

# EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate no.:  
**MEDB000023T**  
Revision No:  
**1**

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

## This is to certify:

that the **Track control system (TCS)**

with type designation(s)  
**HLD-TCS600**

issued to

**Jiangsu Highland Integration Technology Co.,Ltd.**  
**Nantong, Jiangsu, China**

is found to comply with the requirements in the following Regulations/Standards:

Regulation **(EU) 2023/1667**,

**item No. MED/4.33. SOLAS 74 as amended, Regulations V/18 & V/19, IMO Res A.694(17), IMO Res MSC.74(69), IMO Res MSC.191(79), IMO Res MSC.302(87)**

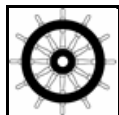
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2029-06-04**.

Issued at **Hamburg** on **2024-06-05**

DNV local unit:  
**Dalian NB & CMC**

Approval Engineer:  
**Jörg Rebel**



Notified Body  
No.: **0098**

for **DNV SE**

**Mydlak-Röder, Christine**  
**Head of Notified Body**

A U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU. This certificate remains valid unless suspended, withdrawn, recalled or cancelled. Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.

The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.

This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV SE of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled. Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.

**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.



The track control system (TCS) type HLD-TCS600 comprises of the ECDIS type HLD-ECDIS600 and the heading control system type HLD-SC600. For more details see following:

No.	Designation	Type Designation
1	Not used	
2	Main Processing Unit Display Electronics	as defined in separate certificate <sup>†</sup>
3	Display Units 250mm (for Radar CAT 2 & ECDIS, alternatively)	as defined in separate certificate <sup>†</sup>
4	Display Units 320mm (for Radar CAT 1 & ECDIS alternatively)	as defined in separate certificate <sup>†</sup>
5	Operator Units (alternatively)	as defined in separate certificate <sup>†</sup>
6	Sensor Interfaces (alternatively)	as defined in separate certificate <sup>†</sup>
7	Network Switches (alternatively)	as defined in separate certificate <sup>†</sup>
8	Optional Components	as defined in separate certificate <sup>†</sup>
9	Track Control Units	as defined in separate certificate <sup>†</sup>

#### Software:

No.	Designation	Version no.
1	Application: HLD-ECDIS600 HLD-SC600	V2.0.x with x ≥ 22563 V3.0.x with x ≥ 2
2	Operating system of Display Electronics	Microsoft Windows 7 SP1

<sup>†</sup> Version numbers as defined in separate certificate<sup>†</sup>

#### Application/Limitation

<sup>†</sup> The Type Approval certificate TAA000035G for HLD-INS 600 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/>.

#### 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)
- Bridge alert management testing: IEC 62923-1 (2018) and IEC 62923-2 (2018)
- Performance testing: IEC 62065 (2014)

#### Type Examination documentation

9065-16-39255-62065 – TCS IEC 62065 Edition 2.0, 9065-16-39266-61162  
 60945 test report-SIPAI A15-070-WT  
 DNV-05-31-HLD-TCS600 Rev. V01B

DNV No.	Document ID	Rev.	Description
34	HLD0800CZ	2.3	Installation & Operation manual for HLD-TCS600
33	HLD0700CZ	1.0	Operation manual for HLD-SC600
32	HLD0700AZ	1.1	Installation manual for HLD-SC600

20	HLD3400CZ	3.0	Operation manual for HLD-ECDIS600
19	HLD3400AZ	2.6	Installation manual for HLD-ECDIS600
18	TAA000035G	Latest rev.	Certificate: DNV, HLD navigation systems platforms

## 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.

END OF CERTIFICATE