

APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMMM00000AT
Revision No:
1

This is to certify:

That

GUIVISA, S.L.
Basauri, Bizkaia, Spain

is an approved manufacturer of
Steel Castings

in accordance with
DNV GL rules for classification – Ships
DNVGL-OS-B101 – Metallic materials

and the following particulars:

Application area	Castings for hull structures and equipment Castings for machinery Castings for boilers, pressure vessels and piping systems
Steel type	Carbon and carbon-manganese, Alloy
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 **2019-10-30**

for **DNV GL**

This Certificate is valid until **2022-12-31**.

DNV GL local station: **Bilbao**

Approval Engineer: **Stefan Röhr**

.....
Thorsten Lohmann
Head of Section



Job Id: **263.11-010368-1**
Certificate No: **AMMM00000AT**
Revision No: **1**

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	8 000	N, NT, QT
Alloy	VL C550AW, VL C620AW	SC	8 000	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	8 000	N, NT, QT
Alloy	VL C550A, VL C600A, VL C690A	SC		QT

Castings for boilers, pressure vessels and piping systems

Steel type	Grade ³⁾	Casting method ¹⁾	Max. weight [kg]	Heat treatment condition ²⁾
C and C-Mn	VL C450H, VL C490H	SC	8 000	N, NT, QT
Alloy	VL C0.5Mo, VL C1Cr0.5Mo, VL C2.25Cr1Mo	SC	8 000	QT

Remarks:

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