

**Agreement for the recognition of workshops
Under an alternative survey scheme (Mode I)**

**In accordance with Bureau Veritas Rules for the Classification
of Steel Ships and Rule Note NR 320 as amended**

AGREEMENT N° SMS.W.I/25097/B.1

Between : *Baoshan Iron&Steel Co.,Ltd*

(hereinafter called "the COMPANY"), having its registered office at

No.885, Fujin Road, Baoshan District Shanghai, 201900,P.R.China

and **Bureau Veritas** (hereinafter called "BUREAU VERITAS"), a company organized and existing under the laws of France, having its registered office at **67/71 Boulevard du Château, 92200 Neuilly-sur-seine (FRANCE)**, including also its subsidiaries and branch offices worldwide,

hereinafter also individually referred to as "Party" and collectively referred to as "Parties",

the following is agreed on : 21ST March, 2011

Art.1 - Purpose of the agreement

1.1 - The purpose of this agreement is the definition of the conditions for the recognition of the production sites of the COMPANY listed below under an alternative inspection scheme (Mode I) in accordance with the requirements of BUREAU VERITAS Rules for the Classification of Steel Ships and the BUREAU VERITAS Rule Note NR 320 as amended :

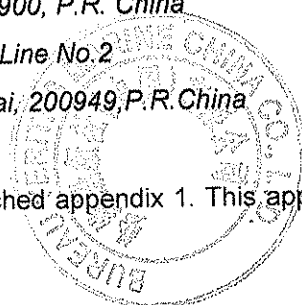
Baoshan Iron & Steel Co.,Ltd. Core Base and Core base Plate Line No.1

No.885, Fujin Road, Baoshan District, Shanghai, 201900, P.R. China

Baoshan Iron & Steel Co.,Ltd Core Base Plate Line No.2

No.777, North Wenchuan Road, Baoshan District Shanghai, 200949,P.R.China

1.2 - This agreement is restricted to the products designated in the attached appendix 1. This appendix may be amended by a written agreement to be signed by the parties.



Art.2 - Scope of work of BUREAU VERITAS

2.1 - BUREAU VERITAS agrees to provide the COMPANY with :

- Assessment of the documentation submitted;
- Preliminary audit of the COMPANY Quality System and production facilities where deemed necessary by BUREAU VERITAS

- Audit of the COMPANY Quality System and production facilities as described in Rule Note NR320 with a view to have sufficient evidences that the the tests and/or examinations required by the relevant Rules for Classification can be performed by the COMPANY without systematic attendance of BUREAU VERITAS surveyors.
- Approval of the Inspection and Testing Plan for each product listed in Appendix 1.
- The issuance of a recognition certificate upon satisfactory completion of the procedure.
- The endorsement of the Certificates of Conformity of Product submitted by the COMPANY where found satisfactory.
- Intermediate assessments according to the planning stated in appendix 3.

Art.3 - Obligations and responsibilities of BUREAU VERITAS

3.1 - It is the BUREAU VERITAS responsibility to perform the services defined in Art.2.

3.2 - BUREAU VERITAS Surveyors and/or Auditors will act within the scope of the BUREAU VERITAS Marine Division General Conditions hereto attached in Appendix 5.

Art.4 - Obligations and responsibilities of the COMPANY

4.1 - The COMPANY is well aware of the BUREAU VERITAS Marine Division General Conditions, here appended, and accepts them subject to the changes made in the present Agreement.

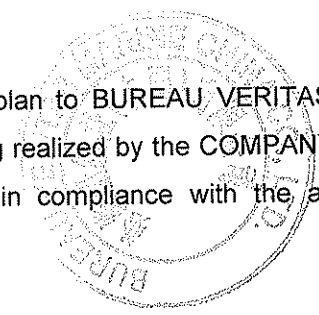
4.2 - The COMPANY shall make available to BUREAU VERITAS the documentation necessary to enable BUREAU VERITAS to ascertain that the requirements of the relevant Rules are complied with.

4.3 - The COMPANY shall provide BUREAU VERITAS with all quality related documentation, information and facilities necessary to allow BUREAU VERITAS to perform its task.

4.4 - The COMPANY undertakes to submit an inspection and testing plan to BUREAU VERITAS for the products listed giving details of all the operations of inspection and testing realized by the COMPANY before, during and after the manufacture in order to control the production in compliance with the applicable requirements.

4.5 - The documents and information specified in sub-articles 4.2, 4.3 and 4.4 above will be written in English or in any language agreed with BUREAU VERITAS.

4.6 - The COMPANY undertakes to strictly follow the approved inspection and testing plan and the requirements of the relevant Rules for Classification for the products to be certified within the scope of the agreement.



4.7 – The COMPANY undertakes to keep a record of all complaints made known to it relating to product's compliance with applicable requirements, to take appropriate actions with respect to such complaints and any deficiencies found that affect compliance with the applicable requirements and to document the actions taken. All the records are to be made available to BUREAU VERITAS when requested.

4.8 – The COMPANY undertakes to use the format of certificates of conformity given in appendix 6 unless it has been agreed to use the internet tool "www.veristarpm.com" for that purpose and to submit all the certificates processed to BUREAU VERITAS for endorsement.

4.9 – When the internet tool "www.veristarpm.com" is used, the COMPANY undertakes to send a written request to BUREAU VERITAS to cancel the access granted to personnel leaving the COMPANY or appointed to different affairs.

4.10 – The COMPANY undertakes to use the markings as per model given in appendix 4 to mark the products certified within the scope of this agreement.

Art.5 - Fees and Expenses

5.1 - In consideration of the Services provided by BUREAU VERITAS, the COMPANY shall pay the service fees to BUREAU VERITAS. These service fees which represent the net amount due to BUREAU VERITAS are to be increased of any legal taxes applicable at the time the invoice is issued, and are detailed in appendix 3.

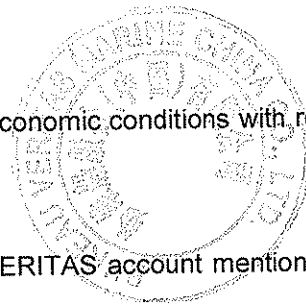
5.2 - All the fees are subject to annual revision, according to the variation of the national consumer index, except where otherwise specified, as per the formula $P=P0x(S/S0)$ where :

P= Price actualized at the date of invoicing,

P0=Price fixed by this agreement,

S=Latest national consumer index known at the date of invoicing,

S0=Value of the national consumer index corresponding to the reference economic conditions with respect to which the rates are fixed.



5.3 - The COMPANY shall effect payment of each invoice to BUREAU VERITAS account mentioned in the invoice within 30 days from receipt of the invoice.

5.4 - In case the COMPANY disputes an invoice it shall, by the time specified in sub-article 5.3, pay that part which is not in dispute and state the reasons for the dispute.

Art.6 - Validity of agreement - Cancellation

6.1 – The agreement shall be valid and binding between the COMPANY and BUREAU VERITAS from its date of execution specified in Art.14, and shall continue in effect for a period of four years. It will automatically be renewed for another four years unless terminated in writing by either party 3 months prior to the anniversary date of the agreement.

6.2 - BUREAU VERITAS may suspend or withdraw its recognition certificate without prior notice to the COMPANY, in case of product failure in service, or changes in their design, or in their manufacturing condition or in their conditions of use, or in case of failure resulting from the use of approved processes, not brought to the knowledge of BUREAU VERITAS, or in case of non fulfillment to the conditions stated in Article 4 of this agreement, and especially in sub-articles 4.5 and 4.6.

6.3 - BUREAU VERITAS reserves the right to cancel this agreement in case of non-payment by the COMPANY of the sums mentioned in Art.5, 30 days after unfruitful notification to pay.

Art.7 - Amendment of the agreement

7.1 - Neither amendment nor modification to this agreement and its Appendices shall be made unless it is in writing and duly signed by the parties hereto.

Art.8 - Partial invalidity

8.1 - In case one or more of the provisions contained in this agreement shall be held to be invalid or illegal, such a provision shall not affect any other provision or legal validity of the agreement, and this agreement shall be construed as if such provision had never been contained herein.

Art.9 - Confidential information

9.1 - Confidentiality obligations of Bureau Veritas are those which result from the application of article 9 of the Marine Division general conditions enclosed in appendix 5.



Art.10 - Force majeure

10.1- The article 10 of the Marine Division general conditions enclosed in appendix 5 is replaced by : No default or improper fulfillment of the agreement is to be considered in case either party is prevented from carrying out its obligations further to the occurrence of circumstances such as strikes, trade disputes, civil disorders, war (whether declared or not), fire, flooding, explosions, disasters, equipment failure, technical incidents, delay or interruption of transportation or any other circumstances beyond its control, making it impossible for this party to carry out its obligations.

Art.11 - Preliminary conciliation

11.1- The parties will try to resolve, by amicable negotiation, the possible differences of opinion or disputes which may arise from the application of the present agreement.

Art.12 - Arbitration


12.1- In case no amicable settlement can be reached by the parties, the disputes over the services carried out by BUREAU VERITAS shall be resolved according to Article 12 of the Marine Division General Conditions enclosed in appendix 5.

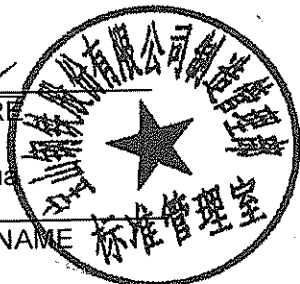
Art.13 - Date of execution

13.1- This agreement enters into force on 21st March, 2011

Issued at Shanghai, China in duplicate.

for and on behalf of
The COMPANY

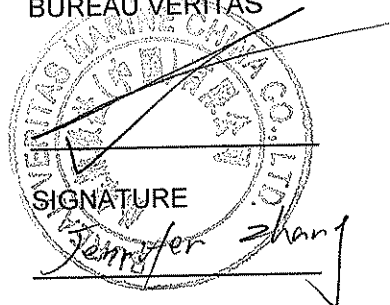

SIGNATURE
Huangjinhua
PRINTED NAME

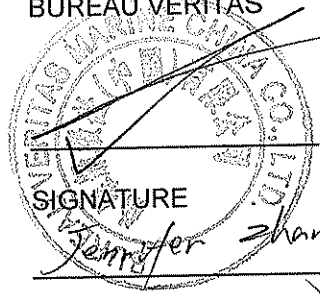


Engineer
TITLE

DATE
March.21,2011

for and on behalf of
BUREAU VERITAS


SIGNATURE



PRINTED NAME
BV manager
TITLE

DATE
March.21,2011

List of appendices

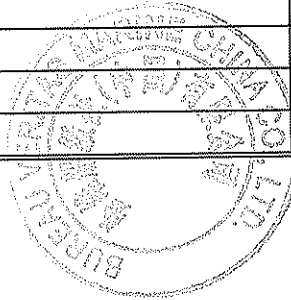
APPENDIX 3 TO AGREEMENT N° SMS.W.I/25097/B.1

FEES FOR ASSESSMENT : RMB 54000.00

FEES FOR THE CERTIFICATES OF CONFORMITY OF PRODUCTS: As the tariff of BV Steel plate & Section:

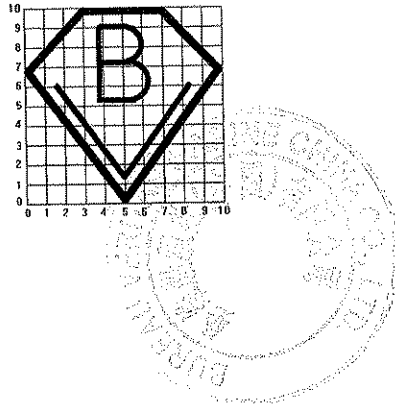
2. Production Inspection Fee

Steel		Inspection Fee (see Note 1) RMB / ton	Remark
Plate	Grade		
Normal Strength	A, B	60.00	See Note 2
	D, E	70.00	See Note 2
Higher Strength	AH, DH	80.00	See Note 2
	EH	90.00	See Note 2
Boiler Plate	All grades	250.00	See Note 2
Sections			
Normal Strength	A, B, D & E	80.00	See Note 2
Higher Strength	AH, DH, EH	100.00	See Note 2
Stainless Steel Plate	All grades	450.00	See Note 2
Aluminium Plate	All grades	480.00	See Note 2



APPENDIX 4 TO AGREEMENT N° SMS.W.I/25097/B.1

MODEL OF MARKINGS TO BE USED BY THE COMPANY ON THE PRODUCTS CERTIFIED WITHIN THE SCOPE OF THIS AGREEMENT:





**BUREAU
VERITAS**

MARINE DIVISION GENERAL CONDITIONS

ARTICLE 1

1.1. - BUREAU VERITAS is a Society the purpose of whose Marine Division (the "Society") is the classification (« Classification ») of any ship or vessel or structure of any type or part of it or system therein collectively hereinafter referred to as a "Unit" whether linked to shore, river bed or sea bed or not, whether operated or located at sea or in inland waters or partly on land, including submarines, hovercrafts, drilling rigs, offshore installations of any type and of any purpose, their related and ancillary equipment, subsea or not, such as well head and pipelines, mooring legs and mooring points or otherwise as decided by the Society.

