

norm**NEN-EN 1865-1**

Specifications for patient handling equipment used in road ambulances - Part 1: General stretcher systems and patient handling equipment

Publicatie uitsluitend voor commentaar

oktober 2007
ICS 11.140; 11.160; 43.160

Zal vervangen NEN-EN 1865:1999,deels

Als Europees normontwerp is gepubliceerd: prEN 1865-1:2007, IDT

Definitief vastgestelde normen zullen als Nederlandse norm gelden. Daarom wordt dit normontwerp in Nederland voor commentaar gepubliceerd. Op het ontwerp ingebracht commentaar zal aan de bevoegde normcommissie worden voorgelegd die hiermee rekening zal houden bij de bepaling van de Nederlandse stem. Indien er geen bezwaar bij NEN wordt ingebracht, kan dat leiden tot ongewijzigd definitieve vaststelling van het ontwerp als norm.

Van Europese normen bestaan drie officiële versies: Engels, Frans en Duits. Voor Nederland zal de Engelse versie gelden, tenzij voor een geautoriseerde versie in het Nederlands wordt gekozen.

Normcommissie 301 094 "Ambulances (re)uitrusting"

Apart from exceptions provided by the law, nothing from this publication may be duplicated and/or published by means of photocopy, microfilm, storage in computer files or otherwise, which also applies to full or partial processing, without the written consent of the Netherlands Standardization Institute.

The Netherlands Standardization Institute shall, with the exclusion of any other beneficiary, collect payments owed by third parties for duplication and/or act in and out of law, where this authority is not transferred or falls by right to the Reproduction Rights Foundation.

Auteursrecht voorbehouden. Behoudens uitzondering door de wet gesteld mag zonder schriftelijke toestemming van het Nederlands Normalisatie-instituut niets uit deze uitgave worden veelevoudigd en/of openbaar gemaakt door middel van fotokopie, microfilm, opslag in computerbestanden of anderszins, hetgeen ook van toepassing is op gehele of gedeeltelijke bewerking.

Het Nederlands Normalisatie-instituut is met uitsluiting van ieder ander gerechtigd de door derden verschuldigde vergoedingen voor veelevoudiging te innen en/of daartoe in en buiten rechte op te treden, voor zover deze bevoegdheid niet is overgedragen c.q. rechtens toekomt aan de Stichting Reprorecht.

Although the utmost care has been taken with this publication, errors and omissions cannot be entirely excluded. The Netherlands Standardization Institute and/or the members of the committees therefore accept no liability, not even for direct or indirect damage, occurring due to or in relation with the application of publications issued by the Netherlands Standardization Institute.

Hoewel bij deze uitgave de uiterste zorg is nagestreefd, kunnen fouten en onvolledigheden niet geheel worden uitgesloten. Het Nederlands Normalisatie-instituut en/of de leden van de commissies aanvaarden derhalve geen enkele aansprakelijkheid, ook niet voor directe of indirecte schade, ontstaan door of verband houdend met toepassing van door het Nederlands Normalisatie-instituut gepubliceerde uitgaven.

Voorbeeld
Preview

September 2007

ICS 43.160; 11.140; 11.160

Will supersede EN 1865:1999

English Version

Specifications for patient handling equipment used in road
ambulances - Part 1: General stretcher systems and patient
handling equipment

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 239.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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 CEN Management Centre has the same status as the official versions.

