



Lloyd's
Register

Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

This certificate supersedes certificate number 03/20028 (E3) issued on 28.06.2013 which is hereby cancelled.

This certificate is issued to:

PRODUCER

REIFLEXA P. Reischl GmbH
Am Knick 5
22113 Oststeinbek
Germany

DESCRIPTION

Rubber expansion joint consisting of:
Tube : NBR (nitrile), seamless, electrically conductive
Reinforcement : galvanised steel wire cord, CR rubberised
Cover : Chloroprene CR
Flanges : carbon steel, zinc plated and yellow chromated

TYPE

GS (Yellow Steel)

APPLICATION

- + Oil fuel, lubricating oil and other flammable liquids
- + Sea* - and fresh water cooling lines
- + Ballast lines in machinery spaces and duct keels
- + Bilge lines in duct keels only
- + Cargo lines for MDO and lubricating oil carrier
- + Cargo lines inside cargo oil tanks of oil tankers
- + All other non-essential pipe lines

Certificate No. 03/20028 (E4)

Issue Date 03 April 2018

Expiry Date 06 March 2023

Sheet 1 of 2

Lloyd's Register EMEA
71 Fenchurch Street, London EC3M 4BS



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LR031.1.2016.06

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APPLICATION, cont. *Where fitted in sea water lines in machinery compartments, guards are to be provided which will effectively enclose, but not interfere with the action of the expansion joint and which will reduce to the minimum practicable any flow of water in the event of failure of the flexible element.
 The expansion joints are to be installed in well visible and accessible locations and protected against over extension and compression and against mechanical damage. The adjoining pipes are to be suitably aligned, supported, guided and anchored.
 The producer's instructions and recommendations are to be considered.

TESTS Fire test according to ISO 15540
 Hydraulic-pressure impulse test similar to ISO 6803
 Burst pressure test according to Lloyd's Register Rules

STANDARD Lloyd's Register Rules and Regulations for the Classification of Ships, Edit. 2017

RATINGS MAWP: 16 bar at max. service temperature of 60°C, DN 25 to DN 400
 MAWP: 10 bar at max. service temperature of 100°C, DN 25 to DN 600

Restrictions for oil fuel, lubrication oil and other flammable liquids
 MAWP: 10 bar at max. service temperature of 90°C, DN 25 to DN 250

The Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations.

If the specified standards are amended during the validity of this certificate, the product is to be re-approved prior to it being supplied to vessels to which the amended standards apply.

The Design Appraisal Document No. HMD 10046-03, issue no. 4 dated 03.04.2018 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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