Certificate No:
TAA000030K

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Electronic record book (ELRB)

with type designation(s)
NAPA Logbook

Issued to
Napa Ltd.
Helsinki, **Finland**

is found to comply with
DNV rules for classification – Ships
Resolution MEPC.312(74)
DNV class programme DNV-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.

Issued at **Høvik** on **2021-12-29**
This Certificate is valid until **2023-12-28**.
DNV local station: **Finland CMC**

Approval Engineer: **Jostein Sund Jensen**

for **DNV**

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 AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") 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.

ELBR	Type, reference	Covered by this TAC
MARPOL - MEPC.312(74)	Oil Record Book, parts I (MARPOL Annex I, reg. 17.1)	Yes
	Oil Record Book, parts II (MARPOL Annex I, reg. 36.1)	Yes
	Cargo Record Book (MARPOL Annex II, reg. 15.1)	Yes
	Garbage Record Book, parts I (MARPOL Annex V, reg. 10.3)	Yes
	Garbage Record Book, parts II (MARPOL Annex V, reg. 10.3)	No
	Ozone-depleting Substances Record Book (MARPOL Annex VI, reg. 12.6)	Yes
	Recording of the Tier and on/off status of marine diesel engines (MARPOL Annex VI, reg. 13.5.3)	Yes
	Record of Fuel oil Changeover (MARPOL Annex VI, reg. 14.6)	Yes
	Record Book of Engine Parameters (NOx Technical Code, paragraph 6.2.2.7)	Yes
Engine Record Book	ISO21745	No
Radio Record Book	SOLAS V. Reg.28, ISO21745	No
Deck Record Book	IMO Res. A.916(22) SOLAS II, Reg. 22 SOLAS III, Reg.26 SOLAS V - Reg. 14	No

Optional specifications for improved non-repudiation is NOT covered by this TAC (ref. DNV CP-0569, section 3, Table 2)

SW no/rev installed during type approval test:

- NAPA Logbook server: SW version 2021.1.1 [A].
- NAPA Logbook client: SW version 2021.1.1 [A].

[A]: Any SW change made after December 17th 2021 (SW FAT) shall be identified in the SW version log and shall follow the SW structure as described in document “NAPA Logbook – Software development and change management”.

This TAC covers:

- NAPA Logbook server: SW version 2021.x.x [B].
- NAPA Logbook client: SW version 2021.x.x [B].

[B]: Minor and patch releases as described in NAPA Logbook Software development and change management rev. 1.2 are covered by this this TAC.

Place of manufacture

NAPA Group (Napa Ltd)
HTC Helsinki, Pinta
Tammasaarenkatu 3
FI-00180 Helsinki, Finland

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 subject TAC is accepted by the vessels Flag Administration
- Installation on-board has been successfully tested as per manufacturers document: NAPA logbook verification procedure - On-board verification procedure to verify that NAPA Electronic Logbook Software and Hardware is installed correctly and works satisfactorily system delivery checklist rev.03 onboard
- The NAPA logbook is found compliant with MEPC.312(74) 4.3.1 minimum requirement. The NAPA logbook may provide higher level authentication. The function is not verified by this certification and may be assessed by the by the Administration of the vessel in accordance with MEPC.312(74) 4.3.3.
- The interface to VDR for recording of the signed record book is NOT covered by this TAC
- The below listed system requirements and HW/installation requirements are complied with:

Client workstation:

- Windows 10 Pro - 64 bit
- Quad core processor (Intel i5 or faster)
- Min 8 GB RAM
- Min 1280*1024 display
- Connection to ships LAN (100 Mb/s or faster recommended)

Log Application server:

- A computer on the ship's bridge or a server computer placed in ships computer room for better upkeep & maintenance.
- Windows 10 Pro - 64 bit or Windows Server 2016 or later
- A dedicated quad core processor X64 (or faster)
- At least 8 GB of dedicated RAM
- At least 120 GB HD (Size of program is about 500 MB, data storage files vary from 10
- MB to 10 GB depending on installation). Additional data needed for backups,
- maintenance, etc.
- Connection to ships LAN (100 Mb/s or faster recommended)

NAPA Log Database server:

- PostgreSQL database server (included in NAPA Logbook server) or optimally MS SQL Server 2016 or later (customer supply)

Installation requirements:

- One computer-, or the client/server where the ERB SW is installed shall be defined as the *main workstation.*
- 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.
- When installed on the ships bridge, the display is to be of a type tested sufficient dimming for ambient night conditions.
- The offline storage device shall be independent from the main workstation.
- The manufacturers SW shall not be installed on computer(s) holding class-required functionality or SOLAS carriage requirements.
- If the ELRB can be accessed from shore, the ship-shore link shall be in line with the applicable class requirements to cyber security to prevent unauthorized access.

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

Performance testing as per DNV-CP-0569 Electronic record books under MARPOL, Edition October 2021 and MAPROPL MEPC.312(74) for:

- Oil Record Book, parts I (MARPOL Annex I, reg. 17.1)
- Oil Record Book, parts II (MARPOL Annex I, reg. 36.1)
- Cargo Record Book (MARPOL Annex II, reg. 15.1)
- Garbage Record Book, parts I (MARPOL Annex V, reg. 10.3)
- Ozone-depleting Substances Record Book (MARPOL Annex VI, reg. 12.6
- Recording of the Tier and on/off status of marine diesel engines (MARPOL Annex VI, reg. 13.5.3)
- Record of Fuel oil Changeover (MARPOL Annex VI, reg. 14.6)
- Record Book of Engine Parameters (NOx Technical Code, paragraph 6.2.2.7)

Marking of product

- NAPA Logbook server: SW version 2021.x.x
- NAPA Logbook client: SW version 2021.x.x

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