The Society:

- prepares and publishes Rules for classification, Guidance Notes and other documents (« Rules »);
- issues Certificates, Attestations and Reports following its interventions (« Certificates »);
- publishes Registers.

1.2. - The Society also participates in the application of National and International Regulations or Standards, in particular by delegation from different Governments. Those activities are hereafter collectively referred to as « Certification ».

1.3. - The Society can also provide services related to Classification and Certification such as ship and company safety management certification; ship and port security certification, training activities; all activities and duties incidental thereto such as documentation on any supporting means, software, instrumentation, measurements, tests and trials on board.

1.4. - The interventions mentioned in 1.1., 1.2. and 1.3. are referred to as « Services ». The party and/or its representative requesting the services is hereinafter referred to as the « Client ». The Services are prepared and carried out on the assumption that the Clients are aware of the International Maritime and/or Offshore Industry (the "Industry") practices.

1.5. - The Society is neither and may not be considered as an Underwriter, Broker in ship's sale or chartering, Expert in Unit's valuation, Consulting Engineer, Controller, Naval Architect, Manufacturer, Shipbuilder, Repair yard, Charterer or Shipowner who are not relieved of any of their expressed or implied obligations by the interventions of the Society.

ARTICLE 2

2.1. - Classification is the appraisalment given by the Society for its Client, at a certain date, following surveys by its Surveyors along the lines specified in Articles 3 and 4 hereafter on the level of compliance of a Unit to its Rules or part of them. This appraisalment is represented by a class entered on the Certificates and periodically transcribed in the Society's Register.

2.2. - Certification is carried out by the Society along the same lines as set out in Articles 3 and 4 hereafter and with reference to the applicable National and International Regulations or Standards.

2.3. - It is incumbent upon the Client to maintain the condition of the Unit after surveys, to present the Unit for surveys and to inform the Society without delay of circumstances which may affect the given appraisalment or cause to modify its scope.

2.4. - The Client is to give to the Society all access and information necessary for the safe and efficient performance of the requested Services. The Client is the sole responsible for the conditions of presentation of the Unit for tests, trials and surveys and the conditions under which tests and trials are carried out.

ARTICLE 3

3.1. - The Rules, procedures and instructions of the Society take into account at the date of their preparation the state of currently available and proven technical knowledge of the Industry. They are not a standard or a code of construction neither a guide for maintenance, a safety handbook or a guide of professional practices, all of which are assumed to be known in detail and carefully followed at all times by the Client.

Committees consisting of personalities from the Industry contribute to the development of those documents.

3.2. - The Society only is qualified to apply its Rules and to interpret them. Any reference to them has no effect unless it involves the Society's intervention.

3.3. - The Services of the Society are carried out by professional Surveyors according to the applicable Rules and to the Code of Ethics of the Society. Surveyors have authority to decide locally on matters related to classification and certification of the Units, unless the Rules provide otherwise.

3.4. - The operations of the Society in providing its Services are exclusively conducted by way of random inspections and do not in any circumstances involve monitoring or exhaustive verification.

ARTICLE 4

4.1. - The Society, acting by reference to its Rules:

- reviews the construction arrangements of the Units as shown on the documents presented by the Client;
- conducts surveys at the place of their construction;
- classes Units and enters their class in its Register;
- surveys periodically the Units in service to note that the requirements for the maintenance of class are met.

The Client is to inform the Society without delay of circumstances which may cause the date or the extent of the surveys to be changed.

ARTICLE 5

5.1. - The Society acts as a provider of services. This cannot be construed as an obligation bearing on the Society to obtain a result or as a warranty.

5.2. - The certificates issued by the Society pursuant to 5.1. here above are a statement on the level of compliance of the Unit to its Rules or to the documents of reference for the Services provided for.

In particular, the Society does not engage in any work relating to the design, building, production or repair checks, neither in the operation of the Units or in their trade, neither in any advisory services, and cannot be held liable on those accounts. Its certificates cannot be construed as an implied or express warranty of safety, fitness for the purpose, seaworthiness of the Unit or of its value for sale, insurance or chartering.

5.3. - The Society does not declare the acceptance or commissioning of a Unit, nor of its construction in conformity with its design, that being the exclusive responsibility of its owner or builder, respectively.

5.4. - The Services of the Society cannot create any obligation bearing on the Society or constitute any warranty of proper operation, beyond any representation set forth in the Rules, of any Unit, equipment or machinery, computer software of any sort or other comparable concepts that has been subject to any survey by the Society.

ARTICLE 6

6.1. - The Society accepts no responsibility for the use of information related to its Services which was not provided for the purpose by the Society or with its assistance.

6.2. - If the Services of the Society cause to the Client a damage which is proved to be the direct and reasonably foreseeable consequence of an error or omission of the Society, its liability towards the Client is limited to ten times the amount of fee paid for the Service having caused the damage, provided however that this limit shall be subject to a minimum of eight thousand (8,000) Euro, and to a maximum which is the greater of eight hundred thousand (800,000) Euro and one and a half times the above mentioned fee.

The Society bears no liability for indirect or consequential loss such as e.g. loss of revenue, loss of profit, loss of production, loss relative to other contracts and indemnities for termination of other agreements.

6.3. - All claims are to be presented to the Society in writing within three months of the date when the Services were supplied or (if later) the date when the events which are relied on were first known to the Client, and any claim which is not so presented shall be deemed waived and absolutely barred. Time is to be interrupted thereafter with the same periodicity.

