

CERTIFICATE NUMBER 12-PR861775-PDA

DATE

13 March 2012

ABS TECHNICAL OFFICE Piraeus Engineering Department

## CERTIFICATE OF

# **DESIGN ASSESSMENT**

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

### POLIMER KAUCUK SAN. VE PAZ A.S. (SEL HOSES) -TEKIRDAG

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: Flexible Hose

MODEL: HWB313 (EN 853, type 1SN), HWB323 (EN853, type 2SN), HWB315 (EN857, type 1SC), HWB325 (EN 857, type 2SC), HWB2N/K32S (type 2SN-K), PS-4SP391 (EN 856, type 4SP), PS-4SH392 (EN 856, type 4SH), PS-R13/397 (EN 856, type R13), PS-R15/398 (SAE J517, type SAE 100 R15), with "VOLZ" couplings

This Product Design Assessment (PDA) Certificate 12-PR861775-PDA, dated 13/Mar/2012 remains valid until 12/Mar/2017 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

Ion G. Koumbarelis

Engineer

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MA Certificate No. 09-IS1655579-X

**Product:** Flexible Hose

Model: HWB313 (EN 853, type 1SN), HWB323 (EN853, type 2SN), HWB315 (EN857, type 1SC),

HWB325 (EN 857, type 2SC), HWB2N/K32S (type 2SN-K), PS-4SP391 (EN 856, type 4SP), PS-4SH392 (EN 856, type 4SH), PS-R13/397 (EN 856, type R13), PS-R15/398 (SAE

J517, type SAE 100 R15), with "VOLZ" couplings

#### **Intended Service:**

Hydraulic Fluids in accordance with ISO 6743-4 with the exception of HFDR, HFDS and HFDT at temperatures ranging from -40 deg C to +100 deg C, water based fluids at temperatures ranging from -40 deg C to +70 deg C, water at temperatures ranging from 0 deg C to +70 deg C. Maximum operating temperatures higher than the above may reduce the life of the hose, however they should not exceed those used in the impulse tests (100 deg.C, 120 deg C or 135 deg C, as applicable - please refer to the Attachment to the PDA certificate).

#### **Description:**

Non metallic flexible hoses with permanently attached "VOLZ" couplings. Made of oil and water resistant synthetic rubber lining, layer(s) of steel wire and oil and weather resistant rubber cover.

#### **Ratings**:

Sizes, max. working pressures, temperatures and types of end fittings as per the attachment to the PDA certificate.

#### **Service Restrictions:**

Unit Certification is not required for this product.

#### **Comments:**

The hoses are to be permanently marked by the manufacturer with the following details: Hose manufacturer's name or trademark; Date of manufacture (month/year); Designation type reference; Nominal diameter; Pressure rating; Temperature rating.

The application of the hoses and end fitting types is to be approved together with the relevant system and installation.

#### **Notes / Drawings / Documentation:**

This Product Design Assessment (PDA) is valid only for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product.

#### Term of Validity:

This Product Design Assessment (PDA) Certificate 12-PR861775-PDA, dated 13/Mar/2012 remains valid until 12/Mar/2017 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.

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#### **STANDARDS**

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#### ADS Kules:

The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product. The Rules applicable to this assessment are: 2012 Steel Vessels Rules, 1-1-4/7.7, 4-6-2/5.7.3, 4-6-2/5.7.5, 4-6-2/5.7.6, 4-6-7/3.5.2.

#### **National:**

NA

#### **International:**

EN 853:1997, EN 856:1997, EN 857:1997, SAE J517, ISO 6802:2005, ISO 15540:1999.

#### **Government Authority:**

NA

#### **EUMED:**

NA

#### Others:

NA