



## 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 Lloyd's Register Type Approval System.*

This certificate is issued to:

<b>PRODUCER</b>	Nord-Lock AB				
<b>ADDRESS</b>	Halabacken 180, SE-830 02 Mattmar, Sweden.				
<b>PRODUCT DESCRIPTION</b>	Locking Washer				
<b>PRODUCT TYPE</b>	NL3-NL130, NL3ss-NL80ss, NL3ss-NL39ss				
<b>APPLICATION</b>	Marine and Offshore Industries.				
<b>SPECIFIED STANDARD</b>	Lloyd's Register Rules and Regulation for the Classification of Offshore Units 2015				
<b>RATING</b>					
Application parameters	Steel washers	Stainless steel washers	254 SMO washers	Inconel Hastelloy C-276 washers	Inconel 718 washers
Steel type	EN 1.7182 or equivalent	EN 1.4404 or equivalent	EN 1.4547 or equivalent	EN 2.4819 or equivalent	EN 2.4667 or equivalent
Bolt sizes	M3-M130	M3-M80	M3-M39	M3-M39	M3-M39
Washer type	NL3-NL130	NL3ss-NL80ss	NL3ss-NL39ss	NL3ss-NL39ss	NL3ss-NL39ss
Washer hardness	≥ 465 HV1	≥ 520 HV0.05	≥ 600 HV0.05	≥ 520 HV0.05	≥ 620 HV0.05
Temperature range	- 20°C to 200 °C	- 160°C to 500 °C	-160°C to 500 °C	-160°C to 500 °C	-160°C to 700 °C

<b>Certificate No.</b>	15/90012
<b>Issue Date</b>	03 March 2016
<b>Expiry Date</b>	03 March 2021
<b>Sheet</b>	1 of 2

*Lloyd's Register EMEA  
Denburn House, 25 Union Terrace, Aberdeen, AB10 1NN, UK  
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#### LIMITATIONS OR OTHER CONDITIONS

1. The products are not fire proof tested.
2. If the specified standards are amended during the validity of this certificate, the product is to be re-approved prior to it being supplied to vessels to which the amended standards apply.
3. Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations.

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