ARTICLE 7

7.1. - Requests for Services are to be in writing.

7.2. - Either the Client or the Society can terminate as of right the requested Services after giving the other party thirty days' written notice, for convenience, and without prejudice to the provisions in Article 8 hereunder.

7.3. - The class granted to the concerned Units and the previously issued certificates remain valid until the date of effect of the notice issued according to 7.2. here above subject to compliance with 2.3. here above and Article 8 hereunder.

7.4. - The contract for classification and/or certification of a Unit cannot be transferred neither assigned.

ARTICLE 8

8.1. - The Services of the Society, whether completed or not, involve, for the part carried out, the payment of fee upon receipt of the invoice and the reimbursement of the expenses incurred.

8.2. - Overdue amounts are increased as of right by interest in accordance with the applicable legislation.

8.3. - The class of a Unit may be suspended in the event of non-payment of fee after a first unfruitful notification to pay.

ARTICLE 9

9.1. - The documents and data provided to or prepared by the Society for its Services, and the information available to the Society, are treated as confidential. However:

- Clients have access to the data they have provided to the Society and, during the period of classification of the Unit for them, to the classification file consisting of survey reports and certificates which have been prepared at any time by the Society for the classification of the Unit;
- copy of the documents made available for the classification of the Unit and of available survey reports can be handed over to another Classification Society, where appropriate, in case of the Unit's transfer of class;
- the data relative to the evolution of the Register, to the class suspension and to the survey status of the Units, as well as general technical information related to hull and equipment damages, are passed on to IACS (International Association of Classification Societies) according to the association working rules;
- the certificates, documents and information relative to the Units classed with the Society may be reviewed during certifying bodies audits and are disclosed upon order of the concerned governmental or inter-governmental authorities or a Court having jurisdiction.

The documents and data are subject to a file management plan.

ARTICLE 10

10.1. - Any delay or shortcoming in the performance of its Services by the Society arising from an event not reasonably foreseeable by or beyond the control of the Society shall be deemed not to be a breach of contract.

ARTICLE 11

11.1. - In case of diverging opinions during surveys between the Client and the Society's surveyor, the Society may designate another of its surveyors at the request of the Client.

11.2. - Disagreements of a technical nature between the Client and the Society can be submitted by the Society to the advice of its Marine Advisory Committee.

ARTICLE 12

12.1. - Disputes over the Services carried out by delegation of Governments are assessed within the framework of the applicable agreements with the States, international Conventions and national rules.

12.2. - Disputes arising out of the payment of the Society's invoices by the Client are submitted to the Court of Nanterre, France.

12.3. - Other disputes over the present General Conditions or over the Services of the Society are exclusively submitted to arbitration, by three arbitrators, in London according to the Arbitration Act 1996 or any statutory modification or re-enactment thereof. The contract between the Society and the Client shall be governed by English law.

ARTICLE 13

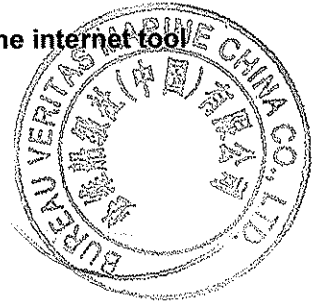
13.1. - These General Conditions constitute the sole contractual obligations binding together the Society and the Client, to the exclusion of all other representation, statements, terms, conditions whether express or implied. They may be varied in writing by mutual agreement.

13.2. - The invalidity of one or more stipulations of the present General Conditions does not affect the validity of the remaining provisions.

13.3. - The definitions herein take precedence over any definitions serving the same purpose which may appear in other documents issued by the Society.

APPENDIX 6 TO AGREEMENT N° SMS.W.II/25097/B.1

FORMAT OF CERTIFICATE OF CONFORMITY (unless it has been agreed to use the internet tool
"www.veristarpn.com" for that purpose)



BV 船级社船板质量计划表 Quality Control Plan of Hull Structural Steel Plate	标准 Specification	BV 船级社规范 BV Classification Rules
	产品名称 Product name	船板 Hull structural steel plate

船用钢板质量控制计划

MTI Plan of each hull structural steel plate

宝山钢铁股份有限公司总部

Baoshan Iron&Steel Co.,Ltd Core Base

BV 船级社船板质量计划表 Quality Control Plan of Hull Structural Steel Plate	标准 Specification	BV 船级社规范 BV Classification Rules
	产品名称 Product name	船板 Hull structural steel plate

活动代码描述(The description of activity code):

代码 Code	描述 Description	定义 Definition
H	停工待检点 Waiting Check spot	船级社必须进行验证;否则不能进行下道工序 Surveyor must witness, otherwise the manufacturer can not proceed.
R	审阅报告点 Check Document spot	验船师对相关检验和试验的文件, 质量证明书等进行审阅 Surveyor check documents.
C	检查点 Check spot	供方自己检查 Check on the spot by supplier
Rec	记录 Records	活动记录 Activity action

定义和缩写:

BV 船级社船板质量计划表 Quality Control Plan of Hull Structural Steel Plate		标准 Specification	BV 船级社规范 BV Classification Rules
		产品名称 Product name	船板 Hull structural steel plate

序号 No.	制造工序 Production Step	适用标准/文件 Applicable standard/ Control Documents	检验和试验项目 Inspection and testing Items	制造厂 Manufacturer		BV 船级社 Bureau Veritas		检验频率 Frequency	备注 Remarks
				宝钢股份厚板线 No.2 Baosteel		验船师 Surveyor			
1	原材料检验 Raw materials	采购技术条件 BCJ C0001	成分等 Chemical composition, etc.	C	Rec			1/批或按要求 1 per lot or as required	
2	炼铁过程 Steel Ironing	炼铁工艺规程 Technological specification	化学成分[P],[S],[Mn],[Si]etc.	C	Rec			1/每炉 1/per ladle	
3	炼钢过程 Steel making	厚板产品工艺规程 Technological Specification XJI02, XJI03, XJI04 MES system QMTS02	铁水预处理 Hot metal pretreatment	铁水[S] The [S] of hot metal	C	Rec			1/每包 1 per ladle
			铁水扒渣 Slag removal	渣量 Slag quantity					100%连续 100%
			转炉冶炼 Converter making	停吹[C], 停吹[P], 成分, 温度 Turndown [C], [P], chemical composition and temperature					1/每炉 1 per ladle
			精炼 Refining	成分, 温度 Chemical composition and temperature					1/每炉 1 per ladle

