



Marine & Offshore

Certificate number: 09869/E0 BV

File number: MAT 12109/01

Product code: 9006I

*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



## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION :

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) <sub>1</sub>	Si-Al killed and Al fine grain	Normalizing Rolled (NR) up to 50mm
A, B , D(Z35) <sub>1,2</sub> E(Z35) <sub>1</sub>	Si-Al killed and Al+Ti fine grain	Thermomechanically Rolled (TM) up to 50mm

<sup>1</sup> Steel plates with specified through thickness properties having thickness not less than 15mm.

<sup>2</sup> Chemical 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.
- "Statistical 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 Ilyich 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 \*\*\*