

## APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No: AMMM000017V Revision No: 2

This is to certify:

## That Giesserei Heunisch, Steinach GmbH Lauschaer Straße 70, 96523 Steinach, Germany

is an approved manufacturer of **Iron Castings** 

in accordance with DNV rules for classification – Ships DNV class programme – DNV-CP-0249 Iron castings

and the following particulars:

Iron type	arey cast iron,	
	Nodular cast iron	
Casting method	Sand casting	
Max. weight	4 800	
Max. wall thickness	300 mm	
Heat treatment condition	As cast, ferritized, 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 2023-03-15

This Certificate is valid until 2026-02-02.

DNV local unit: Hamburg – CMC North/East

Approval Engineer: Andreas Koch

for DNV

Thorsten Lohmann Head of Section

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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.





Job Id: Certificate No: **Revision No:** 

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## Particulars of the approval

## Cast iron

Iron type	Grade	Casting method <sup>1)</sup>	Max. weight [kg]	Max. wall thickness [mm]	Heat treatment condition <sup>2)</sup>
Grey	EN-GJL-200	- sc	4 800	300	AC
	EN-GJL-250				
	EN-GJL-300				
	EN-GJL-350				
Nodular	NV NCI-1	SC	4 800	300	AC / F
	NV NCI-2				
	NV NCI 370				
	NV NCI 400				
	NV NCI 500-7				
	NV NCI 600-3				
	NV NCI 700				
	NV NCI 800				

Remarks:

1) SC: Sand casting 2)

AC: As cast F: Ferritizing

3) Incl. equivalent grades in acc. to other standards to EN 1563