



中国船级社
CHINA CLASSIFICATION SOCIETY

证书格式号/Form: W01.02-
HQ000120

工厂认可证书
CERTIFICATE OF WORKS APPROVAL

证书编号/Certificate No. NJ17W00086_03

兹证明本证书所述制造厂具备按照下列标准的要求生产本证书所列产品的能力和条件。

This is to certify that the manufacturer stated in the certificate meets the requirements of the standards listed below and is available with the ability and conditions to produce the products as described in the certificate.

制造厂/Manufacturer

江苏沙钢集团有限公司

Jiangsu Shagang Group Co.,Ltd

江苏省张家港市锦丰镇

Jinfeng Town, Zhangjiagang, Jiangsu Province

认可产品/Product Approved

钢板

STEEL PLATE

一般强度船体结构用钢, 焊接结构用高强度淬火回火钢, 高强度船体结构用钢

Normal Strength Hull Structural Steel Plate, High Strength Quenched and Tempered Steels for Welded Structures, Higher Strength Hull Structural Steel Plate

附加标志/Notations

无/Nil.

认可标准/Approval Standard

1. 中国船级社《材料与焊接规范》(2015)及其修改通报第1篇第3章
Chapter 3, Part One of China Classification Society Rules for Materials and Welding 2015 and its Amendments

证书有效期至/ This Certificate is valid until

2021年6月8日 / Jun. 8, 2021

发证机构 中国船级社江苏分社
Issued by CCS Jiangsu Branch

签发日期 CO 2017年9月21日
Date Sep. 21, 2017

本证书根据中国船级社《钢质海船入级规范》及有关程序规定签发。关于证书的有关规定见本证书背面的说明。当本证书包括多页纸张时, 则所有证书页为一个整体, 必须同时使用。每一页证书均须由本社盖章方为有效。证书复印件无效。任何单位和个人均不应摘录或节选本证书的部分内容。本认证证书不代表本社对个体产品质量的检验。有关各方对所持证书的真实性有疑问时, 可以向本社检验机构咨询。
This Certificate is issued pursuant to the Rules for Classification of Sea-going Steel Ships and related procedures of the Society. Refer to the back of the certificate for detailed requirements of the certificate. When the certificate consists of more than one page, all pages of the certificate are taken as a whole and are used simultaneously. No certificate page is valid without bearing the stamp of the Society and no copied form of the certificate is regarded as valid. Any part of the certificate is not to be extracted or abridged by any unit or individual in any form. This approval certificate does not constitute the inspection of the Society about the quality of the unit/batch product. Related parties who are doubted about the authenticity of the certificate may inquire of the Society or its offices.



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NJ73244232
No. 15246026

产品明细/ Product Description

一般强度船体结构用钢/Normal Strength Hull Structural Steel Plate	
规格/Dimension	: 见附页 See attached sheet mm
钢材等级/Grade	: A、B、D、E
最大厚度/Maximum thickness	: 见附页 See attached sheet mm
细化晶粒元素/Grain refining elements	: Al
浇铸方式/Casting process	: 连铸 Continuous Casting
脱氧方法/Deoxidation method	: 镇静 Killed
冶炼方式/Melting process	: 转炉+精炼炉 BOF+LF
交货状态/Condition of supply	: 见附页 See attached sheet
高强度船体结构用钢/Higher Strength Hull Structural Steel Plate	
规格/Dimension	: 见附页 See attached sheet mm
钢材等级/Grade	: 见附页 See attached sheet
最大厚度/Maximum thickness	: 见附页 See attached sheet mm
细化晶粒元素/Grain refining elements	: 见附页 See attached sheet
浇铸方式/Casting process	: 连铸 Continuous Casting
脱氧方法/Deoxidation method	: 镇静 Killed
冶炼方式/Melting process	: 转炉+精炼炉 BOF+LF
交货状态/Condition of supply	: 见附页 See attached sheet
焊接结构用高强度淬火回火钢/High Strength Quenched and Tempered Steels for Welded Structures	
钢材等级/Grade	: AH420、DH420、EH420、AH460、 DH460、EH460、 AH500、DH500、EH500、AH550、 DH550、EH550、 AH620、DH620、EH620、AH690、 DH690、EH690 AH420、DH420、EH420、AH460、 DH460、EH460、 AH500、DH500、EH500、AH550、 DH550、EH550、 AH620、DH620、EH620、AH690、 DH690、EH690
最大厚度/Maximum thickness	: 70 mm
规格/Dimension	: 10~70(厚)×1500~4800(宽)×3000 ~25000(长) 10~70(T)×1500~ 4800(W)×3000~25000(L) mm
细化晶粒元素/Grain refining elements	: Al+Nb+Ti
浇铸方式/Casting process	: 连铸 Continuous Casting
脱氧方法/Deoxidation method	: 镇静 Killed
冶炼方式/Melting process	: 转炉+精炼炉 BOF+LF
交货状态/Condition of supply	: 淬火+回火 Q+T

批准的图纸和设计计算书/ Approved Drawings and Design Calculations

图纸批准号/ Drawings Approval No. : NJ17W00086

产品认可试验报告/ Approval Test Report

试验报告编号/Test Report No. : 20151101
 试验报告日期/Test Report Date : 2015-11-30
 试验单位/ Laboratory : 江苏沙钢集团有限公司
 Jiangsu Shagang Group Iron Steel Co., Ltd
 试验单位地址/ Test Address : 江苏省张家港市锦丰镇
 Jinfeng Town, Zhangjiagang City, Jiangsu Province
 试验报告编号/Test Report No. : JH16037HJ/JL16037-PL/JH16037LC-2/J14010/J15035
 试验报告日期/Test Report Date : 2016-06-12
 试验单位/ Laboratory : 船舶材料验证试验中心
 Testing and Verifying Center for Ship Materials China
 Shipbuilding Industry
 试验单位地址/ Test Address : 河南省洛阳市
 Luoyang City, Henan Province



试验报告编号/Test Report No.	:	20170201
试验报告日期/Test Report Date	:	2017-02-26
试验单位/ Laboratory	:	江苏沙钢集团有限公司 Jiangsu Shagang Group Iron Steel Co., Ltd
试验单位地址/ Test Address	:	江苏省张家港市锦丰镇 Jinfeng Town, Zhangjiagang City, Jiangsu Province

产品适用范围/ Application of the Product

适用于船舶与海上设施/For ships and offshore installations.

认可保持条件/ Maintenance Requirements of Approval

1. 工厂认可后, 如果图纸、技术文件、工艺规程有较大改变, 应征得本社同意。若改变涉及或影响到产品的设计、主要制造材料、关键工艺或产品的特性、特征, 则与特性有关的图纸和技术文件应经过本社审批, 并在检验机构认为必要时, 经本社检验人员到厂进行检查和见证有关试验, 其结果应能证实仍符合认可条件。

After works approval, if there are any major changes to the drawings, technical documents, specifications, prior consent should be obtained from the survey office of the Society. If the changes involve or affect product design, major construction materials, key workmanship or product characteristics and properties, drawings and technical documents related to properties are to be examined and approved by the Society and, where deemed necessary by the survey office, the surveyor to the Society will go to the manufacturer to inspect or witness relevant tests and the results of the tests should be able to demonstrate compliance with the approval conditions

2. 工厂的质量管理体系应保持有效运行, 并且与认可时一致。如果质量管理体系发生改变, 应经原体系认证机构审核并报告本社批准。

The quality management system of the factory shall be ensure effective operation, and shall be the same as the situation of approval. If there are any changes to the quality management system, auditing of the original certification organization for quality management system and the society's approval shall be obtained.

3. 工厂认可证书获得者应接受本社每年一次的定期审核, 定期审核日为认可证书期满之日对应的每一周年日, 检查工作可在定期审核日的前后三个月内进行。Those who have obtained the certificate of works approval shall receive periodical audit done by the Society on an annual basis. The date of periodical audit shall be each anniversary date which corresponds to the date of expiry of the relevant certificate and the periodical audit may be done within a time span of three months before and after the annual surveillance date.

4. 在认可证书有效期内, 本社检验人员可在未经事先通知的情况下对工厂的产品制造过程进行审核, 以验证产品的生产是否符合业经本社批准的图纸和文件。工厂应予以配合。

Within the validity of the approval certificate, the surveyor to the Society may pay unannounced audit to the manufacturing process of the product in order to confirm whether it is in compliance with the drawings and documents approved by the Society. The factory should provide an active cooperation and necessary for the surveyor.

5. 认可证书有效期内, 如果出现可能导致本社暂停或撤销认可的情况, 工厂应及时采取有效的纠正措施。

Within the validity of the approval certificate, if cases occur that may cause the Society to suspend or withdraw the certificate, the manufacturer should take corrective actions in a prompt and effective manner.

认可后的产品检验方式/ Module of Product Inspection after Works Approval

按照规范每批抽样检验的产品/The product inspected by sampling in term of the rules:

认可后的产品检验应由本社验船师根据本社规范规定每批抽样按批准的产品检验计划进行检验, 经检验合格后由本社颁发船用产品证书。

After approval, product inspection should be carried out by sampling by the Surveyor of the Society in accordance with the approved product inspection scheme, and the Marine Product Certificate will be issued by the Society upon satisfactory inspection.

对于原材料和零部件的检验要求/ Inspection Requirements for Materials and Components

产品如下原材料和零部件应由本社认可的制造厂生产/The following materials and components of the product should be manufactured by the factory approved by the Society:无/Nil.

产品如下原材料和零部件应经本社检验, 持有本社产品证书/The following materials and components of the product should be inspected and certificated by the Society:无/Nil.

产品如下原材料和零部件的制造厂清单, 经本社批准方可变更/The list of manufacturer for the following materials and components of the product should not be changed without the Society's approval:无/Nil.

责任声明/ Statement of Responsibility

本社的认可不影响、替代与本社授权或检验无关的各方对上述工厂的认可和发证, 并且不对与本社授权或检验无关的各方负责, 不承担其未经应允而承认、接受本社认可所导致的法律和经济责任。

The approval of the Society does not affect and replace any approval and certification of the manufacturer by any parties that bear no relation with this Society's authorization or survey and therefore takes no responsibility for these parties. The Society does not undertake any legal and economic liabilities arising from accepting this Society's certificate without prior permission from this Society.

其他/Others

本证书由原工厂认可证书(No. NJ17W00028-03)换发。

This Certificate is issued and supersedes the previous Works Approval Certificate No. NJ17W00028_03.



中国船级社江苏分社

CCS Jiangsu Branch

*****本证书正文完/ End of Text*****

注：本证书含有附页，共2页

Note:The certificate is attached with 2 additional page(s)



认可范围/Range of Approval

钢 级 Grade	交货状态 Condition of Supply	厚度 Thickness (mm)	宽度 Width (mm)	长度 Length (mm)	Z 向性能 Z-direction property	细化晶粒元素 Grain Refining Elements
A、B、D	AR	5~40	1500~4800	3000~25000	—	Al
E	TMCP	5~60				
A、B	NR	40~60				
D	TMCP	40~60				
AH32、AH36、DH32、DH36、EH32、 EH36	TMCP	5~60	1500~4800	3000~25000	—	Al+ (Nb、V)
AH40、DH40、EH40、FH32、FH36、FH40	TMCP	16~60				
A、B	AR	8~40	1500~4800	3000~25000	Z35(t≥15mm)	Al
	NR	40~60				
D	AR	8~40				
	TMCP	40~60				
E	TMCP	8~60				
AH32、AH36、DH32、DH36、EH32、 EH36、AH40、DH40、EH40、FH32、FH36、 FH40	TMCP	8~60	1500~4800	3000~25000	Z35(t≥15mm)	Al+ (Nb、V)
AH32,AH36,DH32,DH36	NR	8~40	1500~4800	3000~25000	Z35(t≥15mm)	Al+Ti
AH32,AH36	AR	6~30	1500~4800	3000~25000	—	Al+Ti
EH40-CA(止裂钢/ Brittle Crack Arrest Steel),EH40, DH40,AH40,EH36	TMCP	8~85	≤4800	3000~25000	Z35(t≥15mm)	Al+Nb+V+Ti
EH47-CA(止裂钢/ Brittle Crack Arrest Steel),EH47,DH47,AH47	TMCP	8~80	≤4800	3000~25000	Z35(t≥15mm)	Al+Nb+V+Ti

钢 级 Grade	交货状态 Condition of Supply	厚度 Thickness (mm)	宽度 Width (mm)	长度 Length (mm)	Z 向性能 Z-direction property	细化晶粒元素 Grain Refining Elements
A、B	AR	5~40	900~3300	3000~45000	Z35 (t≥15mm)	Al
D	NR	5~40				
D、E	TMCP	5~40				
AH32、AH36、DH32、DH36	NR	5~40	900~3300	3000~45000	Z35 (t≥15mm)	Al+Ti
AH32、AH36、DH32、DH36	TMCP	5~40	900~3300	3000~45000	Z35 (t≥15mm)	Al+Nb+Ti



1. 证书适用条件

- 1.1 经 CCS 设计认可、型式认可或工厂认可的产品及其生产厂，CCS 将颁发产品设计认可、型式认可或工厂认可证书。当 CCS 规范要求产品证书的情况下，认可证书不能替代产品证书。
- 1.1.1 设计认可系指 CCS 通过对产品图纸审查和原型/型式试验，确认产品设计满足 CCS 规范要求和/或其他接受标准要求的评价过程。
- 1.1.2 型式认可系指 CCS 通过产品图纸审查、型式试验和现场审核，以确认制造厂具备持续生产符合 CCS 规范要求和/或其他接受标准要求产品的能力和条件的评价过程。根据制造厂产品质量保证的能力和水平，型式认可分为型式认可 A 和 B 两种模式。
- 1.1.3 工厂认可系指 CCS 通过文件/图纸资料审查、型式试验和现场审核，以确认制造厂具备持续生产符合 CCS 规范要求和/或其他接受标准要求产品的能力和条件的评价过程。
- 1.2 入级和法定产品经 CCS 单件/单批检验完成后，CCS 将颁发产品证书或签署等效证明文件。
- 1.2.1 产品证书是由 CCS 验船师签发的文件，以证明：a) 产品符合规范要求；b) 产品已进行规定的检验和试验；c) 检验样品取自检验产品本身；d) 产品的试验在验船师参加或根据特别商定的情况下进行。
- 1.2.2 等效证明文件是由制造厂出具并经 CCS 盖章和验船师签署的文件，以证明：a) 产品符合规范要求；b) 产品已进行规定的检验和试验；c) 检验样品取自检验产品本身；d) 产品的试验在验船师参加或根据特别商定的情况下进行。
- 1.3 对于要求型式认可和/或工厂认可而不要求持有产品证书的入级和法定产品，可由制造厂证明形式予以证明：
- 1.3.1 制造厂证明是由制造厂签发，以证明：a) 该产品经 CCS 型式认可或工厂认可；b) 产品符合规范要求；c) 产品已进行规定的检验和试验；d) 检验样品取自检验产品本身；e) 产品的试验在制造厂授权部门代表在场的情况下进行。
- 1.4 规范和法定要求以外的产品经 CCS 单件/单批检验完成后，由检验证书或试验证书予以记录和证明。
- 1.4.1 检验证书是由 CCS 验船师签署的文件，以证明：a) 符合申请方确定的产品标准；b) 检验和试验经验船师见证和/或试验报告经验船师审查；c) 试验样品取自检验产品本身。
- 1.4.2 试验证书是由 CCS 验船师签署的文件，以证明：a) 产品的试验在验船师在场下进行；b) 试验样品取自检验产品本身。

