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**Hand torque tools—Requirements
and test methods**

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In the event of any doubts arising as to the contents,
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Foreword

This translation has been made based on the original Japanese Industrial Standard established by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee according to the proposal of establishing a Japanese Industrial Standard from Japan Measuring Instruments Federation (JMIF)/ Japanese Standards Association (JSA) with a draft of Industrial Standard based on the provision of Article 12 Clause 1 of the Industrial Standardization Law.

Consequently **JIS B 4650:2002** is withdrawn and replaced with this Standard.

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Attention is drawn to the possibility that some parts of this Standard may conflict with a patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have technical properties. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying the patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have the said technical properties.

Hand torque tools—Requirements and test methods

Introduction

This Japanese Industrial Standard has been prepared based on the third edition of **ISO 6789** published in 2003 without modifying the technical contents for the portion relating to the corresponding International Standard. For the specification item not given in the said International Standard is added as **JIS** (normative reference **JIS Z 8103**).

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

1 Scope

This Standard specifies the requirements, test method and marking for the hand torque tools used for controlled tightening of bolted connections (hereafter referred to as “torque tools”).

This Standard is applicable to torque tools of clause 4, in particular to indicating and setting torque wrenches in accordance with No. 258 and No. 259 of **ISO 1703: 1983 *Assembly tools for screws and nuts—Nomenclature***.

NOTE 1 This Standard specifies the requirements and test methods of torque tools shown for the target values for quality control, and it is not intended to perform the conformity assessment with this Standard.

NOTE 2 The International Standard corresponding to this Standard is as follows.
ISO 6789:2003 *Assembly tools for screws and nuts—Hand torque tools—Requirements and test methods for design conformance testing, quality conformance testing and recalibration procedure* (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**.

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) indicated below shall be applied.

JIS Z 8103 *Glossary of terms used in measurement*

Guide to the expression of uncertainty in measurement (GUM)

3 Terms and definitions

For the purpose of this Standard, the definitions given in **JIS Z 8103** and the following definitions apply.