



Notified Body authorised by
BSH 0800-S23/4822:013

Page 1 of 5
Certificate No: LR2325202MB-01
Issue Date: 28/01/2025
Expiry Date: 30/04/2028

EC Type Examination (Module B) Certificate

USCG-EU MRA

This is to certify that:

LLOYD'S REGISTER Marine Deutschland GmbH (LRMD), designated as a "notified body" based on the notification of the Federal Maritime and Hydrographic Agency of Germany, did undertake the relevant type approval procedures for the type of equipment identified below which was found to be in compliance with the requirements of Marine Equipment Directive (MED) 2014/90/EU and the valid Commission Implementing Regulation (EU) in force indicating design, construction and performance requirements and testing standards for marine equipment, subject to the conditions below and the attached Schedule which also forms part of this Certificate.

Manufacturer	BSB Engineering Services Ltd
Address	Unit 7, Upper Mills Road, Quarry Wood Industrial Estate, Mills Road, Aylesford, Kent, ME20 7NA, United Kingdom
Reference	Marine Equipment Directive (MED) 2014/90/EU, Regulation (EU) 2024/1975
Regulation Item (No. & Item Designation)	MED/3.22 Fire Dampers
Product Type	FIRE DAMPER (STANDARD FIRE TEST)
Product Description	Single/Multi Bladed Rectangular Fire Damper – Type: "BSB Marine Fire Damper A60"
Specified Standard	IMO Res. MSC.307(88) – (2010 FTP Code) Annex 1, Part 3 Type approval requirements: SOLAS 74 Reg. II-2/9. Carriage and performance requirements: SOLAS 74 Reg. II-2/9, IMO Res. MSC.1/Circ.1655.
Row of the Regulation Item	1 of 1
Trade Name	A60 Series Marine Fire Damper

The attached Design Appraisal Document (schedule) forms part of this certificate. This certificate remains valid unless suspended, expired or withdrawn, provided the conditions in the attached schedule are complied with and the equipment remains satisfactory in service.

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 notified body named on this certificate. The manufacturer should notify LRMD of any modification or changes to the equipment in order to obtain a valid Certificate.

M. Walk

Lloyd's Register Marine Deutschland GmbH, Willy-Brandt-Straße 59-65, 20457 Hamburg, Germany.
A member of the Lloyd's Register group

Marta Walk

Fire & Safety - Senior Specialist
For and on behalf of Lloyd's Register Marine Deutschland GmbH (2923)

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.



BUNDESAMT FÜR
SEE-SCHIFFFAHRT
UND
HYDROGRAPHIE

Notified Body authorised by
BSH 0800-S23/4822:013

Page 2 of 5

Certificate No: LR2325202MB-01

Issue Date: 28/01/2025

Expiry Date: 30/04/2028

EC Type Examination (Module B) Certificate

This equipment is covered by the scope of the "Agreement between the European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment" signed on 27 February 2004 and amended by Decision No.1/2023 26 May 2023 according to U.S. Coast Guard approval category number:

164.139

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).

Should the specified regulations or standards be amended during the period of validity of this certificate, the product is to be re-approved prior being placed on the market and on board vessels to which the amended regulations or standards apply.

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 ANNEX II of the Directive is fully complied with and controlled by a written inspection agreement with a notified body.

Lloyd's Register Marine Deutschland
GmbH, Willy-Brandt-Straße 59-65, 20457
Hamburg, Germany.
A member of the Lloyd's Register group

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

ATTACHMENT TO EC TYPE EXAMINATION (MODULE B) CERTIFICATE No. LR2325202MB-01

The undernoted documents have been appraised for compliance with the relevant requirements of International Conventions and European Union legislation for the EC Type Examination of Marine Equipment for use on Merchant Ships Registered in the European Economic Area.

This Design Appraisal Document (schedule) forms part of the Certificate.

This Certificate an Amendment of Certificate Number LR2325202MB.

Approval Documentation

1. RINA Fire Protection Research Laboratory, Genova, Italy; Fire Test Report No's: 2017CS011024/1 and 2017CS011024/2, both dated 27 July 2017.
2. LGAI Technological Center S.A., Campus UAB, Ronda de la Font del Carme, 08193 Bellaterra, Barcelona, Spain; Fire Test Report No. 17/14594-1339 dated 20 September 2017.
3. BRE Global Ltd, Watford, Herts, WD25 9XX, Test Report No. P107602-1017, Issue 1, dated 26 February 2019 and The Danish Institute of Fire and Security Technology (DBI), Jernholmen 12, 2650 Hvidovre, DBI Opinion No. PHD10071A, dated 01 July 2022.

Conditions of Certification

1. For use in conjunction with approved 'A-15', 'A-30' and A-60 class steel divisions with the ducting protected by the as-tested A-60 Class insulation system or equivalent.
2. The internal cross-sectional area of the fire damper tested, application, maximum fire rating achieved and the minimum duct insulation lengths applicable for all fire ratings are as described in Table 1 below. The minimum duct insulation lengths for any intermediate damper sizes within the tested range (if applicable) may be determined by linear interpolation based on the internal cross-sectional area of the duct. For use in A-0 Class divisions the damper or ducting need not be insulated.

