SLOVENSKI STANDARD
oSIST prEN 16307-5:2022

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Vozila za talni transport - Varnostne zahteve in preverjanje - 5. del: Dodatne zahteve za vozila, ki jih poganja pešec

Industrial trucks - Safety requirements and verification - Part 5: Supplementary requirements for pedestrian-propelled trucks

Flurförderzeuge - Sicherheitstechnische Anforderungen und Verifizierung - Teil 5: Zusätzliche Anforderungen für mitgängerbetriebene Flurförderzeuge

Chariots de manutention - Exigences de sécurité et vérification - Partie 5 : Exigences supplémentaires pour les chariots à conducteur accompagnant

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Industrial trucks - Safety requirements and verification - Part 5: Supplementary requirements for pedestrian-propelled trucks

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This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 150.

If this draft becomes a European Standard, 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.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

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European foreword

This document (prEN 16307-5:2021) has been prepared by Technical Committee CEN/TC 150 “Industrial trucks - Safety”, the secretariat of which is held by BSI.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 16307-5:2013.

In comparison with the previous edition, the following technical modifications have been made:

- Document adapted to CEN Guide 414,
- Normative references updated,
- Reference to EN ISO 14120:2015 added (to replace EN 953),
- Reference to EN 1175:2020 added (to replace EN 1175-1),
- Requirement for fixed and/or removable guard systems clarified in 4.2.1,
- For safety distances in the normal operating position – reference made to EN ISO 14120:2015,
- Hazard “Electromagnetic compatibility (EMC)” modified into “Electromagnetic immunity (external radiation)” and requirement clarified in 4.4,
- Annex A: all hazards which are not covered by this document deleted,
- Annex ZA adapted according to new template and relevant Essential Requirements of Directive 2006/42/EC added.

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

For relationship with EU Directive(s) / Regulation(s), see informative Annex ZA, which is an integral part of this document.

EN 16307, *Industrial trucks - Safety requirements and verification*, consists of the following parts:

- *Part 1: Supplementary requirements for self-propelled industrial trucks, other than driverless trucks, variable-reach trucks and burden-carrier trucks*;
- *Part 2: Supplementary requirements for self-propelled variable-reach trucks*;
- *Part 3: Supplementary requirements for trucks with elevating operator position and trucks specifically designed to travel with elevated loads*;
- *Part 5: Supplementary requirements for pedestrian-propelled trucks*;
- *Part 6: Supplementary requirements for burden and personnel carriers*.

This document is based on ISO/TS 3691-7, Industrial trucks — Safety requirements and verification — Part 7: Regional requirements for countries within the European Community, and is limited to pedestrian-propelled industrial trucks.

This document is intended to be used with EN ISO 3691-5:2015[1], Industrial trucks - Safety requirements and verification - Part 5: Pedestrian-propelled trucks (ISO 3691-5:2014).

[1] As impacted by amendment EN ISO 3691-5:2015/A1:2020.

Introduction

This document is a type-C standard as stated in EN ISO 12100:2010.

This document is of relevance, in particular, for the following stakeholder groups representing the market players with regard to machinery safety:

— machine manufacturers (small, medium and large enterprises);

— health and safety bodies (regulators, accident prevention organizations, market surveillance, etc.).

Others can be affected by the level of machinery safety achieved with the means of the document by the above-mentioned stakeholder groups:

— machine users/employers (small, medium and large enterprises);

— machine users/employees (e.g. trade unions, organizations for people with special needs);

— service providers, e.g. for maintenance (small, medium and large enterprises).

The above-mentioned stakeholder groups have been given the possibility to participate at the drafting process of this document.

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

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

The EN 16307 series of standards covers safety requirements and their verification for industrial trucks as defined in ISO 5053-1 that are not covered exhaustively by the EN ISO 3691 series.

1 Scope

This document gives requirements for the types of industrial trucks specified in the scope of EN ISO 3691-5:2015[1].

This document is intended to be used in conjunction with EN ISO 3691-5:2015[1].

This document deals with the following significant hazards, hazardous situations or hazardous events relevant, when it is used as intended and under conditions of misuse which are reasonably foreseeable by the manufacturer.

These requirements are supplementary to those stated in EN ISO 3691-5:2015[1] with the addition of requirements for the following hazards:

— Electromagnetic immunity (external radiation).

