



APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMMM0000295
Revision No:
2

This is to certify:

That

ALCHEMIA S.A. Oddzial Kuznia Batory w Chorzowie
Ul. Stalowa 1, 41-506 Chorzów, Poland

is an approved manufacturer of
Steel Forgings

in accordance with
DNV GL rules for classification – Ships

and the following particulars:

Application area	Forgings for hull structures and equipment Forgings for shafting and machinery
Steel type(s)	Carbon and Carbon-Manganese, Alloy
Forging method	Open 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 classed object shall fulfill the material requirements in the applicable DNV class rules.

Issued at **Hamburg** on **2021-07-29**

for **DNV**

This Certificate is valid until **2024-06-30**.

DNV local station: **Katowice**

Approval Engineer: **Torben Schälicke**

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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 ³⁾	Forging method ¹⁾	Max. weight [kg]	Max. diameter / section [mm]	Delivery condition ²⁾
C and C-Mn	VL F400UW, VL F440UW, VL F480UW, VL F520UW, VL F560UW, VL F600UW	OD	11 000	650	N, NT, QT
Alloy	VL F550AW, VL F600AW, VL F650AW	OD	11 000	650	N, NT, QT

Forgings for shafting and machinery

Steel type	Grade ³⁾	Forging method ¹⁾	Max. weight [kg]	Max. diameter / section [mm]	Delivery condition ²⁾
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	11 000	650	N, NT, QT
Alloy	VL F600A, VL F700A, VL F800A, VL F900A, VL F1000A, VL F1100A	OD	11 000	650	N, NT, QT

Remarks:

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