



Marine &amp; Offshore

Certificate number: 20471/C0 BV

File number: MAT 3292-2008

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*

**METALCAM SpA**  
BRENO (BS) - ITALY

*for the type of product*

**STEEL FORGINGS**

Carbon-manganese and alloy steel forgings of maximum weight 16 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: 31 May 2024**

**For Bureau Veritas Marine & Offshore,**

At BV VENEZIA, on 31 May 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-manganese and alloy steel forgings of maximum weight 16 tons.

Steel making by Electric Arc Furnace, Ladle furnace, and, Vacuum degassing, as applicable.

Forgings are made from ingots having a weight up to 38tons.

Open die forgings. Heat treatment as applicable.

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

- "Company profile", and, documents issued by Metalcam Spa. and submitted on April 2019.
- Procedures Ref.MPI 03.13 Rev.1 dated 31/01/2018, Ref.UT 005.18 Rev.0 dated 10/02/2018.

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

3.1 - Documents issued by Metalcam SpA:

- Inspection certificate No.3589/2008 dated 18/03/2008,
- Inspection certificate No.1134/2008 dated 28/01/2008,
- Inspection certificate No.3275/2018, No.3276/2018 Rev.01 & 3279/2018 Rev.0 dated 26/02/2018.
- Inspection certificates No.8260/2018 & No.8261/2018 dated 23/05/2018, No.11797/2019 Rev.0 dated 17/05/2019.

3.2 - Typical grades tested:

- C45 according to EN 10083-2 and MPS 103.19 Rev.0 dated 23/04/2019, Normalized, for carbon-manganese steels.
- 42CrMo4 according to EN 10083-3 and MPS 102.19 Rev.0 dated 23/04/2019, Quenched and Tempered, for alloy steels.

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

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

5.1 - The steel forgings are to be supplied by Metalcam 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 approvals No.20471/A0 BV and No.20471/B0 BV.

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