



SLOVENSKI STANDARD
SIST EN 931:2000/A1:2005

01-marec-2005

Glavni naslov: Varnostni zahtevi za stroje za izdelavo obutve

Footwear manufacturing machines - Lasting machines - Safety requirements

Maschinen zur Herstellung von Schuhen - Zwickmaschinen - Sicherheitsanforderungen

Machines pour la fabrication de chaussures - Machines à monter - Prescriptions de sécurité

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Ta slovenski standard je istoveten z: **EN 931:1997/A1:2004**

ICS:

61.060

Obuvala

Footwear

SIST EN 931:2000/A1:2005

en

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ICS 61.060

English version

Footwear manufacturing machines - Lasting machines - Safety requirements

Machines pour la fabrication de chaussures - Machines à monter - Prescriptions de sécurité

Maschinen zur Herstellung von Schuhen - Zwickmaschinen - Sicherheitsanforderungen

This amendment A1 modifies the European Standard EN 931:1997; it was approved by CEN on 16 August 2004.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant 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.

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

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

Foreword

This document (EN 931:1997/A1:2004) has been prepared by Technical Committee CEN/TC 201 "Leather and imitation leather goods and footwear manufacturing machinery - Safety", the secretariat of which is held by UNI.

This Amendment to the European Standard EN 931:1997 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2005, and conflicting national standards shall be withdrawn at the latest by April 2005.

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

For relationship with EU Directive(s), see informative Annex ZA of EN 931:1997.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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Annex C (normative)

Noise Test Code for Lasting Machines

C.1 Scope

This noise test code complements EN 12545 for the determination and declaration of the noise emission from lasting machines. EN 12545 and this Annex shall always be used jointly.

C.2 Normative references

See EN 12545:2000, Clause 2.

C.3 Definitions

C.3.1 Test Material

A material of specified construction, incorporating, where applicable, tacks of a specified material number and length.

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C.3.2 Test Workpiece

A shoe upper, last and insole.

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[15199aa8578e/sist-en-931-2000-a1-2005](https://standards.iteh.ai/catalog/standards/sist/2173316d-ac5a-4476-bf83-15199aa8578e/sist-en-931-2000-a1-2005)

C.3.3 Test Cycle

A specified number of lasting operations, using test workpieces, within a specified noise measurement time period.

C.4 Description of machinery family

As defined in 1.1.

C.5 Determination of the 'A'-weighted sound power level

C.5.1 General

See EN 12545:2000, Clause 5.

C.5.2 Measurement procedure

The machine shall be operated three times through its test cycle. The arithmetic mean of the three values of the A-weighted sound power level in dB shall be calculated, recorded and reported.

Where any microphone position is obstructed by the standing operator, that position shall be excluded from the test.

C.6 Determination of the A-weighted emission sound pressure levels at the workstation

C.6.1 General

See EN 12545:2000, Clause 6 and the following.

C.6.2 Position of microphone

The microphone shall be located adjacent to the operator in a position as defined below, with an operator standing at the workstation on the centre line of the machine. The microphone's position is defined relative to a reference point on the ground plane on which the operator stands.

The reference point shall be at a horizontal distance of $0,4 \text{ m} \pm 0,05 \text{ m}$ in front of the machines measured in a direction parallel to the centre line of the machine and displaced a distance of $0,20 \text{ m} \pm 0,02 \text{ m}$ to the right of the centre line.

The microphone shall be located directly above this reference point at a height of $1,60 \text{ m} \pm 0,05 \text{ m}$.

C.6.3 Measurement procedure

The machine shall be operated three times through its test cycle. The arithmetic mean of the three values of the A-weighted time averaged sound pressure level in dB shall be calculated, recorded and reported.

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C.7 Mounting conditions

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See EN 12545:2000, Clause 7.

C.8 Operating conditions

C.8.1 The test workpiece shall consist of a standard men's synthetic leather upper with lining and insole, and shall have an overall thickness of $3 \text{ mm} \pm 0,3 \text{ mm}$ as a polypropylene last.

C.8.2 Pincer and wiper settings shall be those recommended by the manufacturer in the instruction handbook.

C.8.3 The test cutting cycle shall be:

- a) for lasting machines using adhesive only, 10 lasting operations over a noise measurement time period of 3 minutes;
- b) for tack lasting machines, 10 lasting operations over a 3 minute noise measurement time period. For lasting operation this should include the driving of 18 mild steel tacks into each test workpiece being lasted. The tacks shall be at least 8mm in length. The length shall be recorded and reported;
- c) in each case, test workpieces shall be from the same batch throughout the test cycle.

C.8.4 The test workpiece shall be positioned in accordance with the manufacturers instructions for the machine.

C.8.5 If resilient mounts are fitted, that fact shall be recorded and reported.

C.8.6 The machine under test shall be switched on and left to idle for a period of at least 30 minutes before the test commences.

C.8.7 If the specified values given in this noise test code are not fulfilled, these deviations shall be recorded and reported. Other parameters which are not specified in this noise test code shall be recorded and reported.

C.9 Measurement uncertainty

See EN 12545:2000, Clause 9.

C.10 Information to be recorded

See EN 12545:2000, Clause 10.

C.11 Information to be reported

See EN 12545:2000, Clause 11. It is recommended that the conditions of test, material lasted or nailed, other relevant test parameters and noise data obtained be entered on a Data Sheet, an example of which is enclosed.

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C.12 Declaration and verification of noise emission values

See EN 12545:2000, Clause 12.

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EN 931:1997/A1:2004 (E)

Manufacturer/Supplier's Name and Address:

Machine Model:

Serial No:

Type of Machine

Test material (description)

Test work piece (description including
tack length & number)

Test cutting cycle

Resilient mountings fitted Yes No

A-weighted Emission Sound Pressure level at workstation

Basic standard used

L_{pA} values in dB 1 2 3 Arithmetic Mean

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A-weighted Sound Power level

Basic standard used

L_{WA} values in dB 1 2 3 Arithmetic Mean

Are there any deviations from EN 12545 and/or from the basic standard(s) used?

No Yes

If yes, describe

Figure C.1 — Example of data sheet for lasting machines reporting

NOTE As a consequence of the publication of this Noise test code, the following amendments are necessary in EN 931:1997

Clause 2

Add to the references:

EN 12545:2000, *Footwear, leather and imitation leather goods manufacturing machines – Noise test code – Common requirements*

EN ISO 11688-1, *Acoustics - Recommended practice for the design of low-noise machinery and equipment - Part 1: Planning (ISO/TR 11688-1:1995)*

Delete from the references:

EN 23740 series

EN ISO 4871

EN ISO 9614

EN ISO 11200 series

4.5: Table 1

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Add in the second column:

“Tinnitus, tiredness and stress”

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5.2.3

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Modify the first sentence:

“The methodology for low-noise design given in EN ISO 11688-1 shall be followed. Possible noise reduction measures at the design stage are:”

Add behind the last sentence:

“NOTE EN ISO 11688-2 gives useful information on noise generation mechanisms in machinery.

The criterion for assessing the efficiency of these measures is the actual noise emission values from the machines of the same family and not the nature of the reduction measures themselves.”