



Marine & Offshore

Certificate number: 36296/B0 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 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: 21 Feb 2024**

**For Bureau Veritas Marine & Offshore,**

At BV VENEZIA, on 21 Feb 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](http://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 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 :**

As per documents issued by F.lli Gandossi Acciaierie Elettriche SpA:

- Gandossi brochure, submitted September 2013.
- Gandossi information for approval 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 dated 13 January 2010.
- NDE procedure IT 002 Rev.3 for ultrasonic examination 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.

As per documents issued by F.lli Gandossi Acciaierie Elettriche SpA:

- 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.
- 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.
- Heat treatment reports N° CTT028/13C dated 10 June 2013; CTT007/13C, CTT206/12C, CT006/13C, CT005/13C dated 10 October 2012.
- 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.

### **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 documents and drawings, as applicable.

### **5. PRODUCTION SURVEY REQUIREMENTS :**

- 5.1 - The steel castings are to be supplied by F.lli Gandossi Acciaierie Elettriche 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. 36296/A0 BV.

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