

# APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No: **AMMM00001EJ**Revision No:

This is to certify:

That

Forgia Rapida S.r.l. Via Brini, 32 40128 Bologna, Italy

is an approved manufacturer of **Steel Forgings** 

in accordance with

DNV rules for classification – Ships DNV class programme – DNV-CP-0247 Steel forgings

and the following particulars:

Application area Forgings for hull structures and equipment,

Forgings for shafting and machinery

Steel type Alloy,

See page 2

Forging method Open die forging Max. weight See page 2
Max. diameter / section See page 2
Heat treatment condition See page 2
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 2023-08-17

for DNV

This Certificate is valid until 2026-09-30.

DNV local unit: Venice

Approval Engineer: Christian Wildhagen

Thorsten Lohmann
Head of Section

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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## Particulars of the approval

### Forgings for hull structures and equipment

| Steel type | Grade <sup>3)</sup>                | Forging method 1) | Max. weight [kg] | Max. diameter / section [mm] | Heat treatment condition <sup>2)</sup> |
|------------|------------------------------------|-------------------|------------------|------------------------------|--|
| Alloy      | NV F550AW, NV F600AW,<br>NV F650AW | OD                | 6 000            | 500                          | QT                                     |

### Forgings for shafting and machinery

| Steel type | Grade <sup>3)</sup>  | Forging method 1) | Max. weight [kg] | Max. diameter / section [mm] | Heat treatment condition <sup>2)</sup> |
|------------|--|-------------------|------------------|------------------------------|--|
| Alloy      | NV F600A, NV F700A,<br>NV F800A, NV F900A,<br>NV F1000A, NV F1100A | OD                | 6 000            | 500                          | QT                                     |

#### Remarks:

1) OD: Open die forging
2) QT: Quenched and tempered
3) Incl. equivalent grades in acc. to other standards

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