Certificate No: LR2550755TA
Issue Date: 07/01/2023
Expiry Date: 06/01/2028

# 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** | **Ihara Science Corporation** |
| **Address** | 10424 Arama, Tsukechi-cho, Nakatsugawa-City, Gifu, 508-0351, Japan |
| **Place of Production** | Ihara Science Corporation<br>10424 Arama, Tsukechi-cho, Nakatsugawa-City, Gifu, 508-0351, Japan |
| **Type** | Mechanical Pipe Joints |
| **Description** | Bite Type Tube Fittings for Copper Tube |
| **Trade Name** | B Series Bite Type Tube Fittings |
| **Application** | High pressure tube connections for use in marine, offshore and industrial piping systems with hydraulic oil, fuel oil, water and steam. |
| **Specified Standard** | Lloyd's Register Rules and Regulations for Classification of Ships Part 5, Chapter 12, July 2024<br>IACS UR P2 "Rules for piping design, construction and testing" |
| **Ratings** | Nominal diameter (A) : 4mm ~ 25 mm<br>Material : Body (C3604), Nut (C2600 or C3711), Sleeve (C3604) for KU, KC, KLN, KTR, KSU & KSP Type<br>Body (S25C(SGD4K)), Nut (C2600 or C3711), Sleeve (C3604) for S-70414 & T-17055 Type |

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**Tatsuya Imai**

Engineering Piping/Decarbon - 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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# Type Approval Certificate

Body (SUS 316L), Nut (C2600or C3711), Sleeve (C3604)
for T-66692 & T-71932 Type
Design Pressure : 14.0 MPa (for Nominal dia.(A): 4mm ~ 16mm)
10.5 MPa (for Nominal dia.(A): 18mm ~ 25mm)
Design temperature : - 196°C ~ 200 °C

**Other Conditions**

1) The fittings are to be installed in accordance with the manufacturer's instructions.
2) Attention is drawn to Section 3.6 of IMO MSC/Circular.851– Guidelines on Engine–Room Oil Fuel Systems which describes that compression couplings require careful attention to tightening procedures and torques to avoid leaks or damage to the pipe when subjected to overtightening and they should not be used in the fuel supply line of the (oil engine) injection pumps and spill system.
3) The fittings cannot be used as fire resistant type as required by IACS UR P2.7.4.5 and Table 7.
4) Where intended to be installed on a ship classed with LR, the union joints are to be made, installed and tested in accordance with Part 5, Chapter 12 of the Rules and to the attending Surveyor's satisfaction. It is advised that the manufacture's material certificate is acceptable in accordance with Part 5, Chapter 12, Section 1.7.2.
5) The requirements for fitting in class I & II pressure piping systems are to be complied with where applicable. (see Part 5, Chapter 12 of the Rules)
6) The valid report of the audit assessment of the Production Quality Assurance system (PQA) is to be retained.

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:** LR21413804TA

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# Type Approval Certificate

The Design Appraisal Document LR2550755TA and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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