



Marine & Offshore

Certificate number: 32714/B0 BV

File number: MAT 22181-2013

Product code: 8999H

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

ACCIAIERIE BERTOLI SAFAU S.p.A.

Pozzuolo del Friuli (UD) - ITALY

for the type of product

SEMI-FINISHED PRODUCTS

Continuously cast blooms and rolled bars made of Carbon, Carbon-manganese and Alloy steels

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: 12 Jul 2023

For Bureau Veritas Marine & Offshore,

At BV VENEZIA, on 12 Jul 2018,

Sandro BRUSEGAN



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 :

Continuously cast blooms having round profile from 310mm up to 700mm diameter and made of following steel grades:

- Carbon steels, typically C45, C45S
- Carbon-manganese steels, typically 15Mn5
- Alloy steels (high carbon), typically 40CrNiMoS3, 40CrMo4, 40CrMoS4
- Alloy steels (Low carbon), typically 15CrNiMo6+S, 15CrNiS3+Mo, 15NiCrMoS4, 20CrNiMoS2.

Rolled bars having round profile from 29mm up to 370mm diameter, square profile from 40mm up to 300mm and made of following steel grades:

- Carbon steels, typically C20, C45S, C40S
- Carbon-manganese steels, typically 15Mn5
- Alloy steels (high carbon), typically 40CrMo4+S, 40CrMo4, 40CrMoS4,
- Alloy steels (Low carbon), typically 25CrMo4, 20CrNiMo2, 20CrNiMoS2, 15MnCrS5, 20CrNiMo6, 20CrMo3+S, 20CrMo2+S.

Rolled bars are delivered in untreated condition. Steelmaking by Electric Arc Furnace, Refining furnace, and Vacuum degassing.

2. DOCUMENTS AND DRAWINGS :

- "Acciairie Bertoli Safau - Company profile" issued by Acciaierie Bertoli SAFAU S.p.A. and dated May 2012.
- As per internal standard N.F.A. No. 269 Rev.10, No.303 Rev.19, No.881 Rev.15, No. 906 Rev.7, No. 780 Rev.14, No.744 Rev.16, No. 257 Rev.26, No. 1202 Rev.16, No. 179 Rev.8, No. 781 Rev.14, No. 734 Rev.8, No. 420 Rev.16, No.326 Rev.14, No. 415 Rev.13, No.1102 Rev.5, No. 722 Rev.11 issued by Acciaierie Bertoli SAFAU S.p.A.

3. TEST REPORTS :

- Document named "Mechanical properties" dated 21/05/2013 and issued by Acciaierie Bertoli SAFAU S.p.A.
- Approval test results dated 03/09/2012, Baumann tests results dated 03/10/2012 and issued by Acciaierie Bertoli SAFAU S.p.A.

4. APPLICATION / LIMITATION :

Chemical composition, tensile properties, and Charpy-V notch test requirements are to be as per Bureau Veritas Rules NR216 and/or alternative specification mentioned on reviewed drawings as applicable.

When blooms are intended to be rolled into steel products in accordance with Bureau Veritas Rules for Classification like hull steel grades or forged products, the specification of each steel grade is to be agreed between Acciaierie Bertoli SAFAU S.p.A. and the rolling mill according to type of steel and rolling process approved by Bureau Veritas at the rolling mill.

When rolled bars are intended to be used in the construction of structures and parts of machinery and equipment or forged products in accordance with Bureau Veritas Rules for Classification, the specification and final heat treatment of each steel grade is to be agreed between Acciaierie Bertoli SAFAU S.p.A. and the rolling mill according to type of steel and rolling process approved by Bureau Veritas at the rolling mill.

5. PRODUCTION SURVEY REQUIREMENTS :

The cast blooms and rolled bars are to be supplied by Acciaierie Bertoli SAFAU S.p.A. in compliance with the type described in this certificate. This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate. Acciaierie Bertoli SAFAU S.p.A. has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

For information, Acciaierie Bertoli SAFAU S.p.A. has declared to Bureau Veritas the following production site:

Acciairie Bertoli SAFAU S.p.A.
Via Buttrio, 28
33050 Pozzuolo del Friuli, Italy

6. MARKING OF PRODUCT :

As per Bureau Veritas Rules for Classification.

7. OTHERS :

This certificate replaces approval No.32714/A0 BV.

***** END OF CERTIFICATE *****