



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	Hy-lok Corporation														
Address	97 Noksansandan 27-Ro Gangseo-Gu, Busan, 46751, Republic of Korea														
Type	Tube Fittings														
Description	Stainless steel and brass double ferrule compression type tube fittings, inch and metric sizes														
Trade Name	Hy-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, Chapters 12, July 2021														
Ratings	<p>Stainless steel tube fittings for stainless steel fractional / metric tubing:</p> <table border="0"> <thead> <tr> <th style="text-align: left;">Tube O.D (inch/mm)</th> <th style="text-align: left;">Nominal Pressure Rating (bar)</th> </tr> </thead> <tbody> <tr> <td>1/16" - 1/8"</td> <td>760</td> </tr> <tr> <td>3/16"</td> <td>500</td> </tr> <tr> <td>1/4" - 5/8"</td> <td>360</td> </tr> <tr> <td>3/4" - 7/8"</td> <td>300</td> </tr> <tr> <td>1" - 1-1/2"</td> <td>280</td> </tr> <tr> <td>2"</td> <td>250</td> </tr> </tbody> </table>	Tube O.D (inch/mm)	Nominal Pressure Rating (bar)	1/16" - 1/8"	760	3/16"	500	1/4" - 5/8"	360	3/4" - 7/8"	300	1" - 1-1/2"	280	2"	250
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3 mm	760
4 mm	500
6 - 16 mm	360
18 - 22 mm	300
25 - 38 mm	280

Brass tube fittings for copper fractional / metric tubing:

<u>Tube O.D (inch/mm)</u>	<u>Nominal Pressure Rating (bar)</u>
1/16" - 3/4"	150
7/8" - 1"	105
3 - 22" mm	150
25 mm	105

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 are to be used for permanent pipe connection only.

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.

Previous Version: 16/40081(E3)

The Design Appraisal Document LR2294644TA and its supplementary Type Approval Terms and Conditions form part of this Certificate.

