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**Industrial trucks — Verification of  
stability —**

**Part 24:  
Slewing variable-reach rough-terrain  
trucks**

*Chariots de manutention — Vérification de la stabilité —*

*Partie 24: Chariots à portée variable rotatifs tout-terrain*



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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](http://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](http://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 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 22915 consists of the following parts, under the general title *Industrial trucks — Verification of stability*:

- *Part 1: General*
- *Part 2: Counterbalanced trucks with mast*
- *Part 3: Reach and straddle trucks*
- *Part 4: Pallet stackers, double stackers and order-picking trucks with operator position elevating up to and including 1 200 mm lift height*
- *Part 5: Single-side-loading trucks*
- *Part 7: Bidirectional and multidirectional trucks*
- *Part 8: Additional stability test for trucks operating in the special condition of stacking with mast tilted forward and load elevated*
- *Part 9: Counterbalanced trucks with mast handling freight containers of 6 m (20 ft) length and longer*
- *Part 10: Additional stability test for trucks operating in the special condition of stacking with load laterally displaced by powered devices*
- *Part 11: Industrial variable-reach trucks*
- *Part 12: Industrial variable-reach trucks handling freight containers of 6 m (20 ft) length and longer*
- *Part 13: Rough-terrain trucks with mast*
- *Part 14: Rough-terrain variable-reach trucks*
- *Part 15: Counterbalanced trucks with articulated steering*

- *Part 16: Pedestrian-propelled trucks*
- *Part 20: Additional stability test for trucks operating in the special condition of offset load, offset by utilization*
- *Part 21: Order-picking trucks with operator position elevating above 1 200 mm*
- *Part 22: Lateral- and front-stacking trucks with and without elevating operator position*
- *Part 24: Slewing variable-reach rough-terrain trucks*

Industrial and rough-terrain lorry-mounted trucks are to form the subject of a future ISO 22915-23.

## Introduction

In this International Standard, verification of stability is intended to be the measure of a slewing variable-reach rough terrain truck's resistance to overturning under rigidly controlled static conditions that include consideration for dynamic factors encountered in normal application and operation. Influencing factors include weight, weight distribution, wheelbase, wheel tread, truck suspension, truck speed, and tyre and boom deflection under load.

# Industrial trucks — Verification of stability —

## Part 24:

## Slewing variable-reach rough-terrain trucks

### 1 Scope

This part of ISO 22915, together with ISO 22915-1, specifies the tests for verifying the stability of slewing variable-reach rough-terrain trucks (hereafter also referred to as trucks), equipped with fork arms or with load carrying or non-load carrying attachments.

It is not applicable to those trucks equipped with the following:

- integrated and non-integrated personnel work platforms;
- tracks;
- equipment to operate on rails.

### 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 5053-1, *Powered industrial trucks — Terminology and classification — Part 1: Types of industrial trucks*

ISO 10896-2, *Rough terrain trucks — Safety requirements and verification — Part 2: Slewing variable reach trucks*

ISO 22915-1, *Industrial trucks — Verification of stability — Part 1: General*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 5053-1, ISO 10896-2, ISO 22915-1, and the following apply.

#### 3.1

##### **longitudinal centre plane of chassis**

vertical plane passing through the longitudinal centreline, A-A, of the lower chassis

Note 1 to entry: See [Figures 2](#) to [5](#).

#### 3.2

##### **longitudinal centre plane of the upper structure**

vertical plane passing through the longitudinal centreline of the upper structure

Note 1 to entry: See [Figure 1](#).