Certificate No: LR21125962TA
Issue Date: 29/03/2021
Expiry Date: 08/12/2025

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 Tongzhou, East Area Industrial Zone, Liuqiao Town, Nantong, 226363, China

Place of Production Nantong Haishi Shipping Machine Co,Ltd

Tongzhou, East Area Industrial Zone, Liuqiao Town, Nantong, 226363, China

Type Level Gauges

Description Level gauges
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:

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.
-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 or

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Xiaodong Zhang

Lead Specialist and Section Leader for Engineering Section to Lloyd's Register Classification Society (China) Co Ltd

19th Floor, 550 Yan An dong Road, Shanghai, Huangpu District, China

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flammable liquids which have a flash point above 60 0C.
-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): Tanks containing water only.

Specified Standard

Lloyd's Register (LR) Rules and Regulations for the Classification of Ships, July 2019;
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.
   - 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

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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.

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 Classification Society (China) Co Ltd of any modification or changes to the equipment in order to obtain a valid Certificate.

The Design Appraisal Document LR21125962TA and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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