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

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



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

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

Contents

Page

Foreword.....	5
Introduction.....	5
1 Scope.....	6
2 Normative references.....	6
3 Terms and definitions.....	6
4 Requirements.....	7
4.1 General.....	7
4.2 Main stretcher.....	7
4.2.1 General.....	7
4.2.2 Dimensions.....	8
4.2.3 Mass.....	8
4.2.4 Loading capacity.....	8
4.2.5 Frame.....	8
4.2.6 Lying part of the stretcher.....	9
4.2.7 Restraint system.....	10
4.2.8 Flammability — toxicity burning gases.....	10
4.2.9 Deformation of the frame.....	10
4.2.10 Fixation.....	10
4.2.11 Deformation of the lying area.....	10
4.2.12 Resistance to torsion.....	10
4.2.13 Splaying of the wheels.....	10
4.3 Chair stretcher.....	10
4.3.1 Dimensions.....	10
4.3.2 Mass.....	11
4.3.3 Loading capacity.....	11
4.3.4 Frame.....	11
4.3.5 Lying-sitting part.....	11
4.3.6 Restraint system.....	11
4.3.7 Flammability — toxicity burning gases.....	11
4.3.8 Deformation of the frame.....	11
4.3.9 Fixation.....	11
4.3.10 Deformation of the lying-sitting area.....	11
4.3.11 Resistance to torsion.....	11
4.3.12 Splaying of the wheels.....	11
4.4 Transfer mattress.....	12
4.4.1 Dimensions.....	12
4.4.2 Mass.....	12
4.4.3 Loading capacity.....	12
4.4.4 Handles.....	12
4.4.5 Lying part.....	12
4.4.6 Restraint system.....	12
4.4.7 Flammability — toxicity burning gases.....	12
4.4.8 Deformation.....	12
4.4.9 Fixation.....	12
4.4.10 Deformation of the lying area.....	13
4.4.11 Resistance to torsion.....	13
4.4.12 Splaying of the wheels.....	13
4.5 Carrying sheet.....	13
4.5.1 Dimensions.....	13

4.5.2	Mass.....	13
4.5.3	Loading capacity	13
4.5.4	Handles.....	13
4.5.5	Lying part	13
4.5.6	Restraint system.....	13
4.5.7	Flammability — toxicity burning gases.....	13
4.5.8	Deformation of the handles	13
4.5.9	Fixation.....	14
4.5.10	Deformation of the lying area.....	14
4.5.11	Resistance to torsion.....	14
4.5.12	Splaying of the wheels.....	14
4.6	Pick up stretcher.....	14
4.6.1	Dimensions.....	14
4.6.2	Mass.....	14
4.6.3	Loading capacity	14
4.6.4	Frame.....	14
4.6.5	Lying part	14
4.6.6	Restraint system.....	15
4.6.7	Flammability — toxicity burning gases.....	15
4.6.8	Deformation of the frame.....	15
4.6.9	Locking.....	15
4.6.10	Deformation of the lying area.....	15
4.6.11	Resistance to torsion.....	15
4.6.12	Splaying of the wheels.....	15
4.7	Vacuum mattress.....	15
4.7.1	General	15
4.7.2	Dimensions	15
4.7.3	Mass.....	16
4.7.4	Loading capacity	16
4.7.5	Handles.....	16
4.7.6	Restraint system.....	16
4.7.7	Flammability — toxicity burning gases.....	16
4.7.8	Deformation	16
4.7.9	Shrinkage	16
4.7.10	Deformation of the lying area.....	16
4.8	Long spinal board	16
4.8.1	Dimensions	16
4.8.2	Mass.....	17
4.8.3	Loading capacity	17
4.8.4	Construction	17
4.8.5	Lying part	17
4.8.6	Restraint system.....	17
4.8.7	Flammability — toxicity burning gases.....	17
4.8.8	Deformation	17
4.8.9	Fixation.....	17
4.8.10	Deformation of the lying area.....	17
4.8.11	Resistance to torsion.....	17
4.8.12	Splaying of the wheels.....	17
4.9	Foldable carrying chair.....	18
4.9.1	Dimensions	18
4.9.2	Mass.....	18
4.9.3	Loading capacity	18
4.9.4	Frame.....	18
4.9.5	Sitting part.....	18
4.9.6	Restraint system.....	18
4.9.7	Flammability — toxicity burning gases.....	18
4.9.8	Deformation of the frame.....	18
4.9.9	Locking.....	18
4.9.10	Deformation of the backrest lying-sitting area.....	19

