DNV·GL

Certificate No:
TAF00000DK

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Horizontal Class A Hatches

with type designation(s)
A-30 Fireproof Hatch Cover (JBM-1000*1000)

Issued to
JBM Co., Ltd.
ULSAN, Republic of Korea

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

Application :

Approved for use as an integrated part of fire retarding divisions of class A-30.

Max hatch clear opening: 1000 x 1000 mm (width x height)

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

This certificate is recognized by Transport Canada.

This Certificate is valid until **2021-09-07**.

Issued at **Høvik** on **2016-09-08**

for **DNV GL**

DNV GL local station: **Ulsan**

Approval Engineer: **Piotr Orzechowski**

Petter Langnes
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.

© DNV GL 2014. DNV GL and the Horizon Graphic are trademarks of DNV GL AS.

Job Id: **262.1-023785-1**
Certificate No: **TAF00000DK**

Product description

"A-30 Fireproof Hatch Cover (JBM-1000*1000)"
a two hinged hatch composed of a coaming, hatch leaf and sealing materials.
The hatch leaf is made of a 50 and 25 mm thick insulation type "Hi Wool" with nominal density of 120 kg/m^3 (from KCC Corporation) and fixed from unexposed side with 10 mm thick steel sheet.
The 11 mm thick steel coaming is insulated inside with 50 mm thick mineral wool of the same type.
The coaming is fitted at the top with ø 11 mm rubber bar and welded L-profiles 40 x 6 mm.
The two steel plates (25 x 8 mm and 38.5 x 9 mm) are welded at the edges to hatch leaf and filled between with ceramic/silicone gaskets of specification 35 x 15 mm.

For further details, see the drawing referred to in Type Examination documentation below.

Application/Limitation

The hatch is approved for installation in steel deck of class A-30. Installation of the hatch in deck made of other materials (aluminium, FRP, etc.) are subject to case-by-case approval.

Max hatch leaf size:	1152 x 1152 mm (width x height)
Total hatch leaf thickness:	85 mm

Any surface materials used have to be approved for smoke and toxicity and low flame spread characteristics (IMO 2010 FTP Code part 2 and 5 (or IMO FTPC Part 2 and 5 when in compliance with the IMO 2010 FTP Code Ch. 5.2 and 8) 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, October 2015.

Test report No. KOMERI-0402-15T3823 dated 7 June 2016 from "KOMERI" Korea Marine Equipment Research Institute.

Drawing No. JB15-8151PCTC-01 Rev. 0 (6 sheets) dated 10 October 2015 from manufacturer.

Tests carried out

Tested accordance to IMO 2010 FTP Code part 3.

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 products listed in this certificate 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.