

Aircraft ground support equipment — Specific requirements —

Part 14: Disabled/incapacitated passenger boarding vehicles

ICS 49.100

National foreword

This British Standard is the UK implementation of EN 12312-14:2006+A1:2009. It supersedes BS EN 12312-14:2006, which is withdrawn.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to CEN text carry the number of the CEN amendment. For example, text altered by CEN amendment A1 is indicated by **A1** **A1**.

The UK participation in its preparation was entrusted to Technical Committee ACE/57, Air cargo and ground support equipment.

A list of organizations represented on this committee can be obtained on request to its secretary.

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English Version

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Matériels au sol pour aéronefs - Exigences particulières -
Partie 14: Matériel d'accès à bord des passagers
handicapés

Luftfahrt-Bodengeräte - Besondere Anforderungen - Teil
14: Behinderten-Transportgeräte

This European Standard was approved by CEN on 28 August 2006 and includes Amendment 1 approved by CEN on 1 March 2009.

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Foreword

This document (EN 12312-14:2006+A1:2009) has been prepared by Technical Committee CEN/TC 274 "Aircraft ground support equipment", the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by October 2009, and conflicting national standards shall be withdrawn at the latest by December 2009.

This document includes Amendment 1, approved by CEN on 2009-03-01.

This document supersedes EN 12312-14:2006.

The start and finish of text introduced or altered by amendment is indicated in the text by tags **A1** **A1**.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

A1 For relationship with EU Directives, see informative Annexes ZA and ZB, which are integral parts of this document. **A1**

This document is intended for use in conjunction with EN 1915-1, EN 1915-2, EN 1915-3 and EN 1915-4.

The Parts of EN 12312 — Aircraft ground support equipment — Specific requirements — are:

- Part 1: Passenger stairs
- Part 2: Catering vehicles
- Part 3: Conveyor belt vehicles
- Part 4: Passenger boarding bridges
- Part 5: Aircraft fuelling equipment
- Part 6: Deicers and deicing/antiicing equipment
- Part 7: Aircraft movement equipment
- Part 8: Maintenance stairs and platforms
- Part 9: Container/Pallet loaders
- Part 10: Container/Pallet transfer transporters
- Part 11: Container/Pallet dollies and loose load trailers
- Part 12: Potable water service equipment
- Part 13: Lavatory service equipment
- Part 14: Disabled/Incapacitated passenger boarding vehicles
- Part 15: Baggage and equipment tractors
- Part 16: Air start equipment
- Part 17: Air conditioning equipment
- Part 18: Nitrogen or Oxygen units
- Part 19: Aircraft jacks, axle jacks and hydraulic tail stanchions
- Part 20: Electrical ground power units

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Introduction

This European Standard defines health and safety requirements, as well as some functional and performance requirements for transport and boarding vehicles intended for moving disabled or incapacitated passengers on an airfield between the terminal building and the aircraft. Major factors in the design of the equipment, with relevance to safety, are the consideration of psychological aspects, i.e. feelings of well-being and security, and the physical comfort of the passenger and the avoidance of panic.

The minimum essential criteria are considered to be of primary importance in providing safe, serviceable, economical and usable disabled/incapacitated passenger boarding vehicles. Deviations from the recommended criteria should occur only after careful consideration, extensive testing and thorough in-service evaluation have shown alternative methods or conditions to be satisfactory.

This European Standard is a Type C standard as stated in  EN ISO 12100 .

The machinery concerned and the extent to which hazards, hazardous situations and events are covered are indicated in the scope of this document.

When provisions of this type C standard are different from those which are stated in type A or B standards, the provisions of this type C standard take precedence over the provisions of the other standards, for machines that have been designed and built according to the provisions of this type C standard.

1 Scope

This European Standard specifies the technical requirements to minimise the hazards listed in Clause 4 which can arise during the commissioning, operation and maintenance of disabled/incapacitated passenger boarding vehicles when used as intended and under the conditions of misuse which are reasonably foreseeable by the manufacturer or his authorised representative. It also takes into account some performance requirements recognized as essential by authorities, aircraft and ground support equipment (GSE) manufacturers as well as airlines and handling agencies.

This European Standard defines specific safety requirements for transporters/boarding vehicles for transporting/boarding incapacitated or disabled passengers as defined under 3.1, hereafter referred to as boarding vehicles.

