EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB00007B4

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

This is to certify:

That the A & B Class divisions fire integrity: A class divisions.

with type designation(s)
A60-B-05 Type Class A-60 Bulkhead

Issued to
Yixing Kunhao Fireproof Material Co., Ltd
Yixing, China

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2020/1170,**
item No. MED/3.11a. SOLAS 74 as amended, Regulation II-2/3.2 & II-2/9, IMO 2010 FTP Code, IMO MSC/Circ.1120 and IMO MSC.1/Circ.1434, IMO MSC.1/Circ.1435.

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

This Certificate is valid until **2025-05-10**.

Issued at **Hamburg** on **2021-05-28**

DNV local station:
Jiangyin NB & CMC

Approval Engineer:
Karolina Kusmider

Notified Body
No.: **0098**

for **DNV SE**

Christine Mydlak-Roeder
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, and amended by Decision No 1/2018 dated February 18th, 2019.

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

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 300,000 USD.

Product description

"A60-B-05 Type Class A-60 Bulkhead"
is composed of a steel bulkhead insulated with 50 mm (2 x 25 mm layers) "LZ-5" ceramic felt (density 96 kg/m^{3,} manufactured by Yixing Kunhao Fireproof Material Co., Ltd.) applied on the 5 mm thick steel structural core as well as on the stiffeners (L63 x 63 x 6 spaced 600 mm apart) following their contours.

Stiffeners are also to be covered with 50 mm (2 x 25 mm) "LZ-5" rock wool.

The blankets are held in place using steel pins (Ø3x120 mm) welded to the bulkhead with Ø30 mm steel washers (average 16 sets per square meter). The pins are to be installed with spacing of 450 mm across the blanket and max.205 mm along the blanket, whereas the pins at the joints between blankets shall have a nominal spacing of 60 mm from the blanket edge. Maximum pin distance to longitudinal joint is 50 mm.

For further details see documentation listed under Type Examination documentation.

Application/Limitation

Approved for use as horizontal fire retarding steel division of class A-60.

The insulation materials and adhesives used have to be approved according to the Marine Equipment Directive and bear the Mark of Conformity. This requirement may also be applicable for surface materials used, if required by relevant rules and regulations.

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

Type Examination documentation

Test Report No. FT15167 date 11th May 2015 from Far East Fire Testing Centre, Shanghai, China.

Tests carried out

Tested according to IMO 2010 FTP code part 3

Marking of product

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