UDC 744.43 : 003.62

Ref. No. : ISO/R 1661-1971 (E)

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION

R 1661

TECHNICAL DRAWINGS
TOLERANCES OF FORM AND OF POSITION

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PART IV
PRACTICAL EXAMPLES OF INDICATIONS ON DRAWINGS

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1st EDITION

April 1971

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BRIEF HISTORY

The ISO Recommendation R 1661, *Technical drawings – Tolerances of form and of position – Part IV : Practical examples of indications on drawings*, was drawn up by Technical Committee ISO/TC 10, *Drawings (General principles)*, the Secretariat of which is held by the Association Suisse de Normalisation (SNV).

Work on this question led to the adoption of Draft ISO Recommendation No. 1661, which was circulated to all the ISO Member Bodies for enquiry in September 1968. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies :

Austria	Iran	Spain
Belgium	Israel	Sweden
Chile	Italy	Switzerland
Czechoslovakia	Japan	Thailand
Denmark	Korea, Rep. of	Turkey
Finland	Netherlands	U.A.R.
France	New Zealand	United Kingdom
Germany	Norway	U.S.A.
Greece	Poland	U.S.S.R.
Hungary	Portugal	
India	Romania	

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The following Member Body opposed the approval of the Draft :

Australia

This Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided to accept it as an ISO RECOMMENDATION.

FOREWORD

This ISO Recommendation is a part of the following series :

ISO/R 1101, *Technical drawings – Tolerances of form and of position – Part I : Generalities, symbols, indications on drawings;*

ISO/R . . .*, *Technical drawings – Tolerances of form and of position – Part II : Maximum material principle;*

ISO/R 1660, *Technical drawings – Tolerances of form and of position – Part III : Dimensioning and tolerancing of profiles;*

ISO/R 1661, *Technical drawings – Tolerances of form and of position – Part IV : Practical examples of indications on drawings.*

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* In preparation.

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ISO Recommendation R 1661 April 1971

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INTRODUCTORY NOTE

For uniformity all the linear dimensions given in this ISO Recommendation are in metric units only and the figures are in projection method E (called European or first angle projection). It should be understood that inch units and/or projection method A (called American or third angle projection) could equally well have been used without prejudice to the principles established.

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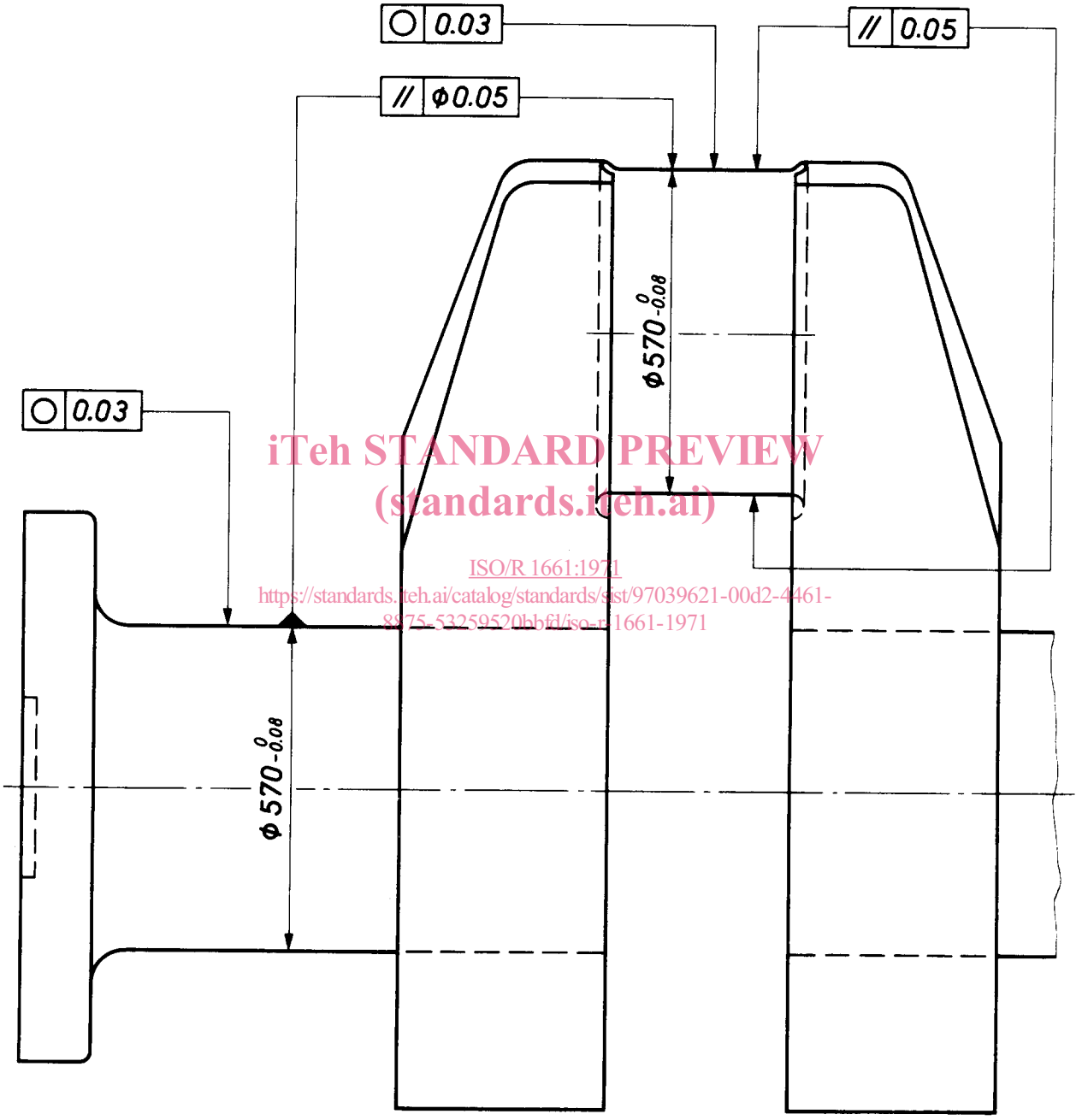
1. SCOPE

