



# APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:  
**AMMM000030A**

This is to certify:

That

**Giesserei Wurzen GmbH**  
**Dresdener Straße 40,**  
**04808 Wurzen,**  
**Germany**

is an approved manufacturer of  
**Iron Castings**

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

and the following particulars:

<b>Iron type</b>	<b>Nodular cast iron</b>
<b>Casting method</b>	<b>Sand casting</b>
<b>Max. weight</b>	<b>See page 2</b>
<b>Max. wall thickness</b>	<b>See page 2</b>
<b>Heat treatment condition</b>	<b>As cast</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 classed object shall fulfill the material requirements in the applicable DNV class rules.

Issued at **Hamburg** on **2022-11-16**

This Certificate is valid until **2025-11-15**.

DNV local unit: **Hamburg – CMC North/East**

Approval Engineer: **Christian Wildhagen**



for **DNV**

Digitally Signed By: Roehr, Stefan

Location: DNV Hamburg, Germany

Signing Date: 18.11.2022 , on behalf of

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

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



## Particulars of the approval

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### Cast iron

Iron type	Grade <sup>3)</sup>	Casting method <sup>1)</sup>	Max. weight [kg]	Max. wall thickness [mm]	Heat treatment condition <sup>2)</sup>
Grey	200	SC	4 500	400	AC
	250	SC	4 500	400	AC
Nodular	NV NCI400	SC	4 500	400	AC
	EN-GJS-400-15 acc. EN 1563	SC	4 500	400	AC

### Remarks:

- 1) SC: Sand casting
- 2) AC: As cast
- 3) Incl. equivalent grades in acc. to other standards