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

Part 11:
Fastener driving tools

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

Partie 11: Machines à enfoncer les fixations
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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75% of the member bodies casting a vote.

International Standard ISO 8662-11 was prepared by Technical Committee ISO/TC 118, Compressors, pneumatic tools and pneumatic machines, Subcommittee SC 3, Pneumatic tools and machines.

ISO 8662 consists of the following parts, under the general title Hand-held power tools — Measurement of vibrations at the handle:

- Part 1: General
- Part 2: Chipping hammers and riveting hammers
- Part 3: Rock drills and rotary hammers
- Part 4: Grinders
- Part 5: Pavement breakers and hammers for construction work
- Part 6: Impact drills
- Part 7: Wrenches, screwdrivers and nut runners with impact, impulse or ratchet action
- Part 8: Polishers and rotary, orbital and random orbital sanders
- Part 9: Rammers
- Part 10: Nibblers and shears
- Part 11: Fastener driving tools
- Part 12: Saws and files with reciprocating action and saws with oscillating or rotating action
- Part 13: Die grinders
- Part 14: Stone-working tools and needle scalers

Annex A of this part of ISO 8662 is for information only.
Introduction

This part of ISO 8662 specifies a type test for the measurement of vibration (shocks) at the handles of fastener driving tools. It supplements ISO 8662-1, which gives the general specifications for measurement of vibration at the handles of hand-held portable power tools. It specifies the operation of the tool under type test and other requirements for the performance of the type test.

The principle of measurement in this part of ISO 8662 is intended to quantify vibration values for single events instead of continuous vibrations, such as vibrations from rotating and percussive tools, which is the case in most of the parts of ISO 8662. Fastener driving tools employ only a short-term operational mode, and measurements are made in order to give a value representing the vibration energy emitted during one operation. This is done by integrating the weighted acceleration from a counted number of operations during a known integration time. The result is presented as the measured vibration value normalized to one operation every three seconds.

This part of ISO 8662 is developed for type test measurements. As the effects of shock impact are not well known for the time being, results from measurements in accordance with this part of ISO 8662 are not suitable for risk assessment.

The principle of operation of these power tools is that energy is applied linearly to the loaded fastener for the purpose of driving it into a workpiece of defined material.

Influences of shock and its transmission to the hand-arm system during the use of fastener driving tools are determined by design, mass of the power tool, driving speed, handling, feed and gripping forces, density and solidity of the workpiece, as well as by the workpiece support.