

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

OPSIS AB

地址/Address

Box 244, SE-24402 Furulund Sweden

产品名称/Product

废气连续监测系统
Exhaust Gas Continuous Monitoring System

认可标准/Approval Standard

- IMO决议 MEPC. 340(77)《2021年废气清洗系统导则》
IMO MEPC. 340(77) Resolution: 2021 Guidelines for Exhaust Gas Cleaning Systems
- 中国船级社《钢质海船入级规范》(2024)及其变更通告 第4篇第1章
Chapter 1, Part Four of China Classification Society Rules for Classification of Sea-Going Steel Ships 2024 and its Change Notices
- IMO MARPOL公约附则VI及其修正案
IMO MARPOL Annex VI and its amendments
- 2008年氮氧化物技术规则及其修正案
NOx Technical Code 2008 and its Amendments

用于/Intended for

船舶/Ships

证书有效期至/This Certificate is valid until 2029年03月05日/Mar. 05, 2029

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

签发日期 2024年07月02日
Date Jul. 02, 2024

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产品明细/Product Description**废气连续监测系统/Exhaust Gas Continuous Monitoring System (M0001)**

名称/Name	属性(值)/Value	单位/Unit
型号/Type	M800	
测量成分/方法/Measuring Components / Method	SO2 NDUV CO2 NDIR	
测量范围/Measure Range	SO2 Typical Range 0 - 50/0 - 250 ppm Max. Range 0 - 10000 ppm CO2 Typical Range 0 - 12 % vol. Max. Range 0 - 30% vol.	
软件版本号/Software Version	Analyser software I0256, version 7.XX	
系统组成/System Composition	See remarks	

批准的图纸/Approved Drawings

图纸批准号/ Drawings Approval No. : NP24PPP00526

产品认可试验报告/ Approval Test Report

试验报告编号/ Test Report No. : 936/21216959/Y
 试验报告日期/ Test Report Date : 2012-02-07
 试验单位/ Laboratory: TUV Rheinland Energie und Umwelt GmgH
 试验单位地址/ Test Address: D-51105 Köln □ Am Grauen Stein

试验报告编号/ Test Report No. : Opsis report 2014-10-07
 试验报告日期/ Test Report Date : 2014-04-07
 试验单位/ Laboratory: OPSIS AB
 试验单位地址/ Test Address: SE-244 02 Furulund, Sweden

试验报告编号/ Test Report No. : P110981
 试验报告日期/ Test Report Date : 2021-07-09
 试验单位/ Laboratory: RISE Research Institutes of Sweden AB
 试验单位地址/ Test Address: Brinellgatan 4 504 62 Borås SWEDEN

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

按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.

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. 本证书由原型式认可证书 (No. GB20PTB00005) 变更并换新。

This certificate is modified and renewed from the previous Type Approval Certificate No. GB20PTB00005.

3. The system can be used in simplified measurement method or direct measurement and monitoring method as defined in NTC 2008 Chapter 6 and continues monitoring of SO₂/CO₂ as required by MEPC. 340 (77).

4. SO₂(ppm) and CO₂(%) should be continuously monitored and recorded at a rate which should not be less than 0.0035 Hz.

5. Main System Composition

Cabinet (AC180M), Analyser (AR620M), Emitter (EM060M), Receiver (RE060M), Power Supply (PS150, 115/230VAC), Optical Fibre Cable (OF60B, measuring SO₂ and CO₂), Purge air system, Multiplexer unit(optional), Signal Handling System(IO256 (software) and IOMan (hardware) system), Data logger(WT256, optional) and Redundancy system(optional)

中国船级社哥德堡办事处
CCS Gothenburg Office