

APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMMM0000119
Revision No:
3

This is to certify:

That

SETFORGE BOUZONVILLE
Route de Guerstling, 57320 Bouzonville,
France

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 Forgings for boilers, pressure vessels and piping systems
Steel type(s)	Carbon, Carbon-Manganese, Alloy
Forging method	Open die forging/closed die forging
Max. weight	See page 2 ff.
Max. diameter/section	See page 2 ff.
Heat treatment condition	See page 2 ff.

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 **2024-07-04**

This Certificate is valid until **2027-06-30**.

DNV local unit: **Belgium FIS**

Approval Engineer: **Stefan Röhr**



for DNV

This document has been digitally signed and will
therefore not have handwritten signature
Christian Wildhagen

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 ⁴⁾	Forging method ¹⁾	Max. weight [kg]	Max. diameter/section [mm]	Heat treatment condition ²⁾
C and C-Mn	NV F400UW, NV F440UW, NV F480UW, NV F520UW, NV F560UW, NV F600UW	OD, CD	850	400	N, NT, QT
Alloy	NV F550AW, NV F620AW, NV F650AW				

Forgings for shafting and machinery

Steel type	Grade ⁴⁾	Forging method ¹⁾	Max. weight [kg]	Max. diameter/section [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, CD	850	400	N, NT, QT
Alloy	NV F600A, NV F700A, NV F800A, NV F900A, NV F1000A, NV F1100A				

Forgings for boilers, pressure vessels and piping systems

Steel type	Grade ⁴⁾	Forging method ¹⁾	Max. weight [kg]	Max. diameter/section [mm]	Heat treatment condition ²⁾
C and C-Mn	NV F450H	OD, CD	850	400	N, NT, QT
	NV F490H				N, NT, QT
Alloy	NV F0.5Mo				NT, QT
	NV F1Cr0.5Mo				
	NV F2.25Cr1MoN				N
	NV F2.25Cr1MoQT				QT

Special alloy forgings according to customer specifications

Steel type / grade ³⁾	Forging method ¹⁾	Max. weight [kg]	Max. diameter/ section [mm]	Heat treatment condition ²⁾
1.4939 acc. to MAN B&W Q10.09431-5221	OD, CD	850	400	acc. to customer spec.
1.4923 acc. to ABB HZTL651278				
X12CrNiMo12 acc. to WL1.4939-2				

Remarks:

- 1) OD: Open die forging; CD: Closed die forging
- 2) QT: Quenched and tempered; N: Normalised; NT: Normalised and tempered
- 3) Certification of any material applied to classed object shall fulfill the applicable material requirements in the DNV class rules or DNV approved drawings
- 4) Incl. equivalent grades in acc. to other standards