

# APPROVAL OF MANUFACTURER CERTIFICATE

**This is to certify:**

**That**

**Giesserei Heunisch, Steinach GmbH**  
**Lauschaer Str. 70, 96523 Steinach, Germany**

is an approved manufacturer of  
**Iron Castings**

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

and the following particulars:

<b>Iron type(s)</b>	<b>Grey cast iron, Nodular cast iron</b>
<b>Max. weight</b>	<b>4 800 kg</b>
<b>Remarks</b>	<b>See particulars of the approval</b>

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 GL classed object shall fulfill the material requirements in the applicable DNV GL class rules.

Issued at **Hamburg** on **2017-02-03**

This Certificate is valid until **2020-02-02**.

DNV GL local station: **Augsburg**

Approval Engineer: **Christian Wildhagen**



for **DNV GL**

Digitally Signed By: Roehr, Stefan

Location: DNV GL Hamburg, Germany

Signing Date: 2017-02-06 , on behalf of

**Thorsten Lohmann**  
**Head of Section**



Job Id: **263.11-003234-2**  
Certificate No: **AMMM000017V**

## Particulars of the approval

### Cast iron

Grade	Product	Supply Condition	Casting Method	Weight [kg], max.
VL NCI-1, VL NCI-2, VL NCI370, VL NCI400, VL NCI500, VL NCI600, VL NCI700, VL NCI800	GGG	AC/F	SC	4 800
Nodular cast iron acc. EN 1563	GGG	AC/F	SC	4 800
Grey cast iron acc. EN 1561	GG	AC	SC	4 800

GG: grey cast iron  
SC: sand casting

GGG: nodular cast iron

AC: as cast

F: ferritized