

## APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No: AMMM00001Z1 Revision No: 1

This is to certify:

## That Wieland-Werke AG Graf-Arco-Straße 36 89079 Ulm, Germany

is an approved manufacturer of Wrought Copper and Copper Alloys

in accordance with DNV GL rules for classification – Ships

and the following particulars:

Application area Alloy type(s)	Copper and copper alloy tubes Phosphorus-deoxidised Copper, Copper-Nickel, Aluminium brass, Admiralty brass
Manufacturing method	Seamless
Max. outer diameter	70 mm
Max. wall thickness	See page 2
Heat treatment condition	See page 2

Manufacturer(s) approved by this certificate is/are accepted to deliver according to DNV GL, DNV and GL rules. Materials to be applied to DNV classed object shall fulfill the material requirements in the applicable DNV class rules.

Issued at Hamburg on 2021-05-11

Form code: AM 311

This Certificate is valid until **2023-12-31**. DNV local station: **Essen** 

Approval Engineer: Christian Wildhagen

for **DNV** 

Thorsten Lohmann Head of Section

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## Particulars of the approval

## Copper and copper alloy tubes

Steel type	Manufacturing method	Max. outer diameter [mm]	Max. wall thickness	Heat treatment condition
Phosphorus- deoxidised copper	- seamless	70	finned section max. 3 mm, unfinned section max. 8.5 mm	Acc. to applicable standard
Copper-Nickel				
Aluminium brass				
Admiralty brass				