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

GB/T 5390-2025

Replacing GB/T 5390-2013

**Noise test code for portable hand-held forestry and gardening
machinery with internal combustion engine - Engineering
method (Grade 2 accuracy)**

以内燃机为动力的便携式手持操作林业及园林机械噪声测定规范 工程法(2级精度
)

(English Translation)

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document replaces GB/T 5390-2013 "Noise Measurement of Portable Hand-Operated Forestry and Garden Machinery Powered by Internal Combustion Engines".

The "Standardized Engineering Method (Level 2 Accuracy)" differs from GB/T 5390-2013 in that, apart from structural adjustments and editorial changes, its main technical changes

are as follows.

as follows.

---The terms and definitions have been changed (see Chapter 3, Chapter 3 of the 2013 edition);

---The usage requirements for microphone windshields have been changed [see Chapter 5d), 6.1.c (Chapter 5d), 6.1.c in the 2013 edition)];

---The content of "Microphone Position Coordinates" has been changed (see Chapter 5, Chapter 5 of the 2013 edition);

---The content of "Noise Emission Value Labelling and Verification" has been revised (see Chapter 9, Chapter 9 of the 2013 edition);

---The transverse width of the timber used in the chainsaw test was changed from 200 mm $\pm$ 10 mm to 150 mm $\pm$ 10 mm.

(See A.1, 2013 edition of A.1);

---The test settings for the chainsaw have been changed (see Figure A.1, Figure A.1 from the 2013 version);

---The test settings for brush cutters and lawn mowers have been modified (see Figures B.1 to B.3, Figures B.1 to B.3 in the 2013 version);

---A noise measurement method for the trimming machine has been added (see Appendix B);

---The test setup for the lever-type powered pruning machine has been modified (see Figures C.1 and C.2, Figures C.1 and C.2 from the 2013 version);

---The test setup for the hedge trimmer has been modified (see Figures D.1 and D.2, Figures D.1 and D.2 from the 2013 version);

---The noise measurement method for backpack sprayers has been added, and the settings for machines with different air ducts have been changed (see Appendix E, 2013).

Appendix E of the 2008 edition);

---The test settings for the hair dryer/vacuum have been changed (see Figures E.1 to E.3, Figures E.1 to E.3 in the 2013 version).

This document is equivalent to ISO 22868:2021 "Noise of portable hand-operated forestry and garden machinery powered by internal combustion engines".

Determination of standard engineering method (Level 2 accuracy) the following minimal editorial changes have been made to this document.

---To align with existing standards, the standard title has been changed to "Noise from

Portable Hand-Operated Forestry and Garden Machinery Powered by Internal Combustion Engines".

Measurement Standard Engineering Method (Level 2 Accuracy)

---For ease of use of the standard, the unit of rotational speed in the entire text of ISO 22868:2021 has been converted from "s-1" to "r/min".

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the National Forestry and Grassland Administration.

This document is under the jurisdiction of the National Forestry Machinery Standardization Technical Committee (SAC/TC61).

1 Scope

This document describes how to effectively determine common types of portable, handheld forestry and garden machinery powered by internal combustion engines under standardized conditions.

Standards for measuring noise emission characteristics, and for chainsaws, brush cutters, lawnmowers, trimmers, stick pruning saws, hedge trimmers, and garden blowers.

Specific requirements for air purifiers/vacuum blowers/backpack sprayers. Noise emission characteristics include A-weighted sound pressure level and A-weighted sound level at the operator's location.

Sound power level.

The noise measurement specifications described in this document help manufacturers verify the effectiveness of low-noise designs.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies.

This document.

GB/T 3767-2016 Acoustic pressure method for determining the sound power level and sound energy level of a noise source in an approximately free field above a reflecting surface.

Procedure (ISO 3744:2010, IDT) room) Note. GB/T 20247-2006 Acoustic reverberation

chamber sound absorption measurement (ISO 354:2003, IDT) ISO 3744 Engineering method for determining the sound power level and sound energy level of a noise source in an approximate free field above a reflecting surface (A-Note. GB/T 3767-2016 Engineering method for determining the sound power level and sound energy level of a noise source using acoustic pressure method in an approximate free field above a reflecting surface.

(ISO 3744:2010, IDT) Note. GB/T 14574-2000 Designation and verification of noise emission values for acoustic machines and equipment (eqv ISO 4871:1996) ulary) Note. GB/T 18960-2023 Portable Chainsaw Terminology (ISO 6531:2017, IDT) cuttersandgrass-trimmers-Vocabulary) Note. GB/T 18961-2023 Vocabulary for Portable Brush Cutter and Lawn Mower (ISO 7112:2018, IDT) ISO 10517 Safety of Powered Hand-held Hedge Trimmers Note. GB/T 42607-2023 Safety of Powered Handheld Hedge Trimmers (ISO 10517:2019, IDT)