

# INTERNATIONAL STANDARD

**ISO**  
**8579-2**

First edition  
1993-02-01

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## **Acceptance code for gears —**

### **Part 2:**

Determination of mechanical vibrations of gear units during acceptance testing

*Code de réception des engrenages —*

*Partie 2: Détermination des vibrations mécaniques d'une transmission par engrenages au cours des essais de réception*



Reference number  
ISO 8579-2:1993(E)

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International Organization for Standardization  
Case Postale 56 • CH-1211 Genève 20 • Switzerland

Printed in Switzerland

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 8579-2 was prepared jointly by Technical Committees ISO/TC 60, *Gears* and ISO/TC 108, *Mechanical vibration and shock*.

ISO 8579 consists of the following parts, under the general title *Acceptance code for gears*.

- *Part 1: Determination of airborne sound power levels emitted by gear units*
- *Part 2: Determination of mechanical vibrations of gear units during acceptance testing*

Annexes A, B, C, D and E of this part of ISO 8579 are for information only.

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## Acceptance code for gears —

### Part 2:

### Determination of mechanical vibrations of gear units during acceptance testing

#### 1 Scope

**1.1** This part of ISO 8579 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 part of ISO 8579 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 part of ISO 8579 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 text, constitute provisions of this part of ISO 8579. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this part of ISO 8579 are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 2041:1990, *Vibration and shock — Vocabulary*.

#### 3 Definitions

For the purposes of this part of ISO 8579, the definitions given in ISO 2041, together with the following, apply. For the convenience of users of this part of ISO 8579, some definitions are quoted from ISO 2041:1990.

**3.1 non-contact transducer:** A transducer which converts a distance or displacement to an electrical signal that is proportional to the distance or displacement.

**3.2 acceleration:** A vector that specifies the time-derivative of velocity.

[ISO 2041, 1.3]

**NOTE 2** See annex A.