



MARINE DIVISION

Certificate number: 20971/B0 BV

File number: MAT 3296-2008

Product code: 8153I

*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*

### FORGIATURA MORANDINI

Cividate Camuno (BS) - ITALY

*for the type of product*

### STEEL FORGINGS

Carbon, carbon-manganese, low alloy, alloy and austenitic stainless steel forgings of maximum weight 80 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: 29 Jan 2019**

**For BUREAU VERITAS,**

At BV GENOA, on 29 Jan 2014,

Carlo 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](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 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, low alloy, alloy and austenitic stainless steel forgings of maximum weight 80 tons.

Typical tested grades are :

- CK35 for carbon steels
- BS1503 for carbon-manganese steels
- 42CrMo4 for low alloy steels
- 304 for austenitic steels.

Forgings are heat treated as applicable.

### **2. DOCUMENTS AND DRAWINGS :**

- "Technical qualification of the factory" issued by Forgiatura Morandini and dated September 2005.

### **3. TEST REPORTS :**

- "Material test report N°1147" issued by Forgiatura Morandini and dated 20 March 2008.
- "Material test report N°1148" issued by Forgiatura Morandini and dated 21 March 2008.
- "Material test report N°1149" issued by Forgiatura Morandini and dated 21 March 2008.
- "Material test report N°1330" issued by Forgiatura Morandini and dated 10 June 2008.
- "Material test report N°1150" issued by Forgiatura Morandini and dated 28 March 2008.

### **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.

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

The steel forgings are to be supplied by Forgiatura Morandini 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 :**

This certificate replaces approval number 20971/A0 dated 19 december 2008.

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