



SLOVENSKI STANDARD

SIST EN 13453-1:2004

01-december-2004

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Furniture - Bunk beds and high beds for non-domestic use - Part 1: Safety, strength and durability requirements

Möbel - Etagenbetten und Hochbetten für den Objektbereich - Teil 1: Anforderungen an die Sicherheit, Festigkeit und Dauerhaltbarkeit

Ameublement - Lits superposés et lits surélevés a usage non-domestique - Partie 1 : Exigences de sécurité, de résistance et de durabilité

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Ta slovenski standard je istoveten z: **EN 13453-1:2004**

ICS:

97.140 Pohištvo Furniture

SIST EN 13453-1:2004 **en,fr,de**

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 13453-1

June 2004

ICS 97.140

English version

Furniture - Bunk beds and high beds for non-domestic use - Part 1: Safety, strength and durability requirements

Meubles - Lits superposés et lits en hauteur pour usage
non-domestique - Partie 1: Exigences relatives à la
sécurité, solidité et durabilité

Möbel - Etagenbetten und Hochbetten für den
Objektbereich - Teil 1: Anforderungen an die Sicherheit,
Festigkeit und Dauerhaltbarkeit

This European Standard was approved by CEN on 8 April 2004.

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.

This European Standard 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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Foreword

This document (EN 13453-1:2004) has been prepared by Technical Committee CEN/TC 207 "Furniture", the secretariat of which is held by UNI.

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 December 2004, and conflicting national standards shall be withdrawn at the latest by December 2004.

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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EN 13453-1:2004 (E)**1 Scope**

This part of EN 13453 specifies safety, strength and durability requirements for bunk beds and high beds for non domestic use.

The strength and durability requirements of this standard are intended to represent use of a bed by one person only.

The dimensional requirements of EN 747-1:1993[1], 4.4 apply unless a non-domestic bunk bed is to be used by adults only.

2 Normative references

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).

EN 13453-2:2004, *Furniture - Bunk beds and high beds for non-domestic use - Part 2: Test methods*.

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3 Terms and definitions

For the purposes of this European Standard, the following terms and definitions apply.

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3.1 bunk bed

set of components that can be assembled as beds, one above the other, the upper surface of the top bed base of which is 800 mm or more above floor level

3.2 high bed

set of components that can be assembled as a bed, the upper surface of the bed base of which is 800 mm or more above floor level

3.3 bed end structures

upright unit at the head and foot of the bed to which the side rails are attached

3.4 bed base

support structure for a mattress

3.5 safety barrier

component intended to prevent an occupant from falling out of the upper bed or the high bed

3.6 side rail

longitudinal member attached to the bed end structure by which the bed base can be supported

3.7 tread

structure intended as a foothold, including ladder rungs and steps, but not parts of the bed structure

4 Safety requirements

4.1 Construction

When the bed is assembled for use, all accessible exposed edges corners, and projecting parts shall be rounded or chamfered and free from burrs or sharp edges. There shall be no open-ended tubes.

All fastening and pilot holes shall be drilled by the manufacturer.

The bed shall be provided with a ladder or other means of access, which is safely connected (see 4.6).

Any bed that can be used at a height of 800 mm or more above the floor shall be provided with safety barriers all around the bed.

A wall can act as a safety barrier provided the bed is securely fastened to it.

It shall not be possible to dismantle the bed or its components without the use of a tool.

4.2 Dimensions

4.2.1 Bed structure

The distance from the upper edges of the safety barriers, measured at the lowest point, to the upper surface of the bed base shall be at least 260 mm.

The upper surface of the mattress shall be at least 160 mm below the upper edge of the safety barrier and this level shall be clearly and permanently marked on one side or end of the bunk bed.

One long side of the safety barrier only may be interrupted for access. The width of the interruption shall not be less than 300 mm and not greater than 400 mm.

When two beds are intended to be used one above the other, the distance between the upper surface of the lower bed base and the lower surface of the upper bed base shall be at least 750 mm.

For beds which are only to be used by adults, no gaps between the bed base and the side or ends shall exceed 60 mm.

