

APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No: AMMM0000219
Revision No:

This is to certify:

That

ACTech GmbH Halsbrücker Straße 51 09599 Freiberg, Germany

is an approved manufacturer of **Iron Castings**

in accordance with

DNV GL rules for classification – Ships DNVGL-OS-B101 – Metallic materials

and the following particulars:

Iron type Grey cast iron,

Nodular cast iron,

see page 2

Casting method Sand casting
Max. weight See page 2
Max. wall thickness See page 2
Heat treatment condition As cast

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 2021-03-29

This Certificate is valid until 2024-05-08.

DNV local station: Essen

Approval Engineer: Christian Wildhagen

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.



Form code: AM 311 Revision: 2021-03 www.dnv.com Page 1 of 2



263.11-008585-2 Job Id: AMMM0000219 Certificate No:

Revision No:

Particulars of the approval

Cast iron

Iron type	Grade ³⁾	Casting method 1)	Max. weight [kg]	Max. section / wall thickness [mm]	Heat treatment condition ²⁾
Grey	200	SC			
	250				
	300		300	50	AC
Nodular	VL NCI-2				
	VL NCI 400				
	VL NCI 500				
	VL NCI 600				
	VL NCI 700				
	VL NCI 800				
	EN-GJS-400-18LT acc. EN 1563				
	EN-GJS-400-18RT acc. EN 1563				
	EN-GJS-400-18 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-800-2 acc. EN 1563				
	EN-GJS-SiMo40-10 ³⁾				
	EN-GJS-SiMo40-6 ³⁾				
	EN-GJS-SiMo45-10 ³⁾				
	EN-GJS-SiMo45-6 ³⁾				
	EN-GJS-SiMo50-10 ³⁾				

Remarks:

- 1) SC: Sand casting
 2) AC: As cast
 3) Possible application and certification of any material to classed object is subject to case by case approval

Form code: AM 311 Revision: 2021-03 www.dnv.com Page 2 of 2