

ICS 65.060.80

CCS C84



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

GB/T 10283-2016

Replacing GB/T 10283-2008

**Forestry machinery - Portable pneumatic fire extinguisher -
Measurement of vibration**

林业机械 便携式风力灭火机 振动的测定

Issued on: February 24, 2016

Implemented on: September 1, 2016

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine of the People's Republic of China;
Standardization Administration of China**

Table of Contents

- 1 Scope
- 2 Normative references
- 3 Measurement parameters
- 4 Measuring instruments

Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules. This standard replaces GB/T 10283-2008 "Determination forestry machinery - Portable pneumatic fire extinguisher handle vibration," compared with the GB/T 10283-2008 main technical changes are as follows:

- Changing the name of the standard, the "determination of forestry machinery - Portable pneumatic fire extinguisher handle vibration" was changed to "measurement forestry machinery - Portable pneumatic fire extinguisher vibration";
- Modify the scope of the standard;
- Modify the "normative references";
- To modify the tachometer accuracy requirements (see 43, 2008 edition 4.5.);
- Modify the calibration requirements Removed GB/T 13823 references (see 53, 2008 edition 4.4.);
- Modify the measurement conditions, the measurement conditions from the "full load" to "rated speed" (see 54, 2008 edition 5.3.);
- Modified accelerometer installation requirements (see 551, 5611, 5621, 2008, version 4.3...);
- Increased knapsack extinguisher back pad at the contents of vibration measurements (see 5.6.2);
- Modify the validity of the measurement results of the coefficient of variation C_v requirements and increases the measurement error checking requirements (see 62, Chapter 7, 2008 edition.);
- Remove the "handlebar vibration measurement arithmetic mean" recording table (Chapter 8 of the 2008 edition);
- Added "and indicated value of the vibration test" (see Chapter 8). This standard was

proposed by the State Forestry Administration. This standard by the National Forestry Machinery Standardization Technical Committee (SAC/TC61) centralized. This standard is drafted by: Taizhou Yulin Power Machinery Company Limited. It participated in the drafting of this standard. Harbin Forestry Machinery Research Institute of the State Forestry Administration, Yongkang Xing Tiger Power Machinery Co., Ltd. Shandong Huasheng Zhongtian Machinery Group Co., Ltd., National portable forestry machinery Quality Supervision and Inspection Center, Husqvarna Almighty (Changzhou) Machinery Co., Ltd., Jiangsu Linhai power Machinery Group company. The main drafters of this standard. Sheng Ping, Yang Xuefeng, Shangnian Rong, Liu Xiangfeng, Wang Zhendong, Ma Jian, Yuan Xiaochun, Li Pai. This standard replaces the standards previously issued as follows:

--- GB/T 10283-1988, GB/T 10283-1999, GB/T 10283-2008. Forestry machinery - Portable pneumatic fire extinguisher Vibration Measurement

1 Scope

GB/T 10283-2016 is the Chinese national standard on forestry machinery - portable pneumatic fire extinguisher - measurement of vibration, in the field of agriculture. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 24 February 2016 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 September 2016. Classification: ICS 65.060.80, CCS C84. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the gasoline engine-powered portable pneumatic extinguishers (hereinafter referred to as fire extinguishers) Determination of vibration. This standard applies to the determination forestry machinery - Portable pneumatic fire extinguisher vibration measurement, but also for forestry machinery - Portable water extinguisher wind vibrations.

2 Normative references

The following documents for the application of this document is essential. For cited documents with dates, only the dated edition applies to this document. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 14790.2-2014 Mechanical vibration of human exposure to hand-transmitted vibration measurement and evaluation - Part 2. A Practical Guide to Workplace measurements

GB/T 20485 (all parts), vibration and shock sensor calibration method

GB/T 23716 people vibration response of measuring instruments

3 Measurement parameters

3.1 Hand-held fire extinguishers Weighted acceleration a_{hwx} two handles on three mutually perpendicular directions, a_{hwy} , a_{hwz} . Two handles on each of the total value of the acceleration a_{hv} (a_{hv} is weighted acceleration a_{hwx} , a_{hwy} , a_{hwz} square and the square root, the same below).

3.2 knapsack extinguisher Handles and back pad weighting each point three mutually perpendicular directions acceleration a_{hwx} , a_{hwy} , a_{hwz} . Handles and their total acceleration values a_{hv} back pad.

4 Measuring instruments

4.1 Requirements Vibration test systems shall comply with GB/T 23716 of.

4.2 Accelerometer Determination of the total mass of the accelerometer a position (including bearings, cable not included) should not exceed 25g, see GB/T 14790.2-2014 in 6.1.5.

Note. The accelerometer is a sensor vibration into an electrical signal. Accelerometer may be three-dimensional coordinates, the x, y, z-coordinate direction is measured simultaneously.

4.3 Tachometer Tachometer accuracy shall not exceed $\pm 1.0\%$. During the test, tachometer and installation should not affect the operation of the machine.