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Mechanical vibration — Rotor balancing —

Part 1: Introduction

Vibrations mécaniques — Équilibrage des rotors —

Partie 1: Introduction

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 108, *Mechanical vibration, shock and condition monitoring*, Subcommittee SC 2, *Measurement and evaluation of mechanical vibration and shock as applied to machines, vehicles and structures*.

This first edition of ISO 21940-1 cancels and replaces ISO 19499:2007, which has been technically revised. The main changes are as follows:

— reference made to all International Standards in the ISO 21940 series;

— deletion of former Table 2 "Guidelines for balancing procedures";

— deletion of former Annex C "How to determine rotor flexibility based on an estimation from its geometric design".

A list of all parts in the ISO 21940 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

Vibration caused by rotor unbalance is one of the most critical issues in the design and maintenance of rotating machines. It gives rise to dynamic forces which adversely affect both machine and human health and well-being. The purpose of this document is to give guidance on the usage of the other parts of the ISO 21940 series.

Balancing is explained in a general manner, using the specific terms and definitions, to help readers to select the appropriate balancing approach for their application.