This ISO Recommendation gives practical examples of indications of tolerances of form and of position according to ISO Recommendation R 1101, *Technical drawings – Tolerances of form and of position – Part I : Generalities, symbols, indications on drawings.*

NOTE. – The figures in this ISO Recommendation show only the principle of the indication. The technical correctness of the drawings depends on the functional conditions which apply to the represented parts.

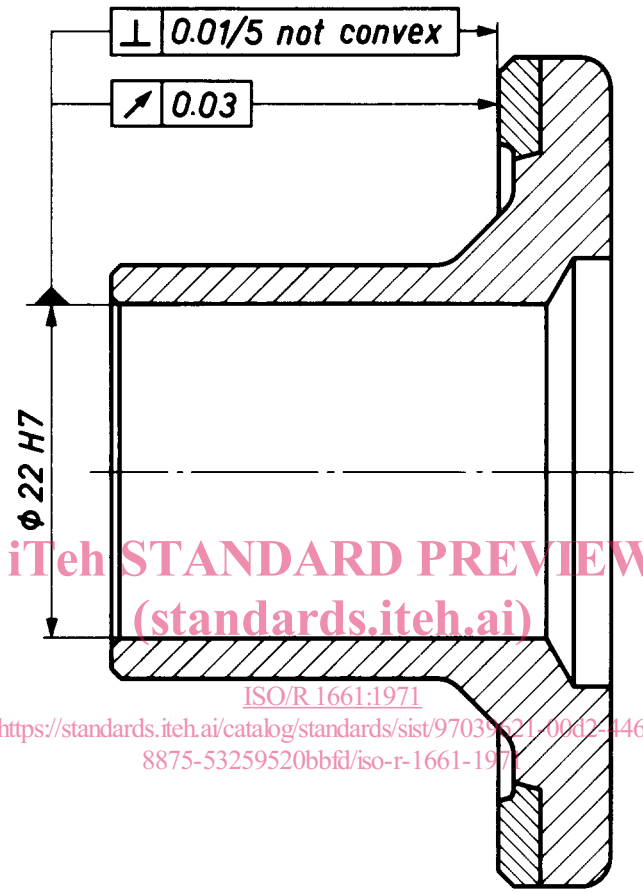
The drawings are not fully dimensioned; only those dimensions having some relation to the indication of the tolerances of form and of position are shown.

