



Marine & Offshore

Certificate number: 09900/E0 BV

File number: MAT 1543/03

Product code: 9010I

*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*

### PLATES FOR BOILERS AND PRESSURE VESSELS

Hot rolled plates in steel grades P265GH, 16Mo3, 10CrMo9-10,  
P355 qualities N, NH, NL1 and NL2 and  
P460 in qualities NH, NL1 and NL2

#### 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° 09900/D0 BV expiring on 23/08/2020*

**This certificate will expire on: 23 Aug 2025**

**For Bureau Veritas Marine & Offshore,**

At BV HAMBURG, on 03 Aug 2020,

Jens Bauermeister



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 Marine & Offshore. 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 & Offshore 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 Marine & Offshore 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 for Boilers and Pressure Vessels.

<b>Steel grade</b>	<b>Deoxydation practice &amp; Refining</b>	<b>Delivery conditions</b>
P265GH (EN 10028-2)  P355N, P355NH, P355NL1, P355NL2 (EN 10028-3)	Killed and fine grain treated with Al	Normalised (N) with maximum thickness 120mm
P460NH, P460NL1, P460NL2 (EN 10028-3)	Killed and fine grain treated with Al	Normalised (N) with maximum thickness 100mm
16Mo3 (EN 10028-2)	Killed and fine grain treated with Al	Normalised (N) with maximum thickness 40mm
10CrMo9-10 (EN 10028-2)	Killed and fine grain treated with Al	Normalised and Tempered (N+T) or Quenched and Tempered (Q+T) with maximum thickness 100mm

Steelmaking by Oxygen Converter Process; Plates rolled at Duisburg-Süd plant from continuous cast slabs supplied by Beckerwerth and HKM Steel Plants.

### **2. DOCUMENTS AND DRAWINGS :**

2.1 Documents issued by thyssenkrupp Steel Europe AG:  
- "Qualification Test FG39T mod. BV" dated January 1984.

### **3. TEST REPORTS :**

3.1 Documents issued by thyssenkrupp Steel Europe AG:  
- "Qualification Test FG39T mod. BV" dated January 1984.  
- "Evidence of the reliability of production of plates from steels for pressure vessels P265GH, 16Mo3 and P355NH, NL1, NL2 in accordance with DIN EN 10028-2 and 3 in thickness range 6mm<t<120mm" dated January 2009.  
- "Evidence of the reliability of production process steels for pressure vessels 10CrMo9-10 acc. DIN EN 10028-2 and P460NH; NL1; NL2 acc. DIN EN 10028-3" dated October 2010.

### **4. APPLICATION / LIMITATION :**

As per Bureau Veritas Rules for Classification.

### **5. PRODUCTION SURVEY REQUIREMENTS :**

5.1 - The steel plates are to be supplied by thyssenkrupp Steel Europe AG 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.

### **7. OTHERS :**

This certificate replaces approvals from No.09900/A0 BV to No.09900/D0 BV.

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