Certificate No: LR25391069TA
Issue Date: 09/12/2025
Expiry Date: 08/12/2030

Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

Manufacturer	**Nantong Haishi Shipping Machine Co,Ltd**
Address	East Area, Industrial Concentratin Zone, Liuqiao Town, Tongzhou District, Nantong, 226363, China
Place of Production	Nantong Haishi Shipping Machine Co,Ltd East Area, Industrial Concentratin Zone, Liuqiao Town, Tongzhou District, Nantong, 226363, China
Type	Level Gauges
Description	Magnetic level gauges: CY1-H and CY2-H (with steam heating) Flat glass level gauges: HS-Y(Z)a-Mb-Z(Y)c Tubular level gauges: A/AS (hXn+h1), B/BS (hXn+h1), C/CS (hXn+h1) D/DS (hXn+h1), E/ES (hXn+h1) and F/FS (hXn+h1) Double flat glass level gauges: HS-A-H(PMG-200-2), HS-A-H(PMG-340-2), HS-B-H and HS-C-H Self-powered content gauges: HS-SPCG-V150, HS-SPCG-F150 and HS-SPCG-150S Float level gauges: FLG-A –H, FLG-B-H, FLG-C-H, FLG-D-H and FLG-E-H Pipe level signal meter: HSGY-XXX-V
Trade Name	NTHS
Application	The level gauges may be used for the marine following services subject to relevant Lloyd's Register (LR) Rules are complied with.

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Torsten Schroeder

Engineering - Piping/ Decarbonisation - Senior Specialist to Lloyd's Register EMEA
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Tanks containing water or flammable liquids which have a flash point above 60 °C:

CY1-H, CY2-H, HS-Y(Z)a-Mb-Z(Y)c,
HS-SPCG-V150, HS-A-H(PMG-200-2),
HS-A-H(PMG-340-2), HS-B/C-H,
HS-SPCG-F150, HS-SPCG-150S
FLG-A–H, FLG-B-H, FLG-C-H,
FLG-D-H, FLG-E-H and HSGY-XXX-V

Tanks containing water only:
Tubular level gauges type - A/AS (hXn+h1), B/BS (hXn+h1),
C/CS (hXn+h1), D/DS (hXn+h1), E/ES (hXn+h1)
and F/FS (hXn+h1)

Specified Standard

Lloyd's Register Rules and Regulations for the Classification of Ships (July 2025);
Lloyd's Register Type Approval System Test Specification 1 (July 2024),
CB/T3476-1999, CB/T-3210-94, CB/T 3665-1996, GB/T 1226-2001, JB/T 9244-1999 and HG/T 21584-95.

Ratings

See Appendix

Other Conditions

For application on a Lloyd's Register (LR) classed vessel, the following conditions are to be complied with:

1. When used in flammable oil systems, the level gauges are subject to the following conditions:
   - In passenger ships, they are not to require penetration below the top of the tank and their failure or overfilling of the tanks is not to permit release of oil fuel.
   - In cargo ships, their failure or overfilling of the tank is not to permit release of fuel into the space.

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- Their glasses are to be made of heat-resistant material and efficiently protected against shocks.

2. The installation on board ships has to comply with Regulations II-2/4.2.2.3, II-2/4.2.3 of SOLAS 1974/97 as amended and with the applicable Lloyd's Register Rules.

3. The selection of the devices for the corresponding services and correct installation are also to be in accordance with the Manufacturer's instruction.

4. Where level gauges are intended to be used in Class II piping systems, such as oil piping system with design temperature greater than 60 °C, materials are to be manufactured and tested in accordance with the appropriate requirements of the Rules for Materials.

5. Materials for level gauges including isolation or sealing components used for self-closing valves sensitive to heat, are not to be used in space where leakage or failure caused by fire could result in fire spread, flooding or the loss of an essential service as per Part 5, Chapter 12, Section 6.1.3 of the Rules.

6. Type Approval does not eliminate the need (as required by LR Rules) the requirements for further review or for the product to be further inspected and/ or surveyed to be installed in ships classed or intended to be classed with LR.

7. If the specified standards are amended during the validity of this certificate, the product is to be reapproved prior to it being supplied to vessels to which the amended standards apply.

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

Previous Version: LR21125962TA

The Design Appraisal Document LR25391069TA_DAD and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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