

APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMMM000003G
Revision No:
1

This is to certify:

That

METALURGICA MADRILEÑA, S.A.
Avenida de Madrid, 62, Alcla de Henares, Madrid,
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
Steel type	Castings for machinery
Casting method	Carbon and carbon-manganese,
Max. weight	Alloy,
Max. wall thickness	See page 2
Heat treatment condition	1 500 kg Carbon and carbon-manganese
	500 kg Alloy
	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 GL classed object shall fulfill the material requirements in the applicable DNV GL class rules.

Issued at **Hamburg** on **2019-08-21**

for **DNV GL**

This Certificate is valid until **2022-08-31**.

DNV GL local station: **Madrid**

Approval Engineer: **Andreas Koch**

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Thorsten Lohmann
Head of Section



Job Id: **263.11-005073-2**
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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	VL C400UW, VL C440UW, VL C480UW	SC	1 500	300	N, NT, QT
Alloy	VL C550AW, VL C620AW	SC	500	300	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	VL C400U, VL C440U, VL C480U, VL C520U,	SC	1 500	300	N, NT, QT
Alloy	VL C550A, VL C600A, VL C690A	SC	500	300	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