



BSI Standards Publication

## Industrial trucks — Verification of stability

---

Part 1: General

This is a preview of BS ISO 22915-1:2024. [Click here to purchase the full version from the ANSI store.](#)

## National foreword

This British Standard is the UK implementation of ISO 22915-1:2024. It supersedes BS ISO 22915-1:2016, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee MHE/7, Industrial trucks.

A list of organizations represented on this committee can be obtained on request to its committee manager.

### Contractual and legal considerations

This publication has been prepared in good faith, however no representation, warranty, assurance or undertaking (express or implied) is or will be made, and no responsibility or liability is or will be accepted by BSI in relation to the adequacy, accuracy, completeness or reasonableness of this publication. All and any such responsibility and liability is expressly disclaimed to the full extent permitted by the law.

This publication is provided as is, and is to be used at the recipient's own risk.

The recipient is advised to consider seeking professional guidance with respect to its use of this publication.

This publication is not intended to constitute a contract. Users are responsible for its correct application.

© The British Standards Institution 2024  
Published by BSI Standards Limited 2024

ISBN 978 0 539 24635 3

ICS 53.060

### Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 June 2024.

### Amendments/corrigenda issued since publication

Date	Text affected
------	---------------

---



This is a preview of BS ISO 22915-1:2024. [Click here to purchase the full version from the ANSI store.](#)

**ISO 22915-1**

**Industrial trucks — Verification of stability —**

**Part 1:  
General**

*Chariots de manutention — Vérification de la stabilité —  
Partie 1: Généralités*

**Third edition  
2024-06**

This is a preview of BS ISO 22915-1:2024. [Click here to purchase the full version from the ANSI store.](#)



## **COPYRIGHT PROTECTED DOCUMENT**

© ISO 2024

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
CP 401 • Ch. de Blandonnet 8  
CH-1214 Vernier, Geneva  
Phone: +41 22 749 01 11  
Email: [copyright@iso.org](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

Published in Switzerland

This is a preview of BS ISO 22915-1:2024. [Click here to purchase the full version from the ANSI store.](#)

<b>Foreword</b> .....	<b>iv</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>2</b>
<b>3 Terms and definitions</b> .....	<b>2</b>
<b>4 Stability tests for trucks</b> .....	<b>3</b>
4.1 General.....	3
4.2 Test procedure.....	4
4.3 Verification procedure.....	4
4.3.1 Operation of the tilt table and test criteria.....	4
4.3.2 Calculation.....	5
4.3.3 Other methods.....	5
4.4 Test conditions.....	5
4.4.1 Condition of the truck.....	5
4.4.2 Position of the truck on the tilt table.....	5
4.4.3 Test load, lift height and standard load centre distance.....	6
4.5 Safety precautions for testing.....	7
4.6 Stability verification for trucks with attachments.....	7
4.7 Stability verification for low-lift trucks.....	8
<b>5 Documentation</b> .....	<b>8</b>
<b>Bibliography</b> .....	<b>9</b>

This is a preview of BS ISO 22915-1:2024. [Click here to purchase the full version from the ANSI store.](#)

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 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](http://www.iso.org/directives)).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at [www.iso.org/patents](http://www.iso.org/patents). ISO shall not be held responsible for identifying any or all such patent rights.

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](http://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](http://www.iso.org/members.html).

This is a preview of BS ISO 22915-1:2024. [Click here to purchase the full version from the ANSI store.](#)

# 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;