

# JIS

JAPANESE  
INDUSTRIAL  
STANDARD

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**JIS B 1754** : 1998

(ISO 8579-2 : 1993)

**Acceptance code for gears—  
Part 2 : Determination of  
mechanical vibrations of gear units  
during acceptance testing**

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ICS 17.160; 21.200

**Descriptors** : gear drives, acceptance inspection, vibration testing, vibration measurement

**Reference number** : JIS B 1754 : 1998 (E)

## Foreword

This translation has been made based on the original Japanese Industrial Standard established by the Minister of International Trade and Industry through deliberations at the Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law.

In the traditional **JIS**, only the methods for determining sound levels emitted by gear units are specified, whilst the measuring of noises and vibrations, and determination of the ratings are specified as the acceptance code for gears in the International Standard. In this Standard, the methods for determining the vibrations is established according to the International Standard.

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Divisional Council on Machine Elements

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In the event of any doubts arising as to the contents,  
the original JIS is to be the final authority.

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# Acceptance code for gears— Part 2 : Determination of mechanical vibrations of gear units during acceptance testing

**Introduction** This Japanese Industrial Standard has been prepared based on the first edition of **ISO 8579-2** *Acceptance code for gears—Part 2 : Determination of mechanical vibrations of gear units during acceptance testing* published in 1993 without modifying the technical contents.

## 1 Scope

**1.1** This Standard specifies the **methods** for determining mechanical vibration of individually housed, enclosed, speed-increasing and speed-reducing gear units. It specifies methods for measuring housing and shaft vibrations, and the types of instrumentation, measurement methods and testing procedures for determining vibration levels. Vibration grades for acceptance are included.

It does not include torsional vibration measurements of a geared system.

This Standard applies only to a gear unit under test and operating within its design speed, load, temperature range and lubrication for acceptance testing at the manufacturer's facility. The gear unit may be tested at another location if agreed upon and operated in accordance with the manufacturer's recommendations. Other International Standards on vibration evaluation may be required for measuring gear unit vibration in field service.

This Standard does not apply to special or auxiliary drive trains, such as integrated gear-driven compressors, pumps, turbines, etc., and power take-off gears.

Note 1 Acceptance limits for tests of these types of equipment should be independently specified. However, if negotiated, this or other appropriate standards may be applied to such equipment.

**1.2 Special provisions** may be required for vibration measurements: the type of measurement and acceptance level should therefore be agreed between the manufacturer and purchaser at an early stage of negotiation.

**2 Normative reference** The following standard contains provisions which, through reference in this Standard, constitute provisions of this Standard. The most recent edition of the standard shall be applied.

JIS B 0153 *Glossary of terms used in mechanical vibration and shock*

Remarks : **ISO 2041** : 1990 *Vibration and shock—Vocabulary* is identical with the said standard.

**3 Definitions** For the purposes of this Standard, the definitions of the following apply. For the convenience of users of this Standard, some definitions are quoted from **ISO 2041** and **JIS B 0153** : 1985.