



CERTIFICATE NUMBER
EFFECTIVE DATE
EXPIRY DATE
ABS TECHNICAL OFFICE

22-2266673-PDA
18-Aug-2022
17-Aug-2027
Houston ESD - Piping

CERTIFICATE OF Product Design Assessment

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

H2O LLC

located at

841 VINCENT ROAD, , LAFAYETTE, LA, United States, 70508

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: Oil Water Separation System

Model: Boss 2.2T/107, Boss 2.2T/107-Y, Boss 5T/107, Boss 11T/107 (With DP Option), Boss 25T/107 (With DP Option), Boss 45T/107 (with DP Option), MiniBoss, MiniBoss-5P

Endorsements:

Tier: 2 - PDA Issued

This Product Design Assessment (PDA) Certificate remains valid until 17/Aug/2027 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau Of Shipping

Jingdong Sheng, Senior Managing Principal 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 ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

H2O LLC

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Product: Oil Water Separation System
Model: Boss 2.2T/107, Boss 2.2T/107-Y, Boss 5T/107, Boss 11T/107 (With DP Option), Boss 25T/107 (With DP Option), Boss 45T/107 (with DP Option), MiniBoss, MiniBoss-5P

Endorsements:

Intended Service:

Marine & Offshore Applications - For processing oily mixtures of machinery space bilges prior to being discharged overboard.

Description:

Oily Water Separation System - Oil Filtering (15 PPM) Equipment.
MiniBOSS-5T Oily Water Separation System - Oil Filtering (5 ppm) equipment

Rating:

Capacity gpm (m³/h):
Boss 2.2T/107 and Boss 2.2T/107-Y at 2.2gpm (0.5 m³/h);
Boss 5T/107 at 5gpm (1.1 m³/h);
Boss 11T/107 at 11gpm (2.5 m³/h);
Boss 25T/107 at 25gpm (5.6 m³/h);
Boss 45T/107 at 45 gpm (10.2 m³/h);
MiniBoss at 2gpm (0.45 m³/h);
MiniBoss-5P at 2gpm (0.45 m³/h);
Design Pressure: 30 psig;
Operating Temperature: 5°C to 55°C;

Service Restriction:

1. Unit Certification is not required for this product. If 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. To be used with approved Oil Content monitor (OCM) only. Approved OCM's include Monitors provided by suppliers which have been tested by an approved laboratory and found to conform to IMO MEPC.60(33), Annex I & 107(49). If fitted on vessels of 10,000 tons gross and over, the equipment is to be fitted with an alarm and an arrangement to automatically stop the discharge when 15PPM cannot be maintained.
3. For Installations in hazardous areas (With options X1 or X2), the electrical equipment are to be certified safe type as per 4-8-4/27.5 of the Marine Vessel Rules. Hazardous area certificates are to be provided for each specific installation.

Comments:

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

Notes/Drawing/Documentation:

Drawing No. BOSS 11T-107, BOSS 11T-107 CUSTOMER DWG SET_Rev M1.10, Revision: M1.1;
Drawing No. BOSS 2.2T-107, BOSS 2.2T-107 CUSTOMER DWG SET_Rev M1.10, Revision: M1.1;
Drawing No. BOSS 2.2T-107-Y, BOSS 2.2T-107-Y CUSTOMER DWG SET_Rev M1.10, Revision: M1.1;
Drawing No. BOSS 25T-107, BOSS 25T-107 CUSTOMER DWG SET_Rev M1.10, Revision: M1.1;
Drawing No. BOSS 45T-107, BOSS 45T-107 CUSTOMER DWG SET_Rev M1.10, Revision: M1.1;
Drawing No. BOSS 5T-107, BOSS 5T-107 CUSTOMER DWG SET_Rev M1.10, Revision: M1.1;
Drawing No. MINI BOSS, MINI BOSS CUSTOMER DWG SET_Rev M1.10, Revision: M1.1;
Drawing No. 162.050.9031.4 - BOSS 5T/107 15 ppm Separator - USCG Approval, Revision -;
Drawing No. 162.050.9033.4 - BOSS 25T/107 15ppm Separator - USCG Approval, Revision -;
Drawing No. 162.050.9054.4 - BOSS 2.2T/107 and 107-Y 15 ppm Separator - USCG Approval, Revision-;

