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JJF

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**Calibration Specification for Vibrometer(Acceleration)of Rolling
Bearings
(English Translation)**

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Introduction

JJF 1071 "National Calibration Specifications writing rules", JJF 1001 "common measurement terms and definitions" JJF 1059 "Evaluation and Expression of Uncertainty in Measurement" together constitute the support of the calibration norm-setting work on the basis of series specification.

The calibration specifications for the first time to develop.

Rolling acceleration type vibration measuring instrument calibration specification

1 Scope

This standard applies to the acceleration-type rolling bearing vibration measuring instrument calibration.

2. References

This specification refers to the following documents.

JJG233-2008 piezoelectric accelerometer JJG676-2000 work vibrometer JJF 1185-2007 speed-type rolling bearing vibration measuring instrument calibration specification GB/T 24610.1-2009 Rolling Measuring methods for vibration - Part 1. Basic JB/T 5314-2002 Rolling vibration (acceleration) measurement methods JB/T 7047-2006 Rolling Deep groove ball rolling bearing vibration (acceleration) technical conditions for dated references, only the dated edition applies to this specification; undated reference documents Member, the latest edition (including any amendments) applies to this specification.

3 Terms

3.1 Bearing Vibration Bearing during rotation, in addition to some inherent, by the function of the required motion between the bearing parts Other Everything has a cycle characteristic movement.

Bearing vibration measured in this specification refers to. the bearing inner ring against the end face of the spindle shaft shoulder, and with a constant rotation Speed rotation, the outer ring does not rotate and bear certain axial and radial loads, its cross-section of the outer ring outer cylindrical roller track center Intersecting radial vibration at the bearing outer ring.

3.2 bearing vibration (acceleration) amplitude acceleration of bearing vibration with the rotation of the spindle vibration is generated when measuring the bearing is mounted on a mandrel bearing vibration measuring instrument, is bearing Bearing vibration. With the acceleration sensor acceleration values measured at the bearing outer ring is bearing vibration (acceleration) Amplitude.

3.3 Vibration calibration by comparison it will be corrected accelerometer rigidly connected to the reference accelerometer-back; this is applied to the same vibration excitation in the same A measuring point at the same time get the measured value of each measuring system, find the measurement error is the result of the comparison of the calibration.

3.4 vibration Z value amplitude Z of vibration Bearing vibration acceleration amplitude of the bearing vibration measuring instrument electrical box is displayed with Z (dB) expressed its acceleration and vibration Degree of amplitude (m/s^2) has a definite conversion relationship.

Note: the calculation equation (2) below.

4 Overview

Acceleration bearing vibration measuring instrument is measuring the rolling bearing vibration acceleration values of special detection equipment, the acceleration