BV 船级社船板质量计划表
Quality Control Plan of Hull Structural Steel Plate

标准 Specification	BV 船级社规范 BV Classification Rules
产品名称 Product name	船板 Hull structural steel plate

序号 No.	制造工序 Production Step	适用标准/文件 Applicable standard/ Control Documents	检验和试验项目 Inspection and testing Items	制造厂 Manufacturer		BV 船级社 Bureau Veritas		检验频率 Frequency	备注 Remarks
				宝钢股份宝钢分公司 Baosteel		验船师 Surveryor			
4	连铸过程 Continuous casting	厚板产品工艺规程 Technological Specification XJI05, XJS03 MES system QMTS02	浇注速度, 板坯重量, 余钢量, Casting speed, the weight of slab, the remaining molten steel in tundish,	C	Rec			100%连续或 100%	
			成分 ladle analysis;	C	Rec			1/每炉 1 per ladle	
5	模铸过程 Ingot casting	厚板产品工艺规程 Technological Specification YAB004602121, 9672 system TMGA	镇静时间、脱模时间 Kill time, Min. time of stripping	C	Rec			100%连续或 100%	
			成分 ladle analysis	C	Rec			1/每炉 1 per ladle	
6	初轧过程 Slabbing Rolling	厚板产品工艺规程 Technological Specification YACA00205020	均热模式, 终轧温度 Soaking model, final rolling temperature	C	rec			1/每板坯 1/piece	
7	钢坯精整过程 Slab finishing	厚板产品工艺规程 Technological Specification XJI06, XJS01 MES system	板坯表面质量 Surface quality	C	Rec			100% 每块 each slab	

BV 船级社船板质量计划表 Quality Control Plan of Hull Structural Steel Plate	标准 Specification	BV 船级社规范 BV Classification Rules
	产品名称 Product name	船板 Hull structural steel plate

序号 No.	制造工序 Production Step	适用标准/文件 Applicable standard/ Control Documents	检验和试验项目 Inspection and testing Items	制造厂 Manufacturer		BV 船级社 Bureau Veritas		检验频率 Frequency	备注 Remarks
				宝钢股份宝钢分公司 Baosteel		验船师 Surveyor			
8	板坯接收 Check and accept	厚板产品工艺规程 Technological Specification XJJ03 MES system	板坯表面质量,库位 Surface quality and position	C	Rec			As required	
9	板坯加热 Heating	厚板产品工艺规程 Technological Specification XJJ03 MES system	均热时间, 出炉温度 Soaking time, discharge temperature	C	Rec			100% 连续 100%	

BV 船级社船板质量计划表 Quality Control Plan of Hull Structural Steel Plate		标准 Specification	BV 船级社规范 BV Classification Rules
		产品名称 Product name	船板 Hull structural steel plate

序号 No.	制造工序 Production Step		适用标准/文件 Applicable standard/ Control Documents	检验和试验项目 Inspection and testing Items	制造厂 Manufacturer		BV 船级社 Bureau Veritas		检验频率 Frequency	备注 Remarks
					宝钢股份公司 Baosteel		验船师 Surveyor			
10	轧制过程 Rolling Process	高压水除鳞 De-scaling	厚板产品工艺规程 Technological Specification XJJ04 MES system QMTMEP	压力 Pressure	C	Rec			1次/2小时 1/per two hours	
		轧制 Rolling		开轧温度、终轧温度、压下量。如交货状态为 CR, 控制轧制点的温度;如交货状态为 TM 控制轧制点的温度和厚度。 Start rolling temperature, final rolling temperature, reduction ratio; For supply condition of CR, the temperature at control rolling point. For supply condition of TMCP, the thickness and temperature at control rolling point.	C	Rec			100% 连续 100%	
		加速冷却 (如要求) Accelerated cooling (if required)		冷却速率, 开冷温度, 停冷温度; The rate of accelerated cooling, start cooling temperature, stop cooling temperature						

BV 船级社船板质量计划表 Quality Control Plan of Hull Structural Steel Plate		标准 Specification	BV 船级社规范 BV Classification Rules
		产品名称 Product name	船板 Hull structural steel plate

序号 No.	制造工序 Production Step		适用标准/文件 Applicable standard/ Control Documents	检验和试验项目 Inspection and testing Items	制造厂 Manufacturer		BV 船级社 Bureau Veritas		检验频率 Frequency	备注 Remarks
					宝钢股份宝钢分公司 Baosteel		验船师 Surveyor			
11	热处理过程 (热处理交货) Heat treatment (if supply conditions is heat treatment)		厚板产品工艺规程 Technological Specification XJJ05	均热温度、均热时间等; Soaking time, soaking temperature	C	Rec			100% 连续 100%	
12	超声波探伤 (如要求) ultrasonic testing (if required)		厚板产品工艺规程 Technological Specification XJJ06 MES system 客户要求的探伤标准 purchaser specification	内部质量 Inner quality	C	Rec			按要求 As required	
13	精整过程 Finishing	表面质量	厚板产品工艺规程 Technological Specification XJJ06, MES system, KR rule, 客户的订货标准 purchaser specification	表面质量, 尺寸, 标识等 Surface quality, dimension, identification, etc	C	Rec			100% 每块 Each plate	
		钢板尺寸								
		钢板标识等								

