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

GB/T 18737.5-2024

**Textile machinery and accessories - Beams for winding - Part 5:
Sectional beams for warp knitting machines
(English Translation)**

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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 for standardization documents" Drafting is required.

This document is part 5 of GB/T 18737 Textile machinery and accessories warp beams. GB/T 18737 has been published for the following part.

Part 1: Vocabulary;-Part 2: Warping beams;-Part 3: Weaving beams;-Part 4: Quality grades for weaving beams, warping beams and section warping beam flanges;

Part 5: Segmented warp beams for warp knitting machines;

Part 6: Warp beams for ribbon weaving and crochet machines;

Part 7: Beams for dyeing sliver, roving and yarn; -Part 8: Definition and measurement method of runout tolerance;

Part 9: Beams for dyeing fabrics. -this document is modified to adopt ISO 8116-5:2008 "Textile machinery and accessories warp beams Part 5: Segmented warp beams for warp knitting machines".

The technical differences between this document and ISO 8116-5:2008 and their reasons are as follows.

The scope of application of this document (see Chapter 1) has been expanded to suit my country's technical conditions. -the normative reference GB/T 1800.2 replaced ISO 286-2 (see Table 1), and the normative reference GB/T 9239.1 replaced ISO 1940-1 (see Chapter 8), replaced ISO 8116-8 (see Chapters 6, 7 and 8) with the normative reference GB/T 18737.8.

7) to adapt to my country's technical conditions.

For the mechanical strength quality grade of segmented warping beams, the normative reference GB/T 18737.4 replaces ISO 8116-4 (see 5 and 11) to adapt to my country's technical conditions.

The diameters of the side plates were increased to $d_1 = 535$ mm, 660 mm, 812 mm, 876 mm, 1 016 mm, 1 066 mm, and the corresponding the code should be changed; the side plate diameter $d_1=532$ mm, 1 000 mm was deleted; the side plate spacing $l_1=316$ mm, 470 mm, 976 mm; added total length $l_2 = 540$ mm, 1 066 mm; deleted total length $l_2 = 1 065$ mm, 1 270 mm, 1 325 mm, 1 065 mm; added roll diameter $d_2 = 200$ mm, 235 mm, 260 mm, 300 mm; deleted roll diameter $d_2=196$ mm, 298 mm, 360 mm; change the keyway width $b=19.6$ mm to $b=20$ mm; change $h=165.3$ mm to it was changed to $h=160.2$ mm (see Table 1) to adapt to my country's technical conditions.

The tolerance of the end face circular runout of the side plate has been changed (see Table 2) to adapt to the technical conditions of my country.

The calculation formula of the radial total runout tolerance T_r of the drum (see Chapter 7) has been changed to adapt to my country's technical conditions.

Introduction

GB/T 18737 "Warp beams of textile machinery and accessories" adopts ISO 8116 standard and is intended to consist of 9 parts.

Part 1: Vocabulary. The purpose is to give requirements for the basic vocabulary and type classification of warp beams.

Part 2: Warping beams. The purpose is to determine the main dimensions, mechanical strength, shape and position tolerances of warping beams, as well as warping beams with shaft extensions.

And put forward requirements for the transmission structure and marking of the warping beam without shaft extension.

Part 3: Weaving beams. The purpose is to describe the types and main dimensions, mechanical strength, thread profile, and runout of the weaving beams.

The requirements include shaft core radial total runout tolerance, other specifications and markings.

Part 4: Quality grades for warping beams, warping beams and section warping beams. The purpose is to describe the principles and practical methods of grading warping beams.

The law makes demands.

Part 5: Segmented warp beams for warp knitting machines. The purpose is to describe the main dimensions, mechanical strength and Requirements are put forward for the maximum geometric tolerances of the main elements.

Part 6: Warp beams for ribbon looms and crochet machines. The purpose is to provide basic terms, main dimensions and and requirements for geometric tolerances.

Part 7: Shafts for dyeing sliver, roving and yarn. The purpose is to describe the types of porous shafts for dyeing sliver, roving and yarn.

Requirements are put forward for the format, terminology and marking, and main dimensions of the transmission structure.

Part 8: Definition and measurement of runout tolerances. The purpose is to determine the geometric and positional tolerances (edge and Requirements are put forward for the disk end face circular runout and the total runout of the shaft tube and the measurement method.

Part 9: Shafts for fabric dyeing. The purpose is to provide the types, terms, main dimensions and markings of shafts for fabric dyeing.

Require.

Textile machinery and accessories warp beam Part 5: Sectional warping beams for warp knitting machines

1 Scope

This document specifies the main dimensions, mechanical strength, marking and geometric tolerances of the segmented warping beams for warp knitting machines.

To measure the limits, this document provides recommended values for the balancing quality levels for selection.

This document applies to the design, production, sales and use of segmented warping beams for warp knitting machines (referred to as segmented warping beams).

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document.

For referenced documents without a date, only the version corresponding to that date

applies to this document; for referenced documents without a date, the latest version (including all amendments) applies.

in this document.

GB/T 1800.2 Product Geometrical Technical Specification (GPS) Linear Dimension Tolerance ISO Code System Part 2: Standard Tolerance Zones Code and limit deviation table of holes and shafts (GB/T 1800.2-2020, ISO 286-2:2010, MOD) GB/T 9239.1 Mechanical vibration steady-state (rigid) rotor balancing quality requirements Part 1: Specification and balance tolerance inspection (GB/T 9239.1-2006, ISO 1940-1:2003, IDT) GB/T 18737.4 Textile machinery and accessories warp beams Part 4: Quality grades for weaving beams, warping beams and warping beam flanges (GB/T 18737.4-2003, ISO 8116-4:1995, IDT) GB/T 18737.8 Textile machinery and accessories warp beams Part 8: Definition and measurement method of runout tolerance (GB/T 18737.8-2009, ISO 8116-8:1995, IDT) ISO 8116-4 Textile machinery and accessories - Warp beams - Part 4: Quality grades for weaving beams, warping beams and section warping beam flanges (Textile machinery and accessories-Beams for winding-Part 4: Test methods and quality classification of flanges for weaver's beams,warper's beams and sectional beams)

3 Terms and definitions

There are no terms or definitions that require definition in this document.

4 Main dimensions

The main dimensions of the segmented warping beam and their meanings are shown in Figure 1. The main dimensions of the segmented warping beam shall comply with the provisions of Table 1.