

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV GL SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

This is to certify:

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

with type designation(s)

Fire-resistant Sealing Device for Cables; TL990-KP800-A0-A60/JB and /CB

Issued to

Huai'an Wan'an Industrial Co., Ltd
Huai'an, China

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2018/773**,
item No. MED/3.26a. SOLAS 74 as amended, Regulation II-2/9 and IMO 2010 FTP Code

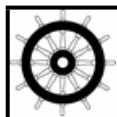
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2023-10-22**.

Issued at **Hamburg** on **2018-10-23**

DNV GL local station:
Nanjing

Approval Engineer:
Carsten Hunsalz



Notified Body
No.: **0098**

for **DNV GL SE**

Sven Dudzus
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 European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment", signed February 27th, 2004.

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 SE 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.



Product description

"Fire-resistant Sealing Device for Cables; TL990-KP800-A0-A60/JB and /CB"

Composed of 200 mm long steel sleeve with 3-5 mm thickness, welded to a 5 mm thick flange plate which is bolted by M14 bolts evenly distributed to the bulkhead/deck. The sleeve is filled with fire sealing filler type TL990 and dammed in both ends with 25 mm sealing expansion plugging type KP800 for bulkhead and in exposed end for deck.

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

Application/Limitation

	A-0	A-60	
Minimum size:	Ø30 x 200 mm	Ø30 x 200 mm	diameter x depth
Maximum size:	400 x 200 x 200 mm	1000 x 400 x 200 mm	length x width x depth

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.

In both deck and bulkhead the penetration is to be insulated with one layer of 20 mm thick insulation with density of at least 170 kg/m³ or equivalent covering the sleeve and the edge of the sleeve.

Maximum filling ratio of 40%.

In general approved maximum cable diameter: 66,8 mm.

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

Each product is to be supplied with its manual for installation and maintenance. The manual should include the drawings listed under Type Approval documentation.

Type Examination documentation

Test report No.FT13115 dated 20 May 2013 from Far East Fire Testing Centre (FEFTC), Shanghai, China.
Test report No.FT13116 dated 21 May 2013 from Far East Fire Testing Centre (FEFTC), Shanghai, China.

Drawings from manufacturer all dated 2 January 2013 Nos.:

- TL990-KP800-A0/CB-2 and TL990-KP800-A0/CB-4 (bulkhead)
- TL990-KP800-A60/CB-6 and TL990-KP800-A60/CB-8 (bulkhead)
- TL990-KP800-A0/JB-2 and TL990-KP800-A0/JB-4 (deck)
- TL990-KP800-A60/JB-6 and TL990-KP800-A60/JB-8 (deck)

Tests carried out

- IMO Res. MSC.307(88)-(2010 FTP Code), Annex 1: Part 3,
- MSC.1/Circ. 1488

Marking of product

For identification to this type examination certificate the product or packing is to be marked with:

- Manufacturer's name
- Type designation and fire-technical rating
- Mark of Conformity

According to Article 10 of the Council Directive (MED):

- The wheel mark shall be affixed visibly, legibly and indelibly to the product or to its data plate and, where relevant, embedded in its software. Where that is not possible or not warranted on account of the nature of the product, it shall be affixed to the packaging and to the accompanying documents.
- The wheel mark shall be affixed at the end of the production phase.
- The wheel mark shall be followed by the identification number of the notified body, where that body is involved in the production control phase, and by the year in which the mark is affixed.
- The identification number of the notified body shall be affixed by the body itself or, under its instructions, by the manufacturer or the manufacturer's authorized representative.

For specific products, manufacturers may use an appropriate and reliable form of electronic tag instead of, or in addition to, the wheel mark.

Appendix

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

Application/Limitation

Approved for gas tightness up to a design pressure of 0.13 MPa (1.3 bar), test pressure - 0.2 MPa (2 bar)

Approved for water tightness up to a design pressure of 0.2 MPa (2 bar), test pressure - 0.3 MPa (3 bar)

Type Approval documentation

Pressure tests:

TL990-KP800 Fire-resistant Sealing Device for Cable W.T Test Records and Airtight Test Records
Witnessed by DNV dated 25 July 2007 and 16 January 2013.

Tests carried out

Pressure tests according to DNVGL-CP-0165 Sec. 2 Ch. 4.

END OF CERTIFICATE