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Izdelki za otroke - Otroški vozički - 1. del: Otroški vozički s sedežem in otroški vozički s košaro

Child care articles - Wheeled child conveyances - Part 1: Pushchairs and prams

Artikel für Säuglinge und Kleinkinder - Transportmittel auf Rädern für Kinder - Teil 1: Kinderwagen und Kinderwagenaufsätze

Articles de puériculture - Voitures d'enfant - Partie 1 : Poussettes et landaus

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Child use and care articles - Wheeled child conveyances - Part 1: Pushchairs and prams

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Artikel für Säuglinge und Kleinkinder - Transportmittel auf Rädern für Kinder - Teil 1: Kinderwagen und Kinderwagenaufsätze

This European Standard was approved by CEN on 23 April 2018.

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COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

This document (EN 1888-1:2018) has been prepared by Technical Committee CEN/TC 252 “Child care articles”, the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by June 2019, and conflicting national standards shall be withdrawn at the latest by December 2019.

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

This document supersedes EN 1888:2012.

In comparison with this EN 1888:2012, the significant technical changes relate to the following issues:

a) chemical hazards;

b) entrapment hazards;

c) hazards from moving parts;

d) entanglement hazards;

e) parking device test method;

f) stability of the vehicle;

g) introduction of an informative Annex E giving relevant translations for warning sentences;

h) introduction of an informative Annex D giving information on the assessment of moving parts of canopies;

i) introduction of an informative Annex G giving information on the arrangement of approval marks for car seats.

In November 2014, the European Working Group decided to split EN 1888 into different parts to clearly treat in a different way, new products or new functions of wheeled child conveyances.

EN 1888 is currently composed with the following parts:

— EN 1888-1, *Child care articles — Wheeled child conveyances — Part 1: Pushchairs and prams*;

— EN 1888-2, *Child care articles — Wheeled child conveyances — Part 2: Pushchairs for children above 15 kg up to 22 kg*.

EN 1888 therefore becomes EN 1888-1 and is only applicable to *pushchairs* and *prams*. It will be used as a reference in future parts.

According to the CEN-CENELEC Internal Regulations, the national standards organisations 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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This European Standard specifies the safety requirements and test methods for *pushchairs and prams*, designed for the carriage of one or more children, up to 15 kg each and up to 20 kg for any *integrated platform* on which a child can stand.

This European Standard does not cover toys, baby carriers fitted with wheels; *pushchairs and prams* propelled by a motor and *pushchairs and prams* designed for children with special needs.

Where a *pushchair or pram* or any part of the *pushchair or pram* has several functions or can be converted into another function it is due to comply with relevant standard(s).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 71-1, *Safety of toys — Part 1: Mechanical and physical properties*

EN 71-2:2011+A1:2014, *Safety of toys — Part 2: Flammability*

EN 71-3, *Safety of toys — Part 3: Migration of certain elements*

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

3.1
wheeled child conveyance
vehicle designed for the carriage of one or more children which can be manually steered while being pushed or pulled

3.2
pushchair
vehicle comprising a *chassis* and one or more *seat units* or *car seats*

Note 1 to entry: Referred to as the "vehicle" for the purpose of this standard.

3.3
pram
vehicle comprising a *chassis* and one or more *pram bodies*

Note 1 to entry: Referred to as the "vehicle" for the purpose of this standard.

3.4
integrated platform
integral part of the vehicle designed to support an additional child in a standing position

3.5
chassis
wheeled framework with extended handle(s) for pushing, pulling and steering, designed to accommodate and transport a *pram body* (bodies) or *car seat(*s) or *seat unit*(s) or a combination of these items

3.6
seat unit
structure which may or may not be adjustable to achieve a reclining or recumbent position designed to support one or more children

3.7
type A car seat
Child Restraint System (CRS) used for children up to 9 kg according to Regulation ECE R44 (group 0) or Regulation ECE R129

Note 1 to entry: Child Restraint Systems are covered by UNECE regulations.

Note 2 to entry: Arrangement of approval marks is shown in Annex G

3.8
type B car seat
Child Restraint System (CRS) used for children up to 13 kg according to Regulation ECE R44 (group 0+) or Regulation ECE R129

Note 1 to entry: Child Restraint Systems are covered by UNECE regulations.

Note 2 to entry: Arrangement of approval marks is shown in Annex G.

