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Parallel involute gears — ISO system of accuracy

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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.

International Standard ISO 1328 was drawn up by Technical Committee ISO/TC 60, *Gears*, and circulated to the Member Bodies in December 1967.

It has been approved by the Member Bodies of the following countries :

Australia	India	Sweden
Austria	Israel	Switzerland
Belgium	Italy	Turkey
Chile	Korea, Rep. of	United Kingdom
Czechoslovakia	Netherlands	U.S.S.R.
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The Member Bodies of the following countries expressed disapproval of the document on technical grounds :

Brazil
Hungary
Japan

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Parallel involute gears — ISO system of accuracy

1 SCOPE AND FIELD OF APPLICATION

This International Standard establishes a system of accuracy for parallel involute gear pairs defined in ISO 53, *Cylindrical gears for general and heavy engineering — Basic rack*, and ISO/R 54, *Modules and diametral pitches of cylindrical gears for general engineering and for heavy engineering.*

It specifies all errors the control of which is provided for, whether they be on a single wheel or on the complete gear pair, and gives the corresponding tolerances.

NOTE — Certain types of gear pairs may require only a limited number of controls; these will be dealt with in special standards covering these types of gears.

2 DEFINITIONS

The logical order of manufacture of a gear pair is :

- machining tne blanks of the two gears;
- cutting the teeth of the two gears;
- assembling the two toothed wheels under operating conditions.

It is therefore normal to carry out the successive inspections in a corresponding order :

- inspection of the blanks of the two gears;
- inspection of the teeth of the two gears;
- inspection of the assembly conditions of the gear pair.

2.1 INSPECTION OF THE BODY OF THE WHEELS (OR BLANK)

2.1.1 *Reference axis*

2.1.1.1 In the case of pinions or wheels with bores, the axis of the bore shall be adopted as the reference axis.

2.1.1.2 In the case of pinions on shafts, the reference axis shall be the bearing axis of the bearings.