

APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMMM00000BS
Revision No:
1

This is to certify:

That

Gontermann-Peipers GmbH
Hain Works
Marienborner Str. 49
Siegen, Germany

is an approved manufacturer of
Iron Castings

in accordance with

DNV GL rules for classification – Ships
DNV GL rules for classification – HSLC
DNV GL offshore standard OS-B101

and the following particulars:

Iron type(s)	Grey Cast Iron Nodular Cast Iron GOPAG C 500 F with reduced safety factor $S_f = XY$ Austenitic Nodular Cast Iron (Ni-Resist)
Max. weight	60000 kg
Remarks	see Particulars of the approval

Manufacturer(s) approved by this certificate is/are accepted to deliver according to DNV GL, DNV and GL rules.

Issued at **Hamburg** on **2019-02-02**

for **DNV GL**

This Certificate is valid until **2022-02-02**.

DNV GL local station: **Essen**

Approval Engineer: **Eva Junghans**

.....
Thorsten Lohmann
Head of Section



Job Id: **263.11-005297-3**
 Certificate No: **AMMM00000BS**
 Revision No: **1**

Particulars of the approval

Cast iron

Iron type	Grade ³⁾⁵⁾	Casting method ¹⁾	Max. weight [kg]	Max. section / wall thickness [mm]	Heat treatment condition ²⁾
Grey	EN-GJL-200, EN-GJL-250, EN-GJL-300 acc. to EN 1561	KC, SC	60000	1200	AC
	EN-GJL-200, EN-GJL-250, EN-GJL-300 acc. to EN 1561	ZC	10000	120	AC
	EN-GJL-200C, EN-GJL-250C, EN-GJL-300C acc. to EN 16482	CC	10000	520	AC
Nodular	GJS-400-15, GJS-400-18, GJS-450-10, GJS-500-7, GJS-600-3, GJS-700-2 acc. to EN 1563	KC, SC	60000	1200	AC, F, P
	GJS-400-15, GJS-400-18, GJS-450-10, GJS-500-7, GJS-600-3, GJS-700-2 acc. to EN 1563	ZC	10000	100	F, P
	GJS-400-15C, GJS-400-18C, GJS-450-10C, GJS-500-7C, GJS-600-3C, GJS-700-2C acc. to EN 16482	CC	10000	520	AC, F, P
	VL NCI 400, VL NCI 500, VL NCI 600, VL NCI 700, VL NCI 800	KC, SC	60000	1200	AC, F, P
	VL NCI 400, VL NCI 500, VL NCI 600, VL NCI 700, VL NCI 800	CC, ZC	10000	100	AC, F, P
	Austenitic Cast Iron acc. to EN 13835 ⁴⁾	KC	30000	1200	AC, N
	Austenitic Cast Iron acc. to EN 13835 ⁴⁾	ZC	10000	100	AC, N
	GOPAG C 500 F with reduced safety factor $S_f = XY$ ⁶⁾	CC	10000	520	F

Remarks:

- 1) SC: Sand casting
 ZC: Centrifugal casting
 CC: Continuous casting
 KC: Chill casting
- 2) AC: As cast
 F: Ferritizing
 P: Pearlitizing
 N: Normalizing
- 3) Certification of any material applied to classed object shall fulfil the applicable material requirements in the DNV GL class rules

Job Id: **263.11-005297-3**
Certificate No: **AMMM00000BS**
Revision No: **1**

- 4) Possible application and certification of any material to classed object is subject to case by case approval
- 5) Incl. equivalent grades in acc. to other standards
- 6) According to DNV-GL Design Accompanying Assessment, see "Evaluation Report for Application in Offshore Constructions" Report No.: CR-ADA-GL-IV-1-03982-0; application is subject to case by case approval