



APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMMM000022N
Revision No:
1

This is to certify:

That

Clifford-Jacobs Forging Company
2410 N 5th St Champaign, IL 61822, USA

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	Alloy
Forging method	see page 2
Max. weight	400 kg
Max. diameter / section	see page 2
Heat treatment condition	see page 2
Additional approval conditions	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 **2021-07-28**

for **DNV**

This Certificate is valid until **2024-06-29**.

DNV local station: **Housten**

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⁾
Alloy	VL F550AW, VL F620AW, VL F650AW	OD	400	400	QT

Forgings for shafting and machinery

Steel type	Grade ³⁾	Forging method ¹⁾	Max. weight [kg]	Max. diameter / section [mm]	Delivery condition ²⁾
Alloy	VL F600A, VL F700A, VL F800A, VL F900A, VL F1000A, VL F1100A	OD	400	400	QT

Remarks:

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