2. 证书的失效、暂停和撤销

CCS 通过认可、检验工作所签发的证书或相关的证明文件的失效、暂停和撤销，见 CCS《钢质海船入级规范》第一篇第 3 章第 1 节。

3. 责任

- 3.1 CCS 承担的认可/检验服务是在所涉及的产品设计方、制造方、拥有方、销售方、供应方、修理方、使用方以及其他方履行各自职责的基础上进行的。无论 CCS 及所属验船师采用何种认可/检验方式，也不论在 CCS 名义下颁发、签署的任何报告、文件和证书在内容上如何，均不意味着可减轻或解除上述任何方应承担的任何责任。
- 3.2 CCS 签发的与认可/检验有关的任何文件，只反映检验当时的技术状况，并不表明被认可的工厂和产品的所有权和知识产权归属。与被认可的工厂和产品的所有权和知识产权有关的任何争议，与 CCS 无关。
- 3.3 CCS 的认可/检验不影响、替代与 CCS 授权或检验无关的各方对上述工厂的认可/发证，并且不对与 CCS 授权或检验无关的各方负责，不承担其未经应允而承认、接受 CCS 认可/检验所导致的法律和经济责任。
- 3.4 CCS 仅对由于自身疏忽行为而直接造成的合同关系方的损失或损害承担责任，在任何情况下，CCS 均不对合同关系方的间接损失或随后引发的附加损失或损害承担责任，也不对非合同关系方的任何损失承担责任。
- 3.5 尽管有上述规定，如依法判定合同关系方所遭受的损失或损害，仅仅是由于 CCS 或其雇员、代理人或 CCS 其他代表方的疏忽行为造成的，CCS 将承担责任，并将支付赔偿，但此赔偿的数额不超过该项服务收费的 5 倍，且最大不超过人民币 200 万元。但如该损失或损害系由如下行为造成，CCS 将不承担任何责任：
- 1) CCS 雇员超越其受雇权限的行为；
 - 2) CCS 代理人或其他代表方，超越 CCS 对其书面授权范围的行为。
- 3.6 对 CCS 承担责任的损失或损害的索赔，应以书面形式，在损害最初发现或损失形成的 6 个月内提出，否则将被视为彻底放弃索赔权。

4 适用法律和仲裁

- 4.1 本证书条款的生效、解释、执行、争议的解决均适用中华人民共和国法律。
- 4.2 除与 CCS 另有约定外，凡因与 CCS 提供的服务有关的任何争议，均应提交中国海事仲裁委员会，按照申请仲裁时该会现行有效的仲裁规则进行仲裁。仲裁裁决是最终的，对争议当事双方均有约束力。

1. THE APPLICATION OF CERTIFICATES

- 1.1 After Approval, Certificate of Design Approval, Certificate of Type Approval or Certificate of Works Approval will be issued by CCS for the products and manufacturers. Where a product certificate is required by CCS rules, the Approval Certificate cannot replace it.
- 1.1.1 **Design Approval** means the evaluation process to confirm that the product design is in compliance with the requirements of CCS Rules and/or other accepted standards through plan approval and prototype/type test.
- 1.1.2 **Type Approval** means the evaluation process to confirm the approved manufacturer's capability of continuously producing products which are in compliance with the requirements of CCS Rules and/or other accepted standards through product plan approval, type test and on-site audit. Type approval consists of two modes, type approval A and type approval B, which shall be granted to the manufacturer according to manufacturer's ability and level in product quality assurance.
- 1.1.3 **Works Approval** means the evaluation process to confirm the manufacturer's capability of continuously producing products which are in compliance with the requirements of CCS Rules and/or other accepted standards through product plan approval, type test and on-site audit.
- 1.2 A unit/batch inspection of classed or statutory products is to be documented as Certificate of Product or Equivalent document by CCS:
- 1.2.1 **Certificate of Product** is issued by the Surveyor to show that: i) the product complies with rules; ii) required inspection and test have been carried out; iii) the sample is taken from the product to be inspected; iv) the product has been tested in the presence of the Surveyor or in a specially agreed condition.
- 1.2.2 **Equivalent Document** is issued by the manufacturer and endorsed by the Surveyor to show that: i) the product complies with rules; ii) required inspection and test have been carried out; iii) the sample is taken from the product to be inspected; iv) the product has been tested in the presence of the Surveyor or in a specially agreed condition.
- 1.3 The classed and statutory products of which the type approval and/or works approval is required but the products certificate is not required, may be certified as Manufacturer's document:
- 1.3.1 **The Manufacturer's Document** is issued by the manufacturer to show that: i) the product is type approved or works approved by CCS; ii) the product complies with rules; iii) required inspection and test have been carried out; iv) the sample is taken from the product to be inspected; v) the product has been tested in the presence of the department representative authorized by the manufacturer.
- 1.4 A unit/batch inspection Products other than those specified in rules or statutory requirements is to be documented as Inspection Certificate or Test Certificate:
- 1.4.1 **Inspection Certificate** is issued by the Surveyor to show that: i) the product standards as determined by the applicant have been complied with; ii) the inspection and test have been witnessed by the Surveyor and/or the test report has been reviewed by the Surveyor; iii) the sample is taken from the product to be inspected.
- 1.4.2 **Test Certificate** issued by the Surveyor to show that: i) the product has been tested in the presence of the Surveyor; ii) the sample is taken from the product to be inspected.

2. INVALIDATION, SUSPENSION AND CANCELLATION OF CERTIFICATE

Invalidation, suspension and cancellation of the certificates or equivalent documents issued by CCS by means of approval or certification are specified in Section 1, Chapter 3, Part 1 of CCS Rules for Classification of Sea-going Steel Ships.

3. LIABILITY

- 3.1 The service of approval / inspection undertaken by CCS is carried out on the basis that the designers, manufacturers, owners, sellers, suppliers, repairers, operators and other parties fulfill their respective responsibilities. The contents of any reports, documents and certificates issued by CCS cannot diminish any liability of any party mentioned above or absolve it therefrom, whatever the module of approval/inspection adopted by CCS and its surveyors.
- 3.2 Any approval/inspection-related documents issued by CCS only reflect the status at the time when the approval/inspection is carried out. They do not constitute the description for ownership and intellectual property rights of the approved/inspected factory and product. This Society should not be affected by any dispute over ownership and intellectual property rights of the approved/inspected factory and product.
- 3.3 The approval/inspection of CCS does not affect and replace any approval and certification of the manufacturer by any parties that bear no relation with this Society's authorization or survey and therefore takes no responsibility for these parties. CCS does not undertake any legal and economic liabilities arising from accepting this Society's certificate without prior permission from this Society.
- 3.4 CCS will be liable only for the loss or damage of contract parties resulting directly from its negligent act. In no event shall CCS be liable for any indirect or consequential losses or damage, and any loss of non-contract parties.
- 3.5 Notwithstanding the previous paragraph, CCS will be liable for the loss or damage due to negligent act judicially attributed exclusively to CCS and its employees, agents or other parties acting on behalf of CCS. And in no case shall the amount of this liability exceed five times the fee(s) charged by CCS in respect of the service(s) in question or 2,000,000 RMB in maximum. CCS liability for the loss or damage is specially excluded when such loss or damage arises out of an act:
- (1) by an employee of CCS acting outside the terms or scope of his/her employment; or
 - (2) by any agent or other parties acting on behalf of CCS, when such act exceeds the authority granted in writing by CCS to such agent or parties.
- 3.6 Any claim for any loss or damage set forth above is to be made in writing within six months of the date the damage first discovered or the loss occurred; failure of doing so will be deemed as an absolute waiver of this right.

4. APPLICABLE LAWS AND ARBITRATION

- 4.1 The laws of the People's Republic of China shall apply to the coming into force, explanation, implementing, and resolution of dispute of the clause of the certificate.
- 4.2 Unless otherwise agreed with CCS, any dispute of whatsoever nature in respect to the service(s) provided shall be referred to China Maritime Arbitration Commission and arbitrated in accordance with its arbitration rules effective at the time of request for arbitration. The arbitration award shall be final and binding upon both interested parties.



中国船级社
CHINA CLASSIFICATION SOCIETY

证书格式号/Form: W01.02-
HQ000120

工厂认可证书
CERTIFICATE OF WORKS APPROVAL

证书编号/Certificate No. NJ17W00086_02

兹证明本证书所述制造厂具备按照下列标准的要求生产本证书所列产品的能力和条件。

This is to certify that the manufacturer stated in the certificate meets the requirements of the standards listed below and is available with the ability and conditions to produce the products as described in the certificate.

制造厂/Manufacturer

江苏沙钢集团有限公司

Jiangsu Shagang Group Co.,Ltd

江苏省张家港市锦丰镇

Jinfeng Town, Zhangjiagang, Jiangsu Province

认可产品/Product Approved

钢卷

STEEL COIL

一般强度船体结构钢

Normal Strength Hull Structural Steel Plate

附加标志/Notations

无/Nil.

认可标准/Approval Standard

1. 中国船级社《材料与焊接规范》（2015）及其修改通报第1篇第3章
Chapter 3, Part One of China Classification Society Rules for Materials and Welding 2015 and its Amendments



证书有效期至/ This Certificate is valid until

2021年6月8日 / Jun. 8, 2021

发证机构 中国船级社江苏分社
Issued by CCS Jiangsu Branch

签发日期 2017年9月21日
Date Sep. 21, 2017



本证书根据中国船级社《钢质海船入级规范》及有关程序规定签发。关于证书的有关规定见本证书页背面的说明。当本证书包括多页纸张时，则所有证书页为一个整体，必须同时使用。每一页证书均须由本社盖章方为有效。证书复印件无效。任何单位和个人均不应摘录或节选本证书的部分内容。本认可证书不代表本社对个体产品质量的检验。有关各方对所持证书的真实性有疑问时，可以向本社检验机构咨询。
This Certificate is issued pursuant to the Rules for Classification of Sea-going Steel Ships and related procedures of the Society. Refer to the back of the certificate for detailed requirements of the certificate. When the certificate consists of more than one page, all pages of the certificate are taken as a whole and are used simultaneously. No certificate page is valid without bearing the stamp of the Society and no copied form of the certificate is regarded as valid. Any part of the certificate is not to be extracted or abridged by any unit or individual in any form. This approval certificate does not constitute the inspection of the Society about the quality of the unit/batch product. Related parties who are doubted about the authenticity of the certificate may inquire of the Society or its offices.



中国船级社总部/CCS headquarters: 北京市东直门南大街9号船检大厦 邮编: 100007 电话/Tel: +86(10)58112288 传真/Fax: +86(10)58112811
CCS Mansion, 9 Dongzhimen Nan Da Jie, Beijing 100007, China 网址/Web Site: http://www.ccs.org.cn
本地检验机构/CCS Local Office: 中国船级社江苏分社 CCS Jiangsu Branch 电话/Tel: 0086-25-66668899 传真/Fax: 0086-25-58757734

NJ62519477
No. 15246025

产品明细/ Product Description

一般强度船体结构钢/Normal Strength Hull Structural Steel Plate	
钢材等级/Grade	: A、B
最大厚度/Maximum thickness	: 20 mm
规格/Dimension	: (5~20) (厚) × (900~1530) (宽) (5~20) (thickness) × (900~1530) (width) mm
细化晶粒元素/Grain refining elements	: Al
浇铸方式/Casting process	: 连铸 Continuous Casting
脱氧方法/Deoxidation method	: Al
冶炼方式/Melting process	: 转炉+精炼炉 BOF+LF
交货状态/Condition of supply	: 热轧 AR

批准的图纸和设计计算书/ Approved Drawings and Design Calculations

图纸批准号/ Drawings Approval No. : NJ17W00086

产品认可试验报告/ Approval Test Report

试验报告编号/Test Report No. : 20131101
 试验报告日期/Test Report Date : 2013-11-08
 试验单位/ Laboratory : 江苏沙钢集团有限公司
 Jiangsu Shagang Group Co., Ltd
 试验单位地址/ Test Address : 江苏省张家港市锦丰镇
 Jinfeng Town, Zhangjiagang City, Jiangsu

产品适用范围/ Application of the Product

适用于一般强度船体结构用钢板/For Normal Strength Hull Structural Steel Plate.

认可保持条件/ Maintenance Requirements of Approval

1. 工厂认可后, 如果图纸、技术文件、工艺规程有较大改变, 应征得本社同意。若改变涉及或影响到产品的设计、主要制造材料、关键工艺或产品的特性、特征, 则与特性有关的图纸和技术文件应经过本社审批, 并在检验机构认为必要时, 经本社检验人员到厂进行检查和见证有关试验, 其结果应能证实仍符合认可条件。

After works approval, if there are any major changes to the drawings, technical documents, specifications, prior consent should be obtained from the survey office of the Society. If the changes involve or affect product design, major construction materials, key workmanship or product characteristics and properties, drawings and technical documents related to properties are to be examined and approved by the Society and, where deemed necessary by the survey office, the surveyor to the Society will go to the manufacturer to inspect or witness relevant tests and the results of the tests should be able to demonstrate compliance with the approval conditions

2. 工厂的质量管理体系应保持有效运行, 并且与认可时一致。如果质量管理体系发生改变, 应经原体系认证机构审核并报本社批准。

The quality management system of the factory shall be ensure effective operation, and shall be the same as the situation of approval. If there are any changes to the quality management system, auditing of the original certification organization for quality management system and the society's approval shall be obtained.

3. 工厂认可证书获得者应接受本社每年一次的定期审核, 定期审核日为认可证书期满之日对应的每一周年日, 检查工作可在定期审核日的前后三个月内进行。Those who have obtained the certificate of works approval shall receive periodical audit done by the Society on an annual basis. The date of periodical audit shall be each anniversary date which corresponds to the date of expiry of the relevant certificate and the periodical audit may be done within a time span of three months before and after the annual surveillance date.

4. 在认可证书有效期内, 本社检验人员可在未经事先通知的情况下对工厂的产品制造过程进行审核, 以验证产品的生产是否符合业经本社批准的图纸和文件。工厂应予以配合。

Within the validity of the approval certificate, the surveyor to the Society may pay unannounced audit to the manufacturing process of the product in order to confirm whether it is in compliance with the drawings and documents approved by the Society. The factory should provide an active cooperation and necessary for the surveyor.

5. 认可证书有效期内, 如果出现可能导致本社暂停或撤销认可的情况, 工厂应及时采取有效的纠正措施。

Within the validity of the approval certificate, if cases occur that may cause the Society to suspend or withdraw the certificate, the manufacturer should take corrective actions in a prompt and effective manner.

认可后的产品检验方式/ Module of Product Inspection after Works Approval

按照规范每批抽样检验的产品/The product inspected by sampling in term of the rules:

认可后的产品检验应由本社验船师根据本社规范规定每批抽样按批准的产品检验计划进行检验, 经检验合格后由本社颁发船用产品证书。

After approval, product inspection should be carried out by sampling by the Surveyor of the Society in accordance with the approved product inspection scheme, and the Marine Product Certificate will be issued by the Society upon satisfactory inspection.



对于原材料和零部件的检验要求/ Inspection Requirements for Materials and Components

产品如下原材料和零部件应由本社认可的制造厂生产/The following materials and components of the product should be manufactured by the factory approved by the Society:无/Nil.

产品如下原材料和零部件应经本社检验, 持有本社产品证书/The following materials and components of the product should be inspected and certificated by the Society:无/Nil.

