

| | | |
|----------------|--|-------------------------------------|
| TO | LR Shanghai Port | DATE 23 August 2011 |
| FROM | Materials and NDE | YOUR REF SHI1140003 |
| | | OUR REF MAT/M3489/CT/6378608 |
| SUBJECT | Notice of approval BAOSHAN IRON & STEEL CO., LTD. Core Base Plate Line No. 2 No. 777 North Wenchuan Road Baoshan District Shanghai 200949 China, People's Republic of | |

1. Reference is made to your email dated 22nd August 2011.
2. In view of the satisfactory nature of the Materials Quality Scheme audit of Baoshan Iron & Steel Co. Ltd., Core Base Plate Line No.2, the company is now authorised to operate under this scheme.
3. Please find enclosed a Materials Quality Scheme Certificate for onward transmission to the firm. Also enclosed is a renewed Lloyd's Register Works Approval Certificate and a copy of the firm's scope of approval. Should you require a copy of the Certificates for your own files, photocopies of the originals may be taken. A summary of the company details will appear in the next CDlive publication and you should therefore ensure that it is accurate
5. It should be noted that if at some future date the firm wish to increase the size or alter the grade or the supply condition outside the scope of approval, procedure tests, in accordance with the appropriate Materials and Qualification Procedure will be required to be carried out.
7. The Lists are now on the Internet. Please direct the client to www.cdlive.lr.org to look under Approved Lists. This approval information should be available within the next 30 days.

Reported by:



Clive Tuck
 Senior Metallurgical Specialist
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 Lloyd's Register EMEA
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| | | |
|----------------|---|-------------------------------|
| TO | LR Shanghai Port | DATE 23 August 2011 |
| FROM | Materials and NDE | YOUR REF |
| | | OUR REF MAT/M3489/CDT/ |
| SUBJECT | Scope of Approval BAOSHAN IRON & STEEL CO., LTD. Core Base Plate Line No. 2 No. 777 North Wenchuan Road Baoshan District Shanghai 200949 China, People's Republic of | |

| MAKE OF APPROVED TESTING MACHINE | TYPE | MACHINE NUMBER | CAPACITY | UNIT |
|----------------------------------|---------|----------------|----------|--------|
| SHENZHEN | Tensile | 313605M01 | 100 | kN |
| SHENZHEN | Tensile | 313606M01 | 300 | kN |
| SHENZHEN | Tensile | 313607M01 | 600 | kN |
| SHENZHEN | Tensile | 313611M01 | 1000 | kN |
| SHENZHEN | Tensile | 313609M01 | 1000 | kN |
| SHENZHEN | Tensile | 313610M01 | 2000 | kN |
| SHENAGHAI HUALONG | Impact | 131614M01 | 300 | Joules |
| SHANGHAI HUALONG | Impact | 313615M01 | 300 | Joules |
| SHANGHAI HUALONG | Tensile | 313616M01 | 300 | Joules |
| SHENZHEN | Impact | 31317M01 | 300 | Joules |
| SHENZHEN | Impact | 313618M01 | 300 | Joules |
| SHENZHEN | Tensile | 313619M01 | 450 | Joules |

| | | | |
|-------------------------------|-------------------------------------|---|-----------------------------|
| Steelmaking | B.O.S. / Con Cast | Grades | |
| | | As below | |
| Semi-Finished Products | Slabs | Grades | mm thickness Maximum |
| As cast | Fine Grain Al+Ti | carbon, carbon-manganese | 250.0 |
| As cast | Fine Grain Al+Nb+Ti | carbon, carbon-manganese | 250.0 |
| Plates | Normal Strength | Grades | mm thickness Maximum |
| As Rolled | Fine Grain Al+Ti | D | 35.0 |
| As Rolled | Fine Grain Al+Ti | A, B | 50.0 |
| Normalized | Fine Grain Al+Nb+Ti | A, B, D, E | 60.0 |
| TM+Acc | Fine Grain Al+Nb+Ti | A, B, D, E | 50.0 |
| Thermo Mechanical | Fine Grain Al+Nb+Ti | A, B, D, E | 20.0 |
| Plates | Higher Strength | Grades | mm thickness Maximum |
| As Rolled | Fine Grain Al+Ti | AH27S, AH32, AH36, DH27S, DH32, DH36 | 20.0 |
| Normalized | Fine Grain Al+Nb+Ti | AH27S, AH32, AH36, DH27S, DH32, DH36, EH27S, EH32, EH36 | 50.0 |
| Normalizing Rolled | Fine Grain Al+Ti | AH27S, AH32 | 35.0 |
| Normalizing Rolled | Fine Grain Al+Nb+Ti | AH27S, AH32, AH36, DH27S, DH32, DH36 | 40.0 |
| TM+Acc | Fine Grain Al+Nb+Ti | AH27S, AH32, AH36, DH27S, DH32, DH36, EH27S, EH32, EH36 | 50.0 |
| Thermo Mechanical | Fine Grain Al+Nb+Ti | AH27S, AH32, AH36, DH27S, DH32, DH36, EH27S, EH32, EH36 | 20.0 |
| Plates | Boiler & Pressure Vessel | Grades | mm thickness Maximum |
| Normalized | Fine Grain Al+Ti | 360FG, 410FG, 460FG, 490FG, 510FG | 20.0 |
| Normalized | Fine Grain Al+Nb+Ti | 460FG, 490FG, 510FG | 50.0 |
| Normalized | Fine Grain Al+Nb+Ti | 360FG, 410FG | 60.0 |
| Normalizing Rolled | Fine Grain Al+Ti | 360FG, 410FG, 460FG, 490FG | 35.0 |
| Normalizing Rolled | Fine Grain Al+Nb+Ti | 360FG, 410FG, 460FG, 490FG, 510FG | 40.0 |
| TM+Acc | Fine Grain Al+Nb+Ti | 360FG, 410FG, 460FG, 490FG, 510FG | 50.0 |

