



Marine & Offshore

Certificate number: 73791/A0 BV

File number: MAT 95623-2022

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

BOHEMIA RINGS s.r.o.
Zámorsk - CZECH REPUBLIC

for the type of product

STEEL FORGINGS

Alloy steel forgings with maximum weight 2500Kg.

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: 24 Nov 2027

For Bureau Veritas Marine & Offshore,

At BV PRAGUE, on 24 Nov 2022,

Pavel Jr. Stepanek

This certificate was created electronically and is valid without signature



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 :

Alloy steel forgings with maximum weight 2500Kg. Typical products are seamless rolled rings.

No steelmaking. Forgings are made from ingot castings or continuous casting blooms by open die forging and ring rolling. Forgings are heat treated as applicable.

2. DOCUMENTS AND DRAWINGS :

2.1- Documents issued by Bohemia Rings s.r.o:

- ITP-002-B-026864 and ITP-002-B-026863 dated 12 October 2022.
- "Approval Application report AAR-03 Rev.00" dated 17 October 2022.
- Document "ROR02990 Forging sequence and RR" submitted 17 November 2022.

2.2- Documents issued by Liebherr:

- "Ultrasonic testing of rolled and forged parts - QSA 010-2 Version 006" dated 25 April 2022.

3. TEST REPORTS :

3.1-Test reports issued by Bohemia Rings s.r.o:

- Documents for heat No. 12404 grade 42CrMo4 dated 11/10/2022.
- Documents for heat No. 12471 grade 42CrMo4 dated 11/10/2022.

3.2- Typical tested grade is:

- 42CrMo4+QT according to ISO 683-2 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 Materials Rules NR216 and /or alternative specification mentioned on received documents and drawings, as applicable.

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - The steel forgings are to be supplied by Bohemia Rings s.r.o 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 *****