

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	DK-LOK CORPORATION				
Address	7, Golden root-ro 129beon-gil,, Juchon-myeon, Gimhae-si, Gyeongnam, 50969, Republic of Korea				
Type	Compression Fittings				
Description	Stainless steel double ferrule compression type tube fittings, inch and metric sizes				
Trade Name	DK-LOK Tube Fitting				
Application	High pressure tube connections for use in marine, offshore and industrial piping systems with hydraulic system fluids, fuel oil, lubricating oil, fresh water, salt water, sanitary, gas, steam and condensate.				
Specified Standard	Lloyd's Register's Rules and Regulations for the Classification of Ships, Part 5, Chapter 12 – July 2020 JISB 2351 – 1990: 25 MPa bite type tube fittings for hydraulic use				
Ratings	<table><tr><td>Imperial Tubing:- <u>Tube O.D. (inch)</u></td><td><u>Nominal pressure ratings (psi)</u></td></tr><tr><td>1/8</td><td>8,500 to 10,900</td></tr></table>	Imperial Tubing:- <u>Tube O.D. (inch)</u>	<u>Nominal pressure ratings (psi)</u>	1/8	8,500 to 10,900
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1/8	8,500 to 10,900				

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3/16	5,400 to 10,200
1/4	4,000 to 10,200
5/16	4,000 to 8,000
3/8	3,300 to 6,500
1/2	2,400 to 6,200
5/8	2,900 to 6,000
3/4	2,400 to 5,800
7/8	2,000 to 4,700
1	2,400 to 4,700
1-1/4	2,400 to 4,900
1-1/2	2,400 to 4,900
2	2,000 to 3,600

<u>Metric Tubing:- Tube O.D(mm)</u>	<u>Nominal pressure ratings (psi)</u>
3	10,800 to 15,300
4	7,900 to 14,400
6	5,000 to 12,700
8	4,700 to 9,300
10	3,700 to 7,300
12	3,000 to 7,300
16	2,500 to 6,800
18	2,800 to 6,700
20	2,500 to 6,000
22	2,300 to 5,400
25	2,000 to 5,200
28	2,600 to 4,800
32	2,300 to 4,800
38	2,000 to 4,500

Pressure-temperature ratings : see the producer's catalogue

Other Conditions

- 1) The fittings are to be installed in accordance with the manufacturer's instructions.

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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 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 LR21287882TA and its supplementary Type Approval Terms and Conditions form part of this Certificate.