



Marine & Offshore

Certificate number: 57607/A0 BV

File number: MAT 25964-2019

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

IRE OMBA SPA

Bergamo - ITALY

for the type of product

STEEL FORGINGS

Carbon, carbon-manganese, low-alloy, alloy, and stainless steel forged products with maximum weight 6700Kg.

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: 29 Nov 2024

For Bureau Veritas Marine & Offshore,

At BV VENEZIA, on 29 Nov 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. 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, alloy, and stainless steel forged products intended for machinery, gearing with a maximum weight 6700Kg.

No steelmaking. Forgings are made by upsetting, punching and ring rolling. Heat treatment as applicable.

2. DOCUMENTS AND DRAWINGS :

As per following documents issued by IRE OMBA SPA:

- IRE OMBA presentation, submitted May 2019.
- "Approval of the manufacturing process of metallic materials" dated 06 May 2019.
- Approval test program revision 03, dated August 2019.
- Procedures No. CM 01 Rev.06; CU 19 Rev.02; CU 29 Rev.00 and CP 01 Rev.04 dated 20/06/2019.

3. TEST REPORTS :

3.1 As per following reports issued by IRE OMBA SPA:

- No. 191708/4; No. 500912/1; No. 193100/4; No. 500932/1; No. 500996/1 dated 04 June 2019.
- No.193625/15 dated 11/06/2019.

3.2 Typical tested grades:

- P280GH according to EN 10222-2; C45E according to EN 10083-2 for carbon, carbon-manganese steels.
- 42CrMo4 according to EN 10083-3 and 4340 according to ASTM A29 for low alloy, alloy steels.
- F316L according to ASTM A182 for stainless 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 & drawings, as applicable.

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - The steel forgings are to be supplied by IRE OMBA 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 :

Nil.

*** END OF CERTIFICATE ***