INTERNATIONAL STANDARD 583

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Conveyor belts — Tolerances on total thickness and thickness of covers

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FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up 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.

Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

Prior to 1972, the results of the work of the Technical Committees were published as ISO Recommendations; these documents are now in the process of being transformed into International Standards. As part of this process, Technical Committee ISO/TC 41 has reviewed ISO Recommendation R 583 and found it technically suitable for transformation. International Standard ISO 583 therefore replaces ISO Recommendation R 583-1967 to which it is technically identical.

ISO Recommendation R 583 was approved by the Member Bodies of the following countries :

Australia	France	Portugal
Austria	Germany	South Africa, Rep. of
Belgium	India	Spain
Brazil	Ireland	Sweden
Chile	Israel	Switzerland
Czechoslovakia	Italy	U.S.S.R.
Denmark	Japan	Yugoslavia
Egypt, Arab Rep. of	Netherlands	
Finland	New Zealand	

The Member Body of the following country expressed disapproval of the Recommendation on technical grounds :

United Kingdom

The Member Bodies of the following countries disapproved the transformation of ISO/R 583 into an International Standard :

Sweden
United Kingdom

Printed in Switzerland

Conveyor belts – Tolerances on total thickness and thickness of covers

1 SCOPE AND FIELD OF APPLICATION

This International Standard lays down

a) the maximum difference between the total thickness measured in any two points of the area of a conveyor belt and the appropriate method of measurement;

b) the permissible deviations on the thickness of each cover and the appropriate method of measurement. The latter applies only to belts with covers at least 1 mm (0.04 in) thick and which can be completely removed.

However, neither the total thickness of the belt nor the thicknesses of the covers are standardized. They should be fixed by agreement between purchaser and vendor. The deviations mentioned in b) apply to the thickness of the covers specified in this way.

This International Standard does not apply to belts with a metal carcass.

2 REQUIRED CHARACTERISTICS

Designation	Required characteristics	Method of measurement
Maximum difference between the values of the total thickness measured in any two points of the area of the belt	1 mm (0.04 in) if the mean of two measurements does not exceed 10 mm (0.4 in) 10 % of the mean if this exceeds 10 mm (0.4 in)	Sub-clause 3.1
Maximum permissible deviation on the specified thickness of each cover	plus : no limit minus { 0,2 mm (0.008 in) if the specified thickness is equal to or less than 4 mm (0.16 in) 5 % of the specified thickness if this is greater than 4 mm (0.16 in)	Sub-clause 3.2

3 METHODS OF MEASUREMENT

3.1 Total thickness

Apply to the two points chosen a measuring instrument with anvils and graduated in divisions of 0,1 mm (0.004 in).

3.2 Thicknesses of covers

3.2.1 *Test piece*

Rectangular test piece, taken from the total thickness of the belt including the covers :

width : 50 mm (2 in) approximately

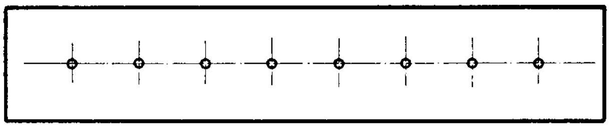
length : equal to the total width of the belt.

3.2.2 *Apparatus*

Hand micrometer gauge, each arm of which ends in a plate, graduated in divisions of 0,1 mm (0.004 in).

3.2.3 *Procedure*

Carry out the measurements at eight points distributed evenly along the long axis of the test piece (see figure).



Measure the total thickness h of the test piece at each of these eight points.

Remove one cover completely, then measure the thickness h_1 of the test piece at the same points.

Remove the other cover completely, then measure the thickness h_2 of the test piece at the same points.

NOTE – Any protective fabric (embedded in the covers) which does not participate in the tension exerted on the belt, shall be considered as forming part of the covers and shall therefore be removed with them.

3.2.4 *Expression of results*

The calculated thicknesses of the covers e_1 and e_2 at each of the eight points are given by the following formulae :

$$e_1 = h - h_1$$

$$e_2 = h_1 - h_2$$

The calculated thicknesses of each cover are taken as equal to the mean of eight values for e_1 and the mean of eight values for e_2 respectively.