产品如下原材料和零部件的制造厂清单, 经本社批准方可变更/The list of manufacturer for the following materials and components of the product should not be changed without the Society's approval:无/Nil.

责任声明/ Statement of Responsibility

本社的认可不影响、替代与本社授权或检验无关的各方对上述工厂的认可和发证, 并且不对与本社授权或检验无关的各方负责, 不承担其未经应允而承认、接受本社认可所导致的法律和经济责任。

The approval of the Society does not affect and replace any approval and certification of the manufacturer by any parties that bear no relation with this Society's authorization or survey and therefore takes no responsibility for these parties. The Society does not undertake any legal and economic liabilities arising from accepting this Society's certificate without prior permission from this Society.

其他/Others

1. 本证书由原工厂认可证书(No.NJ17W00028_02)换发。

This Certificate is issued and supersedes the previous Works Approval Certificate No. NJ17W00028_02.

2. 重量/Weight: ≤23T

中国船级社江苏分社

CCS Jiangsu Branch

*****本证书正文完/ End of Text*****



1. 证书适用条件

- 1.1 经 CCS 设计认可、型式认可或工厂认可的产品及其生产厂，CCS 将颁发产品设计认可、型式认可或工厂认可证书。当 CCS 规范要求产品证书的情况下，认可证书不能替代产品证书。
- 1.1.1 设计认可系指 CCS 通过对产品图纸审查和原型/型式试验，确认产品设计满足 CCS 规范要求和/或其他接受标准要求的评价过程。
- 1.1.2 型式认可系指 CCS 通过产品图纸审查、型式试验和现场审核，以确认制造厂具备持续生产符合 CCS 规范要求和/或其他接受标准要求产品的能力和条件的评价过程。根据制造厂产品质量保证的能力和水平，型式认可分为型式认可 A 和 B 两种模式。
- 1.1.3 工厂认可系指 CCS 通过文件/图纸资料审查、型式试验和现场审核，以确认制造厂具备持续生产符合 CCS 规范要求和/或其他接受标准要求产品的能力和条件的评价过程。
- 1.2 入级和法定产品经 CCS 单件/单批检验完成后，CCS 将颁发产品证书或签署等效证明文件。
- 1.2.1 产品证书是由 CCS 验船师签发的文件，以证明：a) 产品符合规范要求；b) 产品已进行规定的检验和试验；c) 检验样品取自检验产品本身；d) 产品的试验在验船师参加或根据特别商定的情况下进行。
- 1.2.2 等效证明文件是由制造厂出具并经 CCS 盖章和验船师签署的文件，以证明：a) 产品符合规范要求；b) 产品已进行规定的检验和试验；c) 检验样品取自检验产品本身；d) 产品的试验在验船师参加或根据特别商定的情况下进行。
- 1.3 对于要求型式认可和/或工厂认可而不要求持有产品证书的入级和法定产品，可由制造厂证明形式予以证明：
- 1.3.1 制造厂证明是由制造厂签发，以证明：a) 该产品经 CCS 型式认可或工厂认可；b) 产品符合规范要求；c) 产品已进行规定的检验和试验；d) 检验样品取自检验产品本身；e) 产品的试验在制造厂授权部门代表在场的情况下进行。
- 1.4 规范和法定要求以外的产品经 CCS 单件/单批检验完成后，由检验证书或试验证书予以记录和证明。
- 1.4.1 检验证书是由 CCS 验船师签署的文件，以证明：a) 符合申请方确定的产品标准；b) 检验和试验经验船师见证和/或试验报告经验船师审查；c) 试验样品取自检验产品本身。
- 1.4.2 试验证书是由 CCS 验船师签署的文件，以证明：a) 产品的试验在验船师在场下进行；b) 试验样品取自检验产品本身。

2. 证书的失效、暂停和撤销

CCS 通过认可、检验工作所签发的证书或相关的证明文件的失效、暂停和撤销，见 CCS《钢质海船入级规范》第 1 篇第 3 章第 1 节。

3. 责任

- 3.1 CCS 承担的认可/检验服务是在所涉及的产品设计方、制造方、拥有方、销售方、供应方、修理方、使用方以及其他方履行各自职责的基础上进行的。无论 CCS 及所属验船师采用何种认可/检验方式，也不论在 CCS 名义下颁发、签署的任何报告、文件和证书在内容上如何，均不意味着可减轻或解除上述任何一方应承担的任何责任。
- 3.2 CCS 签发的与认可/检验有关的任何文件，只反映检验当时的技术状况，并不表明被认可的工厂和产品的所有权和知识产权归属。与被认可的工厂和产品的所有权和知识产权有关的任何争议，与 CCS 无关。
- 3.3 CCS 的认可/检验不影响、替代与 CCS 授权或检验无关的各方对上述工厂的认可/发证，并且不对与 CCS 授权或检验无关的各方负责，不承担其未经应允而承认、接受 CCS 认可/检验所导致的法律和经济责任。
- 3.4 CCS 仅对由于自身疏忽行为而直接造成的合同关系方的损失或损害承担责任，在任何情况下，CCS 均不对合同关系方的间接损失或随后引发的附加损失或损害承担责任，也不对非合同关系方的任何损失承担责任。
- 3.5 尽管有上述规定，如依法判定合同关系方所遭受的损失或损害，仅仅是由于 CCS 或其雇员、代理人或 CCS 其他代表方的疏忽行为造成的，CCS 将承担责任，并将支付赔偿，但此赔偿的数额不超过该项服务收费的 5 倍，且最大不超过人民币 200 万元。但如该损失或损害系由如下行为造成，CCS 将不承担任何责任：
- 1) CCS 雇员超越其受雇权限的行为；
 - 2) CCS 代理人或其他代表方，超越 CCS 对其书面授权范围的行为。
- 3.6 对 CCS 承担责任的损失或损害的索赔，应以书面形式，在损害最初发现或损失形成的 6 个月内提出，否则将被视为彻底放弃索赔权。

4. 适用法律和仲裁

- 4.1 本证书条款的生效、解释、执行、争议的解决均适用中华人民共和国法律。
- 4.2 除与 CCS 另有约定外，凡因与 CCS 提供的服务有关的任何争议，均应提交中国海事仲裁委员会，按照申请仲裁时该会现行有效的仲裁规则进行仲裁。仲裁裁决是最终的，对争议当事双方均有约束力。

1. THE APPLICATION OF CERTIFICATES

- 1.1 After Approval, Certificate of Design Approval, Certificate of Type Approval or Certificate of Works Approval will be issued by CCS for the products and manufacturers. Where a product certificate is required by CCS rules, the Approval Certificate cannot replace it.
- 1.1.1 **Design Approval** means the evaluation process to confirm that the product design is in compliance with the requirements of CCS Rules and/or other accepted standards through plan approval and prototype/type test.
- 1.1.2 **Type Approval** means the evaluation process to confirm the approved manufacturer's capability of continuously producing products which are in compliance with the requirements of CCS Rules and/or other accepted standards through product plan approval, type test and on-site audit. Type approval consists of two modes, type approval A and type approval B, which shall be granted to the manufacturer according to manufacturer's ability and level in product quality assurance.
- 1.1.3 **Works Approval** means the evaluation process to confirm the manufacturer's capability of continuously producing products which are in compliance with the requirements of CCS Rules and/or other accepted standards through product plan approval, type test and on-site audit.
- 1.2 A unit/batch inspection of classed or statutory products is to be documented as Certificate of Product or Equivalent document by CCS:
- 1.2.1 **Certificate of Product** is issued by the Surveyor to show that: i) the product complies with rules; ii) required inspection and test have been carried out; iii) the sample is taken from the product to be inspected; iv) the product has been tested in the presence of the Surveyor or in a specially agreed condition.
- 1.2.2 **Equivalent Document** is issued by the manufacturer and endorsed by the Surveyor to show that: i) the product complies with rules; ii) required inspection and test have been carried out; iii) the sample is taken from the product to be inspected; iv) the product has been tested in the presence of the Surveyor or in a specially agreed condition.
- 1.3 The classed and statutory products of which the type approval and/or works approval is required but the products certificate is not required, may be certified as Manufacturer's document:
- 1.3.1 **The Manufacturer's Document** is issued by the manufacturer to show that: i) the product is type approved or works approved by CCS; ii) the product complies with rules; iii) required inspection and test have been carried out; iv) the sample is taken from the product to be inspected; v) the product has been tested in the presence of the department representative authorized by the manufacturer.
- 1.4 A unit/batch inspection Products other than those specified in rules or statutory requirements is to be documented as Inspection Certificate or Test Certificate:
- 1.4.1 **Inspection Certificate** is issued by the Surveyor to show that: i) the product standards as determined by the applicant have been complied with; ii) the inspection and test have been witnessed by the Surveyor and/or the test report has been reviewed by the Surveyor; iii) the sample is taken from the product to be inspected.
- 1.4.2 **Test Certificate** issued by the Surveyor to show that: i) the product has been tested in the presence of the Surveyor; ii) the sample is taken from the product to be inspected.

2. INVALIDATION, SUSPENSION AND CANCELLATION OF CERTIFICATE

Invalidation, suspension and cancellation of the certificates or equivalent documents issued by CCS by means of approval or certification are specified in Section 1, Chapter 3, Part 1 of CCS Rules for Classification of Sea-going Steel Ships.

3. LIABILITY

- 3.1 The service of approval / inspection undertaken by CCS is carried out on the basis that the designers, manufacturers, owners, sellers, suppliers, repairers, operators and other parties fulfill their respective responsibilities. The contents of any reports, documents and certificates issued by CCS cannot diminish any liability of any party mentioned above or absolve it therefrom, whatever the module of approval/inspection adopted by CCS and its surveyors.
- 3.2 Any approval/inspection-related documents issued by CCS only reflect the status at the time when the approval/inspection is carried out. They do not constitute the description for ownership and intellectual property rights of the approved/inspected factory and product. This Society should not be affected by any dispute over ownership and intellectual property rights of the approved/inspected factory and product.
- 3.3 The approval/inspection of CCS does not affect and replace any approval and certification of the manufacturer by any parties that bear no relation with this Society's authorization or survey and therefore takes no responsibility for these parties. CCS does not undertake any legal and economic liabilities arising from accepting this Society's certificate without prior permission from this Society.
- 3.4 CCS will be liable only for the loss or damage of contract parties resulting directly from its negligent act. In no event shall CCS be liable for any indirect or consequential losses or damage, and any loss of non-contract parties.
- 3.5 Notwithstanding the previous paragraph, CCS will be liable for the loss or damage due to negligent act judicially attributed exclusively to CCS and its employees, agents or other parties acting on behalf of CCS. And in no case shall the amount of this liability exceed five times the fee(s) charged by CCS in respect of the service(s) in question or 2,000,000 RMB in maximum. CCS liability for the loss or damage is specially excluded when such loss or damage arises out of an act:
- (1) by an employee of CCS acting outside the terms or scope of his/her employment; or
 - (2) by any agent or other parties acting on behalf of CCS, when such act exceeds the authority granted in writing by CCS to such agent or parties.
- 3.6 Any claim for any loss or damage set forth above is to be made in writing within six months of the date the damage first discovered or the loss occurred; failure of doing so will be deemed as an absolute waiver of this right.

4. APPLICABLE LAWS AND ARBITRATION

- 4.1 The laws of the People's Republic of China shall apply to the coming into force, explanation, implementing, and resolution of dispute of the clause of the certificate.
- 4.2 Unless otherwise agreed with CCS, any dispute of whatsoever nature in respect to the service(s) provided shall be referred to China Maritime Arbitration Commission and arbitrated in accordance with its arbitration rules effective at the time of request for arbitration. The arbitration award shall be final and binding upon both interested parties.



中国船级社
CHINA CLASSIFICATION SOCIETY

证书格式号/Form: W01.02-
HQ002051

工厂认可证书 CERTIFICATE OF WORKS APPROVAL

证书编号/Certificate No. NJ17W00086_01

兹证明本证书所述制造厂具备按照下列标准的要求生产本证书所列产品的能力和条件。

This is to certify that the manufacturer stated in the certificate meets the requirements of the standards listed below and is available with the ability and conditions to produce the products as described in the certificate.

制造厂/Manufacturer

江苏沙钢集团有限公司

Jiangsu Shagang Group Co.,Ltd

江苏省张家港市锦丰镇

Jinfeng Town, Zhangjiagang, Jiangsu Province

认可产品/Product Approved

钢坯

STEEL SLAB / BILLET

连铸板坯

Continuous casting slab

附加标志/Notations

无/Nil.

认可标准/Approval Standard

1. 中国船级社《材料与焊接规范》(2015)及其修改通报第1篇第3章
Chapter 3, Part One of China Classification Society Rules for Materials and Welding 2015 and its Amendments

证书有效期至/ This Certificate is valid until

2021年6月8日 / Jun. 8, 2021

发证机构
Issued by 中国船级社江苏分社
CCS Jiangsu Branch

签发日期
Date 2017年9月21日
Sep. 21, 2017

本证书根据中国船级社《钢质海船入级规范》及有关程序规定签发。关于证书的有关规定见本证书背面的说明。当本证书包括多页纸张时，则所有证书页为一个整体，必须同时使用。每一页证书均须由本社盖章方为有效。证书复印件无效。任何单位和个人均不应摘录或节选本证书的部分内容。本认可证书不代表本社对个体产品质量的检验。有关各方对所持证书的真实性有疑问时，可以向本社检验机构咨询。
This Certificate is issued pursuant to the Rules for Classification of Sea-going Steel Ships and related procedures of the Society. Refer to the back of the certificate for detailed requirements of the certificate. When the certificate consists of more than one page, all pages of the certificate are taken as a whole and are used simultaneously. No certificate page is valid without bearing the stamp of the Society and no copied form of the certificate is regarded as valid. Any part of the certificate is not to be extracted or abridged by any unit or individual in any form. This approval certificate does not constitute the inspection of the Society about the quality of the unit/batch product. Related parties who are doubted about the authenticity of the certificate may inquire of the Society or its offices.



中国船级社总部/CCS headquarters: 北京市东直门南大街9号船检大厦 邮编: 100007 电话/Tel: +86(10)58112288 传真/Fax: +86(10)58112811
CCS Mansion, 9 Dongzhimen Nan Da Jie, Beijing 100007, China 网址/Web Site: <http://www.ccs.org.cn>
本地检验机构/CCS Local Office: 中国船级社江苏分社 CCS Jiangsu Branch 电话/Tel: 0086-25-66668899 传真/Fax: 0086-25-58757734



NJ01887925
No. 15246024

产品明细/ Product Description

连铸板坯/Continuous casting slab
 浇注方式/Casting
 钢材等级/Grade

: 连铸 | C.C.
 : A、B、D、E、AH32、AH36、AH40、
 DH32、DH36、DH40、EH32、EH36、
 EH40、FH32、FH36、FH40

规格/Specification

: 170~220(厚度) × 850~1600 (宽度),
 220(厚度) × 1800~2720 (宽度),
 250(厚度) × 1800~2720 (宽度),
 320(厚度) × 1800~2720 (宽度) |
 170~220(T) × 850~1600 (W),
 220(T) × 1800~2720 (W),
 250(T) × 1800~2720 (W),
 320(T) × 1800~2720 (W)

冶炼方式/Melting method
 脱氧方法/Deoxidization method
 细化晶粒元素/Grain refining elements

: 转炉+精炼炉 | BOF+LF
 : 镇静 | Killed
 : Al (A、B、D、E), Al+Nb、V(其他
 钢级) | Al (A、B、D、E), Al+Nb
 、V(Other steel grade)

批准的图纸和设计计算书/ Approved Drawings and Design Calculations

图纸批准号/ Drawings Approval No. : NJ17W00086

产品认可试验报告/ Approval Test Report

试验报告编号/Test Report No. : 20131101
 试验报告日期/Test Report Date : 2013-11-08
 试验单位/ Laboratory : 江苏沙钢集团有限公司
 Jiangsu Shagang Group Iron Steel Co., Ltd
 试验单位地址/ Test Address : 江苏省张家港市锦丰镇
 Jinfeng Town, Zhangjiagang City, Jiangsu Province

产品适用范围/ Application of the Product

一般强度及高强度船体结构钢用连铸板坯/Continuous Casting Slab for Normal & Higher Strength Hull Structural Steel.

