中国船级社
CHINA CLASSIFICATION SOCIETY

证书格式号/Form: W01.01-HQ002108

工厂认可证书
CERTIFICATE OF WORKS APPROVAL

证书编号/Certificate No. LD13W00006

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

Brunton Shaw UK

Sandy Lane, Worksop, Nottinghamshire, UK

认可产品/ Product Approved

钢丝绳

Steel Wire Ropes

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10章
Chapter 10, 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 2020年7月31日 / Jul. 31, 2020

发证机构 Issued by	中国船级社总部 CCS Headquarters	签发日期 Date	2016年8月1日 Aug. 1, 2016

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，可以向我社检验机构查询。

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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HQ28994235
No. 16621007

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)检验和试验符合验船师见证和/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CCS充分同意而接受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 本证书签发的生效、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 to 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.

产品明细/ Product Description

钢丝绳/Steel Wire Ropes
钢丝绳类别/Type : See attached pages

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

图纸批准号/ Drawings Approval No. : LD13W00006

产品认可试验报告/ Approval Test Report

试验报告编号/Test Report No.	:	AB 2013 2016
试验报告日期/Test Report Date	:	
试验单位/ Laboratory	:	Brunton Shaw UK
试验单位地址/ Test Address	:	Sandy Lane, Worksop, Nottinghamshire, UK
试验报告编号/Test Report No.	:	LR 2013 2016
试验报告日期/Test Report Date	:	
试验单位/ Laboratory	:	Brunton Shaw UK
试验单位地址/ Test Address	:	Sandy Lane, Worksop, Nottinghamshire, UK
试验报告编号/Test Report No.	:	DG 2013 2016
试验报告日期/Test Report Date	:	
试验单位/ Laboratory	:	Brunton Shaw UK
试验单位地址/ Test Address	:	Sandy Lane, Worksop, Nottinghamshire, UK
试验报告编号/Test Report No.	:	Batch 20650/1
试验报告日期/Test Report Date	:	2016 03 04
试验单位/ Laboratory	:	Brunton Shaw UK
试验单位地址/ Test Address	:	Sandy Lane, Worksop, Nottinghamshire, UK
试验报告编号/Test Report No.	:	Batch 20613
试验报告日期/Test Report Date	:	2016-03-04
试验单位/ Laboratory	:	Brunton Shaw UK
试验单位地址/ Test Address	:	Sandy Lane, Worksop, Nottinghamshire, UK
试验报告编号/Test Report No.	:	Batch 20650/1
试验报告日期/Test Report Date	:	2016 03 17
试验单位/ Laboratory	:	Brunton Shaw UK
试验单位地址/ Test Address	:	Sandy Lane, Worksop, Nottinghamshire, UK
试验报告编号/Test Report No.	:	Batch 20613
试验报告日期/Test Report Date	:	2016 04 21
试验单位/ Laboratory	:	DMT GmbH _Co. KG
试验单位地址/ Test Address	:	Dinnendahlstrasse 9, 44809 Bochum, Germany

产品适用范围/ Application of the Product

船舶与海上设施 / 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

本社已审核了产品厂无石棉声明，但本社的审核不免除产品厂按照合同关系向订货方保证产品无石棉的责任。
The declaration of asbestos-free submitted by manufacturer has been reviewed by the Society. However, liability of the manufacturer to guarantee the products are asbestos-free to purchaser under contract will not be exempted.

中国船级社总部 CCS Headquarters

*****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)

Brunton Shaw UK

Steel Wire Rope Specifications

Description	6 Strand rope up to 102mm Dia.	8 Strand rope up to 112mm Dia.	10 Strand rope up to 130mm Dia.	Non rotating rope up to 152mm Dia.
Type	Single Layer Ropes	Single Layer Ropes	Single Layer Ropes &Spin resistant Ropes	Rotation Resistant Ropes
Zinc coating	Un- Galvanised & drawn after galvanizing. (Class B 10264-2)	Un- Galvanised & drawn after galvanizing. (Class B 10264-2)	Un- Galvanised & drawn after galvanizing. (Class B 10264-2)	Un- Galvanised &, drawn after galvanizing. (Class B 10264-2)
Grades of steel wires	1770 – 2160 N/ mm^2	1770 – 2160 N/ mm^2	1770 – 2160 N/ mm^2	1770 – 2160 N/ mm^2
Core	IWRC	IWRC & PWRC	IWRC & PWRC	CWS

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中国船级社 CHINA CLASSIFICATION SOCIETY

No 14406676