

# APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No: **AMMM0000205** Revision No:

This is to certify:

That

# Vulkan Technologies Pvt. Limited

Gat No 539-B, Kasar Amboli, Tal. Mulshi, Dist. Pune – 412 115 Maharashtra, India

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 Castings for hull structures and equipment

Casting for machinery

Steel type Alloy
Casting method Sand casting

Max. weight 250 kg
Max. wall thickness 50 mm

Heat treatment condition Normalized and tempered, quenched and tempered

Additional approval conditions 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 2024-09-17

This Certificate is valid until **2027-08-31**. DNV local unit: **India CMC MES** 

Approval Engineer: Andrzej Otrebski



for **DNV** 

This document has been digitally signed and will therefore not have handwritten signature

Christian Wildhagen

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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Job Id: 263.11-011608-2 Certificate No: AMMM0000205

Revision No:

# Particulars of the approval

## **Castings for machinery**

| Steel type | Grade <sup>3)</sup> | Casting method 1) | Max. weight [kg] | Max. section / wall thickness [mm] | Heat treatment condition <sup>2)</sup> |
|------------|---------------------|-------------------|------------------|------------------------------------|--|
| Alloy      | NV C550A, NV C600A  | SC                | 250              | 50                                 | NT, QT                                 |

### Castings for hull structure and equipment

| Steel type | Grade <sup>3)</sup>               | Casting method 1) | Max. weight [kg] | Max. section / wall thickness [mm] | Heat treatment condition <sup>2)</sup> |
|------------|-----------------------------------|-------------------|------------------|------------------------------------|--|
| Alloy      | NV C550AW, NV 600AW,<br>NV C620AW | SC                | 250              | 50                                 | NT, QT                                 |

#### Castings for machinery / Castings for hull structure and equipment according to other standards

| Steel type | Grade <sup>3)</sup>       | Casting method 1) | Max. weight [kg] | Max. wall thickness [mm] | Heat treatment condition 2) |
|------------|---------------------------|-------------------|------------------|--------------------------|-----------------------------|
| Alloy      | G26CrMo4 acc. EN 10293    | SC                | 250              | 50                       | NT, QT                      |
|            | GS-25CrMo4 acc. DIN 17205 | SC                | 250              | 50                       | NT, QT                      |

### Remarks:

SC: Sand Casting
NT: Normalised and tempered 2)

QT: Quenched and tempered

Incl. equivalent grades in acc. to other standards

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