DNV·GL

Certificate No:
MEDB00004AF

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 Fire dampers

with type designation(s)
Bulkhead Fire Damper HLCF

Issued to
Taixing Hualong Shipping Machinery Co., Ltd.
Taixing City, China

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2019/1397,**
item No. MED/3.22. 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 **2024-11-05**.

Issued at **Hamburg** on **2019-11-06**

DNV GL local station:
Jiangyin

Approval Engineer:
Izabela Misztal

Notified Body
No.: **0098**

for **DNV GL SE**

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

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Product description

"Bulkhead Fire Damper HLCF"
is a multi-blade rectangular fire damper for bulkheads with a pneumatically driven actuator. The following fire damper construction was tested:

Fire Damper	Coaming thickness [mm]	Coaming length on unexposed side [mm]	Damper body wall thickness [mm]	Blade max. size W x H x t [mm]
HLCF-Q/BM-1400*2000	10	770	10	300 x 968 x 35

The fire damper is fixed to the coaming by fortyM8 mm diameter steelbolts. The damper body and coaming is insulated with three layers of TG type ceramic wool, produced by Zhejiang Province Deqing County Pusen Fireproof Material Co., Ltd, of 20 mm nominal thick and density of 170 kg/m^3.

For further details, see Type Examination documentation below.

Application/Limitation

The fire dampers are approved for installation in class A-60 steel bulkhead. Other applications are subject to case-by-case approval.
The damper shall be capable of being closed from both sides of the bulkhead.

Fire Damper	Max. size	Max. number of blades	Actuator type	Application
HLCF-Q/BM-1400*2000	1400 x 2000	10	Manual/Electric/Pneumatic	A60

Actuator to be used (*):
-Manual DL-CII-4.
-Electric BFN230
-Pneumatic 10-SR-125

(*) Actuators of the same brand but with a different size as mentioned above may also be used, provided that they have a sufficient torque, a similar installation arrangement and equivalent fire technical and functional properties.

The fire damper is to be fitted with open/close indication and shall be easily accessible.

The insulation used is to be regarded as minimum insulations for all fire rating and is not to be removed if the fire damper is to be used in division with lower fire ratings.

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

Type Examination documentation

Test report no. FT18148 dated 23 July 2018, test report no. FT18145 dated 31 July 2018 and test report no. FT18146 dated 31 July 2018, all issued by Far East Fire Testing Centre, Shanghai, China.

Drawings No.:

- HLCF-S(D&Q)-04-SA2 dated 25.04.2018
- HLCF-S(D&Q)-04-SA3 dated 25.04.2018
- HLCF-S(D&Q)-04-SA1 dated 25.04.2018
- HLCF-Q/BM-1400*2000-M0 dated 25.04.2018
- HLCF-Q/BM-1400*2000-BL00 dated 25.04.2018
- HLCF-Q/BM-1400*2000-M0 dated 25.04.2018

all above from the manufacturer.

Tests carried out

Tested according to IMO 2010 FTP Code, Annex 1, part 3.

Marking of product

The product or packing is to be marked with name of manufacturer, type designation, MED Mark of Conformity and USCG approval number (if applicable).