

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

Patient handling equipment used in road ambulances - Part 1: General stretcher systems and patient handling equipment (includes Amendment 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