



中国船级社  
CHINA CLASSIFICATION SOCIETY

证书编号/Certificate No.  
BG19PTA00003

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

Jotron AS

地址/Address

Ostbyveien 1, NO-3281 Tjodalyng Norway

产品名称/Product

航空双向甚高频无线电话装置  
Aeronautical Two Way VHF Radio Telephone Apparatus

认可标准/Approval Standard

1. IMO Res. MSC. 80 (70): 通过新的无线电通信设备的性能标准  
IMO Res. MSC.80(70) Adoption of New Performance Standards for Radio communication Equipment
2. IMO A. 694 (17) 决议《作为全球海上遇险和安全系统 (GMDSS) 组成部分的船载无线电设备和电子导航设备的一般要求》  
IMO Resolution A.694(17):General requirements for shipborne radio equipment forming part of the global maritime distress and safety system(GMDSS)and for electronic navigational aids
3. 国际民航公约; 附件10 无线电法规  
ICAO Convention, Annex 10, Radio -Regulations
4. ITU 无线电法规 2012  
ITU Radio Regulations 2012
5. 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 - Methods of Testing and Required Test Results

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 2022年09月22日 / Sep.22,2022

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

签发日期 2020年01月23日  
Date Jan. 23,2020

本证书根据中国船级社法规和相关规定签发。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，可向本社检验机构咨询。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: Q01

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:P019-42396361

## 产品明细/Product Description

航空双向甚高频无线电电话装置/Aeronautical Two Way VHF Radio Telephone Apparatus (M001)

| 名称/Name                                  | 属性(值)/Value                                 | 单位/Unit |
|--|---|---------|
| 型号/Type                                  | Tron TR30 AIR                               |         |
| 接收频率/Rx Frequency                        | 121.5-123.1                                 | MHz     |
| 工作类别/Work Mode                           | AM  |         |
| 接收灵敏度/Receiver Sensitivity               | < 2 $\mu$ V for 12dB SINAD (Typ. 1 $\mu$ V) |         |
| 电源/Power Source                          | Primary Lithium Battery (6V / 3000mAh)      |         |
| 输出功率/Output Power                        | 0.25 W (DC), PEP<1 W                        |         |
| 电池类型/Battery Type                        | In emergency use battery type 87086         |         |
| 频道数量/Channel Capacity                    | 2   | pcs.    |
| 频道带宽/Channel Spacing                     | 25  | kHz     |
| 发射频率/Tx Frequency                        | 121.5 & 123.1                               | MHz     |
| 罗经安全距离/Compass Safe Distance             | Standard: 0.7 m; Steering: 0.5 m            |         |
| 外壳防护等级/Degree of Protection of Enclosure | IP67  |         |

## 批准的图纸/Approved Drawings

图纸批准号/ Drawings Approval No.: HG19PPP20015

## 产品认可试验报告/ Approval Test Report

试验报告编号/ Test Report No.: 356984-04  
 试验报告日期/ Test Report Date: 2019-05-09  
 试验单位/ Laboratory: Nemko  
 试验单位地址/ Test Address: Kjeller, Norway

试验报告编号/ Test Report No.: 356984-01  
 试验报告日期/ Test Report Date: 2019-03-26  
 试验单位/ Laboratory: Nemko  
 试验单位地址/ Test Address: Kjeller, Norway

试验报告编号/ Test Report No.: E19028.00  
 试验报告日期/ Test Report Date: 2019-03-19  
 试验单位/ Laboratory: Nemko  
 试验单位地址/ Test Address: Oslo, Norway

试验报告编号/ Test Report No.: 356984  
 试验报告日期/ Test Report Date: 2019-02-15  
 试验单位/ Laboratory: Nemko  
 试验单位地址/ Test Address: Oslo, Norway

试验报告编号/ Test Report No.: E19058.00  
 试验报告日期/ Test Report Date: 2019-04-05  
 试验单位/ Laboratory: Nemko  
 试验单位地址/ Test Address: Oslo, Norway

试验报告编号/ Test Report No.: SAR. 20190301  
 试验报告日期/ Test Report Date: 2019-03-01  
 试验单位/ Laboratory: RF Exposure Lab  
 试验单位地址/ Test Address: San Marcos, U. S. A.

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

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,本社在文件审核合格后颁发船用产品证书。  
 After approval, product inspection should be carried out by the Manufacturer in accordance with the product inspection scheme approved by the Society, and the Marine Product Certificate is issued by the Society upon satisfactory documents review.



**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. 型式认可A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。

Those who have obtained the certificate of type approval A 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. The product is intended for communications between ships in distress and rescuing aircraft on the aeronautical emergency frequencies 121,5 MHz and 123,1 MHz only.

2. 本证书基于原型式认可证书 (No. BG18Q00001) 变更, 原证书保持有效。

This Certificate is extended from the previous Type Approval Certificate No. BG18Q00001, the previous certificate remains valid.

3. 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.

中国船级社卑尔根办事处  
CCS Bergen Office