2. EXAMPLES



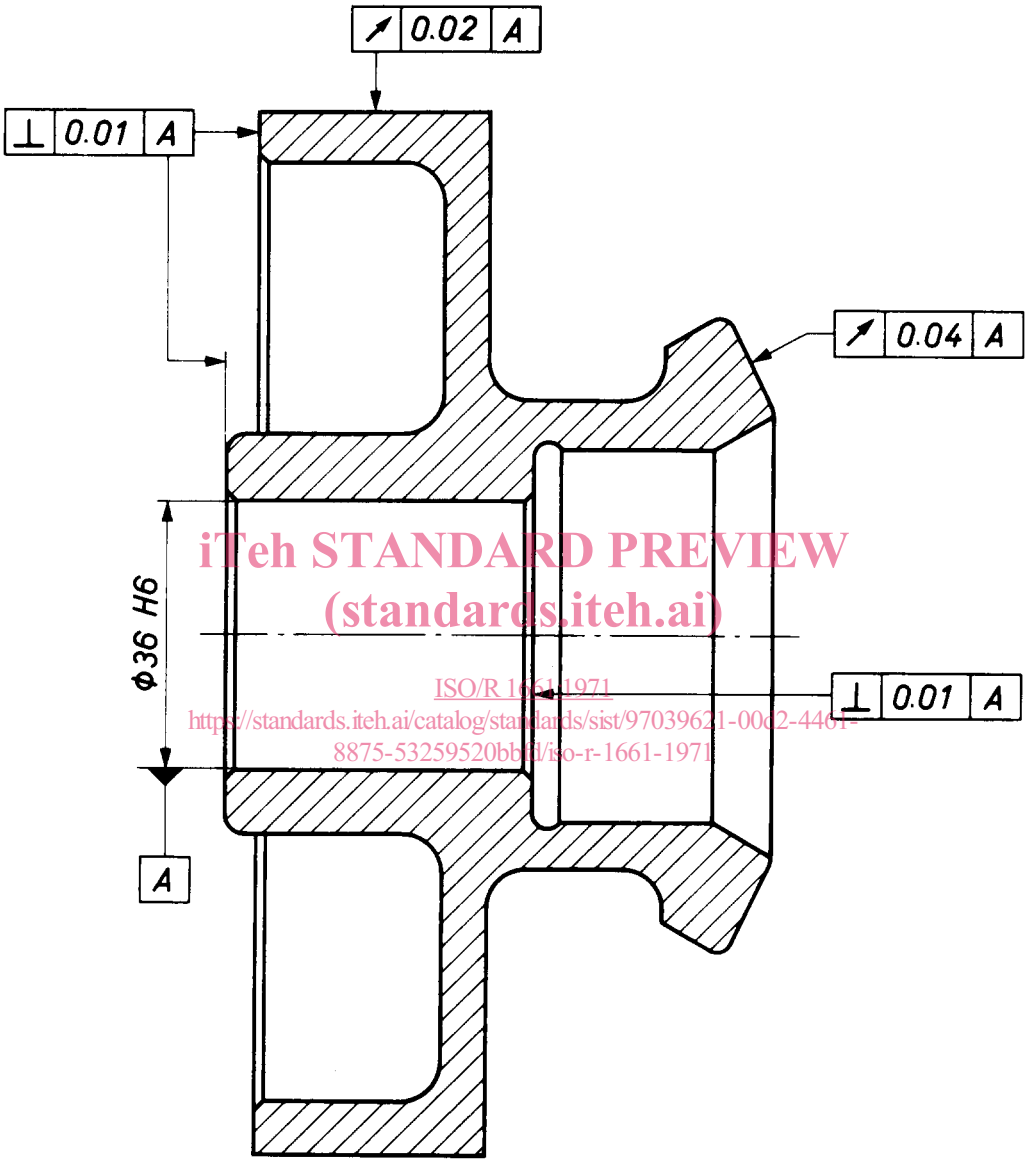
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FIG. 1 – **Part of a crankshaft**



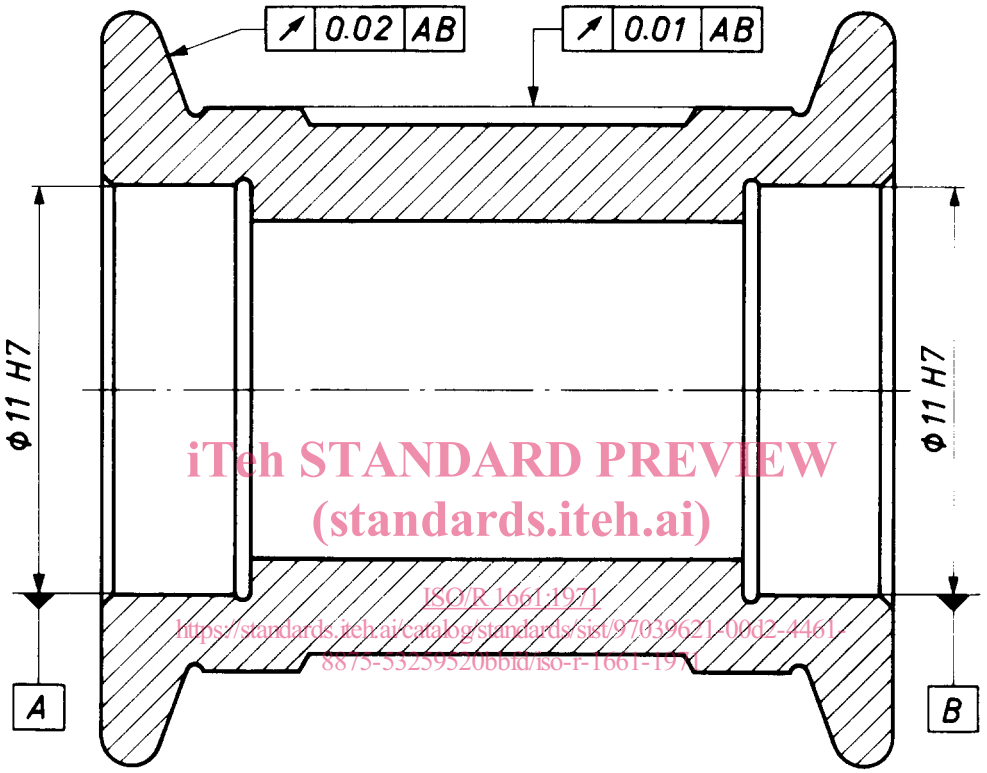
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FIG. 2 Packing ring of a pump



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FIG. 3 – Friction wheel



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FIG. 4 – **Roller**