



Marine & Offshore

Certificate number: 09869/E0 BV File number: MAT 12109/01 Product code: 90061

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

ILYICH IRON STEEL WORKS

Mariupol - UKRAINE

for the type of product

NORMAL STRENGTH HULL STEEL ROLLED PRODUCTS

Hot rolled plates in steel grades A, B, D and E.

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° 09869/D0 BV expiring on 19/01/2022

This certificate will expire on: 19 Jan 2027

For Bureau Veritas Marine & Offshore, At BV ODESSA, on 05 Jan 2022, Yevgen KUZNETSOV



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.

THE SCHEDULE OF APPROVAL

<u>1. PRODUCT DESCRIPTION :</u>

Hot rolled plates.

Steel grade	Deoxydation practice & Refining	Delivery conditions
A, B	Si-Al killed	As Rolled (AR) up to 32mm Normalizing Rolled (NR) up to 50mm
D (Z35)1	Si-Al killed and Al fine grain	Normalizing Rolled (NR) up to 50mm
A, B, D(Z35) _{1,2} E(Z35) ₁	Si-Al killed and Al+Ti fine grain	Thermomechanically Rolled (TM) up to 50mm

1 Steel plates with specified through thickness properties having thickness not less than 15mm.

²Chemical composition and method of manufacture of grades A, B, D are similar to E grade.

Steelmaking by Basic Oxygen Converter LD. Continuous casting.

2. DOCUMENTS AND DRAWINGS :

2.1- Documents issued by Ilyich Iron & Steel Works:

-"Report on manufacturing of rolled normal and high strength hull steel plates according to rules of Bureau Veritas at Ilyich Iron & Steel Works of Mariupol" during the period of August 2006-August 2011" dated 24 November 2011.

- "Statictical report of normal strength steels - 2017-2021" dated 14 December 2021.

3. TEST REPORTS :

3.1- Documents issued by Ilyich Iron & Steel Works:

- "Report on approval of shipbuilding plate production at Ilych Iron & Steel Works by Bureau Veritas (BV)" dated 5 May 2006. - "Report Technology of Production and Testing the Plate for Shipbuilding, Grade A (AR) of thickness up to 50mm, BV

DH36 (N) of thickness up to 80mm and BV D (AR, NR), BV EH36 (TM) of thickness up to 30mm" dated July 1999. -"Report on manufacturing of rolled normal and high strength hull steel plates according to rules of Bureau Veritas at Ilyich Iron & Steel Works of Mariupol" during the period of August 2006-August 2011" dated 24 November 2011.

4. APPLICATION / LIMITATION :

As per Bureau Veritas Rules for classification.

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - The rolled steel products are to be supplied by ILYICH IRON & STEEL WORKS 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. In addition to the material grade designation, products are to be marked with the symbol Z35 as appropriate.

7. OTHERS :

This certificate replaces approvals from No.09869/A0 BV to No.09869/D0 BV.

*** END OF CERTIFICATE ***