



SLOVENSKI STANDARD
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Nadomešča:
SIST EN 1865-3:2012

Oprema za ravnanje s pacienti v reševalnih vozilih - 3. del: Bolniška nosila za večje obremenitve

Patient handling equipment used in road ambulances - Part 3: Heavy duty stretcher

Krankentransportmittel im Krankenkraftwagen - Teil 3: Schwerlastkrankentrage

Equipement d'ambulances pour le transport de patients - Partie 3 : Brancard bariatrique

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ICS:

11.160	Prva pomoč	First aid
43.160	Vozila za posebne namene	Special purpose vehicles

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EUROPEAN STANDARD
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English Version

Patient handling equipment used in road ambulances - Part 3: Heavy duty stretcher

Équipement d'ambulances pour le transport de patients -
Partie 3 : Brancard bariatrique

Krankentransportmittel im Krankenkraftwagen - Teil 3:
Schwerlastkrankentrage

This European Standard was approved by CEN on 10 May 2012 and includes Amendment 1 approved by CEN on 20 December 2014.

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COMITÉ EUROPÉEN DE NORMALISATION
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Foreword

This document (EN 1865-3:2012+A1:2015) has been prepared by Technical Committee CEN/TC 239 "Rescue systems", the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by September 2015, and conflicting national standards shall be withdrawn at the latest by September 2015.

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

This document includes Amendment 1 approved by CEN on 20 December 2014.

A1 This document supersedes EN 1865-3:2012. **A1**

The start and finish of text introduced or altered by amendment is indicated in the text by tags **A1** **A1**.

With respect to EN 1865:1999 the following changes were made:

- a) it shall be possible to increase the width of the lying part to minimum of 750 mm;
- b) the weight of the device was changed from 51 kg to maximum 65 kg;
- c) the capacity was changed from 150 kg to minimum 250 kg;
- d) the undercarriage, if power assisted, has no limits in height or in variable positions;
- e) the power source of the stretcher was defined;
- f) permanent deformation test of the frame shall be done with 400 kg instead of 250 kg and if the lateral extensions are fitted 75 kg shall be evenly set on each extension;
- g) permanent deformation test of the frame shall be done with 250 kg instead of 150 kg;
- h) splaying of the wheels test shall be done with 400 kg instead of 250 kg;
- i) the standard has been modified/integrated to meet the Medical Device Directive 93/42/EEC requirements
- j) the standard has been modified/integrated to comply with the Machinery Directive 2006/42/EC and its Essential Health and Safety Requirements (EHSRs).


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.

For relationship with EU Directive, see informative Annex ZA, which is an integral part of this document.

A1 This European Standard is a part of EN 1865, *Patient handling equipment used in road ambulances*, which consists of the following parts:

- *Part 1: General stretcher systems and patient handling equipment;*
- *Part 2: Power assisted stretcher;*
- *Part 3: Heavy duty stretcher [the present document];*

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- *Part 4: Foldable patient transfer chair,*
- *Part 5: Stretcher support.* 

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

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Introduction

In this European Standard, reference is made to [EN 1789:2007+A2:2014](#), which specifies design requirements and test methods for road ambulances, which are relevant for checking requirements for such handling equipment.

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EN 1865-3:2012+A1:2015 (E)**1 Scope**

This European Standard specifies minimum requirements for the design and performance of heavy duty stretchers used in road ambulances for the treatment and transportation of patients. It aims to ensure patient safety and minimize the physical effort required by staff operating the equipment.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 597-1:1994 ^{A1}, *Furniture — Assessment of the ignitability of mattresses and upholstered bed bases — Part 1: Ignition source: Smouldering cigarette*

EN (deleted text) ^{A1}

EN 1041:2008+A1:2013 ^{A1}, *Information supplied by the manufacturer of medical devices*

EN 1789:2007+A2:2014 ^{A1}, *Medical vehicles and their equipment — Road ambulances*

EN 1865-1:2010 ^{A1}, *Patient handling equipment used in road ambulances — Part 1: General stretcher systems and patient handling equipment*

EN 60601-1-2:2014, *Medical electrical equipment — Part 1-2: General requirements for basic safety and essential performance — Collateral Standard: Electromagnetic disturbances — Requirements and tests (IEC 60601-1-2:2014)* ^{A1}

EN 62366:2008, *Medical devices — Application of usability engineering to medical devices (IEC 62366:2007)* ^{A1}

EN ISO 14971:2012, *Medical devices — Application of risk management to medical devices (ISO 14971:2007, Corrected version 2007-10-01)* ^{A1}

EN ISO 15223-1:2012, *Medical devices — Symbols to be used with medical device labels, labelling and information to be supplied — Part 1: General requirements (ISO 15223-1:2012)* ^{A1}

3 Terms and definitions

For the purposes of this document, the following term and definition apply.

3.1 heavy duty stretcher
stretcher designed for the treatment and transportation of patients where the weight or dimensions of the patient exceed those of the operating capability of the main stretcher

Note 1 to entry: The term "main stretcher" is defined in EN 1865-1:2010 ^{A1}.

4 Requirements

4.1 General

Heavy duty stretchers shall be operated and maintained according to the instructions of the manufacturer. Risks shall be reduced to an acceptable level by using risk management principles in accordance with A1 EN ISO 14971:2012 A1 in normal and single fault condition.

Heavy duty stretchers shall:

- be manually or power operated;
- guarantee a safe and smooth operation;
- be free of sharp edges or deformation that could cause damage to persons or other equipment on board;
- have patient restraint-systems available; these restraint-systems shall have quick release systems;
- immobilize the patient, but at the same time shall permit treatment of the patient;
- ensure that the lying-sitting part is made of a strong material, which is bacterial resistant, fungal resistant, stain resistant, putrid resistant, easy to clean, washable and petrol-oil resistant.

The heavy duty stretcher shall be designed to transport patients with a weight that exceeds the load capacity of the main stretcher in A1 EN 1865-1:2010 A1 .

It shall be designed so that during loading and unloading the maximum burden on any personnel is half of the total weight of patient and stretcher and for the minimum possible time and in an optimal ergonomic position so that back bending is minimized.

4.2 Dimensions

Dimensions shall be measured from the outermost edges.

- Stretcher part: length: A1 $(1\ 950^{+120}_{-50})$ A1 mm

To accommodate tall patients it may be possible to increase the length of the stretcher by a further 200 mm.

- width: A1 $(550 \pm^{+60}_{-20})$ mm A1

It shall be possible to increase the width of the lying part to a minimum of 750 mm.

- height: maximum 300 mm from loading holding assembly to unloaded lying part. This height dimension does not apply to stretchers with monoblock undercarriages. If a monoblock is not available, the stretcher shall be constructed such that it is detachable from the undercarriage. Where a stretcher support is used the measurement shall be taken from the top surface of the stretcher support to the lying part of the stretcher.
- Undercarriage: length and width of the frame of the undercarriage when located in the ambulance shall not exceed length and width of the stretcher part.