

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Electronic record book**with type designation(s)
SMM-eORB

Issued to

S.A. MALLIAROUDAKIS MARITIME (UK) LTD.
London, United Kingdom

is found to comply with

Resolution MEPC.312(74)**DNV GL class programme DNVGL-CP-0569 – Type approval – Electronic record book - MARPOL****Application :****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**Issued at **Høvik** on **2020-11-24**This Certificate is valid until **2022-11-23**.for **DNV GL**DNV GL local station: **Piraeus**Approval Engineer: **Thorbjørn Hansen**

Jan Tore Grimsrud
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Product description

This Type Approval Certificate (TAC) covers software (SW) for electronic recording, storing and presentation of data in an *Electronic Record Book* (ERB) as per MEPC.312(74). The SW may either be installed on a dedicated computer, alternatively on client(s)/server in the vessels (existing) computer network system. The SW enables automatic storage of recorded entries to an offline storage device.

The SMM-eORB SW covers the specifications in MEPC.312(74) for electronic Oil Record Book (Part I).

This TAC covers SMM-eORB SW version no. **1.6.xxx**.

Changes in the first and second digit in the SW version no. concerns major and minor modifications respectively, both subject to approval and test prior to implementation.

The three last digits in the SW version no. concerns *revision modifications*, i.e changes not considered having impact on the functionality of the ERB. Such modifications are in general not subject to approval by DNV GL and will not affect the status of this TAC.

SW changes made after installation on-board shall be described in vessel specific document "*Procedures for Traceability Assurance*".

SW revision no. installed during TA test: **1.6.120**.

Place of manufacture

S.A. MALLIAROUDAKIS MARITIME (UK) LTD.
41, Agiou Dimitriou Street, 185 46, Piraeus, Greece

Application/Limitation

To accept the subject SW for Electronic Record Book in lieu of the traditional paper-based oil record book (Part I) on DNV GL classed vessels, and further to issue the corresponding *Declaration of MARPOL Electronic Record Book*, the following is required:

- The vessels Flag Administration have accepted the subject TAC.
- Installation on-board has been successfully tested as per document *SMM-eORB Verification Test onboard*.
- The below listed system requirements and HW/installation requirements are complied with.

Main workstation – minimum system requirements:

- x32/x64 version of Microsoft Windows (incl. Server Editions)
- 256MB RAM (512 MB recommended)
- 50MB available storage space
- 1024x768 screen resolution
- 20 MB of available space in offline storage device

Installation requirements:

- One computer-, or the client/server where the ERB SW is installed shall be defined as the *main work station*. When the main workstation is installed on bridge or in the engine control room, it shall comply with the environmental specifications in IACS UR E10 with respect to EMI/EMC.
- The offline storage device shall be independent from the main workstation.

The SMM-eORB SW shall normally not be installed on computer(s) holding class-required functionality.

When the type approved software is revised (ref. first and second digit in the SW version no. above) DNV GL is to be informed by forwarding updated software version documentation. If the changes are judged to affect functionality for which rule requirements apply a new functional type test may be required and the certificate may have to be renewed to identify the new software version.

Application software control

All changes in software are to be recorded as long as the system is in use on board. Documentation of major changes shall be forwarded to DNV GL for evaluation and approval before implemented on board.

Type Approval documentation

Tests carried out

Marking of product

The products to be marked with SMM-eORB, Version 1.6

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE