

**Certificate number:** 73131/A0 BV**File number:** MAT 106422-2022**Product code:** 8999H

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

Fujian TsingTuo Nickel Industry Co., Ltd.
FUJIAN - CHINA

for the type of product

SEMI-FINISHED PRODUCTS

Billets and blooms made in austenitic and austenitic-ferritic (duplex) stainless steel grades

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.

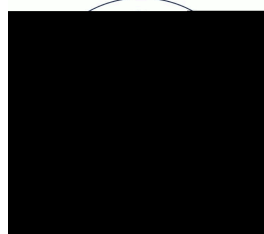
This certificate will expire on: 01 Oct 2028

For Bureau Veritas Marine & Offshore,

At BV SHANGHAI, on 01 Oct 2023,

Jennifer Zhang

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

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

Billets and blooms used for rolled and forged products.

| Steel grade | Deoxydation practice | Product: Delivery condition and dimensions |
|--|----------------------|---|
| Austenitic stainless steels: 304/304L;316/316L;321;347 – ASTM A276 and ASTM A314 | Si-Al Killed | Billet: As cast - 210mmx210mmx6000 to 11000mm Bloom: As rolled – Diameter from 65mm to 130mm |
| Austenitic-ferritic (duplex) stainless steels: UNS S32750 UNS S32205 – ASTM A276 and ASTM A314 | Si-Al Killed | Billet: As cast - 210mmx210mm Bloom: As rolled – Diameter from 65mm to 130mm |

Steelmaking by EAF, AOD furnace and LF refining. Billets made by continuous casting. Blooms made from billet by rolling operation.

2. DOCUMENTS AND DRAWINGS :

- 2.1 - As per following document issued by Fujian TsingTuo Nickel Industry Co., Ltd
- “Application document of works approval by BV” dated 24/09/2022.
- “Type experimental outline for BV” dated 21/09/2022.

3. TEST REPORTS :

- 3.1 – Reports issued by Quality & testing center in Fujian Tsingtuo Nickel Co., Ltd.:
- Ref.DNTC-TR-230407001; Ref.DNTC-TR-230407002; Ref.DNTC-TR-230407003; Ref.DNTC-TR-230407004;
Ref.DNTC-TR-230407005; Ref.DNTC-TR-230407006 dated 26/03/2023.

3.2 – Test reports issued for testing rolled pipes made from semi-finished products supplied by Fujian TsingTuo Nickel Industry Co., Ltd for:

- Grade 304 – Heat No.NY220905AS11 dated 15/02/2023.
- Grade 304L – Heat No.NY221015AV15 dated 15/02/2023.
- Grade 316L – Heat No.NY220903AT03 dated 15/02/2023.
- Grade 321 – Heat No.NY220909AS07 dated 15/02/2023.
- Grade S32205 – Heat No.NY220905AX03 dated 15/02/2023.
- Grade S32750 – Heat No.NY220926AS10 dated 15/02/2023.

4. APPLICATION / LIMITATION :

As per Bureau Veritas Rules for Classification.
Ingots are for forging applications.
Billets are for pipe and tube applications.

5. PRODUCTION SURVEY REQUIREMENTS :

- 5.1- The ingots and billets are to be supplied by Fujian TsingTuo Nickel Industry Co., Ltd.in compliance with the type described in this certificate.
5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320.
5.3 - Fujian TsingTuo Nickel Industry Co., Ltd. has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.
5.4 - For information, Fujian TsingTuo Nickel Industry Co., Ltd. has declared to Bureau Veritas the following production site:

Fujian TsingTuo Nickel Industry Co., Ltd.
Fuxi Village,Wanwu Town,
Fu'an,Fujian,
Fujian (China)

6. MARKING OF PRODUCT :

As per Bureau Veritas Rules for Classification

7. OTHERS :

It is Fujian TsingTuo Nickel Industry '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.

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