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

GB/T 46848.9-2025

**Technical product documentation - Product design data
management requirements - Part 9: Storage and maintenance**

技术产品文件 产品设计数据管理要求 第9部分：存储与维护

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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 is Part 9 of GB/T 46848 "Requirements for the Management of Technical Product Documentation and Product Design Data". GB/T 46848 has been... The following sections were published.

- 1. General Provisions;
- 2. Numbering Principles;
- 3. Basic Procedures;
- 4. Access Control;
- 5. Document Management;
- 6. Product Structure Management;
- 7. Approval and Issuance;
- 8. Change Management;

9. Storage and Maintenance. Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents. This document was proposed and is under the jurisdiction of the National Technical Committee on Standardization of Technical Product Documentation (SAC/TC146). This document was drafted by: CRRC Qishuyan Locomotive Co., Ltd., CRRC Productivity Promotion Center Co., Ltd., and Beijing Aerospace Systems Engineering Research

Institute. Research Institute, SAIC-GM-Wuling Automobile Co., Ltd., Guangxi Yuchai Machinery Co., Ltd., XCMG Construction Machinery Co., Ltd. Shanghai Pairui Information Technology Co., Ltd., and China Machinery Research Institute of Standards and Technology (Beijing) Co., Ltd. The main drafters of this document are. Dong Xianming, Liu Jianhua, Shi Guoyou, Pan Kanghua, Chen Jie, Zhao Bo, Pi Zan, Gan Yutian, Li Junping, and Wu Rui. Lin Jingsong and Gao Hongwei.

With the gradual application and promotion of 3D computer-aided design (CAD) technology, and the application of model-defined design (MBD) technology in manufacturing... Within enterprises, 3D digital models have gradually replaced 2D engineering drawings, becoming the core data carrier in the product development process. This shift... This change not only reflects the evolution of technological forms, but also signifies a profound transformation in product design methodologies and management models. Because 3D models are crucial in technological information... The data management and document control methods differ significantly from the traditional two-dimensional model in terms of information expression, data organization structure, and collaborative management. The process also faces systemic restructuring. To adapt to the development approach centered on 3D digital models, this system addresses the bottlenecks in product design data management within a 3D environment. The problem is to promote the popularization and engineering application of model-based definition technology, support the digital transformation and upgrading of my country's manufacturing industry, and formulate... GB/T 46848 "Requirements for the Management of Product Design Data in Technical Product Documentation". GB/T 46848 is based on the entire lifecycle of product design data. The management process is planned to consist of nine parts.

1.General Provisions. The purpose is to stipulate the general rules for the classification, compilation, archiving, copyright, and protection of product design data. It serves as the foundation and framework for the entire series of standards.

2.Numbering Principles. The purpose is to define the general principles, basic requirements, and numbering methods for product design data files. This method ensures the consistency and traceability of data file identification.

1 Scope

GB/T 46848.9-2025 is the Chinese national standard covering keeping design data alive - the storage and its backup, the integrity checking, the migration between systems and formats, and the retention of data for products that will be supported for decades. Part 9 of the GB/T 46848 series, first edition, and it belongs with the CAD archiving standard GB/T 17678-2025. It was issued on 31 December 2025 and has been in force since 1 April 2026, as a first edition. The document is under the responsibility of the Standardization Administration of China. This page is published from the official record of the 2025 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 classification, general requirements, and detailed requirements for product design data storage and maintenance management. This document applies to the storage, maintenance, and management of product design data.

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 17678 Standard for Archiving and Management of CAD Electronic Documents

GB/T 20988 Network Security Technology - Information System Disaster Recovery Specification

GB/T 46848.1 Technical Product Documentation - Product Design Data Management Requirements - Part

3 Terms and Definitions

The terms and definitions defined in GB/T 46848.1 apply to this document.

4. Classification of Storage and Maintenance Based on different management methods, the storage and maintenance of product design data can be divided into the following two categories.

- a) Information system management, such as using a computer document management system or a PDM system;
- b) Manual management, such as using storage media like USB flash drives, hard drives, and optical discs.

4 Access Control

GB/T 46848.7 Technical Product Documentation - Product Design Data Management Requirements - Part

5 General Requirements

5.1 Product design data should be stored and maintained using computer-based document management systems, PDM, or other information systems.

5.2 Stored product design data should be signed completely and meet the requirements of integrity and consistency.

5.3 Stored product design data files shall be numbered and named in accordance with the requirements of GB/T 46848.2.

5.4 The product design data media should be properly stored in an environment with a temperature of 14°C~24°C and a relative humidity of 45%~60%. It should also be kept away from magnetic fields, heat sources, and places with harmful gases such as acids and alkalis.

5.5 Two-dimensional drawings generated from the projection of the three-dimensional design model should be stored together with the three-dimensional model and kept in association.

5.6 Changes to the 2D drawings should be driven by modifications to the 3D design model.

7 Approval and Issuance

GB/T 46848.8 Technical Product Documentation - Product Design Data Management Requirements - Part