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**Izdelki za otroke - Otroški vozički - 3. del: Otroški vozički s sedežem za težje otroke, namenjeni športnim dejavnostim**

Wheeled child conveyances - Part 3: Pushchairs for heavier children intended for sport activities

Kindertransportmittel auf Rädern - Teil 3: Kinderwagen für schwerere Kinder, die für sportliche Aktivitäten bestimmt sind

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Otroška oprema

Equipment for children

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**prEN 1888-3**

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English Version

## Wheeled child conveyances - Part 3: Pushchairs for heavier children intended for sport activities

Kindertransportmittel auf Rädern - Teil 3:  
Kinderwagen für schwerere Kinder, die für sportliche  
Aktivitäten bestimmt sind

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 252.

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.

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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.

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

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

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## European foreword

This document (prEN 1888-3:2022) has been prepared by Technical Committee CEN/TC 252 “Child care articles”, the secretariat of which is held by AFNOR.

This document is currently submitted to the CEN Enquiry.

This document is read in conjunction with and in addition to EN 1888-1 and, if applicable, EN 1888-2, and it cannot be used separately.

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## prEN 1888-3:2022 (E)

### 1 Scope

This document specifies the safety requirements of pushchairs when used for running/jogging or inline skating, intended for the transport of one or two children up to 15 kg (EN 1888-1) or 22 kg (EN 1888-2).

prEN 1888-3 is only applicable in conjunction with EN 1888-1, which states general requirements for pushchairs and prams; and, if applicable, in conjunction with EN 1888-2, which states requirements for pushchairs intended for children up to 22 kg.

prEN 1888-3 covers articles which are already compliant with EN 1888-1. If the pushchair is intended for children up to 22 kg, prEN 1888-3 assumes that the pushchair is already compliant under the requirements defined in EN 1888-2.

Pushchairs intended to transport the carer while pushing are excluded.

### 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 1888-1:2018, *Child care articles - Wheeled child conveyances - Part 1: Pushchairs and prams*

EN 1888-2:2018, *Child care articles - Wheeled child conveyances - Part 2: Pushchairs for children above 15 kg up to 22 kg*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 1888-1:2018 apply.

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

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

#### 3.1

##### **dead man's brake**

automatically engaging device that stops the vehicle in case of loss of control by the carer

Note 1 to entry: A dead man's brake can be combined with the parking device and/or braking device.

### 4 General requirements and test conditions

#### 4.1 General requirement

The vehicle shall meet the requirements of EN 1888-1 and EN 1888-2 if the pushchair is intended for children up to 22 kg, except the warning sentence given in Clause 10.4.1: "WARNING This product is not suitable for jogging or inline skating".

To meet the requirements of this document, the vehicle shall be tested additionally, in accordance with the clauses listed below and in the order given in EN 1888-1 (see 4.2).

#### 4.2 Test conditions

Tests shall be carried out in the order of the clauses given in EN 1888-1, in EN 1888-2 if the pushchair is intended for children up to 22 kg, and the additional tests of this document shall be conducted together with the relevant Clauses of EN 1888-1 and EN 1888-2 if applicable, on the same sample.

## 5 Test equipment

### 5.1 Stop

A rigid square bar of (100 × 100) mm, with a radius of 3 mm. The length of the stop shall be of at least the width of the stroller.

## 6 Mechanical hazards

### 6.1 Suitability for use

#### 6.1.1 Requirements

The vehicle shall be designed such as to limit children from reaching out past the width of the vehicle; this can be achieved by for example but not limited to sided seat unit, bumper bar or other means of hands rests.

The vehicle shall be fitted with a support for the feet.

There shall be no protruding rigid objects that are not padded or otherwise protected and that could come into contact with a child's head, between 270 mm and 550 mm measured on the backrest above the junction line of the seat.

NOTE Examples of projections include:

- a) a discontinuity of surfaces that creates a step with a height of more than 5 mm with an edge radius of 5 mm or less or a chamfer of 45° or less;
- b) a protrusion with a height of more than 5 mm with a diameter or width of 10 mm or more and with an edge radius of 2 mm or less; and
- c) a protrusion of more than 10 mm in height with an edge radius of 5 mm or less.

