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Rough-terrain trucks — Safety requirements and verification —

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

Chariots tout-terrain — Exigences de sécurité et vérification —

Partie 5: Interface entre chariot tout-terrain et plateforme de travail intégrée du personnel

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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*

The following part is under preparation:

— *Part 7: Longitudinal load moment systems*

Lorry-mounted trucks are to form the subject of future part 3.

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Introduction

This part of ISO 10896 only deals with the interface between a variable-reach rough-terrain truck and an integrated personnel work platform, which in this case is considered as interchangeable equipment.

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Rough-terrain trucks — Safety requirements and verification —

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

1 Scope

This part of ISO 10896 defines design and safety requirements, and means for their verification, for the interface between a non-slewing or slewing variable-reach rough-terrain truck (hereafter referred to as "trucks") and an integrated personnel work platform (hereafter referred to as "integrated PWP").

This part of ISO 10896 does not address the design or safety requirements related to the personnel work platform itself. These requirements are covered within national and international standards for mobile elevating work platforms.

Personnel work platforms without control(s) that affect movement or mechanism(s), which interlock the platform to the truck, often referred to as non-integrated work platforms, are excluded from this part of ISO 10896.

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 10896-1, *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 trucks*

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

ISO 13849-1:2006, *Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design*

ISO 16368, *Mobile elevating work platforms — Design, calculations, safety requirements and test methods*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 10896-1, ISO 10896-2, ISO 12100 and the following apply.

3.1
interlocking device
mechanical, electrical or other type of device, the purpose of which is to prevent the operation of hazardous machine functions under specified conditions (generally as long as a guard is not closed)

[SOURCE: ISO 12100:2010, 3.28.1 — modified]

1) To be published.

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3.2
interchangeability
condition which exists when two or more items possess such functional and physical characteristics as to be equivalent in performance and durability, and are capable of being exchanged one for the other without alteration of the items themselves, or of adjoining items, and without selection for fit and performance

[SOURCE: ISO 17261:2012, 3.22]

3.3
integrated personnel work platform
<integrated PWP>
work platform with controls, fitted to the truck which is mechanically, electrically and where applicable hydraulically connected, locked and interlocked designed for elevating persons, tools, and materials to working positions

3.4
locking mechanism
used to lock, either by the user or automatically, the integrated PWP to the truck and prevents unintended movement

3.5
locking system
device/s ensuring that the platform and its parts are maintained in the position of use

4 Safety requirements and/or protective/risk reduction measures

4.1 General

Trucks shall comply with the safety requirements and/or protective measures in this Clause.

In addition, the truck 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.

Trucks equipped with an integrated PWP shall be designed in accordance with ISO 16368.

4.2 Interface with the integrated PWP

4.2.1 General

The locking mechanism and locking system for the integrated PWP of the truck may be manual or powered and shall not be possible from the platform.

The connection of the integrated PWP to the truck shall enable the truck to recognize that an integrated PWP has been fitted.

Verification shall be carried out by means of design check and functional test.

4.2.2 Coupling of the integrated PWP

The interface for the integrated PWP shall be designed to be securely attached to the truck, locked and interlocked. The interface shall be designed to avoid uncontrolled movements of the platform relative to the carriage of the truck.

The interlocking device shall prevent any powered movement controlled from the integrated PWP when it is connected but not securely attached and locked to the truck.

The sensing part of the interlocking device shall be located on the integrated PWP and shall be designed and protected to minimize damage during the expected life of the truck when used in other foreseeable applications.

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