4.2.2 Treads

The distance between the upper surfaces of the treads shall be equal with a tolerance of ± 5 mm.

The distance between the floor and the upper surface of the first tread shall not exceed 400 mm.

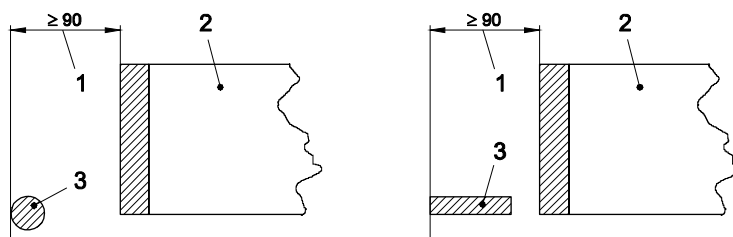
The distance between the surface of the top tread and the upper surface of the top side rail shall not exceed 500 mm.

The clear distance between two successive treads shall be at least 200 mm.

The front edges of all treads shall lie on a straight line within ± 5 mm.

The minimum step depth, e.g. between any tread and any part of the bed construction shall be 90 mm as shown in Figure 1.

Dimensions in millimetres

**Key**

- 1 Step depth
- 2 Framepart
- 3 Tread

Figure 1 — Step depth - Example of constructions

Frame parts of the bed, situated in the vicinity of treads, shall not interfere with the useable area of the tread.

The requirements apply both before and after testing without re-tightening.

4.3 Strength of bed base

When tested in accordance with 5.3.2, 5.3.3 and 5.3.4 of EN 13453-2:2004 no element of the bed base shall break, fall down or become loose or detached.

The bed base(s) shall have a means (e.g. fastening) of preventing the side rails from bending outwards, so that the base or its elements do not fall down.

4.4 Strength of frame and fastenings

When tested in accordance with 5.3.5 of EN 13453-2:2004 the upper and lower beds shall not disconnect or break and supporting fastening, e.g. between bedpost and bed frame shall not become damaged, detached or cease to function.

When tested in accordance with 5.3.6 of EN 13453-2:2004 no part of the bed shall become detached, damaged or cease to function.

4.5 Strength of safety barrier

The safety barriers shall be secured against accidental loosening. This requirement shall be considered fulfilled if the safety barriers do not become damaged or loosened when tested in accordance with 5.3.7 of EN 13453-2:2004.

4.6 Attachment, deflection and strength of means of access

The bed shall be provided with a means of access which shall not be damaged, detached or displaced or suffer any permanent deformation which affects its function. This requirement is considered to be fulfilled if, when tested in accordance with 5.3.8, 5.3.9 and 5.3.10 of EN 13453-2:2004 the means of access does not become loose, detached or broken, nor suffer any permanent deformation greater than 5 mm.

4.7 Stability

When tested in accordance with 5.4 of EN 13453-2:2004, not more than one leg or corner of the bed shall lift from the floor.

5 Instructions for use

Instructions for the correct and safe assembly and use of the bunk bed shall be provided. They shall be headed

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and shall contain the following:

- a) list of the parts supplied and details of any tools required to assemble the bed;
- b) assembly instructions, including attachment to another bunk bed or the building structure where applicable;
- c) information relating to the width, length and thickness of the mattress to be used with the bunk bed;
- d) statement that the bunk bed should be checked periodically to ensure that all fastenings are tight and the safety barriers, ladder and other components are maintained in the correct position of use;
- e) statement never to use the bunk bed if any structural part is broken, torn or missing;
- f) the overall dimensions of the bunk bed, including at least the length and width and the height of the upper surface of the top bed base from the floor;
- g) number of the standard.

6 Marking

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All beds for which conformance with the requirements of this standard, is claimed shall be permanently marked with the following information:

- a) name or trade mark or other means of identification of either the manufacturer, distributor or retailer;
- b) mark showing maximum mattress height (see 4.2.1).
- c) If a wall is to be used instead of a safety barrier the bed shall be permanently marked with a statement that the relevant part of the bed shall be securely attached to the wall.
- d) When appropriate a statement that the bed is only intended for adult use.