认可保持条件/ Maintenance Requirements of Approval

1. 工厂认可后, 如果图纸、技术文件、工艺规程有较大改变, 应征得本社同意。若改变涉及或影响到产品的设计、主要制造材料、关键工艺或产品的特性、特征, 则与特性有关的图纸和技术文件应经过本社审批, 并在检验机构认为必要时, 经本社检验人员到厂进行检查和见证有关试验, 其结果应能证实仍符合认可条件。

After works approval, if there are any major changes to the drawings, technical documents, specifications, prior consent should be obtained from the survey office of the Society. If the changes involve or affect product design, major construction materials, key workmanship or product characteristics and properties, drawings and technical documents related to properties are to be examined and approved by the Society and, where deemed necessary by the survey office, the surveyor to the Society will go to the manufacturer to inspect or witness relevant tests and the results of the tests should be able to demonstrate compliance with the approval conditions

2. 工厂的质量管理体系应保持有效运行, 并且与认可时一致。如果质量管理体系发生改变, 应经原体系认证机构审核并报本社批准。

The quality management system of the factory shall be ensure effective operation, and shall be the same as the situation of approval. If there are any changes to the quality management system, auditing of the original certification organization for quality management system and the society's approval shall be obtained.

3. 工厂认可证书获得者应接受本社每年一次的定期审核, 定期审核日为认可证书期满之日对应的每一周年日, 检查工作可在定期审核日的前后三个月内进行。Those who have obtained the certificate of works approval shall receive periodical audit done by the Society on an annual basis. The date of periodical audit shall be each anniversary date which corresponds to the date of expiry of the relevant certificate and the periodical audit may be done within a time span of three months before and after the annual surveillance date.

4. 在认可证书有效期内, 本社检验人员可在未经事先通知的情况下对工厂的产品制造过程进行审核, 以验证产品的生产是否符合业经本社批准的图纸和文件。工厂应予以配合。

Within the validity of the approval certificate, the surveyor to the Society may pay unannounced audit to the manufacturing process of the product in order to confirm whether it is in compliance with the



drawings and documents approved by the Society. The factory should provide an active cooperation and necessary for the surveyor.

5. 认可证书有效期内, 如果出现可能导致本社暂停或撤消认可的情况, 工厂应及时采取有效的纠正措施。
Within the validity of the approval certificate, if cases occur that may cause the Society to suspend or withdraw the certificate, the manufacturer should take corrective actions in a prompt and effective manner.

认可后的产品检验方式/ Module of Product Inspection after Works Approval

按照规范只认可不进行产品检验的产品/The product approved only in term of the rules;
认可后的产品检验由制造厂按本社批准的产品检验计划进行检验, 经检验合格后由制造厂签发合格证明, 并连同该产品的本社认可证书复印件一并交付用户, 制造厂对产品符合公约、法规、本社规范和本社认可的标准规定负责。
After approval, product inspection should be carried out by the Manufacturer in accordance with the product inspection scheme approved by the Society. Upon satisfactory inspection, and the Quality Certificate issued by the Manufacturer should be provided to the purchaser together with the copy of the approval certificate issued by the Society. The manufacturer should take responsibility for the product being in compliance with the convention, statutory regulation, the Society rules and the standard accepted by the Society.

对于原材料和零部件的检验要求/ Inspection Requirements for Materials and Components

产品如下原材料和零部件应由本社认可的制造厂生产/The following materials and components of the product should be manufactured by the factory approved by the Society:无/Nil.

产品如下原材料和零部件应经本社检验, 持有本社产品证书/The following materials and components of the product should be inspected and certificated by the Society:无/Nil.

产品如下原材料和零部件的制造厂清单, 经本社批准方可变更/The list of manufacturer for the following materials and components of the product should not be changed without the Society's approval:无/Nil.

责任声明/ Statement of Responsibility

本社的认可不影响、替代与本社授权或检验无关的各方对上述工厂的认可和发证, 并且不对与本社授权或检验无关的各方负责, 不承担其未经应允而承认、接受本社认可所导致的法律和经济责任。

The approval of the Society does not affect and replace any approval and certification of the manufacturer by any parties that bear no relation with this Society's authorization or survey and therefore takes no responsibility for these parties. The Society does not undertake any legal and economic liabilities arising from accepting this Society's certificate without prior permission from this Society.

其他/Others

本证书由原工厂认可证书(No. NJ17W00028_01)换发。

This Certificate is issued and supersedes the previous Works Approval Certificate No. NJ17W00028_01.

中国船级社江苏分社

CCS Jiangsu Branch

*****本证书正文完/ End of Text*****



1. 证书适用条件

- 1.1 经 CCS 设计认可、型式认可或工厂认可的产品及其生产厂，CCS 将颁发产品设计认可、型式认可或工厂认可证书。当 CCS 规范要求产品证书的情况下，认可证书不能替代产品证书。
- 1.1.1 设计认可系指 CCS 通过对产品图纸审查和原型/型式试验，确认产品设计满足 CCS 规范要求和/或其他接受标准要求的评价过程。
- 1.1.2 型式认可系指 CCS 通过产品图纸审查、型式试验和现场审核，以确认制造厂具备持续生产符合 CCS 规范要求和/或其他接受标准要求产品的能力和条件的评价过程。根据制造厂产品质量保证的能力和水平，型式认可可分为型式认可 A 和 B 两种模式。
- 1.1.3 工厂认可系指 CCS 通过文件/图纸资料审查、型式试验和现场审核，以确认制造厂具备持续生产符合 CCS 规范要求和/或其他接受标准要求产品的能力和条件的评价过程。
- 1.2 入级和法定产品经 CCS 单件/单批检验完成后，CCS 将颁发产品证书或签署等效证明文件。
- 1.2.1 产品证书是由 CCS 验船师签发的文件，以证明：a) 产品符合规范要求；b) 产品已进行规定的检验和试验；c) 检验样品取自检验产品本身；d) 产品的试验在验船师参加或根据特别商定的情况下进行。
- 1.2.2 等效证明文件是由制造厂出具并经 CCS 盖章和验船师签署的文件，以证明：a) 产品符合规范要求；b) 产品已进行规定的检验和试验；c) 检验样品取自检验产品本身；d) 产品的试验在验船师参加或根据特别商定的情况下进行。
- 1.3 对于要求型式认可和/或工厂认可而不要求持有产品证书的入级和法定产品，可由制造厂证明形式予以证明：
- 1.3.1 制造厂证明是由制造厂签发，以证明：a) 该产品经 CCS 型式认可或工厂认可；b) 产品符合规范要求；c) 产品已进行规定的检验和试验；d) 检验样品取自检验产品本身；e) 产品的试验在制造厂授权部门代表在场的情况下进行。
- 1.4 规范和法定要求以外的产品经 CCS 单件/单批检验完成后，由检验证书或试验证书予以记录和证明。
- 1.4.1 检验证书是由 CCS 验船师签署的文件，以证明：a) 符合申请方确定的产品标准；b) 检验和试验经验船师见证和/或试验报告经验船师审查；c) 试验样品取自检验产品本身。
- 1.4.2 试验证书是由 CCS 验船师签署的文件，以证明：a) 产品的试验在验船师在场下进行；b) 试验样品取自检验产品本身。

2. 证书的失效、暂停和撤销

CCS 通过认可、检验工作所签发的证书或相关的证明文件的失效、暂停和撤销，见 CCS《钢质海船入级规范》第 1 篇第 3 章第 1 节。

3. 责任

- 3.1 CCS 承担的认可/检验服务是在所涉及的产品设计方、制造方、拥有方、销售方、供应方、修理方、使用方以及其他方履行各自职责的基础上进行的。无论 CCS 及所属验船师采用何种认可/检验方式，也不论在 CCS 名义下颁发、签署的任何报告、文件和证书在内容上如何，均不意味着可减轻或解除上述任何方应承担的任何责任。
- 3.2 CCS 签发的与认可/检验有关的任何文件，只反映检验当时的技术状况，并不表明被认可的工厂和产品的所有权和知识产权归属。与被认可的工厂和产品的所有权和知识产权有关的任何争议，与 CCS 无关。
- 3.3 CCS 的认可/检验不影响、替代与 CCS 授权或检验无关的各方对上述工厂的认可/发证，并且不对与 CCS 授权或检验无关的各方负责，不承担其未经应允而承认、接受 CCS 认可/检验所导致的法律和经济责任。
- 3.4 CCS 仅对由于自身疏忽行为而直接造成的合同关系方的损失或损害承担责任，在任何情况下，CCS 均不对合同关系方的间接损失或随后引发的附加损失或损害承担责任，也不对非合同关系方的任何损失承担责任。
- 3.5 尽管有上述规定，如依法判定合同关系方所遭受的损失或损害，仅仅是由于 CCS 或其雇员、代理人或 CCS 其他代表方的疏忽行为造成的，CCS 将承担责任，并将支付赔偿，但此赔偿的数额不超过该项服务收费的 5 倍，且最大不超过人民币 200 万元。但如该损失或损害系由如下行为造成，CCS 将不承担任何责任：
- 1) CCS 雇员超越其受雇权限的行为；
 - 2) CCS 代理人或其他代表方，超越 CCS 对其书面授权范围的行为。
- 3.6 对 CCS 承担责任的损失或损害的索赔，应以书面形式，在损害最初发现或损失形成的 6 个月内提出，否则将被视为彻底放弃索赔权。

4 适用法律和仲裁

- 4.1 本证书条款的生效、解释、执行、争议的解决均适用中华人民共和国法律。
- 4.2 除与 CCS 另有约定外，凡因与 CCS 提供的服务有关的任何争议，均应提交中国海事仲裁委员会，按照申请仲裁时该会现行有效的仲裁规则进行仲裁。仲裁裁决是最终的，对争议当事双方均有约束力。

1. THE APPLICATION OF CERTIFICATES

- 1.1 After Approval, Certificate of Design Approval, Certificate of Type Approval or Certificate of Works Approval will be issued by CCS for the products and manufacturers. Where a product certificate is required by CCS rules, the Approval Certificate cannot replace it.
- 1.1.1 **Design Approval** means the evaluation process to confirm that the product design is in compliance with the requirements of CCS Rules and/or other accepted standards through plan approval and prototype/type test.
- 1.1.2 **Type Approval** means the evaluation process to confirm the approved manufacturer's capability of continuously producing products which are in compliance with the requirements of CCS Rules and/or other accepted standards through product plan approval, type test and on-site audit. Type approval consists of two modes, type approval A and type approval B, which shall be granted to the manufacturer according to manufacturer's ability and level in product quality assurance.
- 1.1.3 **Works Approval** means the evaluation process to confirm the manufacturer's capability of continuously producing products which are in compliance with the requirements of CCS Rules and/or other accepted standards through product plan approval, type test and on-site audit.
- 1.2 A unit/batch inspection of classed or statutory products is to be documented as Certificate of Product or Equivalent document by CCS:
- 1.2.1 **Certificate of Product** is issued by the Surveyor to show that: i) the product complies with rules; ii) required inspection and test have been carried out; iii) the sample is taken from the product to be inspected; iv) the product has been tested in the presence of the Surveyor or in a specially agreed condition.
- 1.2.2 **Equivalent Document** is issued by the manufacturer and endorsed by the Surveyor to show that: i) the product complies with rules; ii) required inspection and test have been carried out; iii) the sample is taken from the product to be inspected; iv) the product has been tested in the presence of the Surveyor or in a specially agreed condition.
- 1.3 The classed and statutory products of which the type approval and/or works approval is required but the products certificate is not required, may be certified as Manufacturer's document:
- 1.3.1 **The Manufacturer's Document** is issued by the manufacturer to show that: i) the product is type approved or works approved by CCS; ii) the product complies with rules; iii) required inspection and test have been carried out; iv) the sample is taken from the product to be inspected; v) the product has been tested in the presence of the department representative authorized by the manufacturer.
- 1.4 A unit/batch inspection Products other than those specified in rules or statutory requirements is to be documented as Inspection Certificate or Test Certificate:
- 1.4.1 **Inspection Certificate** is issued by the Surveyor to show that: i) the product standards as determined by the applicant have been complied with; ii) the inspection and test have been witnessed by the Surveyor and/or the test report has been reviewed by the Surveyor; iii) the sample is taken from the product to be inspected.
- 1.4.2 **Test Certificate** issued by the Surveyor to show that: i) the product has been tested in the presence of the Surveyor; ii) the sample is taken from the product to be inspected.

2. INVALIDATION, SUSPENSION AND CANCELLATION OF CERTIFICATE

Invalidation, suspension and cancellation of the certificates or equivalent documents issued by CCS by means of approval or certification are specified in Section 1, Chapter 3, Part 1 of CCS Rules for Classification of Sea-going Steel Ships.

3. LIABILITY

- 3.1 The service of approval / inspection undertaken by CCS is carried out on the basis that the designers, manufacturers, owners, sellers, suppliers, repairers, operators and other parties fulfill their respective responsibilities. The contents of any reports, documents and certificates issued by CCS cannot diminish any liability of any party mentioned above or absolve it therefrom, whatever the module of approval/inspection adopted by CCS and its surveyors.
- 3.2 Any approval/inspection-related documents issued by CCS only reflect the status at the time when the approval/inspection is carried out. They do not constitute the description for ownership and intellectual property rights of the approved/inspected factory and product. This Society should not be affected by any dispute over ownership and intellectual property rights of the approved/inspected factory and product.
- 3.3 The approval/inspection of CCS does not affect and replace any approval and certification of the manufacturer by any parties that bear no relation with this Society's authorization or survey and therefore takes no responsibility for these parties. CCS does not undertake any legal and economic liabilities arising from accepting this Society's certificate without prior permission from this Society.
- 3.4 CCS will be liable only for the loss or damage of contract parties resulting directly from its negligent act. In no event shall CCS be liable for any indirect or consequential losses or damage, and any loss of non-contract parties.
- 3.5 Notwithstanding the previous paragraph, CCS will be liable for the loss or damage due to negligent act judicially attributed exclusively to CCS and its employees, agents or other parties acting on behalf of CCS. And in no case shall the amount of this liability exceed five times the fee(s) charged by CCS in respect of the service(s) in question or 2,000,000 RMB in maximum. CCS liability for the loss or damage is specially excluded when such loss or damage arises out of an act:
- (1) by an employee of CCS acting outside the terms or scope of his/her employment; or
 - (2) by any agent or other parties acting on behalf of CCS, when such act exceeds the authority granted in writing by CCS to such agent or parties.
- 3.6 Any claim for any loss or damage set forth above is to be made in writing within six months of the date the damage first discovered or the loss occurred; failure of doing so will be deemed as an absolute waiver of this right.

