



CERTIFICATE NUMBER
15-HG1382012-PDA

DATE
22 Jun 2015

ABS TECHNICAL OFFICE
Hamburg Engineering Department

CERTIFICATE OF DESIGN ASSESSMENT

This is to certify that a representative of this Bureau did, at the request of
FKB GMBH

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 Clamp**

Model: **RSB Tube Clamp / RSB Fastening Systems.**

This Product Design Assessment (PDA) Certificate 15-HG1382012-PDA, dated 22/Jun/2015 remains valid until 21/Jun/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

Wulf-Peter Senebald
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).

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Tier: 2 - PDA Issued

Product: Pipe Clamp**Model:** RSB Tube Clamp / RSB Fastening Systems.**Intended Service:**

RSB Tube Clamp / RSB Fastening Systems for on-board use on vessels and marine structures.

Description:

The RSB Tube Clamp / RSB Fasteners are modular system designed to suit with a wide range of demands.

Following types are available:

Series: "A" (Light Gauge/L) - Clamp size: 0,1,2,3,4,5,6,7 and 8 for pipe outside diameters from 6 mm to 101.8 mm.

Series: "B" (Twin Tube Clamp Series) - Clamp size: 1,2,3,4 and 5 for pipe outside diameters from 6 mm to 42 mm.

Series: "C" (Heavy Gauge/S) - Clamp size: 1,2,3,4,5,6,7 and 8 for pipe outside diameters from 6 mm to 220 mm.

U-bolt Clamp Series (with 2 & 4 nuts): Nominal size: 15 to 750 for tube outside diameters from 17.2 mm to 762 mm.

Flat Steel Tube Clamp/Series "A" : For nominal size: 18 to 288 (light duty/L) and size: 22 to 288 (normal duty design).

Hydraulic Steel Clamp Series for nominal size: 25 to 60.

Rating:

Temperature range of clamp body types:

Polypropylene (PP): -30°C to +90°C, Polyamide (PA 6): -40°C to +120°C.

Rubber: -50°C to +120°C, Aluminum: up to +300°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.

Pipe clamps used for on-board installation shall have provided upper and lower steel cover plates (including those with clamp body made from aluminum material) and only those types are acceptable that have at least two (2) fastening screws that will keep the tubes in place even in case of distortion of the clamp body.

Comments:

The application and installation of the "RSB Tube Clamp / RSB Fastening Systems" is to be in accordance with the manufacturer's specifications and instructions.

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

Notes/Drawing/Documentation:

The previously approved drawing list is under attachment.

Terms of Validity:

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STANDARDS**ABS Rules:**

- Steel Vessel Rules (2015): 1-1-4/7.7, 1-1-Appendix 3, 4, 4-6-1/3.1
- Steel Vessels Under 90 Meters (295 feet) in Length (2015): 1-1-4/7.7, 1-1-Appendix 3 and 4
- Offshore Support Vessels (2015): 1-1-4/7.7, 1-1-Appendix 3 and 4
- Mobile Offshore Drilling Units (2015): 1-1-Appendix 2 and 3
- Steel Vessels for Service on Rivers and Intracoastal Waterways (2015): 1-1-4/7.7, 1-1-Appendix 3 and 4

National:

DIN 3015 - Part 1 (1999-01), DIN 3015 - Part 2, (1999-01) DIN 3015 - Part 3 (1999-01), DIN 3567 (1963-08), DIN 3570 (1968-10).

International:

NA

Government:

NA

EUMED:

NA

OTHERS:

NA