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Industrial trucks - Safety requirements and verification - Part 2: Supplementary requirements for self-propelled variable-reach trucks

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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Industrial trucks - Safety requirements and verification - Part 2: Supplementary requirements for self-propelled variable-reach trucks

Chariots de manutention - Exigences de sécurité et
vérification - Partie 2 : Exigences supplémentaires pour
les chariots automoteurs à portée variable

Flurförderzeuge - Sicherheitstechnische
Anforderungen und Verifizierung - Teil 2: Zusätzliche
Anforderungen für motorkraftbetriebene
Flurförderzeuge mit veränderlicher Reichweite

This European Standard was approved by CEN on 9 January 2023.

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

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EN 16307-2:2023 (E)

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European foreword

This document (EN 16307-2:2023) has been prepared by Technical Committee CEN/TC 150 “Industrial trucks - Safety”, the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by September 2023, and conflicting national standards shall be withdrawn at the latest by September 2024.

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.

The EN 16307 series, under the general title *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 (additional requirements to EN 16307-1);*
- *Part 5: Supplementary requirements for pedestrian-propelled trucks;*
- *Part 6: Supplementary requirements for burden and personnel carriers.*

This document is intended to be used with EN ISO 3691-2:2023, *Industrial trucks — Safety requirements and verification — Part 2: Self-propelled variable-reach trucks (ISO 3691-2:2023)*.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

EN 16307-2:2023 (E)**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 in 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 5053-1:2020 that are not covered exhaustively by the EN ISO 3691 series.

1 Scope

This document specifies requirements for the types of industrial trucks specified in the scope of EN ISO 3691-2:2023.

This document is intended to be used in conjunction with EN ISO 3691-2:2023. These requirements are supplementary to those stated in EN ISO 3691-2:2023.

This document deals with the following supplementary requirements and 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:

- electrical requirements;
- noise emissions;
- vibration;
- electromagnetic radiation.

This document specifies supplementary requirements to EN ISO 3691-2:2023:

- operator's seat;
- protection against crushing, shearing and trapping;
- longitudinal stability determination;
- visibility;
- information for use (instruction handbook and marking).

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 12053:2001+A1:2008, *Safety of industrial trucks — Test methods for measuring noise emissions*

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

EN 13059:2002+A1:2008, *Safety of industrial trucks — Test methods for measuring vibration*

EN 13490:2001+A1:2008, *Mechanical vibration — Industrial trucks — Laboratory evaluation and specification of operator seat vibration*

EN 15000:2008, *Safety of industrial trucks — Self propelled variable reach trucks — Specification, performance and test requirements for longitudinal load moment indicators and longitudinal load moment limiters*

EN 16842-4:2019, *Powered industrial trucks — Visibility — Test methods and verification — Part 4: Industrial variable reach trucks up to and including 10 000 kg capacity*

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EN 16842-5:2021, *Powered industrial trucks — Visibility — Test methods and verification — Part 5: Industrial variable-reach trucks greater than 10 000 kg capacity*

EN 16842-7:2018, *Powered industrial trucks — Visibility — Test methods and verification — Part 7: Variable-reach and masted container trucks handling freight containers of 6 m (20 ft) length and longer*

EN ISO 3691-2:2023, *Industrial trucks — Safety requirements and verification — Part 2: Self-propelled variable-reach trucks (ISO 3691-2:2023)*

EN ISO 11688-1:2009, *Acoustics — Recommended practice for the design of low-noise machinery and equipment — Part 1: Planning (ISO/TR 11688-1:1995)*

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*

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