



APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMMM00000GT
Revision No:
3

This is to certify:

That

FAL - Fundação do Alto da Lixa, S.A.
Rua do Castanheiro Redondo 265,
4600-761 Telões - Amarante,
Portugal

is an approved manufacturer of
Steel Castings

in accordance with

DNV rules for classification – Ships
DNV class programme – DNV-CP-0246 Steel castings

and the following particulars:

Application area	Castings for hull structures and equipment
Steel type	Castings for machinery
Casting method	Carbon and carbon-manganese
Max. weight	Sand casting
Max. wall thickness	1 500 kg
Heat treatment condition	See page 2
	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 **2025-04-22**

This Certificate is valid until **2028-04-05**.

DNV local unit: **CMC Team West**

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 300,000 USD.

Particulars of the approval

Castings for hull structure and equipment

Steel type	Grade ³⁾	Casting method ¹⁾	Max. weight [kg]	Max. wall thickness [mm]	Heat treatment condition ²⁾
C and C-Mn	NV C400UW, NV C440UW, NV C480UW, NV C520UW, NV C560UW, NV C600UW	SC	1 500	150	QT

Castings for machinery

Steel type	Grade ³⁾	Casting method ¹⁾	Max. weight [kg]	Max. wall thickness [mm]	Heat treatment condition ²⁾
C and C-Mn	NV C400U, NV C440U, NV C480U, NV C520U, NV C560U, NV C600U	SC	1 500	150	QT

Remarks:

- ¹⁾ SC: Sand Casting
- ²⁾ QT: Quenched and tempered
- ³⁾ Incl. equivalent grades in acc. to other standards