



**BUREAU  
VERITAS**

Istanbul, 16.02.2009

Our Ref: NC/LI/0504/GY/09

**EREĞLİ DEMİR VE ÇELİK FABRİKALARI  
T.A.S..**

Attn. Mr.A.Abdullah GÜNDÜZ  
Mr. Melih KOÇ  
Mr.Kamber AYGÖREN

**Subject: ERDEMİR EREĞLİ DEMİR VE ÇELİK FAB. T.A.S.  
HIGHER STRENGTH HULL STEEL ROLLED PRODUCTS  
TYPE APPROVAL CERTIFICATE  
Certificate Number: 18045/A0 BV**

Dear Sirs,

We are sending you the certificate listed below which have been approved by us and which are intended for your use.

Best regards,

  
**GÜRÇAN YILMAZ**

**Encls: (1 Copy)**

- Bureau Veritas Marine Division Type Approval Certificate for Hot Rolled Coils, Plates from Coils and Heavy Plates in steel grade AH32 to FH36 (2 pages)

BUREAU VERITAS GÖZETİM HİZMETLERİ LTD. ŞTİ.

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Certificate number: 18045/A0 BV

File number : MAT 11442 - 2008

Product code : 90071

*This certificate is not valid when presented without the full attached schedule composed of 7 sections*

## APPROVAL CERTIFICATE for MATERIALS

*This certificate is issued to*

**EREGLI DEMIR VE CELIK FABRIKALARI T.A.S.**

Zonguldak - TURKEY

*for the product*

### HIGHER STRENGTH HULL STEEL ROLLED PRODUCTS

Hot rolled coils, plates from coils and heavy plates in steel grades AH32 to FH36.

**Regulations and standards :**

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 of the Regulations and standards mentioned above.*

**This certificate is valid until : 13 Feb 2014**

At Neuilly, on : 13 Feb 2009

**For BUREAU VERITAS,**  
By order of the Secretary

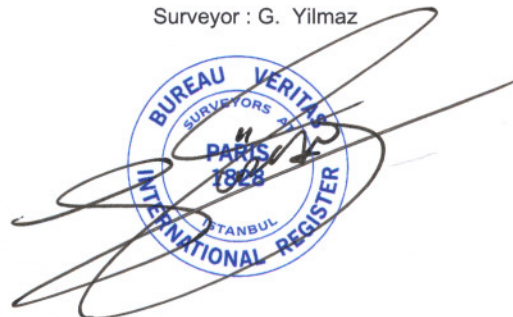
L.COURREGELONGUE

Approval office



Local office : BV ISTANBUL

Surveyor : G. Yilmaz



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. 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 coils, plates from coils and heavy plates.

Steel grade	Deoxydation practice & Refining	Delivery conditions
AH32/AH36	Killed and fine grain treated with Al+Nb	Controlled Rolled (CR) up to 60mm for plates Controlled Rolled (CR) up to 15mm for coils and plates from coils
DH32/DH36	Killed and fine grain treated with Al+Nb	Controlled Rolled (CR) up to 8mm for plates Normalized (N) up to 60mm for plates Controlled Rolled (CR) up to 8mm for coils and plates from coils Normalized (N) up to 15mm for coils and plates from coils
EH32/EH36	Killed and fine grain treated with Al+Nb	Normalized (N) up to 60mm for plates Normalized (N) up to 15mm for coils and plates from coils
FH32/FH36	Killed and fine grain treated with Al+Nb	Normalized (N) up to 60mm for plates Normalized (N) up to 15mm for coils and plates from coils

Steelmaking by Basic Oxygen Furnace.  
Continuous Casting.

### 2. DOCUMENTS AND DRAWINGS :

- "Information for approval of Ereğli Iron and Steel Works Co. (Ereğdemir) for normal and higher strength hull steel grades of A, B, D, E, AH32, AH36, DH32, DH36, EH32, EH36, FH32, FH36" issued by Ereğli Demir Ve Çelik Fabrikalari T.A.S.

### 3. TEST REPORTS :

- "Approval test" issued by Ereğli Demir Ve Çelik Fabrikalari T.A.S. and dated 25 June 2007.  
- "Drop weight test" issued by Ereğli Demir Ve Çelik Fabrikalari T.A.S. and dated 15 May 2007.

### 4. APPLICATION / LIMITATION :

As per Bureau Veritas Rules for Classification.

### 5. PRODUCTION SURVEY REQUIREMENTS :

The steel coils and plates are to be manufactured, examined and tested by Ereğli Demir Ve Çelik Fabrikalari T.A.S. 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 :

Nil.



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