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NATIONAL METROLOGY VERIFICATION REGULATION OF THE PEOPLE'S REPUBLIC OF CHINA

JJG 1178-2021

Human Vibration Meters

人体振动计检定规程

(English Translation)

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Introduction

This regulation is compiled according to JJF1002-2010 "Rules for Compilation of National Metrological Verification Regulations". The main measurement of this regulation the performance refers to GB/T 23716-2009 "Human Body Response Measurement Instrument", GB/T 20485.11-2006 "Vibration and Shock Sensor Calibration Method Part 11: Absolute Calibration of Vibration by Laser Interferometry", GB/T 20485.21-2007 "Vibration and Shock Sensor Calibration Method Part 21: Vibration Comparison Method Calibration" and ISO 8041-1:2017 "Instruments for measuring the response of the human body to

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vibration - Part 1: General purpose vibration meter vibrationmeters" OK.

This regulation is published for the first time.

Human Vibration Meter Verification Regulations

1 Scope

This regulation is applicable to hand-transmitted vibration, whole-body vibration and low the initial verification, subsequent verification and in-use inspection of the human vibrometer with high frequency whole-body vibration. This regulation does not apply to Verification of human body vibration meter with body rotation vibration function.

2 Reference documents this procedure cites the following documents.

JJF1156 Terms and Definitions of Vibration Shock Speed Measurement GB/T 20485.11-2006 Vibration and shock sensor calibration method Part 11: Laser interferometry vibration Dynamic absolute calibration (ISO 16063-11:1999, IDT) GB/T 20485.21-2007 Vibration and shock sensor calibration method-Part 21: Vibration comparison method calibration Standard (ISO 16063-21:2003, IDT) GB/T 23716-2009 Instrument for measuring human body's response to vibration (ISO 8041:2005, IDT) ISO 8041-1:2017 Instruments for measuring the response of the human body to vibrations - Part 1: General-purpose vibration meters (Hu-tionmeters) for dated citations, only the dated version applies to this Regulation; for undated citations the latest version (including all amendments) applies to this regulation.

3 Terminology and units of measurement aw the root mean square value of the frequency-weighted vibration acceleration in the direction of the specified axis during the specified time interval, in meters per Quadratic second (m/s2). Its expression is.

Tintegral

a2w(zeta)dzeta

where.

aw(zeta)--- in the direction of the specified axis, the weighted vibration acceleration as a function of instantaneous time, m/s2;

T---measurement time, s.

The ratio of the time-averaged weighted acceleration value to the reference acceleration is the base 10 logarithm multiplied by 20, and the unit is minutes Bezel (dB). Its expression is.

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