Certificate no.:
TAF00001YY

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Class A and B Penetration

with type designation(s)
HK-20 type cable transits

issued to
Shanghai Huoke New Material Co., Ltd.
Shanghai, **China**

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

Application:

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

This certificate is recognized by Transport Canada.

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

Issued at **Høvik** on **2025-01-07**
This Certificate is valid until **2030-01-06**.
DNV local unit: **Shanghai**

for **DNV**

Approval Engineer: **Helge Bjørnarå**

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 USD 300 000.

Product description

"HK-20 type cable transits",
penetration system composed of rectangular steel sleeve with thickness of at least 3 mm welded symmetrically to the division. The sleeve is filled with HK-20 Ultralight Fireproof putty.

Application/Limitation

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

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

Approved for A-60 bulkhead:

Type	Size (W x H) [mm]	Max. cable diameter [mm]	Filling ratio [%]	Sleeve length [mm]	Sleeve thickness [mm]	Sleeve position	Sleeve insulation
HK-20/A60/C	66 x 46 – 806 x 306	84	0 – 40	100	3	Symmetric	Partially insulated.

Approved for A-60 deck:

Type	Size (W x H) [mm]	Max. cable diameter [mm]	Filling ratio [%]	Sleeve length [mm]	Sleeve thickness [mm]	Sleeve position	Sleeve insulation
HK-20/A60/J	66 x 46 – 806 x 306	84	0 – 40	100	3	Symmetric	Partially insulated on the underside.

Approved for A-0 bulkhead:

Type	Size (W x H) [mm]	Max. cable diameter [mm]	Filling ratio [%]	Sleeve length [mm]	Sleeve thickness [mm]	Sleeve position	Sleeve insulation
HK-20/A0/C	66 x 46 – 806 x 306	65	0 – 40	100	3	Symmetric	None.

Approved for A-0 deck:

Type	Size (W x H) [mm]	Max. cable diameter [mm]	Filling ratio [%]	Sleeve length [mm]	Sleeve thickness [mm]	Sleeve position	Sleeve insulation
HK-20/A0/J	66 x 46 – 806 x 306	65	0 – 40	100	3	Symmetric	None.

Minimum distance between cables and between cables and cables and sleeve is 5 mm.

Watertightness and gastightness is not covered in this certificate.

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

Type Approval documentation

Certification in accordance with Class Programmes DNV-CP-0338, September 2021.

Tests carried out

Tested in accordance with IMO 2010 FTPC part 3.

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 “Procedures for Approval of Life-Saving Appliances, Fire Safety Systems, Equipment and Products (TP14612)”, DNV confirms that the products listed in this certificate are 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 DNV-CP-0338 Section 4.

Manufactured by:
Shanghai Huoke New Material Co., Ltd., Shanghai, China.