

APPROVAL OF MANUFACTURER CERTIFICATE

This is to certify:

That
Schmiedeberger Gießerei GmbH
Altenberger Str. 59a, 01744 Dippoldiswalde,
Germany

is an approved manufacturer of
Iron Castings

in accordance with
DNV GL rules for classification – Ships

and the following particulars:

Iron type(s)	Grey, Nodular
Casting method	Sand casting
Max. weight	300 kg
Heat treatment condition	See page 2
Remarks	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 **2017-11-15**

for **DNV GL**

This Certificate is valid until **2020-10-31**.
DNV GL local station: **Essen**

Approval Engineer: **Christian Wildhagen**

Thorsten Lohmann
Head of Section



Particulars of the approval

Cast iron

Iron type	Grade	Casting method ¹⁾	Max. weight [kg]	Heat treatment condition ²⁾
Grey	200	SC	300	AC
	250			
	300			
	EN-GJL-200 acc. EN 1561 ³⁾			
	EN-GJL-250 acc. EN 1561 ³⁾			
	EN-GJL-300 acc. EN 1561 ³⁾			
Nodular	VL NCI-1	SC	300	AC or F
	VL NCI-2	SC	300	AC or F
	VL NCI 370	SC	300	AC
	VL NCI 400	SC	300	AC
	VL NCI 500	SC	300	AC
	VL NCI 600	SC	300	AC
	VL NCI 700	SC	300	AC
	VL NCI 800	SC	300	AC
	EN-GJS-400-18-LT acc. to EN 1563 ³⁾	SC	300	AC or F
	EN-GJS-400-18-RT acc. to EN 1563 ³⁾	SC	300	AC or F
	EN-GJS-400-18 acc. to EN 1563 ³⁾	SC	300	AC
	EN-GJS-400-15 acc. to EN 1563 ³⁾	SC	300	AC
	EN-GJS-450-10 acc. to EN 1563 ³⁾	SC	300	AC
	EN-GJS-500-7 acc. to EN 1563 ³⁾	SC	300	AC
	EN-GJS-600-3 acc. to EN 1563 ³⁾	SC	300	AC
	EN-GJS-700-2 acc. to EN 1563 ³⁾	SC	300	AC
	EN-GJS-800-2 acc. to EN 1563 ³⁾	SC	300	AC
	EN-GJS-SiMo40-10 acc. EN 16124 (GJS-SiMo4.1 acc. specification KB01) ³⁾	SC	300	Acc. standard

Remarks:

- 1) SC: Sand Casting
- 2) AC: As cast; F: Ferritizing
- 3) Certification of any material applied to classed object shall fulfill the applicable material requirements in the DNV GL class rules