

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Class A and B Penetration**

with type designation(s)

Pouring Cable Transits: YB-JGM/AK and YB-JGM/AT

Issued to

Shanghai Yibo Shipping Co., Ltd
Shanghai, China

is found to comply with

DNV GL rules for classification – Ships
DNV GL offshore standards**Application :****Approved for use as penetration system for approved ship cables in class A-0 to A-60 bulkheads and decks.****For further details see Application/Limitations on page 2 of this certificate.****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.**This Certificate is valid until **2020-12-31**.Issued at **Høvik** on **2016-01-08**DNV GL local station: **Shanghai**Approval Engineer: **Synnøve Bolstad Eri**for **DNV GL**

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

"Pouring Cable Transits: YB-JGM/AK and YB-JGM/AT"

Consisting of a symmetrically fitted cable sleeve made of 5 mm thick steel and welded to the bulkhead/deck, filled with YB-MWT cable sealing inorganic filler with a nominal density of 1500±50 kg/m³ around the cables and dammed at both ends with 25 mm deep YB-PD cable sealing expansion plugging. The transits are to be insulated with at least 2 x 20 mm thick A-60 ceramic wool insulation type LZ2, material produced by Yixing City Kun Hao Fire Resistant Materials, with density of at least 170 kg/m³ around the penetrations.

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

Application/Limitation

Approved for use as a cable penetration system in class A-0 to A-60 steel bulkheads and decks.

Approved for use in class A-15 and A-30 when the penetration system is insulated as A-60 at least 200 mm around the penetration.

Type of transits	Maximum size(WxHxD)	Minimum size(WxHxD)	Fire rating Bulkhead/Deck	Insulated
YB-JGM/A60K/T	980x390x200 mm	160x110x200 mm	A-15 to A-60	Yes
YB-JGM/A0K/T	760x210x150mm	760x210x150mm	A-0	No
YB-JGM/A60K/T	φ140x200mm (Depth)	φ42x200mm (Depth)	A-15 to A-60	Yes
YB-JGM/A0K/T	φ114X150mm (Depth)	φ114X150mm (Depth)	A-0	No

Water and air tightness

Approved for water tightness up to a design pressure of 0.233 MPa (2.33 bar), test pressure - 0.35 MPa (3.5 bar).

Approved for air tightness up to a design pressure of 0.0267 MPa (0.267 bar), test pressure - 0.04 MPa (0.4 bar).

Penetration systems are not to be used for penetrating boundaries of tanks.

No more than 40% of the inside cross sectional area of each transit should be occupied by cables.

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 2015.

Test reports No. FT11242 (deck) and FT11243(bulkhead) both dated 12 October 2011 from Far East Fire Testing Centre (FEFTC), Shanghai, China.

Watertight/Airtight test reports of cable transits from September 2011 from the manufacturer, witnessed by DNV Shanghai.

Deck drawings No. 681YB-100 to106-00 dated 10 August 2011 by manufacturer.

Bulkhead drawings No. 681YB-110 to116-00 dated 10 August 2011 by manufacturer.



Job Id: **262.1-012238-2**
Certificate No: **TAF0000061**

Tests carried out

Tested in accordance with IMO FTPC Part 3 (IMO Res.A.754(18)) and in compliance with IMO 2010 FTP Code Ch. 8.

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 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.