



CERTIFICATE NUMBER
18-HS1775697-PDA

DATE
10 Sep 2018

ABS TECHNICAL OFFICE
Houston SED Structures -
Commercial

CERTIFICATE OF Design Assessment

This is to certify that a representative of this Bureau did, at the request of
BAIER MARINE COMPANY, 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: **Hatch, Flush Watertight**

Model: **BFHR8A/A, BFHR8A/S**

This Product Design Assessment (PDA) Certificate 18-HS1775697-PDA, dated 10/Sep/2018 remains valid until 09/Sep/2023 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-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010).

BAIER MARINE COMPANY

ENGINEERING AND GENERAL OPERATIONS

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Tier: 2 - PDA Issued

Product: Hatch, Flush Watertight**Model:** BFHR8A/A, BFHR8A/S**Intended Service:**

Marine & Offshore Application - Flush Hatch for Marine Vessels and Offshore Installations.

Description:

8" diameter round flush hatch with T-Hatch operation to open and close. A threaded strongback on the underside of the hatch provides clamping mechanism to securely tighten the hatch down.

Cover is of 0.3" thick permanent mold aluminum, material ASTM B108, alloy 356, the modulus of elasticity $E = 10 \times 10^6$ psi.

Deck Rings are of Cast Steel BFHR8A/S, material ASTM A27, GR 70 - 36 or Cast Aluminum BFHR8A/A, material ASTM B108, alloy 356.

VGroove gasket forms a Watertight Seal between the Deck Ring and Hatch Cover Edge Ring.

BFHR8A/A, BFHR8A/S clear openings are 8" round.

Rating:

Load Rating in Head of Water (top side of Hatch only): Pressure Heads of 10 feet for hatch cover or any similar style hatch with sizes equal to or less than the sizes listed, but with the same thickness.

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.
- This product is NOT to be installed on the exposed fore deck of vessels over 80 meter (263 ft) in length L (L is the scantling length of a ship), within the forward 0.25L, where the deck in way of the hatch is less than 0.1L or 22 meter (72.2 ft) above the summer load line, whichever is less, as per ABS Steel Vessels Rules 3-2-15/14 and ABS Steel Vessels Rules Under 90m Length 3-2-12/14.
- This product is NOT for use in watertight bulkheads, internal decks and external openings below damage waterline (see ABS Steel Vessels Rules 3-2-9, 3-2-15/17 and ABS Steel Vessels Rules Under 90m Length 3-2-7).
- When installing a Hatch, consideration is to be given to preventing corrosion arising from using dissimilar metals. Hatch covers are tested as per 3-7-1/Table 1 (Item 16) of ABS Steel Vessels Rules and 3-7-1/Table 1 (Item 16) of ABS Steel Vessels Rules Under 90m Length, upon installation. Aluminum casting material tests to be in accordance with ABS Rules for Materials and Welding 2-5-10. Steel casting material tests to be in accordance with ABS Rules for Materials and Welding 2-1-5.

Comments:

- The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
- For each installation, drawings are to be submitted for review for verification that the cover Scantlings, Materials and Arrangements, including closing arrangements are acceptable for the proposed location.
- Deck mounting Ring is to be welded on both sides to the Structure in which the Hatch is installed. Hatch installation and operation to be in accordance with the Manufacturer's Instructions. Where aluminum will be joined to other materials, each faying surface is to be suitably coated to minimize corrosion. In addition, when one or both sides of aluminum to dissimilar metal joints are exposed to weather, sea water or wet spaces, a minimum of 0.5 mm (0.02 in.) of suitable insulation shall be installed between faying surfaces and extend beyond the edge of the joint.

Notes/Drawing/Documentation:

Drawing No. 08863-109A Cover Assembly, Cover Assy, 8 Inch Rnd Hatch, T-Handle, Revision: C, Pages: 2

Drawing No. 08863-110A Hatch Assembly, Hatch Assy, 8 In Rnd, T-Handle AL, Revision: A, Pages: 3

Drawing No. 08863-213A, Cover, Alum 8 In Tee, Revision: J, Pages: 2

Drawing No. 08863-213B, Deck Ring STL #619, 8 Inch, Revision: H, Pages: 2

Drawing No. 08863-217A, StrongBack AL, 8" Tee, Revision: B, Pages: 1

Drawing No. 08863-218A 8-Inch Alum Cover, Cover, Alum 8 In Tee, Revision: C, Pages: 3

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Terms of Validity:

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STANDARDS**ABS Rules:**

2018 Steel Vessels Rules 1-1-4/7.7, 1-1-A3, 1-1A4, 3-2-15/3.3, 3-2-15/9

2018 Steel Vessels Rules Under 90 m in Length 1-1-4/7.7, 1-1-A3, 1-1A4, 3-2-12/5.3, 3-2-12/11

2018 High Speed Craft Rules 1-1-4/11.9, 1-1-4/A2, 1-1-4/A3, 3-2-4/1

2018 Materials and Welding Rules 2-5-5/Table 7

2018 Mobile Offshore Drilling Units Rules 1-1-4/9.7, 1-1-A2, 1-1A3, 3-2-5/11

National:

NA

International:

NA

Government:

NA

EUMED:

NA

OTHERS:

NA