AMERICAN NATIONAL STANDARD

Mechanical vibration — Rotor balancing — Part 2: Vocabulary (a nationally adopted international standard)

ANSI/ASA S2.81-2019/Part 2/ ISO 21940-2:2017

Accredited Standards Committee S2, Mechanical Vibration and Shock

Standards Secretariat
Acoustical Society of America
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Secretariat:

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Approved September 24, 2019 by:

American National Standards Institute, Inc.

Abstract

This nationally adopted international standard defines terms on balancing. It complements ANSI/ASA S2.1/ISO 2041, which is a general vocabulary on mechanical vibration and shock.

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Foreword

[*This Foreword is for information only and is not a part of the American National Standard ANSI/ASA S2.81-2019/* Part 2/ISO 21940-2:2017 American National Standard Mechanical vibration – Rotor balancing – Part 2: Vocabulary (a nationally adopted international standard). *As such, this Foreword may contain material that has not been subjected to public review or a consensus process. In addition, it does not contain requirements necessary for conformance to the standard.*]

This standard comprises a part of a group of definitions, standards, and specifications for use in mechanical vibration and shock. It was developed and approved by Accredited Standards Committee S2 Mechanical Vibration and Shock under its approved operating procedures. Those procedures have been accredited by the American National Standards Institute (ANSI). The Scope of Accredited Standards Committee S2 is as follows:

> *Standards, specification, methods of measurement and test, and terminology in the field of mechanical vibration and shock, and condition monitoring and diagnostics of machines, including the effects of exposure to mechanical vibration and shock on humans, including those aspects which pertain to biological safety, tolerance and comfort.*

This standard is an identical national adoption of ISO 21940-2:2017 Mechanical vibration — Rotor balancing —Part 2: Vocabulary, which was prepared by ISO/TC 108/SC 2.

The ANSI/ASA equivalents to ISO/IEC standards referenced herein are given below:

- ANSI/ASA S2.1/ISO 2041 is an identical national adoption of ISO 2041.

At the time this Standard was submitted to Accredited Standards Committee S2, Mechanical Vibration and Shock for approval, the membership was as follows:

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Richard J. Peppin, *Vice-Chair*

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Suggestions for improvements to this standard will be welcomed. They should be sent to Accredited Standards Committee S2, Mechanical Vibration and Shock, in care of the Standards Secretariat of the Acoustical Society of America, 1305 Walt Whitman Road, Suite 300, Melville, New York 11747. Telephone: 631-390-0215; FAX: 631-923-2875; E-mail: asastds@acousticalsociety.org.

American National Standard

Mechanical vibration — Rotor balancing —Part 2: Vocabulary

1 Scope

This document defines terms on balancing. It complements ISO 2041, which is a general vocabulary on mechanical vibration and shock.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at http://www.iso.org/obp

NOTE An illustrated terminology for balancing machines is provided in Annex A.

3.1 Mechanics

3.1.1
principal axis of inertia
one of three mutually perpendicular axes intersecting each other at a given point about which the products of inertia of a solid body are zero

Note 1 to entry: In *balancing* (3.4.1), the term principal axis of inertia is used to designate the central principal axis of inertia (of the three such axes) most nearly coincident with the *shaft axis* (3.2.7) of the rotor.

[SOURCE: ISO 2041:2009, 1.34, modified — converted to singular and the notes to entry have been changed.]

3.1.2
speed
angular velocity of a rotor

Note 1 to entry: Speed is measured in revolutions per unit time or in angle (in radians) per unit time.