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

GB/T 15531-2022

Replacing GB/T 15531-2008

Belt drives - Pulleys - Limiting values for adjustment of centres

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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.

This document replaces GB/T 15531-2008 "Center Distance Adjustment Limits of Belt Drive Pulleys", and is consistent with GB/T 15531-2008

In addition to structural adjustments and editorial changes, the main technical changes are as follows.

---Changed the scope of application of the standard, changing "trapezoidal tooth synchronous pulley" to "synchronous pulley" (see Chapter 1,.2008 edition

Chapter 1);

--- Added the regulations on the value of the pulley Ci1 with ribs (see Table 1);

--- Added four specifications of flat pulley diameters and tolerance values (see Table 2);

---Changed the narrow V-belt pulley groove type with the effective width of the combined V-belt pulley (see Table 4, Table 4 of the.2008 edition);

--- Increase the effective width of the combined V-pulley of the narrow V-pulley groove type (20J) (see Table 4);

--- Increased the Ci1 value of some synchronous pulleys (see Table 6);

---Changed the application of Ci1 value (2008 edition is i1 value) (see Table 6, Table 6 of.2008 edition);

--- Increased Cs4 value of carbon fiber (see Table 7).

This document is modified to adopt ISO 155.2019 "Limits for center distance adjustment of belt drive pulleys".

The technical differences between this document and ISO 155:2019 and their reasons are as follows.

--- Added the terms and definitions defined in GB/T 6931.1, GB/T 6931.2, and GB/T 6931.3 (see Chapter 3), which is more specific

accurately guide the application;

--- Increased the description of the two parameters for calculating the center distance reduction limit value (see Chapter 5), and more accurately explain the two parameters

role;

--- Added four specifications of flat pulley diameters and tolerance values (see Table 2) to meet the requirements of existing products in my country;

--- Increased the C_{i1} value of synchronous pulleys with some groove types (see Table 6), which is coordinated with existing national standards;

--- Changed the regulations on the minimum rib height, the calculation needs to refer to GB/T 11361, GB/T 24619, GB/T 28775,

The content specified in GB/T 37205 and JB/T 7512.2 (see Table 6) to meet the requirements of existing products in our country;

--- Increase the C_{s4} value of carbon fiber (see Table 7), clarify the material, and better guide the application.

The following editorial changes have been made to this document.

--- Increased the description of the value of some symbols (see Table 1);

--- Increased the description of the limit value of the diameter of the flat pulley (see Table 2);

--- Changed the symbols of center distance and center distance adjustment limit parameters (see Chapter 4);

--- Changed the arrangement order of symbols (see Chapter 4);

--- Standardized the format of Table 4 (see Table 4).

Please note that some contents of this document may refer to patents. The issuing agency of this document assumes no responsibility for identifying patents.

1 Scope

This document specifies the adjustment limit value of the center distance between two driving pulleys.

This document is applicable to the determination of the adjustment limit value of the center distance between the following two drive pulleys.

- a) flat pulley;
- b) Pulleys for single V-belts, multiple V-belts, and combined V-belts;
- c) Ribbed pulley;
- d) Timing pulley.

2 Normative references

The contents of the following documents constitute the essential provisions of this document through normative references in the text. Among them, dated references

For documents, only the version corresponding to the date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to

this document.

GB/T 6931.1 Terminology of belt drives Part 1. Basic terms

GB/T 6931.2 Terminology of belt drives Part 2. V-belt and V-belt drives (GB/T 6931.2-2020, ISO 1081.

2013, MOD)

GB/T 6931.3 Terminology for belt drives Part 3. Timing belt drives (GB/T 6931.3-2020, ISO 5288.2017, MOD)

2018, ISO 5294.2012, MOD)

GB/T 24619 synchronous belt drive G, H, R, S tooth type curved tooth synchronous belt and pulley (GB/T 24619-2021,

ISO 13050.2014, MOD)

GB/T 28775 Synchronous belt drive T-shaped trapezoidal tooth synchronous pulley (GB/T 28775-2021, ISO 17396.2017, MOD)

GB/T 37205 synchronous belt drive AT-type trapezoidal tooth synchronous pulley (GB/T 37205-2018, ISO 17396.2014, MOD)

JB/T 7512.2 Arc tooth synchronous belt drive part 2. Pulley

3 Terms and Definitions

The terms and definitions defined in GB/T 6931.1, GB/T 6931.2 and GB/T 6931.3 apply to this document.

4 symbols

The following symbols apply to this document.

C --- nominal center distance, in millimeters (mm).

Ci --- center distance reduction limit, in millimeters (mm).

Ci1 --- Parameters related to pulley dimensions and tolerances.

Ci2 --- Parameters related to the length tolerance of the belt.

Cs --- Center distance increase limit value, the unit is millimeter (mm).