The front wheel (s) of vehicles intended for sport activities shall pass over the stop (5.1), when tested in accordance with 6.1.2.

#### 6.1.2 Test method

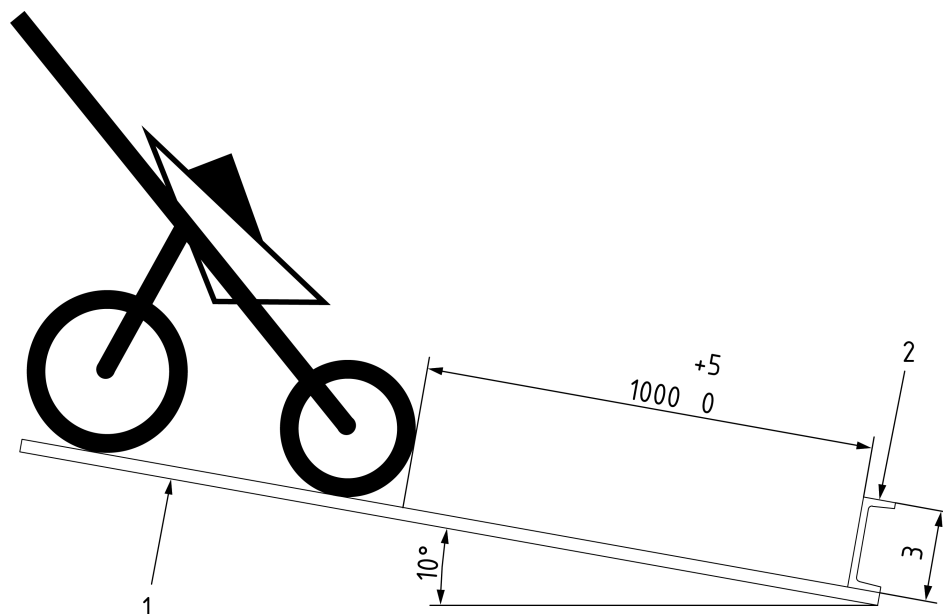
Adjust the vehicle in the configuration recommended by the manufacturer in the instruction for use, for sport use.

Adjust the backrest in the most upright position.

Place test mass *B* (EN 1888-1:2018, 5.1.3) or test mass *H* (EN 1888-2:2018, Clause 5) centrally against the backrest in such a way that its bottom edge is in contact with the seat/back rest *junction line*. Restrain the test mass with the *restraint system* and any appropriate strap if needed.

NOTE For the purpose of the test, the mass shall be properly attached to the seat unit, using the straps of the restrain system. To achieve this and for better reproducibility additional means of attachment can be used as well, this will not impair the result of the test.

Position the vehicle as shown in Figure 1. Release the vehicle and allow it to run freely down the slope until it impacts the stop (5.1).

**Key**

- 1 slope
- 2 stop
- 3 to delete

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**Figure 1 — Test of suitability for use**

## 6.2 Restraint system

### 6.2.1 Additional requirement

The pushchair shall be fitted with a five-points restraint system: the restraint system shall comprise at least a crotch strap, a waist strap and shoulder straps.

When tested in accordance with 6.2.2 the anchoring points of the restraint system (frame, belt buckle, etc.) shall not show any visible damage or be detached, the dummy *D* shall remain properly restrained as intended.

The Dummy *D* shall not be displaced in a forward direction by more than 385 mm.

### 6.2.2 Test method

Place the vehicle on a horizontal flat and rigid surface, secure the movement of the vehicle such that the wheels are firmly attached to the horizontal surface preventing the vehicle from tipping over during the test.

