



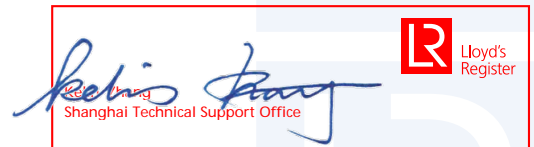
Lloyd's
Register

Type Approval Certificate

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

This certificate is issued to:

PRODUCER	Changzhou Luo Pan Xing Analytical Tech. Co. Ltd
PLACE OF PRODUCTION	6 th Floor, A 3 Building, Technology Venture Centre, 801 Changwu Middle Road, Changzhou, Jiangsu, 213164, P.R. China
DESCRIPTION	Washwater Monitoring System
TYPE	WWM-1000
RATINGS	PAH sensor type Pyxis HM-1500 (fluorescence technology), Monitoring range: 0.1-500µg/L Temperature range: 0-100°C, resolution 0.1°C Turbidity sensor type Pyxis ST-1730, Monitoring range: 0-200 NTU pH sensor type Pyxis-1710, Monitoring range: 0-14 Control panel: AC220V, 50/60Hz, Ingress Protection: IP 54
APPLICATION	Marine applications for use in environmental categories ENV1 and ENV2 in the "General Power Distribution Zones" as defined in LR Type Approval System Test Specification No. 1 March 2019.
DESIGN CODE STANDARD	Manufacture specification
Certificate No.	19/80093
Issue Date	19 November 2019
Expiry Date	18 November 2024
Sheet	1 of 2



KL Zhang
Shanghai Technical Support Office

*Lloyd's Register Classification Society (China) Co., Ltd
19th Floor, Ocean Towers, 550 Yan An Dong Road, Shanghai 200001*

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OTHER CONDITIONS

1. The system type approval is limited to continuous monitoring of pH, oil content (as measured by PAH levels), and turbidity and temperature, as defined in IMO Resolution MEPC.259 (68).
2. The system shall be installed, calibrated and operated in compliance with the manufacturer's instructions.
3. Data recording and processing device is not covered by this certificate.
4. Software has been tested to an extent required to verify correct functions during type approval testing.

"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 attached Design Appraisal Document No. STS/TA/19/80093, Issue No. 0, dated 19 November 2019 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

Certificate No.	19/80093
Issue Date	19 November 2019
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