4.9.11	Resistance to torsion	19
4.9.12	Splaying of the wheels	19
4.10	Non-foldable carrying chair (sedan chair)	19
4.10.1	Dimensions.....	19
4.10.2	Mass	19
4.10.3	Loading capacity.....	19
4.10.4	Frame	19
4.10.5	Sitting part.....	19
4.10.6	Restraint system.....	20
4.10.7	Flammability — toxicity burning gases.....	20
4.10.8	Deformation of the frame	20
4.10.9	Fixation.....	20
4.10.10	Deformation of the sitting area.....	20
4.10.11	Resistance to torsion	20
4.10.12	Splaying of the wheels	20
5	Test methods.....	21
5.1	Main stretcher.....	21
5.1.1	Permanent deformation of the frame.....	21
5.1.2	Fixation inside the ambulance	21
5.1.3	Permanent deformation of the lying area.....	22
5.1.4	Resistance to twisting/torsion.....	22
5.1.5	Splaying of the wheels	23
5.2	Chair stretcher	23
5.2.1	Permanent deformation of the frame.....	23
5.2.2	Permanent deformation of the lying-sitting area.....	23
5.2.3	Resistance to twisting/torsion.....	23
5.2.4	Splaying of the wheels	23
5.3	Transfer mattress.....	23
5.3.1	Deformation.....	23
5.3.2	Deformation of the lying area	25
5.4	Carrying sheet.....	26
5.4.1	Strength of the handles.....	26
5.4.2	Permanent deformation of the lying area.....	27
5.5	Pick up stretcher.....	27
5.5.1	Permanent deformation of the frame.....	27
5.5.2	Resistance to twisting/torsion.....	27
5.6	Vacuum mattress and pump.....	28
5.6.1	Deformation.....	28
5.6.2	Shrinkage.....	28
5.6.3	Deformation of the lying area	28
5.7	Long spinal board.....	29
5.7.1	Permanent deformation of the frame and lying area	29
5.7.2	Resistance to twisting/torsion.....	29
5.8	Foldable carrying chair	29
5.8.1	Permanent deformation of the frame and backrest lying-sitting area	29
5.9	Non-foldable carrying chair (sedan chair)	29
5.9.1	Permanent deformation of the frame and sitting area	29
5.9.2	Fixation inside the ambulance	30
5.9.3	Splaying of the wheels	30
6	Marking	30
Annex ZA	(informative) Relationship between this European Standard and the Essential Requirements of EU Directive 93/42/EEC concerning medical devices	31

Foreword

This document (prEN 1865-1:2007) has been prepared by Technical Committee CEN/TC 239 "Rescue systems", the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 1865:1999.

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, which is an integral part of this document.

Introduction

This European standard is a part of EN 1865 which will consist in the future of the following parts:

Part 1: General stretcher systems and patient handling equipment

Part 2: Power Assisted Stretchers

Part 3: Specification for bariatric stretchers

Part 4: Specification for mechanical assisted chair

Part 5: Specification for stretcher supports

This European Standard with the specific title „General stretcher systems and patient handling equipment“ incorporates specifications for:

- Main stretcher – undercarriage;
- Chair stretcher;
- Transfer mattress;
- Carrying sheet;
- Pick up stretcher;
- Vacuum mattress and pump;
- Long spinal board;
- Foldable carrying chair;

— Non-foldable carrying chair.

This European Standard is closely related to EN 1789 „Medical vehicles and their equipment— Road ambulances“.

NOTE Standardisation work will continue with the aim of ensuring the safe transfer of patients and equipment without compromising continuity of patient care and the safety of staff.

1 Scope

This European Standard defines minimum requirements for the design and performance of stretchers and other patient handling equipment used in road ambulances for handling and carrying a patients. It aims to ensure patient safety and minimize the physical effort required by staff operating the equipment.

2 Normative references

The following referenced documents are indispensable for the application of this document. 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, *Furniture - Assessment of the ignitability of mattresses and upholstered bed bases - Part 1: Ignition source: Smouldering cigarette.*

EN 980, *Graphical symbols for use in the labelling of medical devices.*

EN 1021-1, *Furniture - Assessment of the ignitability of upholstered furniture - Part 1: Ignition source smouldering cigarette.*

EN 1041, *Information supplied by the manufacturer with medical devices.*

EN 1789:2007, *Medical vehicles and their equipment – Road ambulances.*

EN ISO 14971, *Medical devices - Application of risk management to medical devices.*

3 Terms and definitions

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

3.1 main stretcher
main device for the conveyance of a sick and/or injured person or those in labour with the purpose to transport patients in safety and in comfort whilst facilitating treatment

3.2 chair stretcher
device designed to handle and carry a patient in a sitting or lying position, including conveying a patient in the vehicle

3.3 transfer mattress
device intended to facilitate the transfer of the patient from one stretcher to another

