

ICS 47.020.50
CCS U 47



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

GB/T 25014-2026

Replacing GB/T 25014-2010

Marine bulkhead gearing

船用隔舱传动装置

Issued on: May 25, 2026

Implemented on: September 1, 2026

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

Table of Contents

4	Product Classification, Basic Parameters and Markings
4.3	Product Marking
4.3.1	Model Marking
5	Requirements
5.3	Appearance
5.4	Materials
5.5	Design
5.5.2	S-type transmission device
5.5.3	K-type transmission device
5.6	Performance
5.6.4	Casing Temperature
5.7	Reliability
6	Test methods
6.5	Sealing performance
7	Inspection Rules
7.2	Type Testing
7.3	Factory Inspection
8	Marking, Packaging, Transport and Storage
8.2	Packaging

Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1. Structure and Drafting Rules of Standardization Documents". Drafting. This document replaces GB/T 25014-2010 "Marine Compartment Transmission Devices". Compared with GB/T 25014-2010, the main differences are structural adjustments and... Aside from editorial changes, the main technical changes are as follows:

---The scope of application has been changed (see Chapter 1, Chapter 1 of the 2010 edition);

---The structural diagram in Figure 1 has been modified (see 4.1, 3.1 in the 2010 version);

- Some dimensions in Table 1 have been changed (see 4.2, 3.2 in the.2010 edition);
- The material requirements for major components have been changed (see 5.4.1, 4.4.1 in the.2010 version);
- Design and structural requirements have been changed (see 5.5, 4.5 in the.2010 edition);
- The requirements and test methods for sealing have been changed (see 5.5 in the.2010 edition);
- The requirements and test methods for abrasion resistance have been changed (see

4 Product Classification, Basic Parameters and Markings

4.1 Product Classification Based on the cooling method, transmission devices are divided into two categories.

a) Water-cooled transmission device - S-type transmission device, see Figure 1;

b) Air-cooled transmission device

---K type transmission device, see Figure 2.

4.2 Basic Parameters The basic parameters of the S-type transmission device are shown in Table 1, and the basic parameters of the K-type transmission device are shown in Table 2.

4.3.1 Model Marking

4.3.2 Tagging Example The shaft end diameter of the marine bulkhead drive is 80mm. The marking for the water-cooled marine bulkhead drive is.

5 Requirements

5.1 Dimensions The dimensions of the transmission device shall conform to the requirements of Table 1 and Table 2.

5.2 Weight The weight of the transmission device should meet the requirements of Tables 1 and 2.

5.3 Appearance

5.3.1 The outer surface of the transmission device shall be free from burrs, flash, scale, rust, chips, oil stains and dust.

5.3.2 The surface of the transmission device housing shall be coated with primer and

topcoat, and shall not peel.

5.4 Materials

5.4.1 The materials of the main components of the transmission device are shown in Table 3.

5.4.2 Materials with mechanical and physical properties superior to those specified in Table 3 are permitted.

5.4.3 When seawater is used for cooling water chambers, the materials of the cooling water chambers should be made of corrosion-resistant materials or take corrosion-resistant measures.

5.5 Design

5.5.1 Applicable Environment The applicable environments for the transmission device are shown in Table 4.

5.5.2 S-type transmission device

5.5.2.1 It shall consist of at least a pair of self-aligning roller bearings, a rotating shaft lip seal, a housing, a gland, etc.

5.5.2.2 The cooling water chamber shall be equipped with a temperature display device, and the lubricating oil chamber shall be equipped with an oil level indicator and a temperature monitoring sensor.

5.5.2.3 Pipe fittings and vent plugs should be provided.

5.5.2.4 A temperature sensor mounting interface should be provided at the bearing on the pump compartment side, and an alarm should be triggered when the temperature exceeds 65°C.

5.5.2.5 The oil level indicator interface shall comply with the requirements of Chapter 3 of JB/T 7941.4-1995.

5.5.2.6 The cooling water inlet pressure should not exceed 0.4 MPa.

5.5.2.7 The shell is a steel structure.

5.5.2.8 At least one end of the shaft should be a flexible connection.

5.5.2.9 Two sealing rings are installed at the pump compartment end of the device to prevent lubricating oil leakage and dust from entering the bearings and causing the device to overheat.

5.5.3 K-type transmission device

5.5.3.1 It consists of a sliding bearing, a rotating shaft lip-shaped rubber seal, a spacer, a housing, and a gland.

5.5.3.2 Lithium-based grease should be used for lubrication at the sealing points.

5.5.3.3 At least one end of the shaft should be a flexible connection.

5.5.3.4 A temperature sensor mounting interface should be provided at the bearing on the pump compartment side, and an alarm should be triggered when the temperature exceeds 65°C.

5.5.3.5 The housing is made of cast steel and should be equipped with an exhaust port above the lubricating oil chamber.

5.5.3.6 Air cooling equipment should be installed in appropriate locations in the engine room for air exchange.

5.6 Performance

5.6.1 Sealing performance When the transmission device is static, the leakage of lubricating oil is 0, and when it is dynamic, the leakage of lubricating oil is no more than 0.5 mL/h.

5.6.2 Abrasion resistance After the transmission device operates continuously at maximum speed for 100 hours, the sum of the wear of its sealing ring lips should not exceed 20µm.

5.6.3 Shell pressure resistance The transmission device housing was purged with 0.3 MPa of compressed air and held at that pressure for 30 minutes. No air leakage was observed.

5.6.4 Casing Temperature

5.6.4.1 The temperature of the water chamber portion of the housing of the S-type transmission device should not exceed 60°C, and the temperature of the oil chamber portion should not exceed 65°C.

5.6.4.2 The housing temperature of the K-type transmission device should not exceed 70°C.

5.7 Reliability

5.7.1 The mean time between failures (MTBF) of the S-type transmission should be no less than 5000 hours.

5.7.2 The mean time between failures (MTBF) of the K-type transmission should be no less