



APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMMM000026E
Revision No:
1

This is to certify:

That

Reinhard Tweer GmbH
Krackser Str. 191, 33689 Bielefeld, Germany

is an approved manufacturer of
Iron Castings

in accordance with
DNV GL rules for classification – Ships

and the following particulars:

Iron type	Nodular cast iron
Casting method	Sand casting
Max. weight	5 000 kg
Max. wall thickness	300 mm
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.

Issued at **Hamburg** on **2021-08-05**

This Certificate is valid until **2024-06-30**.

DNV local station: **Magdeburg**

Approval Engineer: **Enno Brück**



for **DNV**
Digitally Signed By: Roehr, Stefan
Location: DNV GL Hamburg, Germany
Signing Date: 06.08.2021 , 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.



Form code: AM 311

Revision: 2021-03

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Particulars of the approval

Cast iron

Iron type	Grade ³⁾	Casting method ¹⁾	Max. weight [kg]	Max. wall thickness [mm]	Heat treatment condition ²⁾
Nodular	VL NCI 400	SC	5 000	300	AC, F
	EN-GJS-400-15 acc. EN 1563 ³⁾	SC	5 000	300	AC, F
	EN-GJS-400-18-LT acc. EN 1563 ³⁾	SC	5 000	300	AC, F

Remarks:

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