

## NIPPON KAIJI KYOKAI

# STATEMENT Exhaust Gas Monitoring System

No.: KB25MF0010

Manufacturer:

Endress+Hauser SICK GmbH+Co. KG

Product description: Exhaust gas measuring and monitoring system

Model:

**MARSIC280** 

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:

- "Simplified measurement method" (Chapter 6.3 of NOx Technical Code 2008)
- "Direct measurement and monitoring method" (Chapter 6.4 of NOx Technical Code 2008)
- "Continuous 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 3.2.11 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).

Tokyo on 28 May 2025 Issued at

S. Oishi

General Manager of Machinery Department

NIPPON KAIJI KYÓKAI

Note: NK Type Approval was also granted for the model "MARSIC280" separately.

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### NIPPON KAIJI KYOKAI

Attached sheet to the statement No. KB25MF0010

#### **Product descriptions:**

|                 | Main components  |  |  |
|-----------------|--|--|--|
| Extraction unit | Gas sampling unit SFU-BF-NI GL (optional 2)              |  |  |
|                 | Gas sampling unit SFU100 (indoor, optional 2)            |  |  |
|                 | Gas sampling unit SFU150 (outdoor, optional 2)           |  |  |
|                 | Bundle of pipes (optional 2)                             |  |  |
|                 | Sample gas conditioning device (SCD)                     |  |  |
| Sampling line   | Heated sample gas line HSL (optional 2)                  |  |  |
| Detection unit  | Analyzer unit containing the following analyzers         |  |  |
|                 | - SO2: DEFOR (UVRAS)                                     |  |  |
|                 | - CO2: FINOR (NDIR)                                      |  |  |
| Interface       | Power supply: 115V or 230V, 50Hz /60 Hz                  |  |  |
|                 | Degree of protection: IP 54* (IP 23 - Gas sampling unit) |  |  |
|                 | Software version: 4.0.XX                                 |  |  |

#### Measurement ranges:

| Component       | Measuring Principle | Smallest range | Highest range |
|-----------------|---------------------|----------------|---------------|
| SO <sub>2</sub> | NDUV                | 0 - 100 ppm    | 0 - 500 ppm   |
| CO <sub>2</sub> | NDIR                | _              | 0 - 25 vol%   |

#### **Examined documents:**

- MARSIC280 System Specification (E310548 / Version: 01.1)
- MARSIC280 OPERATING INSTRUCTIONS (Document No. 8021339/1N7C/V3-0/2024-06, 8030498/AE00/V3-0/2024-06)
- PART 1 Assessment of compliance with relevant requirements of MARPOL Annex VI and NTC(MAGDE717 2015.020.A / Rev.1.2)
- PART 2 Assessment of compliance with applicable type approval guidelines (MAGDE717 2015.020.B / Rev.1.1)
- PART 1 Assessment of compliance with relevant requirements of MARPOL Annex VI and NTC(MAGDE717 2015.139.A / Rev.1.0)
- PART 2 Assessment of compliance with applicable type approval guidelines (MAGDE717 2015.139.B / Rev.1.0)
- DNV GL Statement of Compliance of MARSIC280 (28294884/DNV / Rev.0)
- Report slip measurement MARSIC280
- 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 SO2 and CO2 monitoring, additional equipment (e.g. data recording device, etc.) are to be installed.
- The "MARSIC280" should be installed, calibrated and operated in accordance with the manufacturer's instruction.
- The "MARSIC280" should be operated and calibrated in accordance with the requirements specified in NOx Technical Code 2008 and/or 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.
- In cases where the "MARSIC280" 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.
- In cases where the "MARSIC280" is fitted on SOx scrubber system installed on ships which are classed or
  to be classed with the Society, it is to comply with the relevant requirements specified in "Guidelines for
  Exhaust Gas Cleaning Systems" issued by the Society.