



CERTIFICATE NUMBER
04-HS1117240-B-3-6-PDA

DATE
12 Aug 2015

CERTIFICATE OF

ABS TECHNICAL OFFICE
TIV-MEX-Veracruz Engineering
Services

DESIGN ASSESSMENT

This is to certify that a representative of this Bureau did, at the request of
NORRISEAL-WELLMARK, INC.

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: **Valve, Butterfly Damper**

Model: **Series D200 (Metal Lined)**

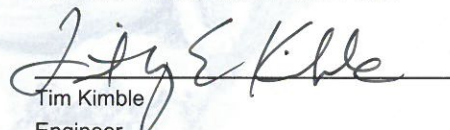
This Product Design Assessment (PDA) Certificate 04-HS1117240-B-3-6-PDA, dated 12/Aug/2015 remains valid until 17/Dec/2018 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

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.

Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA.

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


Tim Kimble
Engineer

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).

NORRISEAL-WELLMARK
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Email: sales@norriseal.com
Web: www.NORRISEAL.com

Tier: 3 - Type Approved, unit certification not required

Product: Valve, Butterfly Damper

Model: Series D200 (Metal Lined)

Intended Service:

Marine and Offshore Application - Salt & Fresh Water Cooling Systems, Cargo Oil Lines, Bilge Suctions for Holds in Bulk Carriers, Discharge system

Description:

Series D200 Metal Lined.

Rating:

Sizes: 2" - 36";
Pressure: 200 psi;
Temperature: -40 °F to +400 °F (-40°C to +204°C)

Service Restriction:

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.

- i) Metal lined valves intended for installation on the side shell or below the deepest load waterline, including those at sea chests, are to be hydrostatically tested in the presence of the Surveyor, before installation, to a pressure of at least 5 bar according to Steel Vessel Rules 4-6-2/7.3.2.
- ii) Gray Cast Iron (ordinary cast iron) valves are not to be used at Collision Bulkhead; at the Shell of the vessel; fitted outside a Fuel Oil, Lube Oil, Cargo or Hydraulic Oil Tank where the valve may be subjected to a head of oil; mounted on a boiler except as permitted for Heating Boilers; in Cargo Oil piping on weather decks for pressures exceeding 16 bar (232 psi); in Cargo Oil manifolds for connection to Cargo Handling Hoses; in Fixed Gas Fire Extinguishing Systems; in Fire Main or in any other type of Firefighting System according to Steel Vessel Rules 4-6-2/3.1.3.
- iii) The Material for the Body, Disc, Stem and Seat are to be suitable for the intended service.
- iv) Materials for valves, for service below -18°C are to be tested in accordance with Steel Vessel Rules 4-6-2/3.1.6.
- v) Valves are not to be used for applications where materials readily rendered ineffective by heat are not acceptable such as fire mains, unless the fire test report conforming to the latest edition of a recognized standard acceptable to ABS are submitted. (Steel Vessel Rules 4-6-2/5.11.3 (c) & 4-7-3/1.11.1).

Comments:

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

- i) All valves are to bear the trademark of the manufacturer legibly stamped or cast on the exterior of the valves and also the primary pressure rating and temperature rating at which the manufacturer guarantees the valve to meet the requirements of the standards of Steel Vessel Rules 4-6-2/5.11.4.

Notes/Drawing/Documentation:

Brochure No. 200-0114T Series 200 Butterfly Valves, Issued 2014.;
Norriseal - Wellmark Letter of Compliance.

Terms of Validity:

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STANDARDS

ABS Rules:

Rules for Conditions of Classification, Part 1 2015 Steel Vessels Rules 1-1-4/7.7, 1-1-Appendix 3, 1-1-Appendix 4, which covers the following:

Steel Vessel Rules (2015): 4-1-1/Table 6, 4-6-2/5.11.1;

Rules for Conditions of Classification, Part 1, 2015 Offshore Units and Structures: 1-1-4/9.7, 1-1-Appendix 2, 1-1-Appendix 3 which Covers the following:

Mobile Offshore Drilling Units(2015): 4-2-2/9.1.1.

National:

API 609 Edition 7th - 2009, AWWA C504-70 - 1970, MSS SP-67 - 2011,

International:

NA

Government:

NA

EUMED:

NA

OTHERS:

MIL-V-24624 - 1983; MIL-V-16468 - 1983.