



APPROVAL OF MANUFACTURER CERTIFICATE

Certificate no.:
AMMM00000S7
Revision No:
4

This is to certify:

that

Bahntechnik Brand-Erbisdorf GmbH
Berthelsdorfer Straße 8,
09618 Brand-Erbisdorf,
Germany

is an approved manufacturer of
Steel Forgings

in accordance with

DNV rules for classification – Ships
DNV-OS-B101 – Metallic materials
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 Forgings for crankshafts Forgings for gearing
Steel type	Carbon and carbon-manganese, Alloy, see page 2
Forging method	Open die forging, ring rolling
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 **2025-11-18**

for **DNV**

This Certificate is valid until **2028-07-31**.

DNV local unit: **Hamburg – CMC North/East**

Approval Engineer: **Andreas Koch**

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 USD 300 000.

Particulars of the approval

Forgings for hull structures and equipment

Steel type	Grade ³⁾	Forging method ¹⁾	Max. weight [kg]	Max. thickness [mm]	Heat treatment condition ²⁾
C and C-Mn	NV F400UW, NV F440UW, NV F480UW, NV F520UW, NV F560UW, NV F600UW	OD	3 500	400	N, QT
		RR	325	200	
Alloy	NV F550AW, NV F600AW, NV F650AW	OD	3 500	400	QT
		RR	325	200	

Forgings for shafting and machinery

Forgings for gearing

Forgings for crankshafts

Steel type	Grade ³⁾	Forging method ¹⁾	Max. weight [kg]	Max. thickness [mm]	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	OD	3 500	400	N, QT
		RR	325	200	
Alloy	NV F600A, NV F700A, NV F800A, NV F900A, NV F1000A, NV F1100A	OD	3 500	400	QT
		RR	325	200	

Remarks:

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