

# APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No: **AMMM000011H**Revision No:

This is to certify:

That

## **REINOSA FORGINGS & CASTINGS, S.L.**

Alejandro Calonge 1, 39200 Reinosa, Cantabria, 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

Casting for machinery

Steel type(s) Carbon and Carbon-Manganese

Casting method Sand casting Max. weight 110 000 kg
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.

This Certificate is valid until **2024-06-30**.

DNV local station: Area NB/CMC Iberia

Issued at Hamburg on 2021-08-30

Approval Engineer: Andreas Koch

for **DNV** 

Thorsten Lohmann Head of Section

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Job Id: **263.11-004566-4** Certificate No: **AMMM000011H** 

Revision No: 2

## Particulars of the approval

### Castings for hull structure and equipment

| Steel type    | Grade <sup>3)</sup>  | Casting method 1) | Max. weight<br>[kg] | Heat treatment condition 2) |
|---------------|--|-------------------|---------------------|-----------------------------|
| C and<br>C-Mn | VL C400UW, VL C440UW, VL C480UW, VL C520UW, VL C560UW, VL C600UW | SC                | 110 000             | N, NT, QT                   |

### **Castings for machinery**

| Steel type    | Grade <sup>3)</sup>   | Casting method 1) | Max. weight<br>[kg] | Heat treatment condition 2) |
|---------------|---|-------------------|---------------------|-----------------------------|
| C and<br>C-Mn | VL C400U, VL C440U, VL C480U,<br>VL C520U, VL C560U, VL C600U | SC                | 110 000             | N, NT, QT                   |

#### Remarks:

1) SC: Sand Casting

2) N: Normalised

QT: Quenched and tempered NT: Normalised and tempered

3) Including equivalent grades to other standards

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