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Curvilinear toothed synchronous belt drive systems

Transmissions par courroies synchrones à denture curviligne



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 13050 was prepared by Technical Committee ISO/TC 41, *Pulleys and belts (including veebelts)*, Subcommittee SC 4, *Synchronous belt drives*.

Annexes A, B and C form a normative part of this International Standard. Annex D is for information only.

Introduction

The International Organization for Standardization (ISO) draws attention to the fact that it is claimed that compliance with this International Standard may involve the use of a patent concerning belt tooth and pulley groove profiles given in 8.1.1 and 8.2.2.

ISO takes no position concerning the evidence, validity and scope of this patent right.

The holder of this patent right has assured ISO that he is willing to negotiate licences under reasonable and non-discriminatory terms and conditions with applicants throughout the world. In this respect, the statement of the holder of this patent right is registered with ISO. Information may be obtained from:

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Curvilinear toothed synchronous belt drive systems

1 Scope

This International Standard specifies the principal characteristics of synchronous endless belts and pulleys for use in synchronous belt drives¹⁾ for mechanical power transmission and where positive indexing or synchronization may be required.

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.

2 Normative reference

The following normative document contains provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent edition of the normative document indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 254:1998, *Belt drives — Pulleys — Quality, finish and balance*.

3 Belt types

Six belt types for synchronous drives are standardized:

- type H8M (H-type tooth profile);
- type S8M (S-type tooth profile);
- type R8M (R-type tooth profile);

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