SLOVENSKI STANDARD
SIST EN ISO 8662-4:2000

01-april-2000

Gnana roļ na orodja - Meritve vibracij na roļ ajih - 4. del: Brusilniki (ISO 8662-4:1994)

Hand-held portable power tools - Measurement of vibrations at the handle - Part 4: Grinders (ISO 8662-4:1994)

Handgehaltene motorbetriebene Maschinen - Messung mechanischer Schwingungen am Handgriff - Teil 4: Schleifmaschinen (ISO 8662-4:1994)

Machines a moteur portatives - Mesurage des vibrations au niveau des poignées - Partie 4: Meuleuses (ISO 8662-4:1994)

Ta slovenski standard je istoveten z: **EN ISO 8662-4:1995**

ICS:

13.160	Vpliv vibracij in udarcev na ljudi	Vibration and shock with respect to human beings
25.140.01	Roļ na orodja na splošno	Hand-held tools in general

SIST EN ISO 8662-4:2000 **en**

EUROPEAN STANDARD

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EN ISO 8662-4

April 1995

ICS 13.160; 25.140.10

Descriptors: tools, hand tools, power-operated tools, portable equipment, portable electronic machine tools, pneumatic equipment, grinding machines(tools), vibration, tests, vibration tests, tool handles

English version

Hand-held portable power tools - Measurement of vibrations at the handle - Part 4: Grinders (ISO 8662-4:1994)

Machines à moteur portatives - Mesurage des vibrations au niveau des poignées - Partie 4: Meuleuses (ISO 8662-4:1994)

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This European Standard was approved by CEN on 1995-02-15. CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart,36 B-1050 Brussels

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Foreword

The text of the International Standard ISO 8662-4:1994 has been prepared by Technical Committee ISO/TC 118 "Compressores, pneumatic tools and pneumatic machines" in collaboration with CEN/TC 231 "Mechanical vibration and shock". It has been submitted to Parallel Vote and has been approved by CEN on 1995-02-15 as a European Standard.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EC Directive(s).

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 1995, and conflicting national standards shall be withdrawn at the latest by October 1995.

According to the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 8662-4:1994 was approved by CEN as a European Standard without any modification.

NOTE: Normative references to international publications are listed in annex ZA (normative). Annex ZB(informative) contains the bibliography.

Annex ZA (normative)
Normative references to international publications with their relevant European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

Publication	Year	Title	EN	Year
ISO 8662-1	1988	Hand-held portable power tools - Measurement of vibrations at the handle - Part 1: General	EN 28662-1	1992

Annex ZB (informative)

Bibliography

ENV 25349:1992	Mechanical vibration – Guidelines for the measurement and the assessment of human exposure to hand-transmitted vibration (ISO 5349:1986)
ISO 5349:1986	Mechanical vibration – Guidelines for the measurement and the assessment of human exposure to hand-transmitted vibration
ISO 6103:1986	Bonded abrasive products – Static balancing of grinding wheels – Testing

INTERNATIONAL STANDARD

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

Part 4: Grinders

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

Partie 4: Meuleuses

Reference number
ISO 8662-4:1994(E)

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 voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 8662-4 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 portable 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 ratcheting action*

— *Part 8: Polishers and rotary, orbital or random sanders*

— *Part 9: Rammers*

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— *Part 10: Nibblers and shears*

— *Part 11: Fastener driving tools (nailers)*

— *Part 12: Saws and files with oscillating, reciprocating 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, which specifies a type test for the measurement of vibrations at the handles of hand-held portable grinders, supplements ISO 8662-1 which gives general specifications for the measurement of vibrations 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 the operation of these power tools is that a driving medium causes an output spindle to rotate. The spindle is adapted to carry an abrasive device for material removal.

It has been found that vibrations generated by a grinder cutting or grinding a workpiece vary considerably. The variation is largely due to the variances in the unbalance of the machine with the grinding wheel mounted. The unbalance also changes when the wheel is in operation. In order to provide a method which gives good measurement reproducibility, the procedure adopted in this part of ISO 8662 uses a test wheel of known unbalance mounted on a machine and running free. The unbalance is chosen to be 40 % of the highest permissible unbalance according to ISO 6103. Preliminary investigations suggest that the values obtained when the machine is running free are usually correlated with measurements obtained when grinding. However, the procedures of ISO 5349 are required whenever exposure at the workplace is to be assessed.

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

Part 4: Grinders

1 Scope

This part of ISO 8662 specifies a laboratory method for measuring the vibrations at the handles of hand-held power-driven grinders. It is a type-test procedure for establishing the magnitude of vibration in the handle of a power tool fitted with a specified test wheel.

The power tools covered by this part of ISO 8662 may be pneumatically driven, or driven by other means. Typical tools are illustrated in figure 1.

This part of ISO 8662 does not apply to die grinders.

It is intended that the results be used to compare different models of the same type of power tool, i.e. power tools intended for use with the same grinding wheel (same diameter and same maximum peripheral speed). If an evaluation of vibration exposure is required, then measurements in a work situation will be required.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 8662. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 8662 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 8662-1:1988, *Hand-held portable power tools — Measurement of vibrations at the handle — Part 1: General.*

European Standard EN 792-7, *Handheld non-electric power tools — Safety requirements — Part 7: Grinders.*

3 Quantities to be measured

The quantites to be measured are as follows:

a) the root-mean-square (r.m.s.) acceleration in accordance with ISO 8662-1:1988, 3.1, presented as a weighted acceleration in accordance with ISO 8662-1:1988, 3.3;

b) the rotational speed;

c) the downward feed force.

4 Instrumentation

4.1 General

The specifications for the instrumentation given in ISO 8662-1:1988, 4.1 to 4.6, apply.