

# APPROVAL OF MANUFACTURER CERTIFICATE

This is to certify:

That

**C.C. Jensen A/S**  
**Løvholmen 13**  
**Svendborg, Denmark**

is an approved manufacturer of  
**Copper Alloy Castings**

in accordance with  
**DNV GL rules for classification – Ships**

and the following particulars:

<b>Alloy type(s)</b>	<b>Cast copper alloys including propeller and propeller parts</b>
<b>Max. weight</b>	<b>3500 kg</b>
<b>Remarks</b>	<b>Particulars of approval</b>

Manufacturer(s) approved by this certificate is/are accepted to deliver according to DNV GL, DNV and GL rules.

This Certificate is valid until **2018-01-31**.

Issued at **Hamburg** on **2015-11-27**

for **DNV GL**

DNV GL local station: **Fredericia**

Approval Engineer: **Christian Wildhagen**

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**Marcus von Busch**  
**Head of Section**

Job Id: **263.11-005401-1**  
Certificate No: **AMMM000007R**

## Particulars of the approval

### Cast copper alloys:

Alloy type	Supply condition	Casting Method	Thickness [mm], max.	Weight [kg], max.
Al-bronze	AC	SC	250	3500
Mn-bronze	AC	SC	250	3500
Ni-Al-bronze	AC	SC	250	3500

AC: as cast      SC: sand casting

### Propeller and propeller parts:

Alloy type	Grade	Supply condition	Casting Method	Thickness [mm], max.	Weight [kg], max.
Mn-bronze	VL Cu1	AC	SC	250	3500
Ni-Al-bronze	VL Cu3	AC	SC	250	3500

AC: as cast      SC: sand casting