



TYPE APPROVAL CERTIFICATE

Certificate No. : LDN31041-HS001 **Initial Approval** : 11th December, 2013

Product : Flexible Composite Cargo Hose

Manufacturer : Dantec Limited
Tarran Way, Moreton, Wirral. CH46 4TL. United Kingdom

Product Description : Composite hose with permanently fitted flanges

Type : Danchem SS & Danflon SS

" see appendix 1 "

Approval Condition : Individual Product Certification is required.

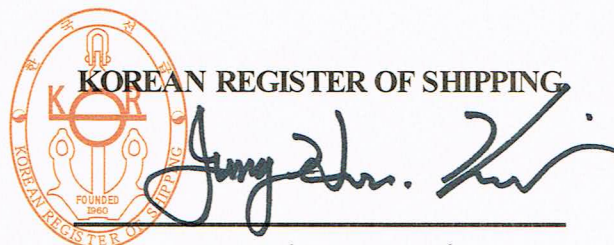
" See Appendix 1 "

THIS IS TO CERTIFY that the above-mentioned product has been approved in accordance with the relevant requirement of this Society's Rules and / or of the recognized standards as follows and entered in the "List of Approved Manufacturers and Type Approved Equipment".

Pt. 7, Ch. 6, Art. 507 of the Rules for Classification, Steel Ships, Paragraph 5.7 of IMO Res.MSC102(73) & Paragraph 2.12 of IMO Res.MSC.106(73).

This Certificate is valid until 12th December, 2023

Issued at Busan, Korea on 18th December, 2018



General Manager of
Marine & Ocean Equipment Team

- Note :*
1. This certificate will be valid subject to complying with the approval conditions described on the certificate and/or on the Rules of this Society.
 2. This certificate will be invalid from the expiry date aforementioned unless the extension or renewal has been granted to the applicant or the manufacturer.
 3. Any significant modifications or changes in design or construction to the above product without approval from this Society will render this certificate invalid.
 4. Should the specified rules, regulations or standards be amended during the validity of this certificate, the product is to be re-approved by this Society in accordance with the requirements as amended.

Appendix 1

Product Description and/or Approval Condition

Certificate No : LDN31041-HS001

Date of Issue : 18th December, 2018

1. Product Description

- 1) Type : Danchem SS and Danflon SS
 - (1) Working Temperature(°C) : -30 ~ +100
 - (2) Max. working pressure(bar) : 14
 - (3) Hose Length(m) : 4.5 ~ 20
 - (4) Hose Bore(mm) : 25 ~ 250
 - (5) Material
 - Internal & outer helix material : 316 stainless steel/Galvanized mild steel /Carbon Mild steel
 - Internal thermoplastic layer : Polypropylene/Nylon/ECTFE
 - Outer thermoplastic cover : Polypropylene/Nylon/Polyester
 - End flanges : ASA 300, ASA 150
 - (6) Intended for
 - Danchem SS : Liquid chemicals, vegetable and mineral oils
 - Danflon SS : Aggressive acids
 - (7) Document No. : TS12-L1438-R-02

2. Approval Condition :

- 1) Before being placed in service, each new length of cargo hose produced should be hydrostatically tested at ambient temperature to a pressure not less than 1.5 times its specified maximum working pressure but not more than two fifths(2/5) of its bursting pressure.
- 2) Hoses used for cargo transfer should be compatible with the cargo and suitable for the cargo temperature.
- 3) Hoses should be mounted in accordance with the manufacturer's instructions.
- 4) Hoses should be marked with the following items.
 - Name of Manufacturer, Date of Manufacture and Type of Product
 - Maximum Working Pressure
 - Maximum and Minimum Service Temperature
 - Date of Hydrostatic Test
- 5) This approval is granted only on the basis of the test reports Nos. 2009-01-26, 2009-01-30, 2009-02-02, 2009-02-03 issued by Manufacturer.

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