



中国船级社
CHINA CLASSIFICATION SOCIETY

证书编号/Certificate No.
HB24PTB00028

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

HEROSE GMBH ARMATUREN UND METALLE

地址/Address

Elly-Heuss-Knapp-Str.12,23843,Bad Oldesloe

产品名称/Product

阀
Valve

认可标准/Approval Standard

- 中国船级社《散装运输液化气体船舶构造与设备规范》（2022）及其变更通告 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 2022 and its Change Notices
- 中国船级社《钢质海船入级规范》（2024）及其变更通告 第3篇第2章
Chapter 2, Part Three of China Classification Society Rules for Classification of Sea-Going Steel Ships 2024 and its Change Notices
- 中国船级社《船舶应用天然气燃料规范》（2024）及其变更通告 第3, 4, 13章
Chapter 3,4,13 of China Classification Society Rules for Ships Using Natural Gas Fuels 2024 and its Change Notices.

用于/Intended for

船舶/Ships



证书有效期至/ This Certificate is valid until 2029年06月20日/ Jun. 20,2029

发证机构/ Issued by 中国船级社汉堡分社
CCS Hamburg Branch

签发日期/ Date 2024年07月31日
Jul. 31,2024

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:P024-03805248

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	Cryogenic Check Valves	
型号/Type	See attachment	
公称压力/Nominal Pressure	See attachment	bar
公称直径/Nominal Diameter	See attachment	mm
适用温度/Applicable Temperature	See attachment	
阀体材质/Valve Body Material	See attachment	

低温阀/Cryogenic Valve (M0002)

名称/Name	属性 (值) /Value	单位/Unit
产品名称/Product Name	Cryogenic Globe Valves	
型号/Type	See attachment	
公称压力/Nominal Pressure	See attachment	bar
公称直径/Nominal Diameter	See attachment	mm
适用温度/Applicable Temperature	See attachment	
阀体材质/Valve Body Material	See attachment	

低温阀/Cryogenic Valve (M0003)

名称/Name	属性 (值) /Value	单位/Unit
产品名称/Product Name	Cryogenic Strainer	
型号/Type	See attachment	
公称压力/Nominal Pressure	See attachment	bar
公称直径/Nominal Diameter	See attachment	mm
适用温度/Applicable Temperature	See attachment	
阀体材质/Valve Body Material	See attachment	

低温阀/Cryogenic Valve (M0004)

名称/Name	属性 (值) /Value	单位/Unit
产品名称/Product Name	Cryogenic Safety Valves	
型号/Type	See attachment	
公称压力/Nominal Pressure	See attachment	bar
公称直径/Nominal Diameter	See attachment	mm
适用温度/Applicable Temperature	See attachment	
阀体材质/Valve Body Material	See attachment	

批准的图纸/Approved Drawings

图纸批准号/ Drawings Approval No. : NP24PPP00886

产品认可试验报告/ Approval Test Report

试验报告编号/ Test Report No. : Herose test plan for cryogenic valves witnessed by NK dated 2023-06-21+27

试验报告日期/ Test Report Date : 2023-06-27

试验单位/ Laboratory: HEROS GMBH Armaturen und Metalle

试验单位地址/ Test Address: Elly-Heuss-Knapp-Strasse 12, 23843, Bad Oldesloe, Germany

试验报告编号/ Test Report No. : Herose test plan for cryogenic safety valves witnessed by LR dated 2015-07-25

试验报告日期/ Test Report Date : 2015-07-05

试验单位/ Laboratory: HEROS GMBH Armaturen und Metalle

试验单位地址/ Test Address: Elly-Heuss-Knapp-Strasse 12, 23843, Bad Oldesloe, Germany

试验报告编号/ Test Report No. : HPC1461042
试验报告日期/ Test Report Date : 2015-02-28
试验单位/ Laboratory: HEROS GMBH Armaturen und Metalle
试验单位地址/ Test Address: Elly-Heuss-Knapp-Strasse 12, 23843, Bad Oldesloe, Germany

试验报告编号/ Test Report No. : Herose test plan for cryogenic valves witnessed by LR dated 2019-10-08
试验报告日期/ Test Report Date : 2019-10-08
试验单位/ Laboratory: HEROS GMBH Armaturen und Metalle
试验单位地址/ Test Address: Elly-Heuss-Knapp-Strasse 12, 23843, Bad Oldesloe, Germany

试验报告编号/ Test Report No. : Herose test plan for cryogenic valves witnessed by LR dated 2015-06-03
试验报告日期/ Test Report Date : 2015-06-03
试验单位/ Laboratory: HEROS GMBH Armaturen und Metalle
试验单位地址/ Test Address: Elly-Heuss-Knapp-Strasse 12, 23843, Bad Oldesloe, Germany

试验报告编号/ Test Report No. : CCS-20-01, 02, 03
试验报告日期/ Test Report Date : 2020-08-17
试验单位/ Laboratory: HEROS GMBH Armaturen und Metalle
试验单位地址/ Test Address: Elly-Heuss-Knapp-Strasse 12, 23843, Bad Oldesloe, Germany

