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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 12368-2025

Replacing GB/T 12368-1990

Modules of bevel gears

锥齿轮模数

(English Translation)

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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 12368-1990 "Bevel Gear Module". Compared with GB/T 12368-1990, the main differences are structural adjustments and editorial changes.

Aside from the modifications, the main technical changes are as follows.

a) The scope has been changed (see Chapter 1, Chapter 1 of the 1990 edition);

b) Added terms and definitions (see Chapter 3);

c) Modular series content has been changed (see Chapter 4, Chapter 2 of the 1990 edition).

This document is modified to adopt ISO 678:1976 "Straight bevel gears for general and heavy machinery - Module and diametral pitch". This document adds a chapter on "Normative References".

The technical differences between this document and ISO 678:1976, and the reasons therefor, are as follows.

a) Content related to the metric system has been removed to align with the current trend of ISO and other countries adopting the metric system;

b) Terms and definitions from GB/T 3374.1 have been added, and a definition for the term "midpoint normal modulus" has been added (see Chapter 3).

The module of a front bevel gear usually refers to the module in the normal direction at the midpoint;

c) The phrase "Avoid using the module 6.5 in Series II" and "6.5" in Series II of Table 1 have been removed because they are rarely needed in actual engineering.

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Eliminating bevel gears with a module of 6.5 simplifies the supply chain and reduces non-standard inventory.

d) The module series of small module bevel gears has been increased (see 4.3) to adapt to and standardize the rapidly developing small module bevel gear industry in China. The following editorial changes have been made to this document.

---To align with existing standards, the standard name has been changed to "Bevel Gear Module";

---The content of the "Note" in Chapter 3 has been moved to 4.1 to make the chapter more applicable after the addition of "Small Module Bevel Gear Module Series".

Introduction

This document aims to standardize the bevel gear cutting tool series, but does not restrict any non-standardized modules, as non-standardized modules can be adapted through... It is machined using tools with adjacent standard modules.

1 Scope

This document specifies the module series for spur and helical bevel gears.

This document applies to the design and fabrication of bevel gears in civilian and industrial applications. It covers the module of spiral bevel gears and hypoid gears, and their... For other fields involving bevel gear transmissions, please refer to this document.

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 3374.1 Gears - Terminology and Definitions - Part 1: Geometric Definitions

3 Terms and Definitions

The terms and definitions defined in GB/T 3374.1 and the following terms and definitions apply to this document.

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3.1 Modulus module

The quotient obtained by dividing the tooth pitch on the pitch face by pi.

Note: Measured in millimeters. [Source: GB/T 3374.1-2010, 3.11, with modifications]

3.2 Meannormalmodule

The module of the midpoint section of the bevel gear tooth width.

4.1 Overview

The module of a bevel gear refers to the module (mmn) in the normal direction at the midpoint.

The midpoint normal module of a bevel gear is defined on the pitch cone surface.

4.2 Ordinary Module Bevel Gears

Ordinary module bevel gears are simply bevel gears, and the modules given in series I of Table 1 should be used preferentially.

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