



MARINE DIVISION

Certificate number: 14734/B0 BV

File number: MAT 1543

Product code: 9012I

*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*

**ThyssenKrupp Steel Europe AG**  
Duisburg - GERMANY

*for the type of product*

### FERRITIC STEEL ROLLED PRODUCTS FOR LOW TEMPERATURE APPLICATIONS

Hot rolled plates in steel grade 5,0 Ni

**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: 23 Aug 2015**

**For BUREAU VERITAS,**

At BV HAMBURG, on 23 Aug 2010,

Adama Diene



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. 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 in steel grade 5,0 Ni for low temperature applications or comparable grade X12Ni5 according to standard DIN EN 10028-4.

Steel grade	Deoxydation practice & Refining	Delivery conditions
5,0 Ni	Killed and fine grain treated with Al	Direct Quenched and Tempered (QT) with maximum thickness 30mm Quenched and Tempered (QT) with thickness range from 30mm to 50mm

Steelmaking by Basic Oxygen Converter; Continuous casting; Plates made by hot rolling.

### 2. DOCUMENTS AND DRAWINGS

Documentation submitted by ThyssenKrupp Stahl Duisburg with their letter to Bureau Veritas dated 14 April 2005 and 10 August 2005.

### 3. TEST REPORTS

- Report number 178E issued by ThyssenKrupp Stahl Duisburg and dated 05 September 2000;
- Report number 213 issued by ThyssenKrupp Stahl Duisburg and dated March 2005;
- Report number FQP-PV 96/97 03 issued by ThyssenKrupp Stahl Duisburg and dated November 1996;

### 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 ThyssenKrupp Steel Europe AG 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 for Classification.

### 7. OTHERS

This certificate cancels and replaces approval number 14734/A0 BV dated 24 August 2005.

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