4. APPLICABLE LAWS AND ARBITRATION

- 4.1 The laws of the People's Republic of China shall apply to the coming into force, explanation, implementing, and resolution of dispute of the clause of the certificate.
- 4.2 Unless otherwise agreed with CCS, any dispute of whatsoever nature in respect to the service(s) provided shall be referred to China Maritime Arbitration Commission and arbitrated in accordance with its arbitration rules effective at the time of request for arbitration. The arbitration award shall be final and binding upon both interested parties.



中国船级社
CHINA CLASSIFICATION SOCIETY

证书格式号/Form: W01.02-
HQ000120

工厂认可证书
CERTIFICATE OF WORKS APPROVAL

证书编号/Certificate No. NJ17W00086_04

兹证明本证书所述制造厂具备按照下列标准的要求生产本证书所列产品的能力和条件。

This is to certify that the manufacturer stated in the certificate meets the requirements of the standards listed below and is available with the ability and conditions to produce the products as described in the certificate.

制造厂/Manufacturer

江苏沙钢集团有限公司

Jiangsu Shagang Group Co.,Ltd

江苏省张家港市锦丰镇

Jinfeng Town, Zhangjiagang, Jiangsu Province

认可产品/Product Approved

钢板

STEEL PLATE

一般强度船体结构用钢, 焊接结构用高强度淬火回火钢, 高强度船体结构用钢

Normal Strength Hull Structural Steel Plate, High Strength Quenched and Tempered Steels for Welded Structures, Higher Strength Hull Structural Steel Plate

附加标志/Notations

无/Nil.

认可标准/Approval Standard

1. 中国船级社《材料与焊接规范》(2015)及其修改通报第1篇第3章
Chapter 3, Part One of China Classification Society Rules for Materials and Welding 2015 and its Amendments



证书有效期至/ This Certificate is valid until

2021年6月8日 / Jun. 8, 2021

发证机构 中国船级社江苏分社
Issued by CCS Jiangsu Branch

签发日期 2017年9月21日
Date Sep. 21, 2017

本证书根据中国船级社《钢质海船入级规范》及有关程序规定签发。关于证书的有关规定见本证书背面的说明。当本证书包括多页纸张时, 则所有证书页为一个整体, 必须同时使用。每一页证书均须由本社盖章方为有效。证书复印件无效。任何单位和个人均不应摘录或节选本证书的部分内容。本认可证书不代表本社对个体产品质量的检验。有关各方对所持证书的真实性有疑问时, 可以向本社检验机构咨询。
This Certificate is issued pursuant to the Rules for Classification of Sea-going Steel Ships and related procedures of the Society. Refer to the back of the certificate for detailed requirements of the certificate. When the certificate consists of more than one page, all pages of the certificate are taken as a whole and are used simultaneously. No certificate page is valid without bearing the stamp of the Society and no copied form of the certificate is regarded as valid. Any part of the certificate is not to be extracted or abridged by any unit or individual in any form. This approval certificate does not constitute the inspection of the Society about the quality of the unit/batch product. Related parties who are doubted about the authenticity of the certificate may inquire of the Society or its offices.



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NJ83450851
No. 15246027

产品明细/ Product Description

一般强度船体结构用钢/Normal Strength Hull Structural Steel Plate
规格/Dimension

: 30~100(厚度)×1500~4800(宽度)
×3000~25000(长度) | 30~
100(Thickness)×1500~
4800(Width)×3000~25000(Length)
mm

钢材等级/Grade

: A, B, D, E

最大厚度/Maximum thickness

: 100 mm

细化晶粒元素/Grain refining elements

: Al+Ti

浇铸方式/Casting process

: 连铸 | C. C.

脱氧方法/Deoxidation method

: 镇静 | Killed

冶炼方式/Melting process

: 转炉+精炼炉+RH炉 | BOF+LF+RH

交货状态/Condition of supply

: 正火 | N

高强度船体结构用钢/Higher Strength Hull Structural Steel Plate
规格/Dimension

: 30~100(厚度)×1500~4800(宽度)
×3000~25000(长度) | 30~
100(Thickness)×1500~
4800(Width)×3000~25000(Length)
mm

钢材等级/Grade

: AH32, AH36, AH40, DH32,
DH36, DH40, EH32, EH36,
EH40, FH32, FH36, FH40

最大厚度/Maximum thickness

: 100 mm

细化晶粒元素/Grain refining elements

: Al+Nb+Ti(AH32、DH32、EH32、FH32
) ,
Al+Nb+V+Ti(其他钢级) |
Al+Nb+Ti(AH32、DH32、EH32、FH32
) ,
Al+Nb+V+Ti(Other Steel Grade)

浇铸方式/Casting process

: 连铸 | C. C.

脱氧方法/Deoxidation method

: 镇静 | Killed

冶炼方式/Melting process

: 转炉+精炼炉+RH炉 | BOF+LF+RH

交货状态/Condition of supply

: 正火 | N

焊接结构用高强度淬火回火钢/High Strength Quenched and Tempered Steels for Welded Structures

钢材等级/Grade

: AH420, DH420, EH420, FH420,
AH460, DH460, EH460, FH460,
AH500, DH500, EH500, FH500,
AH550, DH550, EH550, FH550,
AH620, DH620, EH620, FH620,
AH690, DH690, EH690, FH690

最大厚度/Maximum thickness

: 100 mm

规格/Dimension

: 30~100(厚度)×1500~4800(宽度)
×3000~25000(长度) | 30~
100(Thickness)×1500~
4800(Width)×3000~25000(Length)
mm

细化晶粒元素/Grain refining elements

: Al+Nb+Ti

浇铸方式/Casting process

: 连铸 | C. C.

脱氧方法/Deoxidation method

: 镇静 | Killed

冶炼方式/Melting process

: 转炉+精炼+RH真空脱气 | BOF+LF+RH

交货状态/Condition of supply

: 调质 | Q+T

批准的图纸和设计计算书/ Approved Drawings and Design Calculations

图纸批准号/ Drawings Approval No. : NJ17W00086

产品认可试验报告/ Approval Test Report

试验报告编号/Test Report No. : 20160501

试验报告日期/Test Report Date : 2016-05-15

试验单位/ Laboratory : 江苏沙钢集团有限公司

试验单位地址/ Test Address : 中国沙钢集团铁钢有限公司
江苏省张家港市锦丰镇
Jinfeng Town, Zhangjiagang City, Jiangsu Province

产品适用范围/ Application of the Product

适用于船体结构用钢和海上设施用钢/For hull structural steel and offshore facilities steel.

认可保持条件/ Maintenance Requirements of Approval

1. 工厂认可后, 如果图纸、技术文件、工艺规程有较大改变, 应征得本社同意。若改变涉及或影响到产品的设计、主要制造材料、关键工艺或产品的特性、特征, 则与特性有关的图纸和技术文件应经过本社审批, 并在检验机构认为必要时, 经本社检验人员到厂进行检查和见证有关试验, 其结果应能证实仍符合认可条件。

After works approval, if there are any major changes to the drawings, technical documents, specifications, prior consent should be obtained from the survey office of the Society. If the changes involve or affect product design, major construction materials, key workmanship or product characteristics and properties, drawings and technical documents related to properties are to be examined and approved by the Society and, where deemed necessary by the survey office, the surveyor to the Society will go to the manufacturer to inspect or witness relevant tests and the results of the tests should be able to demonstrate compliance with the approval conditions

2. 工厂的质量管理体系应保持有效运行, 并且与认可时一致。如果质量管理体系发生改变, 应经原体系认证机构审核并报本社批准。

The quality management system of the factory shall be ensure effective operation, and shall be the same as the situation of approval. If there are any changes to the quality management system, auditing of the original certification organization for quality management system and the society's approval shall be obtained.

3. 工厂认可证书获得者应接受本社每年一次的定期审核, 定期审核日为认可证书期满之日对应的每一周年日, 检查工作可在定期审核日的前后三个月内进行。Those who have obtained the certificate of works approval shall receive periodical audit done by the Society on an annual basis. The date of periodical audit shall be each anniversary date which corresponds to the date of expiry of the relevant certificate and the periodical audit may be done within a time span of three months before and after the annual surveillance date.

4. 在认可证书有效期内, 本社检验人员可在未经事先通知的情况下对工厂的产品制造过程进行审核, 以验证产品的生产是否符合业经本社批准的图纸和文件。工厂应予以配合。

Within the validity of the approval certificate, the surveyor to the Society may pay unannounced audit to the manufacturing process of the product in order to confirm whether it is in compliance with the drawings and documents approved by the Society. The factory should provide an active cooperation and necessary for the surveyor.

5. 认可证书有效期内, 如果出现可能导致本社暂停或撤销认可的情况, 工厂应及时采取有效的纠正措施。

Within the validity of the approval certificate, if cases occur that may cause the Society to suspend or withdraw the certificate, the manufacturer should take corrective actions in a prompt and effective manner.

认可后的产品检验方式/ Module of Product Inspection after Works Approval

按照规范每批抽样检验的产品/The product inspected by sampling in term of the rules:

认可后的产品检验应由本社验船师根据本社规范规定每批抽样按批准的产品检验计划进行检验, 经检验合格后由本社颁发船用产品证书。

After approval, product inspection should be carried out by sampling by the Surveyor of the Society in accordance with the approved product inspection scheme, and the Marine Product Certificate will be issued by the Society upon satisfactory inspection.

对于原材料和零部件的检验要求/ Inspection Requirements for Materials and Components

产品如下原材料和零部件应由本社认可的制造厂生产/The following materials and components of the product should be manufactured by the factory approved by the Society:无/Nil.

产品如下原材料和零部件应经本社检验/The following materials and components of the product should be inspected by the Society:无/Nil.

产品如下原材料和零部件的制造厂清单, 经本社批准方可变更/The list of manufacturer for the following materials and components of the product should not be changed without the Society's approval:无/Nil.

责任声明/ Statement of Responsibility

本社的认可不影响、替代与本社授权或检验无关的各方对上述工厂的认可和发证, 并且不对与本社授权或检验无关的各方负责, 不承担其未经应允而承认、接受本社认可所导致的法律和经济责任。

The approval of the Society does not affect and replace any approval and certification of the manufacturer by any parties that bear no relation with this Society's authorization or survey and therefore takes no responsibility for these parties. The Society does not undertake any legal and economic liabilities arising from accepting this Society's certificate without prior permission from this Society.

其他/Others

1. 本证书由原工厂认可证书(No. NJ17W00028_04)换发。

This Certificate is issued and supersedes the previous Works Approval Certificate No. NJ17W00028_04.

2. 其他产品明细/Other Product Description:

Z向性能: Z25, Z35

中国船级社江苏分社

CCS Jiangsu Branch

*****本证书正文完/ End of Text*****

1. 证书适用条件

- 1.1 经 CCS 设计认可、型式认可或工厂认可的产品及其生产厂，CCS 将颁发产品设计认可、型式认可或工厂认可证书。当 CCS 规范要求产品证书的情况下，认可证书不能替代产品证书。
- 1.1.1 设计认可系指 CCS 通过对产品图纸审查和原型/型式试验，确认产品设计满足 CCS 规范要求和/或其他接受标准要求的评价过程。
- 1.1.2 型式认可系指 CCS 通过产品图纸审查、型式试验和现场审核，以确认制造厂具备持续生产符合 CCS 规范要求和/或其他接受标准要求产品的能力和条件的评价过程。根据制造厂产品质量保证的能力和水平，型式认可可分为型式认可 A 和 B 两种模式。
- 1.1.3 工厂认可系指 CCS 通过文件/图纸资料审查、型式试验和现场审核，以确认制造厂具备持续生产符合 CCS 规范要求和/或其他接受标准要求产品的能力和条件的评价过程。
- 1.2 入级和法定产品经 CCS 单件/单批检验完成后，CCS 将颁发产品证书或签署等效证明文件。
- 1.2.1 产品证书是由 CCS 验船师签发的文件，以证明：a) 产品符合规范要求；b) 产品已进行规定的检验和试验；c) 检验样品取自检验产品本身；d) 产品的试验在验船师参加或根据特别商定的情况下进行。
- 1.2.2 等效证明文件是由制造厂出具并经 CCS 盖章和验船师签署的文件，以证明：a) 产品符合规范要求；b) 产品已进行规定的检验和试验；c) 检验样品取自检验产品本身；d) 产品的试验在验船师参加或根据特别商定的情况下进行。
- 1.3 对于要求型式认可和/或工厂认可而不要求持有产品证书的入级和法定产品，可由制造厂证明形式予以证明：
- 1.3.1 制造厂证明是由制造厂签发，以证明：a) 该产品经 CCS 型式认可或工厂认可；b) 产品符合规范要求；c) 产品已进行规定的检验和试验；d) 检验样品取自检验产品本身；e) 产品的试验在制造厂授权部门代表在场的情况下进行。
- 1.4 规范和法定要求以外的产品经 CCS 单件/单批检验完成后，由检验证书或试验证书予以记录和证明。
- 1.4.1 检验证书是由 CCS 验船师签署的文件，以证明：a) 符合申请方确定的产品标准；b) 检验和试验经验船师见证和/或试验报告经验船师审查；c) 试验样品取自检验产品本身。
- 1.4.2 试验证书是由 CCS 验船师签署的文件，以证明：a) 产品的试验在验船师在场下进行；b) 试验样品取自检验产品本身。

2. 证书的失效、暂停和撤销

CCS 通过认可、检验工作所签发的证书或相关的证明文件的失效、暂停和撤销，见 CCS《钢质海船入级规范》第一篇第 3 章第 1 节。

3. 责任

- 3.1 CCS 承担的认可/检验服务是在所涉及的产品设计方、制造方、拥有方、销售方、供应方、修理方、使用方以及其他方履行各自职责的基础上进行的。无论 CCS 及所属验船师采用何种认可/检验方式，也不论在 CCS 名义下颁发、签署的任何报告、文件和证书在内容上如何，均不意味着可减轻或解除上述任何方应承担的任何责任。
- 3.2 CCS 签发的与认可/检验有关的任何文件，只反映检验当时的技术状况，并不表明被认可的工厂和产品的所有权和知识产权归属。与被认可的工厂和产品的所有权和知识产权有关的任何争议，与 CCS 无关。
- 3.3 CCS 的认可/检验不影响、替代与 CCS 授权或检验无关的各方对上述工厂的认可和发证，并且不对与 CCS 授权或检验无关的各方负责，不承担其未经应允而承认、接受 CCS 认可/检验所导致的法律和经济责任。
- 3.4 CCS 仅对由于自身疏忽行为而直接造成的合同关系方的损失或损害承担责任，在任何情况下，CCS 均不对合同关系方的间接损失或随后引发的附加损失或损害承担责任，也不对非合同关系方的任何损失承担责任。
- 3.5 尽管有上述规定，如依法判定合同关系方所遭受的损失或损害，仅仅是由于 CCS 或其雇员、代理人或 CCS 其他代表方的疏忽行为造成的，CCS 将承担责任，并将支付赔偿，但此赔偿的数额不超过该项服务收费的 5 倍，且最大不超过人民币 200 万元。但如该损失或损害系由如下行为造成，CCS 将不承担任何责任：
- 1) CCS 雇员超越其受雇权限的行为；
 - 2) CCS 代理人或其他代表方，超越 CCS 对其书面授权范围的行为。
- 3.6 对 CCS 承担责任的损失或损害的索赔，应以书面形式，在损害最初发现或损失形成的 6 个月内提出，否则将被视为彻底放弃索赔权。

