



NIPPON KAIJI KYOKAI

STATEMENT
for
Exhaust Gas Monitoring System

No.: KB18MP1475

Applicant: **Fuji Electric France S.A.S**
Manufacturer: **TECNOVA HT s.r.l**
Product description: **Exhaust gas monitoring system**
Model: **S-Keeper 7**
(Type: EASY-S, EASY, LITE-S and FULL)

THIS IS TO STATE that the above product has been found to comply with the applicable requirements for SO₂ and CO₂ analyzer specified in Chapter 6 of Resolution MEPC.259(68) "2015 Guidelines for exhaust gas cleaning systems" upon reviewing the submitted documents.

For the "S-Keeper 7", NK's Type Approval (Approval No.: 17A003) is granted based on the environmental test result.

See attachment for conditions / information.

Issued at Tokyo on 20 November 2018

T. Shimada

General Manager of Machinery Department
NIPPON KAIJI KYOKAI

This Report is issued subject to the condition that it is understood and agreed that neither the Society nor any of its Committees is under any circumstances whatever to be held responsible for any inaccuracy in any report or certificate issued by this Society or its Surveyors or in any entry in the Record or other publication of the Society or for any error of judgment, default or negligence of its Officers, Surveyors or Agents.

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Attached sheet to the statement No. KB18MP1475

Product descriptions:

	Main components
Analyzer cabinet	Analyzers
	Sample conditioning system
	Control unit / panel
	Sample gas pump
	Sample gas filter
	Sample gas cooler
	Permapure tube composed by Nafion Tubes
	Sensors for flow, temperature
Sampling line	Heated sample probe
	Heated sample line

Measurement ranges:

Component	Measuring Principle	Smallest range	Highest range
SO ₂	NDIR	0 - 200 ppm	0 - 2000 pm
CO ₂	NDIR	0 - 10 vol.-%	0 - 20 vol.-%

Examined documents:

- DATA SHEET_INFRARED GAS ANALYSER (EDS3-143a)
- ONBOARD MONITORING MANUAL for gaseous emissions with Tecnova HT S-Keeper 7 Marine Emission Monitoring System (Ed. 01, Rev. 02)
- Installation Manual Rev. 1.2
- Analyzer performance test of Fuji Electric ZPA, Revision 1
- S-Keeper7 sampling system SO2 Washout
- LAYOUT & COMPONENTS LIST (REV.2)
- PNEUMATIC DIAGRAM (REV.3)
- WIRING DIAGRAM (REV.2)
- SK7 IP SAMPLING PIPE, SKEEPER

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 "S-Keeper 7" should be installed, calibrated and operated in accordance with the manufacturer's instruction.
- The "S-Keeper 7" 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", if required.
- In cases where the "S-Keeper 7" 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.