Form 130

NIPPON KAIJI KYOKAI

STATEMENT
for
Exhaust Gas Measuring and Monitoring System

No.: KB25MF0011

Manufacturer: **Endress+Hauser SICK GmbH+Co. KG**

Product description: **Exhaust gas measuring and monitoring system**

Model: **MARSIC300**

THIS IS TO STATE that the above product has been found to comply with the applicable requirements of the followings upon reviewing the submitted documents:

- "Emission measurement on a test bed" except hydrocarbon (Chapter 5 of NOx Technical Code 2008)
- "Simplified measurement method" (Chapter 6.3 of NOx Technical Code 2008)
- "Direct measurement and monitoring method" (Chapter 6.4 of NOx Technical Code 2008)
- "Continues monitoring of SOx emissions " (Chapter 6 of Resolution MEPC.259(68) and MEPC.340(77)[*1])
- "On board confirmation test for Scheme B" (Chapter 7 of Resolution MEPC.291(71)[*2])
- "Spot checks" (Section 1.14.1 of NOx Technical Code 2008 Appendix VII and Section 3.2.1.11 of Resolution MEPC.291(71)[*2])

*1: 2015 GUIDELINES FOR EXHAUST GAS CLEANING SYSTEMS and 2021 GUIDELINES FOR EXHAUST GAS CLEANING SYSTEMS
*2: 2017 GUIDELINES ADDRESSING ADDITIONAL ASPECTS TO THE NOx TECHNICAL CODE 2008 WITH REGARD TO PARTICULAR REQUIREMENTS RELATED TO MARINE DIESEL ENGINES FITTED WITH SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEMS

The details are described in the attached sheet(s).

Issued at Tokyo on 28 May 2025

S. Oishi
General Manager of Machinery Department
NIPPON KAIJI KYOKAI

Note: NK Type Approval was also granted for the model "MARSIC300" separately.

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Product descriptions:

	Identification number	Specification
Sample tube	2058125	Unheated 0.25m
	2083525	Unheated 0.5m
	2142888	Unheated 0.5m O-RING
	2083527	Unheated 0.8m
	2142889	Unheated 0.8m O-RING
	2071307	Heated 0.5m 230V AC
	2071577	Heated 0.5m 115V AC
	2025125	Heated 0.8m 230V AC
	2028706	Heated 0.8m 115V AC
Gas sample probe	2058208	SFU-BF NI GL
	2121888	SFU100
	2137834	SFU150
Bundle of pipes	6058993	—
Heated sample gas line	6031101 to 6031135 (Type AW)	Heiz.-SHL. 230 ELH/AW 6/8 1H
	6028701 to 6028735 (Type AD)	Heiz.-SHL. 230 ELH/ADW 6/8 1H
Analyzer	1076531	DeSOx (SO_2, CO_2)
	1076532	DeNOx (NO, NO_2)
	1076530	Emission complete (SO_2, CO_2, NO, NO_2, O_2, CO, NH_3, CH_4, H_2O)

Measurement ranges:

Component	Measuring Principle	Smallest range	Highest range
SO_2	NDIR	0 - 30 ppm	0 - 2000 pm
CO_2	NDIR	—	0 - 25 vol.-%
NO	NDIR	0 - 300 ppm	0 - 2000 ppm
NO_2	NDIR	0 - 200 ppm	0 - 500 ppm
O_2	ZRDO	—	0 - 21 vol.-%
CO	NDIR	0 - 200 ppm	0 - 2000 ppm
NH_3	NDIR	0 - 50 ppm	0 - 500 ppm
CH_4	NDIR	0 - 500 ppm	0 - 10000 ppm

Examined documents:

- Part 1 - Assessment of compliance with relevant requirements of MARPOL Annex VI and NTC (MAGDE717 2015.139.A, Rev. 1.0)
- Operating instructions MARSIC300 (8017316/1750/V4-0/2020-03)
- Operating instructions MARSIC300 EHS (8029898/1750/V4-0/2020-03)
- Technical information MARSIC300 (8017585/YXD9/V3-1/2017-05)
- Technical information MARSIC300 EHS (8030681/YXD9/V3-1/2017-05)
- System Design Requirement Specification (SDRS) - Gas sampling unit SFU1X0 (Doc.-ID: E398135 Version: 00)
- OPERATING INSTRUCTIONS SFU100, SFU150 (Document No. 8029374/AE00/V1-0/2024-09)

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Remarks:

- In order to completely fulfill the requirements for NOx and/or SOx monitoring, additional equipment (e.g. data recording device, engine performance measuring system, etc.) are to be installed.
- The "MARSIC300" should be installed, calibrated and operated in accordance with the manufacturer's instruction.
- The "MARSIC300" should be operated and calibrated in accordance with the requirements specified in NOx Technical Code 2008, Resolution MEPC.259(68) "2015 GUIDELINES FOR EXHAUST GAS CLEANING SYSTEMS" and Resolution MEPC.340(77) "2021 GUIDELINES FOR EXHAUST GAS CLEANING SYSTEMS", if required.
- The "MARSIC300" is not equivalent to the FID principle specified in 1.2.9 of NOx Technical Code 2008 appendix III, because it analyzes only CH_4 which does not represent the full variety of hydrocarbons that can be expected in exhaust gas.
- In case where the "MARSIC300" is fitted to SOx scrubber system installed on ships which are classed or to be classed with the Society, confirmation of compliance with the requirements applied at the time of certification is required in each system. In each project, this statement and declaration of validity of this statement are to be submitted. If any modification is made to the product and the relevant documents, detail of the modification is to be submitted.

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