试验报告编号/ Test Report No. : 2018-16944
试验报告日期/ Test Report Date : 2018-09-28
试验单位/ Laboratory: HEROS GMBH Armaturen und Metalle
试验单位地址/ Test Address: Elly-Heuss-Knapp-Strasse 12, 23843, Bad Oldesloe, Germany

试验报告编号/ Test Report No. : HEROSE-Ref-No. 592393 Pos. 10
试验报告日期/ Test Report Date : 2016-01-19
试验单位/ Laboratory: HEROS GMBH Armaturen und Metalle
试验单位地址/ Test Address: Elly-Heuss-Knapp-Strasse 12, 23843, Bad Oldesloe, Germany

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

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.

本证书由原型式认可证书（No. HB20PTB00033）变更并换新。

This certificate is modified and renewed from the previous Type Approval Certificate No. HB20PTB00033.

中国船级社汉堡分社
CCS Hamburg Branch

注：本证书含有附页，共2页

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

Production Descriptions

Cryogenic Globe Valves:

Type	Nominal diameter	Temperature range	Pressure rating	Material
01272	DN10 - DN50	-255°C up to 120°C	PN50	1.4409 / CF3M
01341	DN10 - DN100	-196°C up to 120°C	PN50	1.4308 / CF8
	DN150		PN40	1.4308 / CF8
	DN200		PN25	1.4308 / CF8
01343	DN10 - DN100	-196°C up to 120°C	PN50	1.4308 / CF8
	DN150		PN40	1.4308 / CF8
	DN200		PN25	1.4308 / CF8
01641	DN10 - DN100	-196°C up to 120°C	PN50	1.4308 / CF8
	DN150		PN40	1.4308 / CF8
	DN200		PN25	1.4308 / CF8
01643	DN10 - DN100	-196°C up to 120°C	PN50	1.4308 / CF8
	DN150		PN40	1.4308 / CF8
	DN200		PN25	1.4308 / CF8
01741	DN10 - DN100	-255°C up to 120°C	PN50	1.4409 / CF3M
	DN150		PN40	1.4409 / CF3M
	DN200		PN25	1.4409 / CF3M
01743	DN10 - DN100	-255°C up to 120°C	PN50	1.4409 / CF3M
	DN150		PN40	1.4409 / CF3M
	DN200		PN25	1.4409 / CF3M
01841	DN10 - DN100	-255°C up to 120°C	PN50	1.4409 / CF3M
	DN150		PN40	1.4409 / CF3M
	DN200		PN25	1.4409 / CF3M
01843	DN10 - DN100	-255°C up to 120°C	PN50	1.4409 / CF3M
	DN150		PN40	1.4409 / CF3M
	DN200		PN25	1.4409 / CF3M
01851	DN10 - DN100	-255°C up to 120°C	PN50	1.4409 / CF3M
03641	DN15 - DN150	-196°C up to 120°C	PN40	1.4308 / CF8
	DN200		PN20	1.4308 / CF8
03651	DN15 - DN150	-196°C up to 120°C	PN40	1.4308 / CF8
03841	DN15 - DN150	-255°C up to 120°C	PN40	1.4409 / CF3M
	DN200		PN20	1.4409 / CF3M
03843	DN15 - DN150	-255°C up to 120°C	PN40	1.4409 / CF3M
	DN200		PN20	1.4409 / CF3M
03851	DN15 - DN150	-255°C up to 120°C	PN40	1.4409 / CF3M
11C01.A001	DN10 - DN50	-269°C up to 80°C	PN63	1.4571 / 316Ti

Cryogenic Strainer:

Type	Nominal diameter	Temperature range	Pressure rating	Material (body)
08417	DN10 - DN100	-196°C up to 120°C	PN50	1.4308 / CF8
	DN150		PN40	1.4308 / CF8
	DN200		PN25	1.4308 / CF8
08732	DN15 - DN150	-255°C up to 120°C	PN40	1.4409 / CF3M

Cryogenic Safety Valves:

Type	d_0	Temperature range	Pressure rating	Material (inlet body)
06383	7 - 23	-255°C up to 185°C	PN50	1.4301 / 1.4404 / 1.4571
06388	7 - 23	-196°C up to 185°C	PN50	1.4301 / 1.4404 / 1.4571
06801	12.5 - 23	-270°C up to 225°C	PN40	1.4571

Cryogenic Check Valves:

Type	Nominal diameter	Temperature range	Pressure rating	Material
05414	DN10 - DN100	-196°C up to 120°C	PN50	1.4308 / CF8
	DN150		PN40	1.4308 / CF8
	DN200		PN25	1.4308 / CF8
05714	DN10 - DN100	-255°C up to 120°C	PN50	1.4409 / CF3M
	DN150		PN40	1.4409 / CF3M
05719	DN15 - DN150	-255°C up to 120°C	PN40	1.4409 / CF3M

--End