

CERTIFICATE NUMBER 15-HS1384780-PDA DATE 19 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, High Performance Butterfly

Model: Series 44/45 & 47/48

This Product Design Assessment (PDA) Certificate 15-HS1384780-PDA, dated 19/Nov/2015 remains valid until 18/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

Engineer/Consultant

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, High Performance Butterfly

Model:

Series 44/45 & 47/48

Intended Service:

Marine and Offshore Applications- Fresh water, Fuel Oil, Ballast, Sea water, Cargo Systems (including methanol & Liquid Mud), Firemain system.

Description:

Deltech Double Eccentric High Performance Butterfly valves (Wafer and Lug type);

Pressure-Temperature ratings as per ASME B16.34

Sizes: 3" to 24", Class: 150 and 300

Valve Body: Carbon Steel A216 WCB; Austenitic Steel A351 (CF8M/CF8)

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 SVR 4-6-2/9.13

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. Series 44 45 47 48 ABS, Specifications Series 44-45-47-48, Revision: -, Pages: 1

TA Application Form Series 44-45-47-48

Asbestos Form Series 44-45-47-48 Series 44 45 47 48 ABS- Specifications Series 44-45-47-48

48030xxxxxB3- GENERAL ASSEMBLY DN80/3 #300 LUG DOHPBFV

Fire test 2x150# Ser 44 - DNV Fire Test Witness Report

Fire test 4x150# Ser 44 - DNV Fire Test Witness Report

Seat Pressure Temperature Rating

Sample TC 6x150# Ser 44- Compliance Certificate
Sample TC 6x300# Ser 47- Compliance Certificate
SHELL THICKNESS DOHPBFV- Shell wall thickness table

44030ABSxxxG- General Assembly Double Offset High Performance Butterfly Valve DN 80/3"

44080ABSxxxG- General Assembly Double Offset High Performance Butterfly Valve DN200/8"

44160ABSxxxG- General Assembly Double Offset High Performance Butterfly Valve DN 400/16"

44240ABSxxxG- General Assembly Double Offset High Performance Butterfly Valve DN 600/24"

45030ABSxxxG- General Assembly Double Offset High Performance Butterfly Valve DN 80/3"

45080ABSxxxG- General Assembly Double Offset High Performance Butterfly Valve DN200/8" 45160ABSxxxG- General Assembly Double Offset High Performance Butterfly Valve DN400/16" 45240ABSxxxG- General Assembly Double Offset High Performance Butterfly Valve DN600/24"

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

```
47030ABSxxxG- General Assembly Double Offset High Performance Butterfly Valve DN 80/3" 47080ABSxxxG- General Assembly Double Offset High Performance Butterfly Valve DN200/3" 47160ABSxxxG- General Assembly Double Offset High Performance Butterfly Valve DN 400/16" 47240ABSxxxG- General Assembly Double Offset High Performance Butterfly Valve DN 600/24" 48030ABSxxxG- General Assembly Double Offset High Performance Butterfly Valve DN80/3" 48080ABSxxxG- General Assembly Double Offset High Performance Butterfly Valve DN200/8" 48160ABSxxxG- General Assembly Double Offset High Performance Butterfly Valve DN400/16" 48240ABSxxxG- General Assembly Double Offset High Performance Butterfly Valve DN600/24"
```

Terms of Validity:

This Product Design Assessment (PDA) Certificate 15-HS1384780-PDA, dated 19/Nov/2015 remains valid until 18/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:

BS EN12266-1, BS EN 593

Government:

NA

EUMED:

NA

OTHERS:

NA