DNV·GL

Certificate No:
MEDB0000396

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV GL AS under the authority of the Government of Norway.

This is to certify:

That the Penetrations through "A" class divisions: electric cable transits

with type designation(s)
Sleeve Cable Transits: YB-TGM/A-60K & YB-TGM/A-60T

Issued to
Shanghai Yibo Shipping Co., Ltd
Shanghai, China

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2017/306,**
item No. MED/3.26a. SOLAS 74 as amended, Regulation II-2/9 and IMO 2010 FTP Code

Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2023-01-08**.

Issued at **Høvik** on **2018-01-09**

DNV GL local station:
Shanghai

Approval Engineer:
Tessa Biever

Notified Body
No.: **0575**

for **DNV GL AS**

Roald Vårheim
Head of Notified Body

A U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F), as allowed by the "Agreement between the United States of America and the EEA EFTA states on the mutual recognition of Certificates of Conformity for Marine Equipment" signed 17 October 2005.

The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.
This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL AS of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.
Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.

NORWEGIAN ACCREDITATION PROD 019

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Product description

"Sleeve Cable Transits: YB-TGM/A-60K & YB-TGM/A-60T"
Consist of a steel sleeve constructed by 8 mm thick steel plate welded to the bulkhead/deck, fitted symmetrically for bulkhead and unsymetrically for deck. The steel sleeve are filled withYB-FG fire bushing (150 mm deep) around the cables and dammed at both ends with 25 mm deep YB-FJ fire sealing adhesive. The transits are to be insulated with at least 2 x 20 mm thick A-60 insulation with density of at least 170 kg/m3 around the penetrations. In addition the penetrations are to be insulated with the same insulation covering the edge of the steel sleeve and at least 200 mm around the penetration.

For further details see approved drawings listed under Type Examination documentation.

Application/Limitation

Approved for use as a cable penetration system in class A-0 to A-60 steel bulkheads and decks. Other applications are subject to case-by-case approval.

Class A-15 and A-30 shall be insulated as class A-60 and in addition the division is to be insulated at least 200 mm around the penetration.

Maximum size of transits:	966 x 216 x 200 mm (length x width x depth)
Maximum and minimum filling rate:	39.8% / 0.04%
Minimum size of transits:	266 x 216 x 200 mm (length x width x depth)
Maximum and minimum filling rate:	40% / 0.08%

Bulkhead penetrations are approved for general application (fire against either side).

Deck penetrations are approved for sleeve fitted with maximum 40 mm sleeve on exposed side (insulated side).

Insulation deck and bulkhead penetrations:
The steel sleeve is partly insulated with division insulation according to the approved drawings below.

The insulation materials used have to be approved according to the Marine Equipment Directive and bear the Mark of Conformity.

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

Type Examination documentation

Tests carried out

Tested in accordance with IMO FTPC Part 3 and in compliance with IMO 2010 FTP Code Ch. 8.

Marking of product

The product or packing is to be marked with name and address of manufacturer, type designation, fire-technical rating, the MED Mark of Conformity and USCG approval number (see first page).

Job Id: **344.1-001077-15**
Certificate No: **MEDB0000396**

Additional application/information for Watertightness/gastightness (Not part of the Marine Equipment Directive requirement)

Product description

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Application/Limitation

This certificate covers only watertightness/gastightness for the same penetration types and sizes as the one being fire tested (see table on page 2).

Approved for penetration in steel bulkheads or steel decks limited to a design pressure of 0.2 MPa (2 bar) watertightness (0.3 MPa (3 bar) – tested pressure).

Approved for penetration in steel bulkheads or steel decks limited to a design pressure of 0.013 MPa (0.13 bar) gastightness (0.2 Mpa (2 bar) – tested pressure).

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

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

Type Approval documentation

Tests carried out

Pressure tested according to Class Programme DNVGL-CP-0165, Edition October 2017.