
**Garden equipment — Safety
requirements for combustion-engine-
powered lawnmowers —**

Part 1:

Terminology and common tests

**AMENDMENT 1: Annex G (Vibration test
code — Hand-arm vibration and whole-
body vibration)**

*Matériel de jardinage — Exigences de sécurité pour les tondeuses à
gazon à moteur à combustion interne —*

Partie 1: Terminologie et essais communs

*AMENDEMENT 1: Annexe G (Code d'essai de vibration — Vibrations
main-bras et vibrations transmises à l'ensemble du corps)*



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This document was prepared by Technical Committee ISO/TC 23 *Tractors and machinery for agriculture and forestry*, Subcommittee SC 13 *Powered lawn and garden equipment*.

ISO 5395-1:2013/Amd 1:2017

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Normative references

Add the following references.

ISO 5349-1, *Mechanical vibration — Measurement and evaluation of human exposure to hand-transmitted vibration — Part 1: General requirements*

ISO 8041, *Human response to vibration — Measuring instrumentation*

Annex G

Replace Annex G with the following. Note that G.1 has not been revised, but has been kept here for context.

G.1 General

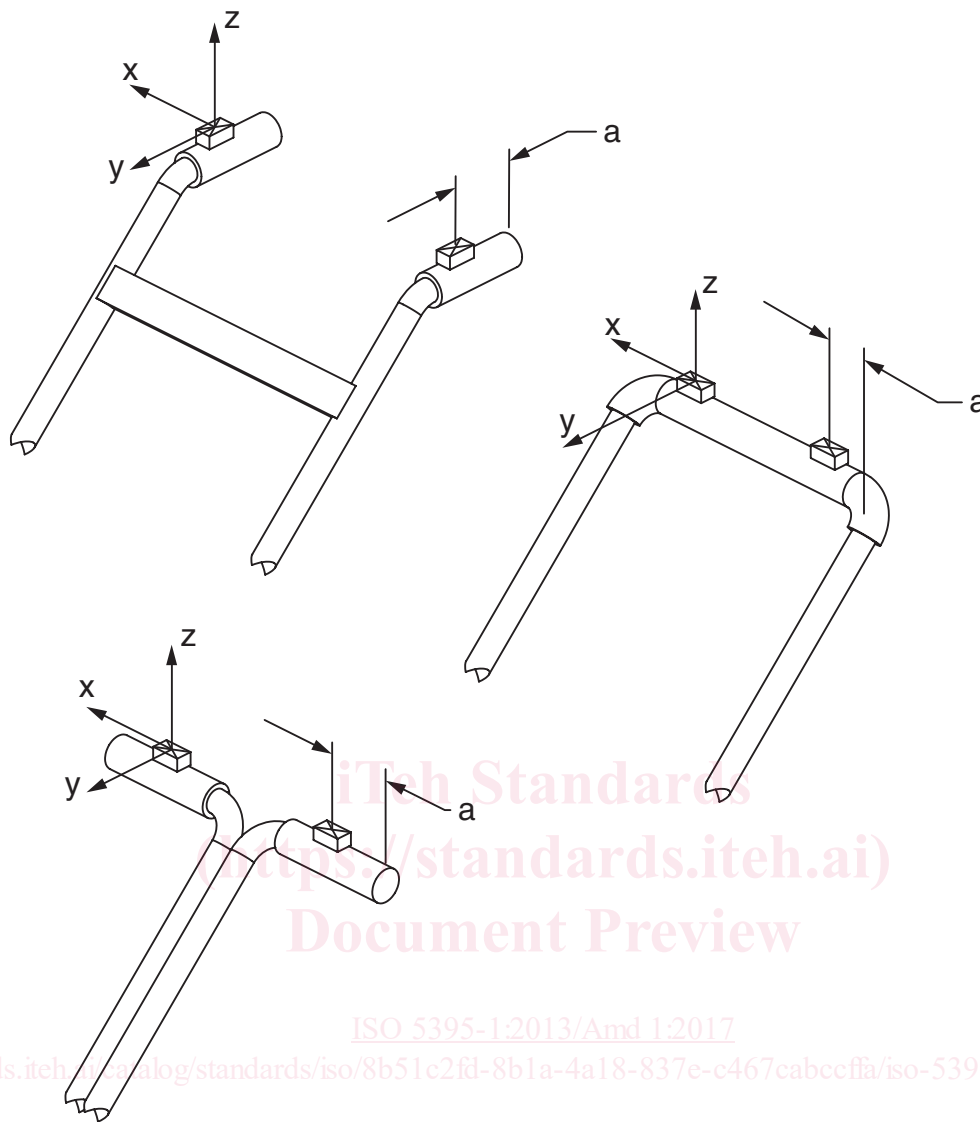
This annex specifies a vibration test code for determining, efficiently and under specified conditions, the magnitude of vibration at the handles of pedestrian-controlled lawnmowers, including sulkies, steering controls of ride-on lawnmowers and whole-body vibrations for operators on sulkies and ride-on lawnmowers.

Although the magnitudes measured are obtained in an artificial operation, they nevertheless give an indication of the values to be found in a real work situation.

G.2 Characterization of hand-arm vibration – Pedestrian-controlled lawnmowers

G.2.1 Direction of measurement

Translational vibration transmitted to the hand is related to the x, y, or z directions shown in [Figure G.1](#).



Key

a 100 mm

Figure G.1 — Examples of transducer location/orientation (pedestrian-controlled machines)

If the handle design is not covered by one of the examples, the transducer for the hand-arm vibrations shall be located at the normal operating hand position between the thumb and index finger. This position shall be described in the test report.

G.2.2 Location of measurement

The machine shall be held with both hands. Measurements shall be carried out with the transducer as close as possible to a point on the grip surface between the thumb and the index finger (see examples in [Figure G.1](#)).

G.2.3 Magnitude of vibration

The magnitude of vibration shall be the frequency-weighted acceleration a_{hw} in m/s^2 , expressed as a root-mean-square (RMS) value. The frequency weighting shall be according to ISO 5349-1.

The duration time T shall be not less than 8 s for each measurement.