This document partially replaces the following requirements of EN ISO 3691-5:2015[1]:

— Electrical requirements.

This document defines supplementary requirements to EN ISO 3691-5:2015[1]:

— protection against crushing, shearing and trapping;

— information for use (instruction handbook and marking);

— when operating in potentially explosive atmospheres.

This document does not define supplementary requirements to EN ISO 3691-5:2015[1]:

— Static electricity;

— Radiation;

— General principles for the drafting of instructions;

— Sales literature.

Annex A (informative) contains the list of significant hazards covered by this document.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

EN 1175:2020, *Safety of industrial trucks - Electrical/electronic requirements*

EN 1755:2015, *Industrial Trucks - Safety requirements and verification - Supplementary requirements for operation in potentially explosive atmospheres*

EN 12895:2015+A1:2019, *Industrial trucks - Electromagnetic compatibility*

EN ISO 3691-5:2015[1], *Industrial trucks - Safety requirements and verification - Part 5: Pedestrian-propelled trucks (ISO 3691-5:2014)*

EN ISO 14120:2015, *Safety of machinery - Guards - General requirements for the design and construction of fixed and movable guards (ISO 14120:2015)*

ISO 5053-1:2020, *Industrial trucks — Vocabulary — Part 1: Types of industrial trucks*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 5053-1:2020 and EN ISO 3691-5:2015[1] apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at https://www.electropedia.org/
- ISO Online browsing platform: available at https://www.iso.org/obp

4 Safety requirements and/or protective/risk reduction measures

4.1 General

The following applies to the pedestrian-propelled trucks, dealt with in EN ISO 3691-5:2015[1]. These are additional to the requirements of EN ISO 3691-5:2015[1] and, in certain instances, replace them.

4.2 Protection against crushing, shearing and trapping

4.2.1 General

The requirements of EN ISO 3691-5:2015[1], 4.8 shall apply with the following additions:

Fixed and/or removable guard systems accordance to EN ISO 3691-5:2015[1], 4.8 shall meet the requirements of EN ISO 14120:2015, 5.2, 5.3.

When a fixed guard is removed, its fixing system shall remain on the guard or truck. This requirement applies to any fixed guards that are liable to be removed by the user with a risk of loss of the fixings, e.g. fixed guards that are liable to be removed during routine maintenance or setting operations carried out at the place of use.

4.2.2 Pedestrian-propelled trucks with mast

The mast shall be guarded on the side facing the operating controls, e.g. by a transparent cover and/or perforated sheet. The guard shall, as a minimum, cover the whole width of the hazardous zone and the full length of the non-elevated mast, or up to 2,2 m from the ground, whichever is less.

With the operator in the normal operation position safety distances according to EN ISO 14120:2015, 5.2.2 shall be ensured.

The mast guard shall comply with 4.2.1.

4.3 Electrical requirements

EN ISO 3691-5:2015[1], 4.11.2, first paragraph is replaced with the following:

— Electrical systems and equipment shall be in accordance with EN 1175:2020, Clause 4 and Clause 6.

4.4 Electromagnetic immunity

The truck shall comply with EN 12895:2015+A1:2019, 4.2 for immunity.

NOTE Requirements for electromagnetic compatibility (EMC) concerning emissions are not covered by this document.

4.5 Operation in potentially explosive atmospheres

Trucks operating in potentially explosive atmospheres shall comply with EN 1755:2015.

5 Verification of safety requirements and/or protective/risk reduction measures

The requirements specified in Clause 4 shall be verified in accordance with the reference standards.

6 Information for use

6.1 Instruction handbook(s) - Operation of truck

The requirements of EN ISO 3691-5: 2015[1], 6.2.3 shall apply with the following addition:

The instruction handbook(s) shall include, as applicable, the following:

— information about specific protective devices (e.g. protective screen) and their use.

6.2 Marking – Information plates

The requirements of EN ISO 3691-5:2015[1], 6.3.1 shall apply with the following modifications.

Replace EN ISO 3691-5:2015[1], 6.3.1.1 b) with the following:

— designation of the machinery, designation of series or type and the mandatory marking[2].

[2] For industrial trucks intended to be put on the market in the EEA, CE marking as defined in the applicable European directive(s), e.g. Machinery, Outdoor Noise and Explosive Atmospheres (ATEX).