Certificate number: 61374/B0 BV
File number: MAT 55820-2020
Product code: 8154I

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

EBROACERO,S.A.

ZARAGOZA - SPAIN

for the type of product

STEEL CASTINGS

Carbon-manganese steel castings with maximum net weight 10 tonnes.

Requirements:
Bureau Veritas Rules on Materials and Welding for the Classification of Marine Units (NR 216)
Approval of the manufacturing process of metallic materials (NR 480)

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: 11 May 2031

For Bureau Veritas Marine & Offshore,
At BV MADRID, on 11 May 2026,
Laura Gutierrez Cruz

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 :

Carbon-manganese steel castings for engineering use with maximum net weight 10 tonnes.
Steelmaking in Electric Arc Furnace. Sand castings. Heat treatment as applicable. Casting surface condition according to purchaser's requirements.

2. DOCUMENTS AND DRAWINGS :

2.1 - Documents issued by Ebroacero, S.A.:
- "Approval of the Manufacturing process of Metallic Materials" dated 10/03/2020.
- Manufacturing Procedure Ref.MP-190909 Rev.02 19/09/2019.
- Ref.MT-133023 dated 26/09/2019; Ref.UT-133023 dated 27/11/2019; Ref.VT-133023 dated 26/09/2019.

2.2 - Documents issued by SCI S.A:
- Ref. END-RT64262 Rev.0 dated October 2019.

3. TEST REPORTS :

3.1-Documents issued by Ebroacero, S.A:
- Certificates Ref.20998 Rev.0, Ref.21006 Rev.0 dated 13-02-2020.
- Reports Ref.VT-200252 dated 27/01/2020; Ref.VT-200240 dated 03/02/2020; Ref.MT-200239, Ref.MT-200257, Ref.UT-200239, Ref.UT-200257 dated 13/02/2020.
- Reports Ref.AQ-200206, Ref.AQ-200207, Ref.AQ-200212, Ref.AQ-200213 dated 23/01/2020.
- Reports Ref.MG-200217, Ref.MG-200218, Ref.MG-200219, Ref.MG-200220, Ref.MG-200233, Ref.200234, Ref.MG200235, Ref.MG200236 dated 12/02/2020.

3.2-Documents issued by SCI S.A:
- Certificate Ref.190045FUNZAR-OT0003-IF-05 dated 11/02/2020.

3.3-Typical grade tested is:
- Grade 90-60 modified according to ASTM A148 and material data sheet Ref.MDS-190001 dated 27/03/2019 – Annealing, quenching in water, tempering and stress relieving for C-Mn steel.

4. APPLICATION / LIMITATION :

4.1 - As per Bureau Veritas Rules on Materials and Welding for the Classification of Marine Units.
4.2 - Chemical composition and mechanical properties requirements are to be as per Bureau Veritas Rules on Materials and Welding for the Classification of Marine Units, and/or alternative specification mentioned on reviewed drawings, as applicable.

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - The steel castings are to be supplied by Ebroacero, S.A 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.
5.4 - Ebroacero, S.A has to make the necessary arrangements to have its works recognized by Bureau Veritas in compliance with the requirements of NR320.
5.5 - For information, Ebroacero, S.A has declared to Bureau Veritas the following production site:

Ebroacero, S.A
Argüalas s/n
50012 Zaragoza
SPAIN

6. MARKING OF PRODUCT :

6.1 - Each steel casting that has been tested with satisfactory results are to be marked with the following information:

- Manufacturer's name or trademark
- Bureau Veritas' Mark
- Identification marking enabling traceability, such as cast number, heat number, or batch number
- Material grade and classification
- Additional markings where applicable, such as test pressure or specific inspection references

Additional marking requirements specific to steel castings shall be in accordance with the "Marking" article in the relevant section of Bureau Veritas NR216 Rules on Materials and Welding for the Classification of Marine Units.

7. OTHERS :

7.1 - It is Ebroacero, S.A's responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.
7.2 - This certificate supersedes the Type Approval Certificate N° 61374/A1 BV issued by the Society.

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