



CERTIFICATE NUMBER
17-LD1597925-PDA

DATE
18 Jan 2017

ABS TECHNICAL OFFICE
London Engineering Department

CERTIFICATE OF DESIGN ASSESSMENT

This is to certify that a representative of this Bureau did, at the request of
SWEGON AIR MANAGEMENT LIMITED

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product: **Fire Damper**

Model: **A-60 Square & Rectangular & A-60 Circular (Square & Rectangular Damper with Adaptor Plate)**

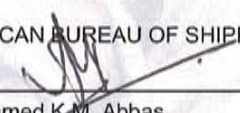
This Product Design Assessment (PDA) Certificate 17-LD1597925-PDA, dated 18/Jan/2017 remains valid until 17/Jan/2022 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product.

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Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

AMERICAN BUREAU OF SHIPPING


Mohammed K.M. Abbas
Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by the terms and conditions as contained in ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010).

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Web: www.swegonair.co.uk

Tier: 2 - PDA Issued

Product: Fire Damper

Model: A-60 Square & Rectangular & A-60 Circular (Square & Rectangular Damper with Adaptor Plate)

Intended Service:

Fire Dampers for Ventilation ducting which penetrates "A" Class divisions as indicated in Ratings suitable for A-0, A-15, A-30 & A-60 for marine and offshore installations

Description:

A-60 Square & Rectangular & A-60 Circular - Single or multi-bladed fire dampers using the means of actuation

Rating:

1) Bulkhead (Vertical) Orientation A-60 Square & Rectangular Marine Fire Damper; Maximum single damper dimension - 1000 x 1000 mm; For Multiple Damper configurations the maximum dimension - 2080 x 1000 mm (made up as 2 off 1000 x 1000 mm Fire Dampers joined with central joining strips giving an additional 80 mm Centre join).

2) Deck (Horizontal) Orientation A-60 Square & Rectangular Marine Fire Damper; Maximum single damper dimension - 1000 x 1000 mm; ; For Multiple Damper configurations the maximum dimension - 2080 x 1000 mm (made up as 2 off 1000 x 1000 mm Fire Dampers joined with central joining strips giving an additional 80 mm Centre join).

3) For use in Bulkheads (Vertical) and Deck (Horizontal) Orientation with following actuators with spring return; Actionair (Electro Thermal Release) ETR72 Thermal link, PTR Pneumatic Thermal Release, Hytork XL0071-S9 Pneumatic Actuators, Actionair Universal actuator (230v, 120v 24v options), Actionair Compact actuator (230v, 120v 24v options), Actionair Compact L2 actuator (230v, 120v 24v options), Festo DFPB 20 S F05 Pneumatic actuator, Hytork XL071 or Hytork XL026 Pneumatic actuator and Schischek 5.10Nm (BFA 45.9Lb) or 15Nm (BFA 135Lb) with options - ExMax, RedMax, InMax, VAS, CTS, BF1

Service Restriction:

1) Dampers manufactured from materials other than those used in the fire tests, and, galvanized carbon steel or 316 stainless steel of 1.2 to 3 mm and 430 or 316 stainless steel of 0.5 mm for the blades, are not covered by this Product Design Assessment.

2) Restrictions for A-60 Marine Fire Dampers, A-60 insulation is to be installed to an extended distance of 450 mm minimum on either side of the damper when the damper is located against the vertical or horizontal fire division.

3) A-60 Marine Fire Dampers coaming thickness is to be in accordance with SOLAS (2014 Consolidated Edition) Regulations II-2/9.7.2. and II-2/9.7.3

4) Where Administrations require the dampers to satisfy both the insulation and integrity criteria of Appendix A.II of IMO Resolution A.754(18), insulation of the damper coaming is to be appropriate for the "A" Class divisions being penetrated.

5) Details of manual operation and indicator device are to be submitted for each application.

6) The damper is to be provided with an automatic closing arrangement.

7) This Type Approval is not to be considered a substitute for a Flag Administration's approval for the purpose of SOLAS 74/78 (2014 Consolidated Edition) and Amendments unless specifically directed by the Administration.

8) Hazardous area application is not covered under this Assessment. When components required for Hazardous area is supplied, details of components are to be submitted to the local office for review in each case.

