



BSI Standards Publication

Industrial trucks — Lorry-mounted trucks

Part 1: Safety requirements and verification

National foreword

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A list of organizations represented on this committee can be obtained on request to its secretary.

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**Industrial trucks — Lorry-
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Part 1:
Safety requirements and verification

*Chariots de manutention — Chariots embarqués sur
porteur routier —*

Partie 1: Exigences de sécurité et vérification



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 110, *Industrial trucks*, Subcommittee SC 4, *Rough-terrain trucks*.

A list of all parts in the ISO 20297 series can be found on the ISO website.

Introduction

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

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 organisations, 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);
- consumers (in the case of machinery intended for use by consumers).

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

The machinery 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 -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.

Lorry-mounted trucks are known by several terms, including “vehicle-mounted trucks” and “piggyback trucks”. They can also be equipped with a variety of attachments. The trucks covered by this document all have design features enabling them to be mounted for transport on a carrier vehicle.

Industrial trucks — Lorry-mounted trucks —

Part 1: Safety requirements and verification

1 Scope

This document specifies safety requirements and their verification for industrial and rough-terrain lorry-mounted trucks (hereafter referred to as “trucks”).

It is applicable to those trucks capable of self-loading onto a carrier vehicle. It is not applicable to

- trucks that are driven onto the carrier vehicle, or
- trucks that are loaded onto the carrier vehicle with the assistance of external means, i.e. crane or other lifting device.

This document deals with all significant hazards, hazardous situations or hazardous events relevant to machinery, when it is used as intended and under conditions of misuse which are reasonably foreseeable by the manufacturer. The significant hazards covered by this document are listed in [Annex A](#).

This document does not address hazards which can occur

- during manufacture,
- when handling suspended loads, which may swing freely,
- when using trucks on public roads,
- when operating in potentially explosive atmospheres,
- with a battery or hybrid as the primary power source.

It does not address the requirements of road safety when the truck is mounted on the carrier vehicle.

It is not applicable to trucks manufactured before the date of its publication.

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.

ISO 2330, *Fork-lift trucks — Fork arms — Technical characteristics and testing*

ISO 2860, *Earth-moving machinery — Minimum access dimensions*

ISO 2867:2011, *Earth-moving machinery — Access systems*

ISO 3449, *Earth-moving machinery — Falling-object protective structures — Laboratory tests and performance requirements*

ISO 3457, *Earth-moving machinery — Guards — Definitions and requirements*

ISO 3471:2008, *Earth-moving machinery — Roll-over protective structures — Laboratory tests and performance requirements*