

Type Approval Certificate Extension

This is to certify that Certificate No. 01/10075(E1) for the undernoted products is extended and renumbered as shown.

This certificate is issued to:

PRODUCER	Hy-Lok Corporation																								
PLACE OF PRODUCTION	1467-1, Songjeong-dong, Gangseo-gu, Busan, 618-817 Korea																								
DESCRIPTION	Stainless steel and brass double ferrule compression type tube fittings, inch and metric sizes																								
TYPE	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.																								
DESIGN CODE	Lloyd's Register's Rules and Regulations for the Classification of Ships, Part 5, Chapter 12 – July 2011																								
RATINGS	<p>Stainless steel tube fittings for stainless steel fractional/metric tubing:</p> <table border="0"> <thead> <tr> <th><u>Tube O.D. (inch/mm)</u></th> <th><u>Nominal pressure ratings (bar)</u></th> </tr> </thead> <tbody> <tr> <td>1/16" to 1/8"</td> <td>760</td> </tr> <tr> <td>3/16"</td> <td>500</td> </tr> <tr> <td>1/4" to 5/8"</td> <td>360</td> </tr> <tr> <td>3/4" to 7/8"</td> <td>300</td> </tr> <tr> <td>1" to 1-1/2"</td> <td>280</td> </tr> <tr> <td>2"</td> <td>250</td> </tr> <tr> <td>3 (mm)</td> <td>760</td> </tr> <tr> <td>4 (mm)</td> <td>500</td> </tr> <tr> <td>6 to 16 (mm)</td> <td>360</td> </tr> <tr> <td>18 to 22 (mm)</td> <td>300</td> </tr> <tr> <td>25 to 38 (mm)</td> <td>280</td> </tr> </tbody> </table>	<u>Tube O.D. (inch/mm)</u>	<u>Nominal pressure ratings (bar)</u>	1/16" to 1/8"	760	3/16"	500	1/4" to 5/8"	360	3/4" to 7/8"	300	1" to 1-1/2"	280	2"	250	3 (mm)	760	4 (mm)	500	6 to 16 (mm)	360	18 to 22 (mm)	300	25 to 38 (mm)	280
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Certificate No.	01/10075(E2)																								
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Expiry Date	1 October 2016																								
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 N. Terashita
 Yokohama Design Support Office
 Lloyd's Register

Lloyd's Register, registered office:
 71 Fenchurch Street, London EC3M 4BS

RATING (continued)

Brass tube fittings for copper fractional/metric tubing:

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

Pressure-temperature ratings : see the producer's catalogue

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

The attached Design Appraisal Document No. 01/10075(E2) and its supplementary Type Approval Terms and Conditions form part of this Certificate.

All other details remain as the previous Certificate No. 01/10075(E1) to which this extension should be attached.

Certificate No. 01/10075(E2)
 Issue Date 2 October 2011
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 Sheet 2 of 2



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