9) Unit certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

Comments:

1) Only Actuators & mounting accessories as supplied by Actionair as indicated are acceptable.

2) The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

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Tier: 2 - PDA Issued

Notes/Drawing/Documentation:

Drawing No. 2005CS013898, Test report, Revision: -, Pages: -
Drawing No. 2006CS013874, Test report, Revision: -, Pages: -
Drawing No. 2015CS013908/1 Part 1, Test Report, Revision: -, Pages: -
Drawing No. 2015CS013908/1 Part 2, Test Report, Revision: -, Pages: -
Drawing No. 2015CS013908/2 Part 1, Test Report, Revision: -, Pages: -
Drawing No. 2015CS013908/2 Part 2, Test Report, Revision: -, Pages: -
Drawing No. 2015CS013908/3 Part 1, Test Report, Revision: -, Pages: -
Drawing No. 2015CS013908/3 Part 2, Test Report, Revision: -, Pages: -
Drawing No. 2015CS013908/4 Part 1, Test Report, Revision: -, Pages: -
Drawing No. 2015CS013908/4 Part 2, Test Report, Revision: -, Pages: -
Drawing No. ABS PDA revision Ruskin UK, ABS PDA revision Ruskin UK, Revision: -, Pages: 1
Drawing No. American Bureau of Shipping CERTIFICATE, American Bureau of Shipping CERTIFICATE, Revision: -, Pages: 1
Drawing No. Correspondence, incoming email 21.09.2016, Revision: -, Pages: 1
Drawing No. Correspondence, EMAIL 26-09-2016 From Shayne Wehrle - Renewal of PDA cert for A60 Fire Damper 15-LD1332495-PDA, Revision: -, Pages: -
Drawing No. Correspondence, INCOMING EMAIL - RUSKIN AIR MANAGEMENT- DATED 7-12-2016, Revision: 0, Pages: 1
Drawing No. Correspondence, CHANGE OF NAME CERTIFICATE, Revision: 0, Pages: 1
Drawing No. Correspondence, incoming email 13/10/2016 - confirming payment, Revision: -, Pages: -
Drawing No. Correspondence, INCOMING LETTER, Revision: 0, Pages: 1
Drawing No. Correspondence, EMAIL 27-09-2016 From Shayne Wehrle - Renewal of PDA certificate for A60 Fire Damper, Revision: -, Pages: -
Drawing No. LPCB Quality Assurance Cert No, LPCB Quality Assurance Cert No, Revision: -, Pages: 1
Drawing No. MAR151 Rev 11, RECTANGULAR DAMPER GA, Revision: 11, Pages: 1
Drawing No. MAR161 Rev 9, RECTANGULAR DAMPER MATERIALS, Revision: 9, Pages: 1
Drawing No. MAR171 Rev 2, MULTIPLE CONFIGURATION FOR A60 SERIES MARINE DAMPERS, Revision: 2, Pages: 1
Drawing No. PDA Draft 16-11-2016 (2), PDA DRAFT, Revision: 0, Pages: 1
Drawing No. Test Summary Document, Ruskin Actionair Marine Damper Test Summary Document, Revision: -, Pages: 1

Terms of Validity:

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STANDARDS

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ABS Rules:

2017 ABS Steel Vessel Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-7-2/3.7.1
2017 ABS Mobile Offshore Drilling Unit Rules, 1-1-4/9.7, 1-1-A2, 1-1-A3, 5-1-1/3.7, 5-1-1/5.27
2017 ABS Facilities on Offshore Installations Rules 1-1-4/9.7, 1-1-A2, 1-1-A3, 3-8/9.15, 4-8/9.15

National:

NA

International:

IMO Resolution A.754(18) (Adopted on 4 November 1993) - Recommendation on Fire Resistance Tests for A, B and F Class Divisions, Appendix AII- Fire Dampers
SOLAS 74/78 (2014 Consolidated Edition) Regulations II-2/9.3.1, 9.4.1.1.9, 9.7.1.2.1, 9.7.2.1.1.3, 9.7.2.2.1.2 & 9.7.3.1.2,
IMO FTP Code 2010 (For item 8)

Government:

NA

EUMED:

NA

OTHERS:

NA