



Certificate number: 36296/A0 BV

File number: MAT 66161-2013

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

F.LLI GANDOSI ACCIAIERIE ELETTRICHE SPA
NEMBRO (BG) - ITALY

for the type of product

STEEL CASTINGS

Carbon, low alloy and austenitic stainless steel castings up to 8,5 tons.

Requirements:

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

This certificate is issued to attest that BUREAU VERITAS 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: 07 Jan 2019

For BUREAU VERITAS,

At BV GENOA, on 07 Jan 2014,

Carlo Bozzetti

A handwritten signature in black ink, appearing to read 'C. Bozzetti'.



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. 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 Division 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 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 steel, low alloy steel and austenitic stainless steel castings of maximum weight 8,5 tons .

Melting by Electric Arc Furnace (EAF) or Induction furnace (IF).

Sand casting in hand moulding, Heat treatment as applicable.

2. DOCUMENTS AND DRAWINGS :

- Gandossi brochure issued by F.Ili Gandossi Acciaierie Elettriche SpA.
- Gandossi information for approval issued by F.Ili Gandossi Acciaierie Elettriche SpA and dated 8 March 2013.
- Technical procedures PT 016 - issue 3 ; PT 017- issue 3; PT 013 - issue 3; PT 009 - issue 3 and PT 004 - issue 3 issued by F.Ili Gandossi Acciaierie Elettriche SpA dated 13 January 2010.
- NDE procedure IT 002 rev.3 for ultrasonic examination issued by F.Ili Gandossi Acciaierie Elettriche SpA and dated 13 June 2013.

3. TEST REPORTS :

Typical grades tested are:

- GE200 according to UNI EN 10293 for carbon steel castings.
- WC9 according to ASTM A217 and G17CrMo5-5 according to EN 10213-2 for low alloy steel castings.
- CF8M according to ASTM A351 for austenitic stainless steel castings.

- Mechanical tests reports N° SBG/0633/13 dated 05 August 2013; STP/0626/12 dated 02 October 2012; SBG/0152/13 dated 25 February 2013; SPT/0623/12 and STP/0622/12 dated 02 October 2012 issued by OMECO SRL.
- Chemical analysis certificates N° AC044/13C dated 10 June 2013 ; AC019/13C and AC333/12C dated 10 October 2012 ; AC919/07C dated 15 October 2008 and AC748/11C dated 14 March 2012 issued by F.Ili Gandossi Acciaierie Elettriche SpA.
- Heat treatment reports N° CTT028/13C dated 10 June 2013; CTT007/13C, CTT206/12C, CT006/13C, CT005/13C dated 10 October 2012 issued by F.Ili Gandossi Acciaierie Elettriche SpA
- Non destructive test certificates N° NDE209/12C dated 31 October 2012; NDE465/11C dated 14 March 2012; NDE512/07C dated 31 October 2008 and NDE085/13C dated 05 April 2013 issued by F.Ili Gandossi Acciaierie Elettriche SpA.

4. APPLICATION / LIMITATION :

As per Bureau Veritas Rules for Classification.

Steel grade specification is to be as per Bureau Veritas Materials Rules for Classification of Steel Ships and/or specification mentioned on examined drawings, as applicable.

5. PRODUCTION SURVEY REQUIREMENTS :

The steel castings are to be supplied by F.Ili Gandossi Acciaierie Elettriche SpA in compliance with the type and the requirements described in this certificate.

This type of product is within the category IBV of Bureau Veritas Rule Note NR320.
BV product certificate is required.

6. MARKING OF PRODUCT :

As per Bureau Veritas Rules for Classification.

7. OTHERS :

Nil.

*** END OF CERTIFICATE ***