| | | |
|-------------|-------------------------|--|
| TO | LR Shanghai Port | DATE 23 August 2011 |
| FROM | Materials and NDE | YOUR REF OUR REF MAT/M3489/CDT/ |

| Plates | Boiler & Pressure Vessel | Grades | mm thickness Maximum |
|-------------------|--------------------------|-----------------------------------|----------------------|
| Thermo Mechanical | Fine Grain Al+Nb+Ti | 360FG, 410FG, 460FG, 490FG, 510FG | 20.0 |

Semi-finished products in carbon, carbon-manganese fine grain (element combinations as stated, slabs to 2300mm wide, to 12000mm long to 54 tonnes for further processing to rolled products

Z25 & Z35 designations made be added for plates up to 35mm thick produced in the as rolled condition from concast slab for grades A, B and D with specified through thickness properties

Z25 & Z35 designations made be added for plates with specified through thickness properties for the approved grades in the normalised condition, normalised rolled condition, TM condition and TM +Acc condition

Z25 & Z35 designations made be added for plates up to 40mm thick produced in the normalised rolled condition from concast slab for grades DH36 and DH32 with specified through thickness properties

Materials Quality Scheme Approved - MQS 051

The registered company address of Core Base Plate Line No. 2 is No. 885, Fujin Road Baoshan District, 201900, Shanghai, P.R China



Certificate No : MD00/3489/0007/1

BAOSHAN IRON & STEEL CO., LTD.
Core Base Plate Line No. 2
No. 777 North Wenchuan Road
Baoshan District
Shanghai 200949
China, People's Republic of

MATERIALS QUALITY SCHEME APPROVED
MQS 051

has been approved as a manufacturer in accordance with the requirements of Lloyd's Register for :-

Steelmaking, Semi-Finished Products and Plates

This approval is subject to compliance with the Rules for the Manufacture, Testing and Certification of Materials. The full details of the processes and grades to which this approval applies are given in the Appendix of this certificate.

Lloyd's Register is to be notified of any change that may affect the validity of this Certificate.

This Certificate is issued to the above manufacturer and is valid until the date given below.

Valid Until: 15 December 2014
Date of Issue: 23 June 2011

A handwritten signature in black ink, appearing to read "Clive D S Tuck". The signature is written in a cursive style and is positioned above a horizontal line.

Clive D S Tuck

Senior Metallurgical Specialist to Lloyd's Register EMEA
A member of the Lloyd's Register Group



Certificate No : MD00/3489/0007/1

Appendix 1

BAOSHAN IRON & STEEL CO., LTD.
Core Base Plate Line No. 2
No. 777 North Wenchuan Road
Baoshan District
Shanghai 200949
China, People's Republic of

