



APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMMM000030D

This is to certify:

That

LOIRE INDUSTRIE
Clos Marquet,
42400 - Saint-Chamond,
France

is an approved manufacturer of
Steel Forgings

in accordance with

DNV rules for classification – Ships

and the following particulars:

Application area	Stainless steel forgings
Steel type	Ferritic-austenitic (duplex) stainless, See page 2
Forging method	Open die forging
Max. weight	See page 2
Max. diameter / section	See page 2
Heat treatment condition	Solution heat treated

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 **2022-11-30**

This Certificate is valid until **2025-11-29**.

DNV local unit: **France CMC**

for **DNV**

Approval Engineer: **Christian Wildhagen**

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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

Stainless steel forgings

Steel type	Grade ³⁾	Forging method ¹⁾	Max. weight [kg]	Max. diameter / section [mm] ⁴⁾	Heat treatment condition ²⁾
Austenitic	CrNi (304, 304L, 347)	OD	110	110	SHT

Remarks:

- 1) OD: Open die forging
- 2) SHT: Solution Heat Treated (Solution Annealing)
- 3) 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
- 4) Relevant wall thickness