



中国船级社
CHINA CLASSIFICATION SOCIETY

证书编号/Certificate No.
JS23PTB00026_03

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.

品牌拥有方/ Licensor

江苏海兰船舶电气系统科技有限公司
Jiangsu Highland Integration Technology Co., Ltd.
江苏省南通市苏通科技产业园清枫路199号
No.199, Qingfeng Road, Sutong Science Park, Nantong City, Jiangsu

授权制造企业/Authorized Manufacturer

南京领路航海科技有限公司
NANJING LINGLU NAVIGATION TECHNOLOGY CO., LTD.
南京市秦淮区普天路1号普天科技园A02栋406室
Room 406, Building A02, Putian Science and Technology Park, No.1 Putian Road, Qinhuai District, Nanjing City

产品名称/Product

电子倾斜仪
Marine Electronic Inclinator
船用倾斜仪
Marine Inclinator

附加标志/Notations

无/Nil.

认可标准/Approval Standard

- 国际海事组织大会决议A.694(17)《作为全球海上遇险和安全系统(遇险和安全系统)组成部分的船载无线电设备和电子助航设备的一般要求》
IMO Resolution A.694(17) General Requirements for Shipborne Radio Equipment Forming Part of the Global Maritime Distress
- 国际海事组织海安会决议MSC.191(79)《船载航行显示器有关航行信息显示的性能标准》
IMO Resolution MSC.191(79) Performance Standards for the Presentation of Navigation - Related Information on Shipborne Navigational Displays
- 国际海事组织海安会决议MSC.363(92)《船用电子倾斜仪性能标准》
IMO Resolution MSC.363(92) Performance standard for marine electronic inclinometers
- IEC 60945:2002/COR1:2008《船用航行和无线电通信设备及系统-通用要求-试验方法和试验结果的要求》
IEC 60945:2002/COR1:2008 Maritime Navigation and Radiocommunication Equipment and Systems - General Requirements - Method of Testing and Required Test Results

证书有效期至/ This Certificate is valid until 2027年07月30日/ Jul. 30, 2027

发证机构/ Issued by 中国船级社江苏分社
CCS Jiangsu Branch

签发日期/ Date 2023年07月31日
Jul. 31, 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: T02.

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:P023-98955378

用于/Intended for

船舶/Ships

产品明细/Product Description

船用倾斜仪/Marine Inclinator (M0001)

名称/Name	属性(值)/Value	单位/Unit
型号/Type	HLD-EI600 HLD-EI610	
指示范围/Indication Range	(1)横倾角/Heel Angle: $-90^{\circ} \sim 90^{\circ}$ (2)横摇摆幅/Roll Amplitude: $-90^{\circ} \sim 90^{\circ}$ (3)横摇周期/Roll Period: 4s~40s	
指示误差/Indication Error	(1)横倾角/Heel Angle: 测量值的5%或 $\pm 1^{\circ}$, 取大者/5% of the measured value or $\pm 1^{\circ}$ (whichever is greater); (2)横摇摆幅/Roll Amplitude: 测量值的5%或 $\pm 1^{\circ}$, 取大者/5% of the measured value or $\pm 1^{\circ}$ (whichever is greater); (3)横摇周期/Roll period: 测量值的5%或 $\pm 1s$, 取大者/5% of the measured value or $\pm 1s$ (whichever is greater)	
灵敏度/Sensitivity	0.1°	

批准的图纸/Approved Drawings

图纸批准号/ Drawings Approval No.: NP22PPP01005, NP23PPP03436

产品认可试验报告/ Approval Test Report

试验报告编号/ Test Report No.: 船检委字EM2022-048

试验报告日期/ Test Report Date: 2022-09-20

试验单位/ Laboratory: 中国船舶工业电工电子设备环境与可靠性试验检测中心 China Shipbuilding Industry Environment and Reliability Test Center for Electric and Electronic Equipment

试验单位地址/ Test Address: 江苏省扬州市临江路166号 No.166, Linjiang Road, Yangzhou City, Jiangsu Province

试验报告编号/ Test Report No.: 船检委字ER2022-048号

试验报告日期/ Test Report Date: 2022-09-21

试验单位/ Laboratory: 中国船舶工业电工电子设备环境与可靠性试验检测中心 China Shipbuilding Industry Environment and Reliability Test Center for Electric and Electronic Equipment

试验单位地址/ Test Address: 江苏省扬州市临江路166号 No.166, Linjiang Road, Yangzhou City, Jiangsu Province

试验报告编号/ Test Report No.: 22101403

试验报告日期/ Test Report Date: 2022-10-14

试验单位/ Laboratory: 南京领路航海科技有限公司 Nanjing Linglu Navigation Technology Co., Ltd.

试验单位地址/ Test Address: 南京市秦淮区普天路1号普天科技园A02栋406室 Room 406, Building A02, Putian Science and Technology Park, No.1 Putian Road, Qinhuai District, Nanjing City

试验报告编号/ Test Report No.: IT220010

试验报告日期/ Test Report Date: 2023-07-26

试验单位/ Laboratory: 南京领路航海科技有限公司 Nanjing Linglu Navigation Technology Co., Ltd.

试验单位地址/ Test Address: 南京市秦淮区普天路1号普天科技园A02栋406室 Room 406, Building A02, Putian Science and Technology Park, No.1 Putian Road, Qinhuai District, Nanjing City

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.

6. 本认可证书的有效期与品牌拥有方和产品制造企业之间的授权协议保持一致, 但不得超过4年。

The period of validity of this certificate is consistent with that of the agreement between the licensor and the manufacturer(s), but in no case it can over 4 years.

7. 在本证书有效期内, 品牌拥有方和产品制造企业之间的授权协议的失效将自动导致本证书的失效。

During the period of validity, this certificate will automatically be ineffective in case of the invalidity of the authorization agreement between the licensor and the manufacturer(s).

备注/Remarks

1. 罗经安全距离/Compass Safe Distance:

标准罗经/Standard Compass: $\geq 50\text{cm}$;

操舵罗经/Steering Compass: $\geq 30\text{cm}$.

2. 外壳防护等级/Degree of Protection of Enclosure:

显示器/Display: IP23;

传感器/Sensor: IP56.

3. 系统组成/System Component:

显示器/Display: HLD-EI600 (10 inch), HLD-EI610 (8 inch);

传感器/Sensor: HLD-EIS601, HLD-EIS602.

4. 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.

5. 产品实际制造企业为“南京领路航海科技有限公司”。

The actual manufacture is “NANJING LINGLU NAVIGATION TECHNOLOGY CO., LTD.”.