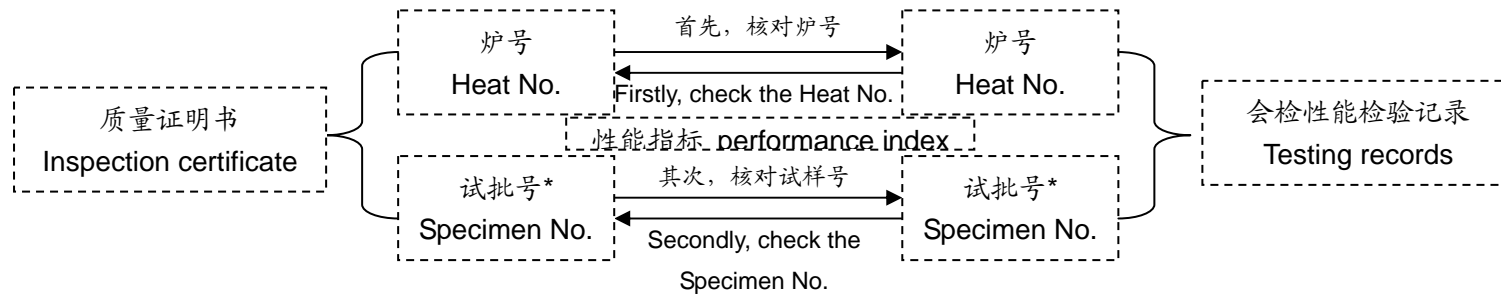
BV 船级社船板质量计划表 Quality Control Plan of Hull Structural Steel Plate		标准 Specification	BV 船级社规范 BV Classification Rules
		产品名称 Product name	船板 Hull structural steel plate

序号 No.	制造工序 Production Step		适用标准/文件 Applicable standard/ Control Documents	检验和试验项目 Inspection and testing Items	制造厂 Manufacturer		BV 船级社 Bureau Veritas		检验频率 Frequency	备注 Remarks
					宝钢股份宝钢分公司 Baosteel		验船师 Surveyor			
14	产品试验 Product test	拉伸试验 Tensile test	MESsystem	屈服强度、抗拉强度、延伸率、冲击、弯曲、Z向性能 Yield Strength, tensile strength, elongation, Impact Energy, bend ability, Z-quality, etc	C	Rec			1/批 1 per lot	
		冲击试验 Impact test	QMTMP1, QMTMP7,							
		弯曲试验 Bend test (if required)	QMTMP3, QMTMPG, etc							
		Z向拉伸 Z-quality tensile test (if required)	厚板试验室技术、操作规程, 试验方法标准, 船规, 客户的订货标准 Testing regulation, testing method specification, KR rule, purchaser specification							
									
15	最终检查 Final check		按合同要求	各种文件审查 Documents check						

BV 船级社船板质量计划表 Quality Control Plan of Hull Structural Steel Plate	标准 Specification	BV 船级社规范 BV Classification Rules
	产品名称 Product name	船板 Hull structural steel plate

1. 核对厚板产品质量证明书上的试验数据的方法。

The approach to check the test data on the inspection certificate of heavy hull plate.



Note:

For Baosteel Core Base and Core base Plate Line No.1

试样号一般为 7 位，如拉伸试样号为“PA*****”，冲击试样号为“PF*****”，Z 向拉伸试样号为“PC*****”，弯曲试样号为“PW*****”。

The character size of specimen No. is generally 7, such as tensile test”PA*****”, Impact test “PF*****”, Z-quality test ”PC*****” and bend test”PW*****”.

For Core Base Plate Lone No.2

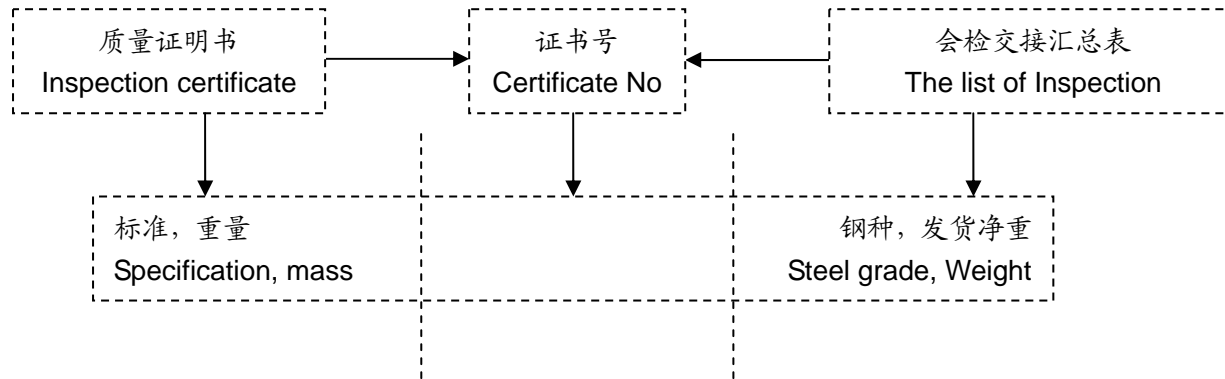
Note: 试批号一般为 11 位，如拉伸试批号为“*LL*****”，冲击试批号为“*CC*****”，Z 向拉伸试批号为“*ZL*****”，弯曲试批号为“*LW*****”。


The character size of specimen No. is generally 11, such as tensile test”*LL*****”, Impact test “*CC*****”, Z-quality test ”*ZL*****” and bend test”*LW*****”.

BV 船级社船板质量计划表 Quality Control Plan of Hull Structural Steel Plate	标准 Specification	BV 船级社规范 BV Classification Rules
	产品名称 Product name	船板 Hull structural steel plate

2. 核对钢级，重量的方法。

The approach to check the steel grade and weight.



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Baoshan Iron and Steel Co. Ltd., Core Base	MTI agreement with Baosteel and Bureau Veritas	

The MTI agreement with Baosteel and Bureau Veritas

1. Introduction

1.1 This MTI agreement relates to the Bureau Veritas and Baosteel Iron & Steel Co., Ltd, about MODE I Recognition.

2 Works covered by Mode I

2.1 The works covered by this Mode I is **Baoshan Iron and Steel Co. Ltd. Core Base** at the following address:

Baoshan Iron&Steel Co.,Ltd
Core Base and Core Base Plate Line No.1
No.885, Fujin Road,
Baoshan District,
Shanghai, 201900
P.R.China

Core Base Plate Line No.2.
No.777, North Wenchuan Road,
Baoshan District
Shanghai, 200949
Peoples Republic of China

3 Scope of Products Covered by Mode I


3.1 Scope of products covered by the agreement is that given for **Core Base Plate Line No.2 of Baoshan Iron and Steel Co. Ltd., in approval certificate 20647/A0 BV; 20980/A0 BV; and the extending scope approval certificate in the future.**

Core Base and Core base Plate No.1 of Baoshan Iron and Steel Co.,Ltd., in the approval certificate 16358/A2 BV, 16394/A3 Bv, 15887/A0 Bv, 15886/A0 Bv and the extending scope approval certificate in the future.

