

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION

R 1340

CYLINDRICAL GEARS

INFORMATION TO BE GIVEN TO THE MANUFACTURER
BY THE PURCHASER IN ORDER TO OBTAIN THE GEAR REQUIRED

1st EDITION

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BRIEF HISTORY

The ISO Recommendation R 1340, *Cylindrical gears – Information to be given to the manufacturer by the purchaser in order to obtain the gear required*, was drawn up by Technical Committee ISO/TC 60, *Gears*, the Secretariat of which is held by the Institution Belge de Normalisation (IBN).

Work on this question led to the adoption of Draft ISO Recommendation No. 1340, which was circulated to all the ISO Member Bodies for enquiry in November 1967.

The Draft was approved, subject to a few modifications of an editorial nature, by the following Member Bodies :

Australia	Israel	Sweden
Austria	Italy	Switzerland
Belgium	Japan	Thailand
Chile	Korea, Rep. of	Turkey
Czechoslovakia	Netherlands	U.A.R.
Finland	New Zealand	United Kingdom
France	Paraguay	U.S.S.R.
Germany	Poland	Yugoslavia
Greece	South Africa, Rep. of	
India	Spain	

The following Member Body opposed the approval of the Draft :

Hungary

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

CYLINDRICAL GEARS

**INFORMATION TO BE GIVEN TO THE MANUFACTURER
BY THE PURCHASER IN ORDER TO OBTAIN THE GEAR REQUIRED**

1. SCOPE

This ISO Recommendation specifies the information which should be stated on all cylindrical gear drawings. For each particular case they should be completed by such information as may be necessary or useful.

2. GENERAL DIMENSIONS AND CHARACTERISTICS TO BE INDICATED ON THE DRAWING

- Tip diameter and tolerance
- Facewidth
- Bore diameter and tolerance (or diameter and tolerance for the part of the shaft used for setting on the cutting machine)
- Locating face
- Surface finish of the tooth flank and, if applicable, of the root surface and of the fillets*

3. INFORMATION TO BE GIVEN IN A TABLE

The following information should preferably be given in the upper right-hand corner of the drawing :

- Module or diametral pitch (normal, in the case of helical gears)
- Number of teeth (for a sector : total number of teeth of the gear from which the sector is taken)
- Basic rack (give the number of the corresponding national standard or the pressure angle of 20° ; if the basic rack differs from the standard rack, its characteristics should be specified, preferably by a figure)
- Value of the helix angle
- Helix direction (for double helix teeth, the helix direction should be shown by a symbol in accordance with ISO 2203**)
- Reference diameter
- Addendum modification coefficient (to be expressed in unit module)
- Tooth thickness : basic value and upper and lower deviations (The basic value may be given in three different ways : Wildhaber measurement, measurement of constant chord, or measurement over pins or balls. For the first method, the number of teeth over which the measurement is to be carried out should be stated, and, for the third method, the diameter of the pins or balls)
- All useful information on tolerances (see ISO 1328***)
- Centre distance of gear pair and tolerance
- Number of teeth and drawing number of the mating gear.

* Specifications concerning surface texture and the symbols used should be in accordance with ISO Recommendations R 468, *Surface roughness*, and R 1302, *Technical drawings - Method of indicating surface texture on drawings*.

** ISO 2203, *Technical drawings - Conventional representation of gears*. (At present at the stage of Draft.)

*** ISO 1328, *Parallel involute gears - ISO system of accuracy*. (At present at the stage of Draft.)