CHINA CLASSIFICATION SOCIETY

CERTIFICATE OF TYPE APPROVAL

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.

Manufacturer

Orolia B.V.

Address

Blauw-veldlaan 100, 2718 SJ Zoetermeer

Product

Shipborne Voyage Data Recorder

1. 1974 Year International Convention for the Safety of Life at Sea, 1974, as Amended
2. IMO A.694 (17): General requirements for shipborne radio equipment forming part of the global maritime distress and safety system (GMDS/S) and for electronic navigational aids
3. International Maritime Organization: Mandatory IMO MSC.333 (90) adoption of revised performance standards for shipborne voyage data recorders (VDRs)
4. MSC.163 (78) Maritime Navigation and Radio Communication Equipment and Systems - General Requirements - Methods of Testing and Required Test Results
5. IEC 60945: 2002/COR1: 2008 (Adequate and Additional Requirements for Shipborne Voyage Data Recorders (VDRs) and Performance Standards for Shipborne Simplified Voyage Data Recorders (S-VDRs))

The certificate is valid until 2023 November 24th.

Issued by

China Classification Society

Date

Jan 21, 2020

Certificate is valid until 2023 November 24th.
**和 Required Test Results**

**用于/Intended for**

船舶与海上设施/Ships and Offshore Installations

**产品明细/Product Description**

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<tr>
<th>名称/Name</th>
<th>属性/Value</th>
<th>单位/Unit</th>
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<tbody>
<tr>
<td>型号/Type</td>
<td>NM 6000</td>
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<tr>
<td>系统组成/System Component</td>
<td>主机单元/操作单元/水下声学信号/固定数据存储单元/室内麦克风/室外麦克风 其他/Main Unit/Operation Unit/Acoustic Underwater Beacon/Float-free Data Recording Capsule/Fixed Protective Data Recording Capsule/Indoor Microphone/Outdoor Microphone/Others</td>
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<td>NM 6000-100</td>
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<td>外壳防护等级/Degree of Protection of Enclosure</td>
<td>IP66 (outdoor)</td>
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**批准的图纸/Approved Drawings**

图纸批准号/Drawings Approval No.: NP15A02169

**产品认可试验报告/Approval Test Report**

试验报告编号/Test Report No.: BSH/4513/001/4292687/13

试验报告日期/Test Report Date: 2015-02-25
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或船司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，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. 工厂的质量管理体体系应保持有效运行，并且与认可时一致，如果质量管理体体系发生改变，应经本社体体系认证机构审
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. 取证有效期期，如果出现可能导致本社取消认可的情况，工厂应及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. 若在证书有效期内，本社检验人员或在未经事先通知的情况下对工厂的产品制造过程进行审查，以验证产品的

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. If the product has an approval mode and is subsequently to be modified or subjected to periodical audit, certificate holders shall 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.

**Remarks**

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.

This certificate is modified and renewed from the previous Type Approval Certificate No. LT15T00010.

**Main Components of NW 6000 VDR**
- Main Unit: NW 6000
- Operation Unit: NW 6010
- Acoustic Underwater Beacon: NW 4860-69S
- Float-free Data Recording Capsule: NW 6880
- Fixed Protective Data Recording Capsule: NW 6880
- Indoor Microphones: NW 6020
- Outdoor Microphones: NW 6021
- Bus Coupler: NW 6410
- Serial Unit: NW 6420/6420A/NW 64216/NW 64224
- Microphone Connection Box: NW 6422
- VHF Interface: NW 6050
- Video Interface: NW 6044
- Analogue Unit (Optional): NW 64404/NW 64408
- Digital Unit (Optional): NW 64308/NW 64316/NW 64324

**Main Components of NW 4000 S-VDR**
- Main Unit: NW 4000
- Operation Unit: NW 4010
- Acoustic Underwater Beacon: NW 4960-69S
- Fixed Protective Data Recording Capsule: NW 48006S
- Indoor Microphones: NW 4422 / NW 4425
- Outdoor Microphones: NW 4422 / NW 4425
- Data Acquisition Unit: NW 4400
- Audio Interface: NW 4420
- Video Interface: NW 4445/NW 4447
- Serial Unit: NW 4430
- Data Collector Unit; DCU