3.2 Any requests by the Client to extend the scope of approval will be dealt with under the relevant section of the Bureau Veritas Rules for the Classification of Steel Ships, and

3.3 The Client is responsible for ensuring that the Model I mark is applied only to test certificates and materials within the approved scope for the Mode I.

4 Process Routes

	BV MODE I RECOGNITION	March 11, 2011
Baoshan Iron and Steel Co. Ltd., Core Base	MTI agreement with Baosteel and Bureau Veritas	

4.1 The Mode I applies to the process routes set out in Appendix 1~3.

4.2 If the Client wishes to change the process route for materials produced according to the Scheme, this must be agreed by BV in writing, and this Scheme must be modified accordingly.

5 Scheme Audits of Mode I

5.1 BV will conduct Scheme audits on a regular basis at the works covered by this Mode I.

5.2 Scheme audits will be in accordance with the requirements of the “Bureau Veritas Rules for the Classification of Steel Ships”.

5.3 BV will conduct a minimum of 2 man days of audit per year against the requirements of this Scheme, at an approximate frequency of 1 man days every six months.

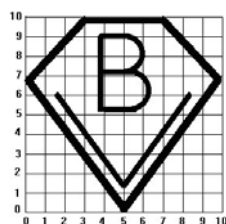
5.4 BV reserves the right to request manufacturers to demonstrate compliance with the Rules by performing tests on material selected by the assessor at the time of audit.

5.5 In addition to the regular Scheme audits, the Client will be subject to a re-assessment every **four** years.


6 The Scheme Mark of Mode I

6.1 As part of Mode I, the Client is authorised to apply the mode I mark of Bureau Veritas to all manufacturer’s test certificates and materials relating produced under the Scheme.

6.2 The mark is supplied to the Client in electronic form, and appears as follows:



6.3 No variation may be made in the appearance of the Scheme mark by modifications to wording, font, proportions etc.

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- 6.4 The Scheme mark must be applied to the Client's test certificate and materials in such a way that it is clearly legible.
- 6.5 The Client's test certificate must be signed (manually or electronically) by an authorised representative. This representative shall take responsibility for ensuring that the Scheme mark is correctly applied, and that all the requirements of this Scheme have been met relating to all material referred to on the test certificate.
- 6.6 The Client remains responsible for ensuring that the material meets the requirements of the Rules, as well as any additional requirements specified by the purchaser.
- 6.7 On no account may the Scheme mark be applied to certificates which relate to material outside the scope of Mode I.
- 6.8 The Scheme mark may not be used for any purpose other than for application to Client's test certificates and materials according to the Scheme.

7 Procedures for the certification of materials according to the Scheme


- 7.1 Manufacturing Management Dept. of Baosteel Branch is responsible for the certification system;
- 7.2 A computer system has been employed for production, sale, quality management, etc. in **Core Base**. Of Baoshan Iron&Steel Co., Ltd. The system can realize automatically collecting the necessary information, generating and printing the test certificates.

The main flow is as follows:

The requirements of customer order, including the certificate type and test items, will be input the computer system, and then the order will be converted into a manufacturing specification by process design engineer. The requirement of inspection and testing will be sent automatically to the relevant department, and the data of inspection and testing will be fed back to the computer system. The qualified data will be sent automatically to print test certificate.

- 7.3 A computer program will be designed to ensure the scheme logo is only applied to products certificates which are under the scope of the scheme.

8 Information to be supplied to BV by the Client

	BV MODE I RECOGNITION	March 11, 2011
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8.1 As part of the Scheme, the Client agrees to supply certain information to BV for the purposes of assessment of ongoing capability to supply according to the requirements of the Rules.

8.2 This information will be treated as strictly confidential by BV, and will not be used in any way which is traceable to the Client, except with the Client's express permission in writing.

8.3 The information to be supplied to BV under Mode I is as follows:

- a) A full list of all mechanical test results on hull plate in spreadsheet form. This should include the average and standard deviation of each parameter for each grade, and where possible the distribution of results.
- b) Where more than 20 results are available for a particular grade, the results for this grade should be plotted in a sequential form to show any trends in the data.

8.4 This data shall be supplied to the attending surveyor every six months, within one month of the end of the period in question.



