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

GB/T 11260-2023

Replacing GB/T 11260-2008

Method for eddy current testing of round steel

圆钢涡流检测方法

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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 11260-2008 "Eddy Current Flaw Detection Method for Round Steel". Compared with GB/T 11260-2008, except for structural adjustments and In addition to editorial changes, the main technical changes are as follows:

- a) Added general requirements for testing (see Chapter 5);
- b) The detection methods and classifications have been modified (see 6.1, 5.1 of the.2008 edition);
- c) Added content that the magnetizing current of the magnetic saturation device should be continuously adjustable, and the current and frequency of the demagnetization device should be continuously or step-by-step adjustable (see 6.2.2);
- d) Added rotating detection technology method (see 6.3);
- e) Changed the signal amplitude fluctuation value (see 6.3.2, 5.3.2 of the.2008 version);
- f) Added requirements for surface coverage of round steel by rotating probes (see 6.3.3);
- g) Added array detection technology (see 6.4);
- h) Added provisions for array detection of artificial defect processing (see 7.4.1.3, 7.4.2.3);
- i) Added content requirements for the general principles of detection systems (see 8.1);
- j) Added requirements for the difference between the highest amplitude and the lowest amplitude of each artificial defect in the comparison sample (see 9.1.3);

1 Scope

GB/T 11260-2023 is the Chinese national standard on method for eddy current testing of round steel, in the field of metallurgy. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 7 September 2023 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 April 2024.

Classification: ICS 77.040.20, CCS H 26. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

2.Probe performance and inspection YB/T 145 Steel pipe flaw detection comparison sample artificial defect size measurement method YB/T 4083 Comprehensive performance testing method of automatic eddy current flaw detection system for steel pipes

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, the dated quotations For undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to this document.

GB/T 9445 Qualification and certification of non-destructive testing personnel

GB/T 12604.6 Non-destructive testing terminology Eddy current testing

GB/T 14480.1 Non-destructive testing instruments Eddy current testing equipment Part

GB/T 14480.2 Non-destructive testing instruments Eddy current testing equipment Part

3 Terms and definitions

The terms and definitions defined in GB/T 12604.6 apply to this document.

4 Detection principle

When a round steel with defects on the surface or near the surface passes through a coil excited by an alternating current, the eddy current induced on the surface of the round steel will cause distortion. This change changes the impedance of the coil, causing the electrical signal generated in the coil to change. After signal processing, the defect information can be obtained. Display images, electrical signals, sound and light alarms, records, etc. According to the amplitude and phase of the defect signal, the defect can be analyzed and

judged, and then the defect can be completed. Inspection of paired round bars.

5 General requirements

5.1 General When conducting eddy current testing in accordance with this document, the supplier and the buyer should indicate the testing method in the contract or agreement, combined with 7.4.3, Table 1 and (or) Table 2 determines the quality level.

5.2 Testing personnel Personnel engaged in eddy current testing of round steel should participate in training in accordance with GB/T 9445 or corresponding documents and obtain an eddy current testing qualification certificate