3.4 carrying sheet
special sheet to handle and carry a patient in a lying or sitting position

3.5**pick up stretcher**

lifting device, intended to be used for movement of seriously injured people on to other transport devices

3.6**vacuum mattress**

device intended primarily to provide immobilization for the patient during transportation

3.7**long spinal board**

device designed for lifting and immobilising patients with spinal injuries

3.8**foldable carrying chair**

device intended to handle and carry a patient in a sitting position to the road ambulance but not to be used to transport a patient within the ambulance

3.9**non-foldable carrying chair**

device intended to handle and carry a patient in a sitting position to the road ambulance and to be used to transport a patient within the ambulance.

4 Requirements**4.1 General**

When lifting and carrying devices are operated and maintained in accordance with manufacturer instructions they should not present any high level of risk. Any identified risk shall be reduced to an acceptable level by using risk management principles in accordance with EN ISO 14971 in normal and single fault condition.

All equipment for the handling of patients shall guarantee a safe and smooth manipulation.

All equipment for the handling of patients shall be secured so that any movement during ambulance transport is prevented, even in adverse transport conditions.

Carrying handles on devices for handling of patients shall permit fixation in extended positions.

All equipment for the handling of patients shall be free of any sharp edges or deformation that could cause injury to persons or damage to other equipment on board.

Patient restraint-systems shall be available for all patients transported in the patient compartment.

All patient restraint-systems shall have a quick release system.

Patient restraint-systems for all patient handling equipment shall secure the patient, but at the same time shall permit treatment of the patient.

The lying-sitting part shall be made of a strong material which is bacterial resistant, fungal resistant, stain resistant, putrid resistant, easy to clean, washable, waterproof and petrol-oil resistant.

4.2 Main stretcher**4.2.1 General**

The main stretcher shall consist of a stretcher part that can be used either alone or in combination with an integrated or detachable undercarriage.

Bestelformulier

Stuur naar:

NEN Standards Products & Services
t.a.v. afdeling Klantenservice
Antwoordnummer 10214
2600 WB Delft



NEN Standards Products & Services

Postbus 5059
2600 GB Delft

Vlinderweg 6
2623 AX Delft

T (015) 2 690 390
F (015) 2 690 271

www.nen.nl/normshop

Ja, ik bestel

__ ex. NEN-EN 1865-1:2007 Ontw. en Specificaties voor ziekentransport in ambulances - Deel 1: Algemene brancardsystemen en patiënten vervoer € 29.00

Wilt u deze norm in PDF-formaat? Deze bestelt u eenvoudig via www.nen.nl/normshop

Gratis e-mailnieuwsbrieven

Wilt u op de hoogte blijven van de laatste ontwikkelingen op het gebied van normen, normalisatie en regelgeving? Neem dan een gratis abonnement op een van onze e-mailnieuwsbrieven. www.nen.nl/nieuwsbrieven

Gegevens

Bedrijf / Instelling _____

T.a.v. _____ O M O V

E-mail _____

Klantnummer NEN _____

Uw ordernummer _____ BTW nummer _____

Postbus / Adres _____

Postcode _____ Plaats _____

Telefoon _____ Fax _____

Factuuradres (indien dit afwijkt van bovenstaand adres)

Postbus / Adres _____

Postcode _____ Plaats _____

Datum _____ Handtekening _____

Retourneren

Fax: 015 2 690 271

E-mail: klantenservice@nen.nl

Post: NEN Standards Products & Services,

t.a.v. afdeling Klantenservice
Antwoordnummer 10214,
2600 WB Delft

(geen postzegel nodig).

Voorwaarden

- De prijzen zijn geldig tot 31 december 2018, tenzij anders aangegeven.
- Alle prijzen zijn excl. btw, verzend- en handelingskosten en onder voorbehoud bij o.m. ISO- en IEC-normen.
- Bestelt u via de normshop een pdf, dan betaalt u geen handeling en verzendkosten.
- Meer informatie: telefoon 015 2 690 391, dagelijks van 8.30 tot 17.00 uur.
- Wijzigingen en typfouten in teksten en prijsinformatie voorbehouden.
- U kunt onze algemene voorwaarden terugvinden op: www.nen.nl/leveringsvoorwaarden.