



## **Industrial trucks—Verification of stability**

### **Part 9: Counterbalanced trucks with mast handling freight containers of 6 m (20 ft) length and longer (ISO 22915-9:2014, MOD)**



AS 22915.9:2018

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- Australian Industrial Truck Association
- Australian Industry Group
- Construction Mining and Equipment Industry Group
- Hire and Rental Industry Association
- Safety Institute of Australia
- SafeWork NSW
- Telescopic Handler Association of Australia
- WorkSafe Victoria

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## Preface

This Standard was prepared by the Standards Australia Committee ME-026, Industrial Trucks.

The objective of this Standard is to specify the tests for verifying the stability of counterbalanced trucks with masts when handling empty or laden freight containers of 6 m (20 ft) length and longer.

This Standard is applicable to these types of industrial trucks that are equipped with forks, a spreader (top lift and side lift), or other load handling means applicable for container handling.

This Standard does not apply to trucks when handling a container which has a mobile centre of gravity (refer to AS 3711.10—2000).

This Standard is an adoption with national modifications, and has been reproduced from, ISO 22915-9:2014, *Industrial trucks — Verification of stability — Part 9: Counterbalanced trucks with mast handling freight containers of 6 m (20 ft) length and longer*. These modifications are additional requirements and are set out in Appendix ZZ, which has been added at the end of the source text.

Appendix ZZ lists the variations to ISO 22915-9 for the application of this Standard in Australia.

As this document has been reproduced from an International Standard, the following applies:

- (a) In the source text ‘this part of ISO 22915’ should read ‘this Australian Standard’.
- (b) A full point substitutes for a comma when referring to a decimal marker.

Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific Standards.

The terms “normative” and “informative” are used in Standards to define the application of the appendices or annexes to which they apply. A “normative” appendix or annex is an integral part of a Standard, whereas an “informative” appendix or annex is only for information and guidance.

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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 2, *Safety*.

This edition cancels and replaces ISO 10525, which has been technically revised.

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 trucks*

*Industrial and RTT lorry-mounted trucks are to form the subject of a future part 23.*

# Australian Standard®

## Industrial trucks—Verification of stability

### Part 9: Counterbalanced trucks with mast handling freight containers of 6 m (20 ft) length and longer (ISO 22915-9:2014, MOD)

#### 1 Scope

This part of ISO 22915 specifies the tests for verifying the stability of counterbalanced trucks with masts when handling empty or laden freight containers of 6 m (20 ft) length and longer.

It is applicable to these types of industrial trucks that are equipped with forks, a spreader, (top lift and side lift), or other load handling means applicable for container handling.

This International Standard does not apply to trucks when handling a container which has a mobile centre of gravity (see ISO 3874).

#### 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 668, *Series 1 freight containers — Classification, dimensions and ratings*

ISO 1496-2:2008, *Series 1 freight containers — Specification and testing Part 2: Thermal containers*

ISO 3691-1:2010, *Industrial trucks — Safety requirements and verification — Part 1: Self-propelled industrial trucks, other than driverless variable reach trucks, and burden carrier trucks*

ISO 3874:1997, *Series 1 freight containers — Handling and securing*

ISO 5353:1995, *Earth-moving machinery, and tractors and machinery for agriculture and forestry — Seat index point*

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

ISO 22915-20, *Industrial trucks — Verification of stability — Part 20: Additional stability test for trucks operating in the special condition of offset load, offset by utilization*

#### 3 Terms and definitions

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

#### 4 Operating conditions

##### 4.1 General

In addition to ISO 22915-1, the following conditions apply.

Operating the truck (travelling with the freight container at normal travelling height and stacking) in conditions where the wind speed is up to the rated wind speed of 12,2 m/s.