SLOVENSKI STANDARD
SIST EN 60745-2-2:2003/A11:2007

01-maj-2007

Roļ na elektriļ na orodja - Varnost - 2-2. del: Posebne zahteve za vijaļ nike in udarne vijaļ nike

Hand-held motor-operated electric tools - Safety -- Part 2-2: Particular requirements for screwdrivers and impact wrenches

Handgeführte motorbetriebene Elektrowerkzeuge - Sicherheit - Teil 2-2: Besondere Anforderungen für Schrauber und Schlagschrauber

Outils électroportatifs a moteur - Sécurité - Partie 2-2: Règles particulieres pour les visseuses et les clés a chocs

Ta slovenski standard je istoveten z: **EN 60745-2-2:2003/A11:2007**

ICS:

25.140.20	Elektriļ na orodja	Electric tools
25.140.30	Orodja za roļ no uporabo	Hand-operated tools

SIST EN 60745-2-2:2003/A11:2007 **en;fr;de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60745-2-2/A11

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ICS 25.140.20; 25.140.30

English version

Hand-held motor-operated electric tools - Safety - Part 2-2: Particular requirements for screwdrivers and impact wrenches

Outils électroportatifs à moteur - Sécurité - Partie 2-2: Règles particulières pour les visseuses et les clés à chocs

Handgeführte motorbetriebene Elektrowerkzeuge - Sicherheit - Teil 2-2: Besondere Anforderungen für Schrauber und Schlagschrauber

This amendment A11 modifies the European Standard EN 60745-2-2:2003; it was approved by CENELEC on 2006-12-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 CENELEC member.

This amendment exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

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CENELEC

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

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Foreword

This amendment to the European Standard EN 60745-2-2:2003 was prepared by the Technical Committee CENELEC TC 61F, Safety of hand-held and transportable motor-operated electric tools.

The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as amendment A11 to EN 60745-2-2:2003 on 2006-12-01.

This amendment was prepared to align the Subclause 6.2 with the new Subclause 6.2 in EN 60745-1:2006. Moreover, vibration values determined with the new 6.2 are complying with the requirements of the Physical Agents Directive Vibration 2002/44/EC.

The following dates were fixed

– latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2007-12-01

– latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 2007-12-01

Foreword

Replace *the 6th paragraph by the following:*

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and covers essential requirements of EC Directive 98/37/EC (Machinery Directive), amended by Directive 98/79/EC. See Annex ZZ.

Replace *the 10th and 11th paragraphs by the following:*

This standard follows the overall requirements of EN ISO 12100-1 and EN ISO 12100-2.

This Part 2-2 is to be used in conjunction with EN 60745-1:2006. When this standard states "addition", "modification" or "replacement", the relevant text in Part 1 is to be adapted accordingly.

6 Environmental requirements

Replace *the existing 6.2 by the following:*

6.2 Vibration

6.2.4.2 Location of measurement

Addition:

Figures Z102 and Z103 show the positions for different screwdrivers and impact wrenches.

6.2.6.3 Operating conditions

Modification:

Table Z101 — Operating conditions for screwdrivers without impact mechanism

Orientation	Screwdrivers are tested at no-load. The screwdriver is hold horizontally during the test.
Tool bit	Tool bit of medium length and size.
Grip force	Hold the machine with normal gripping force, avoiding excessive gripping force.
Test cycle	One test cycle is given when the tool is switched on for no load at max. speed for more than 10 s and then switched off again. The measurement is conducted during 10 s within this period.

NOTE As it is difficult to measure load applications of screwdrivers in laboratories and results have shown that the load has no influence on the vibration results, the measurements are conducted with no-load only.