4. 适用法律和仲裁

- 4.1 本证书条款的生效、解释、执行、争议的解决均适用中华人民共和国法律。
- 4.2 除与 CCS 另有约定外，凡因与 CCS 提供的服务有关的任何争议，均应提交中国海事仲裁委员会，按照申请仲裁时该会现行有效的仲裁规则进行仲裁。仲裁裁决是最终的，对争议当事双方均有约束力。

1. THE APPLICATION OF CERTIFICATES

- 1.1 After Approval, Certificate of Design Approval, Certificate of Type Approval or Certificate of Works Approval will be issued by CCS for the products and manufacturers. Where a product certificate is required by CCS rules, the Approval Certificate cannot replace it.
- 1.1.1 **Design Approval** means the evaluation process to confirm that the product design is in compliance with the requirements of CCS Rules and/or other accepted standards through plan approval and prototype/type test.
- 1.1.2 **Type Approval** means the evaluation process to confirm the approved manufacturer's capability of continuously producing products which are in compliance with the requirements of CCS Rules and/or other accepted standards through product plan approval, type test and on-site audit. Type approval consists of two modes, type approval A and type approval B, which shall be granted to the manufacturer according to manufacturer's ability and level in product quality assurance.
- 1.1.3 **Works Approval** means the evaluation process to confirm the manufacturer's capability of continuously producing products which are in compliance with the requirements of CCS Rules and/or other accepted standards through product plan approval, type test and on-site audit.
- 1.2 A unit/batch inspection of classed or statutory products is to be documented as Certificate of Product or Equivalent document by CCS:
- 1.2.1 **Certificate of Product** is issued by the Surveyor to show that: i) the product complies with rules; ii) required inspection and test have been carried out; iii) the sample is taken from the product to be inspected; iv) the product has been tested in the presence of the Surveyor or in a specially agreed condition.
- 1.2.2 **Equivalent Document** is issued by the manufacturer and endorsed by the Surveyor to show that: i) the product complies with rules; ii) required inspection and test have been carried out; iii) the sample is taken from the product to be inspected; iv) the product has been tested in the presence of the Surveyor or in a specially agreed condition.
- 1.3 The classed and statutory products of which the type approval and/or works approval is required but the products certificate is not required, may be certified as Manufacturer's document:
- 1.3.1 **The Manufacturer's Document** is issued by the manufacturer to show that: i) the product is type approved or works approved by CCS; ii) the product complies with rules; iii) required inspection and test have been carried out; iv) the sample is taken from the product to be inspected; v) the product has been tested in the presence of the department representative authorized by the manufacturer.
- 1.4 A unit/batch inspection Products other than those specified in rules or statutory requirements is to be documented as Inspection Certificate or Test Certificate:
- 1.4.1 **Inspection Certificate** is issued by the Surveyor to show that: i) the product standards as determined by the applicant have been complied with; ii) the inspection and test have been witnessed by the Surveyor and/or the test report has been reviewed by the Surveyor; iii) the sample is taken from the product to be inspected.
- 1.4.2 **Test Certificate** issued by the Surveyor to show that: i) the product has been tested in the presence of the Surveyor; ii) the sample is taken from the product to be inspected.

2. INVALIDATION, SUSPENSION AND CANCELLATION OF CERTIFICATE

Invalidation, suspension and cancellation of the certificates or equivalent documents issued by CCS by means of approval or certification are specified in Section 1, Chapter 3, Part 1 of CCS Rules for Classification of Sea-going Steel Ships.

3. LIABILITY

- 3.1 The service of approval / inspection undertaken by CCS is carried out on the basis that the designers, manufacturers, owners, sellers, suppliers, repairers, operators and other parties fulfill their respective responsibilities. The contents of any reports, documents and certificates issued by CCS cannot diminish any liability of any party mentioned above or absolve it therefrom, whatever the module of approval/inspection adopted by CCS and its surveyors.
- 3.2 Any approval/inspection-related documents issued by CCS only reflect the status at the time when the approval/inspection is carried out. They do not constitute the description for ownership and intellectual property rights of the approved/inspected factory and product. This Society should not be affected by any dispute over ownership and intellectual property rights of the approved/inspected factory and product.
- 3.3 The approval/inspection of CCS does not affect and replace any approval and certification of the manufacturer by any parties that bear no relation with this Society's authorization or survey and therefore takes no responsibility for these parties. CCS does not undertake any legal and economic liabilities arising from accepting this Society's certificate without prior permission from this Society.
- 3.4 CCS will be liable only for the loss or damage of contract parties resulting directly from its negligent act. In no event shall CCS be liable for any indirect or consequential losses or damage, and any loss of non-contract parties.
- 3.5 Notwithstanding the previous paragraph, CCS will be liable for the loss or damage due to negligent act judicially attributed exclusively to CCS and its employees, agents or other parties acting on behalf of CCS. And in no case shall the amount of this liability exceed five times the fee(s) charged by CCS in respect of the service(s) in question or 2,000,000 RMB in maximum. CCS liability for the loss or damage is specially excluded when such loss or damage arises out of an act:
- (1) by an employee of CCS acting outside the terms or scope of his/her employment; or
 - (2) by any agent or other parties acting on behalf of CCS, when such act exceeds the authority granted in writing by CCS to such agent or parties.
- 3.6 Any claim for any loss or damage set forth above is to be made in writing within six months of the date the damage first discovered or the loss occurred; failure of doing so will be deemed as an absolute waiver of this right.

4. APPLICABLE LAWS AND ARBITRATION

- 4.1 The laws of the People's Republic of China shall apply to the coming into force, explanation, implementing, and resolution of dispute of the clause of the certificate.
- 4.2 Unless otherwise agreed with CCS, any dispute of whatsoever nature in respect to the service(s) provided shall be referred to China Maritime Arbitration Commission and arbitrated in accordance with its arbitration rules effective at the time of request for arbitration. The arbitration award shall be final and binding upon both interested parties.



中国船级社
CHINA CLASSIFICATION SOCIETY

证书格式号/Form: W01.02-
HQ000120

工厂认可证书
CERTIFICATE OF WORKS APPROVAL

证书编号/Certificate No. NJ17W00086_05

兹证明本证书所述制造厂具备按照下列标准的要求生产本证书所列产品的能力和条件。

This is to certify that the manufacturer stated in the certificate meets the requirements of the standards listed below and is available with the ability and conditions to produce the products as described in the certificate.

制造厂/Manufacturer

江苏沙钢集团有限公司

Jiangsu Shagang Group Co.,Ltd

江苏省张家港市锦丰镇

Jinfeng Town, Zhangjiagang, Jiangsu Province

认可产品/Product Approved

钢板

STEEL PLATE

焊接结构用高强度淬火回火钢, 低温韧性钢

High Strength Quenched and Tempered Steels for Welded Structures, Steels for low temperature service

附加标志/Notations

无/Nil.

认可标准/Approval Standard

1. 中国船级社《材料与焊接规范》(2015)及其修改通报第1篇第3章
Chapter 3, Part One of China Classification Society Rules for Materials and Welding 2015 and its Amendments

证书有效期至/ This Certificate is valid until

2021年6月8日 / Jun. 8, 2021

发证机构 中国船级社江苏分社
Issued by CCS Jiangsu Branch

签发日期
Date

2017年9月21日
Sep. 21, 2017

本证书根据中国船级社《钢质海船入级规范》及有关程序规定签发。关于证书的有关规定见本证书背面的说明。当本证书包括多页纸张时, 则所有证书作为一个整体, 必须同时使用。每一页证书均须由本社盖章方为有效。证书复印件无效。任何单位和个人均不应摘录或节选本证书的部分内容。本认可证书不代表本社对个体产品质量的检验。有关各方对所持证书的真实性有疑问时, 可以向本社检验机构咨询。
This Certificate is issued pursuant to the Rules for Classification of Sea-going Steel Ships and related procedures of the Society. Refer to the back of the certificate for detailed requirements of the certificate. When the certificate consists of more than one page, all pages of the certificate are taken as a whole and are used simultaneously. No certificate page is valid without bearing the stamp of the Society and no copied form of the certificate is regarded as valid. Any part of the certificate is not to be extracted or abridged by any unit or individual in any form. This approval certificate does not constitute the inspection of the Society about the quality of the unit/batch product. Related parties who are doubted about the authenticity of the certificate may inquire of the Society or its offices.



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CCS Mansion, 9 Dongzhimen Nan Da Jie, Beijing 100007, China 网址/Web Site: http://www.ccs.org.cn
本地检验机构/CCS Local Office: 中国船级社江苏分社 CCS Jiangsu Branch 电话/Tel: 0086-25-6668899 传真/Fax: 0086-25-58757734

NJ77571778
No. 15246028

产品明细/ Product Description

低温韧性钢/Steels for low temperature service 钢材等级/Grade	: CL-I-2, CL-I-3, CL-I-4, CL-II-2, CL-II-3, CL-II-4, CL-III-2, CL-III-3, CL-III-4
最大厚度/Maximum thickness 细化晶粒元素/Grain refining elements	: 40 mm : Nb+V+Ti+Al (CL-I-4, CL-II-4, CL-III-4), Nb+Ti+Al (其他钢级) Nb+V+Ti+Al (CL-I-4, CL-II-4, CL-III-4), Nb+Ti+Al (Other steel grade)
浇铸方式/Casting process 脱氧方法/Deoxidation method 冶炼方式/Melting process 交货状态/Condition of supply 规格/Dimension	: 连铸 Continuous Casting : Al, 镇静 Al, Killed : 转炉+精炼炉+真空脱气 BOF+LF+RH : TMCP : 5~40(厚度) × 1500~4800(宽度) × 3000~30000(长度) 5~40 (Thickness) × 1500~4800 (Width) × 3000~30000 (Length) mm
焊接结构用高强度淬火回火钢/High Strength Quenched and Tempered Steels for Welded Structures 钢材等级/Grade	: AH420, DH420, EH420, FH420, AH460, DH460, EH460, FH460, AH500, DH500, EH500, FH500, AH550, DH550, EH550, FH550,
最大厚度/Maximum thickness 细化晶粒元素/Grain refining elements 浇铸方式/Casting process 脱氧方法/Deoxidation method 冶炼方式/Melting process 交货状态/Condition of supply 规格/Dimension	: 60 mm : Al+Nb+V+Ti : 连铸 Continuous Casting : 镇静 Killed : 转炉+精炼炉+真空脱气 BOF+LF+RH : TMCP : 10~60(厚度) × 1500~4800(宽度) × 3000~25000(长度) 10~ 60(Thickness) × 1500~4800(Width) × 3000~25000 (Length) mm

批准的图纸和设计计算书/ Approved Drawings and Design Calculations

图纸批准号/ Drawings Approval No. : NJ17W00086

产品认可试验报告/ Approval Test Report

试验报告编号/Test Report No. : 20161202
 试验报告日期/Test Report Date : 2016-12-30
 试验单位/ Laboratory : 江苏沙钢集团有限公司
 Jiangsu Shagang Group Co., Ltd.
 试验单位地址/ Test Address : 江苏省张家港市锦丰镇
 Jinfeng Town, Zhangjiagang, Jiangsu Province
 试验报告编号/Test Report No. : JH16002HJ-3
 试验报告日期/Test Report Date : 2016-07-01
 试验单位/ Laboratory : 船舶材料验证试验中心
 Testing and Verifying Center for Ship Materials China
 Shipbuilding Industry
 试验单位地址/ Test Address : 河南省洛阳市
 Luoyang City, Henan Province
 试验报告编号/Test Report No. : 20170501
 试验报告日期/Test Report Date : 2017-05-30
 试验单位/ Laboratory : 江苏沙钢集团有限公司
 Jiangsu Shagang Group Co., Ltd.
 试验单位地址/ Test Address : 江苏省张家港市锦丰镇
 Jinfeng Town, Zhangjiagang, Jiangsu Province

产品适用范围/ Application of the Product

1. 低温韧性钢适用于船用低温韧性钢板/Steel for low temperature service is Applicable to marine steel plate for low temperature service.
2. 焊接结构用高强度淬火回火钢适用于船体结构用钢和海上设施用钢/High strength quenched and tempered steels for welded structures is Applicable to hull structural steel and offshore facilities steel.

认可保持条件/ Maintenance Requirements of Approval

1. 工厂认可后, 如果图纸、技术文件、工艺规程有较大改变, 应征得本社同意。若改变涉及或影响到产品的设计、主要制造材料、关键工艺或产品的特性、特征, 则与特性有关的图纸和技术文件应经过本社审批, 并在检验机构认为必要时, 经本社检验人员到厂进行检查和见证有关试验, 其结果应能证实仍符合认可条件。
After works approval, if there are any major changes to the drawings, technical documents, specifications, prior consent should be obtained from the survey office of the Society. If the changes involve or affect product design, major construction materials, key workmanship or product characteristics and properties, drawings and technical documents related to properties are to be examined and approved by the Society and, where deemed necessary by the survey office, the surveyor to the Society will go to the manufacturer to inspect or witness relevant tests and the results of the tests should be able to demonstrate compliance with the approval conditions.
2. 工厂的质量管理体系应保持有效运行, 并且与认可时一致。如果质量管理体系发生改变, 应经原体系认证机构审核并报本社批准。
The quality management system of the factory shall be ensure effective operation, and shall be the same as the situation of approval. If there are any changes to the quality management system, auditing of the original certification organization for quality management system and the society's approval shall be obtained.
3. 工厂认可证书获得者应接受本社每年一次的定期审核, 定期审核日为认可证书期满之日对应的每一周年日, 检查工作可在定期审核日的前后三个月内进行。Those who have obtained the certificate of works approval shall receive periodical audit done by the Society on an annual basis. The date of periodical audit shall be each anniversary date which corresponds to the date of expiry of the relevant certificate and the periodical audit may be done within a time span of three months before and after the annual surveillance date.
4. 在认可证书有效期内, 本社检验人员可在未经事先通知的情况下对工厂的产品制造过程进行审核, 以验证产品的生产是否符合业经本社批准的图纸和文件。工厂应予以配合。
Within the validity of the approval certificate, the surveyor to the Society may pay unannounced audit to the manufacturing process of the product in order to confirm whether it is in compliance with the drawings and documents approved by the Society. The factory should provide an active cooperation and necessary for the surveyor.
5. 认可证书有效期内, 如果出现可能导致本社暂停或撤消认可的情况, 工厂应及时采取有效的纠正措施。
Within the validity of the approval certificate, if cases occur that may cause the Society to suspend or withdraw the certificate, the manufacturer should take corrective actions in a prompt and effective manner.

认可后的产品检验方式/ Module of Product Inspection after Works Approval

- 按照规范逐件检验的产品/The product inspected one by one in term of the rules:
认可后的产品检验应由本社验船师根据本社规范规定逐件按批准的产品检验计划进行检验, 经检验合格后由本社颁发船用产品证书。
After approval, product inspection should be carried out one by one by the Surveyor of the Society in accordance with the approved product inspection scheme, and the Marine Product Certificate will be issued by the Society upon satisfactory inspection.

对于原材料和零部件的检验要求/ Inspection Requirements for Materials and Components

- 产品如下原材料和零部件应由本社认可的制造厂生产/The following materials and components of the product should be manufactured by the factory approved by the Society:无/Nil.
- 产品如下原材料和零部件应经本社检验/The following materials and components of the product should be inspected by the Society:无/Nil.
- 产品如下原材料和零部件的制造厂清单, 经本社批准方可变更/The list of manufacturer for the following materials and components of the product should not be changed without the Society's approval:无/Nil.

