



MARINE DIVISION

Certificate number: 29588/A0 BV

File number: MAT 52835-2012

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*

### MAGNITOGORSK IRON & STEEL WORKS MAGNITOGORSK - RUSSIAN FEDERATION

*for the type of product*

### HIGHER STRENGTH HULL STEEL ROLLED PRODUCTS

Hot rolled plates in steel grades AH32 to DH36 including Z25/Z35 grades.

**Requirements:**

Bureau Veritas Rules on Materials and Welding for the Classification of Marine Units

*This certificate is issued to attest that BUREAU VERITAS 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: 18 Sep 2017**

**For BUREAU VERITAS,**

At BV ST PETERSBURG, on 18 Sep 2012,

Valery Azovtsev



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. 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 Division available on the internet site [www.veristar.com](http://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 for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION :

Hot rolled plates.

Steel Grade	Deoxydation practice & Refining	Delivery conditions
AH32-DH32 (Z25/Z35)	Killed and Fine grain treated with Al+Nb+Ti+V	Thermo-Mechanical rolling (TM) up to 65mm
AH36-DH36 (Z25/Z35)		

Steelmaking by Basic Oxygen Furnace.

Slabs making by continuous casting.

### 2. DOCUMENTS AND DRAWINGS :

- General Information (Process Flow, Quality Control, Alloying Practice and Rolling Process) issued by Magnitogorsk Iron & Steel Works.
- "Certification Test Program for Shipbuilding Steel Plates Produced at Rolling Mill 5000, OJSC MMK, to the Requirements of Bureau Veritas Rules (BV)" issued by Magnitogorsk Iron & Steel Works.
- "Procedure of Automated Ultrasonic Inspection of Steel Plates with Testing Machine HP-B2/L2-TR3 by NDT Systems & Services" issued by Magnitogorsk Iron & Steel Works and dated 16 November 2011.

### 3. TEST REPORTS :

- "Report on Certification Tests of Flat Products, 5000 MM Plate Mill, OJSC MMK, to determine compliance with Rules of Bureau Veritas" issued by Magnitogorsk Iron & Steel Works and dated July 2012.
- "Technical Report, Determination of welding properties of flat products (in thickness 65 mm, steel grade DH36Z25 manufactured by OJSC MMK) according to the program of classification society Bureau Veritas" issued by Magnitogorsk Iron & Steel Works.

### 4. APPLICATION / LIMITATION :

As per Bureau Veritas Rules for Classification.

### 5. PRODUCTION SURVEY REQUIREMENTS :

The steel plates are to be manufactured, examined and tested by Magnitogorsk Iron & Steel Works in accordance with the type described in this certificate and Bureau Veritas Rules for the Classification of Steel Ships.

Arrangements shall be made for a Society's Surveyor to attend the relevant tests and examinations at manufacturer's works or to perform the relevant audits when an alternative survey scheme (BV Mode I) has been agreed. Relevant Bureau Veritas certificate will be issued after satisfactory completion of the procedure.

### 6. MARKING OF PRODUCT :

As per Bureau Veritas Rules.

In addition to the material grade designation, products are to be marked with the symbol Z25/Z35 as appropriate.

### 7. OTHERS :

Nil.

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