DNV-GL

APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No: **AMMM00001JV** Revision No:

1

This is to certify:

That

Wilhelm Maass GmbH Zeche Ernestine 18, 45141 Essen, Germany

is an approved manufacturer of **Steel Forgings**

in accordance with

DNV GL rules for classification - Ships

and the following particulars:

Application area Stainless steel forgings,

Forgings

Steel type Austenitic stainless,

Ferritic-austenitic (duplex) stainless,

Nickel-base alloy,

See page 2

Forging method Closed die forging

Max. weight See page 2
Max. diameter / section 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 2020-09-03

This Certificate is valid until 2023-07-31.

DNV GL local station: Essen

Approval Engineer: Christian Wildhagen



for **DNV GL**

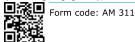
Digitally Signed By: Roehr, Stefan
Location: DNV GL Hamburg, Germany
Signing Date: 03.09.2020 , on behalf of

Thorsten Lohmann Head of Section

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Revision: 2020-01



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263.11-003971-3 Job Id: Certificate No: AMMM00001JV

Revision No:

Particulars of the approval

Stainless steel forgings

Steel type	Grade ³⁾	Forging method 1)	Max. weight [kg]	Max. thickness [mm]	Heat treatment condition ²⁾
Austenitic		CD	250	750	SHT
Ferritic- austenitic	22 Cr Duplex	CD	250	750	SHT
	25 Cr Duplex	CD	250	750	SHT

Nickel-base forgings

Alloy type	Grade ⁴⁾	Forging method 1)	Max. weight [kg]	Max. diameter / section [mm]	Heat treatment condition ²⁾
Ni-base	2.4856 acc. to DIN 17744 (UNS N06625 acc. to ASTM B446)	CD	250	750	SHT

Remarks:

- 1) CD: Closed die forging
 2) SHT: Solution Heat Tre SHT: Solution Heat Treated (Solution Annealing)
- 3) Stainless steel forgings shall be in accordance with recognized standards, e.g. EN 10222, ASTM A473/A965/A1049 and JIS G 3214, provided that supplementary requirements contained herein are also met. Recognition of other standards is subject to submission to the Society for evaluation.
- ⁴⁾ Possible application and certification of any material to classed object is subject to case by case approval

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