



MARINE DIVISION

Certificate number: 07919/C1 BV

File number: MAT 11260/01

Product code: 2011I

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***Baoshan Iron & Steel Co. Ltd.**

Shanghai - CHINA

for the type of product

SEAMLESS PIPES AND FITTINGS

Seamless steel pipes for pressure systems, structural applications and high temperature service.

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: 26 Jan 2015****For BUREAU VERITAS,**

At BV SHANGHAI, on 18 Dec 2010,

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 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 Steel Pipes

Application	Steel grade	Delivery condition	Maximum dimensions
Pipes for pressure systems operating at ambient temperature	360HA / 360HB 410HB / 410HD 510HB / 510HD	Normalizing Rolled (NR)	Outside diameter from 38mm up to 168.3mm Wall thickness from 3.6mm up to 25.0mm
Pipes for structural applications	ST410HB / ST410HD ST510HB / ST510HD	Normalizing Rolled (NR)	Outside diameter from 38mm up to 168.3mm Wall thickness from 3.6mm up to 25.0mm
Pipes for high temperature service	360 410	Normalizing Rolled (NR)	Outside diameter from 38mm up to 168.3mm Wall thickness from 3.6mm up to 25.0mm
	1Cr0.5Mo 2.25Cr1Mo	Normalized and Tempered (N+T)	Outside diameter from 38mm up to 168.3mm Wall thickness from 3.6mm up to 25.0mm

The steel pipes are manufactured by piercing of billets and heat treated as applicable.

2. DOCUMENTS AND DRAWINGS :

- "Type Test Program for the Approval for the Manufacture of Pressure Systems, Boilers and Superheater Tubes for ships" dated June 10, 1998.
- "Document for renewal of type approval certificate N° 07919/B0 BV" issued by Baoshan Iron & Steel Co., Ltd. Baosteel Branch and dated 19 November 2008.

3. TEST REPORTS :

- "Type Test Program for the Approval for the Manufacture of Pressure Systems, Boilers and Superheater Tubes for ships" dated June 10, 1998.
- "Document for renewal of type approval certificate N° 07919/B0 BV" issued by Baoshan Iron & Steel Co., Ltd. Baosteel Branch and dated 19 November 2008.

4. APPLICATION / LIMITATION :

These pipes may be used for the following applications : pressure systems, boilers and superheaters.
The billets are manufactured by the Steel Making Plant of Baosteel Branch or by Bureau Veritas approved steelmaker.

5. PRODUCTION SURVEY REQUIREMENTS :

The seamless steel pipes are to be manufactured, examined and tested by Baoshan Iron & Steel Co., Ltd. Baosteel Branch 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 07919/B0 dated 16 September 2003 and 07919/C0 dated 26 January 2010.

*** END OF CERTIFICATE ***

