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

GB/T 9808-2023

Seamless steel tubes for drilling

钻探用无缝钢管

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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 9808-2008 "Seamless Steel Pipe for Drilling": Compared with GB/T 9808-2008, except for structural adjustments and editing In addition to sexual changes, the main technical changes are as follows:

- a) Added terms and definitions (see Chapter 3);
- b) Delete the dimensional specifications table of nominal outer diameter and nominal wall thickness of steel pipes (see Table 1 of the:2008 edition);
- c) The allowable deviation of wall thickness of steel pipes has been changed (see Table 2, Table 3 of the:2008 edition);
- d) The normal length range, fixed length and multiple length allowable deviations of steel pipes have been changed (see 6:3:1, 6:3:2:1,;2008 edition) 5:3:1, 5:3:2);
- e) The requirements for the full-length curvature of steel pipes have been changed (see 6:4:2, 5:4:2 of the:2008 edition);
- f) Changed the terminal shape requirements (see 6:7, 5:7 of the:2008 edition);
- g) The requirements for the allowable deviation of the weight of a single steel pipe have been changed (see 6:8:2, 5:8:2 of the:2008 edition);
- h) Added ZT750, ZT850, and ZT950 grades, and deleted ZT540 and ZT740 grades (see Table 5, 6:1:1 of the:2008 edition);
- i) The content requirements of chemical components P and S elements have been changed (see Table 5, 6:1:2 of the:2008 edition);
- j) Changed the smelting method of steel (see 7:2:1, 6:2:1 of the:2008 edition);
- k) Changed the requirements for the manufacturing method of tube blanks (see 7:2:2, 6:2:2 of the:2008 edition);
- l) The hot extrusion manufacturing method of steel pipes has been deleted (see 6:2:3 of

the:2008 edition);

m) Added tensile, impact, and hardness requirements for grades ZT750, ZT850, and ZT950 (see 7:4:1~7:4:3);

1 Scope

China's national standard for seamless steel tubes for drilling. The tubes covered here are those of exploration and water well drilling rather than of oil and gas: core drilling for geology, water wells, hydrogeological investigation and engineering ground investigation. The duty is severe in a way that is easy to underestimate. A drill string is a slender column hundreds or thousands of metres long that is simultaneously in tension from its own weight, in torsion from the torque driving the bit, and in bending wherever the hole deviates - and it is rotating, so the bending stress reverses on every turn, which makes fatigue the governing failure mode. The joints are where it breaks. That is why the standard covers not only the drill rod material but the joint and coupling materials with it. It specifies the grade designation, order content, dimensions, shape, weight, technical requirements, test methods, inspection rules, packaging, marking and quality certificates, and applies to seamless tube for casing and casing couplings, core barrels, ordinary drill rod and joints, steel shot bit bodies, wireline core drill rod and joints, and drill collars and their lock joints.

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 222 Allowable deviations in chemical composition of finished steel products GB/T 223:

59 Determination of phosphorus content in steel and alloys bismuth phosphorus molybdenum blue spectrophotometry and antimony phosphorus molybdenum blue spectrophotometry GB/T 223:

85 Determination of sulfur content in steel and alloys - Infrared absorption method after combustion in induction furnace GB/T 228:

GB/T 2102 Acceptance, packaging, marking and quality certificate of steel pipes

GB/T 2975 Sampling location and sample preparation for mechanical property testing of steel and steel products

GB/T 4336 Determination of multi-element content in carbon steel and medium-low alloy steel Spark discharge atomic emission spectrometry (conventional method)

GB/T 5777-2019 Full-circumference automatic ultrasonic detection of longitudinal and/or transverse defects in seamless and welded (except submerged arc welding) steel pipes

GB/T 7735-2016 Automatic eddy current detection of defects in seamless and welded (except submerged arc welding) steel pipes

GB/T 9151 Drilling engineering terminology

GB/T 12606-2016 Full-circle automatic flux leakage of seamless and welded (except submerged arc welding) ferromagnetic steel pipes with longitudinal and/or transverse defects Detection

GB/T 16950 Geological core drilling tools

GB/T 17395 Seamless steel pipe size, shape, weight and allowable deviation

GB/T 20066 Methods for sampling and preparation of samples for determination of chemical composition of steel and iron

GB/T 20123 Determination of total carbon and sulfur content in steel and iron by high-frequency induction furnace post-combustion infrared absorption method (conventional method)

GB/T 20125 Determination of multi-element content in low alloy steel by inductively coupled plasma atomic emission spectrometry

GB/T 30062 Steel Pipe Terminology YB/T 4149 Continuous Casting Round Tube Billet YB/T 5221 alloy structural steel hot rolled and forged round tube billet

3 Terms and definitions

The terms and definitions defined in GB/T 9151, GB/T 16950 and GB/T 30062 apply to this document: