

# APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:  
**AMMM0000090**  
Revision No:  
**1**

## This is to certify:

That

**Huta Bankowa Sp. z o.o.**  
**Dąbrowa Górnicza, Śląskie, Sobieskiego24,**  
**Poland**

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 hull structures and equipment Forgings for shafting and machinery</b>
<b>Steel type</b>	<b>Carbon and carbon-manganese, Alloy, See page 2</b>
<b>Forging method</b>	<b>Open die forging Ring rolling, See page 2</b>
<b>Max. weight</b>	<b>See page 2</b>
<b>Max. diameter</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 **2019-12-13**

for **DNV GL**

This Certificate is valid until **2024-12-31**.

DNV GL local station: **Katowice**

Approval Engineer: **Enno Brück**

**Thorsten Lohmann**  
**Head of Section**



Job Id: **263.11-010359-1**  
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## Particulars of the approval

### Forgings for hull structures and equipment

Steel type	Grade <sup>3)</sup>	Forging method <sup>1)</sup>	Max. weight [kg]	Max. diameter [mm]	Heat treatment condition <sup>2)</sup>
C and C-Mn	VL F400UW, VL F440UW, VL F480UW, VL F520UW, VL F560UW, VL F600UW	OD, RR	3 000	3 000 (RR <sup>1)</sup> )	N, NT, QT
Alloy	VL F550AW, VL F600AW, VL F650AW	OD, RR	3 000	3 000 (RR <sup>1)</sup> )	QT

### Forgings for shafting and machinery

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, RR	3 000	3 000 (RR <sup>1)</sup> )	N, NT, QT
Alloy	VL F600A, VL F700A, VL F800A, VL F900A, VL F1000A, VL F1100A	OD, RR	3 000	3 000 (RR <sup>1)</sup> )	QT

#### Remarks:

- 1) OD: Open die forging  
RR: Ring Rolling
- 2) QT: Quenched and tempered  
N: Normalized  
NT: Normalized and tempered
- 3) Incl. equivalent grades in acc. to other standards