Certificate No: LR25348357TA
Issue Date: 25/08/2025
Expiry Date: 24/08/2030

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 **Mitsui E&S Systems Research Inc.**

Address 16-3 Tamahara 3-Chome, Tamano, Okayama, 706-0014, Japan

Place of Production Mitsui E&S Systems Research Inc.

16-3 Tamahara 3-Chome, Tamano, Okayama, 706-0014, Japan

Type Monitoring System

Description BCM-1 comprising:-

Display for Control Desk	: DSP-3, DSP-5, DSP-6*
Signal Interface Panel	: SIP-1
Bearing Wear Processing Unit	: BWPU-1
Intermediate Box for BWM	: BIBB
Inductive Displacement Sensor	: BIDS-1
Controller for Water in Oil	: MMT330, Indigo520**
Sensor for Water in Oil	: MMT338, MMP8**
Sensor for Resistance Bulb	: PTR-M

* Approved in Certificate No. LR20100606TA
** Approved in EU RO Mutual Recognition Approval Certificate No. MRA000004F

Trade Name Bearing Condition Monitoring System for Diesel Engine

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Masaharu Nakayama

Electrical & Control - Senior Specialist to
Lloyd's Register Group Limited
A member of the Lloyd's Register group

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

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Application	Marine and offshore applications for use in environmental categories ENV2, ENV3 and ENV4 in the “General Power Distribution Zones” as defined in LR Type Approval System Test Specification No. 1-2024 where the Test Specification is satisfactory for the intended operation. ENV2 : DSP-3, SIP-1 ENV3 : DSP-5, DSP-6, BWPU-1, BIBB ENV4 : BIDS-1, MMT330, MMT338, Indigo520, MMP8, PTR-M
Ratings	Power supply DC 24V
Other Conditions	a) The certificate attests to the hardware’s suitability for the environmental categories stated. b) Suitability of the software and system configuration is subject to a separate plan appraisal according to the Lloyd’s Register Rules and Regulations when placed on Lloyd’s Register classed vessels.

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 Group Limited of any modification or changes to the equipment in order to obtain a valid Certificate.

Previous Version: LR2011080TA

The Design Appraisal Document LR25348357TA and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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