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Voorbeeld
Preview

EUROPEAN STANDARD
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EUROPÄISCHE NORM

DRAFT
prEN 1651

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Will supersede EN 1651:1999

English Version

**Paragliding equipment - Harnesses - Safety requirements
and strength tests**

Équipement pour le parapente - Harnais pour
parapente - Exigences de sécurité et essais de
résistance

Ausrüstung für das Gleitschirmfliegen - Gurtzeuge -
Sicherheitstechnische Anforderungen und Prüfung der
Festigkeit

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 136.

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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European foreword

This document (prEN 1651:2016) has been prepared by Technical Committee CEN/TC 136 “Sports, playground and other recreational facilities and equipment”, the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 1651:1999.

Forbiede
Preview

prEN 1651:2016 (E)

1 Scope

This standard is applicable only to harnesses for paragliders. The intermediate attachment system between the harness and the paraglider does not form part of this standard.

This standard specifies safety requirements and test methods.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 12491, *Paragliding equipment — Emergency parachutes — Safety requirements and test methods*

3 Terms and definitions

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

3.1 paraglider

ultra-light glider with no primary rigid structure, for which take-off and landing are on foot, with the pilot (and potentially one passenger) carried in a harness (or harnesses) connected to the wing

3.2 harness

assembly composed of straps and fabric for supporting the pilot in the seated or semi-recumbent or standing position

Note 1 to entry: The harness is attached to the wing via two rings or connectors, it can also be integral with the wing via risers.

3.3 emergency parachute

emergency device intended to slow the descent of a paraglider pilot in the event of an incident in flight, which is deployed by the pilot by an intentional manual action

3.4 emergency parachute connecting elements

element(s) not supplied as an integral part of either a harness or emergency parachute provided to connect an emergency parachute to a harness

3.5 spreaders

additional parts provided to connect a paraglider to two or more harnesses, and in some cases also to one or more emergency parachutes

3.6 clip-in weight

total weight in flight excluding the paraglider

3.7 special emergency parachute attachment points

symmetrical locations on the harness structure provided by the manufacturer specifically for the attachment of an emergency parachute

Note 1 to entry: See Figure 1 locations 1 and 2.

3.8

integrated Y-bridle

load distributing component integrated into the harness structure used to connect the harness to a single parachute bridle

3.9

crotch strap

harness structural element(s) passing between the legs intended to restrain the pilot

3.10

deployment system

inner container and either the handle attachment point(s) or handle assembly

3.11

emergency parachute system

emergency parachute combined with its deployment system

3.12

anti-falling-out system

system preventing unintentional slipping from a harness when the crotch straps are not closed

3.13

durable medium

information given to the user in an unchangeable format that does not allow for unilateral editing or altering by the information provider, and enables the recipient to store the information in a way that is accessible for future reference for as long as the user might reasonably need it

3.14

impact pad

pad fitted to a paraglider harness to reduce compression damage to the spine of the pilot

4 Safety requirements

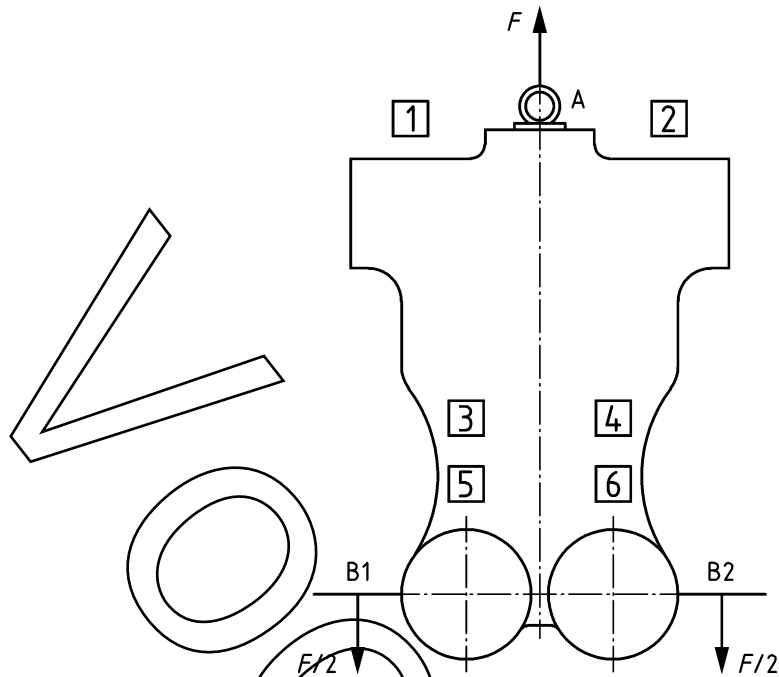
4.1 General

All free ends of the harness straps shall be finished with a folded hem making it impossible for the straps to pass through the adjustable buckles.

The harness shall be made in accordance with accepted practice for textile assemblies.

All attachment points provided on the harness (see Figure 1) which are not to be used for attachment of the paraglider or emergency parachute shall be clearly marked in a contrasting colour to the main webbing.

The attachment points for the emergency parachute shall not be in a position lower than the attachment points of the paraglider and shall be positioned symmetrically on the harness.

**Key**

- 1 special harness attachment for emergency parachute (right)
- 2 special harness attachment for emergency parachute (left)
- 3 harness attachment for paraglider riser(s) (right)
- 4 harness attachment for paraglider riser(s) (left)
- 5 harness attachment for tow release (right)
- 6 harness attachment for tow release (left)
- A dummy attachment point
- B1 dummy attachment to anchorage (right)
- B2 dummy attachment to anchorage (left)

Figure 1 — Attachment point for the tests

NOTE The numbering system for attachment points in this Figure 1 is retained in all the following figures of this European Standard.

4.2 Strength requirements**4.2.1 Symmetric load**

When tested in accordance with 5.3.1.1, there shall be:

- a) no slippage of any adjustable element exceeding 10 mm during the adjustable component slipping test;
- b) no rupture of any essential structural part;
- c) no rupture of the stitching of any essential structural part;
- d) no rupture, slipping or deformation likely to result in the dummy falling out of the harness.

4.2.2 Asymmetric load

When tested in accordance with 5.3.1.2, there shall be:

- a) no rupture of any essential structural part;
- b) no rupture of the stitching of any essential structural part;
- c) no rupture, slipping or deformation that makes it possible for the dummy to fall out of the harness.

4.2.3 Parachute attachment load

For harnesses with special emergency parachute attachment points, and/or an integrate Y bridle, when tested in accordance with 5.3.1.3, there shall be:

- a) no slippage of any adjustable element exceeding 10 mm during the adjustable component slipping test;
- b) no rupture of any essential structural part;
- c) no rupture of the stitching of any essential structural part;
- d) no rupture, slipping or deformation likely to result in the dummy falling out of the harness.

4.2.4 Parachute attachment negative load direction

For harnesses with special emergency parachute attachment points, when tested in accordance with 5.3.1.4, there shall be:

- a) no slippage of any adjustable element exceeding 10mm during the adjustable component slipping test;
- b) no rupture of any essential structural part;
- c) no rupture of the stitching of any essential structural part;
- d) no rupture, slipping or deformation likely to result in the dummy falling out of the harness.

4.2.5 Tow attachment load

For harnesses with tow attachment points, when tested in accordance with 5.3.1.5, there shall be:

- a) no rupture of any essential structural part;
- b) no rupture of the stitching of any essential structural part;
- c) no rupture, slipping or deformation that makes it possible for the dummy to fall out of the harness.

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