

INTERNATIONAL STANDARD



INTERNATIONAL ORGANIZATION FOR STANDARDIZATION
ORGANISATION INTERNATIONALE DE NORMALISATION
МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ

ISO
8662-1

First edition
1988-11-01

Replaces
1898-04-01

Hand-held portable power tools — Measurement of vibrations at the handle —

Part 1 : General

Machines à moteur portatives — Mesure des vibrations au niveau des poignées

Partie 1 : Généralités

Reference number
ISO 8662-1 : 1988 (R)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 8662-1 was prepared by Technical Committee ISO/TC 118, *Compressors, pneumatic tools and pneumatic machines*, in collaboration with Technical Committee IEC/TC 67, *Safety of household and similar electrical appliances*.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

Hand-held portable power tools — Measurement of vibrations at the handle —

Part 1 : General

0 Introduction

This International Standard specifies type test methods for the measurement of vibrations in the handles of hand-held power-driven tools.

It defines a laboratory measuring procedure which provides accurate and reproducible results as well as results which are as far as possible in agreement with results measured under real working conditions.

These type tests serve to establish type values, enabling comparison of the same type or of different types of tools.

This part of ISO 8862 contains general requirements for the measurement of vibrations in all types of hand-held power tools. The other parts of ISO 8862 specify type test procedures for the measurement of vibrations in handles of hand-held power-driven tools. The type test is designed to give information on the vibration performance of a given power tool, making it possible to compare various tools. As far as possible, the operating conditions of the tool will represent a typical work situation. The operating procedure is specified in sufficient detail to ensure satisfactory reproducibility of measurements.

NOTE — A number of test methods have been specified, covering a range from a real work situation to a completely artificial situation, to achieve the desired reproducibility.

The vibrations generated in a tool depend on the work situation in which it is used. The operator's exposure to vibration depends on factors additional to those specified in the type test given, e.g. the operator's experience, the condition of the tool and its accessories, the process and the duration of exposure. This International Standard does not give any guidelines or recommendations for assessing the risk of damage due to the vibration exposure. However, the magnitude of the vibrations measured is, as far as possible, a realistic measure of the vibration intensity to be expected in a normal working situation.

Vibrations in a hand-held power tool in a working situation comprise components generated in the machine itself and in the inserted tool, e.g. the grinding wheel or chisel. The workpiece and the process have an important influence on the

vibration levels encountered. It is not the purpose of this International Standard to separate the influences of these various factors.

At present, the deviation observed between measurements carried out in different laboratories is not as low as desired. However, development of the measurement technique and more precise specification of the operating conditions in conjunction with experience should lead to a greater degree of reproducibility in the future.

NOTE — When further experience and more information have been gained, a revision to this International Standard may become justified.

1 Scope and field of application

This part of ISO 8862 describes the basic requirements for evaluating vibrations in the handles of hand-held power-driven tools.

It is not intended for assessment of human exposure to vibrations. The measurement and assessment of human exposure to hand-transmitted vibration in the workplace is given in ISO 5349.

2 References

ISO 1683, *Acoustics — Preferred reference quantities for acoustic levels*.

ISO 5347, *Methods for the calibration of vibration and shock pick-ups*¹⁾

ISO 5348, *Mechanical vibration and shock — Mechanical mounting of accelerometers*.

ISO 5349, *Mechanical vibration — Guidelines for the measurement and the assessment of human exposure to hand-transmitted vibration*.

1) At present at the stage of draft.