

APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMMM00002CR
Revision No:
2

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 GL rules for classification – Ships

and the following particulars:

Application area	Castings for hull structures and equipment, Castings for machinery, Stainless steel castings, Castings for propellers
Steel type	Carbon and carbon-manganese, Martensitic stainless, Austenitic stainless, Ferritic-martensitic stainless
Casting method	Sand casting
Max. weight	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 GL classed object shall fulfill the material requirements in the applicable DNV GL class rules.

Issued at **Hamburg** on **2020-05-22**

for **DNV GL**

This Certificate is valid until **2021-12-17**.

DNV GL local station: **Bilbao**

Approval Engineer: **Enno Brück**

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Thorsten Lohmann
Head of Section

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Job Id: **263.11-010476-1**
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Particulars of the approval

Castings for hull structure and equipment

Steel type	Grade ³⁾	Casting method ¹⁾	Max. weight [kg]	Heat treatment condition ²⁾
C and C-Mn	VL C400UW, VL C440UW, VL C480UW, VL C520UW, VL C560UW, VL C600UW	SC	5588	N, NT, QT

Castings for machinery

Steel type	Grade ³⁾	Casting method ¹⁾	Max. weight [kg]	Heat treatment condition ²⁾
C and C-Mn	VL C400U, VL C440U, VL C480U, VL C520U, VL C560U, VL C600U	SC	5588	N, NT, QT

Stainless steel castings incl. propeller and propeller parts

Steel type	Grade	Casting method ¹⁾	Max. weight [kg]	Heat treatment condition ²⁾
Austenitic	VL C19Cr11Ni ³⁾	SC	3 000	SHT
	GX2CrNi19-11 acc. EN 10283 ³⁾			
Martensitic		SC	6 205	QT
Ferritic-Martensitic		SC	6 205	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