



CERTIFICATE NUMBER

DATE

05-LD494551/1-PDA

14 May 2010

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
Ruskin Air Management Limited - Whitstable

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. It will remain valid as noted below or until the Rules or specifications used in the assessment are revised (whichever occurs first).


PRODUCT: Fire Damper

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

ABS RULE: 2010 Steel Vessel Rules 1-1-4/7.7, 4-7-2/3.7.1

OTHER STANDARD IMO FTP Code Resolution A 754(18), IMO FSS Code, IMO SOLAS 74/78 (2000 Amendments) Regulations II-2/9.7.1.2.1, 9.7.3.1.2, 9.7.2.1.1.3, 9.7.2.2.1.2, 9.4.1.1.8 & 9.3.1;

AMERICAN BUREAU OF SHIPPING


Mohammed K.M. Abbas
Engineering Type Approval Co-ordinator

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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Product: Fire Damper

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

Intended Service:

Ventilation ducting which penetrates "A" Class divisions as indicated in Ratings

Description:

A-60 Rectangular - Single or multi-bladed fire dampers using the following means of actuation: Actionair ETR72 Thermal link or PTR Pneumatic Thermal Release.

Ratings:

- 1) Bulkhead (Vertical) Orientation A-60 Rectangular Marine Fire Damper; Maximum dimension - 750 x 750 mm; For Multiple Damper configurations the maximum dimension - 1580 x 750 mm (made up as 2 off 750 x 750 mm Fire Dampers joined with central joining strips giving an additional 80 mm Centre join, see Dwg RD14394).
- 2) Deck (Horizontal) Orientation A-60 Rectangular Marine Fire Damper; Maximum dimension - 1000 x 1000 mm.
- 3) For use in Bulkheads (Vertical) and Deck (Horizontal) Orientation with Actionair (Electro Thermal Release) ETR72 Thermal link c/w Spring Return, PTR Pneumatic Thermal Release and Hytork XL0071-S9 Pneumatic Actuators c/w Spring return.

Service Restrictions:

- 1) Dampers manufactured from materials other than those used in the fire tests, and, 316 stainless steel of 1.2 to 3 mm for the frames and 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 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 and Amendments unless specifically directed by the Administration.
- 8) Unit certification is not required for these products. 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:

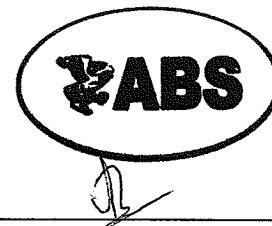
Only Actuators as indicated are acceptable.

Notes / Drawings / Documentation:

- 1) BRE assessment report number CC213757 dated 25 June 2004; BRE Test Report Number 208147A dated 17 May 2002 (Deck) & BRE Test Report Numbers TE 202091 (Bulkhead) dated 28 February 2001 and TE 201588 dated 2 January 2001 (Deck)
- 2) This Product Design Assessment (PDA) is valid only for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product.

Term of Validity:

~~Ruskin Air Management Limited~~
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Term of validity:

This product/model is covered under Product Design Assessment (PDA) Certificate # 05-LD494551/1-PDA, dated 14/May/2010. This PDA Certificate expires 13/May/2015. It will remain valid for 5 years from date of issue or until the Rules or specifications used in the assessment are revised (whichever occurs first). It is valid for all vessels contracted on or before the date of the Rules used in this evaluation.

STANDARDS

ABS Rules:

2010 Steel Vessel Rules 1-1-4/7.7, 4-7-2/3.7.1

National:

NA

International:

IMO FTP Code Resolution A.754(18), IMO FSS Code, IMO SOLAS 74/78 (2000 Amendments) Regulations II-2/9.7.1.2.1, 9.7.3.1.2, 9.7.2.1.1.3, 9.7.2.2.1.2, 9.4.1.1.8 & 9.3.1

Government Authority:

NA

EUMED:

NA

Others:

NA