

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB0000086
Revision No:
1

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV GL AS under the authority of the Government of Norway.

This is to certify:

That the Oil discharge monitoring and control system for an oil tanker

with type designation(s)
ODME S-3000 Version 2

Issued to
KSB Seil Co., Ltd.
Busan, Republic of Korea

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2019/1397,**
item No. MED/2.5. Marpol 73/78 as amended, Annex I Regulation 31, IMO Res. MEPC.108(49)
as amended by IMO Res. MEPC.240(65) and IMO MEPC.1/Circ.858

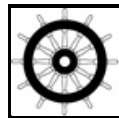
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2025-05-11.**

Issued at **Høvik** on **2020-05-12**

DNV GL local station:
Gimhae Station

Approval Engineer:
Erik Istad



Notified Body
No.: **0575**

for **DNV GL AS**

Roald Vårheim
Head of Notified Body



The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.

This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL AS of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.

Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.





**СВИДЕТЕЛЬСТВО
О ТИПОВОМ ОДОБРЕНИИ ПРИБОРОВ ДЛЯ ИЗМЕРЕНИЯ
СОДЕРЖАНИЯ НЕФТИ, ПРЕДНАЗНАЧЕННЫХ ДЛЯ КОНТРОЛЯ
ЗА СБРОСОМ ЗАГРЯЗНЕННЫХ НЕФТЬЮ ВОД
ИЗ РАЙОНА ГРУЗОВЫХ ТАНКОВ НЕФТЯНЫХ ТАНКЕРОВ
CERTIFICATE
OF TYPE APPROVAL FOR OIL CONTENT METERS INTENDED
FOR MONITORING THE DISCHARGE OF OIL-CONTAMINATED
WATER FROM THE CARGO TANK AREAS OF OIL TANKERS**

Выдано по уполномочию Правительства Российской Федерации
(полное официальное название страны)

Российским морским регистром судоходства

Issued under the authority of the Government of: the Russian Federation
(full designation of the Party)

by Russian Maritime Register of Shipping

Настоящим удостоверяется, что прибор для измерения содержания нефти, включающий перечисленное ниже оборудование, проверен и испытан в соответствии с требованиями части 1 Приложения к Руководству и техническим требованиям, содержащимся в резолюции ИМО МЕРС.108(49), измененной поправками в резолюции ИМО МЕРС.240(65). Настоящее Свидетельство действительно только для прибора, указанного ниже.

This is to certify that the oil content meter, comprising the equipment listed below, has been examined and tested in accordance with the requirements of the Specifications contained in Part 1 of the Annex to the Guidelines and Specifications contained in IMO resolution МЕРС.108(49) as amended by IMO resolution МЕРС.240(65). This Certificate is valid only for an oil content meter referred to below.

Прибор для измерения содержания нефти типа и модели ODME S-3000
Oil content meter under type and model designation

поставляется KSB Seil CO., LTD
supplied by

и включает:
and incorporating:

анализатор содержания нефти, изготовленный KSB Seil CO., LTD
oil content meter analysing unit manufactured by

по ~~техническим условиям~~/сборочному чертежу № MK-SV-3030
to ~~specification~~/assembly drawing No.

дата 05.02.2016
date

электронную секцию, изготовленную KSB Seil CO., LTD
electronic section of oil content meter manufactured by

по ~~техническим условиям~~/сборочному чертежу № MK-SV-3010
to ~~specification~~/assembly drawing No.

дата 08.04.2016
date



NIPPON KAIJI KYOKAI

Certificate

Certificate No.
TA20524E(R)

OF

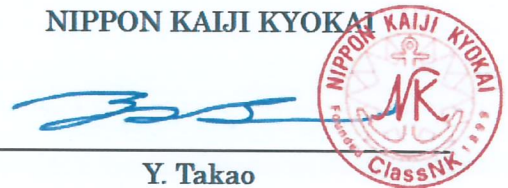
TYPE APPROVAL

Item	:	Oil Discharge Monitoring and Control System for oil tankers
Product name	:	ODME S-3000
Product descriptions	:	Intended for installation onboard oil tankers for ballast water monitoring control and alarm of contents of oil at discharge overboard.
Applicant	:	KSB Seil Co., Ltd. 76, Noksansaneopbuk-ro 313beon-gil, Gangseo-gu, Busan, Korea
Manufacturer	:	The same as the Applicant.
Documentation	:	See Annex.
Limitations	:	See Annex.

THIS IS TO CERTIFY that the above type has been approved by Nippon Kaiji Kyokai with approval No. N-857 and that products of the type will be accepted for use on ships classed with the Society for compliance with the relevant requirements of the Society's *Rules for Marine Pollution Prevention Systems*, the *MARPOL 73/78, as amended, Annex I, Regulation 31*, and *IMO Resolution MEPC. 108(49) as amended by IMO Resolution MEPC. 240(65)* subject to approval of the flag Administration and conditional upon that product verification be carried out by the Society.

This certificate is valid from 28 April 2020 until 27 April 2025.
Issued at Tokyo on 12 May 2020.

NIPPON KAIJI KYOKAI



Y. Takao

General Manager

Material and Equipment Department

제 2016-039 호

(Cert. No. 2016-039)

해양오염방지설비형식승인증서
(CERTIFICATE OF TYPE APPROVAL)

1. 제작자 또는 주된 영업소의 주소: 부산광역시 강서구 녹산산업북로313번길 76
(Address of Manufacturer) 76, Noksansaneopbuk-ro 313beon-gil,
Gangseo-gu, Busan

2. 제작자(수입자)의 성명: 케이에스비세일(주)
(Name of Manufacturer of Importer) KSB Seil Co., Ltd.