This European Standard applies to pedestrian controlled self-propelled boarding vehicles, self-propelled boarding vehicles with integrated driver's accommodation and towable boarding vehicles, used for moving disabled or incapacitated passengers at an airport between the terminal building and the aircraft ramp and to board and disembark those passengers to and from civil aircraft.

Examples of some typical boarding vehicles are shown in Annex A.

This European Standard assumes that a disabled or incapacitated passenger may be accompanied by an attendant and may be seated in a wheelchair or reclining on a stretcher trolley.

This European Standard also assumes that the types of wheelchairs which may be employed could be:

- Standard type wheelchairs, e.g. in accordance with EN 12183;
- Wheelchairs with or without occupant self-restraint system;
- Aircraft aisle-width wheelchairs;
- Non-standard wheelchairs used at airports;
- Non occupant propelled wheelchairs;
- Battery powered wheelchairs, e.g. in accordance with EN 12184.

NOTE It is assumed that battery powered wheelchairs would not be taken into the cabin of an aircraft.

This European Standard does not apply to other forms of aircraft loaders not specifically designed for boarding of incapacitated or disabled passengers, e.g. mobile lounges, boarding bridges or externally mounted pods such as used on helicopters.

Noise and vibration are dealt with respectively in EN 1915-4 and EN 1915-3.

This European Standard does not deal with hazards in respect to a standard automotive chassis and from other vehicles on the apron.

This Part of EN 12312 is not applicable to disabled/incapacitated passenger boarding vehicles which are manufactured before the date of publication by CEN of this standard.

[A1] This part of EN 12312 is intended to be used in conjunction with EN 1915-1, EN 1915-2, EN 1915-3 (for vehicles) and EN 1915-4. **[A1]**

2 Normative references

The following referenced documents are indispensable for the application 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.

A1 *deleted text* **A1**

EN 1050:1996, *Safety of machinery — Principles for risk assessment*

EN 1175-1, *Safety of industrial trucks - Electrical requirements - Part 1: General requirements for battery powered trucks*

EN 1756-2, *Tail lifts — Platform lifts for mounting on wheeled vehicles — Safety requirements — Part 2: Tail lifts for passengers*

EN 1837, *Safety of machinery — Integral lighting of machines*

EN 1915-1:2001, *Aircraft ground support equipment - General requirements — Part 1: Basic safety requirements*

EN 1915-2, *Aircraft ground support equipment - General requirements — Part 2: Stability and strength requirements, calculations and test methods*

EN 1915-3, *Aircraft ground support equipment — General requirements — Part 3: Vibration measurement methods and reduction*

EN 1915-4, *Aircraft ground support equipment — General requirements — Part 4: Noise measurement methods and reduction*

EN 12183, *Manual wheelchairs — Requirements and test methods*

EN 12184, *Electrically powered wheelchairs, scooters and their chargers — Requirements and test methods*

EN ISO 12100-1:2003, *Safety of machinery — Basic concepts, general principles for design — Part 1: Basic terminology, methodology (ISO 12100-1:2003)*

A1 EN ISO 12100-2:2003, *Safety of machinery - Basic concepts, general principles for design - Part 2: Technical principles (ISO 12100-2:2003)* **A1**

A1 EN ISO 13850:2008, *Safety of machinery - Emergency stop - Principles for design (ISO 13850:2006)* **A1**

EN ISO 14122-3:2001, *Safety of machinery — Permanent means of access to machinery — Part 3: Stairs, stepladders and guard-rails (ISO 14122-3:2001)*

ISO 7193, *Wheelchairs — Maximum overall dimensions*

ISO 7718, *Aircraft — Main-deck passenger doors — Interface requirements for connection with passenger-boarding bridge or transfer vehicle*

ISO 10542-1, *Technical systems and aids for disabled or handicapped persons — Wheelchair tiedown and occupant-restraint systems — Part 1: Requirements and test methods for all systems*

ISO 10542-2, *Technical systems and aids for disabled or handicapped persons — Wheelchair tiedown and occupant-restraint systems — Part 2: Four-point strap-type tiedown systems*

ISO 10542-3, *Technical systems and aids for disabled or handicapped persons — Wheelchair tiedown and occupant-restraint systems — Part 3: Docking-type tiedown systems*

ISO 16004, *Aircraft ground equipment — Passenger boarding bridge or transfer vehicle — Requirements for interface with aircraft doors*