

<b>STN</b>	<b>Priemyselné vozíky Dodatočné požiadavky na automatické funkcie vozíkov (ISO 24134: 2006)</b>	<b>STN EN ISO 24134</b>  26 8851
------------	---	--

Industrial trucks - Additional requirements for automated functions on trucks (ISO 24134:2006)

Táto norma obsahuje anglickú verziu európskej normy.  
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 03/19

Obsahuje: EN ISO 24134:2018, ISO 24134:2006

Oznámením tejto normy sa ruší  
STN EN 1526+A1 (26 8851) z februára 2009

**128276**

EUROPEAN STANDARD

**EN ISO 24134**

NORME EUROPÉENNE

EUROPÄISCHE NORM

October 2018

ICS 53.060

Supersedes EN 1526:1997+A1:2008

English Version

## Industrial trucks - Additional requirements for automated functions on trucks (ISO 24134:2006)

Chariots de manutention - Exigences supplémentaires  
pour les fonctions automatiques des chariots (ISO  
24134:2006)

Flurförderzeuge - Zusätzliche Anforderungen für  
automatische Funktionen von Staplern (ISO  
24134:2006)

This European Standard was approved by CEN on 23 March 2018.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

**EN ISO 24134:2018 (E)**

<b>Contents</b>	<b>Page</b>
<b>European foreword.....</b>	<b>3</b>

## **European foreword**

The text of ISO 24134:2006 has been prepared by Technical Committee ISO/TC 110 "Industrial trucks" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 24134:2018 by Technical Committee CEN/TC 150 "Industrial Trucks - Safety" the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2019, and conflicting national standards shall be withdrawn at the latest by April 2019.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 1526:1997+A1:2008.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## **Endorsement notice**

The text of ISO 24134:2006 has been approved by CEN as EN ISO 24134:2018 without any modification.

# INTERNATIONAL STANDARD

# ISO 24134

First edition  
2006-01-15

---

---

## **Industrial trucks — Additional requirements for automated functions on trucks**

*Chariots de manutention — Exigences supplémentaires pour les  
fonctions automatiques des chariots*



Reference number  
ISO 24134:2006(E)

© ISO 2006

**ISO 24134:2006(E)****PDF disclaimer**

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

© ISO 2006

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
Case postale 56 • CH-1211 Geneva 20  
Tel. + 41 22 749 01 11  
Fax + 41 22 749 09 47  
E-mail [copyright@iso.org](mailto:copyright@iso.org)  
Web [www.iso.org](http://www.iso.org)

Published in Switzerland

## Contents

Page

Foreword.....	iv
<b>1</b> <b>Scope</b> .....	<b>1</b>
<b>2</b> <b>Normative references</b> .....	<b>2</b>
<b>3</b> <b>Terms and definitions</b> .....	<b>2</b>
<b>4</b> <b>List of hazards</b> .....	<b>3</b>
<b>5</b> <b>Safety requirements</b> .....	<b>4</b>
5.1 <b>Performance limitation</b> .....	<b>4</b>
5.2 <b>Automated control system safety</b> .....	<b>4</b>
5.3 <b>Operator controls and indicators</b> .....	<b>4</b>
5.4 <b>Emergency switching off</b> .....	<b>5</b>
5.5 <b>Operational safety</b> .....	<b>5</b>
5.6 <b>Additional requirements for specific movements</b> .....	<b>5</b>
<b>6</b> <b>Verification and commissioning</b> .....	<b>7</b>
6.1 <b>Verification</b> .....	<b>7</b>
6.2 <b>Commissioning</b> .....	<b>7</b>
<b>7</b> <b>Information for use</b> .....	<b>8</b>
7.1 <b>General</b> .....	<b>8</b>
7.2 <b>Operation of automated functions</b> .....	<b>8</b>
7.3 <b>Service and maintenance of automated functions</b> .....	<b>8</b>
7.4 <b>Operating information</b> .....	<b>9</b>
7.5 <b>Housekeeping</b> .....	<b>9</b>

**ISO 24134:2006(E)****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 24134 was prepared by Technical Committee ISO/TC 110, *Industrial trucks*, Subcommittee SC 2, *Safety of powered industrial trucks*.

ISO 24134 is based on EN 1526:1997 and ASME B56.5A-1994:Part IV.



# Industrial trucks — Additional requirements for automated functions on trucks

## 1 Scope

This International Standard specifies the safety requirements for controls and control systems for the following automated functions of industrial trucks:

- steering (excluding direct mechanical guidance);
- travel;
- lifting and lowering operations;
- load manipulations, e.g. rotation, reach, slewing, tilting, clamping;
- combination and/or sequence of the above movements.

**NOTE** The control system is generally part of the truck but can include components external to the truck, e.g. the means of guidance for automated steering.

This International Standard is intended for use in conjunction with one or more of the applicable parts of ISO 3691.

This International Standard is not applicable to, and does not include, requirements for the following:

- safety equipment (e.g. devices for height limitation, speed limitation) used to override operator control;
- operation in severe conditions (e.g. extreme climates, freezer applications, strong magnetic fields);
- operation in environments subject to special rules (e.g. potentially explosive atmospheres);
- electromagnetic compatibility;
- transportation of passengers;
- handling of loads, the nature of which could lead to dangerous situations (e.g. molten metals, acids/bases, radiating materials).

Limitations in the scopes of the applicable parts of ISO 3691 also apply to this International Standard.

**ISO 24134:2006(E)****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* <sup>1)</sup>

ISO 3691-2, *Industrial trucks — Safety requirements and verification — Part 2: Self-propelled variable-reach trucks* <sup>1)</sup>

ISO 3691-3, *Industrial trucks — Safety requirements and verification — Part 3: Additional requirements for trucks with elevating operator position and trucks specifically designed to travel with elevated loads* <sup>1)</sup>

ISO 3691-4, *Industrial trucks — Safety requirements and verification — Part 4: Driverless industrial trucks and their systems* <sup>1)</sup>

ISO 3691-5, *Industrial trucks — Safety requirements and verification — Part 5: Pedestrian-propelled trucks* <sup>1)</sup>

ISO 3691-6, *Industrial trucks — Safety requirements and verification — Part 6: Burden and personnel carriers* <sup>1)</sup>

ISO 12100-2:2003, *Safety of machinery — Basic concepts — General principles for design — Part 2: Technical principles and specifications*

ISO 13849-1—<sup>2)</sup>, *Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design*

ISO 20898:—<sup>3)</sup>, *Industrial trucks — Electrical requirements*

**koniec náhľadu – text ďalej pokračuje v platenej verzii STN**

---

1) To be published. (Revision of ISO 3691:1980)

2) To be published. (Revision of ISO 13849-1:1999)

3) To be published. (Equivalent to EN 1175-1:1998)