

APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMMM00001BG
Revision No:
1

This is to certify:

That
Gienanth GmbH
Ramsener Straße 1, 67304 Eisenberg,
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	6 000 kg
Max. wall thickness	80 mm
Heat treatment condition	As cast
Additional approval conditions	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 **2020-07-13**

for **DNV GL**

This Certificate is valid until **2023-03-31**.

DNV GL local station: **Augsburg**

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: **263.11-006818-2**
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Particulars of the approval

Cast iron

Iron type	Grade	Casting method ¹⁾	Max. weight [kg]	Max. section / wall thickness [mm]	Heat treatment condition ²⁾
Grey	EN-GJL-200 acc EN 1561	SC	6 000	80	AC
	EN-GJL-250 acc EN 1561				
	EN-GJL-300 acc EN 1561				
Nodular	VL NCI 400	SC	6 000	80	AC
	VL NCI 500				
	VL NCI 600				
	EN-GJS-400-15 acc. EN 1563 ³⁾				
	EN-GJS-450-10 acc. EN 1563 ³⁾				
	EN-GJS-500-7 acc. EN 1563 ³⁾				
	EN-GJS-600-3 acc. EN 1563 ³⁾				

Remarks:

- 1) SC: Sand Casting
- 2) AC: As Cast

Special conditions:

Subject to case-by-case approval, production welding permitted according following approved WPS:

- WF 1410060 HH Page 01 WPS GJS-500-7 dd. 2014-03-04
- WF 1410060 HH Page 02 WPS GJL300 dd. 2014-03-04

Prior to welding DNVGL is to be informed about type and location of welding.