INTERNATIONAL STANDARD

ISO 22915-8

Second edition
2018-09

Industrial trucks — Verification of stability —

Part 8: Additional stability test for trucks operating in the special condition of stacking with mast tilted forward and load elevated

Chariots de manutention — Vérification de la stabilité —

Partie 8: Essai de stabilité supplémentaire pour les chariots travaillant dans des conditions de gerbage spéciales avec le mât incliné en avant et la charge élevée

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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).

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).

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.

This second edition cancels and replaces the first edition (ISO 22915-8:2008), of which it constitutes a minor revision. The changes compared to the previous edition are as follows:

— in Clause 1, removed reference to ISO 5053;

— in Clause 1, added references to ISO 5053-1, ISO 22915-13 and ISO 22915-15;

— in Clause 2, removed ISO 5053, *Powered industrial — Terminology*;

— in Clause 2, added ISO 5053-1, *Industrial Trucks — Terminology and Classification — Part 1: Types of industrial Trucks*, ISO 22915-13, *Industrial trucks — Verification of stability — Part 13: Rough-terrain trucks with mast*, and ISO 22915-15, *Industrial trucks — Verification of stability — Part 15: Counterbalanced trucks with articulated steering*.

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.

Introduction

An important step forward in the work on the ISO 22915 series was the agreement to put in place a new structure. The stability tests are presented in the form of a basic part describing and defining stability tests in general, together with separate parts that each gives specific stability test criteria and requirements for a different truck type.

From the very beginning, the task of the Working Group involved was to establish the new structure and revise existing standards to create a series of International Standards complying with the major legislative regulations in the world such as those in force in the EU, USA, Japan and Australia.

For several problem areas compromises were needed and will be needed in the future. In order to ensure that these International Standards are actively used in the ISO member countries worldwide, it will be necessary that they replace existing national standards.

Only in this way will there be the guarantee that products in accordance with these International Standards can be shipped worldwide, freely and without any technical barriers to trade.

Industrial trucks — Verification of stability —

Part 8: Additional stability test for trucks operating in the special condition of stacking with mast tilted forward and load elevated

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. For the purposes of the ISO 22915 series, industrial trucks are wheeled, self-propelled or pedestrian-propelled vehicles, excepting those running on rails. They are either operator-controlled or driverless and designed to carry, tow, push, lift, stack or tier in racks.

This document specifies an additional test for verifying the stability of a truck stacking with mast tilted forward and load in the elevated position. It is applicable to the following types of truck:

a) counterbalanced trucks with tiltable masts, as specified in ISO 22915–2;

b) reach (retractable mast or forks) and straddle trucks with tiltable masts, as specified in ISO 22915–3;

c) pallet stackers with tiltable masts, as specified in ISO 22915-4;

d) bidirectional and multidirectional (retractable mast or forks) trucks with tiltable masts, as specified in ISO 22915-7;

e) rough-terrain trucks with tiltable masts, as specified in ISO 22915-13;

f) counterbalanced trucks fitted with articulated steering with tiltable masts, as specified in ISO 22915-15.

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 3691-1, *Industrial trucks — Safety requirements and verification — Part 1: Self-propelled industrial trucks, other than driverless trucks, variable-reach trucks and burden-carrier trucks*

ISO 5053-1, *Industrial trucks — Terminology and classification — Part 1: Types of industrial trucks*

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

ISO 22915-2, *Industrial trucks — Verification of stability — Part 2: Counterbalanced trucks with mast*

ISO 22915-3, *Industrial trucks — Verification of stability — Part 3: Reach and straddle trucks*

ISO 22915-4, *Industrial trucks — Verification of stability — Part 4: Pallet stackers, double stackers and order-picking trucks with operator position elevating up to and including 1 200 mm lift height*

ISO 22915-7, *Industrial trucks — Verification of stability — Part 7: Bidirectional and multidirectional trucks*

ISO 22915-13, *Industrial trucks — Verification of stability — Part 13: Rough-terrain trucks with mast*

ISO 22915-15, *Industrial trucks — Verification of stability — Part 15: Counterbalanced trucks with articulated steering*

3 Terms and definitions

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

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

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

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

3.1
special operating condition
stacking with load elevated and mast titled forward

Note 1 to entry: See Figure 1.

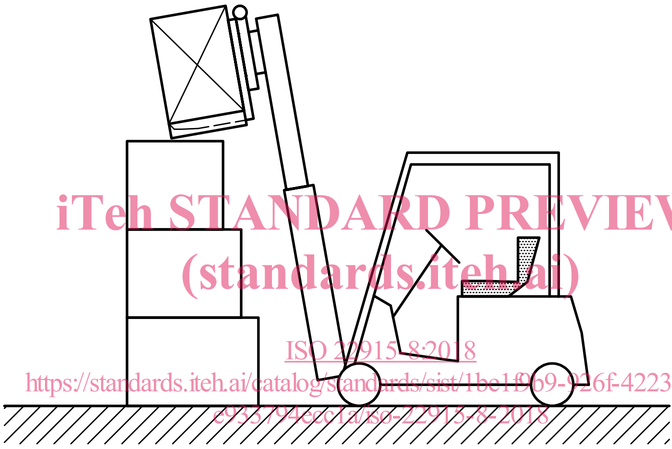

Figure 1 — Special operating condition

4 Test conditions

4.1 General

See ISO 22915-1.

4.2 Position of truck on the tilt table

4.2.1 Counterbalanced trucks

The position of the truck on the tilt table shall be in accordance with test 1 of ISO 22915-2.

4.2.2 Reach and straddle trucks

The position of the truck on the tilt table shall be in accordance with test 1 of ISO 22915-3.

4.2.3 Bidirectional and multidirectional trucks

The position of the truck on the tilt table shall be in accordance with test 1 of ISO 22915-7.

4.3 Position of the mast

The test shall be carried out with the mast and forks fully elevated and fully titled forward.

5 Verification of stability

The stability of the truck with the mast tilted forward and at maximum elevation shall be verified in accordance with test 1 of ISO 22915-2, ISO 22915-3, ISO 22915-4 or ISO 22915-7[1)] depending on the type of truck.

6 Marking

The capacity under this special operating condition, as determined by this additional stability test, and the angle of forward tilt of the mast shall be indicated on an information plate in view of the operator in the normal operating position according to ISO 3691-1.

1) Or of future parts of ISO 22915 dealing with other types of truck. See ISO Website.