



Marine & Offshore

Certificate number: 43455/B1 BV File number: 103874-2015 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

RUBIERA SPECIAL STEEL S.P.A.

Casalgrande (RE) - ITALY

for the type of product

SEMI-FINISHED PRODUCTS

Ingots for forgings in Carbon, Carbon-manganese, Alloy, High alloy, stainless 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: 26 Feb 2026

For Bureau Veritas Marine & Offshore, At BV NAPOLI, on 11 Jun 2024, 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

<u>1. PRODUCT DESCRIPTION :</u>

1.1 Semi-finished products for forgings:

| Type of product | Steel making process | Dimensions and Weight range |
|-----------------|----------------------|-----------------------------|
| Ingot | EAF+LF+VD+VOD | Up to 145 tons |

EAF: Electric Arc Furnace; LF: Ladle Refining Furnace; VD: Vacuum Degassing; VOD Vacuum Oxygen Decarburation.

1.2 Typical steel grades are :

- LF2 according to ASTM A350 and F65 according to ASTM A694 for Carbon, Carbon-manganese steels.

- 18CrNiMo7-6 according to EN 10084 and 40NiCrMo7 according to UNI 7874 for Alloy steels.
- X37CrMoV5-1according to EN 4957 for High alloy steels.
- F6NM according to ASTM A182, X4CrNiMo16-5-1 according to APX4, Gr630 according to ASTM A564 for stainless steels.

2. DOCUMENTS AND DRAWINGS :

As per following document issued by Rubiera Special Steel S.p.A

- "Technical information RSS-Casalgrande_B1" dated 12/12/2023.

- "Others required document" dated 2015.

3. TEST REPORTS :

As per following documents issued by Rubiera Special Steel S.p.A:

- Certificates included in "Product materials type of steel" dated 03/11/2015;
- Reports included in "Macroetching & Baumann" dated 09/10/2015, 03/11/2015 and 20/11/2015;
- Reports included in "Test certificates" dated 03/11/2015 and 10/12/2015.
- Test report ref. "X4CrNiMo16-5-1 APX4 Heat 200209" dated 02/11/2020.
- Test report ref. "Gr 630 ASTM A564 Heat 222529" dated 27/02/2023.
- Test report ref. "Gr 630 ASTM A564 Heat 221524" dated 27/02/2023.

4. APPLICATION / LIMITATION :

As per Bureau Veritas Rules for Classification.

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

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - The steel ingots are to be supplied by Rubiera Special Steel S.p.A in compliance with the type described in this certificate. 5.2 - 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.

5.3 - Rubiera Special Steel 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.

5.4 - For information, Rubiera Special Steel S.p.A has declared to Bureau Veritas the following production site:

Rubiera Special Steel S.p.A Via XXV Aprile, 64 42013 Casalgrande (RE)

Italy

6. MARKING OF PRODUCT :

As per Bureau Veritas Rules for Classification.

7. OTHERS :

This certificate replaces approvals from No. 43455/A0 BV to No.43455/B0 BV.

*** END OF CERTIFICATE ***