



# APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:  
**AMMM00001BK**  
Revision No:  
**2**

This is to certify:

That

**Richard Neumayer Gesellschaft für Umformtechnik mbH**  
Hinterer Bahnhof 15, 77756 Hausach,  
Germany

is an approved manufacturer of  
**Steel Forgings**

in accordance with

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

and the following particulars:

<b>Application area</b>	<b>Forgings for hull structures and equipment</b> <b>Forgings for shafting and machinery</b> <b>Forgings for gearing</b> <b>Forgings for boilers, pressure vessels and piping systems</b> <b>Stainless steel forgings</b>
<b>Steel type</b>	<b>Carbon and carbon-manganese,</b> <b>Alloy,</b> <b>Austenitic stainless</b> <b>Ferritic-austenitic (duplex) stainless</b>
<b>Forging method</b>	<b>Closed die forging</b>
<b>Max. weight</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 **2023-01-26**

for **DNV**

This Certificate is valid until **2025-12-31**.

DNV local unit: **Augsburg**

Approval Engineer: **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

### Forgings for hull structures and equipment

Steel type	Grade <sup>3)</sup>	Forging method <sup>1)</sup>	Max. weight [kg]	Heat treatment condition <sup>2)</sup>
C and C-Mn	NV F400UW, NV F440UW, NV F480UW, NV F520UW, NV F560UW, NV F600UW	CD	40	N, NT, QT
Alloy	NV F550AW, NV F600AW, NV F650AW	CD	40	QT

### Forgings for shafting and machinery / Forgings for gearing

Steel type	Grade <sup>3)</sup>	Forging method <sup>1)</sup>	Max. weight [kg]	Heat treatment condition <sup>2)</sup>
C and C-Mn	NV F400U, NV F440U, NV F480U, NV F520U, NV F560U, NV F600U, NV F640U, NV F680U, NV F720U, NV F760U	CD	40	N, NT, QT
Alloy	NV F600A, NV F700A, NV F800A, NV F900A, NV F1000A, NV F1100A	CD	40	QT

### Forgings for boilers, pressure vessels and piping systems

Steel type	Grade <sup>3)</sup>	Forging method <sup>1)</sup>	Max. weight [kg]	Heat treatment condition <sup>2)</sup>
C and C-Mn	NV F450H, NV F490H	CD	40	N, NT, QT
Alloy	NV F0.5Mo, NV F1Cr0.5Mo	CD	40	N, NT, QT
	NV F2.25Cr1Mo	CD	40	N, QT

### Stainless steel forgings

Steel type / grade <sup>4)</sup>	Forging method <sup>1)</sup>	Max. weight [kg]	Heat treatment condition <sup>2)</sup>
Austenitic stainless	CD	40 kg	SHT
25Cr duplex stainless	CD	40 kg	SHT

#### Remarks:

- 1) CD: Closed die forging
- 2) QT: Quenched and tempered; N: Normalised; NT: Normalised and tempered; SHT: Solution Heat Treated (Solution Annealing)
- 3) Incl. equivalent grades in acc. to other standards
- 4) 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.