3.9
pram body
structure with essentially vertical and continuous sides and ends with an internal base designed to transport one or more children in a primarily horizontal position

3.10
protected volume
volume accessible by the child (occupant) when sitting or lying in the *pushchair* or *pram*, where specific safety requirements are necessary

3.11
junction line
intersection of the seat and the backrest

3.12
restraint system
system to restrain the child within the vehicle

3.13
crotch restraint
device positioned between the child's legs to prevent the child from sliding forwards

3.14
harness anchorage point
device suitable for the attachment of an additional child's harness

3.15
footrest
support for the feet or a foot, used when sitting

3.16
shearing hazard
hazard due to the movement of components relatively one to another resulting in a scissoring action

3.17
crushing hazard
hazard due to the movement of components relatively one to another resulting in a compression action

3.18
folding system
assembly of moving parts which enables the vehicle to be changed from an erected position to a folded position and vice versa under the control of the carer

3.19
locking mechanism
assembly of components consisting of one or more *locking device(s)* and *one or more operating device(s)*

3.20
locking device
mechanical component that maintains part(s) of the vehicle erected in the position of use (e.g. latch(es), hooks, over centre lock...) which could be deactivated or activated by action(s) on the *operating device*

3.21
operating device
part of the *locking mechanism(s)* designed to be activated by the carer through one or several positive action(s)

3.22
automatic locking device
device that engages with no additional voluntary action by the carer, when the vehicle is erected to its position of use

3.23
reversible handle
handle that can be rotated on the *chassis* to change the direction of pushing

3.24
occupant space
space enclosed by the surfaces, for example, side and ends or the base, or both, of a *pram body, seat unit* or *car seat* that contains the child (occupant) within a *pram* or *pushchair*

3.25
parking device
device to maintain the vehicle in a stationary position

3.26
braking device
device to reduce the speed of the vehicle

3.27
carry cot
product consisting of a base, sides, ends and carrying handle(s), within which a child can be laid down and transported by hand(s)

Note 1 to entry: Carry cot is the generic term generally used.

4 General requirements and test conditions

NOTE Words in *italics* are defined in Clause 3 (Terms and definitions). Additional information on the background and rationale for various requirements is given in Annex A.

4.1 Samples

Tests should be carried out in the order of the clauses given in this European standard, unless otherwise stated. Each test shall be carried out only using one vehicle, unless otherwise stated.

Vehicles with multiple places for *pram bodies* and/or *seat units* shall comply with all applicable requirements in any possible arrangement in accordance with the manufacturer's instructions. If a vehicle can be equipped with an additional *seat unit* or *pram body* or *type A/B car seat* supplied or recommended by the manufacturer, the combination shall comply with this European Standard.

4.2 Principle of the most onerous condition

Unless otherwise stated each test shall be conducted with the vehicle in the most onerous condition for that test in terms of:

— the choice and number of *seat units* and/or *pram bodies and/or car seats* attached to the *chassis* stated in the manufacturer's instructions;

— the addition of any additional *seat unit*(s) approved by the manufacturer;

— the use of test masses: for vehicles transporting more than one child, at least one place that a child can occupy shall be loaded with a test mass;

— the loading (or not) of any receptacle designed for carrying additional load(s) allowed for in the instructions or otherwise approved by the manufacturer and the placing (or not) of load(s) in any such facility, up to the maximum mass allowed in the manufacturer's instructions, or 2 kg if nothing is indicated; small pockets fitted onto textile parts are not concerned by this condition;

— the addition (or not) of any other accessories supplied or recommended by the manufacturer for use with the vehicle and with accessories loaded according to the manufacturers instructions;

— the adjustment of *seat units*, *pram bodies*, handles, *car seats*, and any other adjustable features or accessories, or any other optional arrangement of the vehicle allowed in the manufacturer's instructions or otherwise approved by the manufacturer.

NOTE The heaviest loads do not always produce the most onerous conditions.

4.3 Tolerances for test equipment

Unless otherwise stated, the accuracy of the test equipment shall be:

— forces ± 5 %;

— masses ± 0,5 %;

— dimensions ± 0,5 mm;

— timing ± 1 s;

— angles ± 0,5°.

4.4 Test conditions

The vehicle shall be conditioned at a temperature of (23 ± 5) °C for at least 2 h prior to tests. All tests shall be carried out at a temperature of (23 ± 10) °C unless otherwise specified.

