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NSAI Standards

Irish Standard
I.S. EN 12312-3:2017

Aircraft ground support equipment - Specific requirements - Part 3: Conveyor belt vehicles

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I.S. EN 12312-3:2017

Incorporating amendments/corrigenda/National Annexes issued since publication:

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National Foreword

I.S. EN 12312-3:2017 is the adopted Irish version of the European Document EN 12312-3:2017, Aircraft ground support equipment - Specific requirements - Part 3: Conveyor belt vehicles

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 12312-3

January 2017

ICS 49.100

Supersedes EN 12312-3:2003+A1:2009

English Version

Aircraft ground support equipment - Specific requirements - Part 3: Conveyor belt vehicles

Matériel au sol pour aéronefs - Exigences particulières - Partie 3 : Convoyeurs à bande

Luftfahrt-Bodengeräte - Besondere Anforderungen - Teil 3: Förderbandwagen

This European Standard was approved by CEN on 30 October 2016.

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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-CENELEC Management Centre has the same status as the official versions.

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European foreword

This document (EN 12312-3:2017) 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of an identical text or by endorsement, at the latest by July 2017, and conflicting national standards shall be withdrawn at the latest by July 2017.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 12312-3:2003+A1:2009.

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 2006/42/EC on machinery.

For relationship with EU Directive 2006/42/EC on machinery, see informative Annex ZA, which is an integral part of this document.

EN 12312, *Aircraft ground support equipment — Specific requirements*, consists of the following parts:

— Part 1: *Passenger stairs*;

— Part 2: *Catering vehicles*;

— Part 3: *Conveyor belt vehicles* (the present document);

— 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 or service 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*;

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— 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*.

Annexes A, C and D are normative. Annexes B, E and ZA are informative.

The main changes compared to the previous edition EN 12312-3:2003+A1:2009 are:

a) A1:2009 was incorporated;

b) the Introduction was updated in relation to the deviation from recommended criteria;

c) the Scope was updated to cover reasonably foreseeable misuse;

d) Clause 2, *Normative references*, was updated;

e) List of hazards was updated to exclude hazards due to traffic and repair and was moved to Annex A;

f) 5.1, *General requirements*, was changed to include a seat-belt or hip guard and further provisions regarding the driver's accommodation, e.g. protection from falling loads as well as compliance with EN 1915-3 and EN 1915-4;

g) 5.2, *Boom design* was completely revised;

h) 5.3, *Access* was added, thus making it necessary to re-number the following clauses and subclauses

i) 5.3 *Guard-rails, guide rails* was re-numbered as 5.4 and divided into 5.4 *Guard-rails* (covering the original subclauses 5.3.1 through 5.3.5) and 5.5 *Guide rails* (covering the original subclauses 5.3.6 through 5.3.9), it was expanded to cover foldable and adjustable elements, including the size of allowable gaps;

j) 5.4 *Performance (loads and speeds)* was re-numbered as 5.6 and contains new provisions regarding the driving speeds while in raised position and a seat-belt;

k) 5.5 *Controls* was re-numbered as 5.7 and contains new provisions regarding controls, also during aircraft loading/unloading operations, and the emergency stop;

l) 5.8, *Ergonomics* was added;

m) 6.3, *Instructions*, was extended to cover information about aircraft types and cargo doors, safe positions for opening/closing of cargo doors, belt bottom tray and restricted operation in adverse weather conditions;

n) Clause 7, *Verification of requirements*, was updated;

o) informative Annex A, *Typical designs of conveyor belt vehicles*, was deleted and replaced by normative Annex A, *List of hazards*;

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p) informative Annex C, *Hazards at boom an belt*, was re-numbered as informative Annex B and nip points were re-named as drawing-in points;

q) informative Annex D, *Safety measures against drawing-in hazards on pulleys and idlers* was changed into normative Annex C with the same title and updated;

r) informative Annex E, *Safety measures on end cross arms or trays*, was changed into normative Annex D with the same title;

s) informative Annex F, *Safety distances for feet and hands (Extract from* EN 349*)*, was re-numbered as informative Annex E;

t) Annex ZA referring to the Machinery Directive 98/37/EC was replaced by Annex ZA referring to the new Machinery directive 2006/42/EC;

u) the Bibliography was updated.

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

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Introduction

This European Standard specifies health and safety requirements, as well as some functional and performance requirements, for conveyor belt vehicles intended for loading/unloading of individual items of baggage or cargo on/off 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 conveyor belt vehicles. Deviations should occur only after careful consideration, extensive testing, risk assessment and thorough service evaluation have shown alternative methods or conditions to be satisfactory. Such deviations are outside the scope of this standard and a manufacturer should be able to demonstrate an equivalent level of protection.

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

When provisions of this Type C standard are different from those that 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. Deviations from requirements do not fall within the presumption of conformity given by the standard.

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1 Scope

This European Standard specifies the technical requirements to minimize the hazards listed in Clause 4 that can arise during the commissioning, operation and maintenance of conveyor belt vehicles when used as intended, including misuse reasonably foreseeable by the manufacturer, when carried out in accordance with the specifications given by the manufacturer or his authorized representative. It also takes into account some requirements recognized as essential by authorities, aircraft and ground support equipment (GSE) manufacturers as well as airlines and handling agencies.

This European Standard applies to

a) self-propelled conveyor belt vehicles with or without driver's accommodation,

b) self-propelled conveyor belt vehicles equipped with a van body,

c) towed conveyor belt vehicles,

intended to be used for manual loading/unloading of aircraft.

This European Standard does not apply to any extensions or appurtenances of conveyor belt vehicles entering the aircraft cargo compartment in order to facilitate loading and unloading therein ("Aircraft Bulk Loading Systems", ABLS).

This European Standard does not apply to pneumatic systems and to cable-less remote controls.

This part of EN 12312 is not applicable to conveyor belt vehicles that were manufactured before the date of publication of this European Standard by CEN.

This part of EN 12312 when used in conjunction with EN 1915-1, EN 1915-2, EN 1915-3 and EN 1915-4 provides the requirements for conveyor belt vehicles.

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

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 1915-1:2013, *Aircraft ground support equipment - General requirements - Part 1: Basic safety requirements*

EN 1915-2:2001+A1:2009, *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*

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