, October 2017.

Test Report No. KOMERI-0402-17T3798-1, dated 29 March 2018 from Korea Marine Equipment Research Institute, Republic of Korea.

Drawing No. SMD-171114-001 (total of 8 pages) dated 14 November 2017.

Tests carried out
Tested according to IMO 2010 FTP Code Part 3.

The door has been successfully tested with extended test period of 68 minutes in compliance with IMO MSC.1/Circ. 1319.

Marking of product
The product 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 listed in this certificate is 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.