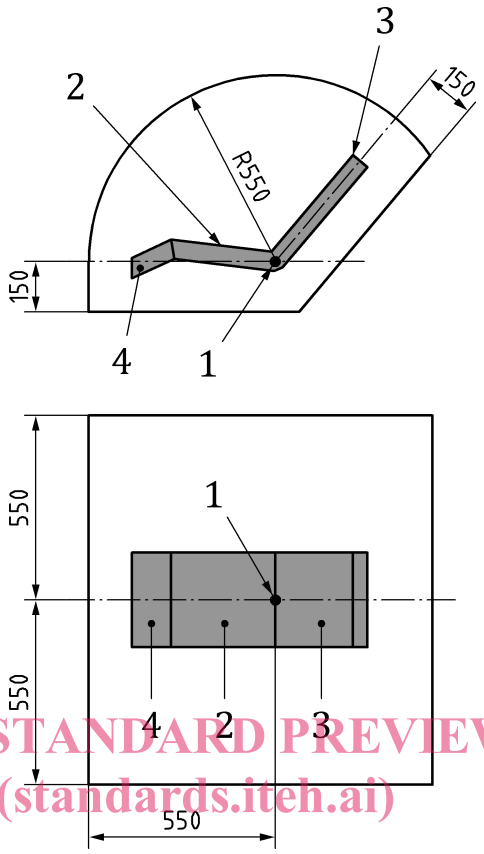
For vehicles fitted with inflatable tyres, the tyre pressure shall be adjusted according to manufacturer's instructions for use before conducting the entire test procedure. If a tyre is punctured during the test procedure, the tyre shall be replaced and the test procedure continued.

4.5 Determination of the protected volume

4.5.1 Protected volume of seat units

The *protected volume* of *seat units* shall be determined in accordance with Figure 1 below.

Dimensions in millimetres



Key

1 origin from which the *protected volume* has been defined (mid-point of the *junction line*, on the uncompressed upper surface of the *seat unit*)

2 seat

3 back rest

4 leg rest

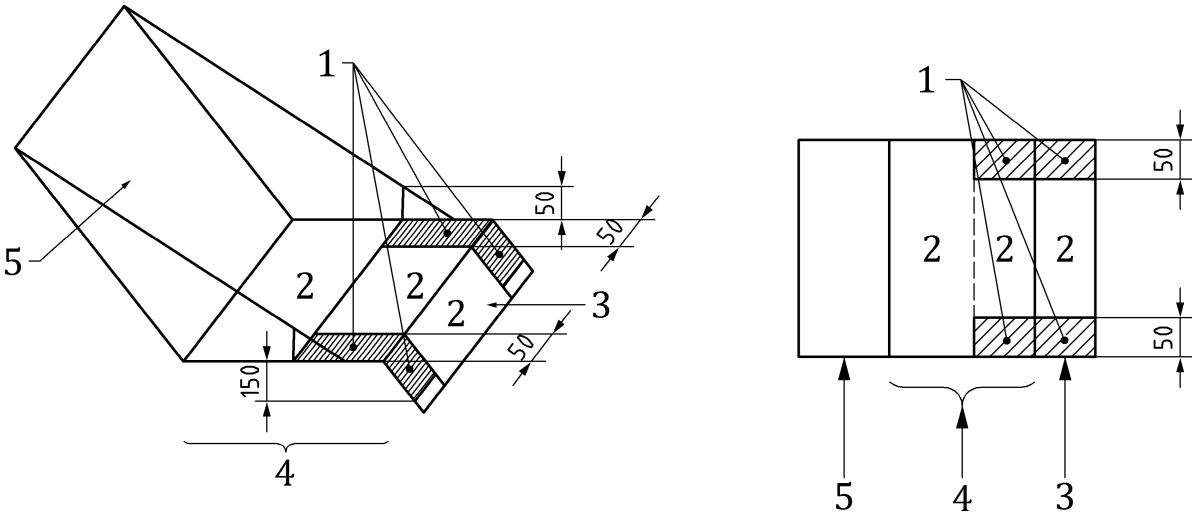
Figure 1 — Protected volume for seat units

The space located behind the backrest is excluded from the *protected volume*.

Where a vehicle is suitable for two or more children the space located behind the backrest shall be considered if it enters another *protected volume*.

The space underneath the seat and underneath the leg rest is excluded from the *protected volume*, except for a 50 mm wide band measured from the outermost edge of the seat/leg rest sides where the seat/leg rest is not fitted with lateral protections of a height greater than 50 mm (textile or any rigid component) (see Figure 2).

