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

GB/T 5975-2026

Replacing GB/T 5975-2006

Lifting appliances - Clamping plates for fixing steel wire ropes

起重机械 钢丝绳用压板

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1 Scope

GB/T 5975-2026 is the Chinese national standard covering the plate that clamps a rope end on a crane drum - a small component whose failure releases the load, with its dimensions, material, strength and the bolt torque it is installed to. It replaces GB/T 5975-2006 and has been in force since 1 September 2026, with the sheave standard GB/T 27546-2026. It was issued on 27 February 2026 and has been in force since 1 September 2026, replacing GB/T 5975-2006. The document is under the responsibility of the China Machinery Industry Federation. This page is published from the official record of the 2026 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

This document specifies the types and basic parameters, technical requirements, inspection rules, marking, packaging, transportation, and storage of pressure plates for wire ropes, and describes... The corresponding experimental methods are described. This document applies to round strand steel wires specified in GB/T 8918, GB/T 20118 and YB/T 5359 used on crane drums. The wire rope is secured to the end of the rope with a pressure plate.

3 Terms and Definitions

This document does not contain any terms or definitions that need to be defined.

4 Types and Basic Parameters

4.1 Type Wire rope pressure plates (hereinafter referred to as "pressure plates") are generally divided into arc-shaped pressure plates, trapezoidal pressure plates, and

single-rope pressure plates, among which arc-shaped pressure plates are further... It comes in two types. standard groove and deep groove.

4.2 Basic Parameters The basic parameters of the arc-shaped pressure plate should conform to the provisions of Table 1. A typical schematic diagram is shown in Figure 1. The basic parameters of the trapezoidal pressure plate should conform to the provisions of Table 2. A typical schematic diagram is shown in Figure 2. The basic parameters of the single-rope pressure plate should conform to the provisions of Table 3. A typical schematic diagram is shown in Figure 3.

4.3 Model Designation Method The code for an arc-shaped pressure plate is represented by the capital letters "HY" from the first letters of the pinyin for "arc" and "pressure" in Chinese. The code for a trapezoidal pressure plate is represented by the capital letters "HY" from the pinyin for "trapezoidal" and "pressure" in Chinese. The first capital letter of the pinyin is "TY". The code for a single-rope pressure plate is "DY", which is the first capital letter of the pinyin for "single" and "pressure". Deep groove arc. The designation for a shaped pressure plate is the same as the designation for an arc-shaped pressure plate, followed by an "S". The pressure plate's model number consists of the designation and the maximum applicable wire rope diameter. Example. as follows:

5.1 Usage Conditions

5.1.1 The pressure plate should be used in a group with fasteners such as bolts or studs. The fasteners should have anti-loosening or self-tightening measures, and a tightening torque should be applied. Ensure the preload of the stud connection is sufficient; the preload should guarantee that the pressure plate generates a frictional load on the wire rope. When the friction system between the wire rope and the drum... When the value is 0.1, under this safety circle, the pressure plate should not undergo permanent deformation when subjected to

2.5 times the maximum working static tension of the wire rope.

5.1.2 When wire rope ends are fixed with pressure plates, the number of pressure plates at the ends of each wire rope should not be less than 2 for both arc-shaped and trapezoidal pressure plates. For single-rope pressure plates, there should be no fewer than three, and they should have anti-loosening or self-tightening properties.

5.2 Appearance and Surface Treatment The surface of the pressure plate should be smooth and flat, free from burrs, defects, sharp edges, and surface roughness. Protective treatment may be applied to the surface of the pressure plate if necessary. The specific handling requirements will be determined through negotiation between the supply and demand parties.

5.3 Materials The mechanical properties of the pressure plate material should not be lower than those specified in GB/T 700 for Q235B.

6 Test Methods

6.1 Visual inspection Visual inspection includes, but is not limited to, the following items.

- b) Fastener anti-loosening or self-tightening measures;
- c) Number of end plates for each wire rope;
- d) Surface quality.

6.2 Non-destructive testing When the raw materials used to make the pressure plate need to undergo non-destructive testing, they shall be tested according to the following methods.

- a) The ultrasonic testing method for the raw materials used to manufacture pressure plates from steel plates shall be carried out in accordance with the provisions of GB/T 2970-2016, and the quality of the steel plates, etc. The grade shall not be lower than Grade I in Table 4 of GB/T 2970-2016.
- b) Pressure plates made of forged steel shall be subjected to ultrasonic testing or magnetic particle testing in accordance with the provisions of GB/T 37400.15-2019. The ultrasonic testing results for forged steel shall not be lower than Grade 3 in Table 2 of GB/T 37400.15-2019, and the magnetic particle testing results shall not be lower than... Level 2 in Table 9 of GB/T 37400.15-2019.

7 Inspection Rules

7.1 Each pressure plate shall undergo factory inspection, and the factory inspection items shall comply with the provisions of Table 4.

7.2 The factory inspection adopts a two-time sampling method based on piece count. That is, from the batch of pressure plates submitted for acceptance, n_1 samples of each specification are randomly selected. The batch of pressure plates is inspected. If the number of defective pieces is no more than C_1 , the batch can be accepted; if the number of defective pieces is no less than C_2 , the batch... The pressure plates will not be accepted. If the number of non-conforming pieces is greater than C_1 but less than C_2 , a second sampling inspection is required, and more pieces will be randomly selected from that batch of pressure plates. Take n_2 samples. If the sum of the number of non-conforming items in the two samplings ($n_1 n_2$) is less than C_2 , the samples should be accepted; if it is not less than C_2 , then they should not be accepted. Acceptance is granted.

7.3 The sampling quantity, judgment number, and factory inspection of the pressure plate shall be in accordance with the provisions of Table 5.

8 Marking, Packaging, Transport and Storage

8.1 The exterior of packaging boxes, cartons, bags, etc., shall be marked or labeled,

including but not limited to the following.

- a) Manufacturer's name;
- b) Product Name;
- c) Factory serial number;
- d) Standard number to be implemented;
- e) Manufacturing date.

8.2 When shipping the pressure plate, the following accompanying documents should be included, but are not limited to.

- a) Product user and maintenance manual;
- b) Product certificate;
- c) Packing list.

8.3 The packaging of the pressure plate shall comply with the provisions of GB/T 13384.

8.4 The transportation of pressure plates shall comply with the relevant transportation requirements of railway, highway and shipping.

8.5 When storing pressure plates, attention should be paid to ventilation, rust prevention, moisture prevention and deformation prevention. GB/T 5975-2026. Pressure plates for wire ropes in lifting machinery ICS

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