



Marine & Offshore

Certificate number: 18887/C0 BV

File number: MAT 6232-2007

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*

**RIGANTI SPA**  
Solbiate Arno - ITALY

*for the type of product*

**STEEL FORGINGS**

Carbon, carbon-manganese, low alloy and alloy steel forgings.

### 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: 08 Oct 2023**

**For Bureau Veritas Marine & Offshore,**

At BV VENEZIA, on 08 Oct 2018,

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, carbon-manganese, low alloy, and alloy steel forgings intended for use in the construction of machinery, and, having maximum weight up to 500Kg.

No steelmaking. Forgings are made from bars, square or round section having size from 100mm to 550mm. Minimum total reduction ratio is 3:1.

Closed die forgings are made by various operations including: pre-forming by presses, upsetting, impression die forging by counterblow hammers. Heat treatment as applicable.

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

- "Document book for approval certificate for material in acc. to NR 480 DT R03 E - Approval of the manufacturing process of metallic materials" issued by Riganti SpA and submitted on August 2018.

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

Typical tested grades are:

- S50C Quenched and Tempered for carbon steel.
- ASTM A350 LF2 Cl.1 Quenched and Tempered for carbon-manganese steel.
- 42CrMo4 EN 10083 Quenched and Tempered for low alloy steel.
- 34CrNiMo6 EN 10083 Quenched and Tempered for alloy steel.

Test certificates issued by Riganti SpA:

- "Declaration of compliance with the order N°122675/17" dated 04/10/2017.
- "Declaration of compliance with the orders N°73062/06 and 73068/06" dated 08/11/2006.
- "Declaration of compliance with the order N°18/00005" dated 07/09/2018; Fabrication process Ref.F11554 dated 31/07/2018.
- "Declaration of compliance with the order N°KR0125235" dated 07/09/2018; Fabrication process Ref.F10720AS dated 31/07/2018.
- "Declaration of compliance with the order N°665712" dated 07/09/2018; Fabrication process Ref.F8809B dated 31/07/2018.

### **4. APPLICATION / LIMITATION :**

As per Bureau Veritas Rules for Classification. Steel grade specification for chemical composition and mechanical properties is to be as per Bureau Veritas Materials Rules for Classification and/or material specification reviewed by the Society, as applicable.

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

The steel forgings are to be supplied by Riganti SpA in compliance with the type described in this certificate and in compliance with the requirements of Bureau Veritas Rules for the Classification of Steel Ships. 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 approvals No.18887/A0 BV, and, No.18887/B0 BV.

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