



Marine & Offshore

Certificate number: 31609/B0 BV

File number: MAT 2569-2012

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

PJSC AZOVSTAL IRON & STEEL WORKS

Mariupol - UKRAINE

for the type of product

SEMI-FINISHED PRODUCTS

Continuous cast slabs for rolled products grade A to EH36.

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 is a renewal of certificate N° 31609/A0 BV expiring on 23/10/2017

This certificate will expire on: 23 Oct 2022**For Bureau Veritas Marine & Offshore,**

At BV ODESSA, on 03 Oct 2017,

Evgueni KUZNETSOV



THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

Continuous cast slabs for rolled products.

Typical dimensions : thickness 220-270mm, width 1250-2100mm, length 5500-12000mm

Steel grade	Deoxydation practice & Refining	Delivery conditions
A, B , D, E	Si-killed and fine grain treated with Al	As Cast
AH32, DH32, EH32 AH36, DH36, EH36	Killed and fine grain treated with Al+Nb	As Cast

Steelmaking by BOF converter .

2. DOCUMENTS AND DRAWINGS :

As per following documents issued by PJSC AZOVSTAL IRON & STEEL WORKS:

- "Description of the process for production of slabs at PJSC AZOVSTAL IRON & STEEL WORKS" dated 2012.

- "Technical report for compliance with the approval terms for manufacture of shipbuilding quality steel plates at AZOVSTAL" dated 2010.

3. TEST REPORTS :

As per following documents issued by PJSC AZOVSTAL IRON & STEEL WORKS:

- "Report for approval of slab production" dated 23 August 2017.

- "The report of works approval tests for production of slabs at PSJC AZOVSTAL IRON & STEEL WORKS" dated 2012.

4. APPLICATION / LIMITATION :

As per Bureau Veritas Rules for Classification

5. PRODUCTION SURVEY REQUIREMENTS :

The semi-finished products are to be supplied by PJSC AZOVSTAL IRON & STEEL WORKS in compliance with the type described in this certificate. This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate. PJSC AZOVSTAL IRON & STEEL WORKS has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

6. MARKING OF PRODUCT :

As per Bureau Veritas Rules for Classification

7. OTHERS :

This certificate replaces approval N° 31609/A0 BV.

*** END OF CERTIFICATE ***