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Drawing No. 162.050.9034.4 - BOSS 45T/107 15 ppm Separator - USCG Approval, Revision-;
Drawing No. 162.050.9128.4 - MiniBOSS and MiniBOSS-5P 15 ppm Separator and 5 ppm Separator - USCG Approval, Revision-;
Drawing No. 162.050.9055.4 - BOSS 11T/107 15 ppm Separator - USCG Approval, Revision-;

Documents from previous review (20-1920982-1-PDA):

Drawing No. 43963/A1 MED, EC TYPE EXAMINATION CERTIFICATE, Revision: -
Drawing No. ABS PDA_14-HS3293896-4-PDA, Design Assessment, Revision: -
Drawing No. ABS-MA2017, Manufacturing Assessment, Revision: -
Drawing No. Correspondence, PO Email 21-Oct-2019, Revision: -
Drawing No. MBB1160, MBB1160, Revision: -
Drawing No. MINI BOSS REV M1.2 MAY 2016 GEN ARRANGMENT, MINI BOSS REV M1.2 MAY 2016 GEN ARRANGMENT, Revision: 1.2
Drawing No. P1600977 (Recovered Energy, Inc. - IMO MEPC.107(49) and USCG 46 CFR 162) cert, P1600977 (Recovered Energy, Inc. - IMO MEPC.107(49) and USCG 46 CFR 162) cert, Revision: -
Drawing No. P1600978 (Recovered Energy Inc - IMO MEPC 107(49) and USCG 46 CFR 162) Summation_cert (5), P1600978 (Recovered Energy Inc - IMO MEPC 107(49) and USCG 46 CFR 162) Summation_cert (5), Revision: -
Drawing No. P1600978 (Recovered Energy, Inc. - Subchapters F and J)_cert, P1600978 (Recovered Energy, Inc. - Subchapters F and J)_cert, Revision: -
Drawing No. PDA - Application Form - 2019 - signed, PDA - Application Form - 2019 - signed, Revision: -
Drawing No. PO 13544, Purchase Order, Revision: -
Drawing No. REI-BP-4B - MED Declaration of Conformity - Rev04 - 2018, Declaration of Conformity, Revision: -
Drawing No. REI-M-6G - Quality Manual 9001-2015, QUALITY MANUAL WITH SUPPORTING PROCEDURES, Revision: -
Drawing No. REI-WI-1B - List of Options, List of Options, Revision: 04F
Drawing No. REI-WI-1B - List of Options_rev03, REI-WI-1B - List of Options_rev03, Revision: 03
Drawing No. SMS.MED2.D/65484/B.0, MED 2014/90/EU QUALITY SYSTEM MODULE D CERTIFICATE, Revision: -
Drawing No. SMS.MED2.D_65484_B.0, MED 2014/90/EU QUALITY SYSTEM MODULE D CERTIFICATE, Revision: -
Drawing No. X - USCG DP Option Approval E1-1602399, X - USCG DP Option Approval E1-1602399, Revision: -

Terms of Validity:

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STANDARDS

ABS Rules:

Rules for Conditions of Classification, Part 1 2022 Marine Vessel Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:
Marine Vessel Rules: 4-6-4/5.7

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National:
NA

International:
MEPC.1/Circ.643 & IMO Res. MEPC.107(49) as amended by MEPC 285(70) adopted 28 Oct 2016; MARPOL 73/78 & Amend, Annex I, Reg.15

Government:
US Coast Guard Approval Number: 162.050/9034/4 (Expires: 17 July 2025), 162.050/9054/4 (Expires: 17 July 2025), 162.050/9031/4 (Expires: 17 July 2025), 162.050/9055/4 (Expires: 17 July 2022), 162.050/9033/4 (Expires: 17 July 2025), 162.050/9128/4 (Expires: 17 July 2025);

EUMED:
European Union Marine Equipment Directive 96/98/EC as Amended by 2014/90/EU. Item MED/2.1 of the Directive - Oil filtering equipment (for an oil content of the effluent not exceeding 15ppm).

OTHERS:
NA