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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 26548.1-2018

**Hand-held portable power tools -- Test methods for evaluation
of vibration emission -- Part 1: Angle and vertical grinders**

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Foreword

GB/T 26548 "Handheld Portable Power Tools Vibration Test Method" is divided into the following parts.

--- Part 1. Angle and end face grinders;

- Part 2. air trigger, nut wrench and screwdriver;
- Part 3. Polishing machines, rotary, slide and duplex sanders;
- Part 4. Straight shank grinders;
- Part 5. Drills and impact drills;
- Part 6. Compaction machine;
- Part 7. Punching machine and scissors;
- Part 8. Reciprocating saws, polishers and boring tools and small pendulum or rotary saws;
- Part 9. Descaling hammer and needle beam rust remover;
- Part 10. Impact rock drills, hammers and crushers;
- Part 11. Stone hammer;
- Part 12. Mold grinder.

This part is the first part of GB/T 26548.

This part is drafted in accordance with the rules given in GB/T 1.1-2009.

This part uses the translation method equivalent to ISO 28927-1:2009 "Handheld portable power tools vibration test method Part 1.

Angle and end grinders.

The documents of our country that have a consistent correspondence with the international documents referenced in this part are as follows.

---GB/T 5621-2008 Rock drill machinery and pneumatic tools performance test method (ISO 2787. 1984, MOD)

--- GB/T 6247.1-2013 Rock drilling machines and portable power tools - Terms - Part 1. Rock drilling machines, pneumatic tools and

Pneumatic machinery (ISO 5391.2003, MOD)

This section has made the following editorial changes.

--- Convert "bar" in the international standard to "MPa" (1 bar = 0.1 MPa).

This part was proposed by the China Machinery Industry Federation.

This part is under the jurisdiction of the National Standardization Technical Committee for Rock Drilling Machinery and Pneumatic Tools (SAC/TC173).

This section drafted by. Zhangzhou Fangyuan Testing Co., Ltd., Tianshui Rock Drilling Machinery Pneumatic Tools Research Institute, Dongguan Institute of Technology.

Introduction

This document is a Class C standard as defined in ISO 12100.

For machines designed and manufactured in accordance with the requirements of Class C standards, the requirements for Class C standards are different from those for Class A or Class B standards.

When the requirements in the C standard are better than other standards.

General technical conditions for hand-held and hand-guided mechanical vibration radiation measurements are given in GB/T 25631, which is based on GB/T 26548.

Based on the vibration test method of the hand-held portable machine, as well as the operation of the machine under the type test conditions and the performance of the type test

Other requirements. The standard structure and chapter number are consistent with GB/T 25631.

This part adopts the sensor basic positioning method adopted for the first time in the European series standard EN60745, due to continuity reasons.

The description is inconsistent with GB/T 25631. The sensor is preferably placed close to the area between the thumb and forefinger of the hand because this position is

The operator has minimal interference with the machine.

It has been found that the vibration generated by the grinder in normal use varies greatly, which is largely due to the imbalance of the installed grinder.

Caused by changes in degrees. The wear of the grinding wheel during use also changes its imbalance.

In order to provide a test method that gives better reproducibility measurements, this part of GB/T 26548 uses a

It is known that the unbalanced test wheel is mounted on the machine and the working process running under no-load conditions is used for the test. Different forms of test wheels

The degree of imbalance is selected as much as possible according to the vibration value specified in GB/T 25631. Workplace vibration exposure is assessed using GB/T 14790 program.

For machines that use technology to automatically reduce the imbalance, the vibration of such machines is considered, considering that its vibration is underestimated.

The value is multiplied by a correction factor of 1.3.

The value obtained is the type test value used to represent the average of the upper quartiles of the typical vibration quantities of the machine in actual use. however,

Actual values sometimes vary widely, depending on many factors, including the operator, work tasks, and insertion tools or consumables. Machine itself

The maintenance status may also be important. The effects of operators and operating procedures on low amplitude vibrations are particularly severe under real working conditions. because

Therefore, the vibration radiation value below 2.5 m/s² is not recommended for evaluation under real working conditions. In this case, it is recommended to use a vibration of 2.5m/s².

Momentum values directly assess the vibration of the machine.

If a specific workplace requires an accurate value, it is necessary to measure according to GB/T 14790 under this working condition. in

The measured vibration values under actual operating conditions may be higher or lower than those obtained in this part of GB/T 26548.

Under actual working conditions, it is easy to produce high vibration by using excessively unbalanced grinding wheel, baffle wear or bending of output shaft.

Value.

Handheld portable power tool vibration test method

Part 1. Angle and face grinders

1 Scope

This part of GB/T 26548 specifies the test method for hand-transmitted vibration radiation measurement of the handle parts of hand-held angle and end face pneumatic grinders.

law. A type test procedure for the vibration of the handle portion when the machine equipped with the specified test wheel is operated under no-load conditions is determined. This kind

The test method is only used for surface grinding operations. Generally, the vibration generated by cutting and polishing is low. The measured results are used to compare the same type.

The amount of vibration of the same type of machine.

This section applies to compressed air or other means of driving, combined with consolidation, coating and superhard abrasive products, on a variety of materials

Machine for grinding, cutting and rough grinding.