



APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMMM00002CR
Revision No:
4

This is to certify:

That

FAED Grupo Empresarial, S.L.
Polígono Industrial Requejada, parcela Z26, 39313 Polanco (Cantabria),
Spain

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	Casting for hull structures and equipment, Castings for machinery, Stainless steel castings, Castings for propellers
Steel type	Carbon and carbon-manganese, Martensitic stainless, Austenitic stainless
Casting method	Sand casting
Max. weight	See page 2
Max. wall thickness	628 mm
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 **2023-05-08**

for **DNV**

This Certificate is valid until **2024-12-17**.

DNV local unit: **Area NB/CMC Iberia**

Approval Engineer: **Dechun Lou**

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.



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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	5588	628	N, NT, 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	5588	628	N, NT, QT

Stainless steel castings incl. propeller and propeller parts

Steel type	Grade	Casting method ¹⁾	Max. weight [kg]	Max. wall thickness [mm]	Heat treatment condition ²⁾
Austenitic	NV C19Cr11Ni ³⁾	SC	3 000	628	SHT
	GX2CrNi19-11 acc. EN 10283 ³⁾				
Martensitic	NV C12Cr1Ni NV C13Cr4Ni NV C16Cr5Ni	SC	13650	628	QT

Remarks:

- 1) SC: Sand Casting
- 2) QT: Quenched and tempered
SHT: Solution Heat Treated (Solution Annealing)
- 3) Incl. equivalent grades in acc. to other standards