## 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 cm3
- A.4.2 Chain-saws with engine displacement  $\ge$  80 cm3

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

-1-

- 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

Page count: 37