Certificate No: LR23402453TA
Issue Date: 29/11/2023
Expiry Date: 28/11/2028

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.

Manufacturer **Witzenmann GmbH**

Address Oestliche Karl-Friedrich-Str. 134, Pforzheim, 75175, Germany

Type Metal Expansion Joint

Description Multi layered stainless steel (1.4741) expansion joint, consisting of two chambers. Outer chamber is depressurized

Trade Name CFZ 10.0100.030.0

Application To be used in fuel gas supply lines on dual fuel engines or gas engines where flexibility in axial and lateral direction is required

Specified Standard Lloyd's Register Rules and Regulations for the Classification of Ships, 2023 and EJMA, 10th Edition

Ratings

Nominal Diameter [mm]	Design Pressure [bar]	Design Temp. [°C]	Life Cycles [-]	Axial Movement [mm]	Lateral Movement [mm]
DN100	10	80	1000		± 3.0
			1000000		± 0.5

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Olaf Schmidt

Engineering - Power Generation - Lead Specialist to Lloyd's Register EMEA
A member of the Lloyd's Register group

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This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

The Design Appraisal Document HPC 2361014, Issue No. 0 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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