



中国船级社
CHINA CLASSIFICATION SOCIETY

证书格式号/Form: W01.01-
HQ000120

工厂认可证书 CERTIFICATE OF WORKS APPROVAL

证书编号/Certificate No. DL13W00023

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

鞍钢股份有限公司

ANGANG STEEL COMPANY LIMITED

中国辽宁省鞍山市铁西区

Tiexi Dist., Anshan City, Liaoning Province, P.R. China

认可产品/ Product Approved

钢板

STEEL PLATE

认可标准/ Approval Standard

1. 中国船级社《材料与焊接规范》(2012)及其修改通报第1篇 第3章
Chapter 3, Part 1 of CCS Rules for Materials and welding 2012 and its Amendments

证书有效期至/ This Certificate is valid until

2016年11月18日 / Nov. 18, 2016

发证机构

Issued by

中国船级社大连分社

CCS Dalian Branch

签发日期

Date

2013年9月30日

Sep. 30, 2013

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: 中国船级社大连分社

CCS Dalian Branch

电话/Tel: +86 (411) 82688442 传真/Fax: +86 (411) 82685888

DL53113065

No. 13260114

第 1 页 共 3 页 / Page 1 of 3

产品明细/ Product Description

钢板	
名称/Name	: 详见附页/See attachment
钢级/Grade	: 详见附页/See attachment
规格/Dimension	: 详见附页/See attachment mm
冶炼方式/Steel Making	: 详见附页/See attachment
浇铸方式/Casting	: 详见附页/See attachment
脱氧方式/Deoxidation Method	: 详见附页/See attachment
细化晶粒元素/Grain Refining Elements	: 详见附页/See attachment
交货状态/Condition of Supply	: 详见附页/See attachment

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

图纸批准号/ Drawings Approval No.

产品认可试验报告/ Approval Test Report

试验报告编号/Test Report No.	: ANSTEEL-CJ001
试验报告日期/Test Report Date	: 2012-12-26
试验单位/ Laboratory	: 鞍钢股份有限公司 ANSTEEL COMPANY LIMITED.
试验单位地址/ Test Address	: 中国辽宁省鞍山市铁西区 Tiexi Dist., Anshan City, Liaoning Province, P.R. China

产品适用范围/ Application of the Product

船体结构和海洋工程
Construction of Hull and Offshore Installation.
低温韧性钢适用于船体结构和温度低于0℃的其他用途
Steel for low temperature service apply to hull structure and the location where service temperature is below 0 centigrade.
适应高热输入量焊接的结构钢
Steel intended for welding with high heat input

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. 工厂的专业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 professional 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年度复查, 年度复查日为认可证书的签发日起的每一周年日, 检查工作可在年度复查日的前后三个月内进行。
Those who have obtained the certificate of works approval shall receive surveillance done by the Society on an annual basis. The date of surveillance shall be each anniversary date of the approval certificate since the date of issuance and the surveillance 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取消认可的情况, 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 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 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

N. A.

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DL12W00017-02证书换证

1. 生产线: 鞍钢股份有限公司 中厚板厂厚板线。

Product Line: Heavy Plate Production Line of Medium and Heavy Plate of Angang Steel Co., Ltd.

2. 本证书根据原认可证书 (No. DL12W00017-02) 签发并替代原证书。

This Certificate is issued based on and supersedes the previous Certificate No. DL12W00017-02.

中国船级社大连分社

CCS Dalian Branch

*****本证书正文完/ End of Text*****

注: 本证书含有附页, 共1页

Note: The certificate is attached with 1 additional page(s)

产品明细/Particulars 表 1 /Table 1

名称 Description	一般强度 船体结构用钢板 Normal Strength Hull Structural Steel Plate				高强度船体结构用钢板 Higher Strength Hull Structural Steel Plate			焊接结构用高强度钢板 High Strength Steel Plate for Welded Structures				焊接结构用高强度钢板 High Strength Steel Plate for Welded Structures		适应高热输入量焊接 的结构钢 Steels intended for welding with high heat input
钢级 Grade	A	B	D	E	AH32 DH32 EH32 FH32	AH36 DH36 EH36 FH36	AH40 DH40 EH40 FH40	A420 D420 E420 F420	A460 D460 E460 F460	A500 D500 E500 F500	A550 D550 E550 F550	A620 D620 E620 F620	A690 D690 E690 F690	A~E-W100 AH32~EH32-W100 AH36~EH36-W100 AH40~EH40-W100
冶炼 Steelmaking	铁水预处理脱硫 转炉+钢包精炼 (TDS)+(LD)+(LF)+(VD)				铁水预处理脱硫 转炉+钢包精炼 (TDS)+(LD)+(LF)+(VD)			铁水预处理脱硫 转炉+钢包精炼 (TDS)+(LD)+(LF)+(VD)				铁水预处理脱硫 +转炉+钢包精炼 (TDS)+(LD)+(LF)+(VD)		铁水预处理脱硫 +转炉+钢包精炼 (TDS)+(LD)+(LF)+(VD)
细化晶粒 Grain Refining Elements	Al	Al	Al	Al	Al V Nb	Al V Nb	Al V Nb	Al V Nb	Al V Nb	Al V Nb	Al V Nb	Al V Nb	Al V Nb	与相应钢级一致 According to relevant grade
规格(mm) Specification	厚度/Thickness 14~100				厚度/Thickness 14~100			厚度/Thickness 14~100				厚度/Thickness ≤50		厚度/Thickness 14~100
交货状态 Condition Supply	TMCP				TMCP			TMCP				TMCP+Tempering		TMCP

表 2 /Table 2

名称 Description	一般强度船体结构用钢板 Normal Strength Hull Structural Steel Plate				高强度船体结构用钢板 Higher Strength Hull Structural Steel Plate			低温韧性钢 Steel for low temperature service			
钢级 Grade	A	B	D	E	AH32 AH36	DH32 DH36	EH32 EH36	9Ni	5Ni	3.5Ni	1.5Ni
冶炼 Steelmaking	铁水预处理脱硫 +转炉+钢包精炼 (TDS)+(LD)+(LF)				铁水预处理脱硫 +转炉+钢包精炼 (TDS)+(LD)+(LF)			铁水预处理脱硫 +转炉+钢包精炼 (TDS)+(LD)+(LF)+(VD)			
细化晶粒 Grain Refining Elements	Al	Al	Al	Al	Al V Nb	Al V Nb	Al V Nb	Al	Al	Al	Al
规格(mm) Specification	厚度/Thickness 8~40				厚度/Thickness 8~40			厚度/Thickness 10~40			
交货状态 Condition Supply	AR	AR CR N	CR N	N	CR N	CR N	N	QT	QT	QT	QT

注/Note:

1. 表 1 格所列钢板均包括 Z25/Z35 的 Z 向性能。The Z25/Z35 of Z direction property is included in Table 1.

2. 脱氧方式/Deoxidation Method: 镇静/Fully Killed 浇铸方式/Casting: 连铸/CC

3. A620~F620; A690~F690 焊接线能量不得大于 15KJ/cm。A620~A690; F620~F690 welding heat input in line should not more than 15KJ/cm.

4. AH40; DH40; EH40; FH40 厚度大于 85mm (不包括 85mm), 不得用于 2014 年 1 月 1 日或以后签订建造合同的集装箱船的货舱区域的上甲板 and 舱口围板。AH40; DH40; EH40; FH40 with thickness more than 85mm (85mm is not included), can not intend for the upper deck along the cargo hold region and the hatch side coaming of container ships contracted for construction on or after 1 January 2014.