



Marine & Offshore

Certificate number: 09870/E0 BV

File number: MAT 12109/01

Product code: 9007I

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

HIGHER STRENGTH HULL STEEL ROLLED PRODUCTS

Hot rolled plates in steel grades AH32, DH32, EH32, AH36, DH36 and 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° 09870/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
AH32-DH32-EH32 (Z35) ₁	Si-Al killed and Al+Nb+Ti+V fine grain treated	Thermomechanically Rolled (TM) up to 50mm
AH36-DH36-EH36 (Z35) ₁	Si-Al killed and Al+Nb+Ti+V fine grain treated	Thermomechanically Rolled (TM) up to 50mm

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

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 higher 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)" issued by ILYICH IRON & STEEL WORKS OF MARIUPOL and 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.09870/A0 BV to No.09870/D0 BV.

*** END OF CERTIFICATE ***