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

GB/T 34524-2025

Replacing GB/T 34524-2017

Wind energy generation systems - Main shaft of wind turbines

风能发电系统 风力发电机组主轴

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Table of Contents

1.Scope	1
2 Normative References	1
3.Terms and Definitions	2
4 Forging spindles	2
5 Casting spindle	8
6.Acceptance and Certificate of Conformity	13
7.Marking, Packaging and Storage	13

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 34524-2017 "Main Shaft of Wind Turbine Generator Set". Compared with GB/T 34524-2017, the main shaft has been adjusted. Aside from editorial changes, the main technical changes are as follows:

- a) The "Scope" has been changed, order information has been removed, and casting spindles have been added (see Chapter 1, Chapter 1 of the.2017 edition);
- b) The term and definition of "casting spindle" have been added (see 3.2);
- c) Change the terms and definitions of "solid spindle" and "hollow spindle" to "solid forged spindle" and "hollow forged spindle" (see 3.5). (and 3.6,.2017 versions
- d) The terms and definitions for "normal temperature type unit" and "low temperature type unit" have been removed (see 3.7 of the.2017 edition);
- e) "Order Information" has been removed (see Chapter 4 of the.2017 edition);
- f) Added "Material Selection" for the forging spindle (see 4.1.1);
- g) The provisions for the smelting section in "Smelting and Casting" have been amended (see 4.1.2, 5.1.1 in the.2017 edition);
- h) Added requirements for initial forging temperature, final forging temperature, and hollow forging requirements in the "Forging" section (see 4.1.3);

i) The requirements for heat treatment furnaces in the "Heat Treatment" section have been changed (see 4.1.4, 5.1.3 in the 2017 version);

1 Scope

GB/T 34524-2025 is the Chinese national standard covering the main shaft that carries the rotor - the forging and its cleanliness, the mechanical properties through a section that is very thick, the fatigue design against twenty years of reversing bending, the non-destructive testing, and the machining of the bearing and flange seats. Issued on 31 October 2025, it has been in force since 1 May 2026, replacing GB/T 34524-2017.

This document specifies the technical requirements, inspection requirements and test methods, acceptance procedures and certificates of conformity for forged and cast main shafts of wind turbine generator sets. Books, logos, packaging, and storage. This document applies to the design, manufacture, and inspection of forged and cast main shafts for horizontal axis wind turbine generator sets.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 223 (all parts) Chemical Analysis Methods for Iron and Steel and Alloys

GB/T 226 Steel - Low-magnification microstructure and defect testing method using acid etching

GB/T 228.1 Metallic materials - Tensile testing - Part