International Standard

ISO 17396

Synchronous belt drives — Metric pitch — Tooth profiles T and AT endless and open ended belts and pulleys

Transmissions synchrones par courroies — Pas métrique — Poulies et courroies dentées sans fin ou à bout libre à dents de profil T ou AT

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Foreword

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This document was prepared by Technical Committee ISO/TC 41, *Pulleys and belts (including veebelts)*, Subcommittee SC 4, *Synchronous belt drives*.

This third edition cancels and replaces the second edition (ISO 17396:2017), of which it constitutes a minor revision.

The change is as follows:

— Clause 4 has been added.

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Synchronous belt drives — Metric pitch — Tooth profiles T and AT endless and open ended belts and pulleys

1 Scope

This document specifies the principal characteristics of synchronous endless and open belts and pulleys of the profile systems T and AT for use in synchronous belt drives for mechanical power transmission and where positive indexing or synchronization can be required.

NOTE Synchronous belt drives have been known by various titles in the past, for example: timing belt drives, positive belt drives, and gear belt drives.

The principal belt and pulley characteristics include:

a) nominal belt tooth dimensions;

b) belt tooth pitch spacing;

c) belt length and width dimensions;

d) belt length measurement specifications;

e) pulley groove dimensions and tolerances;

f) pulley diameter and width dimensions and tolerances;

g) pulley quality specification.

The belts of the profile systems T and AT are made of polyurethane with high-tension fine steel cord tension members in most cases. As far as certain forces are given in this document, these values are only valid for these kinds of belts. For polyurethane belts with different tensile cords, i.e. aramid or rubber belts reinforced with glass fibre, the values can be different. It is intended that the user and the manufacturer agree about suitable values. Open belts made of thermoplastic polyurethane can be spliced to work as endless belts in conveyor applications. In this case, the tolerances are not valid for the splicing area of the endless spliced belt.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 254, *Belt drives — Pulleys — Quality, finish and balance*

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

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