



Work Order: 4819696-A
 First Visit Date: 15-Jun-2021
 Last Visit Date: 18-Jun-2021
 Survey Location: Piracicaba, SP, Brazil

Equipment Certification Report

Asset Type Pump
Customer Name EB INDUSTRIA E COMERCIO DE BOMBAS E FUNDIDOS EIRELI
WCN of Customer 469354
Location Piracicaba, SP, Brazil

This is to certify that the undersigned Surveyors to this Bureau did at the request of EB INDUSTRIA E COMERCIO DE BOMBAS E FUNDIDOS EIRELI, from 15-Jun-2021 to 18-Jun-2021, carry out the following survey and report as follows:

Client Asset Name Quantity

Vertical Fire Pump 1

Name Plate Data

ABS Label	Manufacturer	Purchaser	Designer	Destination Vessel
Vertical Fire Pump	EB INDUSTRIA E COMERCIO DE BOMBAS E FUNDIDOS EIRELI	-	EB INDUSTRIA E COMERCIO DE BOMBAS E FUNDIDOS EIRELI	PLATAFORMA [REDACTED]

Basic Identification Data

Serial Number	Model Number	Owner Tag Number	Supplier Ref. Number
OP-5109	18DEB/3 + 1	[REDACTED]	-

Report Details

ABS Stamping Maltese Cross
 4819696 Yes

Design Details

Design state	Drawing Number	Rule Set Name	Rule Set Version
Design Review Not Required	101-005-0001 Rev.1	Rules for Building and Classing Mobile Offshore Units	2021

Additional Data

Driving Fluid Sea Water
Pressure Head 115 m
Pump Capacity 700 Cu m/hr
Pump Type Centrifugal
Rated Speed 1720 rpm

Statement of Work - Classification Service - Certification -

- Asbestos-free declaration verified and supporting documentation reviewed.
- Subject to satisfactory installation, testing and trials after installation onboard the vessel.
- The principal data has been verified in accordance with the applicable Rules/specifications and applicable approved plans, and confirmed to be within acceptable tolerances.
- All testing (pressure/load/operational/etc.) has been carried out as applicable and verified in accordance with the applicable Rules/specifications.

Report Findings

Statement/Observation

<i>Finding No</i>	<i>Asset</i>	<i>Survey Task</i>	<i>Date Created</i>
2.0	-	Certification - Vertical Fire Pump	18-Jun-2021

Found

Equipment Description

One (01) Vertical Fire Pump as per above referenced manufacturer's drawing and design parameters indicated below:

- Pump Capacity: 700 m³/h
- Pressure Head: 115 m
- Rated Speed: 1720 RPM
- Design Pressure: 16.5 kgf/cm²
- Hydrostatic Test Pressure: 25 kgf/cm²
- Driving Fluid: Sea Water

Survey Summary

The following tests were witnessed and found satisfactory in accordance with ABS Rules:

- Hydrostatic test
- Capacity test: carried out as per manufacturer's test procedure no. IT-101 Rev.02 including verification of pump characteristic (head-capacity) design curve

ABS Stamping

Applied on the following locations:

1. Pump's nameplate containing tag and serial number
 2. Pump's upper gearbox flange, near the permanent marking indicating manufacturer's name, the model number of the pump, and its capacity
 3. Pump's lower head flange, near the permanent marking indicating manufacturer's name, the model number of the pump, and its capacity
- In addition, the ABS "AB" marking was applied on the other pressurized components that were subjected to the hydrostatic test.

Closing Paragraph:

The component/equipment was surveyed in accordance with the Rules, specifications, and approved drawings, as applicable, and is eligible for installation on board an ABS classed vessel subject to satisfactory installation and testing, as necessary.

Attending Surveyor(s):

Da Silva, Joao Renato
Signed-off Date: 18-Jun-2021

Reviewing Surveyor(s)

Work Order Reviewer: Akamatsu, Felipe Shinji (Felipe Akamatsu)
Work Order Credit Date: 20-Jun-2021