

Type Approval Certificate

This is to certify that the undernoted product has been tested with satisfactory results in accordance with the relevant requirements of the LR Type Approval System.

This certificate is issued to:

PRODUCER	BMT Co., Ltd
PLACE OF PRODUCTION	#35 Sanmakgongdannam 11-gil, Yangsan-si, Gyeongsangnam-do, 626-110 Korea
DESCRIPTION	Bite type compression tube fittings for stainless
TYPE	SUPERLOK Bite Type fitting (JIS B2351)
APPLICATION	High pressure tube connections for use in marine, offshore and industrial piping systems with hydraulic systems fluids, fuel oil, lubricating oil, fresh water, salt water, sanitary, gas, steam and condensate
STANDARD	Lloyd's Register Rules and Regulations for Classification of Ships, Part 5, Chapter 12, Section 5, July 2014 IACS UR P2.11

RATING Nominal Pipe Diameter (mm): 4 mm to 50 mm

Tube O.D (mm)	Normal pressure ratings (kg/cm ²)
	Stainless steel
4-15	500
16-22	400
25-28	350
30-38	250
40-50	210

Temperature : see the producer's catalogue

Certificate No.	15/40079
Issue Date	28 May 2015
Expiry Date	27 May 2020
Sheet	1 of 2



LR031.1.2013.12

Busan Technical Support Office

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Lloyd's Register Group Asia,
10/F, CJ Korea Express Bldg., 119, Daegyo-ro, Jung-gu, Busan, Republic of Korea

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PERFORMANCE TEST	1) Tightness test
	2) Bursting test
	3) Repeated assembly test
	4) Pull-out test
	5) Impulse and vibration test

OTHER CONDITIONS	Where the tube fittings are intended to be installed on a ship classed with LR, the following conditions of acceptance will be applicable:-
	<ol style="list-style-type: none"> 1) The fittings are to be installed in accordance with the manufacture's instruction. 2) Attention is drawn to Section 1.3.6 of IMO MSC/Circ. 1321- Guidelines for Measures to prevent Fires in Engine-Rooms and Cargo Pump-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.

"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 Asia of any modification or changes to the equipment in order to obtain a valid certificate."

The Design Appraisal Document No. 15/40079 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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Marine Design Appraisal Document

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Date
28 May 2015

Please quote the document number on all future communications

THE LR TYPE APPROVAL SYSTEM, 2002.
Issued to: **BMT Co., Ltd.**
for: **SUPERLOK and Bite Type (JIS B 2351) Compression Tube Fittings**
TYPE APPROVAL CERTIFICATE No. 15/40079

The undernoted documents have been reviewed for compliance with the requirements of the LR Type Approval System, 2002 and this Design Appraisal Document forms part of the Certificate.

APPROVAL DOCUMENTATION

Request for Marine Services Form 2502 dated 28 May 2013
Application for Type approval Form LR2571 dated 13 June 2013
Catalogue of SUPERLOK Tube Fittings for JIS

DESIGN DRAWINGS

Document No.	Rev.	Title	Date
120815-01-120-01	B	BU SEIES / UNION	28-May-2015
120815-01-120-02	B	BU SEIES / ELBOW	28-May-2015
120815-01-120-03	B	BU SEIES / UNION TEE	28-May-2015
120815-01-120-04	B	BMC-R / MALE CONNECTOR	28-May-2015
120815-01-120-05	B	BMC-R / MALE ELBOW	28-May-2015
120815-01-120-06	B	BFC SEIRES / FEMALE CONNECTOR	28-May-2015
120815-01-120-07	B	BFE SEIRES / FEMALE ELBOW	28-May-2015
120815-01-120-08	B	BC SEIRES / CAP	28-May-2015
120815-01-120-09	B	BWC SEIRES / WELDING CONNECTOR	28-May-2015
120815-01-120-10	B	BA-R SEIRES / ADAPER	28-May-2015
120815-01-120-11	B	BAE SEIRES / ADJUST ELBOW	28-May-2015

FINAL ACCEPTANCE OF ACTUAL ITEM(S) DEPEND(S) ON SATISFACTORY SURVEY AND TESTING

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TEST REPORTS

Firm's Type Approval Test Reports for "Repeated assembly & tightness test" witnessed by LR Surveyor in Busan Port Office. (14 January 2015)

Firm's Type Approval Test Reports for "Bursting test" witnessed by LR Surveyor in Busan Port Office. (14 January 2015)

Firm's Type Approval Test Reports for "Pull out test" witnessed by LR Surveyor in Busan Port Office. (14 January 2015)

Firm's Type Approval Test Reports for "Vibration & Pressure Pulsation test" witnessed by LR Surveyor in Busan Port Office. (02 March 2015)

LR Busan Port e-mail confirmation with "Inspection and Surveillance of Production Facilities" dated 07 November 2014.

Supplementary Type Approval Terms and Conditions

Type Approval certifies that a representative sample of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein. It does not mean or imply approval for any other use, nor approval of any product(s) designed or manufactured otherwise than in strict conformity with the said representative sample.

Type Approval is based on the understanding that the manufacturer's recommendations and instructions and any relevant requirements of the Rules and Regulations are complied with.

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

Lloyd's Register Asia reserves the right to cancel or withdraw this Type Approval Certificate in accordance with the LR Type Approval System Procedure.



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