APPROVAL OF MANUFACTURER CERTIFICATE

Certificate no.:
AMMM00000WT
Revision No:
4

This is to certify:

that

Schmiedewerk Stooss AG
Maienbrunnenstrasse 8, CH-8908 Hedingen,
Switzerland

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 gearing,** **Ferritic steel forgings for low temperature service,** **Stainless steel forgings**
Steel type	**Carbon and carbon-manganese,** **Alloy,** **Austenitic stainless,** **Martensitic stainless,** **Ferritic-austenitic (duplex) stainless**
Forging method	**Open die forging, ring rolling**
Max. weight	**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 **2026-10-28**

This Certificate is valid until **2028-12-31**.
DNV local unit: **Essen**

Approval Engineer: **Andrzej Otrebski**

for **DNV**

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

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]	Heat treatment condition [2]
C and C-Mn	NV F400UW, NV F440UW, NV F480UW, NV F520UW, NV F560UW, NV F600UW	OD, RR	5 000	N, NT, QT
Alloy	NV F550AW, NV F600AW, NV F650AW	OD, RR	5 000	QT

Forgings for shafting and machinery / Forgings for gearing

Steel type	Grade [3]	Forging method [1]	Max. weight [kg]	Heat treatment condition [2]
C andC-Mn	NV F400U, NV F440U, NV F480U, NV F520U, NV F560U, NV F600U, NV F640U, NV F680U, NV F720U, NV F760U	OD, RR	5 000	N, NT, QT
Alloy	NV F600A, NV F700A, NV F800A, NV F900A, NV F1000A, NV F1100A	OD, RR	5 000	QT

Ferritic steel forgings for low temperature service

Steel type	Grade [3]	Forging method [1]	Max. weight [kg]	Heat treatment condition [2]
Nickel alloy	NV F1.5Ni, NV F3.5Ni, NV F3.5NiH, NV F5Ni, NV F9Ni	OD, RR	5 000	QT

Stainless steel forgings

Steel type [4]	Forging method [1]	Max. weight [kg]	Heat treatment condition [2]
Austenitic	OD, RR	5 000	SHT
Martensitic	OD, RR	5 000	SHT
Ferritic-austenitic (22Cr Duplex, 25Cr Duplex)	OD, RR	5 000	SHT

Steels acc. other standards

Grade	Forging method [1]	Max. weight [kg]	Heat treatment condition [2]
C-Mn and alloy steel acc. to EN 10083-2 and -3	OD, RR	5 000	acc. to standard
C-Mn and alloy steel acc. to EN 10250-2 and -3	OD, RR	5 000	acc. to standard
Austenitic stainless steel acc. to EN 10250-4	OD, RR	5 000	acc. to standard
Case hardening steels acc. to EN 10084	OD, RR	5 000	acc. to standard
P250GH acc. EN 10222-2	OD, RR	5 000	acc. to standard
X8Ni9 acc. EN 10222-3	OD, RR	5 000	acc. to standard

Remarks:

1) OD: Open die forging
RR: Ring Rolling
2) QT: Quenched and tempered
N: Normalized
NT: Normalized and tempered
SHT: Solution Heat Treated (Solution Annealing)
3) Incl. equivalent grades in acc. to other standards
4) Stainless steel forgings shall be in accordance with recognized standards, e.g. EN 10222, ASTM A473/A965/A1049 and JIS G 3214, provided that supplementary requirements contained herein are also met. Recognition of other standards is subject to submission to the Society for evaluation