INTERNATIONAL STANDARD

ISO 10896-1

Second edition
2020-04

Rough-terrain trucks — Safety requirements and verification —

Part 1: Variable-reach trucks

Chariots tout-terrain — Exigences de sécurité et vérification —

Partie 1: Chariots à portée variable

Reference number
ISO 10896-1:2020(E)

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Published in Switzerland

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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).

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

For an explanation of 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 www.iso.org/iso/foreword.html.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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

This second edition cancels and replaces the first edition (ISO 10896-1:2012), which has been technically revised.

The main changes compared to the previous edition are as follows:

— the document has been aligned with regional standards;

— a new steering test has been added;

— new requirements for the hydraulic circuit have been introduced.

A list of all parts in the ISO 10896 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 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 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.

This document has been developed in order to align as far as possible its requirements to those of the applicable regional standards in Australia, EU, USA.

Rough-terrain trucks — Safety requirements and verification —

Part 1: Variable-reach trucks

1 Scope

This document specifies general safety requirements for non-slewing, rough-terrain variable-reach trucks (referred to as trucks), with rigid chassis and equipped with a telescopic lifting means (pivoting boom) on which a load-handling device such as a carriage with fork arms is typically fitted. Fork arms and other integrated attachments are considered to be parts of the truck.

NOTE These trucks are also known as telehandlers, or telescopic handlers.

For the purpose of this document, trucks are designed to transport, lift and place loads and can be driven on unimproved terrain. They can also be equipped with a variety of attachments or interchangeable equipment (e.g. fork arms, bale spikes, mowers, sweepers) which can be both load-carrying and non-load-carrying.

Other standards, in addition to the relevant provisions of this document, can apply to the attachments.

This document is not applicable to the following:

a) industrial variable-reach trucks covered by ISO 3691-2;

b) machines designed primarily for earth moving, such as loaders, even if their buckets are replaced by fork arms (see ISO 20474-3);

c) trucks with articulated chassis;

d) machines designed primarily with variable-length load suspension elements (e.g. chain, ropes) from which the load can swing freely in all directions (mobile cranes);

e) trucks fitted with personnel/work platforms, designed to move persons to elevated working positions;

f) trucks designed primarily for container handling.

The significant hazards covered by this document are listed in Annex A. This document does not address hazards that can occur:

— during manufacture;

— when handling suspended loads, which can swing freely (see ISO 10896-4);

— when using trucks on public roads;

— when operating in potentially explosive atmospheres;

— with a battery, LPG or hybrid as the primary power source.