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**Evaluation and acceptance tests for  
double flank tester**

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## Foreword

This Japanese Industrial Standard has been established by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee according to the proposal for establishment of Japanese Industrial Standard submitted by Japan Gear Manufacturers Association (JGMA)/Japanese Standards Association (JSA) with a draft being attached, based on the provision of Article 12, paragraph (1) of the Industrial Standardization Act.

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## Evaluation and acceptance tests for double flank tester

### 1 Scope

This Japanese Industrial Standard specifies the evaluation methods for measurement accuracy in double flank testers which evaluate the double flank radial composite deviations and the tight mesh centre distances of a pair of involute cylindrical gears using an artifact for test. This Standard also specifies the acceptance tests to verify the conformance of the performance of double flank tester to the requirements, using an artifact for test.

This Standard is applicable to periodic tests to verify the performances of double flank tester.

### 2 Normative reference

Part or all of the provisions of the following standard, through reference in this text, constitute provisions of this Standard. The most recent edition of the standard (including amendments) indicated below shall be applied.

JIS B 1702-2 *Cylindrical gears — ISO system of flank tolerance classification — Part 2 : Definitions and allowable values of double flank radial composite deviations*

### 3 Terms and definitions

For the purpose of this Standard, the following terms and definitions, and those given in JIS B 1702-2 apply.

#### 3.1

##### double flank tester

tester to measure the changes in centre distance, in which a master gear and a product gear are rotated in tight mesh contact, held together by a spring load without backlash

#### 3.2

##### tight mesh centre distance

instantaneous centre distance between gears in mesh without backlash in a double flank tester

Note 1 to entry Refer to Figure 1.

#### 3.3

##### elemental tooth-to-tooth radial composite deviation

greatest change amount in centre distance within each one pitch existing as many as the number of pairs of teeth to mesh