



Marine & Offshore

Certificate number: 68571/A0 BV File number: MAT 132688-2021 Product code: 81531

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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APPROVAL CERTIFICATE for MATERIALS

This certificate is issued to

FORGIATURE VITALI SRL

MILANO - ITALY

for the type of product

STEEL FORGINGS

Carbon, carbon-manganese steels, alloy and low alloy steel forgings

Requirements:

Bureau Veritas Rules on Materials and Welding for the Classification of Marine Units

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 15 Apr 2027

For Bureau Veritas Marine & Offshore, At BV VENEZIA, on 15 Apr 2022, Sandro BRUSEGAN

This certificate was created electronically and is valid without signature



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

Forgings intended for machinery, shafts and non-welded components.

Type of steel	Weigth range	Delivery conditions
Carbon steels Carbon-manganese steels	Maximum weight up to 6000 kg	Normalizing
Alloy steels Low-alloy steels	Maximum weight up to 5200 kg	Quenched and tempered

No steelmaking. Forgings made from ingots by upsetting and/or stretching operations, as applicable. Heat treatment operations are carried out by BTT srl - Fornaci.

2. DOCUMENTS AND DRAWINGS :

2.1 - Documents issued by Forgiature Vitali Srl :

- "Company and manufacuing process data" submitted on March 2022.

3. TEST REPORTS :

3.1 - Documents issued by Forgiature Vitali Srl :

- Test reports issued for forging made in grade C45-Heat No.192866 and submitted on 16 November 2021.
- Test reports issued for forging made in grade LF2-Heat No.267302 and submitted on 16 November 2021.
- Test reports issued for forging made in grade F22-Heat No.190555 and submitted on 16 November 2021.
- Test reports issued for forging made in grade 34CrNiMo6-Heat No.211480 and submitted on 16 November 2021.

3.2 - Typical tested grades are:

- C45 according to EN 10250-2 for Carbon steels.
- LF2 according to ASTM A350 for Carbon-manganese steels.
- F22 according to ASTM A182 for Low alloy steels.
- 34CrNiMo6 according to EN 10250-3 for alloy steels.

4. APPLICATION / LIMITATION :

As per Bureau Veritas Rules on Materials and Welding.

Chemical composition, tensile properties and Charpy-V notch test requirements are to be as per Bureau Veritas Materials Rules NR216 and/or alternative specification mentionned on reviewed documents and drawings, as applicable. Heat treamtent supplier BTT srl - Fornaci is to be recognised by the Society in accordance with Bureau Veritas Rule Note

NR320.

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - The steel forgings are to be supplied Forgiature Vitali Srl in compliance with the type and the requirements described in this certificate.

5.2 - This type of product is within the category IBV of Bureau Veritas Rule Note NR320.

5.3 - BV product certificate is required.

6. MARKING OF PRODUCT :

As per Bureau Veritas Rules on Materials and Welding.

7. OTHERS :

Nil.

*** END OF CERTIFICATE ***