DIN EN 1865-1:2015-08 (E)

Patient handling equipment used in road ambulances - Part 1: General stretcher systems and patient handling equipment (includes A mendment A1:2015)

Contents

Page

Foreword 6

Introduction 7

1 Scope 8

2 Normative references 8

3 Terms and definitions 8

4 Requirements 9
4.1 General 9
4.2 Main stretcher 9
4.2.1 General 9
4.2.2 Dimensions 9
4.2.3 Mass 10
4.2.4 Loading capacity 10
4.2.5 Frame 10
4.2.6 Lying part of the stretcher 11
4.2.7 Restraint system 12
4.2.8 Flammability - Toxicity burning gases 12
4.2.9 Deformation of the frame 12
4.2.10 Fixation 12
4.2.11 Deformation of the lying area 12
4.2.12 Resistance to torsion 12
4.2.13 Splaying of the wheels 12
4.3 Chair stretcher 12
4.3.1 Dimensions 12
4.3.2 Mass 12
4.3.3 Loading capacity 13
4.3.4 Frame 13
4.3.5 Lying-sitting part 13
4.3.6 Restraint system 13
4.3.7 Flammability - Toxicity burning gases 13
4.3.8 Deformation of the frame 13
4.3.9 Fixation 13
4.3.10 Deformation of the lying-sitting area 13
4.3.11 Resistance to torsion 13
4.3.12 Splaying of the wheels 13
4.4 Transfer mattress 13
4.4.1 Dimensions 13
4.4.2 Mass 14
4.4.3 Loading capacity 14
4.4.4 Handles 14
4.4.5 Lying part 14
4.4.6 Restraint system 14
4.4.7 Flammability - Toxicity burning gases 14
4.4.8 Deformation 14
4.4.9 Fixation 14
4.4.10 Deformation of the lying area 14
4.4.11 Resistance to torsion 15

4.4.12 Splaying of the wheels 15
4.5 Carrying sheet 15
4.5.1 Dimensions 15
4.5.2 Mass 15
4.5.3 Loading capacity 15
4.5.4 Handles 15
4.5.5 Lying part 15
4.5.6 Restraint system 15
4.5.7 Flammability - Toxicity burning gases 15
4.5.8 Deformation of the handles 15
4.5.9 Fixation 15
4.5.10 Deformation of the lying area 16
4.5.11 Resistance to torsion 16
4.5.12 Splaying of the wheels 16
4.6 Pick up stretcher 16
4.6.1 Dimensions 16
4.6.2 Mass 16
4.6.3 Loading capacity 16
4.6.4 Frame 16
4.6.5 Lying part 16
4.6.6 Restraint system 16
4.6.7 Flammability - Toxicity burning gases 17
4.6.8 Deformation of the frame 17
4.6.9 Fixation 17
4.6.10 Locking 17
4.6.11 Deformation of the lying area 17
4.6.12 Resistance to torsion 17
4.6.13 Splaying of the wheels 17
4.7 Vacuum mattress 17
4.7.1 Construction 17
4.7.2 Dimensions 17
4.7.3 Mass 18
4.7.4 Loading capacity 18
4.7.5 Handles 18
4.7.6 Restraint system 18
4.7.7 Flammability - Toxicity burning gases 18
4.7.8 Deformation 18
4.7.9 Fixation 18
4.7.10 Shrinkage 18
4.7.11 Deformation of the lying area 18
4.8 Long spinal board 19
4.8.1 Dimensions 19
4.8.2 Mass 19
4.8.3 Loading capacity 19
4.8.4 Construction 19
4.8.5 Lying part 19
4.8.6 Restraint system 19
4.8.7 Flammability - Toxicity burning gases 19
4.8.8 Deformation 19
4.8.9 Fixation 19
4.8.10 Deformation of the lying area 20
4.8.11 Resistance to torsion 20
4.8.12 Splaying of the wheels 20
4.9 Foldable carrying chair 20
4.9.1 Dimensions 20
4.9.2 Mass 20
4.9.3 Loading capacity 20
4.9.4 Frame 20
4.9.5 Sitting part 20
4.9.6 Restraint system 20
4.9.7 Flammability - Toxicity burning gases 21
4.9.8 Deformation of the frame 21

4.9.9 Fixation 21
4.9.10 Locking 21
4.9.11 Deformation of the backrest lying-sitting area 21
4.9.12 Resistance to torsion 21
4.9.13 Splaying of the wheels 21
4.10 Non-foldable carrying chair (sedan chair) 21
4.10.1 Dimensions 21
4.10.2 Mass 21
4.10.3 Loading capacity 21
4.10.4 Frame 22
4.10.5 Sitting part 22
4.10.6 Restraint system 22
4.10.7 Flammability - Toxicity burning gases 22
4.10.8 Deformation of the frame 22
4.10.9 Fixation 22
4.10.10 Deformation of the sitting area 22
4.10.11 Resistance to torsion 22
4.10.12 Splaying of the wheels 22

5 Test methods 23
5.1 Main stretcher 23
5.1.1 Permanent deformation of the frame 23
5.1.2 Fixation inside the ambulance 23
5.1.3 Permanent deformation of the lying area 24
5.1.4 Resistance to twisting/torsion 24
5.1.5 Splaying of the wheels 25
5.2 Chair stretcher 25
5.2.1 Permanent deformation of the frame 25
5.2.2 Permanent deformation of the lying-sitting area 25
5.2.3 Resistance to twisting/torsion 25
5.2.4 Splaying of the wheels 25
5.3 Transfer mattress 25
5.3.1 Deformation 25
5.3.2 Deformation of the lying area 27
5.4 Carrying sheet 28
5.4.1 Strength of the handles 28
5.4.2 Permanent deformation of the lying area 29
5.5 Pick up stretcher 29
5.5.1 Permanent deformation of the frame 29
5.5.2 Resistance to twisting/torsion 29
5.6 Vacuum mattress and pump 30
5.6.1 Deformation 30
5.6.2 Shrinkage 30
5.6.3 Deformation of the lying area 30
5.7 Long spinal board 31
5.7.1 Permanent deformation of the frame and lying area 31
5.7.2 Resistance to twisting/torsion 31
5.8 Foldable carrying chair 31
5.8.1 Permanent deformation of the frame and backrest lying-sitting area 31
5.9 Non-foldable carrying chair (sedan chair) 32
5.9.1 Permanent deformation of the frame and sitting area 32
5.9.2 Fixation inside the ambulance 32
5.9.3 Splaying of the wheels 32

6 Marking 32

Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 93/42/EEC concerning Medical Devices 33

Bibliography 35