APPROVAL OF MANUFACTURER CERTIFICATE

Certificate no.:
AMMM0000152
Revision No:
3

This is to certify:

that

Franchini Acciai S.p.A.
Via IV Novembre, 9/17 - 25030 Mairano (BS),
Italy

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**
Steel type	**Carbon and carbon-manganese,** **Alloy**
Forging method	**See page 2**
Max. weight	**100 000 kg (Carbon and carbon-manganese)** **30 000 kg (Alloy)**
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 **2025-12-19**

This Certificate is valid until **2028-12-31**.
DNV local unit: **Italy/Malta CMC**

Approval Engineer: **Christian Wildhagen**

for **DNV**

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

Stefan Röhr

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	100 000	N, NT, QT
Alloy	NV F550AW, NV F600AW, NV F650AW	OD	30 000	QT

Forgings for shafting and machinery
Forgings for gearing

Steel type	Grade [3]	Forging method [1]	Max. weight [kg]	Heat treatment condition [2]
C and C-Mn	NV F400U, NV F440U, NV F480U, NV F520U, NV F560U, NV F600U, NV F640U, NV F680U, NV F720U, NV F760U	OD	100 000	N, NT, QT
Alloy	NV F600A, NV F700A, NV F800A, NV F900A, NV F1000A, NV F1100A	OD	30 000	QT

Remarks:

1) OD: Open die forging
2) QT: Quenched and tempered
N: Normalized
NT: Normalized and tempered
3) Incl. equivalent grades in acc. to other standards (e.g. 18CrNiMo7-6 acc. to EN 10084, C45 and 28Mn6 acc. to EN 10083-2 as well as S235JRG3, S235J2G3 and S355J2G3 acc. to EN 10250-2)