International Standard

ISO 22915-1

Industrial trucks — Verification of stability —

Part 1: General

Chariots de manutention — Vérification de la stabilité —

Partie 1: Généralités

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Foreword

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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 document 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 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.

This document was prepared by Technical Committee ISO/TC 110, *Industrial trucks*, Subcommittee SC 2, *Safety of powered industrial trucks.*

This third edition cancels and replaces the second edition (ISO 22915-1:2016), which has been technically revised.

The main changes are as follows:

— the scope has been expanded due to the extension of the ISO 22915 series with parts for other truck types and for low-lift trucks;

— the weight of the operator on sit-on and stand-on trucks has been increased to reflect the latest developments of ISO 3411;

— a clause has been added to specify the minimum requirements for the test report.

A list of all parts in the ISO 22915 series can be found on the ISO website.

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.

Industrial trucks — Verification of stability —

Part 1: General

1 Scope

The ISO 22915 series deals with the safety of industrial trucks, as defined in ISO 5053-1, relative to their stability and the verification of that stability.

This document specifies basic test criteria and requirements for verifying the stability of industrial trucks, hereafter referred to as "trucks".

It is applicable to the following truck types and special conditions:

a) counterbalanced trucks with mast as specified in ISO 22915-2;

b) reach and straddle trucks as specified in ISO 22915-3;

c) pallet stackers, double stackers, and order-picking trucks with operator position elevating up to and including 1 200 mm lift height as specified in ISO 22915-4;

d) single-side-loading trucks as specified in ISO 22915-5;

e) bidirectional and multidirectional trucks as specified in ISO 22915-7;

f) additional stability test for trucks operating in special conditions of stacking with the mast tilted forward as specified in ISO 22915-8;

g) counterbalanced trucks with mast handling freight containers of 6 m (20 ft) length and longer as specified in ISO 22915-9;

h) additional stability test for trucks operating in special conditions with the load substantially laterally displaced by powered devices as specified in ISO 22915-10;

i) industrial variable-reach trucks as specified in ISO 22915-11;

j) industrial variable-reach trucks handling freight containers of 6 m (20 ft) length and longer as specified in ISO 22915-12;

k) rough-terrain trucks with mast as specified in ISO 22915-13;

l) rough-terrain variable-reach trucks as specified in ISO 22915-14;

m) counterbalanced trucks with articulated steering as specified in ISO 22915-15;

n) pedestrian-propelled trucks as specified in ISO 22915-16;

o) towing tractors, burden and personnel carriers as specified in ISO 22915-17;

p) additional stability test for trucks operating in the special condition of offset load, offset determined by utilization as specified in ISO 22915-20;

q) order-picking trucks with operator position elevating above 1 200 mm as specified in ISO 22915-21;

r) lateral- and front-stacking trucks with and without elevating operator position as specified in ISO 22915-22;

s) slewing variable-reach rough-terrain trucks as specified in ISO 22915-24.

It is also applicable to trucks operating under the same conditions when equipped with load-handling attachments and low-lift trucks with lift height up to and including 500 mm.

This document does not apply to the following:

— trucks handling suspended loads which can swing freely.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 3411, *Earth-moving machinery — Physical dimensions of operators and minimum operator space envelope*

ISO 5053-1, *Industrial trucks — Vocabulary — Part 1: Types of industrial trucks*

ISO 5353, *Earth-moving machinery, and tractors and machinery for agriculture and forestry — Seat index point*

3 Terms and definitions

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

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
industrial truck
wheeled vehicle having at least three wheels designed to carry, tow, push, lift, stack or tier loads

Note 1 to entry: Industrial trucks can be self-propelled or pedestrian-propelled.

Note 2 to entry: Industrial trucks can be operator-controlled or driverless.

Note 3 to entry: Vehicles running on rails are not defined as industrial truck.

3.2
tilt table
rigid table tilted at least to one side to prove the lateral and longitudinal stability of a truck positioned on that table

Note 1 to entry: See Figure 1.