TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate no.:
MERB0001N7H
Revision no.:
0

This Certificate is issued by DNV UK Limited based on authorisation of the Maritime & Coast Guard Agency (MCA) as an UK Approved Body to undertake conformity assessments on marine equipment in accordance with the requirements of the Merchant Shipping (Marine Equipment) Regulations 2016 as amended.

This is to certify:

that the **Fire dampers**

with type designation(s)
Bulkhead fire damper of MFD and LFD type

issued to
Wozair Limited
Gillingham, United Kingdom

is found to comply with the Regulation **(UK) MSN 1874 Amendment 10** for
Item no. **UK/3.22** (Row **1 of 1**)
according to the following requirements:
SOLAS 74 Reg. II-2/9, IMO MSC.1/Circ.1655

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

Date of issue: **2025-11-17**

Expiry date: **2030-11-16**

DNV local unit:
UK & Ireland CMC & VMC

Approval Engineer:
Izabela Misztal

Approved Body No:: 0097

for **DNV UK Ltd.**

Christine Mydlak-Röder
MER Service Responsible

Maritime & Coastguard Agency
UK Approved Body Authorised by the MCA

This certificate will not be valid if the manufacturer makes any changes or modifications to the approved type of equipment, which have not been notified to, and agreed with the approved body named on this certificate.
During the period of validity of this certificate the applicable regulations (international conventions and the relevant resolutions and circulars of the IMO) and testing standards may change, therefore the product conformity may need to be re-assessed by the Approved Body.
"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-control phase module (D, E or F) of Schedule 2 of the Merchant Shipping (Marine Equipment) Regulations 2016, as amended is fully complied with and controlled by a written inspection agreement with an approved body. In case limitations of use apply, these should be indicated in the Annex.

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

"Bulkhead fire damper of MFD and LFD type"
MFD type fire damper is a single or multi-bladed rectangular fire damper with manual/automatic/pneumatic actuation. Damper blades are made of 1.2 mm or 1.5 mm mild steel/stainless steel and the damper casing is made of min. 2.0 mm thick mild steel/stainless steel. The damper casing is 200 mm or 300 mm deep.

Coamings are covered with one or two layers of insulation.
Kerafix 2000 ceramic fibre tape is applied between damper and steel coaming mating flange, both sides of bolt holes.

LFD fire damper is a single or multi-bladed rectangular fire damper with manual/automatic/pneumatic actuation. Damper blades are made of 1.5 mm mild steel/stainless steel and damper casing is made of min. 1.5 mm thick mild steel/stainless steel. The damper casing is 150 mm or 200 mm deep.

Coamings are covered with two layers of insulation.
Kerafix 2000 ceramic fibre tape is applied between the fire damper and spigot mating flange, both sides of bolt holes.

For further details, see Type Examination documentation below.

Application/Limitation

Approved for installation in A-class steel bulkhead. Other applications are subject to case-by-case approval.

For fire dampers to be mounted in A-0 bulkhead, no insulation of the coaming/duct is required, subject to case-by case approval.

The arrangement of the fire damper and necessary insulation of damper frame and ducting in the vicinity of the partition are subject to approval in each case.

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

Size of MFD and LFD dampers - please see appendix to this certificate.

The fire dampers shall be capable of being closed from both sides of the bulkhead.

Steel thickness of damper casing to be equal to or greater than thickness of duct/sleeve required by the rules if the damper casing is part of the duct/sleeve.

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

Please see Appendix: Application/Limitation

Type Examination documentation

Tests carried out

Tested according to IMO 2010 FTP Code part 3.

Marking of product

The product or packing is to be marked with name and address of manufacturer, type designation and Mark of Conformity (see first page).

APPENDIX
Application/Limitation

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Size of MFD dampers:

Fire Damper type	Damper size W x H [mm]	Coaming length on exposed side [mm]	Coaming length on unexposed side [mm]	Coaming thickness [mm]	Length of the second insulation layer on the exposed side [mm]	Length of the second insulation layer on the unexposed side [mm]	Maximum blade length [mm]	Maximum blade width [mm]	Max. number of blades
MFD*1)	150 x 150	150	500	3	150	310	142	144	1
MFD	1220 x 1525 1)	150	3505	5	150	310	1212	199	8
		450	1500		0	0	1212	262	6
MFD	2500 x 1220 2)	150	4055	5	150	360	1180	182	6
MFD*2)	2500 x 2100 3)	150	1050	5	0	0	1182	172.5	6

1) Max. size of single damper
2) 2-section mullion arrangement
3) 4-section mullion and transom arrangement
*1) Fire dampers covered with insulation SeaRox SL 620 type (density 100 kg/m^3, produced by Rockwool)
*2) Fire dampers covered with insulation FireMaster Marine Plus blanket (density 80 kg/m^3, produced by Morgan Thermal Ceramics).

Pneumatic, electric and manual actuators that may be used:
- Belimo type BF, BFL and BFN. (*)
- Johnson Controls M series. (*)
- Petz QT.Ex spring return and fire trigger Petz FT.Ex. (*)
- Petz QT.Nc actuator with Petz FT.Nc thermal sensor. (*)
- Powertork PT series and corresponding Alpha products. (*)
- Schischek type ExMax, InMax and RedMax. (*)
- Wozair spring manual latch assembly. (*)

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

Size of LFD dampers:

Damper size W x H [mm]	Coaming length on exposed Side [mm]	Coaming length on unexposed side [mm]	Coaming thickness [mm]	Length of the second insulation layer on the exposed side [mm]	Length of the second insulation layer on the unexposed side [mm]	Maximum blade length [mm]	Maximum blade width [mm]	Max. number of blades
100 x 100	250	1305	3	250	250	92	92	1
150 x 150	150	700	3			142	142	1
1000 x 1000	250	1305	5			992	169	6

Pneumatic, electric or manual actuators that may be used:
- Belimo type BF, BFL and BFN. (*)
- Petz QT.Ex spring return and fire trigger Petz FT.Ex. (*)
- Petz QT.Nc actuator with Petz FT.Nc thermal sensor. (*)
- Powertork PT series and corresponding Alpha products. (*)
- Schischek type EX and RedMax. (*)

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