(법인의 경우에는 그 명칭)

3. 설비의 품명: 기름배출감시제어장치
(Name of Article) Oil Discharge Monitoring and Control System

4. 설비의 형식 및 용량: S-3000
(Type & Capacity of Article)

5. 설비의 성능시험합격증명서 GCHKM-0005-16
(Certificate of Performance Test)

(No. of Certificate & Test report) GCHKM-0005-16

발급연월일: 2016-7-15

(Date of Issue) 07/15/2016

6. 형식승인일: 2016-8-12
(Date of Type Approval) 08/12/2016

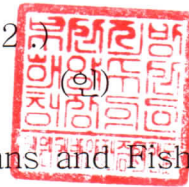
7. 비고(Remark): IMO Res. MEPC.108(49)and IMO Res. MEPC.240(65)

「해양환경관리법」 제110조 및 「선박에서의 오염방지에 관한 규칙」 제57조
제1항에 따라 형식승인을 합니다.

(This is to certify that the above article has been examined and
satisfactorily tested in accordance with the provisions of MARPOL 73/78.)

2016년 8월 12일 (2016. 8. 12)
부산지방해양수산청장

Director General of Busan Regional Office of Oceans and Fisheries





中国船级社
CHINA CLASSIFICATION SOCIETY

证书格式号/Form: T01.02-
FS000025

型式认可证书
CERTIFICATE OF TYPE APPROVAL

证书编号/Certificate No. FS17T00041

兹证明本证书所述制造厂生产的下列产品能够满足下面列明认可标准的要求。

This is to certify that the following products produced by the manufacturer stated in the certificate can meet the requirements of the approval standards listed below.

认可产品/ Product Approved

油船排油监控系统

OIL DISCHARGE MONITORING AND CONTROL SYSTEM

制造厂/ Manufacturer

KSB Seil Co.,Ltd.

76, Noksansaneopbuk-ro 313beon-gil, Gangseo-gu, Busan, Korea

附加标志/ Notations

无/Nil.

认可标准/ Approval Standard

- 1.国际海事组织(IMO) MEPC. 108(49)决议《修订的油船排油监控系统指南和技术条件》
IMO Res. MEPC. 108(49), REVISED GUIDELINES AND SPECIFICATIONS FOR OIL DISCHARGE MONITORING AND CONTROL SYSTEMS FOR OIL TANKERS
- 2.国际海事组织(IMO)MEPC.240(65)决议《经修订的油船排油监控系统指南和技术条件(MEPC.108(49)决议)2013年修正案》
IMO Res.MEPC.240(65),2013 AMENDMENTS TO THE REVISED GUIDELINES AND SPECIFICATIONS FOR OIL DISCHARGE MONITORING AND CONTROL SYSTEMS FOR OIL TANKERS(RESOLUTION MEPC.108(49))

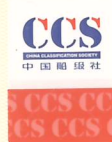
证书有效期至/ **This Certificate is valid until**

2022年2月10日 / Feb. 10, 2022

发证机构 中国船级社釜山分社
Issued by CCS Busan Branch

签发日期 2018年8月1日
Date Aug. 1, 2018

本证书根据中国船级社《钢质海船入级规范》及有关程序规定签发。关于证书的有关规定见本证书背面的说明。当本证书包括多页纸张时，则所有证书页为一个整体，必须同时使用。每一页证书均须由本社盖章方为有效。证书复印件无效。任何单位和个人均不应摘录或节选本证书的部分内容。本认可证书不代表本社对个体产品质量的检验。有关各方对所持证书的真实性有疑问时，可以向本社检验机构咨询。
This Certificate is issued pursuant to the Rules for Classification of Sea-going Steel Ships and related procedures of the Society. Refer to the back of the certificate for detailed requirements of the certificate. When the certificate consists of more than one page, all pages of the certificate are taken as a whole and are used simultaneously. No certificate page is valid without bearing the stamp of the Society and no copied form of the certificate is regarded as valid. Any part of the certificate is not to be extracted or abridged by any unit or individual in any form. This approval certificate does not constitute the inspection of the Society about the quality of the unit/batch product. Related parties who are doubted about the authenticity of the certificate may inquire of the Society or its offices.



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本地检验机构/CCS Local Office: 中国船级社釜山分社 CCS Busan Branch 电话/Tel: 0082-51-4632658 传真/Fax: 0082-51-4632657

FS31983897
N: 17516299



NIPPON KAIJI KYOKAI

TYPE APPROVAL CERTIFICATE

Certificate No. TA17477M

This is to certify that the undernoted product has been approved in accordance with the relevant requirements of “Rules for the Survey and Construction of Steel Ships” and “Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use”.

This certificate is issued to

Manufacturer:	KSB Seil Co., Ltd., Busan, Korea
Product description:	Stuffing Box
Type designation(s):	WV311PF8CE2 (for ODME S-3000)
Approval No.:	06FV803B
Valid until:	31 October 2021

This certificate is subject to the conditions specified in the attached sheet.

Issued at Tokyo on 24 October 2017



F. Taguchi
General Manager
Machinery Department