Dimensions in millimetres



Key

1 space to be checked
2 space not to be checked
3 leg rest
4 seat
5 backrest

Figure 2 — Effect of lateral protection on the determination of the protected volume

4.5.2 Protected volume of pram bodies having a length greater than 800 mm

The *protected volume* of *pram bodies* having a length greater than 800 mm shall be determined in accordance with Figure 3.

The 550 mm height shall be measured in accordance with 8.1.2.2.

The surface underneath the *pram body* is excluded from the *protected volume*.

Dimensions in millimetres

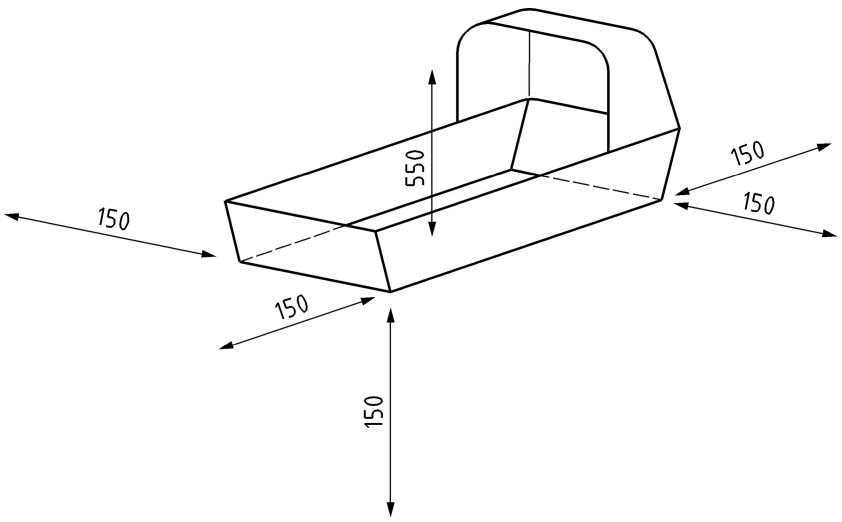


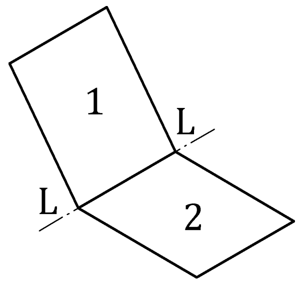
Figure 3 — *Protected volume* for *pram bodies* having a length greater than 800 mm

4.5.3 Protected volume for pram bodies having a maximum internal length of 800 mm and car seats

For vehicles designed only for children under 6 months of age, *pram bodies* with a maximum internal length of 800 mm and for *car seats*, the *protected volume* is considered to be the inner upper surface that supports the child and the inner surface of the sides and ends of the *pram body*.

4.6 Determination of the junction line

The *junction line* shall be determined as the intersection between the seat and the backrest as shown on Figure 4.



Key

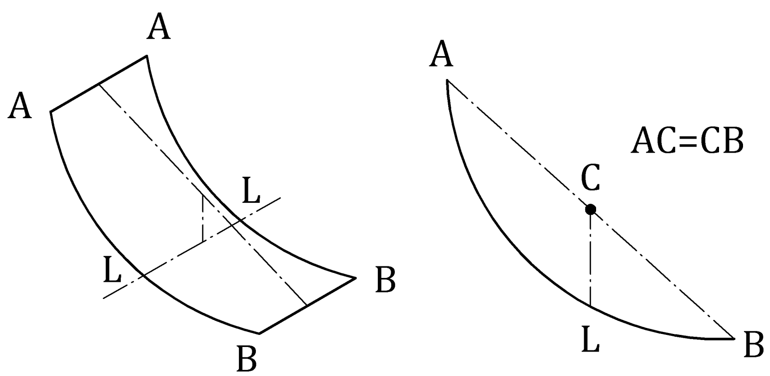
LL junction line

1 backrest

2 seat

Figure 4 — Junction line

When the *seat unit* is in the form of a hammock, then a theoretical *junction line*, “LL”, is determined as shown in Figure 5.



Key

LL junction line

L vertical projection of C on the hammock

Figure 5 — Junction line for seat unit in form of a hammock

NOTE The *junction line* may vary when the backrest is adjusted to different positions.