责任声明/Statement of Responsibility

本社的认可不影响、替代与本社授权或检验无关的各方对上述工厂的认可和发证, 并且不对与本社授权或检验无关的各方负责, 不承担其未经应允而承认、接受本社认可所导致的法律和经济责任。
The approval of the Society does not affect and replace any approval and certification of the manufacturer by any parties that bear no relation with this Society's authorization or survey and therefore takes no responsibility for these parties. The Society does not undertake any legal and economic liabilities arising from accepting this Society's certificate without prior permission from this Society.

其他/Others

1. 本证书由原工厂认可证书(No. NJ17W00028_05)变更并替代原证书。
This Certificate is modified from and supersedes the previous Works Approval Certificate No.

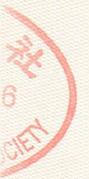
NJ17W00028_05.

2. 其他产品明细/Other Product Description:
Z向性能/Z-Direction Performance:Z25/Z35.

中国船级社江苏分社

CCS Jiangsu Branch

*****本证书正文完/ End of Text*****



1. 证书适用条件

- 1.1 经 CCS 设计认可、型式认可或工厂认可的产品及其生产厂，CCS 将颁发产品设计认可、型式认可或工厂认可证书。当 CCS 规范要求产品证书的情况下，认可证书不能替代产品证书。
- 1.1.1 设计认可系指 CCS 通过对产品图纸审查和原型/型式试验，确认产品设计满足 CCS 规范要求和/或其他接受标准要求的评价过程。
- 1.1.2 型式认可系指 CCS 通过产品图纸审查、型式试验和现场审核，以确认制造厂具备持续生产符合 CCS 规范要求和/或其他接受标准要求产品的能力和条件的评价过程。根据制造厂产品质量保证的能力和水平，型式认可分为型式认可 A 和 B 两种模式。
- 1.1.3 工厂认可系指 CCS 通过文件/图纸资料审查、型式试验和现场审核，以确认制造厂具备持续生产符合 CCS 规范要求和/或其他接受标准要求产品的能力和条件的评价过程。
- 1.2 入级和法定产品经 CCS 单件/单批检验完成后，CCS 将颁发产品证书或签署等效证明文件。
- 1.2.1 产品证书是由 CCS 验船师签发的文件，以证明：a) 产品符合规范要求；b) 产品已进行规定的检验和试验；c) 检验样品取自检验产品本身；d) 产品的试验在验船师参加或根据特别商定的情况下进行。
- 1.2.2 等效证明文件是由制造厂出具并经 CCS 盖章和验船师签署的文件，以证明：a) 产品符合规范要求；b) 产品已进行规定的检验和试验；c) 检验样品取自检验产品本身；d) 产品的试验在验船师参加或根据特别商定的情况下进行。
- 1.3 对于要求型式认可和/或工厂认可而不要求持有产品证书的入级和法定产品，可由制造厂证明形式予以证明：
- 1.3.1 制造厂证明是由制造厂签发，以证明：a) 该产品经 CCS 型式认可或工厂认可；b) 产品符合规范要求；c) 产品已进行规定的检验和试验；d) 检验样品取自检验产品本身；e) 产品的试验在制造厂授权部门代表在场的情况下进行。
- 1.4 规范和法定要求以外的产品经 CCS 单件/单批检验完成后，由检验证书或试验证书予以记录和证明。
- 1.4.1 检验证书是由 CCS 验船师签署的文件，以证明：a) 符合申请方确定的产品标准；b) 检验和试验经验船师见证和/或试验报告经验船师审查；c) 试验样品取自检验产品本身。
- 1.4.2 试验证书是由 CCS 验船师签署的文件，以证明：a) 产品的试验在验船师在场下进行；b) 试验样品取自检验产品本身。

2. 证书的失效、暂停和撤销

CCS 通过认可、检验工作所签发的证书或相关的证明文件的失效、暂停和撤销，见 CCS《钢质海船入级规范》第 1 篇第 3 章第 1 节。

3. 责任

- 3.1 CCS 承担的认可/检验服务是在所涉及的产品设计方、制造方、拥有方、销售方、供应方、修理方、使用方以及其他方履行各自职责的基础上进行的。无论 CCS 及所属验船师采用何种认可/检验方式，也不论在 CCS 名义下颁发、签署的任何报告、文件和证书在内容上如何，均不意味着可减轻或解除上述任何方应承担的任何责任。
- 3.2 CCS 签发的与认可/检验有关的任何文件，只反映检验当时的技术状况，并不表明被认可的工厂和产品的所有权和知识产权归属。与被认可的工厂和产品的所有权和知识产权有关的任何争议，与 CCS 无关。CCS 的认可/检验不影响、替代与 CCS 授权或检验无关的各方对上述工厂的认可和发证，并且不对与 CCS 授权或检验无关的各方负责，不承担其未经应允而承认、接受 CCS 认可/检验所导致的法律和经济责任。
- 3.4 CCS 仅对由于自身疏忽行为而直接造成的合同关系方的损失或损害承担责任，在任何情况下，CCS 均不对合同关系方的间接损失或随后引发的附加损失或损害承担责任，也不对非合同关系方的任何损失承担责任。
- 3.5 尽管有上述规定，如依法判定合同关系方所遭受的损失或损害，仅仅是由于 CCS 或其雇员、代理人或 CCS 其他代表方的疏忽行为造成的，CCS 将承担责任，并将支付赔偿，但此赔偿的数额不超过该项服务收费的 5 倍，且最大不超过人民币 200 万元。但如该损失或损害系由如下行为造成，CCS 将不承担任何责任：
- 1) CCS 雇员超越其受雇权限的行为；
 - 2) CCS 代理人或其他代表方，超越 CCS 对其书面授权范围的行为。
- 3.6 对 CCS 承担责任的损失或损害的索赔，应以书面形式，在损害最初发现或损失形成的 6 个月内提出，否则将被视为彻底放弃索赔权。

4 适用法律和仲裁

- 4.1 本证书条款的生效、解释、执行、争议的解决均适用中华人民共和国法律。
- 4.2 除与 CCS 另有约定外，凡因与 CCS 提供的服务有关的任何争议，均应提交中国海事仲裁委员会，按照申请仲裁时该会现行有效的仲裁规则进行仲裁。仲裁裁决是最终的，对争议当事双方均有约束力。

1. THE APPLICATION OF CERTIFICATES

- 1.1 After Approval, Certificate of Design Approval, Certificate of Type Approval or Certificate of Works Approval will be issued by CCS for the products and manufacturers. Where a product certificate is required by CCS rules, the Approval Certificate cannot replace it.
- 1.1.1 **Design Approval** means the evaluation process to confirm that the product design is in compliance with the requirements of CCS Rules and/or other accepted standards through plan approval and prototype/type test.
- 1.1.2 **Type Approval** means the evaluation process to confirm the approved manufacturer's capability of continuously producing products which are in compliance with the requirements of CCS Rules and/or other accepted standards through product plan approval, type test and on-site audit. Type approval consists of two modes, type approval A and type approval B, which shall be granted to the manufacturer according to manufacturer's ability and level in product quality assurance.
- 1.1.3 **Works Approval** means the evaluation process to confirm the manufacturer's capability of continuously producing products which are in compliance with the requirements of CCS Rules and/or other accepted standards through product plan approval, type test and on-site audit.
- 1.2 A unit/batch inspection of classed or statutory products is to be documented as Certificate of Product or Equivalent document by CCS:
- 1.2.1 **Certificate of Product** is issued by the Surveyor to show that: i) the product complies with rules; ii) required inspection and test have been carried out; iii) the sample is taken from the product to be inspected; iv) the product has been tested in the presence of the Surveyor or in a specially agreed condition.
- 1.2.2 **Equivalent Document** is issued by the manufacturer and endorsed by the Surveyor to show that: i) the product complies with rules; ii) required inspection and test have been carried out; iii) the sample is taken from the product to be inspected; iv) the product has been tested in the presence of the Surveyor or in a specially agreed condition.
- 1.3 The classed and statutory products of which the type approval and/or works approval is required but the products certificate is not required, may be certified as Manufacturer's document:
- 1.3.1 **The Manufacturer's Document** is issued by the manufacturer to show that: i) the product is type approved or works approved by CCS; ii) the product complies with rules; iii) required inspection and test have been carried out; iv) the sample is taken from the product to be inspected; v) the product has been tested in the presence of the department representative authorized by the manufacturer.
- 1.4 A unit/batch inspection Products other than those specified in rules or statutory requirements is to be documented as Inspection Certificate or Test Certificate:
- 1.4.1 **Inspection Certificate** is issued by the Surveyor to show that: i) the product standards as determined by the applicant have been complied with; ii) the inspection and test have been witnessed by the Surveyor and/or the test report has been reviewed by the Surveyor; iii) the sample is taken from the product to be inspected.
- 1.4.2 **Test Certificate** issued by the Surveyor to show that: i) the product has been tested in the presence of the Surveyor; ii) the sample is taken from the product to be inspected.

2. INVALIDATION, SUSPENSION AND CANCELLATION OF CERTIFICATE

Invalidation, suspension and cancellation of the certificates or equivalent documents issued by CCS by means of approval or certification are specified in Section 1, Chapter 3, Part 1 of CCS Rules for Classification of Sea-going Steel Ships.

3. LIABILITY

- 3.1 The service of approval / inspection undertaken by CCS is carried out on the basis that the designers, manufacturers, owners, sellers, suppliers, repairers, operators and other parties fulfill their respective responsibilities. The contents of any reports, documents and certificates issued by CCS cannot diminish any liability of any party mentioned above or absolve it therefrom, whatever the module of approval/inspection adopted by CCS and its surveyors.
- 3.2 Any approval/inspection-related documents issued by CCS only reflect the status at the time when the approval/inspection is carried out. They do not constitute the description for ownership and intellectual property rights of the approved/inspected factory and product. This Society should not be affected by any dispute over ownership and intellectual property rights of the approved/inspected factory and product.
- 3.3 The approval/inspection of CCS does not affect and replace any approval and certification of the manufacturer by any parties that bear no relation with this Society's authorization or survey and therefore takes no responsibility for these parties. CCS does not undertake any legal and economic liabilities arising from accepting this Society's certificate without prior permission from this Society.
- 3.4 CCS will be liable only for the loss or damage of contract parties resulting directly from its negligent act. In no event shall CCS be liable for any indirect or consequential losses or damage, and any loss of non-contract parties.
- 3.5 Notwithstanding the previous paragraph, CCS will be liable for the loss or damage due to negligent act judicially attributed exclusively to CCS and its employees, agents or other parties acting on behalf of CCS. And in no case shall the amount of this liability exceed five times the fee(s) charged by CCS in respect of the service(s) in question or 2,000,000 RMB in maximum. CCS liability for the loss or damage is specially excluded when such loss or damage arises out of an act:
- (1) by an employee of CCS acting outside the terms or scope of his/her employment, or
 - (2) by any agent or other parties acting on behalf of CCS, when such act exceeds the authority granted in writing by CCS to such agent or parties.
- 3.6 Any claim for any loss or damage set forth above is to be made in writing within six months of the date the damage first discovered or the loss occurred; failure of doing so will be deemed as an absolute waiver of this right.

4. APPLICABLE LAWS AND ARBITRATION

- 4.1 The laws of the People's Republic of China shall apply to the coming into force, explanation, implementing, and resolution of dispute of the clause of the certificate.
- 4.2 Unless otherwise agreed with CCS, any dispute of whatsoever nature in respect to the service(s) provided shall be referred to China Maritime Arbitration Commission and arbitrated in accordance with its arbitration rules effective at the time of request for arbitration. The arbitration award shall be final and binding upon both interested parties.



中国船级社
CHINA CLASSIFICATION SOCIETY

证书格式号/Form: W01.02-
HQ000120

工厂认可证书
CERTIFICATE OF WORKS APPROVAL

证书编号/Certificate No. NJ17W00086_06

兹证明本证书所述制造厂具备按照下列标准的要求生产本证书所列产品的能力和条件。

This is to certify that the manufacturer stated in the certificate meets the requirements of the standards listed below and is available with the ability and conditions to produce the products as described in the certificate.

制造厂/Manufacturer

江苏沙钢集团有限公司

Jiangsu Shagang Group Co.,Ltd

江苏省张家港市锦丰镇

Jinfeng Town, Zhangjiagang, Jiangsu Province

认可产品/Product Approved

海洋平台用高强度齿条钢钢板

High - strength Rack Steel Plate for Offshore Platform

钢板

Steel plate

附加标志/Notations

无/Nil.

认可标准/Approval Standard

- 1.中国船级社《材料与焊接规范》(2015)及其修改通报第1篇第3章
Chapter 3, Part One of China Classification Society Rules for Materials and Welding 2015 and its Amendments
- 2.A517/A517M-10《Standard Specification for Pressure Vessel Plates,Alloy Steel,High-Strength,Quenched and Tempered》
- 3.A514/A514M-14《Standard Specification for High-Yield-Strength,Quenched and Tempered Alloy Steel Plate,Suitable for Welding》



证书有效期至/ This Certificate is valid until

2021年6月8日 / Jun. 8, 2021

发证机构 中国船级社江苏分社
Issued by CCS Jiangsu Branch

签发日期 2017年9月21日
Date Sep. 21, 2017



本证书根据中国船级社《钢质海船入级规范》及有关程序规定签发。关于证书的有关规定见本证书背面的说明。当本证书包括多页纸张时，则所有证书页为一个整体，必须同时使用。每一页证书均须由本社盖章方为有效。证书复印件无效。任何单位和个人均不应摘录或节选本证书的部分内容。本认可证书不代表本社对个体产品质量的检验。有关各方对所持证书的真实性有疑问时，可以向本社检验机构咨询。
This Certificate is issued pursuant to the Rules for Classification of Sea-going Steel Ships and related procedures of the Society. Refer to the back of the certificate for detailed requirements of the certificate. When the certificate consists of more than one page, all pages of the certificate are taken as a whole and are used simultaneously. No certificate page is valid without bearing the stamp of the Society and no copied form of the certificate is regarded as valid. Any part of the certificate is not to be extracted or abridged by any unit or individual in any form. This approval certificate does not constitute the inspection of the Society about the quality of the unit/batch product. Related parties who are doubted about the authenticity of the certificate may inquire of the Society or its offices.



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CCS Mansion, 9 Dongzhimen Nan Da Jie, Beijing 100007, China 网址/Web Site: http://www.ccs.org.cn
本地检验机构/CCS Local Office: 中国船级社江苏分社 CCS Jiangsu Branch 电话/Tel: 0086-25-66668899 传真/Fax: 0086-25-58757734

NJ58751321
No. 15246029

产品明细/ Product Description

钢板/Steel plate	
牌号/Designation	: A517 GrQ Mod, A514 GrQ Mod
最大厚度/Maximum thickness	: 177.8 mm
交货状态/Condition of supply	: 调质 Q+T
规格/Dimension	: 100~177.8(厚度)×900~4800(宽度)×3000~25000(长度) 100~177.8 (Thickness)× 900~4800 (Width) ×3000~25000 (Length) mm mm

批准的图纸和设计计算书/ Approved Drawings and Design Calculations

图纸批准号/ Drawings Approval No. : NJ17W00086

产品认可试验报告/ Approval Test Report

试验报告编号/Test Report No. : 20161201
 试验报告日期/Test Report Date : 2016-12-30
 试验单位/ Laboratory : 江苏沙钢集团有限公司
 Jiangsu Shagang Group Co., Ltd.
 试验单位地址/ Test Address : 江苏省张家港市锦丰镇
 Jinfeng Town, Zhangjiagang, Jiangsu Province
 试验报告编号/Test Report No. : JH16021HJ-1
 试验报告日期/Test Report Date : 2016-08-31
 试验单位/ Laboratory : 船舶材料验证试验中心
 Testing and Verifying Center for Ship Materials China
 Shipbuilding Industry
 试验单位地址/ Test Address : 河南省洛阳市
 Luoyang City, Henan Province

产品适用范围/ Application of the Product

适用于海洋平台用高强度齿条钢板/For high - strength rack steel plate for offshore platform.

