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KONSOLIDEERITUD TEKST**

Aircraft ground support equipment - General  
requirements - Part 1: Basic safety requirements  
CONSOLIDATED TEXT

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 1915-1:2001+A1:2009 sisaldab Euroopa standardi EN 1915-1:2001+A1:2009 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 30.04.2009 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 25.03.2009.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 1915-1:2001+A1:2009 consists of the English text of the European standard EN 1915-1:2001+A1:2009.

This standard is ratified with the order of Estonian Centre for Standardisation dated 30.04.2009 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Date of Availability of the European standard text 25.03.2009.

The standard is available from Estonian standardisation organisation.

ICS 49.100

**Võtmesõnad:** aeronautical engineering, aeronautical equipment, aerospace transport, air transport, definitions, earth stations, general conditions, ground equipment, hazards, lists, safety requirements, space transport, specification (approval), specifications

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Kui Teil on küsimusi standardite autorikaitse kohta, palun võtke ühendust Eesti Standardikeskusega:  
Aru 10 Tallinn 10317 Eesti; [www.evs.ee](http://www.evs.ee); Telefon: 605 5050; E-post: [info@evs.ee](mailto:info@evs.ee)

English Version

**Aircraft ground support equipment - General requirements - Part  
1: Basic safety requirements**

Matériel au sol pour aéronefs - Exigences générales -  
Partie 1: Caractéristiques fondamentales de sécurité

Luftfahrt-Bodengeräte - Allgemeine Anforderungen - Teil 1:  
Grundlegende Sicherheitsanforderungen

This European Standard was approved by CEN on 6 January 2001 and includes Amendment 1 approved by CEN on 15 February 2009.

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. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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.



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

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# Contents

Page

Foreword.....	4
Introduction .....	6
1 Scope .....	6
2 Normative references .....	7
3 Terms and definitions .....	9
4 List of hazards.....	10
4.1 Hazards generated by radiation.....	12
5 <b>A1) Safety requirements and/or protective measures A1</b> .....	17
5.1 General.....	17
5.2 Accommodation for driver and any other person .....	17
5.3 Driver's cabin .....	18
5.4 Controls .....	19
5.5 Monitoring devices and displays .....	20
5.6 Steering devices .....	20
5.7 Brakes for travelling purposes or equivalent devices .....	21
5.8 Wheel assemblies - Centre split rims .....	22
5.9 Touchable surfaces - Exhaust.....	22
5.10 Lights and reflectors for traffic purposes .....	22
5.11 <b>A1) Auditory/acoustic warning devices A1</b> .....	23
5.12 Standing areas and walkways on GSE .....	23
5.13 Steps, crossings .....	24
5.14 Crushing and shearing points.....	24
5.15 Securing of load.....	24
5.16 Moveable bodies, assemblies and attachments.....	25
5.17 Hydraulic and pneumatic systems.....	25
5.18 Stability and strength .....	26
5.19 Lifting systems.....	26
5.20 Lifting devices.....	27
5.21 Lifting/work platforms .....	28
5.22 Operating speeds.....	28
5.23 Towing couplings, drawbars and towbars .....	28
5.24 Service connections.....	29
5.25 Electrical design, components and batteries .....	29
5.26 Fire protection.....	30
6 Information for use .....	30
6.1 Marking .....	30
6.2 Instructions .....	32
7 Verification of safety requirements and/or measures.....	32
Annex A (informative) Trilingual list of GSE.....	33
Annex B (normative) Design of service brakes .....	34
Annex C (normative) Steps on GSE .....	36
Annex D (informative) Examples of safety measures to reduce the risk of crushing and shearing under the load carrier when it is not possible to meet the requirements in 5.14 .....	39
Annex E (informative) Examples for hose and fittings installation.....	40

<b>Annex ZA</b> (informative) <b>Relationship between this European Standard and the Essential Requirements of EU Directive 98/37/EC</b> .....	<b>44</b>
<b>Annex ZB</b> (informative) <b>Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC</b> .....	<b>45</b>
<b>Bibliography</b> .....	<b>46</b>

## Foreword

This document (EN 1915-1:2001+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 September 2009, and conflicting national standards shall be withdrawn at the latest by December 2009.

This document includes Amendment 1, approved by CEN on 2009-02-15.

This document supersedes EN 1915-1:2001.

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

This European Standard 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 Directive(s), see informative Annexes ZA and ZB, which are integral parts of this document. **A1**

EN 1915 - Aircraft ground support equipment - General requirements consists of:

Part 1: Basic safety requirements

Part 2: Stability and strength requirements, calculations and test methods

Part 3: Vibration measurement methods

Part 4: Noise measurement methods.

A further European Standard (EN 12312) in several parts covering specific requirements for different aircraft ground support equipment is in preparation.

The parts of EN 12312 - Aircraft ground support equipment - Specific requirements are:

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

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.

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## Introduction

The abbreviation GSE means a complete item of aircraft ground support equipment in the context of this European Standard.

