

APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMMM00001JR
Revision No:
1

This is to certify:

That

Heidenreich & Harbeck GmbH
Grambeker Weg 25-29, 23879 Mölln,
Germany

is an approved manufacturer of
Iron Castings

in accordance with
DNV GL 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 GL classed object shall fulfill the material requirements in the applicable DNV GL class rules.

Issued at **Hamburg** on **2020-10-09**

for **DNV GL**

This Certificate is valid until **2023-07-31**.

DNV GL local station: **Hamburg**

Approval Engineer: **Christian Wildhagen**

Thorsten Lohmann
Head of Section

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Job Id: **263.11-007628-2**
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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	EN-GJL-200 acc. EN 1561	SC	8 000	AC
	EN-GJL-250 acc. EN 1561			
	EN-GJL-300 acc. EN 1561			
Nodular	VL NCI-2	SC	8 000	AC / F
	VL NCI 370			
	VL NCI 400			
	VL NCI 500			
	VL NCI 600			
	VL NCI 700			
	EN-GJS-400-15 acc. EN 1563			
	EN-GJS-500-7 acc. EN 1563			
	EN-GJS-600-3 acc. EN 1563			
	EN-GJS-700-2 acc. EN 1563			
	EN-GJS-400-18LT acc. EN 1563			

Remarks:

- 1) SC: sand casting
- 2) AC: as cast
F: ferritized