Certificate no.:
TAA00003DG

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Electronic Chart and Display System (ECDIS)

with type designation(s)
NACOS Platinum MULTIPILOT (SharpEye) with WECDIS

issued to
Wärtsilä Voyage GmbH
Hamburg, **Germany**

is found to comply with
IMO Res. 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
IMO HSC Code (2000)
MSC.191(79) Performance standards for presentation of navigation-related information on shipborne navigational displays
IMO Resolution MSC.232(82) Performance standards for Electronic Chart Display and Information Systems (ECDIS)

Application:

The product approved by this certificate fulfills the requirements according to STANAG 4564 Ed.2 and STANAG 7170 Ed.2.

Issued at **Hamburg** on **2024-06-10**
This Certificate is valid until **2029-06-09**.
DNV local unit: **Hamburg – CMC North/East**

for **DNV**

Approval Engineer: **Jörg Rebel**

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

A workstation for NACOS Platinum MULTIPILOT (SharpEye) with WECDIS comprises the following equipment necessary for functioning:

No.	Designation	Type Designation
1	**Transceiver Units**	**One or more units**
	Radar Scanner	as defined in separate certificate*)
	Radar Transceiver	as defined in separate certificate*)
	Turning Units	as defined in separate certificate*)
2	**Main Processing Unit**	as defined in separate certificate*)
	Display Electronics Platinum (alternatively)	including Mariner Kit for a) horizontal b) vertical installation as defined in separate certificate*)
3	**Display Units 250mm** (for Radar CAT 2 & ECDIS, alternatively)	as defined in separate certificate*)
4	**Display Units 320mm** (for Radar CAT 1 & ECDIS alternatively)	as defined in separate certificate*)
5	**Operator Units** (alternatively)	as defined in separate certificate*)
6	**Sensor Interfaces** (alternatively)	as defined in separate certificate*)
7	**Network Switches** (alternatively)	as defined in separate certificate*)
8	**Optional Components** (alternatively)	as defined in separate certificate*)

Software:

No.	Designation	Version no.
1	NACOS Platinum application software	2.1.x with x ≥ 26
2	Operating system of Display Electronics	Microsoft Windows 7 SP1 and Microsoft Windows 10 Pro † Microsoft Windows 10 IoT Enterprise LTSC †

† Version numbers as defined in separate certificate*)

Application/Limitation

- Chart data formats: as defined in separate certificate*)
- System interfaces (undisturbed operation): as defined in separate certificate*)
- Backup arrangements (ECDIS): as defined in separate certificate*)

*) The Type Approval certificate TAA00003DH for NACOS Platinum (SharpEye) system platforms in its latest revision at the date of placing the system on the market is part of this certificate, for the relevant revision see also https://approvalfinder.dnv.com/.

Type Approval documentation

DNV No	Document ID	Rev.	Description
3	PAAG407215	53 (2024-05)	Operating Instructions NACOS Platinum Naval Navigation
2	ANC-D-0000-0147	01C	List of performance test reports for NACOS Platinum (SharpEye)
1	TAA00003DH	Latest rev.	Certificate: DNV, NACOS Platinum (SharpEye) system platforms

Tests carried out

- Environmental and EMC testing: IEC 60945 (2002) incl. Corrigendum 1 (2008)

- Interface testing: IEC 61162-1 (2016) and IEC 61162-2 (1998)
- Presentation testing: IEC 62288 (2021)
- Performance testing: STANAG 4564 Ed.2, STANAG 7170 Ed.2 and IEC 61174 Ed.4 (2015)

Marking of product

According to IEC 60945, Sect.4.9:
The product to be marked with following information, where practicable:

- Identification of the manufacturer,
- Equipment type number or model identification under which it was type tested,
- Serial number of the unit,
- Compass safe distance.

Alternatively, the marking may be presented on a display at equipment start-up, and in case of fixed equipment compass safe distance may be given in the equipment manual.

Periodical assessment

This certificate is only valid if required periodical assessments are carried out with satisfactory results. To check the validity of this certificate, please look it up in https://approvalfinder.dnv.com .

END OF CERTIFICATE