



中国船级社  
CHINA CLASSIFICATION SOCIETY

证书编号/Certificate No.  
BG23PTB00001

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

AUTO-MASKIN AS

地址/Address

Hvamsvingen 22, N-2013, Skjetten, Norway

产品名称/Product

发动机控制、安全及报警系统  
Engine Control, Safety and Alarm System

附加标志/Notations

无/Nil.

认可标准/Approval Standard

1. 中国船级社《钢质海船入级规范》（2022）及其变更通告 第3篇第9章  
Chapter 9, Part Three of China Classification Society Rules for Classification of Sea-Going Steel Ships 2022 and its Change Notices
2. 中国船级社《钢质海船入级规范》（2022）及其变更通告 第4篇第2、3章  
Chapters 2 and 3, Part Four of China Classification Society Rules for Classification of Sea-Going Steel Ships 2022 and its Change Notices
3. 中国船级社《钢质海船入级规范》（2022）及其变更通告 第7篇第2章  
Chapter 2, Part Seven of China Classification Society Rules for Classification of Sea-going Steel Ships 2022 and its Change Notices

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 2027年02月07日/ Feb. 07, 2027

发证机构/Issued by 中国船级社卑尔根办事处  
CCS Bergen Office

签发日期/Date 2023年02月03日  
Feb. 03, 2023

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:P023-95446104

**产品明细/Product Description****发动机控制、安全及报警系统/Engine Control, Safety and Alarm System (M0001)**

名称/Name	属性（值）/Value	单位/Unit
型号/Type	Marine Pro-400 Series	
系统组成/System Component	Refer to Additional pages	

**批准的图纸/Approved Drawings**

图纸批准号/ Drawings Approval No. : BG18A00022

**产品认可试验报告/ Approval Test Report**

试验报告编号/ Test Report No. : 4P02266:A\_Rev. 1  
试验报告日期/ Test Report Date : 2014-04-30  
试验单位/ Laboratory: SP Technical Research Institute of Sweden  
试验单位地址/ Test Address: Vasterasen Brinellgatan 4, SE-50462 BORAS, Sweden

试验报告编号/ Test Report No. : 5P06927  
试验报告日期/ Test Report Date : 2015-10-16  
试验单位/ Laboratory: SP Technical Research Institute of Sweden  
试验单位地址/ Test Address: Vasterasen Brinellgatan 4, SE-50462 BORAS, Sweden

试验报告编号/ Test Report No. : 2007-3495  
试验报告日期/ Test Report Date : 2008-01-08  
试验单位/ Laboratory: DNV  
试验单位地址/ Test Address: Norway

试验报告编号/ Test Report No. : 4P01832E3  
试验报告日期/ Test Report Date : 2014-04-25  
试验单位/ Laboratory: SP Technical Research Institute of Sweden  
试验单位地址/ Test Address: Vasterasen Brinellgatan 4, SE-50462 BORAS, Sweden

试验报告编号/ Test Report No. : 4P01832E2  
试验报告日期/ Test Report Date : 2014-04-23  
试验单位/ Laboratory: SP Technical Research Institute of Sweden  
试验单位地址/ Test Address: Vasterasen Brinellgatan 4, SE-50462 BORAS, Sweden

试验报告编号/ Test Report No. : 91130/8  
试验报告日期/ Test Report Date : 2007-03-09  
试验单位/ Laboratory: Nemko AS  
试验单位地址/ Test Address: Philip Pedersens vei 11, 1366 Lysaker, Norway

试验报告编号/ Test Report No. : 4P01832E1  
试验报告日期/ Test Report Date : 2014-04-14  
试验单位/ Laboratory: SP Technical Research Institute of Sweden  
试验单位地址/ Test Address: Vasterasen Brinellgatan 4, SE-50462 BORAS, Sweden

试验报告编号/ Test Report No. : 5P02252-E  
试验报告日期/ Test Report Date : 2015-03-25  
试验单位/ Laboratory: SP Technical Research Institute of Sweden  
试验单位地址/ Test Address: Vasterasen Brinellgatan 4, SE-50462 BORAS, Sweden

试验报告编号/ Test Report No. : 4P02266:B\_Rev. 1  
试验报告日期/ Test Report Date : 2014-04-29  
试验单位/ Laboratory: SP Technical Research Institute of Sweden  
试验单位地址/ Test Address: Vasterasen Brinellgatan 4, SE-50462 BORAS, Sweden

