INTERNATIONAL STANDARD

ISO 10896-6

First edition
2015-12-15

Rough-terrain trucks — Safety requirements and verification —

Part 6: Tilting operator's cabs

Chariots tout-terrain — Exigences de sécurité et vérification —

Partie 6: Postes de l'opérateur inclinables

Reference number
ISO 10896-6:2015(E)

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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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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 110, *Industrial trucks*, Subcommittee SC 4, *Rough-terrain trucks*.

ISO 10896 consists of the following parts, under the general title *Rough-terrain trucks — Safety requirements and verification*:

— *Part 1: Variable-reach trucks*

— *Part 2: Slewing trucks*

— *Part 4: Additional requirements for variable reach trucks handling freely suspended loads*

— *Part 5: Interface between rough-terrain truck and integrated personnel work platform*

— *Part 6: Tilting operator's cabs*

— *Part 7: Longitudinal load moment systems*

Safety requirements and verification for lorry-mounted trucks are dealt with by ISO 20297-1.

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Introduction

This part of ISO 10896 is one of a set of standards produced by ISO/TC 110/SC 4 as part of its program of work regarding standardization of terminology, general safety, performance and user requirements for rough-terrain trucks (hereafter also referred to as trucks).

This part of ISO 10896 is a type-C standard as stated in ISO 12100.

This part of ISO 10896 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 this part of ISO 10896 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 part of ISO 10896.

The machinery and systems concerned and the extent to which hazards, hazardous situations or hazardous events are covered are indicated in the scope of this part of ISO 10896.

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.

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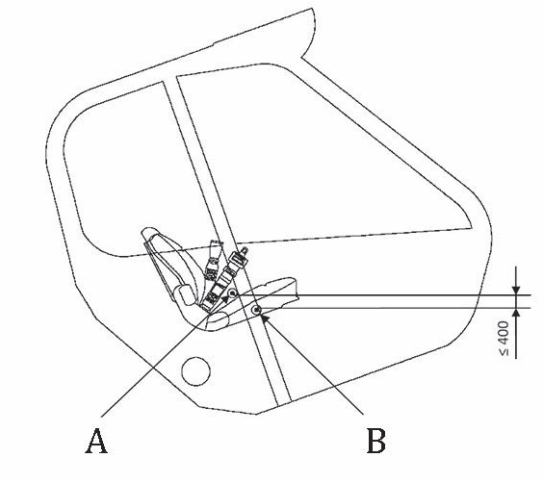
Rough-terrain trucks — Safety requirements and verification —

Part 6: Tilting operator's cabs

1 Scope

This part of ISO 10896 specifies safety requirements and means of verification for tilting operator's cabs of trucks covered by ISO 10896-1 and ISO 10896-2, where the seat index point height (SIP) is lifted not more than 400 mm when the cab is fully tilted. See Figure 1.

Dimension in millimetres



Key

A SIP in tilted position

B SIP in non-tilted position

Figure 1 — Tilting operator's cab

This part of ISO 10896 only deals with significant hazards, hazardous situations or hazardous events relevant to the tilting cab affixed to trucks.

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

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

ISO 5053, *Powered industrial trucks — Terminology*

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ISO 10896-1:2012, *Rough-terrain trucks — Safety requirements and verification — Part 1: Variable-reach trucks*

ISO 10896-2:—[1)], *Rough-terrain trucks, safety requirements and verification — Part 2: Slewing variable-reach trucks*

ISO 12100, *Safety of machinery — General principles for design — Risk assessment and risk reduction*

ISO 22915-14, *Industrial trucks — Verification of stability — Part 14: Rough-terrain variable-reach trucks*

ISO 22915-24, *Industrial trucks — Verification of stability — Part 24: Slewing variable-reach rough-terrain trucks*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 5053, ISO 10896-1, ISO 10896-2 and the following apply.

3.1
tilting operator's cab
operator station where the seat index point (SIP) height can be lifted vertically 400 mm or less when the cab is fully tilted, intended to provide the operator with increased visibility during operation, but can also be used for cab or truck maintenance

Note 1 to entry: For the definition of seat index point (SIP), see ISO 5353:1995, 3.1.

4 Safety requirements and/or protective measures

4.1 General

Tilting operator's cabs shall comply with the safety requirements and/or protective/risk reduction measures of this clause. In addition, the tilting operator's cab shall be designed according to the principles of ISO 12100 for relevant but not significant hazards which are not dealt with by this part of ISO 10896.

4.1.1 Access

With the tilting operator's cab in the lowest position, the access to the normal operating position shall comply with the following:

— ISO 10896-1:2012, 4.11 for variable reach trucks;

— ISO 10896-2:—, 4.11 for slewing trucks.

4.1.2 Operator's seat

The seat shall be designed to maintain the operator in the tilted position.

4.1.3 Tilting operator's cab

The maximum tilting angle should not exceed 20° from the horizontal axis of the truck chassis.

The tilting speed shall not exceed 5°/s under normal working conditions.

Means shall be provided to prevent uncontrolled movement in case of hydraulic line rupture or interruption of the power supply.

1) To be published.

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