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Technical drawings – Conventional representation of gears

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FOREWORD

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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 2203 was drawn up by Technical Committee ISO/TC 10, *Technical drawings*, and circulated to the Member Bodies in January 1971.

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

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Technical drawings – Conventional representation of gears

1 SCOPE AND FIELD OF APPLICATION

This International Standard establishes the conventional representation of the toothed portion of gears including worm gearing and chain wheels. It is applicable to detail drawings and assembly drawings.

As a fundamental principle a gear is represented (except in axial section) as a solid part without teeth, but with the addition of the pitch surface in a thin long chain line.

NOTE – For uniformity all figures in this International Standard are in first angle projection (Method E). It should be understood that the third angle projection (Method A) could equally well have been used without prejudice to the principles established.

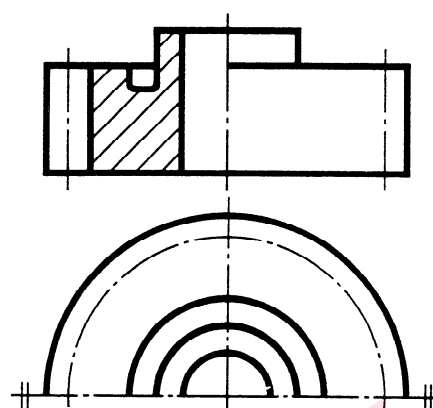


FIGURE 1

2 DETAIL DRAWINGS (INDIVIDUAL GEARS)

2.1 Contours and edges

Represent the contours and the edges of each gear (see Figures 1, 2 and 3), as if they were,

- in an unsectioned view, a solid gear bounded by the tip surface;
- in an axial section, a spur gear having two diametrically opposed teeth, represented unsectioned, even in the case of a gear that does not have spur teeth or that has an odd number of teeth.

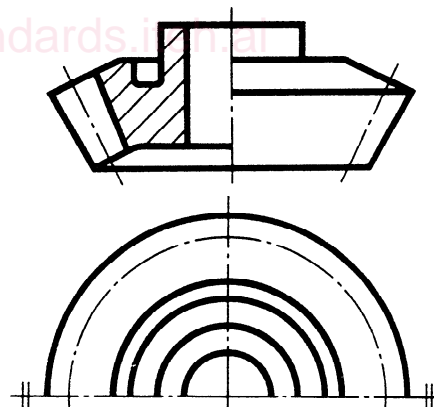


FIGURE 2

2.2 Pitch surface

Draw the pitch surface with a thin, long chain line, even in concealed portions and sectional views, and represent it,

- in a projection normal to the axis, by its pitch circle (external pitch circle in the case of a bevel gear and the median pitch circle in the case of a worm wheel) (see Figures 1, 2 and 3);
- in a projection parallel to the axis, by its apparent contour, extending the line beyond the gear contour on each side (see Figures 1, 2 and 3).

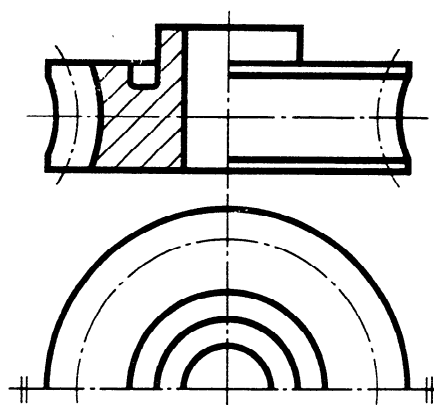


FIGURE 3