



Marine & Offshore  
Division

Certificate number: 23176/B1 BV

File number: MAT 56339 - 2010

Product code: 20111

*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*

**Heng Yang Valin Steel Tube Co. Ltd.**  
Hengyang - CHINA

*for the type of product*

### SEAMLESS PIPES AND FITTINGS

Seamless pipes in carbon-manganese and alloy steel grades 37Mn, 34CrMo4 and 30CrMo.

#### 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: 17 Sep 2020**

For BUREAU VERITAS,

At BV SHANGHAI, on 04 Dec 2015,

Jennifer Zhang



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 & Offshore 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 :

Seamless pipes in carbon-manganese and alloy steel.

Steel grade	Dimensions	Delivery conditions
<b>37Mn</b> according to GB 18248-2008	Outside diameter up to 267mm Wall thickness up to 6.6mm	Hot rolling finishing
<b>34CrMo4</b> according to GB 18248-2008	Outside diameter up to 356mm Wall thickness up to 8.5mm	Hot rolling finishing
<b>30CrMo</b> according to GB 18248-2008	Outside diameter up to 711mm Wall thickness up to 27mm	Hot rolling finishing

Seamless pipes are made by piercing of billets and hot rolling finishing.

### 2. DOCUMENTS AND DRAWINGS :

- "Application Document" issued by Hengyang Valin Steel Tube Co.,Ltd and dated April 2010.
- "BV application document" issued by Hengyang Valin Steel Tube Co.,Ltd and dated 03 August 2015.
- NDT operators certificates issued by Hengyang Valin Steel Tube Co.,Ltd and dated 2015.

Chemical composition on ladle as per GB 18248-2008 :

Grade	C (%)	Si (%)	Mn (%)	P (%)	S (%)	P+S (%)	Cr (%)	Ni (%)	Cu (%)	Mo(%)
<b>37Mn</b>	0.34	0.10	1.35	-	-	-	-	-	-	-
	0.40	0.30	1.75	0.02	0.02	0.03	0.25	0.30x	0.20	-
<b>34CrMo4</b>	0.30	-	0.60	-	-	-	0.90	-	-	0.15
	0.37	0.40	0.90	0.02	0.02	0.030	1.20	0.30	0.20	0.30
<b>30CrMo</b>	0.26	0.17	0.40	-	-	-	0.80	-	-	0.15
	0.34	0.37	0.70	0.02	0.02	0.030	1.10	0.30	0.20	0.25

Mechanical properties as per GB 18248-2008 :

Grade	Yield Strength Re (MPa)	Tensile Strength Rm (MPa)	Elongation A%	Charpy V-notch AkV (J) at -50°C	Flatten constant C for t/D ≤ 0.15	Flatten constant C for t/D ≥ 0.15
<b>37Mn</b>	630 min.	750 min.	16 min.	27 min.	0.07	0.06
<b>34CrMo4</b>	835 min.	980 min.	12 min.	27 min.	-	-
<b>30CrMo</b>	785 min.	930 min.	12 min.	27 min.	-	-

### 3. TEST REPORTS :

- "Approval Test Programme" issued by Hengyang Valin Steel Tube Co.,Ltd and dated April 2010.
- "Test report" issued by Hengyang Valin Steel Tube Co.,Ltd and dated 17 June 2010.
- "Test reports N° 150821001, N° 150821002, N° 150821003 and N° 150821004" issued by Hengyang Valin Steel Tube Co.,Ltd and dated 21 August 2015.
- Hydrostatic tests and NDT tests issued by Hengyang Valin Steel Tube Co.,Ltd and dated April and May 2015.

### 4. APPLICATION / LIMITATION :

As per Bureau Veritas Rules for Classification.

Raw materials are to be supplied with manufacturer's certificates as a minimum.



**5. PRODUCTION SURVEY REQUIREMENTS :**

The steel pipes are to be supplied by Hengyang Valin Steel Tube Co.,Ltd. in compliance with the type and the requirements described in this certificate.

This type of product is within the category IBV of Bureau Veritas Rule Note NR320.

BV product certificate is required.

**6. MARKING OF PRODUCT :**

As per Bureau Veritas Rules for Classification

**7. OTHERS :**

This certificate replaces approval number 23176/A0 dated 17 September 2010 and 23176/B0 dated 10 September 2015.

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



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