



Marine & Offshore

Certificate number: 39536/B0 BV

File number: MAT 95125-2014

Product code: 8154I

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

SAFAS SpA

Altavilla Vicentina - ITALY

for the type of product

STEEL CASTINGS

Carbon, carbon-manganese and stainless steel castings of maximum weight 10 tons.

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 is a renewal of certificate N° 39536/A0 BV expiring on 18/12/2019

This certificate will expire on: 18 Dec 2024

For Bureau Veritas Marine & Offshore,

At BV VENEZIA, on 12 Dec 2019,

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 :

Carbon, carbon-manganese and austenitic stainless steels castings of maximum weight 10 tons.

Melting by Electric Arc furnace or Induction furnace, casting in sand moulds, heat treatment as applicable.

2. DOCUMENTS AND DRAWINGS :

2.1- Documents issued by SAFAS SpA:

- "SAFAS presentation for BV" dated 11 September 2014.
- "Manufacturing Technical Program N° PTF 224/ORT" dated 28/10/2013.
- Drawing N° BD020267 Rev.2 dated 03 June 2010.
- "Heat treatment procedure N° TT/01 Rev.1" dated 23 November 2009.
- "X-Ray Test procedure N° RT/01 Rev.7" dated 09 April 2008.
- "Dye penetrant Test procedure N° PT/01 Rev.7" dated 23 december 2005.

3. TEST REPORTS :

3.1 - Typical tested grades are:

- 90-60 according to ASTM A148 and specification N° ES45000SSF92011A1 for Carbon/Carbon-manganese steels.
- CF8M according to ASTM A351 for Austenitic stainless steels .

3.2- Documents issued by SAFAS SpA:

- Quality control plan Nr-3/ORTON Rev.01 dated 02 October 2013.
- Test reports for grade CF8M.
- "Inspection and test plan ITP 05 Rev.01 DMM86132 and Test reports for grade 90-60, Chain wheels".
- "Inspection and test plan ITP 05 Rev.01 DMM86026 and Test reports for grade 90-60, Receptacles".
- "Inspection and test plan ITP 05 Rev.01 DMM86030 and Test reports for grade 90-60, Cam sleeves".
- WPS N° 1125A Rev.3 issued by SAFAS SpA and dated 13 September 2012.
- PQR N° 1125 Addition 2 Rev.1 issued by SAFAS SpA and dated 03 September 2012.

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 mentioned on reviewed drawings, as applicable.

5. PRODUCTION SURVEY REQUIREMENTS :

- 5.1 - The steel castings are to be supplied by SAFAS SpA 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 for Classification.

7. OTHERS :

This certificate replaces approval No.39536/A0 BV.

*** END OF CERTIFICATE ***