



APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMMM000031H

This is to certify:

That

Winning BLW GmbH
Friemersheimer Straße 40,
47249 Duisburg,
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:

Application area	Forgings for hull structures and equipment, Forgings for shafting and machinery
Steel type	Carbon and carbon-manganese, Alloy
Forging method	Closed die forging
Max. weight	350 kg
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 **2023-04-12**

This Certificate is valid until **2026-04-11**.

DNV local unit: **Essen**

Approval Engineer: **Stefan Röhr**



for **DNV**

Digitally Signed By: Wildhagen, Christian

Location: DNV Hamburg, Germany

Signing Date: 13.04.2023, on behalf of

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.



Form code: AM 311

Revision: 2022-12

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Particulars of the approval

Forgings for hull structures and equipment

Steel type	Grade ³⁾	Forging method ¹⁾	Max. weight [kg]	Heat treatment condition ²⁾
C and C-Mn	NV F400UW, NV F440UW, NV F480UW, NV F520UW, NV F560UW, NV F600UW	CD	350	N, NT, QT
Alloy	NV F550AW, NV F600AW, NV F650AW	CD	350	QT

Forgings for shafting and machinery

Steel type	Grade ³⁾	Forging method ¹⁾	Max. weight [kg]	Heat treatment condition ²⁾
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	350	N, NT, QT
Alloy	NV F600A, NV F700A, NV F800A, NV F900A	CD	350	QT

Remarks:

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