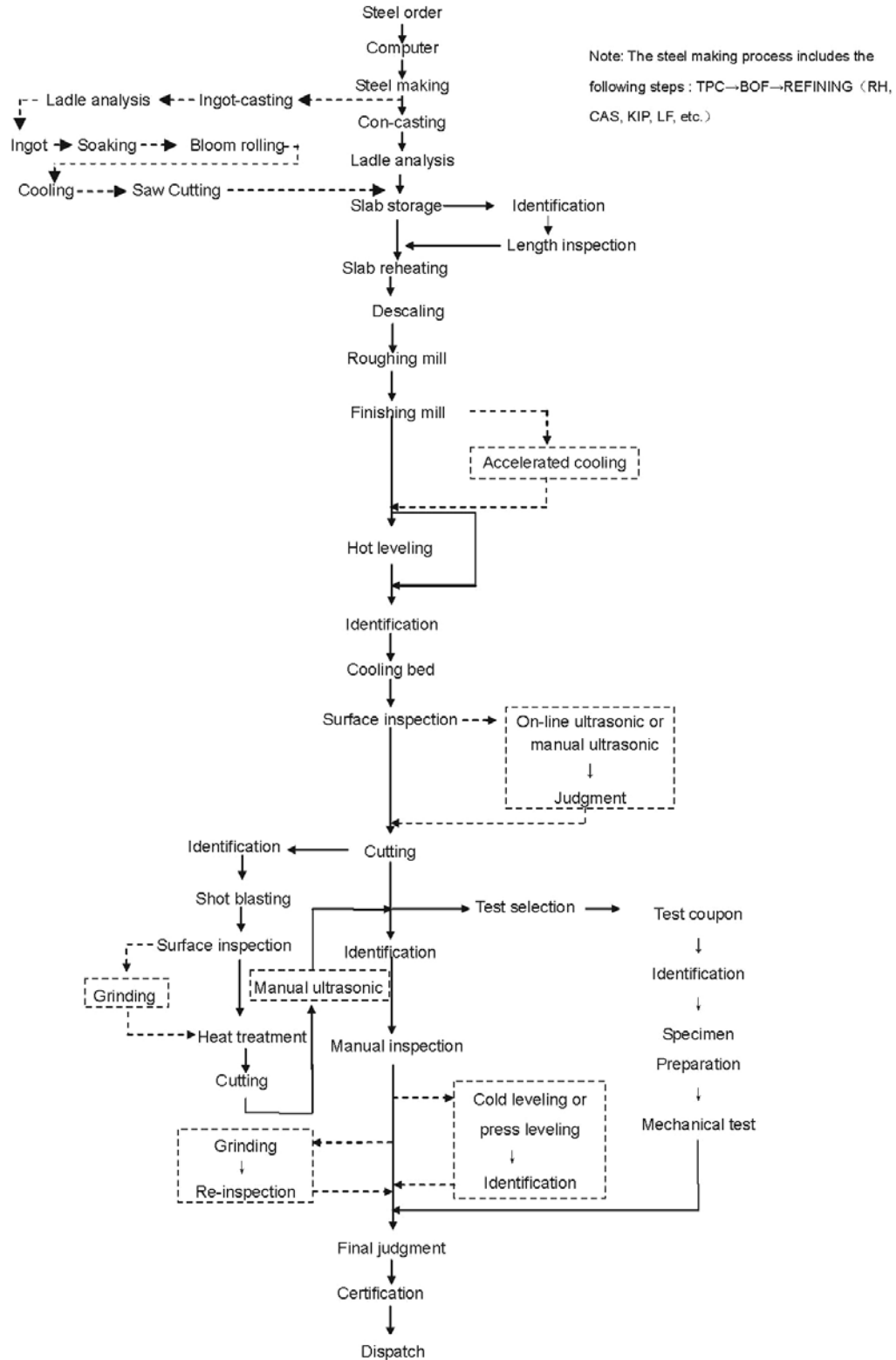
BV MODE I RECOGNITION

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Appendix 1 Process Flow for Steel Plates – Heavy Plate Mill (Baosteel Core Base Plate Line No.1)





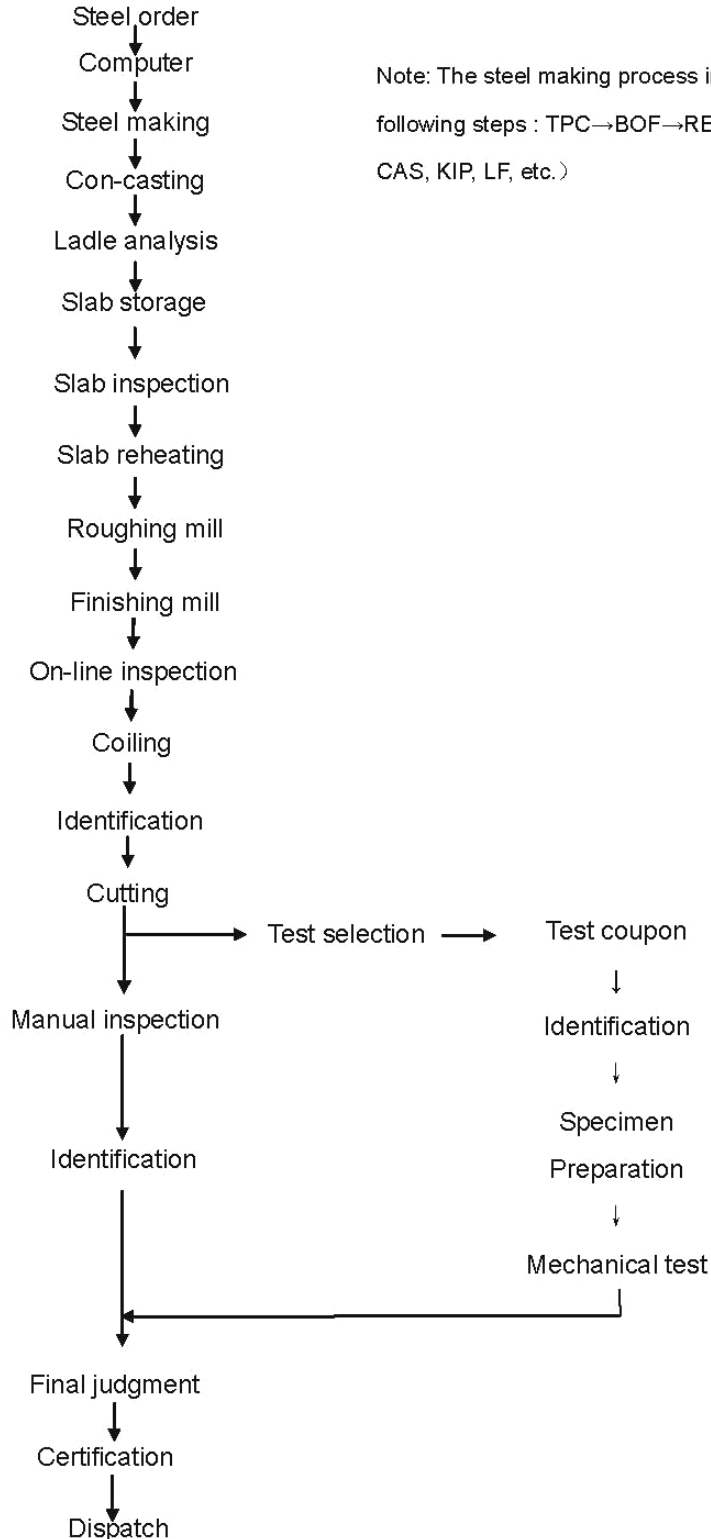
BV MODE I RECOGNITION

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MTI agreement with Baosteel and Bureau Veritas

Appendix 2 Process Flow for Steel Strip –Hot Strip Mill (Baosteel Core Base)





BV MODE I RECOGNITION

March 11, 2011

Baoshan Iron and Steel Co. Ltd., Core Base

MTI agreement with Baosteel and Bureau Veritas

Appendix 3 Process Flow for Steel Plates – Heavy Plate Mill (Baosteel Core Base Plate Line No.2) Customer Order

