



CERTIFICATE NUMBER
14-HS1253379-1-PDA

DATE
18 Aug 2015

ABS TECHNICAL OFFICE
TIV-MEX-Veracruz Engineering
Services

CERTIFICATE OF DESIGN ASSESSMENT

This is to certify that a representative of this Bureau did, at the request of
WARREN RUPP, 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: **Pump, Natural Gas Powered Diaphragm**

Model: **Sandpiper Models: G05(1/2"), G1F (1"), G10F (1"), G15(1-1/2"), G20F(2"), G20(2"), G30 (3")**

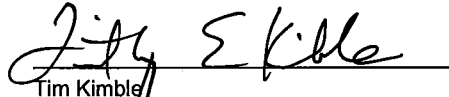
This Product Design Assessment (PDA) Certificate 14-HS1253379-1-PDA, dated 18/Aug/2015 remains valid until 04/Jan/2020 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

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


Tim Kimble
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).

WARREN RUPP

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P.O. BOX 1568

MANSFIELD OH

United States 44901

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Web: warrenrupp.com

Tier: 3 - Type Approved, unit certification not required

Product: Pump, Natural Gas Powered Diaphragm

Model: Sandpiper Models: G05(1/2"), G1F (1"), G10F (1"), G15(1-1/2"), G20F(2"), G20(2"), G30 (3")

Intended Service:

Marine & Offshore Applications - Sanitary System, Seawater and General Purpose Non-Essential Applications, & Bilge Application as a Secondary Non-Required Pump.

Description:

G Series Natural Gas Operated Horizontal Mounted Double Diaphragm Pump.

Rating:

Maximum Operating Pressure G Series Models: 100 psi (7 barg);

Operating Temperature Range: -10°F to 180°F;

Capacity:

G05 (0-15 GMP);

G1F (0-45 GPM).

G10F (0-70 GPM).

G15 (0-106 GPM).

G20 (0-150 GPM).

G20F (0-140 GPM).

G30 (0-235 GPM).

Consult Manufacturer's Service and Operating Manuals for performance curves.

Service Restriction:

Unit Certification is not required for this product. If the manufacturer or purchase request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

i) Pumps used for Bilge and Ballast System are to be Self Priming type or connected to a Priming System as indicated in Steel Vessels Rules 4-6-4/5.5.2 c)

ii) These Pumps are not to be used for pumping Fluids with a Flash Point of less than 100 °F (30 °C).

iii) Each installation is to be reviewed by ABS Technical Office.

Comments:

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

i) Manufacturer recommendations are to be followed for pumping hazardous liquids and piping of gas exhaust/muffler (see Service and Operating Manual).

ii) This approval does not include the Flexible Conductive Connections or Pipe Connections of the Pumps.

iii) These Pumps are not approved for essential service or Bilge service as listed in Steel Vessels Rules 4-6-1/7.3.1

Notes/Drawing/Documentation:

Drawing No. 020.058.000, Natural Gas Regulator with Gauge, Revision A.

Document No. g05mdl1sm Rev. 0614, Service and Operating Manual for G05.

Document No. g1fmd1sm Rev. 0614, Service and Operating Manual for G1F.

Document No. g15mdl1sm Rev. 0614, Service and Operating Manual for G15.

Document No. g20mdl1sm Rev. 0614, Service and Operating Manual for G20.

Document No. g30mdl1sm Rev. 0614, Service and Operating Manual for G30.

CSA Certificate of Compliance, CSA Certificate No. 1392353 (Project 2609590) dated 5 April 2013.

Canadian Technical Information Letter No. R-14 dated 6 June 2003, Certification and Testing Division, Natural Gas Operated Diaphragm Pumps.

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EC Declaration of Conformity, ATEX Summary of Markings dated 27 May 2010; 14 & 27 May 2014
Complies with ATEX Directive 94/9/EC and EC Directive 2006/42/EC in accordance with Annex VIII.
Warren Rupp, Inc. Hydrostatic Pressure Test Certifications dated 3 Feb. 2012 for pump models: G05, G1F, G15, G20, G30;
Technical Documentation for Models G10F and G20F.
Drawing Package No. G10F Certificate 210481-1392353 Project 70030875.
Drawing Package No. G20F Certificate 210481-1392553, Project 70013128.

Terms of Validity:

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STANDARDS

ABS Rules:

The Rules for Condition of Classification, Part 1, 2015 Steel Vessels Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:

Steel Vessel (2015): 4-6-1/7.3.1, 7.5.3 iii).

Steel Vessels Under 90 Meters (295 Feet) in Length (2015); 4-4-2/1.1.

Offshore Support Vessels (2015): 4-6-1/7.3.1.

High-Speed Craft (2015): 1-1-4/11.9, 4-4-2/1.1

The Rules for Condition of Classification, Part 1, 2015 Offshore Units and structures 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:

Mobile Offshore Drilling Units (2015): 4-2-2/3, 6-1-6/7.3.2.

National:

ANSI LC 6-2008, 1st Ed Natural Gas Operated Diaphragm Pumps

International:

EN809:1998+A1:2009, EN13463-1:2001 & 2009, EN12463-5:2003 & 2001;

Government:

NA

EUMED:

NA

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OTHERS:
NA