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Aircraft ground support equipment - Specific requirements –
Part 9: Container/Pallet loaders CONSOLIDATED TEXT

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 12312-9:2005+A1:2009 sisaldab Euroopa standardi EN 12312-9:2005+A1:2009 ingliskeelset teksti.

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English Version

**Aircraft ground support equipment - Specific requirements - Part
9: Container/Pallet loaders**

Matériel au sol pour aéronefs - Exigences particulières -
Partie 9: Chargeurs de conteneurs/palettes

Luftfahrt-Bodengeräte - Besondere Anforderungen - Teil 9:
Container-/Paletten-Hubfahrzeuge

This European Standard was approved by CEN on 21 March 2005 and includes Amendment 1 approved by CEN on 1 March 2009.

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Foreword

This document (EN 12312-9:2005+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of an identical text or by endorsement, at the latest by October 2009, and conflicting national standards shall be withdrawn at the latest by December 2009.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 12312-9:2005.

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**

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 equipment
- 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: Ground power equipment

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 document specifies health and safety requirements, as well as some functional and performance requirements for container/pallet loaders intended for loading/unloading of unit loads with the exception of bulk material for all aircraft types commonly in service in civil air transport.

The minimum essential criteria are considered to be of primary importance in providing safe, serviceable, economical and practical container/pallet loaders. Deviations from the recommended criteria should occur only after careful consideration, extensive testing, risk assessment and thorough service evaluation have shown alternative methods or conditions to be satisfactory.

This document 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.

For information, a summary of equipment functional design requirements covered by International Standards, e.g. ISO 6967 and ISO 6968, and IATA Airport Handling Manual are given in Annex A.

1 Scope

This document specifies the technical requirements to minimise the hazards listed in Clause 4 which can arise during the commissioning, operation and maintenance of container/pallet loaders when carried out in accordance with the specifications given by the manufacturer or his authorised representative. It also takes into account some performance requirements recognised as essential by authorities, aircraft and ground support equipment (GSE) manufacturers as well as airlines and handling agencies.

This document applies to:

- Container/Pallet loader (self-propelled) single platform;
- Container/Pallet loader (self-propelled) two platforms;
- Container/Pallet loader/transporter (self-propelled);
- Container/Pallet loader/transfer platform (towed).

Examples of some of the different types of loaders are shown in Annex B.

This document does not establish requirements for noise and vibration.

Noise and vibration are dealt with respectively in **A1** EN 1915-4 **A1** and **A1** EN 1915-3 **A1**.

This 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 container/pallet loaders which are manufactured before the date of publication of this document by CEN.

NOTE Certain measurements have been given in imperial units (in parentheses) following the metric measurements since the containers/pallets to be handled are based mainly on the imperial system.

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 954-1:1996, *Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design*

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

A1 EN 1837 **A1**, *Safety of machinery — Integral lighting of machines*

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

A1 EN 1915-2 **A1**, *Aircraft ground support equipment — General requirements — Part 2: Stability and strength requirements, calculations and test methods*

A1 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* ^(A1)

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

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

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

^(A1) ISO 2328 ^(A1), *Fork lift trucks — Hook on type fork arms and fork arm carriages — Mounting dimensions*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 12100:2003 and EN 1915-1:2001 and the following apply.

**3.1
loader**
vehicle having a prime purpose of lifting, lowering and transferring unit load devices (ULD's), also known as an elevator

**3.2
single platform loader**
loader which only has a single lifting platform

**3.3
wide body aircraft nose loader**
single or two platform loader which interfaces with the nose opening of a wide body aircraft

**3.4
two platform loader**
loader having a front platform and a main platform

**3.5
tail loader**
loader which interfaces with the tail opening of the aircraft

**3.6
main platform**
load bearing device which interfaces with the aircraft on a single platform loader or with the front platform of a two platform loader, and with ground transportation systems

**3.7
front platform**
load bearing device which interfaces with the aircraft on a two platform loader, also known as a transfer platform or bridge

**3.8
lower deck**
aircraft compartment below the main deck