Table 1

Tested Damper Sizes (width x height)	Application	Maximum Fire Rating Achievable	Minimum length of A-60 insulation layer to be provided on exposed side of the duct	Minimum length of A-60 insulation layer to be provided on unexposed side of the duct	Approved Actuator Type
100mm x 100mm (Single)	Deck	A-60	130mm	950mm	PML-TF
300mm x 300mm (Multi)	Deck	A-60	130mm	950mm	PML-TF
1000mm x 1000mm (Multi)	Deck	A-60	130mm	1400mm	PM-TF
1000mm x 1000mm (Multi)	Bulkhead	A-60	130mm	1250mm	PM-TF
2080mm x 1000mm (Multi) [Dual Units: 2 x 1000mm x 1000mm]	Bulkhead	A-60	130mm	2000mm	PM-TF

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

3. Maximum permissible clear openings of damper combinations as shown in Table 1.
4. Dampers with smaller clear openings may also be considered for use as A60 for bulkheads if they have identical construction / insulation lengths / actuators as the as-tested 1000mm x 1000mm damper.
5. Minimum damper length/depth: 210mm.
6. Single or multi-bladed fire dampers with 1.2mm thick galvanised steel damper frame and 0.7mm thick steel hollow profile blades of height 108mm and depth 21mm. Different steels (with at least equivalent fire survivability properties) and thicknesses of 2mm and 3mm may be considered for use for damper frame and blades, on a case by case basis subject to final project authority approval considering the weight of the blades and dampers and the closing performance times of the dampers.
7. Coaming consisting of 3mm thick steel for 100mm x 100mm and 300mm x 300mm dampers, and of 5mm thick steel for 1000mm x 1000mm damper.
8. Frame of damper shall be fixed to coaming with M10 steel bolts and nuts.
9. Ducting of single unit dampers insulated with 'SEAROX SL620' (100 kg/m³ density, thickness 50mm + 25mm). Total insulation thickness 75mm. Insulation retained to structure with steel pins and washers. Dual unit dampers: unexposed ducting of dual unit 1000mm x 1000mm dampers insulated with one layer of 'FireMaster Marine Plus Blanket' (128 kg/m³ density, thickness 45mm) manufactured by Morgan Thermal Ceramics and thickness 25mm on joints; exposed ducting covered with two layers of 'FireMaster Marine Plus Blanket' (128 kg/m³ density, thickness 45mm + 25mm) manufactured by Morgan Thermal Ceramics. Equivalent insulation could be accepted; such acceptance of equivalent insulation is subject to agreement by the design Plan Approval Authority for the project.
10. Dual unit dampers shall be installed side by side horizontally with 75mm wide central joining strips of 1.2mm thick galvanised steel and fitted together between 1.2mm thick galvanised steel sheets each side, secured with self-tapping screws.
11. Dampers shall be fitted with spring return, fail safe close type actuators Type 'PML-TF' and 'PM-TF' of torque rating, respectively, 9Nm/7Nm and 20Nm/20Nm, with associated thermo electric release closing mechanisms (72°C) type 'BAT72'
12. Composition, application and installation of sub components, including insulation and any fire retardants, to be maintained in production and use in accordance with originally tested composition formula and method of application and installation, and manufacturer's instructions.
13. Production items of the subject equipment are to be manufactured in accordance with either an approved Production Quality Assurance system (Module D), a Product-Quality assurance system (Module E) or a Product Verification Process (Module F). The wheelmark cannot be affixed to the product until a conformity assessment module is in place.
14. Each item, batch or lot of the equipment is to be issued with a "Declaration of Conformity" and have the "Mark of Conformity" affixed after a conformity assessment module is in place.
15. The manufacturer shall keep a copy of the EC type-examination certificate, its annexes and additions together with the technical documentation at the disposal of the national authorities for at least 10 years after the wheel mark has been affixed on the last product manufactured and in no case for a period shorter than the expected life of the marine equipment concerned.



Page: 5 of 5
Certificate No: LR2325202MB-01
Issue Date: 28/01/2025
Expiry Date: 30/04/2028
Reference: UKITSO/FIRE/TA/MW/ TSO/24-027183

Place of Production

BSB Engineering Services Ltd

Unit 56, Trinity Trade Centre
Mill Way
Sittingbourne
Kent. ME10 2PD
United Kingdom

BSB Engineering Services Ltd

Unit 7, Upper Mills Road,
Quarry Wood Industrial Estate,
Mills Road,
Aylesford,
Kent. ME20 7NA,
United Kingdom

M. Walk

Marta Walk

Senior Specialist, Fire & Safety
Statutory Discipline Team, Marine & Offshore
Lloyd's Register EME

For and on behalf of Lloyd's Register Marine Deutschland

LRMD EC Distinguishing No. 2923

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

TA144-145 1.0.0 DAD-DAD MRA Rev01