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

GB/T 23582.1-2009

**Test conditions for vertical turning and boring lathes -- Testing
of the accuracy -- Part 1: Single and double column vertical
turning and boring lathes**

立式车床检验条件 精度检验 第1部分：单柱和双柱立式车床

(English Translation)

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Table of Contents

Preface	
1 Scope	
2 Normative references	
3 Definitions and Description	
Symbols and terminology	4 axes
General requirements	5
Geometric tests	6
7 Working accuracy	
Inspection 8 NC positioning accuracy and repeatability of	

Foreword

GB/T 23582 "Test conditions for vertical lathe accuracy test" is divided into three parts.

- Part 1. Single and double column vertical lathe;
- Part 2. moving table vertical lathe;
- Part 3. mobile column vertical lathe.

This is Part 1 GB/T 23582 of.

The partial modification of the use of ISO 3655. 1986 "single column with fixed or mobile single-stage or double-column vertical lathe and fine Subjects Reliability test "(in English).

This section according to ISO 3655. 1986 redrafted.

Taking into account China's national conditions, adopting ISO 3655. 1986 When do the technical content changes, these technical differences identified in a single vertical line the margin they involved the terms page. It gives a list of the technical differences and their reasons in Appendix A for reference.

This standard also made the following editorial changes.

- The "this International Standard" by "this standard";
- Use the decimal symbol instead of as a decimal comma ", ". ", ";
- Deleted international standards foreword, introduction of international standards by way of expressing our language;
- To ISO 3655. 1986 and other international standards cited by international standards

adopted in place of the corresponding standard;

--- Chapter 3, "vertical lathe machining process definition" and Chapter 4, "Defining various types of machine tools and a brief description of the" Merge into Chapter 3, "Definition and description";

--- Chapter 6, "Machine sketch" and Chapter 7, "the term" combined into Chapter 4, "the axis of the symbols and terminology";

--- Chapter 5, heading "brief description" to "General requirements." Appendix A of this section is an informative annex.

This part is proposed by China Machinery Industry Federation.

This part of the National Metal Cutting Machine Standardization Technical Committee (SAC/TC22) centralized.

This section is drafted. Wuhan Heavy Duty Machine Tool Group Co., Ltd., Qiqihar Heavy CNC Equipment Co., Ltd., Shanghai Heavy Machine Tool Plant, Wuhu Hengsheng Heavy Machine Tool Co., Ltd., Tianshui Spark Machine Tool LLC.

1 Scope

This section GB/T 23582 specifies the general geometric precision single-column precision and double-column vertical lathe, working accuracy and positioning axis Accuracy test and the corresponding tolerances.

This section applies to the maximum turning diameter of 630mm ~ 10000mm, general and general-purpose CNC single column and double-column vertical lathe.

This section is only used for machine tool accuracy test. Check the operation does not apply to machine tools (such as climbing vibration, unusual noise, moving parts Line, etc.), does not apply to check the machine parameters (such as speed, feed rate, etc.). These checks should be carried out before testing the accuracy.

Division is divided into different types of machines under the definition given in terms of the main components of the machine, according to GB/T 19660 named axis.

2 Normative references

The following documents contain provisions which, through reference GB/T 23582 in this section constitute provisions of this section. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to reach under this section Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB/T 1182-2008 Geometrical product specifications (GPS) geometric tolerances of form, orientation, location and runout tolerancing (ISO 1101:2004, IDT) GB/T 17421.1-1998 Test code for machine tools - Part 1. under no-load or finishing conditions Geometric accuracy of machines (eqv ISO 230-1:1996) GB/T 17421.2-2000 Test code for machine tools - Part 2. CNC axis positioning accuracy and repeatability of determination (Eqv ISO 230-2:1997) GB/T 19660 Industrial automation systems and integration - Numerical control of machines and motion coordinate system named (GB/T 19660-2005, ISO 841:2001, IDT)

3 Definition and description

Definition 3.1 vertical lathe machining step 3.1.1 Turning refers to one or more of the single-point tool for cylindrical, conical or other inner and outer surface of the rotational molding processing step.

3.1.2

Face processing step is a step on a plane perpendicular to the axis of rotation of the processing table.

3.1.3

Thread processing refers to special thread cutter internal and external cylindrical surface of a given pitch thread processing step.

3.1.4

Scroll line (Archimedean spiral) cutting refers to a plane perpendicular to the rotary table axis helical groove machining step.