



CERTIFICATE NUMBER
15-HS1384774-PDA

DATE
23 Nov 2015

ABS TECHNICAL OFFICE
Houston SED Machinery - Piping
& Electrical Sys.

CERTIFICATE OF DESIGN ASSESSMENT

This is to certify that a representative of this Bureau did, at the request of
DELTECH CONTROLS

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**

Model: **Triple Offset Butterfly valves- Wafer and Lug type Series 4A/4B and 4D/4E in pressure rating Class 150# and 300#**

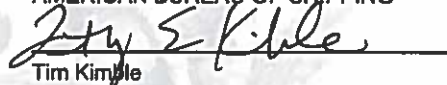
This Product Design Assessment (PDA) Certificate 15-HS1384774-PDA, dated 23/Nov/2015 remains valid until 22/Nov/2020 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

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/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-A/3/5 9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

DELTECH CONTROLS

6068 HWY 73

GEISMAR LA

United States 70734

Telephone: 2257444326

Fax: 2257444328

Email: sales@deltechcontrols.com

Web: www.deltechcontrols.com

Tier: 2 - PDA Issued**Product:** Valve, Butterfly**Model:** Triple Offset Butterfly valves- Wafer and Lug type

Series 4A/4B and 4D/4E in pressure rating Class 150# and 300#

Intended Service:

Marine and Offshore Applications- Fuel Oil, Bilge , Ballast, Sea water, Cargo Systems (including Methanol and Liquid Mud), Fire main system

Description:

Sizes: 3" to 24" sizes, Wafer and Lug Type, Class: 150 and 300

Valve Body: A216 WCB/ A352 LCB/ A351 Gr. CF8/CF8M

Rating:

Pressure-Temperature ratings as per ASME B16.34

Pressure rating Class 150# and 300#

Sizes: 3" to 24" sizes (Wafer and Lug Type)

Service Restriction:

- 1) 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.
- 2) Shell valves are to comply with the requirements of 2015 SVR 4-6-2/9.13 and 2015 SVR 4-6-2/7.3.2
- 3) Materials are to be suitable for the intended service at the pressure-temperature rating.
- 4) Valves are not to exceed the lesser of the pressure-temperature rating of this product or flange rating.
- 5) Wafer type valves with non-conductive gaskets or seals are to be earthed (grounded) to the hull such that the resistance between any point on the piping and the hull (across joints, pipe to hull) does not exceed 1 Mega-Ohm. Refer SVR 4-6-2/9.15.

Comments:

- 1) The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
- 2) For use as Ballast Tank valves, the requirements in SVR 4-6-4/7.5 are to be met.
- 3) For use as steam and feed valves, requirements in SVR 4-4-1/9.5 are to be met.
- 4) 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

Notes/Drawing/Documentation:

Drawing No. TRIPLE OFFSET BFV 4A 4B 4Cv9a-1, Specification Series 4, Revision: -, Pages: 1

TA Application Form Series 4

Asbestos Form Series 4

Fire test Ser 4B- Fire tests witness report- DNV

PDBFV27950- GA drwg TOHPBFV Lugged- Lug Type- Triple Eccentric

GA drwg TOHPBFV Wafer- WAFER TYPE-Triple Eccentric

TCs of Ser 4 TO HPBFV- Compliance certificate-Deltech

PDBFV27962- TOV Drawing, WAFER TYPE-Triple Eccentric- Series 4A

PD27952- General Assembly Gear Operated

PD27963- General Assembly Gear Operated

PDBFV28300- General Assembly of Triple Offset High Performance Butterfly Valve- Lug Type Body Gear Operated

PDBFV28310- General Assembly of Triple Offset High Performance Butterfly Valve- Lug Type Body Gear Operated

PDBFV28320- General Assembly of Triple Offset High Performance Butterfly Valve- Lug Type Body Gear Operated

PDBFV28330- General Assembly of Triple Offset High Performance Butterfly Valve- Lug Type Body Gear Operated

PDBFV28340- General Assembly of Triple Offset High Performance Butterfly Valve- Lug Type Body Gear Operated

PDBFV28350- General Assembly of Triple Offset High Performance Butterfly Valve- Lug Type Body Gear Operated

DELTECH CONTROLS

6068 HWY 73

GEISMAR LA

United States 70734

Telephone: 2257444326

Fax: 2257444328

Email: sales@deltechcontrols.com

Web: www.deltechcontrols.com

Tier: 2 - PDA Issued

PDBFV28360- General Assembly of Triple Offset High Performance Butterfly Valve- Lug Type Body Gear Operated
PDBFV28370- General Assembly of Triple Offset High Performance Butterfly Valve- Lug Type Body Gear Operated
PDBFV28380- General Assembly of Triple Offset High Performance Butterfly Valve- Lug Type Body Gear Operated
PDBFV28390- General Assembly of Triple Offset High Performance Butterfly Valve- Lug Type Body Gear Operated
PDBFV28400- General Assembly of Triple Offset High Performance Butterfly Valve- Lug Type Body Gear Operated
PDBFV28410- General Assembly of Triple Offset High Performance Butterfly Valve- Lug Type Body Gear Operated
PDBFV28420- General Assembly of Triple Offset High Performance Butterfly Valve- Lug Type Body Gear Operated
PDBFV28430- General Assembly of Triple Offset High Performance Butterfly Valve- Lug Type Body Gear Operated
PDBFV28440- General Assembly of Triple Offset High Performance Butterfly Valve- Lug Type Body Gear Operated
PDBFV28450- General Assembly of Triple Offset High Performance Butterfly Valve- Lug Type Body Gear Operated
SHELL THICKNESS FOR TOHPBFV- Shel thickness table- Series 4 BFV

Terms of Validity:

This Product Design Assessment (PDA) Certificate 15-HS1384774-PDA, dated 23/Nov/2015 remains valid until 22/Nov/2020 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.

STANDARDS

ABS Rules:

The Rules for Conditions of Classification, Part 1 2015 Steel Vessels Rules 1-1-4/7.7, 1-1-A3, 1-1-A4
2015 Rules for Building and Classing Steel Vessels 4-6-2/5.11; 4-4-1/9.5; 4-6-2/9.13; 4-7-3/1.11, 5C-9-5/1.6.3
2015 Rules for Building and Classing Steel Vessels Offshore Support Vessels 4-6-2/3.1.2; 4-6-2/5.11;
2015 Rules for Building and Classing Mobile Offshore Drilling Units 4-2-2/9; 4-2-2/ 17; 4-2-2/21

National:

API 598, API 607, API 609, ASME B16.34, ASME B16.10, ASME B16.5

International:

ISO 10497-5: 2004

Government:

NA

EUMED:

BS EN-593, BS EN 12266-1

OTHERS:

NA