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

JT/T 1340-2020

**Technical requirements for ships'energy consumption data
collection and reporting**

船舶能耗数据收集与报告技术要求

(English Translation)

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Foreword

This standard is drafted in accordance with the rules given in GB/T 1.1-2009.

This standard is proposed by the Maritime Safety Administration of the Ministry of Transport.

This standard is under the jurisdiction of the Transportation and Maritime Safety Standardization Technical Committee.

1 Scope

This standard specifies the scope of ship energy consumption data collection, ship energy consumption and related data collection methods, data quality assurance plan and data reporting requirements.

This standard applies to the collection and reporting of ship energy consumption data.

2 Normative references

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

GB 17411-2015 Marine fuel oil GB 17411-2015/XG1-2018 "Marine Fuel Oil" National Standard No. 1 Amendment ISO 8217:2017 Petroleum products-Fuels (class

F)-Specifications of marine fuels]

3.1 Terms and Definitions

The following terms and definitions apply to this document.

3.1.1

company

The ship owner or any other party who takes over the responsibility for ship operation from the ship owner and agrees to undertake the collection and reporting of ship energy consumption data Responsibilities and obligations of ship managers or bareboat charterers and other organizations or individuals collectively.

3.1.2

marine fuel

Any fuel delivered for use on board a ship for its propulsion or operation.

3.1.3

report period report period A specific time period for the collection and reporting of ship energy consumption data.

3.1.4

Energy equipment fuel consumer Main engine, auxiliary engine, gas turbine, boiler, inert gas generator and other shipboard equipment that directly consume marine fuel.

3.1.5

Voyage

The navigation, berthing and operation of the ship during the two adjacent berthing periods starting from the last berthing time and ending at the current berthing time.

3.2 Abbreviations

The following abbreviations apply to this document.

4.1 Ship energy consumption and related data items

See Table 1 for ship energy consumption and related data items.

Table 1 Ship energy consumption and related data items

4.2 Passenger and cargo loading or converted loading

The passenger and cargo load or converted load of a ship is calculated according to the following methods.

- a) For bulk carriers, gas carriers, tankers, general cargo ships, refrigerated ships, combined ships, ro-ro cargo ships (including ro-ro vehicle carriers) for ro-ro passenger ships, the cargo capacity is the total weight of the cargo carried, and the unit is tons (t);
- b) For container ships, the cargo capacity is the total weight of the loaded containers, in ton (t); if filling in the total number of loaded containers, the unit is Standard container (TEU);
- c) For ships carrying mixed containers and other cargo, the cargo capacity is the sum of the total weight of the containers loaded and the total weight of other cargo.

The bit is in tons (t); if the actual weight of the container cannot be obtained, it will be converted according to 10t/TEU for the heavy-duty container and 2t/TEU for the empty container;

- d) For passenger ships (including ro-ro passenger ships), the passenger capacity is the actual number of passengers, or the rated number of passengers.

4.3 Classification of bunker fuels

The classification of marine fuel is shown in Table 2.

5.1 Data collection on shipping activities

The ship's voyage distance, voyage time, operation time, and passenger and cargo turnover can be reported according to the logbook, engine logbook, bill of lading, manifest, and noon and voyage reports are collected.

5.2.1 General requirements

All fuel consumption on board the ship during the reporting period should be collected. If the ship uses multiple fuels, the consumption data of each type of fuel should be collected separately. marine the collection of fuel consumption data mainly has the following methods.

- a) Fuel tank measurement method, the code is A;
- b) BDN summation method, the code is B;
- c) Flow meter method, code is C.

Depending on the situation, any one of the above methods can be selected, or multiple methods can be used in combination. In the same reporting period, it is advisable to use the same method to carry out Use fuel consumption data collection; if the data collection

method is changed, it should be recorded and explained.

5.2.2 Fuel oil tank measurement method

The method of obtaining the daily fuel consumption by manually or automatically measuring the fuel tank by the system, and then counting the total fuel consumption during the reporting period, according to Formula (1) calculation.

$$Q = \sum$$

$$Q_i \quad (1)$$

In the formula. Q ---the total amount of fuel consumption during the reporting period, the unit is tons (t);

Q_i ---The fuel consumption obtained based on the i -th measurement during the reporting period, the unit is ton (t), and the value of i is 1, 2, 3,, n .

Under normal circumstances, the fuel tank measurement should be carried out daily during the voyage of the ship, and after each fuel bunkering or discharge operation.

quantity. A summary of measurement data and a record of fuel consumption should be kept on board. When the ship arrives at the port and other feasible conditions, the measurement data of the fuel tank should be analyzed Make corrections. If corrections such as density and temperature are used, the supporting documents shall be retained. This method is not applicable to ships using gaseous fuels.

5.2.3 Addition method of refueling receipts

Based on the amount of fuel oil loaded on the BDN, as well as the amount of fuel oil stored in the fuel tanks at the beginning and end of the reporting period and the amount of fuel oil discharged on board during the reporting period, and then the method of calculating the total fuel consumption during the reporting period shall be calculated according to formula (2).

$$Q = C_0 \sum$$

$$D_i - \sum$$

$$B_j - C_1 \quad (2)$$

In the formula. Q ---the total amount of fuel consumption during the reporting period, the unit is tons (t);

C_0 ---the amount of oil stored in the fuel tank at the beginning of the reporting period, in tons (t);

D_i --- The amount of fuel oil added on the i -th BDN during the reporting period, the unit is tons (t), and the value of i is 1, 2, 3,, n ;