

# APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:  
**AMMM00001BF**  
Revision No:  
**1**

**This is to certify:**

That

**Eisenwerk Erla GmbH**  
**Gießereistraße 1, 08340 Schwarzenberg,**  
**Germany**

is an approved manufacturer of  
**Iron Castings**

in accordance with  
**DNV GL rules for classification – Ships**  
**DNVGL-OS-B101 – Metallic materials**

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>Heat treatment condition</b>	<b>See page 2</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 **2020-10-05**

for **DNV GL**

This Certificate is valid until **2023-04-30**.

DNV GL local station: **Magdeburg**

Approval Engineer: **Christian Wildhagen**

**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 GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") 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.



Job Id: **263.11-007114-2**  
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## Particulars of the approval

### Cast iron

Iron type	Grade	Casting method <sup>1)</sup>	Max. weight [kg]	Heat treatment condition <sup>2)</sup>
Nodular	VL NCI 400	SC	80	AC
	VL NCI 500	SC	80	AC
	VL NCI 600	SC	80	AC
	EN-GJS-400-15 acc. to EN 1563	SC	80	AC
	EN-GJS-450-10 acc. to EN 1563	SC	80	AC
	EN-GJS-500-7 acc. to EN 1563	SC	80	AC
	EN-GJS-600-3 acc. to EN 1563	SC	80	AC
	EN-GJSA-XNiSiCr35-5-2 acc. to EN 13835 <sup>3)</sup>	SC	80	Acc. to standard
	EN-GJS-XSiMo4-1 acc. to customer specification <sup>3)</sup>	SC	80	AC / F
	EN-GJS-XSiMo5-1 acc. to customer specification <sup>3)</sup>	SC	80	AC / F

#### Remarks:

- <sup>1)</sup> SC: Sand Casting
- <sup>2)</sup> AC: As Cast  
F: Ferritizing
- <sup>3)</sup> Possible application and certification of any material to classed object is subject to case by case approval