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**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

JT/T 1280-2019

Oil water separator for oil spill

溢油油水分离装置 清晰版

(English Translation)

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Foreword

This standard is in accordance with GB/T Draft the rules given in 1-2009.

This standard is proposed and under the jurisdiction of the Technical Committee on Transportation, Navigation and Safety Standardization.

This standard was drafted. Water Transport Science Research Institute of the Ministry of Transport, Nanjing Bidun Environmental Protection Equipment Co., Ltd., Qingdao Huahai Environmental Protection Engineering Industry Co., Ltd., Shandong Maritime Affairs Bureau, Qingdao Guangming Environmental Protection Technology Co., Ltd.

1 Scope

This standard specifies the classification, model, basic parameters, technical requirements, test methods, inspection rules, and standards for oil spilled oil-water separation devices.

Storage, packaging, transportation and storage requirements.

This standard applies to the production, inspection and use of oil spilled oil-water separation devices with a rated capacity of 5m³/h to 200m³/h.

2 Normative references

The following documents are essential for the application of this document. For dated references, only the dated version applies to this article Pieces. For undated references, the latest version (including all amendments) applies to this document.

GB/T 150. 1 Pressure vessels-Part 1. General requirements GB/T 191 Packing, storage and transportation icon GB/T 260 Petroleum products-Determination of water content-Distillation method GB/T 2501 Marine flange connection dimensions and sealing surfaces GB/T 3280 stainless steel cold-rolled steel plate and strip GB 383.6. 2-1010 Explosive atmospheres Part 2. Equipment protected by flameproof enclosure "d" GB/T 4208-2017 Housing Protection Level (IP Code) GB/T 11037 Test methods for strength and tightness of marine boilers and pressure vessels GB/T 19582. 1 Industrial automation network specifications based on Modbus protocol Part 1. Modbus application protocol GB/T 2606 Marine aluminum alloy extruded tubes, rods, profiles GB 50003 Code for Construction and Quality Acceptance of Automation Instrumentation Engineering HG/T 20507 Design Specification for Automatic Instrument Selection HJ 637 Determination of water, petroleum and animal and vegetable oils-Infrared spectrophotometry

3 Terms and definitions

The following terms and definitions apply to this document.

Oil spill oil-water separation device oil water separator for oil spike Quickly purify the oil-water mixture recovered during the oil spill emergency process, and directly discharge the local water body after reaching the required discharge standards.

An integrated device capable of recovering spilled oil.

Rated capacity Under normal working conditions, the maximum amount of oil-water mixture processed by the oil-spilled oil-water separation device per unit time.

Separation precision tracement accuracy the upper limit of the oil content of the discharged water treated by the oil spill oil-water separation device.

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4 Classification, model and basic parameters

4.1

Classification

According to the oil-water separation mechanism, oil spill oil-water separation devices can be divided into swirl oil spill oil-water separation devices, membrane oil spill oil-water separation devices, air flotation Oil spill oil-water separation device, other oil spill oil-water

separation device, etc.

4.2

Model

The method for indicating the type of oil spilled oil-water separation device is shown in Figure 1.

Figure 1 Model representation method of oil spill oil-water separation device

Example.

The membrane oil spilled oil-water separation device with a rated processing capacity of 20m³/h and a separation accuracy of 15mg/L is indicated as. FM20-20.

4.3

Basic parameters See Table 1 for basic parameters of oil spilled oil-water separation device (hereinafter referred to as "separation device").

Table 1 Basic parameters

Rated capacity (m³/h) 5, 10, 20, 50, 80, 100, 150, 200 Separation accuracy (mg/L) 5, 10, 15

5 Technical requirements

5.1

Working environment the separation device should be able to work normally on the ship or on the ground under the following environmental conditions.

- a) when the temperature is not higher than 40 ° C, the relative humidity is 100%;
- b) When the temperature is higher than 40 ° C, the relative humidity should not be higher than 70%.

5.2

Appearance

5.2.1

The design of the separation device shall be beautiful, reasonably arranged and easy to operate.

5.2.2

The coating of the outer surface of the equipment and structure of the separation device shall be smooth and uniform.

5.3

General requirements

5.3.1

The processing and assembly of the separation device shall be reasonable, the parts and components shall be complete, the assembly shall be correct and complete, the fastening components shall be firm and reliable, and the pipeline joints shall not be loose. There should be no looseness and no leakage from the pipeline.

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5.3.2

The movement of the moving parts should be sensitive, coordinated and accurate, without jamming and abnormal sounds.

5.3.3

It should be safe and reliable to use and simple to operate.

5.3.4

Transportation, lifting and arrangement shall be mobile, flexible and convenient. The external dimensions of each part should preferably meet the requirements of highway rapid transportation.

5.3.5

The separation device shall have a continuous working capacity of more than 30d and not less than 23h per day.

5.4

Materials

5.4.1

In the seawater environment, the membrane separation material in the membrane-spilled oil-water separation device has no functional damage such as aging and performance degradation.

The time should not be less than 12 months.

5.4.2

When the separation device handles oil-water mixtures under marine environmental conditions, its internal equipment and piping materials shall be seawater-resistant Materials such as stainless steel and aluminum alloy. Stainless steel should meet the requirements of GB/T 3280; aluminum alloy should meet the requirements of GB/T 2606.