



Marine & Offshore

Certificate number: 54474/A0 BV

File number: MAT 80496-2018

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

HAMOR Zrt.

Miskolc - HUNGARY

for the type of product

STEEL FORGINGS

Carbon, carbon-manganese, and, alloy steels forgings of maximum weight 4 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: 15 Nov 2024

For Bureau Veritas Marine & Offshore,

At BV PRAGUE, on 15 Nov 2019,

Pavel Jr. Stepanek



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 :

Rough machined forgings for shaft and non-welded components. Carbon, carbon-manganese and alloy steel forgings of maximum weight 4 tons.

No steelmaking. Open die forgings made from ingots. Forgings are heat treated as applicable.

2. DOCUMENTS AND DRAWINGS :

Information about company and manufacturing issued by Hamor Zrt. and submitted on October 2019.

3. TEST REPORTS :

3.1 - Documents issued by Hamor Zrt.:

Test certificates and records issued for shaft Ref.98-19E0874 - Heat No.041019 and submitted on 2019.

Test certificates and records issued for hollow shaft Ref.98-19E0057 - Heat No.65820 and submitted on 2019.

3.2 - Typical tested grades are :

- S355J2G3 as per EN10250-2, Normalized and tempered, for carbon steels.

- 42CrMo4 as per EN 10083-3, 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 Hamor Zrt. 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 *****