

# APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:  
**AMMM00001U5**  
Revision No:  
**2**

This is to certify:

That

**Kind & Co., Edelstahlwerk, GmbH & Co. KG**  
Bielsteiner Str. 124-130, 51674 Wiehl,  
Germany

is an approved manufacturer of  
**Steel Forgings**

in accordance with

**DNV rules for classification – Ships**  
**DNV rules for classification – Naval vessels**  
**DNV class programme – DNV-CP-0247 Steel forgings**

and the following particulars:

<b>Application area</b>	<b>Forgings of liquid quenched and tempered structural steels, Forgings of non-magnetizable steels, Stainless steel forgings</b>
<b>Steel type</b>	<b>Alloy, Austenitic stainless, Ferritic-austenitic (duplex) stainless See page 2</b>
<b>Forging method</b>	<b>Open die forging incl. forged bars, ring rolling</b>
<b>Max. weight</b>	<b>See page 2</b>
<b>Max. diameter / section</b>	<b>See page 2</b>
<b>Heat treatment condition</b>	<b>See page 2</b>

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 **2024-02-07**

This Certificate is valid until **2026-11-29**.

DNV local unit: **Essen**

Approval Engineer: **Christian Wildhagen**



for **DNV**

This document has been digitally signed and will  
therefore not have handwritten signature

Stefan Röhr

**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.



## Particulars of the approval

### Steel forgings

Steel type	Grade	Forging method <sup>1)</sup>	Max. weight [kg]	Max. thickness [mm]	Heat treatment condition <sup>2)</sup>
Duplex	1.4462 acc. to EN 10222-5, acc. to EN 10250-4	OD	14 000	1 300	SHT
		SB, RR	14 000	700	
	1.4462 acc. to VdTüV materials data sheet 418	OD & SB	14 000	1 300	
Alloy	VL-M550S	OD	14 000	1 300	QT
		SB, RR	14 000	700	
	HY-80 acc. to MIL-S-23009	OD	14 000	1 300	
		SB, RR	14 000	700	
	HY-80 acc. to T9074-BD-GIB- 010/0300 Annex E & G	OD	14 000	1 300	
		SB, RR	14 000	700	
	1.6780.5 acc. to BWB WL 1.6780-3	OD	14 000	1 300	
	1.6780.5 acc. to BWB WL 1.6780-2	SB, RR	14 000	700	
	1.3964 acc. to SEW 390	OD	14 000	1 300	SHT
		SB, RR	14 000	700	
	1.3964.9 acc. to BWB WL 1.3964-3	OD	14 000	1300	
	1.3964.9 acc. to BWB WL 1.3964-2	SB, RR	14 000	700	
	1.3974 acc. to SEW 390	OD	14 000	1300	
		SB, RR	14 000	700	
	1.3974.9 acc. to BWB WL 1.3974-3	OD	14 000	1300	
1.3974.9 acc. to BWB WL 1.3974-2	SB, RR	14 000	700		

Remarks:

- 1) OD: Open die forging  
 SB: Steel Bar  
 RR: Rolled ring
- 2) QT: Quenched and tempered  
 SHT: Solution Heat Treated (Solution Annealing)
- 3) Max. outer diameter 3000 mm for rolled rings