Certificate No: LR24116303TA
Issue Date: 06/11/2024
Expiry Date: 05/11/2029

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 **Japan AMC Ltd.**

Address 13-8,Ichinami-cho, Fukui-shi, 910-2222, Japan

Type Compression Fittings

Description Bite type tube fittings for steel pipe and copper pipe

Trade Name LLA, LLM for steel tubes & LLC for copper pipe

Application High pressure tube connections for use in marine, offshore and industrial piping systems with lubricating oil, hydraulic oil, air, fresh water, sea water, steam and fuel oil.

Specified Standard Lloyd's Register (LR) Rules and Regulations for the Classification of Ships, Part 5, Chapter 12, July 2024
IACS UR P2 "Rules for Piping Design, Construction and Testing", Rev.2 Nov. 2001

Ratings

LLA

Nominal dia.	Design press. (MPa)	Design temp. (°C)
6 to 35 mm	25.0	-30 to 300
1/8B to 1B inch	25.0	-30 to 300
1-1/4B inch	20.6	-30 to 300

LLM

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Yasushi Sawada

Engineering - Machinery - Lead Specialist to
Lloyd's Register Group Limited
A member of the Lloyd's Register group

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

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	Nominal dia.	Design press. (MPa)	Design temp. (°C)
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	1/8B to 1B inch	25.0	-30 to 300
	1-1/4B inch	20.6	-30 to 300

LLC

	Nominal dia.	Design press. (MPa)	Design temp. (°C)
	4 to 16 mm	16.0	-30 to 200
	18 to 25 mm	10.0	-30 to 200
	28 to 30 mm	6.3	-30 to 200

Additional Tests

Representative samples of joints have been tested in accordance with the requirements as specified in IACS UR, P2.11, Rev.2 Corr.1 Apr. 2007.
The following tests have been carried out:-

1) Tightness test
2) Vibration test
3) Pressure pulsation test
4) Burst pressure test
5) Pull-out test
6) Vacuum test
7) Repeated assembly test

Other Conditions

1. The fittings are to be installed in accordance with the manufacturer's instructions.
2. Attention is drawn to Section 1.3.6 of IMOMSC.1/Circ.1321 – Guidelines for Measures to prevent Fires in Engine-Rooms and Cargo Pump-Rooms which describes that compression couplings require careful attention to tightening procedures and torques to avoid leaks or damage to the pipe when subjected to over-tightening and they should not be used in the fuel supply line of the (oil engine) injection pumps and spill system.

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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 Group Limited of any modification or changes to the equipment in order to obtain a valid Certificate.

Previous Version: LR2001639TA

The Design Appraisal Document LR24116303TA and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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