试验报告编号/ Test Report No. : 9P04380  
试验报告日期/ Test Report Date : 2019-10-22  
试验单位/ Laboratory: RISE Research Institutes of Sweden AB  
试验单位地址/ Test Address: Box 857, SE-501 15 BORÅS, Sweden

试验报告编号/ Test Report No. : 9P06118 Rev B  
试验报告日期/ Test Report Date : 2019-12-09

试验单位/ Laboratory: RISE Research Institutes of Sweden AB  
试验单位地址/ Test Address: Box 857, SE-501 15 BORÅS, Sweden

试验报告编号/ Test Report No.: E21093.00  
试验报告日期/ Test Report Date: 2021-05-21  
试验单位/ Laboratory: Nemko AS  
试验单位地址/ Test Address: Philip Pedersens vei 11, 1366 Lysaker, Norway

试验报告编号/ Test Report No.: 0156095 Rev. 1  
试验报告日期/ Test Report Date: 2021-06-10  
试验单位/ Laboratory: RISE Research Institutes of Sweden AB  
试验单位地址/ Test Address: Box 857, SE-501 15 BORÅS, Sweden

试验报告编号/ Test Report No.: E21169.02  
试验报告日期/ Test Report Date: 2021-09-08  
试验单位/ Laboratory: Nemko AS  
试验单位地址/ Test Address: Philip Pedersens vei 11, 1366 Lysaker, Norway

### 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. 本证书由原型式认可证书（No. BG18PTB00002）换新并替代原证书。  
This certificate is renewed from and supersedes the previous Type Approval Certificate No. BG18PTB00002.

**中国船级社卑尔根办事处**  
**CCS Bergen Office**

注：本证书含有附页，共2页

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

## Product Description

The 400 Series is designed to be integrated with independently approved propulsion and auxiliary marine engines. Sensor inputs to the 400 Series will either come from independent sensors, or from Type Approved engine control module (ECM). Shutdown Unit (SDU) shall have independent switches and sensors provided.

The 400 Series consists of:

Control Unit: DCU 408, DCU408E, DCU 410, DCU 410E

Safety Unit: SDU 404, SDU 410

Remote Panel: RP 410, RP 410E, RP480i

Standard Expansion I/O: RIO 410

Redundant Power Selector: RPS

Hardware:

Part Number	OEM Part Number	Description	FW number
1006445	---	DCU 410E	3.X
1100601	5410203	DCU 410E (OEM1)	3.X
1100235	458-7750	DCU 410E (OEM2)	3.X
1006505	---	DCU 410E (OEM3)	3.X
1100701	---	DCU 410E (OEM4)	3.X
1006510	---	DCU 408E	3.X
1006450	---	DCU 410	2.X
1100146	2863181	DCU 410 (OEM 1)	2.X
1100230	334-2665	DCU 410 (OEM 2)	2.X
1006418	---	SDU 404	1.X
1100405	492-6333	SDU 404 (OEM2)	1.X
1006451	---	SDU 410	1.X
1100186	2867055	SDU 410 (OEM 1)	1.X
1100630	5471762	SDU 410 (OEM 1)	1.X
1100232	334-2668	SDU 410 (OEM 2)	1.X
1006453	---	RIO 410	1.X
1100187	2867056	RIO 410 (OEM 1)	1.X
1100231	334-2667	RIO 410 (OEM 2)	1.X
1006446	---	RP 410E	3.X
1100604	5419007	RP 410E (OEM1)	3.X
1100236	458-7760	RP 410E (OEM2)	3.X
1006506	---	RP 410E (OEM3)	3.X
1100702	---	RP 410E (OEM4)	3.X
1500061	---	RP 480i	3.X
1006452	---	RP 410	2.X
1100145	2863182	RP 410 (OEM 1)	2.X
1100233	334-2666	RP 410 (OEM 2)	2.X
1006455	---	DCU 408	2.X
1311229	---	RPS	N/A

The current firmware numbers and versions are listed in documents:

Document name	Document number
Firmware Release description DCU410 / DCU 408	5005
Firmware Release description SDU 410	5008
Firmware Release description SDU 404	5022
Firmware Release description RIO 410	5009
Firmware Release description RP 410/RP 410E/RP 480i	5011

Minor changes to firmware and consequent changes of firmware version numbers are allowed and covered by this Type Approval when such changes are performed in accordance with Firmware Version Labeling Strategy – 3/1201- AMS007/1 rev. A dated 2013-04-30, i.e., not changing core functionality as it is described in type approval documentation. Such firmware changes to be registered in the above listed Firmware Release descriptions.

The documentation of the actual application should be submitted for approval to the CCS Plan Approval Center in each case.