

ISO 22868:2021 (E)

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

Contents

	Foreword
	Introduction
1	Scope
2	Normative references
3	Terms and definitions
4	Quantities to be measured and quantities to be determined
5	A-weighted sound power level determination
6	A-weighted emission sound pressure level measurement at the operator position
6.1	General
6.2	Requirements for artificial surface
6.3	Requirements for natural ground surface
7	Testing and operating conditions
8	Information to be reported
8.1	General
8.2	A-weighted emission sound pressure level determination
8.3	A-weighted surface average sound pressure level determination
8.4	A-weighted sound power level determination
9	Declaration and verification of noise emission values
Annex A	(normative) Specific conditions for chain-saws (see Clause 7)
A.1	Chain-saw conditions and test timber
A.2	Mounting and orientation of chain-saw
A.2.1	General
A.2.2	A-weighted sound power level measurement
A.2.3	A-weighted emission sound pressure level measurement
A.3	Test procedure
A.3.1	General
A.3.2	Idling
A.3.3	Full load
A.3.4	Racing
A.4	Determination of sound levels for work cycles
A.4.1	Chain-saws with engine displacement < 80 cm ³
A.4.2	Chain-saws with engine displacement ≥ 80 cm ³
Annex B	(normative) Specific conditions for brush-cutters, grass-trimmers and edgers (see Clause 7)
B.1	Machine conditions
B.2	Mounting and orientation of the machine
B.2.1	Mounting of machine on test fixture
B.2.2	Orientation of machine for A-weighted sound power level measurement
B.2.3	Position of microphone for A-weighted emission sound pressure level measurement
B.3	Test procedure
B.3.1	General

- B.3.2 Idling
- B.3.3 Racing
- B.4 Determination of sound levels for work cycle

Annex C (normative) Specific conditions for pole-mounted powered pruners (see Clause 7)

- C.1 Machine conditions
- C.2 Mounting and orientation of machine
 - C.2.1 Mounting of machine on test fixture
 - C.2.2 Orientation of machine for A-weighted sound power level measurement
 - C.2.3 Position of microphone for A-weighted emission sound pressure level measurement
- C.3 Test procedure
 - C.3.1 General
 - C.3.2 Idling
 - C.3.3 Racing
- C.4 Determination of sound levels for work cycles

Annex D (normative) Specific conditions for hedge-trimmers (see Clause 7)

- D.1 Machine conditions
- D.2 Mounting and orientation of machine
 - D.2.1 Mounting of machine on test fixture
 - D.2.2 Orientation of machine for A-weighted sound power level measurement
 - D.2.3 Position of microphone for A-weighted emission sound pressure level measurement
- D.3 Test procedure
 - D.3.1 General
 - D.3.2 Idling
 - D.3.3 Racing
- D.4 Determination of sound levels for work cycles

Annex E (normative) Specific conditions for garden blowers/vacuums/knapsack mist blowers (see Clause 7)

- E.1 Machine conditions
- E.2 Mounting and orientation of machine
 - E.2.1 Mounting of machine on test fixture
 - E.2.2 Orientation of machine for A-weighted sound power level measurement
 - E.2.3 Position of microphone for A-weighted emission sound pressure level measurement
- E.3 Test procedure
 - E.3.1 General
 - E.3.2 Idling
 - E.3.3 Full load
- E.4 Determination of sound levels for work cycles

Annex F (informative) Example of water brake mounted on chain-saw guide bar to simulate cutting

Annex G (informative) Summary of results from round robin tests 2007 and 2008 on single chain-saw, brush-cutter and grass-trimmer

Annex H (informative) A-weighted sound power level determination and declaration according to the EU Directive on noise emission in the environment by equipment for use outdoors, 2000/14/EC