When compiling this European Standard it was assumed that:

- GSE is operated only by competent persons on the airport ramp;
- components without specific requirements are:
  - a) designed in accordance with the usual engineering practice and calculation codes;
  - b) of sound mechanical and electrical construction;
  - c) made of materials with adequate strength and of suitable quality;
  - d) made of materials free of defects;
- materials known to be harmful, such as asbestos, are not used as part of GSE;
- components are kept in good repair and working order, so that the required characteristics remain despite wear;
- by design of the load bearing elements, a safe operation of the machine is assured for loading ranges from zero to 100 % of the rated possibilities and during tests;
- a negotiation took place between the user and the manufacturer concerning particular conditions for the use and places of use of the GSE;
- the place of operation allows a safe use of GSE.

The extent to which hazards are covered is indicated in the scope of this European Standard.

Enumerations in this European Standard are not to be considered exclusive, they are compiled according to the present state of the art.

The minimum essential criteria are considered to be of primary importance in providing safe, economical and usable GSE. Deviation from the recommended methods and conditions 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 defined in **EN ISO 12100**.

## 1 Scope

This Part of EN 1915 applies to GSE when used in civil air transport as intended by the manufacturer and contains safety requirements relating to the equipment in general.



This Part of EN 1915 deals with the technical requirements to minimize the hazards listed in clause 4 which can arise during operation and maintenance of GSE as intended by the manufacturer or his authorised representative.

**A1** This European Standard is intended to be used in conjunction with EN 1915-2, EN 1915-3 (for vehicles) and EN 1915-4, and with the relevant part of EN 12312. **A1**

This Part of EN 1915 does not apply to unmodified automotive parts when used on GSE for the purpose for which they are designed.

This Part of EN 1915 does not establish additional requirements for the following:

- operation elsewhere than in an airport environment;
- operation in severe conditions, e.g. ambient temperature below -20 °C or over 50 °C, tropical or saturated salty atmospheric environment, strong magnetic or radiation field;
- operation subject to special rules, e.g. potentially explosive atmosphere except as regards operation in the vicinity of an aircraft fuel tank during fuelling operation;
- hazards caused by power supply other than from electrical networks;
- hazards occurring during construction, transportation, commissioning and decommissioning of the GSE;
- hazards caused by wind velocity in excess of the figures given in this European Standard;
- direct contact with food stuffs;
- earthquake, flood, landslide, lightning and more generally any natural catastrophe;
- electromagnetic compatibility (EMC);
- cableless remote control;
- **A1** hazards caused by noise and vibration, see EN 1915-3 and EN 1915-4; **A1**
- hazards caused by errors in the software.

This Part of EN 1915 is not applicable to GSE which are manufactured before the date of publication by CEN of this Standard.

## 2 Normative references

**A1** 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**

**A1** *deleted text* **A1**

EN 294, *Safety of machinery - Safety distances to prevent danger zones being reached by the upper limbs*

EN 349, *Safety of machinery - Minimum gaps to avoid crushing of parts of the human body*

**A1** *deleted text* **A1**

EN 811, *Safety of machinery - Safety distances to prevent danger zones being reached by the lower limbs*

EN 894-1:1997, *Safety of machinery - Ergonomic requirements for the design of displays and control actuators - Part 1: General principles for human interactions with displays and control actuators*

EN 894-3:2000, *Safety of machinery - Ergonomic requirements for the design of displays and control actuators - Part 3: Control actuators*

EN 953, *Safety of machinery - Guards - General requirements for the design and construction of fixed and moveable guards*

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

EN 982:1996, *Safety of machinery - Safety requirements for fluid power systems and their components - Hydraulics*

EN 983:1996, *Safety of machinery - Safety requirements for fluid power systems and their components - Pneumatics*

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

**[A1]** *deleted text* **[A1]**

EN 1915-2:2001, *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*

EN 12312 (all parts), *Aircraft ground support equipment - Specific requirements* **[A1]**

EN 60073, *Basic and safety principles for man-machine interface, marking and identification - Coding principles for indication devices and actuators (IEC 60073:1996)*

**[A1]** EN 60204-1, *Safety of machinery - Electrical equipment of machines - Part 1: General requirements (IEC 60204-1:2005, modified)* **[A1]**

EN 60529:1991, *Degrees of protection provided by enclosures (IP code) (IEC 60529:1989)*

**[A1]** EN ISO 3411, *Earth-moving machinery - Physical dimensions of operators and minimum operator space envelope (ISO 3411:2007)* **[A1]**

EN ISO 3457, *Earth-moving machinery - Guards and shields - Definitions and specifications (ISO 3457:1986)*


EN ISO 6682:1995, *Earth-moving machinery - Zones of comfort and reach for controls (ISO 6682:1986 including Amendment 1:1989)*

**[A1]** EN ISO 7731:2008, *Ergonomics - Danger signals for public and work areas - Auditory danger signals (ISO 7731:2003)*


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)*

EN ISO 13732-1, *Ergonomics of the thermal environment - Methods for the assessment of human responses to contact with surfaces - Part 1: Hot surfaces (ISO 13732-1:2006)*

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

ISO 3795:1989, *Road vehicles and tractors and machinery for agriculture and forestry - Determination of burning behaviour of interior materials*

 ISO 3864 (all parts), *Graphical symbols - Safety colours and safety signs*

ISO 6966-1:2005, *Aircraft ground equipment - Basic requirements – Part 1: General design requirements* 