INTERNATIONAL STANDARD

ISO 10821

First edition
2005-07-01

AMENDMENT 1
2009-03-15

Corrected version
2009-08-01

Industrial sewing machines — Safety requirements for sewing machines, units and systems —

AMENDMENT 1

Machines à coudre industrielles — Exigences de sécurité pour machines à coudre, unités et systèmes de couture —

AMENDEMENT 1

Reference number
ISO 10821:2005/Amd.1:2009(E)

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

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 2.

The main task of technical committees is to prepare International Standards. 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.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

Amendment 1 to ISO 10821:2005 was prepared by Technical Committee ISO/TC 148, *Sewing machines*.

In this corrected version of ISO 10821:2005/Amd.1:2009, the text on page 2 referring to 5.2.4.2 has been rewritten for greater clarity. In particular, previous references to “text in parentheses” have been replaced with the actual content of the parentheses.

Industrial sewing machines — Safety requirements for sewing machines, units and systems —

AMENDMENT 1

Page 1, Normative references

Replace the reference to ISO 3747:— with the following:

> ISO 3747:2000, *Acoustics — Determination of sound power levels of noise sources using sound pressure — Comparison method in situ*

Page 3, Normative references

Replace the references to ISO 13849-1:—, IEC 60204-1:— and IEC 60825-1:— with the following:

> ISO 13849-1:2006, *Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design*
>
> IEC 60204-1:2005, *Safety of machinery — Electrical equipment of machines — Part 1: General requirements*
>
> IEC 60825-1:2007, *Safety of laser products — Part 1: Equipment classification, requirements and user's guide*

Page 3, Terms and definitions

Replace the first sentence with the following:

> For the purposes of this document, the terms and definitions given in ISO 3744, ISO 4915, ISO 4916, ISO 11204, ISO 12100-1 and ISO/IEC Guide 51 and the following apply.

Page 19, 5.2.2.13

Replace the existing text with the following:

> Where, for industrial sewing machines, the significant hazards are mainly originated by stitch form elements the safety-related parts of control systems shall as a minimum comply with performance level b of ISO 13849-1:2006.
>
> Other types of industrial sewing machines shall comply with performance level c of ISO 13849-1:2006.

Page 20, 5.2.4.2

In the first item of list a), delete the following text:

(corrected e.g. in accordance with ISO 11204 using background noise correction K_{1A} and environmental correction K_{3A}, both expressed in A-weighted decibels),

Page 21, 5.2.4.2

In the first item of list a), delete the following text:

"(it shall be indicated if the level does not exceed this value),"

In the third item of list a), replace "85 dB" with "80 dB".

Replace the text "(size of measurement surface > 50 m^2 [> 17 dB])" in parentheses in the fourth item of list a) with "(largest dimension > 10 m)".

In the first item of list b), delete the following text:

"(corrected e.g. in accordance with ISO 11204 by background noise correction K_{1A} and environmental correction K_{3A}, both expressed in A-weighted decibels),"

and:

"(it shall be indicated if the level does not exceed this value),"

In the third item of list b), replace "85 dB" with "80 dB".

Replace the text "(size of measurement surface > 50 m^2 > 17 dB)" in parentheses in the fourth item of list b) with "(largest dimension > 10 m)".

Page 23, 5.3.4.1

Replace the text with the following:

Given the type of sewing process and the way in which the design forces the foot, thread wiper and sequin guide to be positioned, there is no need for the embroidery machines to have shields to prevent needle breaks (as defined in Annex D), protective fixtures for the lever to withdraw the needle thread or finger deflectors (as defined in Annex A).

Page 26, 7.2

Replace the first paragraph with the following.

Sewing units and systems shall be marked legibly and indelibly with the following minimum information:

— business name and full address of the manufacturer and, where applicable, the authorized representative;

— designation of the machinery;

— mandatory marking[1)];

— designation of series or type, if any;

— year of construction, that is the year in which the manufacturing process is completed;

— serial number, if any.

NOTE The text in footnote 1) is unchanged and is not reproduced in this amendment.

Page 27, 7.4.1

Add the following new list item j) at the end of the subclause:

j) Specifications of the spare parts to be used if these impact on the health and safety of operators.

Page 47, C.9

In the second list item of the second paragraph, replace “85 dB” with “80 dB”.

Page 49, C.9.3

Replace the second paragraph with the following:

If the probability of acceptance is 95 %, L_c shall be defined as follows:

$$L_c \geqslant L^* + k_a \cdot \sigma_M$$

where

L^* is the measured value for the individual machine;

k_a is the acceptability constant;

σ_M is the reference standard deviation.

K is the declared value of K_{pA} (uncertainty of sound pressure) or K_{wA} (uncertainty of sound power). $K = k_a \cdot \sigma_M$, where k_a = 1,194 and $\sigma_M \approx$ 2,5 dB apply to $L_c \geqslant L^*$ + 3 dB.

Page 66, Annex I

In Example 1, replace “82 dB” with “79 dB”.

Replace Example 3 with the following.

EXAMPLE 3 Machines according to C.6.3 (CB)

— Equivalent continuous emission sound pressure level (L_{pA}) at the workstation:
A-weighted value of 78 dB; K_{pA} = 2,5 dB.

Page 67, Annex I

In Example 6, replace “82 dB” with “79 dB”.

In Example 7, replace “84 dB” with “79 dB” in the second list item.

In Example 8, replace “87 dB” with “79 dB” in the first list item and replace “84 dB” with “79 dB” in the second list item.

Page 68, Figure I.1

Replace all four occurrences of “85” with “80”.

In the column “with undefined workstation, machines of large size”, replace “L_{pA}” with “$L_{pA,\,max}$”.

In the last line of the columns “with defined workstation, machines of large size” and “with undefined workstation, machines of large size”, delete “L_{WA} = ...”.

Page 75, Bibliography

Delete the following reference:

[3] ISO/TR 11688-1, *Acoustics — Recommended practice for the design of low-noise machinery and equipment — Part 1: Planning*