



中国船级社  
CHINA CLASSIFICATION SOCIETY

证书编号/Certificate No.  
GB22PTB00003\_02

型式认可证书  
CERTIFICATE OF TYPE APPROVAL

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 described in the certificate.

制造厂/Manufacturer

Mann Teknik AB

地址/Address

Strandvagen 16, SE-542 31 Mariestad, Sweden

产品名称/Product

快速接头  
Quick Connecting Coupling  
低温阀  
Cryogenic Valve

附加标志/Notations

无/Nil.

认可标准/Approval Standard

- 中国船级社《钢质海船入级规范》（2021）及其修改通报第3篇第2章  
Chapter 2, Part Three of China Classification Society Rules for Classification of Sea-Going Steel Ships 2021 and its Amendments
- 中国船级社《散装运输液化气体船舶结构与设备规范》（2018）及其修改通报第3篇第5章  
Chapter 5, Part Three of China Classification Society Rules for construction and equipment of ships carrying liquefied gases in bulk 2018 and its Amendments
- 中国船级社《液化天然气燃料加注船舶规范》（2015）第4章  
Chapter 4 of China Classification Society Rules for LNG Bunkering Ship 2015

用于/Intended for

船舶与海上设施/Ships and Offshore Installations

证书有效期至/This Certificate is valid until 2026年05月26日/May. 26,2026

发证机构/Issued by 中国船级社哥德堡办事处  
CCS Gothenburg Office

签发日期/Date 2022年05月26日  
May. 26,2022

本证书根据中国船级社规范和相关规定签发。所有证书页为一个整体，必须同时使用。纸质证书每页均须由本社盖章方为有效，电子证书含数字签名方为有效，本证书复印件无效。任何单位和个人均不应摘录或节选本证书的部分内容。有关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 of the Society and related regulation. All pages of the certificate are taken as a whole and are used simultaneously. No paper certificate page is valid without bearing the stamp of the Society, no electronic certificates is valid without the digital signature, 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. Related parties who are doubted about the authenticity of the certificate may inquire of the Society or its offices.



Form No: T01.

联系方式/Contact Us, 见本社官方网站/See official web site of the Society (<http://www.ccs.org.cn>)

UTN:P022-06974111

**产品明细/Product Description****低温阀/Cryogenic Valve (M0001)**

名称/Name	属性(值)/Value	单位/Unit
产品名称/Product Name	Dry Cryogenic Couplings	
型号/Type	DCC ISO 21593 Interface	
公称压力/Nominal Pressure	25	bar
公称直径/Nominal Diameter	DN25, DN50, DN65, DN80, DN100, DN150, DN200	
适用温度/Applicable Temperature	-196° C to +85° C	
适用介质/Applicable Medium	Liquified Natural Gas	
阀体材质/Valve Body Material	Stainless Steel, refer to the approved drawings	

**低温阀/Cryogenic Valve (M0002)**

名称/Name	属性(值)/Value	单位/Unit
产品名称/Product Name	Dry Cryogenic Couplings	
型号/Type	DCC with interface according to ISO TS 18683 Annex G	
公称压力/Nominal Pressure	25	bar
公称直径/Nominal Diameter	DN25, DN50, DN65, DN80, DN100, DN150, DN200	
适用温度/Applicable Temperature	-196° C to +85° C	
适用介质/Applicable Medium	Liquified Natural Gas	
阀体材质/Valve Body Material	Stainless Steel, refer to the approved drawings	

**批准的图纸/Approved Drawings**

图纸批准号/ Drawings Approval No. : NP21PPP04828, NP21PPP04912

**产品认可试验报告/ Approval Test Report**

试验报告编号/ Test Report No. : DCC ISO DN25-200 Tightness and strength test of the shell and seat at ambient temperature

试验报告日期/ Test Report Date : 2020-03-06

试验报告编号/ Test Report No. : DCC ISO DN25-200 Shell tightness at minimum working temperature

试验报告日期/ Test Report Date : 2020-05-06

试验报告编号/ Test Report No. : DCC ISO DN25-200 Operation test at minimum working temperature

试验报告日期/ Test Report Date : 2020-05-06

试验报告编号/ Test Report No. : DCC ISO DN25-200 Internal valve tightness at minimum working temperature 1, 1xDesign pressure

