

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

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-filtering equipment (for an oil content of the effluent not exceeding 15 p.p.m.)

with type designation(s)

15 ppm Bilge Separators, Type: SHT-015, SHT-05, SHT-1, SHT-2, SHT-3, SHT-5, SHT-10

Issued to

**Sasakura Engineering Co., Ltd.
Osaka, 27, Japan**

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2018/773**,
item No. MED/2.1. Marpol 73/78 as amended, Annex I Regulation 14, IMO Res. MEPC.107(49), IMO MEPC.1/Circ. 643

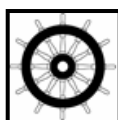
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2020-06-30**.

Issued at **Høvik** on **2019-01-21**

DNV GL local station:
Kobe

Approval Engineer:
Thomas Grafton



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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.



Product description

15 ppm Bilge Separators Type SHT from Sasakura Engineering Co. Ltd. are intended for installation onboard ships for oily bilge water separation – max.15 ppm at discharge overboard. The equipment is designed and tested to meet the requirements of the IMO Resolution MEPC.107(49).

The design is based on four stages: A gravity separation stage including a coalescer, a fine separation stage including a coalescer, suspended solids separation stage using a filter, and an emulsion separation stage including a coalescer.

Application/Limitation

Application:

Type:	Capacity (m ³ /h):	Max. pump capacity (m ³ /h):
SHT-015	0.15	0.165
SHT-05	0.5	0.55
SHT-1	1.0	1.1
SHT-2	2.0	2.2
SHT-3	3.0	3.3
SHT-5	5.0	5.5
SHT-10	10.0	11.0

Installation:

When required by MARPOL Annex I Reg.14.7, the unit shall be integrated with a 15ppm Oil Content Monitor complying with IMO Res.MEPC.107(49). This Oil Content Monitor shall be provided with a separate EU Marine Equipment Directive Type Approval Certificate.

The 15ppm Oil Content Monitor shall be installed as described in the Piping Arrangement Drawings listed in the Type Examination Documentation. The valve in the "Sampling W. Inlet" to the "Bilge Alarm (15ppm)" shall be kept open in normal operation (see "Note for Installation" on the drawing).

The following items shall be verified on the final installation (15ppm Bilge Separator and 15ppm Oil Content Monitor): -

1. An alarm signal in the Oil Content Monitor is activated whenever clean water is used for cleaning or zeroing purposes
2. An alarm signal in the Oil Content Monitor is activated whenever no flow of sample through the Oil Content Monitor is detected by the flow sensor
3. Any alarm signal will activate the Automatic Stopping Device preventing overboard discharge and lead to recirculation
4. The overall response time (including the response of time of the 15ppm Oil Content Monitor) between an effluent discharge from the 15ppm Bilge Separator exceeding 15ppm, and the operation of the Automatic Stopping Device preventing overboard discharge, shall be not more than 20 seconds
5. By-passing the 15ppm Oil Content Monitor during normal operation shall by no means be possible
6. Every access of the Oil Content Monitor (beyond check on instrument drift, repeatability of the instrument reading, and the ability to re-zero the instrument) requires breaking of a seal.

Limitations:

Installation of the equipment in spaces subject to explosion hazard is not permitted.

A copy of the Operation, installation and maintenance manual shall be on board vessel at all times.

Job Id: **344.1-001230-5**
Certificate No: **MEDB00004Y1**

Type Examination documentation

Tests carried out

Performance Testing: -

Environmental Testing: -

Marking of product

The marking shall give at least the following information:

- identification of manufacturer
- equipment type designation or model identification
- maximum throughput and maximum influent pressure at which the separator is designed to operate
- serial number
- Revision information, as applicable, for all firmware or software modules installed per hardware unit, necessary to identify the equipment.

-----*This certificate replaces previous certificate MED-B-9938 which is now withdrawn*-----