| Steelmaking | B.O.S. / Con Cast | Grades | |
|------------------------|--------------------------|---|----------------------|
| | | As below | |
| Semi-Finished Products | Slabs | Grades | mm thickness Maximum |
| As cast | Fine Grain Al+Ti | carbon, carbon-manganese | 250.0 |
| As cast | Fine Grain Al+Nb+Ti | carbon, carbon-manganese | 250.0 |
| Plates | Normal Strength | Grades | mm thickness Maximum |
| As Rolled | Fine Grain Al+Ti | D | 35.0 |
| As Rolled | Fine Grain Al+Ti | A, B | 50.0 |
| Normalized | Fine Grain Al+Nb+Ti | A, B, D, E | 60.0 |
| TM+Acc | Fine Grain Al+Nb+Ti | A, B, D, E | 50.0 |
| Thermo Mechanical | Fine Grain Al+Nb+Ti | A, B, D, E | 20.0 |
| Plates | Higher Strength | Grades | mm thickness Maximum |
| As Rolled | Fine Grain Al+Ti | AH27S, AH32, AH36, DH27S, DH32, DH36 | 20.0 |
| Normalized | Fine Grain Al+Nb+Ti | AH27S, AH32, AH36, DH27S, DH32, DH36, EH27S, EH32, EH36 | 50.0 |
| Normalizing Rolled | Fine Grain Al+Ti | AH27S, AH32 | 35.0 |
| Normalizing Rolled | Fine Grain Al+Nb+Ti | AH27S, AH32, AH36, DH27S, DH32, DH36 | 40.0 |
| TM+Acc | Fine Grain Al+Nb+Ti | AH27S, AH32, AH36, DH27S, DH32, DH36, EH27S, EH32, EH36 | 50.0 |
| Thermo Mechanical | Fine Grain Al+Nb+Ti | AH27S, AH32, AH36, DH27S, DH32, DH36, EH27S, EH32, EH36 | 20.0 |
| Plates | Boiler & Pressure Vessel | Grades | mm thickness Maximum |
| Normalized | Fine Grain Al+Ti | 360FG, 410FG, 460FG, 490FG, 510FG | 20.0 |
| Normalized | Fine Grain Al+Nb+Ti | 460FG, 490FG, 510FG | 50.0 |
| Normalized | Fine Grain Al+Nb+Ti | 360FG, 410FG | 60.0 |

Valid Until: 15 December 2014
 Date of Issue: 23 June 2011

Clive D S Tuck

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Certificate No : MD00/3489/0007/1

Appendix 2

BAOSHAN IRON & STEEL CO., LTD.

Core Base Plate Line No. 2

No. 777 North Wenchuan Road

Baoshan District

Shanghai 200949

China, People's Republic of

| Plates | Boiler & Pressure Vessel | Grades | mm thickness Maximum |
|--------------------|--------------------------|-----------------------------------|----------------------|
| Normalizing Rolled | Fine Grain Al+Ti | 360FG, 410FG, 460FG, 490FG | 35.0 |
| Normalizing Rolled | Fine Grain Al+Nb+Ti | 360FG, 410FG, 460FG, 490FG, 510FG | 40.0 |
| TM+Acc | Fine Grain Al+Nb+Ti | 360FG, 410FG, 460FG, 490FG, 510FG | 50.0 |
| Thermo Mechanical | Fine Grain Al+Nb+Ti | 360FG, 410FG, 460FG, 490FG, 510FG | 20.0 |

Semi-finished products in carbon, carbon-manganese fine grain (element combinations as stated, slabs to 2300mm wide, to 12000mm long to 54 tonnes for further processing to rolled products)

Z25 & Z35 designations made be added for plates up to 35mm thick produced in the as rolled condition from concast slab for grades A, B and D with specified through thickness properties

Z25 & Z35 designations made be added for plates with specified through thickness properties for the approved grades in the normalised condition, normalised rolled condition, TM condition and TM +Acc condition

Z25 & Z35 designations made be added for plates up to 40mm thick produced in the normalised rolled condition from concast slab for grades DH36 and DH32 with specified through thickness properties

Materials Quality Scheme Approved - MQS 051

The registered company address of Core Base Plate Line No. 2 is No. 885, Fujin Road Baoshan District, 201900, Shanghai, P.R China

Valid Until: 15 December 2014
Date of Issue: 23 June 2011

Clive D S Tuck

Senior Metallurgical Specialist to Lloyd's Register EMEA
A member of the Lloyd's Register Group



Certificate No : MD00/3489/0007/1

BAOSHAN IRON & STEEL CO., LTD.
Core Base Plate Line No. 2
No. 777 North Wenchuan Road
Baoshan District
Shanghai 200949
China, People's Republic of

has been approved as a manufacturer in accordance with the requirements of Lloyd's Register for :-

Steelmaking, Semi-Finished Products and Plates

This approval is subject to compliance with the Rules for the Manufacture, Testing and Certification of Materials. The full details of the processes and grades to which this approval applies are given in the Appendix of this certificate.

Lloyd's Register is to be notified of any change that may affect the validity of this Certificate.

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Lloyd's Register, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as the 'Lloyd's Register Group'. The Lloyd's Register Group assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register Group entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.



