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

GB/T 1217-2022

Replacing GB/T 1217-2004

Micrometer for measuring root tangent lengths of gear teeth

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part

1. Structure and Drafting Rules of Standardization Documents" drafted. This document replaces GB/T 1217-2004 "Common Normal Micrometer", compared with GB/T 1217-2004, except for structural adjustment and editorial In addition to the changes, the main technical changes are as follows:

- a) Deleted the common normal micrometer with a division value of 0.005mm (see Chapter 1 of the.2004 edition), and expanded the maximum measurement range to 500mm (see Chapter 1);
- b) Deleted the range requirement of the micrometer head in the range (see Chapter 1 of the.2004 edition);
- c) Changed the definition of common normal micrometer (see 3.1);
- d) The definition of the maximum allowable error is deleted (see 3.2 of the.2004 edition);
- e) The duckbill type public normal micrometer is added to the model (see 4.1.3);
- f) Added the requirements for the basic parameters of the common normal micrometer (see 4.2);
- g) Added requirements for interaction (see 5.4.2);
- h) Deleted the requirement for locking device (see 5.6 of the.2004 edition);
- i) Changed the specified value of the parallelism tolerance of the disc type common normal micrometer and the duckbill type common normal micrometer (see

5.9 and Table 1,.2004

1 Scope

GB/T 1217-2022 is the Chinese national standard on micrometer for measuring root tangent lengths of gear teeth, in the field of metrology and measurement. 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 11 July 2022 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 February 2023. Classification: ICS 17.040.30, CCS J42. 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.

This document specifies the types, parameters, requirements, inspection conditions, inspection of public normal micrometers (excluding electronic digital display public normal micrometers) method, marking and packaging, etc. This document is applicable to the common normal line with the division value of 0.01mm, 0.001mm, 0.002mm and the measurement range less than or equal to 500mm Micrometer (excluding electronic digital display common normal micrometer).

2 Normative references

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

GB/T 1216 outside micrometer

GB/T 1800.2 Product Geometric Specification (GPS) Linear Dimension Tolerance ISO Code System Part

3 Terms and Definitions

The terms and definitions defined in GB/T 17163, GB/T 17164 and the following apply to this document.

3.1 Using the principle of the screw pair, it is specially designed for gear gauges to read the distance between the two disc-shaped or duckbill-shaped measuring surfaces on the arc-shaped ruler frame. A measuring device for normals.

4.1 Type

4.1.1 The type of common normal micrometer is shown in Figure 1 and Figure

2. The diagrams are for illustration only and do not represent the detailed structure.

4.1.2 The measuring surface of the disc-shaped common normal micrometer shall be rotary or straight.

4.1.3 The measuring surface of the duckbill-shaped common normal micrometer is straight forward.