

APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No: **AMMM00000WH**Revision No:

This is to certify:

That

J.D. Brackelsberg GmbH Heilenbecker Str. 117-121, 58256 Ennepetal, Germany

is an approved manufacturer of Iron Castings

in accordance with DNV rules for classification – Ships

and the following particulars:

Iron type Grey cast iron,

Nodular cast iron

Casting method Sand casting
Max. weight See page 2
Heat treatment condition 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.

This Certificate is valid until 2025-08-31.

DNV local station: Essen

Approval Engineer: Stefan Röhr

Issued at Hamburg on 2022-08-25

for **DNV**

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.



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Particulars of the approval

Cast iron

Iron type	Grade 3)	Casting method 1)	Max. weight [kg]	Heat treatment condition 2)
Grey	200	SC	120	AC
	250	SC	120	AC
	300	SC	120	AC
	350	SC	120	AC
Nodular	NV NCI-1	SC	120	AC, F
	NV NCI-2	SC	120	AC, F
	NV NCI370	SC	120	AC
	NV NCI400	SC	120	AC
	NV NCI500-7	SC	120	AC
	NV NCI600-3	SC	120	AC
	NV NCI700	SC	120	AC
	NV NCI800	SC	120	AC

Remarks:

- 1) SC: Sand casting
- 2)
- AC: As cast; F: Ferritizing
 Incl. equivalent grades in acc. to other standards, e.g. EN 1561 and EN 1563

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