Certificate No : MD00/3489/0007/1

Appendix 1

BAOSHAN IRON & STEEL CO., LTD.

Core Base Plate Line No. 2

No. 777 North Wenchuan Road

Baoshan District

Shanghai 200949

China, People's Republic of

| Steelmaking | B.O.S. / Con Cast | Grades | |
|------------------------|--------------------------|---|----------------------|
| | | As below | |
| Semi-Finished Products | Slabs | Grades | mm thickness Maximum |
| As cast | Fine Grain Al+Ti | carbon, carbon-manganese | 250.0 |
| As cast | Fine Grain Al+Nb+Ti | carbon, carbon-manganese | 250.0 |
| Plates | Normal Strength | Grades | mm thickness Maximum |
| As Rolled | Fine Grain Al+Ti | D | 35.0 |
| As Rolled | Fine Grain Al+Ti | A, B | 50.0 |
| Normalized | Fine Grain Al+Nb+Ti | A, B, D, E | 60.0 |
| TM+Acc | Fine Grain Al+Nb+Ti | A, B, D, E | 50.0 |
| Thermo Mechanical | Fine Grain Al+Nb+Ti | A, B, D, E | 20.0 |
| Plates | Higher Strength | Grades | mm thickness Maximum |
| As Rolled | Fine Grain Al+Ti | AH27S, AH32, AH36, DH27S, DH32, DH36 | 20.0 |
| Normalized | Fine Grain Al+Nb+Ti | AH27S, AH32, AH36, DH27S, DH32, DH36, EH27S, EH32, EH36 | 50.0 |
| Normalizing Rolled | Fine Grain Al+Ti | AH27S, AH32 | 35.0 |
| Normalizing Rolled | Fine Grain Al+Nb+Ti | AH27S, AH32, AH36, DH27S, DH32, DH36 | 40.0 |
| TM+Acc | Fine Grain Al+Nb+Ti | AH27S, AH32, AH36, DH27S, DH32, DH36, EH27S, EH32, EH36 | 50.0 |
| Thermo Mechanical | Fine Grain Al+Nb+Ti | AH27S, AH32, AH36, DH27S, DH32, DH36, EH27S, EH32, EH36 | 20.0 |
| Plates | Boiler & Pressure Vessel | Grades | mm thickness Maximum |
| Normalized | Fine Grain Al+Ti | 360FG, 410FG, 460FG, 490FG, 510FG | 20.0 |
| Normalized | Fine Grain Al+Nb+Ti | 460FG, 490FG, 510FG | 50.0 |
| Normalized | Fine Grain Al+Nb+Ti | 360FG, 410FG | 60.0 |

Valid Until: 15 December 2014

Date of Issue: 23 June 2011

Clive D S Tuck

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Lloyd's Register, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as the 'Lloyd's Register Group'. The Lloyd's Register Group assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register Group entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.





Certificate No : MD00/3489/0007/1

Appendix 2

BAOSHAN IRON & STEEL CO., LTD.
Core Base Plate Line No. 2
No. 777 North Wenchuan Road
Baoshan District
Shanghai 200949
China, People's Republic of

| Plates | Boiler & Pressure Vessel | Grades | mm thickness Maximum |
|--------------------|--------------------------|-----------------------------------|----------------------|
| Normalizing Rolled | Fine Grain Al+Ti | 360FG, 410FG, 460FG, 490FG | 35.0 |
| Normalizing Rolled | Fine Grain Al+Nb+Ti | 360FG, 410FG, 460FG, 490FG, 510FG | 40.0 |
| TM+Acc | Fine Grain Al+Nb+Ti | 360FG, 410FG, 460FG, 490FG, 510FG | 50.0 |
| Thermo Mechanical | Fine Grain Al+Nb+Ti | 360FG, 410FG, 460FG, 490FG, 510FG | 20.0 |

Semi-finished products in carbon, carbon-manganese fine grain (element combinations as stated, slabs to 2300mm wide, to 12000mm long to 54 tonnes for further processing to rolled products

Z25 & Z35 designations made be added for plates up to 35mm thick produced in the as rolled condition from concast slab for grades A, B and D with specified through thickness properties

Z25 & Z35 designations made be added for plates with specified through thickness properties for the approved grades in the normalised condition, normalised rolled condition, TM condition and TM +Acc condition

Z25 & Z35 designations made be added for plates up to 40mm thick produced in the normalised rolled condition from concast slab for grades DH36 and DH32 with specified through thickness properties

Materials Quality Scheme Approved - MQS 051

The registered company address of Core Base Plate Line No. 2 is No. 885, Fujin Road Baoshan District, 201900, Shanghai, P.R China

Valid Until: 15 December 2014
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