

Type Approval Certificate Extension

This is to certify that Certificate No. 01/10076(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	Carbon steel, stainless steel and brass single sleeve compression type tube fittings																					
TYPE	Bite Type Tube Fitting for DIN 2353 - LL, L and S series																					
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	Carbon steel and stainless steel tube fittings: <table border="1"> <thead> <tr> <th>Series</th> <th>Tube O.D.(mm)</th> <th>Nominal pressure ratings (bar)</th> </tr> </thead> <tbody> <tr> <td>LL</td> <td>4 to 12</td> <td>100</td> </tr> <tr> <td>L</td> <td>6 to 18</td> <td>315</td> </tr> <tr> <td>L</td> <td>22 to 42</td> <td>160</td> </tr> <tr> <td>S</td> <td>6 to 14</td> <td>630</td> </tr> <tr> <td>S</td> <td>16 to 30</td> <td>400</td> </tr> <tr> <td>S</td> <td>38</td> <td>315</td> </tr> </tbody> </table>	Series	Tube O.D.(mm)	Nominal pressure ratings (bar)	LL	4 to 12	100	L	6 to 18	315	L	22 to 42	160	S	6 to 14	630	S	16 to 30	400	S	38	315
Series	Tube O.D.(mm)	Nominal pressure ratings (bar)																				
LL	4 to 12	100																				
L	6 to 18	315																				
L	22 to 42	160																				
S	6 to 14	630																				
S	16 to 30	400																				
S	38	315																				

Certificate No.	01/10076(E2)
Issue Date	2 October 2011
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:

<u>Series</u>	<u>Tube O.D.(mm)</u>	<u>Nominal pressure ratings (bar)</u>
LL	4- to 8	100
L	6 to 15	250
L	18 to 22	160
L	24 to 42	100
S	6 to 14	630
S	16 to 25	400
S	30 to 38	315

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.

"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. 01/10076(E2) and its supplementary Type Approval Terms and Conditions form part of this Certificate.

All other details remain as the previous Certificate No. 01/10076(E1) to which this extension should be attached.

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 Sheet 2 of 2



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