

Guideline No.: K-01(201510)



# K-01 15 PPM BILGE SEPARATORS

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Foreword:

This Guide is a part of CCS Rules, which contains technical requirements, inspection and testing criteria related to classification and statutory survey of marine products.

This Guide is published and updated by CCS and can be found through <http://www.ccs.org.cn> .  
Comments or suggestions can be sent by email to [ps@ccs.org.cn](mailto:ps@ccs.org.cn) .

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## **15 PPM BILGE SEPARATORS**

### **1 Application**

1.1 This Guideline applies to the approval and inspection of the 15 ppm bilge separators for the oily bilge water in engine room and ballast water in oil fuel tanks.

### **2 Normative references**

2.1 For the purpose of this Guideline, the following documents apply:

(1) Annex I of International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto;

(2) IMO Revised Guidelines and Specifications for Pollution Prevention Equipment for Machinery Space Bilges of Ships, adopted by the Marine Environment Protection Committee by Resolution MEPC.107(49).

### **3 Definitions**

3.1 For the purpose of this Guideline:

(1) 15 ppm bilge separator may include any combination of a separator, filter, coalescer or other means, and also a single unit designed to produce an effluent with oil content not exceeding 15 ppm.

(2) ppm means parts of oil per million parts of water by volume.

### **4 Plans and documents**

4.1 The following documents are to be submitted to CCS for approval when applying for products approval:

(1) main performance specifications, including rated capacity, discharge standard, the maximum working pressure, etc);

(2) general assembly plan;

(3) main components of the body, separator assembly, filter assembly, sampling arrangement, etc.;

(4) schematic diagram and safety alarms of main systems;

(5) type test program;

(6) control box plan.

4.2 The following documents are to be submitted to CCS for information when applying for products approval:

(1) calculations for strength and performance (where necessary).

## **5 Design and technical requirements**

5.1 The product design and technical requirements are to comply with MEPC.107(49) - Revised Guidelines and Specifications for Pollution Prevention Equipment for Machinery Space Bilges of Ships.

## **6 Materials and components**

6.1 Materials and components are to comply with relevant requirements of CCS Rules.

6.2 The body (design pressure  $\geq 1.6$  MPa) is subject to welding procedures assessment in accordance with CCS Rules for Materials and Welding or other equivalent standards acceptable to CCS, and subject to strength test with a test pressure 1.5 times the design pressure. For the body of a vacuum bilge separator, the strength test is to be carried out with a pressure 1.5 times the design backwashing water pressure.

6.3 Electrical heater is to be fitted with an automatic temperature-control device.

## **7 Type test**

7.1 Selection of typical samples

Where a range of 15 ppm bilge separators of the same design, but of different capacities, requires a certification, tests in two capacities within the range may be accepted in lieu of tests on each size, providing that the two tests actually performed are from the lowest quarter and highest quarter of the range.

Where the capacity of intended application range is 1-5 m<sup>3</sup>, the sample may be taken each from 1-2 m<sup>3</sup> (the lowest quarter) and from 4-5 m<sup>3</sup> (the highest quarter) respectively for test.

7.2 Type test items

Test items, methods and technical index are to be in compliance with Part 1 of MEPC.107(49) – Test and performance specifications for type test approval of 15 ppm bilge separators.

## **8 Unit/batch inspection**

8.1 After type approval, the 15 ppm bilge separators are to be applied by the manufacturer for unit/batch inspection by CCS.

8.2 At least 5% of each batch/size of the products is to be sampled for operation test, tightness test, a simulation test for automatic and manual oil discharge. In addition, the product inspection and test reports submitted by the manufacturer are to be examined.

**9 Certificate**

9.1 The product certificate/equivalent document for 15 ppm bilge separators as type approved is to be used together with a copy of type approval certificate in IMO format.