AS 22915.20:2018

Australian STANDARD

Industrial trucks—Verification of stability

Part 20: Additional stability test for trucks operating in the special condition of offset load, offset by utilization (ISO 22915-20:2008, MOD)

STANDARDS Australia

AS 22915.20:2018

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Australian Industrial Truck Association
Australian Industry Group
Construction and Mining Equipment Industry Group
Hire and Rental Industry Association of Australia
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 an additional test for verifying the stability of a laden truck whose utilization creates the special operating condition whereby the load centre of gravity is substantially offset from the truck's longitudinal centre plane. It is applicable to the following types of truck:

a) counterbalanced trucks, as specified in AS ISO 22915-2;

b) reach (retractable mast or forks) and straddle trucks, as specified in AS ISO 22915-3;

c) pallet stackers, as specified in AS ISO 22915-4;

d) bidirectional and multi directional (retractable mast or forks) trucks, as specified in ISO 22915-7;

e) rough-terrain variable reach trucks;

f) counterbalanced trucks fitted with articulated steering;

g) variable reach trucks;

h) rough terrain trucks with mast.

This Standard is an adoption with national modifications, and has been reproduced from, ISO 22915-20:2008, *Industrial trucks — Verification of stability — Part 20: Additional stability test for trucks operating in the special condition of offset load, offset by utilization*. The 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 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 term 'normative' is used in Standards to define the application of the appendixto which it applies. A 'normative' appendix is an integral part of a Standard.

Contents

1) For other applicable truck types (see Scope), the position of the truck or the tilt table will be as given in the equivalent test of the respective part of ISO 22915.

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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 22915-20 was prepared by Technical Committee ISO/TC 110, *Industrial trucks*, Subcommittee SC 2, *Safety of powered industrial 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 up to and including 1 200 mm lift height*

— *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 10: Additional stability test for trucks operating in the special condition of stacking with load laterally displaced by powered devices*

— *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*

The following parts are under preparation:

— *Part 5: Single side loading trucks*

— *Part 9: Counterbalanced trucks with mast handling freight containers of 6 m (20 ft) length and longer*

— *Part 11: Variable reach trucks*

— *Part 12: Variable reach trucks handling freight containers of 6 m (20 ft) length and longer*

— *Part 14: Rough-terrain variable reach trucks*

— *Part 15: Counterbalanced trucks with articulated steering*

— *Part 16: Pedestrian-propelled trucks*

— *Part 17: Burden and personnel carriers*

Introduction

An important step forward in 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 give 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 will be the guarantee that products in accordance with these International Standards can be shipped worldwide, freely and without any technical barriers to trade.

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1 Scope

ISO 22915 deals with the safety of industrial trucks, as defined in ISO 5053, relative to their stability and the verification of that stability. For the purposes of ISO 22915, 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 part of ISO 22915 specifies an additional test for verifying the stability of a laden truck whose utilization creates the special operating condition whereby the load centre of gravity is substantially offset from the truck's longitudinal centre plane. It is applicable to the following types of truck:

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

b) reach (retractable mast or forks) and straddle trucks, as specified in ISO 22915-3;

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

d) bidirectional and multidirectional (retractable mast or forks) trucks, as specified in ISO 22195-7;

e) rough-terrain variable reach trucks [1)];

f) counterbalanced trucks fitted with articulated steering [2)];

g) variable reach trucks [3)];

h) rough-terrain trucks with mast.

A load is considered to be substantially offset if displaced by more than

— 100 mm, for a truck with a rated capacity < 5 000 kg,

— 150 mm, for a truck with a rated capacity ≥ 5 000 kg and ≤ 10 000 kg,

— 250 mm, for a truck with a rated capacity > 10 000 kg and < 20 000 kg,

— 350 mm, for a truck with a rated capacity ≥ 20 000 kg.

2 Normative references

The following referenced documents are indispensable for the application 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, variable-reach trucks and burden-carrier trucks*[4)]

ISO 5053, *Powered industrial trucks — Terminology*

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1) Intended to be covered by a future part of ISO 22915. See Foreword.

2) Intended to be covered by a future part of ISO 22915. See Foreword.

3) Intended to be covered by a future part of ISO 22915. See Foreword.

4) To be published.