Certificate No: LR2552243TA
Issue Date: 14/04/2025
Expiry Date: 13/04/2030

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	**WuXi YanQiao Bellow Factory**
Address	#586-6, Chunhui Road, Huishan Development Zone, Wuxi, Jiangsu Province, China
Place of Production	WuXi YanQiao Bellow Factory #586-6, Chunhui Road, Huishan Development Zone, Wuxi, Jiangsu Province, China
Type	Expansion Joints
Description	Metallic Bellows Type Expansion Joints GB/T12522-96 Series (unreinforced): - A Type, AS Type and BS Type CB1153-93 Series (2 or 3 Plies, unreinforced): - A Type, B Type, AS Type and BS Type
Trade Name	Yanqiao Bellow
Application	Marine Piping Systems: • Exhaust gas piping systems (GB/T12522-1996 Series) • Fresh water (CB1153-1993 Series) • Steam pressure piping systems (CB1153-1993 B & BS Types only) • Oil piping systems (CB1153-1993 B & BS Types only)

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Specified Standard

Lloyd's Register Rules and Regulations for the Classification of Ships, July 2024.
Standards of the Expansion Joint Manufacturers Association, Inc.: 7th Edition 1998.

Ratings

GB/T12522-96 Series:
Nominal Pipe Diameter (mm): 65-2000;
Design Pressure (MPa): 0.05 & 0.1

CB1153-93 Series:
Nominal Pipe Diameter (mm): 50-500
Design Pressure (MPa): 0.4, 0.6, 1.0 & 1.6

Other Conditions

Where the expansion joints are intended to be installed onboard ships, classed or intended to be classed with Lloyd's Register, the following conditions are applicable :

1. CB1153-93 Series expansion joints:
- For the CB1153-93 B & BS Types, an adequate root gap is to be provided for the welding of the bellows to the protection pipe so as to ensure full penetration of welds.
- Where expansion joints are used in Class I and Class II piping system and steam pressure and oil fuel piping systems having a design pressure of more than 0.35 MPa (3.6 kgf/cm2), the joints are to be examined, tested by hydraulic pressure and installed on board, to the attending Surveyor's satisfaction.
- Welding and non-destructive testing are to be in accordance with Part 5, Chapter 17 of the Rules, to the attending Surveyor's satisfaction.
- The dimensions and materials of flanges, gaskets and bolting, and the pressure-temperature rating of the bolted flanges in pressure pipelines, in accordance with national or other established standards.

2. Expansion joints are to be protected against overextension and

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compression. The adjoining pipes are to be suitably aligned, supported, guided and anchored. Where necessary, expansion bellows are to be protected against mechanical damage.

3. Expansion joints are to be installed according to manufacturer's instructions and to the attending surveyor's satisfaction.

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.

Previous Version: LR2004628TA

The Design Appraisal Document LR2552243TA and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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