认可保持条件/ Maintenance Requirements of Approval

1. 工厂认可后, 如果图纸、技术文件、工艺规程有较大改变, 应征得本社同意。若改变涉及或影响到产品的设计、主要制造材料、关键工艺或产品的特性、特征, 则与特性有关的图纸和技术文件应经过本社审批, 并在检验机构认为必要时, 经本社检验人员到厂进行检查和见证有关试验, 其结果应能证实仍符合认可条件。

After works approval, if there are any major changes to the drawings, technical documents, specifications, prior consent should be obtained from the survey office of the Society. If the changes involve or affect product design, major construction materials, key workmanship or product characteristics and properties, drawings and technical documents related to properties are to be examined and approved by the Society and, where deemed necessary by the survey office, the surveyor to the Society will go to the manufacturer to inspect or witness relevant tests and the results of the tests should be able to demonstrate compliance with the approval conditions

2. 工厂的质量管理体系应保持有效运行, 并且与认可时一致。如果质量管理体系发生改变, 应经原体系认证机构审核并报本社批准。

The quality management system of the factory shall be ensure effective operation, and shall be the same as the situation of approval. If there are any changes to the quality management system, auditing of the original certification organization for quality management system and the society's approval shall be obtained.

3. 工厂认可证书获得者应接受本社每年一次的定期审核, 定期审核日为认可证书期满之日对应的每一周年日, 检查工作可在定期审核日的前后三个月内进行。Those who have obtained the certificate of works approval shall receive periodical audit done by the Society on an annual basis. The date of periodical audit shall be each anniversary date which corresponds to the date of expiry of the relevant certificate and the periodical audit may be done within a time span of three months before and after the annual surveillance date.

4. 在认可证书有效期内, 本社检验人员可在未经事先通知的情况下对工厂的产品制造过程进行审核, 以验证产品的生产是否符合业经本社批准的图纸和文件。工厂应予以配合。

Within the validity of the approval certificate, the surveyor to the Society may pay unannounced audit to the manufacturing process of the product in order to confirm whether it is in compliance with the drawings and documents approved by the Society. The factory should provide an active cooperation and necessary for the surveyor.

5. 认可证书有效期内, 如果出现可能导致本社暂停或撤消认可的情况, 工厂应及时采取有效的纠正措施。

Within the validity of the approval certificate, if cases occur that may cause the Society to suspend or withdraw the certificate, the manufacturer should take corrective actions in a prompt and effective manner.

认可后的产品检验方式/ Module of Product Inspection after Works Approval

按照规范逐件检验的产品/The product inspected one by one in term of the rules;
认可后的产品检验应由本社验船师根据本社规范规定逐件按批准的产品检验计划进行检验, 经检验合格后由本社颁发船用产品证书。

After approval, product inspection should be carried out one by one by the Surveyor of the Society in accordance with the approved product inspection scheme, and the Marine Product Certificate will be issued by the Society upon satisfactory inspection.

对于原材料和零部件的检验要求/ Inspection Requirements for Materials and Components

产品如下原材料和零部件应由本社认可的制造厂生产/The following materials and components of the product should be manufactured by the factory approved by the Society:锻制板坯/Forging slabs

产品如下原材料和零部件应经本社检验/The following materials and components of the product should be inspected by the Society:无/Nil.

产品如下原材料和零部件的制造厂清单, 经本社批准方可变更/The list of manufacturer for the following materials and components of the product should not be changed without the Society's approval:
无/Nil.

责任声明/ Statement of Responsibility

本社的认可不影响、替代与本社授权或检验无关的各方对上述工厂的认可和发证, 并且不对与本社授权或检验无关的各方负责, 不承担其未经应允而承认、接受本社认可所导致的法律和经济责任。

The approval of the Society does not affect and replace any approval and certification of the manufacturer by any parties that bear no relation with this Society's authorization or survey and therefore takes no responsibility for these parties. The Society does not undertake any legal and economic liabilities arising from accepting this Society's certificate without prior permission from this Society.

其他/Others

1. 本证书由原工厂认可证书(No. NJ17W00028_06)换发。

This Certificate is issued and supersedes the previous Works Approval Certificate No. NJ17W00028_06.

2. 其他产品明细/Other Product Description:

Z向性能/Z-Direction Performance:Z25/Z35.

中国船级社江苏分社

CCS Jiangsu Branch



*****本证书正文完/ End of Text*****



1. 证书适用条件

- 1.1 经 CCS 设计认可、型式认可或工厂认可的产品及其生产厂，CCS 将颁发产品设计认可、型式认可或工厂认可证书。当 CCS 规范要求产品证书的情况下，认可证书不能替代产品证书。
- 1.1.1 设计认可系指 CCS 通过对产品图纸审查和原型/型式试验，确认产品设计满足 CCS 规范要求和/或其他接受标准要求的评价过程。
- 1.1.2 型式认可系指 CCS 通过产品图纸审查、型式试验和现场审核，以确认制造厂具备持续生产符合 CCS 规范要求和/或其他接受标准要求产品的能力和条件的评价过程。根据制造厂产品质量保证的能力和水平，型式认可分为型式认可 A 和 B 两种模式。
- 1.1.3 工厂认可系指 CCS 通过文件/图纸资料审查、型式试验和现场审核，以确认制造厂具备持续生产符合 CCS 规范要求和/或其他接受标准要求产品的能力和条件的评价过程。
- 1.2 入级和法定产品经 CCS 单件/单批检验完成后，CCS 将颁发产品证书或签署等效证明文件。
- 1.2.1 产品证书是由 CCS 验船师签发的文件，以证明：a) 产品符合规范要求；b) 产品已进行规定的检验和试验；c) 检验样品取自检验产品本身；d) 产品的试验在验船师参加或根据特别商定的情况下进行。
- 1.2.2 等效证明文件是由制造厂出具并经 CCS 盖章和验船师签署的文件，以证明：a) 产品符合规范要求；b) 产品已进行规定的检验和试验；c) 检验样品取自检验产品本身；d) 产品的试验在验船师参加或根据特别商定的情况下进行。
- 1.3 对于要求型式认可和/或工厂认可而不要求持有产品证书的入级和法定产品，可由制造厂证明形式予以证明：
- 1.3.1 制造厂证明是由制造厂签发，以证明：a) 该产品经 CCS 型式认可或工厂认可；b) 产品符合规范要求；c) 产品已进行规定的检验和试验；d) 检验样品取自检验产品本身；e) 产品的试验在制造厂授权部门代表在场的情况下进行。
- 1.4 规范和法定要求以外的产品经 CCS 单件/单批检验完成后，由检验证书或试验证书予以记录和证明。
- 1.4.1 检验证书是由 CCS 验船师签署的文件，以证明：a) 符合申请方确定的产品标准；b) 检验和试验经验船师见证和/或试验报告经验船师审查；c) 试验样品取自检验产品本身。
- 1.4.2 试验证书是由 CCS 验船师签署的文件，以证明：a) 产品的试验在验船师在场下进行；b) 试验样品取自检验产品本身。

2. 证书的失效、暂停和撤销

CCS 通过认可、检验工作所签发的证书或相关的证明文件的失效、暂停和撤销。见 CCS《钢质海船入级规范》第 1 篇第 3 章第 1 节。

3. 责任

- 3.1 CCS 承担的认可/检验服务是在所涉及的产品设计方、制造方、拥有方、销售方、供应方、修理方、使用方以及其他方履行各自职责的基础上进行的。无论 CCS 及所属验船师采用何种认可/检验方式，也不论在 CCS 名义下颁发、签署的任何报告、文件和证书在内容上如何，均不意味着可减轻或解除上述任何方应承担的任何责任。
- 3.2 CCS 签发的与认可/检验有关的任何文件，只反映检验当时的技术状况，并不表明被认可的工厂和产品的所有权和知识产权归属。与被认可的工厂和产品的所有权和知识产权有关的任何争议，与 CCS 无关。
- 3.3 CCS 的认可/检验不影响、替代与 CCS 授权或检验无关的各方对上述工厂的认可 and 发证，并且不对与 CCS 授权或检验无关的各方负责，不承担其未经应允而承认、接受 CCS 认可/检验所导致的法律和经济责任。
- 3.4 CCS 仅对由于自身疏忽行为而直接造成的合同关系方的损失或损害承担责任，在任何情况下，CCS 均不对合同关系方的间接损失或随后引发的附加损失或损害承担责任，也不对非合同关系方的任何损失承担责任。
- 3.5 尽管有上述规定，如依法判定合同关系方所遭受的损失或损害，仅仅是由于 CCS 或其雇员、代理人或 CCS 其他代表方的疏忽行为造成的，CCS 将承担责任，并将支付赔偿，但此赔偿的数额不超过该项服务收费的 5 倍，且最大不超过人民币 200 万元。但如该损失或损害系由如下行为造成，CCS 将不承担任何责任：
- 1) CCS 雇员超越其受雇权限的行为；
 - 2) CCS 代理人或其他代表方，超越 CCS 对其书面授权范围的行为。
- 3.6 对 CCS 承担责任的损失或损害的索赔，应以书面形式，在损害最初发现或损失形成的 6 个月内提出，否则将被视为彻底放弃索赔权。

4. 适用法律和仲裁

- 4.1 本证书条款的生效、解释、执行、争议的解决均适用中华人民共和国法律。
- 4.2 除与 CCS 另有约定外，凡因与 CCS 提供的服务有关的任何争议，均应提交中国海事仲裁委员会，按照申请仲裁时该会现行有效的仲裁规则进行仲裁。仲裁裁决是最终的，对争议当事双方均有约束力。

1. THE APPLICATION OF CERTIFICATES

- 1.1 After Approval, Certificate of Design Approval, Certificate of Type Approval or Certificate of Works Approval will be issued by CCS for the products and manufacturers. Where a product certificate is required by CCS rules, the Approval Certificate cannot replace it.
- 1.1.1 **Design Approval** means the evaluation process to confirm that the product design is in compliance with the requirements of CCS Rules and/or other accepted standards through plan approval and prototype/type test.
- 1.1.2 **Type Approval** means the evaluation process to confirm the approved manufacturer's capability of continuously producing products which are in compliance with the requirements of CCS Rules and/or other accepted standards through product plan approval, type test and on-site audit. Type approval consists of two modes, type approval A and type approval B, which shall be granted to the manufacturer according to manufacturer's ability and level in product quality assurance.
- 1.1.3 **Works Approval** means the evaluation process to confirm the manufacturer's capability of continuously producing products which are in compliance with the requirements of CCS Rules and/or other accepted standards through product plan approval, type test and on-site audit.
- 1.2 A unit/batch inspection of classed or statutory products is to be documented as Certificate of Product or Equivalent document by CCS:
- 1.2.1 **Certificate of Product** is issued by the Surveyor to show that: i) the product complies with rules; ii) required inspection and test have been carried out; iii) the sample is taken from the product to be inspected; iv) the product has been tested in the presence of the Surveyor or in a specially agreed condition.
- 1.2.2 **Equivalent Document** is issued by the manufacturer and endorsed by the Surveyor to show that: i) the product complies with rules; ii) required inspection and test have been carried out; iii) the sample is taken from the product to be inspected; iv) the product has been tested in the presence of the Surveyor or in a specially agreed condition.
- 1.3 The classed and statutory products of which the type approval and/or works approval is required but the products certificate is not required, may be certified as Manufacturer's document:
- 1.3.1 **The Manufacturer's Document** is issued by the manufacturer to show that: i) the product is type approved or works approved by CCS; ii) the product complies with rules; iii) required inspection and test have been carried out; iv) the sample is taken from the product to be inspected; v) the product has been tested in the presence of the department representative authorized by the manufacturer.
- 1.4 A unit/batch inspection Products other than those specified in rules or statutory requirements is to be documented as Inspection Certificate or Test Certificate:
- 1.4.1 **Inspection Certificate** is issued by the Surveyor to show that: i) the product standards as determined by the applicant have been complied with; ii) the inspection and test have been witnessed by the Surveyor and/or the test report has been reviewed by the Surveyor; iii) the sample is taken from the product to be inspected.
- 1.4.2 **Test Certificate** issued by the Surveyor to show that: i) the product has been tested in the presence of the Surveyor; ii) the sample is taken from the product to be inspected.

2. INVALIDATION, SUSPENSION AND CANCELLATION OF CERTIFICATE

Invalidation, suspension and cancellation of the certificates or equivalent documents issued by CCS by means of approval or certification are specified in Section 1, Chapter 3, Part 1 of CCS Rules for Classification of Sea-going Steel Ships.

3. LIABILITY

- 3.1 The service of approval / inspection undertaken by CCS is carried out on the basis that the designers, manufacturers, owners, sellers, suppliers, repairers, operators and other parties fulfill their respective responsibilities. The contents of any reports, documents and certificates issued by CCS cannot diminish any liability of any party mentioned above or absolve it therefrom, whatever the module of approval/inspection adopted by CCS and its surveyors.
- 3.2 Any approval/inspection-related documents issued by CCS only reflect the status at the time when the approval/inspection is carried out. They do not constitute the description for ownership and intellectual property rights of the approved/inspected factory and product. This Society should not be affected by any dispute over ownership and intellectual property rights of the approved/inspected factory and product.
- 3.3 The approval/inspection of CCS does not affect and replace any approval and certification of the manufacturer by any parties that bear no relation with this Society's authorization or survey and therefore takes no responsibility for these parties. CCS does not undertake any legal and economic liabilities arising from accepting this Society's certificate without prior permission from this Society.
- 3.4 CCS will be liable only for the loss or damage of contract parties resulting directly from its negligent act. In no event shall CCS be liable for any indirect or consequential losses or damage, and any loss of non-contract parties.
- 3.5 Notwithstanding the previous paragraph, CCS will be liable for the loss or damage due to negligent act judicially attributed exclusively to CCS and its employees, agents or other parties acting on behalf of CCS. And in no case shall the amount of this liability exceed five times the fee(s) charged by CCS in respect of the service(s) in question or 2,000,000 RMB in maximum. CCS liability for the loss or damage is specially excluded when such loss or damage arises out of an act:
- (1) by an employee of CCS acting outside the terms or scope of his/her employment, or
 - (2) by any agent or other parties acting on behalf of CCS, when such act exceeds the authority granted in writing by CCS to such agent or parties.
- 3.6 Any claim for any loss or damage set forth above is to be made in writing within six months of the date the damage first discovered or the loss occurred; failure of doing so will be deemed as an absolute waiver of this right.

4. APPLICABLE LAWS AND ARBITRATION

- 4.1 The laws of the People's Republic of China shall apply to the coming into force, explanation, implementing, and resolution of dispute of the clause of the certificate.
- 4.2 Unless otherwise agreed with CCS, any dispute of whatsoever nature in respect to the service(s) provided shall be referred to China Maritime Arbitration Commission and arbitrated in accordance with its arbitration rules effective at the time of request for arbitration. The arbitration award shall be final and binding upon both interested parties.