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

GB/T 5974.1-2006

Replacing GB/T 5974.1-2006, GB/T 5974.2-2006

**Lifting appliances - Thimbles for steel wire ropes
(English Translation)**

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting is required.

This document replaces GB/T 5974.1-2006 "Ordinary thimbles for wire ropes" and GB/T 5974.2-2006 "Heavy thimbles for wire ropes".

Compared with GB/T 5974.1-2006 and GB/T 5974.2-2006, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

- Added terms and definitions (see Chapter 3);
- Added the type classification of collars (see 4.1);
- The model designation of ordinary thimbles and heavy thimbles has been changed (see 4.3, 3.2 of GB/T 5974.1-2006 and GB/T 5974.2-2006, 3.2);
- Changed the applicable material specifications for heavy-duty collars (see Table 3, Table 2 of GB/T 5974.2-2006);
- The load-bearing capacity of heavy-duty collars has been changed (see 5.2.2, 4.4 of GB/T 5974.2-2006);
- Increased fatigue performance of heavy-duty collars (see 5.3);
- Added non-destructive testing requirements for heavy collars (see 5.5);
- Added the testing machine requirements for the ring bearing capacity test (see 6.3.1);

- Added fatigue test for heavy collars (see 6.4);
- Added non-destructive testing methods for heavy collars (see 6.5);
- Added the inspection category of collars (see 7.1);
- Added the inspection items for the collar (see Table 5);
- Changed the sampling method and judgment principle for the factory inspection of thimbles (see 7.2.2, Table 3 of GB/T 5974.1-2006 and GB/T 5974.2-2006 (Table 3);
- Added type inspection of collars (see 7.3).

1 Scope

This document specifies the types and basic dimensions, technical requirements, test methods and inspection rules, markings, Packaging, transportation and storage.

This document is applicable to the thimbles for round strand wire ropes specified in GB/T 8918 and GB/T 20118. For other wire rope thimbles, refer to implement.

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document.

For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to this document.

GB/T 699-2015 High-quality carbon structural steel GB/T 700-2006 Carbon structural steel
GB/T 1348-2019 Ductile iron castings GB/T 8706 Terminology, marking and classification of wire ropes
GB/T 9440-2010 Forgeable iron castings GB/T 11352-2009 Carbon steel castings for general engineering
GB/T 13384 General technical requirements for packaging of electromechanical products
GB/T 13825 Metallic coatings - Method for weighing the mass per unit area of hot-dip galvanized layers of ferrous metal materials
GB/T 16825.1 Inspection and calibration of static uniaxial testing machines for metallic materials Part 1: Tension and/or compression testing machines
Inspection and calibration of force measuring systems
GB/T 17107-1997 Structural steel grades and mechanical properties for forgings
GB/T 37400.14 General technical requirements for heavy machinery Part 14: Non-destructive testing of steel castings
GB/T 37400.15 General technical requirements for heavy machinery Part 15: Non-destructive testing of forged steel parts

3 Terms and definitions

The terms and definitions defined in GB/T 8706 and the following apply to this document.

Nominal thimble size the largest nominal diameter of wire rope for which the thimble is suitable (d).

4.1 Type classification

According to the tensile strength of the wire rope that the wire rope thimble (hereinafter referred to as "thimble") is suitable for, it is divided into ordinary thimble and heavy-duty thimble.

Ordinary thimbles are suitable for steel wire ropes with a tensile strength not exceeding 1 770 MPa, code-named GT.