



CERTIFICATE NUMBER

03-HG389372-1-PDA

DATE

15 April 2013

ABS TECHNICAL OFFICE

Gdynia Engineering Department

CERTIFICATE OF DESIGN ASSESSMENT

This is to Certify that a representative of this Bureau did, at the request of
VOSS FLUID GMBH - D-51688 WIPPERFUERTH

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: **Pipe Fitting, Flared**

MODEL: **10° Flared Couplings**

This Product Design Assessment (PDA) Certificate 03-HG389372-1-PDA, dated 15/Apr/2013 remains valid until 14/Apr/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


Jaroslaw Kondracki
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 manufacturing process 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).

VOSS FLUID GMBH

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D-51688 WIPPERFUERTH

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MA Certificate No.: 10-HN1778758-X**PRODUCT:****Pipe Fitting, Flared****MODEL:****10° Flared Couplings****Intended Service:**

For use in steel piping systems.

Description:

Materials: steel, stainless steel.

Flared cones, clamping rings, flare connection parts (complete), adjustable couplings (stud/ standpipe adapter type), reducing couplings with taper and O-ring, straight couplings with taper and O-ring, gauge couplings.

Ratings:

Series L (light): 6 to 10 mm OD for 500 bar, 12 to 18 mm OD for 400 bar, 22 to 42 mm OD for 250 bar.

Series S (heavy): 6 to 10 mm OD for 800 bar, 12 to 16 mm OD for 630 bar, 20 to 38 mm OD for 420 bar.

Operating temperatures depending on coupling and sealing materials, as per manufacturer's specification (see also under Comments).

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.

Coupling types with tapered pipe threads are not to be used for toxic and corrosive fluid services and for all services of temperatures exceeding 495°C.

In Classes I and II piping systems in general, for joining sections of hydraulic pipes and for steering gear-, controllable pitch propeller- and propulsion related hydraulic systems their use is limited to the following restrictions: 6 mm to 20 mm OD for 103 bar; 22 mm to 25 mm OD for 82.8 bar; 28 mm to 42 mm OD for 41.4 bar. In other hydraulic oil systems they may be used without pressure limitation only for connection to equipment, such as pumps, valves, cylinders, accumulators, gauges and hoses.

Straight-thread O-ring type fittings may be used for connections to equipment in hydraulic oil piping, without pressure and service limitation, but are not to be used for joining sections of pipes.

Comments:

The above maximum working pressures are less than or equal to 1/4 burst pressure. In order to retain this safety factor of four (4), the specified maximum working pressures may be reduced depending on operating temperatures, high pressure surges etc. The application and installation of the couplings is to be in accordance with manufacturer's specifications and instructions and is to be approved in conjunction with the relevant systems.

VOSS FLUID GMBH

Notes / Drawings / Documentation:

Drawing Title: Flared Cone, Drawing No. 0034990000
Drawing Title: Clamping Ring, Drawing No. 0031950000
Drawing Title: Union Nut, Drawing No. 0032950000
Test Report No. C101/06 along with Annex 1
Test Report No. C130/05 along with Annex 1
Examination Report: AEL 214/06/01
Examination Report: AEL 225/05/01
WTD71 Fire Test Reports dated 20 September 2006



Term of Validity:

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STANDARDS

ABS Rules:

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

ABS Rules for Conditions of Classification (2013) 1-1-4/7.7.

ABS Rules for Building and Classing Steel Vessels (2013) 4-6-2/3, 4-6-2/5.5.5, 4-6-2/5.9.

National:

DIN 2353, 3870, 3861

International:

ISO 8434

Government Authority:

NA

EUMED:

NA

Others:

NA