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Aircraft ground support equipment - Specific requirements -
Part 7: Air-craft movement equipment CONSOLIDATED
TEXT

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 12312-7:2005+A1:2009 sisaldab Euroopa standardi EN 12312-7:2005+A1:2009 ingliskeelset teksti.</p> <p>Standard on kinnitatud Eesti Standardikeskuse 30.06.2009 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 29.04.2009.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 12312-7:2005+A1:2009 consists of the English text of the European standard EN 12312-7:2005+A1:2009.</p> <p>This standard is ratified with the order of Estonian Centre for Standardisation dated 30.06.2009 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.</p> <p>Date of Availability of the European standard text 29.04.2009.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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English Version

**Aircraft ground support equipment - Specific requirements - Part
7: Air-craft movement equipment**

Matériel au sol pour aéronefs - Exigences particulières -
Partie 7: Matériels de déplacement des aéronefs

Luftfahrt-Bodengeräte - Besondere Anforderungen - Teil 7:
Luftfahrzeug-Schleppgerät

This European Standard was approved by CEN on 13 June 2005 and includes Amendment 1 approved by CEN on 1 March 2009.

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Foreword

This document (EN 12312-7:2005+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of an identical text or by endorsement, at the latest by October 2009, and conflicting national standards shall be withdrawn at the latest by December 2009.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 12312-7:2005.

The start and finish of text introduced or altered by amendment is indicated in the text by tags $\boxed{A_1}$ $\boxed{A_1}$.

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).

$\boxed{A_1}$ For relationship with EU Directives, see informative Annexes ZA and ZB, which are integral parts of this document. $\boxed{A_1}$

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: Air-craft 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 European Standard specifies health and safety requirements, as well as some functional and performance requirements for aircraft movement equipment intended for use on 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 aircraft movement equipment. 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 European Standard is a Type C standard as stated in EN ISO 12100.

NOTE Designers of towbarless tractors should take into accounts the requirements of SAE published documents (see Bibliography).

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

When provisions of this type C standard differ 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 aircraft movement equipment 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 European Standard applies to:

- aircraft tractors with driver accommodation;
 - pedestrian controlled aircraft movement equipment;
 - moveable parts of ramp integrated systems;
 - attachment bars,
- used for all operations, utilizing aircraft movement equipment, e.g.:
- push back;
 - maintenance towing;
 - dispatch towing (operational towing).

This European Standard does not apply to:

- ground power installations on aircraft tractors;
- fixed ramp installations of ramp integrated systems (fixed track);
- special towing equipment (e.g. for recovery).

This European Standard does not establish requirements for noise and vibration.

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 aircraft movement equipment which is manufactured before the date of publication of this European Standard by CEN.

Ⓐ 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. Ⓐ

2 Normative references

The following referenced documents are indispensable for the application of this European Standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1005-2, *Safety of machinery — Human physical performance — Part 2: Manual handling of machinery and component parts of machinery*

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 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 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)*

3 Terms and definitions

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

3.1

aircraft tractor

mobile machinery specially developed and designed for aircraft movement operations

3.2

towbar tractor

aircraft tractor which needs a supplementary apparatus for aircraft movement operations

3.3

towbarless tractor

aircraft tractor which can carry out aircraft movement operations without the aid of any supplementary apparatus

3.4

nose landing gear operation

operation where a tractor or movement device is connected to the nose landing gear of the aircraft in order to move the aircraft. Aircraft and tractor are forming a manoeuvrable unit

3.5

main landing gear operation

operation where a tractor is connected to the main landing gear of the aircraft in order to move the aircraft. Steering of the aircraft is performed by the nose landing gear

3.6

ramp integrated system

system for aircraft movement which has a remotely controlled carriage to which the nose landing gear of the aircraft is locked during the movement and which rides on fixed tracks embedded in the ramp pavement