Table Z102 — Operating conditions for screwdrivers with impact mechanism and impact wrenches

Orientation	The tools are tested under load, fixing screws vertically downward. A test fixture is used which contains set screws which are of the biggest capacities of the tool under test. The screw case is a hard joint with one steel washer under the head. The initial setting of the set screw shall provide 10 mm of exposed length from the steel plate to provide the run up. A steel plate with a minimum thickness of 20 mm with tapped holes is horizontally mounted on a test bench using resilient material to avoid resonance influences. The tapped holes have the dimension of the set screws / fixings for testing. The steel plate shall be long enough to accept 5 fixings with a clearance between each fixing of at least the dimension of the head of the set screw or a dimension distance which does not cause interference with the adjacent fixing.
Tool bit	Hex head nuts of the size needed for the set screws defined above.
Feed force	Provide sufficient grip and feed force to maintain safe control. Avoid excessive grip and feed force.
Test cycle	The test cycle will be one fixing for the specified tool for a period of run down and 5 s from first impact (one test series contains five cycles). The measurement starts from switch on of the tool with the socket / bit engaged with the set screw to the end of 5 s of impact with continuous operation. This includes the time to cover run up of 10 mm.

6.2.7.2 Declaration of the vibration emission value

Addition:

The vibration emission value a_h of the handle with the highest emission and the uncertainty K shall be declared and:

- for screwdrivers usable without impact
  the work mode description “screwdriving without impact”;

- for screwdrivers with impact mechanism and impact wrenches
  the work mode description “impact tightening of fasteners of the maximum capacity of the tool”.

Add *the following new figures:*

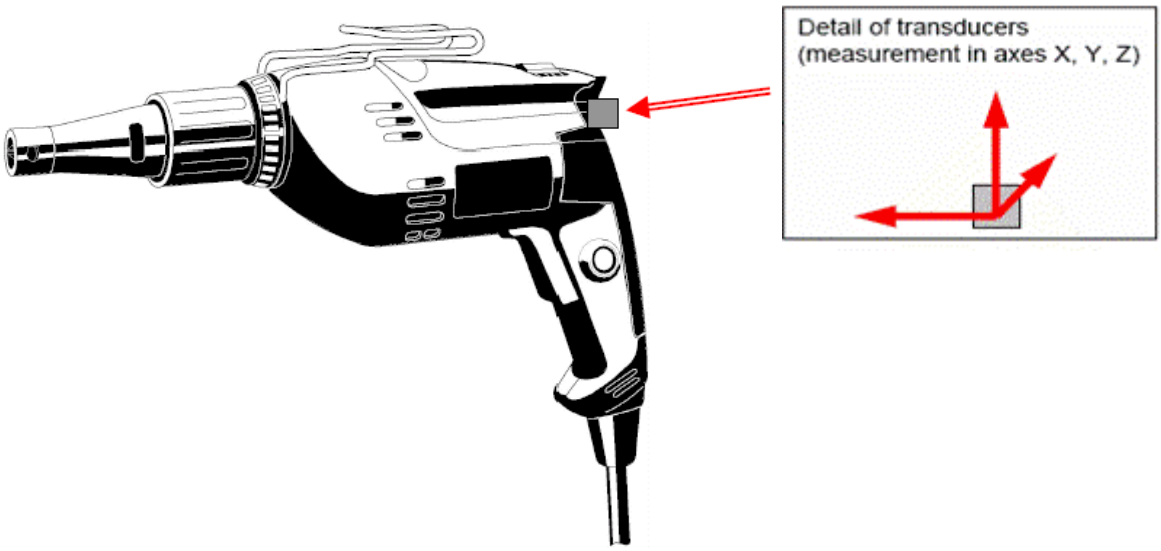

Figure Z102 – Position of transducer for screwdrivers

Figure Z103 – Positions of transducers for impact wrenches

Add *the following annex:*

Annex ZZ
(informative)

Coverage of Essential Requirements of EC Directives

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and within its scope the standard covers all relevant essential requirements as given in Annex I of EC Directive 98/37/EC (Machinery Directive), amended by Directive 98/79/EC.

Compliance with this standard provides one means of conformity with the specified essential requirements of the Directive(s) concerned.

WARNING: Other requirements and other EC Directives may be applicable to the products falling within the scope of this standard.