

# APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:  
**AMMM00001U4**  
Revision No:  
**1**

## This is to certify:

That

**Stahlwerk Augustfehn Schmiede GmbH & Co. KG**  
**Am Kanal 134, 26689 Apen,**  
**Germany**

is an approved manufacturer of  
**Steel Forgings**

in accordance with  
**DNV GL rules for classification – Ships**

and the following particulars:

<b>Application area</b>	<b>Forgings for shafting and machinery, Forgings for gearing</b>
<b>Steel type</b>	<b>Carbon and carbon-manganese, Alloy, See page 2</b>
<b>Forging method</b>	<b>Open die forging, closed die forging</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 GL classed object shall fulfill the material requirements in the applicable DNV GL class rules.

Issued at **Hamburg** on **2020-11-30**

for **DNV GL**

This Certificate is valid until **2023-11-29**.

DNV GL local station: **Leer**

Approval Engineer: **Christian Wildhagen**

**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 GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") 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.



Job Id: **263.11-011104-1**  
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## Particulars of the approval

**Forgings for shafting and machinery**  
**Forgings for gearing**

Steel type	Grade <sup>3)</sup>	Forging method <sup>1)</sup>	Max. weight [kg]	Max. diameter / section [mm]	Heat treatment condition <sup>2)</sup>
C and C-Mn	VL F400U, VL F440U, VL F480U, VL F520U, VL F560U, VL F600U, VL F640U, VL F680U, VL F720U, VL F760U	OD, CD	6 000	900	N
Alloy	VL F600A, VL F700A, VL F800A, VL F900A, VL F1000A, VL F1100A	OD, CD	6 000	900	QT

Remarks:

- 1) OD: Open die forging  
CD: Closed die forging
- 2) QT: Quenched and tempered  
N: Normalised
- 3) Incl. equivalent grades in accordance to other standards, e.g. ISO 683-1, ISO 683-2, EN 10250-2 and EN 10250-3