



CERTIFICATE NUMBER
19-HS1890907-PDA

DATE
29 Aug 2019

ABS TECHNICAL OFFICE
Houston SED - Ship Systems

CERTIFICATE OF DESIGN ASSESSMENT

This is to certify that a representative of this Bureau did, at the request of
TIDES MARINE 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: **Seal, Rudder Seal w/ Hose**

Model: **RPB-I**

This Product Design Assessment (PDA) Certificate 19-HS1890907-PDA, dated 29/Aug/2019 remains valid until 28/Aug/2024 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

Dustin De Los Santos

Dustin De Los Santos

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-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010).

TIDES MARINE INC.
3251 S.W. 13TH DRIVE
DEERFIELD BEACH FL
United States 33442
Telephone: 800-420-0949
Fax: 954-420-0945
Email: skip@tidesmarine.com
Web: www.tidesmarine.com

Tier: 3 - Type Approved, unit certification not required

Product: Seal, Rudder Seal w/ Hose

Model: RPB-I

Intended Service:

Inboard Rudder Stock Sealing unit for new construction or replacement on pleasure and commercial craft.

Description:

A watertight, self aligning seal, precision machined from UHMW. It is a one piece, water-lubricated housing for a nitrile lip seal.

Rating:

For Rudder stock sizes of 3/4" - 3 1/2" or 20 mm - 89 mm at water temperatures from 32°F to 90°F.

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.

Comments:

- 1) The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
- 2) The hose material and that of the lip seal is to be suitable for the intended service. The burst pressure of the hose is not to be less than four times the design working pressure. In general, the hose may be installed in a system provided it is visible at all times, easily accessible, and confined to one watertight compartment in conjunction with the provisions of 4-4-1/9.19 of the ABS Guide for Building and Classing Yachts.
- 3) The equipment should be visually inspected by the attending Surveyor during periodic surveys, with particular attention being given to the flexible hose assemblies and nitrile lip seals. These are to be replaced if deemed necessary.
- 4) The manufacturer's recommended installation procedures are to be followed.
- 5) In rudder trunks which are open to the sea, the seal is to be fitted above the deepest load waterline.

Notes/Drawing/Documentation:

Product Brochure "Rudder Seal Type I" (4 shts);
Client Letter Statement dated 13 Oct. 2011.

Terms of Validity:

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STANDARDS

ABS Rules:

Rules for Conditions of Classification, Part 1 - 2019, 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:

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2019 Guide for Building and Classing Yachts: 3-2-9/7.5

Rules for Conditions of Classification, Part 1 - 2019 High-Speed Craft Rules 1-1-4/11.9, 1-1-A2, 1-1-A3, which covers the following:

2019 Rules for Building and Classing High-Speed Craft: 3-2-8/7.5

National:

NA

International:

NA

Government:

NA

EUMED:

NA

OTHERS:

NA