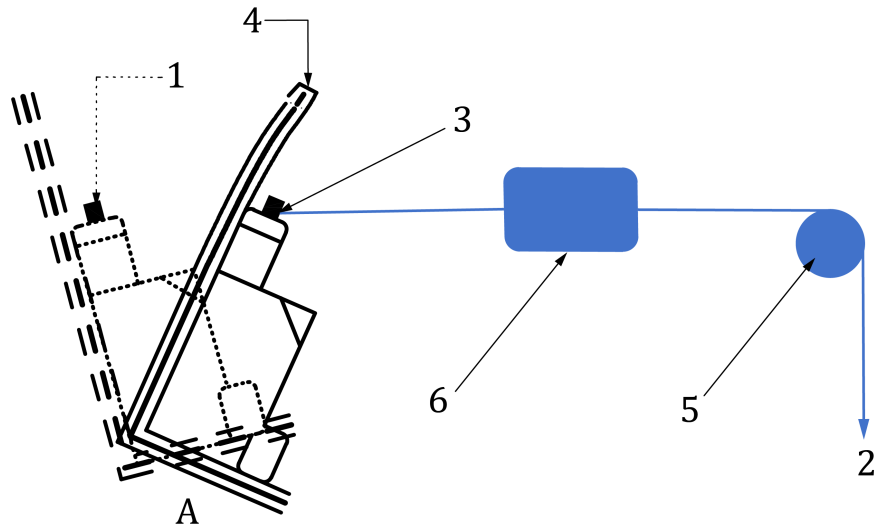
Place test mass *D* against the backrest in the middle of the seat unit with the 225 mm axis against the back rest and attach the restraint system in accordance with the manufacturer's instructions with the seat unit in the most upright position. Fasten any waist restraint around the torso section of test mass *D* so that any slackness is removed, and the waist restraint is positioned above the leg stumps. If the crotch restraint is adjustable, adjust it so that any slackness is removed, and the waist restraint is still positioned above the leg stumps. Where the restraint system has shoulder straps that can be positioned on the back of the seat unit in a range of positions, the shoulder straps shall be placed in the highest position (to accommodate the oldest child). Place a 30 mm cuboid spacer block, made of a hard-smooth material on each shoulder of test mass *D*. Adjust each shoulder strap in accordance with manufacturer's instructions so that any slackness is removed. Remove the spacers.



Record the origin measurement D1 on the centre top of the test mass *D*.

Gradually apply a horizontal tensile force of 510 N from the centre top of test mass *D* (D1). Apply the force within 5 s then maintain the force for 1 min and measure the distance between point D1 and the vertical projection with the most forward part of the vehicle. (See Figure 2.)

NOTE It is not necessary that the tensile force remains horizontal throughout the test.



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#### Key

- 1 origin of D1 point
- 2 application point of the force
- 3 location point D1 under force
- 4 seat unit
- 5 pulley
- 6 sensor

Figure 2 — Test method

### 6.3 Entanglement hazards

The requirements of EN 1888-1:2018, Clause 8.4, do not apply to any tether if provided.

### 6.4 Stability

The vehicle shall not tip over when tested in accordance with EN 1888-1:2018, Clause 8.9.1.2 and/or EN 1888-2:2018, Clause 6.3; on the test platform inclined at 15°.

Any *seat unit* attachment device shall not become detached during the test.

### 6.5 Structural integrity

#### 6.5.1 Irregular surface test

##### 6.5.1.1 Requirement

When tested in accordance with 6.5.1.2 there shall be no break or deformation of any part of the product that can impair the safety of the vehicle. Signs of wear shall not be regarded as a failure.

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The vehicle shall not collapse; the locking mechanisms and attachment devices shall still function as intended.

The devices used to connect the seat unit to the chassis shall not become disconnected, loosened or damaged during or after testing.

After testing in accordance with 6.5.1.2 the vehicle shall still comply with the following requirements:

- EN 1888-1:2018, 8.2 entrapment hazards;
- EN 1888-1:2018, 8.3 hazards from moving parts;
- EN 1888-1:2018, 8.8 parking and braking device; and
- Clause 6.4 stability.

**6.5.1.2 Test**

The vehicle shall be tested in accordance with EN 1888-1:2018, Clause 8.10.3.2, and EN 1888-2:2018, Clause 6.4.2, if the pushchair is intended for children up to 22 kg and subsequently, 36,000 times with a speed of  $(8 \pm 0,1)$  km/h.

The additional 36,000 cycles are carried out with the front wheel in locked position.