试验报告日期/ Test Report Date : 2020-05-06

试验报告编号/ Test Report No. : DCC ISO DN25-200 Internal valve tightness at minimum working temperature 0, 5bar

试验报告日期/ Test Report Date : 2020-05-06

试验报告编号/ Test Report No. : DCC ISO DN25-200 High pressure test

试验报告日期/ Test Report Date : 2020-10-14

试验报告编号/ Test Report No. : DCC ISO DN25-200 Drop test

试验报告日期/ Test Report Date : 2021-11-23

试验报告编号/ Test Report No. : DCC ISO DN25-200 Bending test

试验报告日期/ Test Report Date : 2020-05-06

试验报告编号/ Test Report No. : 2P03729-1

试验报告日期/ Test Report Date : 2020-05-07

试验报告编号/ Test Report No. : 2P03729-2  
试验报告日期/ Test Report Date : 2020-05-07

试验报告编号/ Test Report No. : DCC Reg CBC DN25-150 MC333A44 MC645A44 NC123A44 NC333A44 NC645A44  
Tightness test at minimum working temperature  
试验报告日期/ Test Report Date : 2013-01-04

试验报告编号/ Test Report No. : DCC Reg CBC DN50 DN150 Type approval test report for Mann Teknik  
DCCouplings and CBCouplings 2012-11-02  
试验报告日期/ Test Report Date : 2012-11-02

试验报告编号/ Test Report No. : DCC Reg CBC DN50 DN150 Type approval test report for Mann Teknik  
DCCouplings and CBCouplings 2012-11-30  
试验报告日期/ Test Report Date : 2012-11-30

试验报告编号/ Test Report No. : DCC Reg DN50 MC211A44-LC227A44 Hydrostatic test Leak test Endurance  
test  
试验报告日期/ Test Report Date : 2013-11-09

试验报告编号/ Test Report No. : DCC Reg DN200 MC8103A44-LC8103A44 Tightness test Burst test  
试验报告日期/ Test Report Date : 2019-03-28

试验报告编号/ Test Report No. : 3P06390-4  
试验报告日期/ Test Report Date : 2014-09-11

试验报告编号/ Test Report No. : 3P06390-5  
试验报告日期/ Test Report Date : 2014-09-11

试验报告编号/ Test Report No. : 3P06390-6  
试验报告日期/ Test Report Date : 2014-09-12

## 认可后的产品检验方式/ Method of Product Inspection after Approval

按规范认可后应进行产品检验的产品/The product should be inspected 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 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.

## 认可保持条件/ Maintenance Requirements of Approval

1. 型式认可后, 如果产品及其重要零部件的设计、所用材料或制造方法有所改变, 且影响到产品的主要特性、特征; 或产品的性能指标有所更改, 且超过认可的范围, 则有关图纸和文件应经检验机构审批。并在检验机构认为必要时, 经本社检验人员见证有关试验和进行检查, 其结果应能证实仍符合认可条件。

After type approval, if there are changes to the design, materials used or manufacturing method of the product and important components and such changes affect major characteristics and properties of the product, or property indexes of the product are changed and exceed the scope of approval, related drawings and documents are to be examined and approved by the concerned survey office. Where deemed necessary by the survey office, the surveyor to the Society will go to witness relevant tests and conduct inspection and the results 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. 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 approval, the manufacturer should take corrective actions in a prompt and effective manner.

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. 如果属于获得型式认可B 模式证书, 且无需颁发船用产品证书/等效证明文件的情况, 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, 检查工作应在周年日的前后三个月内进行。

If belong to the situation of the product has type approval mode B certificate, and marine product certificate/equivalent document is not necessary, those who have obtained the certificate should be subject to periodical audit every year. 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 shall be done within a time span of three months before and after the annual surveillance date.

#### 备注/Remarks

1. 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.

2. 本证书认可产品应按照制造厂要求安装。  
The product approved by this certificate shall be installed according to the manufacturer's instruction

3. Dry Cryogenic Coupling (DCCoupling) is a dry break coupling intended to be used as connecting device on cryogenic transfer systems. The DCCoupling consists in two parts, one is installed on a fixed piping system ("tank" side) and the other one at the end of a transfer hose ("hose" side). Each part comprises a non-return valve that is opened when the two parts are connected. A push and turn action from the operator ensures locking and sealing of the coupling and further rotation opens.

中国船级社哥德堡办事处  
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