

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Class A Door**

with type designation(s)

Class A-60 quick opening & closing double leaf door (with side scuttle),

Issued to

Jiangyin Huangshan Marine Fitting Co., Ltd
Jiangyin, China

is found to comply with

DNV GL offshore standards**DNV GL rules for classification – Ships****Application :****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL****Approved for use as an integrated part of fire retarding division of class A-60****Max. clear opening: 2000 x 2300 mm (W x H)****This certificate is recognized by Transport Canada**This Certificate is valid until **2021-05-25**.Issued at **Høvik** on **2016-05-26**DNV GL local station: **Jiangyin**for **DNV GL**Approval Engineer: **Espen Kultorp**

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.

Product description

"Class A-60 quick opening & closing double leaf door (with side scuttle)"
consisting of single leaf hinged door with door blade composed of 6 mm outer steel plate and 2 mm inner steel plate, insulated with 75 mm rock wool "ABM-SR" with density 150 kg/m³ manufactured by Shanghai ABM Rockwool Co., Ltd.

The door leaves are internally stiffened with steel stiffeners and attached to the door frame with 3 hinges.

The door leaves are identical except that five more clips are added to the active door leaf to guarantee sealing at mid-joint between two door leaves.

The door leaves are made from steel L-profiles (100 x 70 x 10 mm).

Each door leaf are fitted with fireproof seal gasket (20 x 4 mm) between the door leaf and the door frame.

The door frame may be welded or screw-fixed (38 x M12 bolts) to the bulkhead.

Each door may also be fitted with a 70 mm thick circular window made by Qinhuangdao Xingyang Special Glass Co., Ltd. with clear opening Ø250 mm.

Total thickness of each door leaf is 83 mm.

Each door can be opened with a handle linked to a locking mechanism consisting of 9 locking points on the passive door and 14 locking points on the active door.

For further details see drawings listed under Type Approval documentation below.

Application/Limitation

The door is approved for installation in steel bulkheads of class A60. Installation of the door in bulkheads made of other materials (aluminium, FRP, etc.) are subject to case-by-case approval.

Max. size of active door leaf: 1028 x 2362 mm (W x H).

Max. size of passive door leaf: 1028 x 2362 mm (W x H).

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.

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

The construction and installation is to be in accordance the type approval documents listed below and with the manufacturer's manual for installation.

Type Approval documentation

Certification in accordance with Class Programme DNVGL-CP-0338, October 2015.

Basis for approval:

Test Report No. FT14400 from Far East Fire Testing Centre, Shanghai, China	2015-01-20
Drawings from Huangsan Marine Fitting Co., Ltd.:	
262.12HS117-00, 262.12HS117-02	2014-12-28



Job Id: **262.1-021117-1**
Certificate No: **TAF0000091**

Tests carried out

Tested according 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 DNVGL-CP-0338 Section 4.