



APPROVAL OF MANUFACTURER CERTIFICATE

Certificate no.:
AMMM00003EM

This is to certify:

that

ZHEJIANG SANMEN TAIHE HEAVY FORGING CO.,LTD
No.58 Shangkeng Industrial Park, Haiyou Street, Sanmen
County, Taizhou City, Zhejiang Province,
China

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	See page 2
Max. weight	See page 2
Max. diameter/thickness	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 **2026-03-13**

This Certificate is valid until **2029-03-12**.

DNV local unit: **Ningbo CMC**

Approval Engineer: **Dechun Lou**



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]	Max. diameter / thickness [mm]	Heat treatment condition ²⁾
C and C-Mn	NV F400UW, NV F440UW, NV F480UW	OD	9 000	500	N

Forgings for shafting and machinery

Steel type	Grade ³⁾	Forging method ¹⁾	Max. weight [kg]	Max. diameter / thickness [mm]	Heat treatment condition ²⁾
C and C-Mn	NV F400U, NV F440U, NV F480U, NV F520U, NV F560U, NV F600U	OD	17 000	700	NT
Alloy	NV F600A, NV F700A, NV F800A	OD	17 000	700	QT

Remarks:

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