The number of cycles shall be determined as shown in the Table 1 below:

**Table 1 — determination of cycles for the irregular surface test**

Step	Stroller intended for children up to 15 kg (EN 1888-1 and prEN 1888-3)			Stroller intended for children up to 22 kg (EN 1888-2 and prEN 1888-3)		
	Test mass(es)	Cycles	Speed	Test mass(es)	Cycles	Speed
1	15 kg	72,000	5 km/h	15 kg	72,000	5 km/h
2	15 kg	36,000	8 km/h	22 kg	24,000	5 km/h
3				22 kg	36,000	8 km/h

**6.5.2 Wheels****6.5.2.1 Requirements**

These requirements replace the requirements of EN 1888-1:2018, 8.10.5.

Any swivelling function of the wheels shall be lockable or the wheels shall not be swivelling.

After testing in accordance with 6.5.2.2 removable, swivel assemblies or fixed wheels shall remain attached to the axle and the wheel assembly shall function as intended. Wheels contained on both sides by a fork are exempt from this requirement.

A removable-wheel fork assembly(s) shall incorporate a secondary retention device and shall be so designed as to prevent unintended detachment of the wheel from the unit when tested in accordance with 6.5.2.2.4.

**6.5.2.2 Test methods****6.5.2.2.1 General**

Test one rear and one front wheel for detachment from an axle in accordance with 6.5.2.2.1 and 6.5.2.2.2 for non-swivel wheel assemblies and with 6.5.2.2.3 for swivel wheel assemblies.

Test removable-wheel fork assembly in accordance with 6.5.2.2.4

#### 6.5.2.2.2 Test method for non-swivel wheels

Secure the unit on its side on an elevated surface so that a hanging weight may be applied to the unit's wheel without impeding their removal.

Hang a 45 kg weight on the wheel along the axle centre line so that it pulls against the wheel fastener, Figure 3. The weight may be applied by means of a fixture/clamping device that can be adjusted to fit different size wheels.

The fixture/clamping device shall be made to minimize damage to the wheel and to not impede the force being applied through the wheel to the fastener. Gradually apply the weight within a period of 5 s and then rotate the wheel clockwise 360°, then counter-clockwise 360° for 10 cycles (1 cycle equals turning 1 time clockwise 360° and 1 time counter-clockwise 360°); see Figure 4.

Each cycle shall not be less than 12 s or greater than 18 s.

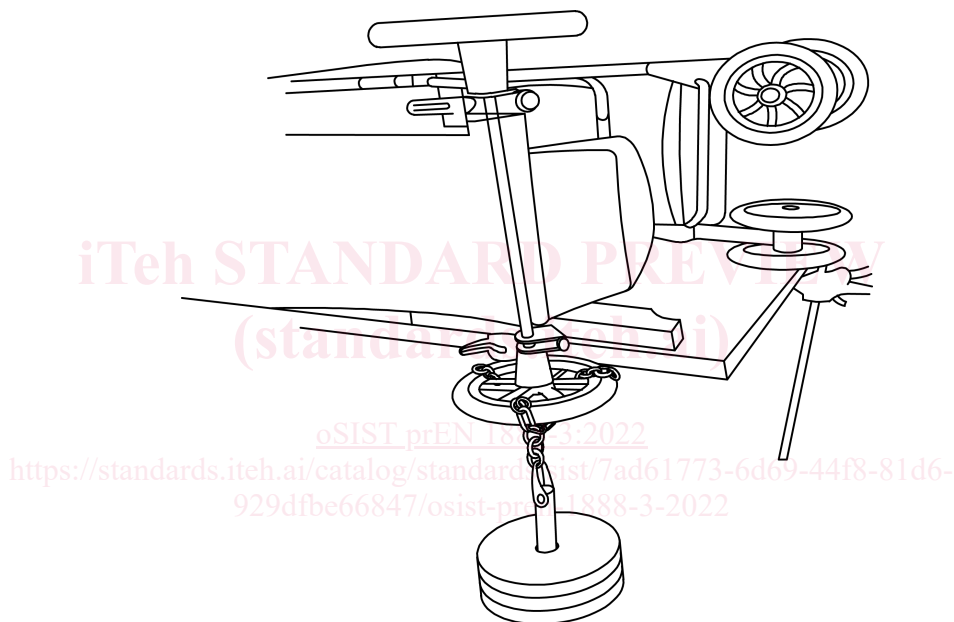


Figure 3 — Hanging weight