



Certificate No:
TAF00001JX

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Class A Door

with type designation(s)
DSEI-A60-1W

Issued to
DSEI Co., Ltd.
Changwon-si, Republic of Korea

is found to comply with
DNV GL offshore standards
DNV GL rules for classification – Ships
DNV statutory interpretations DNV-SI-0364 – SOLAS interpretations, Edition July 2021

Application :

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

Approved for use as an integrated part of fire retarding division of class A-60.

This certificate is recognized by Transport Canada.

Issued at **Høvik** on **2021-08-31**

This Certificate is valid until **2026-08-30**.

DNV local station: **Gimhae Station**

for **DNV**

Approval Engineer: **Karolina Kusmider**

Helene David-Andersen
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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Form code: TA 251

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Product description

'DSEI-A60-1W'

is a single leafed hinged door. The door leaf is composed of an insulating core with 0.6 mm thick steel plates on both sides. The insulating core is made of 45 mm thick mineral wool of type Mineral Wool Boards (density 240 kg/m³, manufactured by KCC CORPORATION). The insulation materials were fixed with adhesive of type OCUA-970SNF (manufactured by Daihan Polymer Co. Ltd.). The door leaf is laterally reinforced with 1.6 mm thick channel stiffeners and 0.8 mm thick edge covers on both sides.

The door leaf is fitted with a door locking device and is fastened to the door frame with 4 hinges.

Total door leaf thickness is 48 mm.

The door frame is completely filled with insulation material of type Mineral Wool Boards (density 140 kg/m³, manufactured by Byucksan Co. Ltd.) and is either welded or bolted (M5x25 and M4x38 c/c max. 300 mm) to the bulkhead. The cover of the frame is a 1.6 mm thick steel plate.

The door may be fitted with a fireproof window in the upper half of the door, type designation "RFG-T4D27" with thickness 27 mm (manufactured by Jeong-Am Safety Glass Co. Ltd.).

For details, see drawings listed under Type Examination documentation.

Application/Limitation

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

Maximum door leaf size: 1234 mm x 2112 mm (W x H)
Maximum clear door opening: 1200 mm x 2100 mm (W x H)
Maximum clear window opening: 400 mm x 500 mm (W x H)

The insulation materials and adhesives used have to be approved according to the Marine Equipment Directive and bear the Mark of Conformity. This requirement may also be applicable for surface materials used, if required by relevant rules and regulations.

Note that this is a fire safety certificate which only covers fire technical properties (i.e. not to cover strength evaluations related to watertightness, weathertightness, etc.).

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

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 "Procedures for Approval of Life-Saving Appliances, Fire Safety Systems, Equipment and Products (TP 14612)", DNV confirms that the product listed in this certificate is in accordance with Transport Canada's requirements.

Periodical assessment

DNV'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.