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Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee as the result of proposal for revision of Japanese Industrial Standard submitted by Japan Gear Manufacturing Association (JGMA)/Japanese Standards Association (JSA) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law applicable to the case of revision by the provision of Article 14.

Consequently **JIS B 1704**:1978 has been replaced with this Standard.

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Bevel gear

Introduction

This Japanese Industrial Standard has been prepared based on the first edition of **ISO 17485** published in 2006 with some modifications of the technical contents to make the contents comprehensive.

The portions given sidelines or dotted underlines are the matters in which the contents of the original International Standard have been modified. A list of modifications with the explanations is given in Annex JA.

1 Scope

This Standard specifies the classification system for the geometrical accuracy of bevel gears and hypoid gears. Also, this Standard defines the terms related to the gear accuracy and specifies the structure and tolerances of the gear accuracy grade. This Standard is applicable to a single gear and a pair of gears, and not applicable to the gear unit assembly.

The single pitch deviation tolerance and the total cumulative pitch deviation tolerance shall be described in Annex A, the single-flank composite deviation measuring method shall be described in Annex B, and the accuracy of small module bevel gears shall be described in Annex C.

NOTE : The International Standard corresponding to this Standard and the symbol of degree of correspondence are as follows.

ISO 17485:2006 *Bevel gears—ISO system of accuracy* (MOD)

In addition, symbols which denote the degree of correspondence in the contents between the relevant International Standard and **JIS** are IDT (identical), MOD (modified), and NEQ (not equivalent) according to **ISO/IEC Guide 21-1**.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (including amendments) listed below shall be applied.

JIS B 0102:1999 *Vocabulary of gear terms—Definitions related to geometry*

NOTE : Corresponding International Standard: ISO/DIS 1122-1:1994 *Vocabulary of gear terms—Part 1: Definitions related to geometry* (IDT)

ISO 10300-1:2001 *Calculation of load capacity of bevel gears—Part 1: Introduction and general influence factors*

ISO 23509:2006 *Bevel and hypoid gear geometry*

3 Terms and definitions

For the purposes of this Standard, the terms and definitions given in **JIS B 0102:1999** and **ISO 23509:2006**, and the following apply.