

CCS J 48



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

GB/T 26548.10-2021

**Hand-held portable power tools - Test methods for evaluation of
vibration emission - Part 10: Percussive drills, hammers and
breakers**

Issued on: October 11, 2021

Implemented on: May 1, 2022

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

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Foreword

This document is drafted in accordance with GB/T 1.1-2020 "Guidelines for Standardization Part 1. Structure and Drafting Rules of Standardization Documents".

This document is part 10 of GB/T 26548. GB/T 26548 has released the following parts.

- Part 1. Angle and end face grinders;
- Part 2. Gas trigger, nut wrench and screwdriver;
- Part 3. Polishing machines, rotary, sliding and compound polishing machines;
- Part 4. Straight shank grinder;
- Part 5. Drills and impact drills;
- Part 6. Compaction machine;
- Part 7. Punching machines and scissors;
- Part 8. Reciprocating saws, polishing machines and files, and pendulum or rotary saws;
- Part 9. Derusting hammer and needle beam derusting device;

---Part 10.Impact rock drills, hammers and breakers;

---Part 11.Stone Hammer;

---Part 12.Mold grinder.

This document uses the translation method equivalent to ISO 28927-10.2011 "Hand-held portable power tools vibration test methods Part 10

Sub. Impact Rock Drill, Hammer and Breaker.

The Chinese documents that have consistent correspondence with the normatively cited international documents in this document are as follows.

---GB/T 5621-2008 Performance test method for rock drilling machinery and pneumatic tools (ISO 2787.1984, MOD)

---GB/T 6247.1-2013 Rock Drilling Machinery and Portable Power Tools Terminology Part 1.Rock Drilling Machinery, Pneumatic Tools and Pneumatic machinery (ISO 5391.2003, MOD)

---GB/T 6247.2-2013 Terminology for rock drilling machinery and portable power tools Part 2.Hydraulic tools (ISO 17066.

2007, IDT)

---GB/T 14790.1-2009 Mechanical vibration Measurement and evaluation of human exposure to hand-transmitted vibration Part 1.General requirements (ISO 5349-1.2001,IDT)

---GB/T 14790.2-2014 Mechanical vibration Measurement and evaluation of human exposure to hand-borne vibration Part 2.Workplace Practical Guide to Measurement (ISO 5349-2.2001, IDT)

---GB/T 25631-2010 Mechanical vibration Hand-held and hand-guided mechanical vibration evaluation rules (ISO 20643.2005, IDT)

This document has made the following editorial changes.

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

---According to the specific circumstances of the normatively cited documents in this document, ISO 5391.2003 in Chapter 2 is changed to ISO 5391,

Moved ISO 679 in the reference into Chapter 2;

---Revised the incorrect article number quoted in 7.4;

---Corrected the incorrect content of the experimental conditions in Table A.1 in the international standard.

Introduction

In order to measure the vibration radiation value of the handle of the handheld portable power tool in expected use, to evaluate and manage the operation of the operator in the use of the machine

The International Organization for Standardization plans to formulate a 13-part document of ISO 28927 for the risk of vibration damage faced by the industry. Has been released so far

The 12-part document, and the 13-part document is under development. China intends to adopt the same standard for 13 partial documents of ISO 28927.

It is determined as the document corresponding to each part of GB/T 26548. The proposed composition of GB/T 26548 is as follows.

---Part 1. Angle and end face grinders. Covers hands equipped with protective covers for grinding, cutting and rough grinding on various materials

Holding machine.

---Part 2. Gas trigger, nut wrench and screwdriver. Covers hand-held machines for tightening and loosening threaded fasteners.

---Part 3. Polishing machines, rotary, sliding and compound polishing machines. Covers the purpose of surface treatment rather than removal of material

Purpose of the handheld machine.

---Part 4. Straight shank grinder. Covers the use of various flat grinding wheels, double bevel grinding wheels, and core grinding heads on various materials

Hand-held machine for grinding and surface finishing operations.

---Part 5. Drills and impact drills. Covers hand-held machines that drill holes in various materials through rotation and impact.

---Part 6. Compaction machine. Covers hand-held machines for foundry sand compaction or stamping operations.

---Part 7. Punching machine and scissors. Covers hand-held machines for cutting sheet metal and composite materials.

---Part 8. Reciprocating saws, polishing machines and files, and pendulum or rotary saws. Covers the table with a file or polishing tool installed

Hand-held machines for surface trimming, hand-held machines for sawing boards, medical plaster or wood, or

Hand-held machines for saw blades of various materials, as well as hand-held machines for cutting metal and composite materials.

---Part 9.Derusting hammer and needle beam derusting device. Covers the use of reciprocating working tools or needle bundles to remove oil from various materials

Hand-held machines with lacquer, rust spots or oxide skin.

---Part 10.Impact rock drills, hammers and breakers. Covers hand-held rotation for drilling holes in hard materials such as rock and concrete

Impact machine.

---Part 11.Stone Hammer. Covers stone hammer type hand-held machines, which are usually pneumatic straight-handled machines.

---Part 12.Mold grinder. Covered by hard alloy burr knife or grinding head mounted on the chuck in hard steel/plastic, etc.

Material, a hand-held machine for trimming operations.

---Part 13.Fastener drive tools. Covers handheld machines for fastener drive.

This document is a Type C standard specified in ISO 12100.

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

At this time, the requirements in the C-type standards are better than those in other types of standards.

GB/T 25631 gives general technical conditions for handheld and hand-guided mechanical vibration measurement, GB/T 26548 (all parts)

Based on this standard, it gives a vibration test method for hand-held portable machines, and specifies the operating conditions of the machine under type test conditions and the

Other requirements for type test performance. The standard structure and chapter numbering are consistent with GB/T 25631.

This document adopts the sensor reference positioning method first adopted in the European series of standards EN60745.

The description is inconsistent with GB/T 25631.The sensor is preferably placed in the area between the thumb and index finger near the hand, because this position is right.

The operator has minimal interference when holding the machine.

Generally, the vibration produced by impact machines varies greatly during use. For impact machines, the main source of vibration is impact.

The difference in vibration characteristics is caused by differences in the nature of the work, the insertion tools, the materials handled, and the skills of the operators.