Tööstustõstukite ohutus. Iseliikuvad muutuva tõsteulatusega tõstukid. Spetsifikatsioon, jõudluse ja katsetamise nõuded pikitelje koormusmomendi indikaatoritele ja piirajatele

Safety of industrial trucks - Self propelled variable reach trucks - Specification, performance and test requirements for longitudinal load moment indicators and longitudinal load moment limiters



#### **EESTI STANDARDI EESSÕNA**

#### **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 15000:2008 sisaldab Euroopa standardi EN 15000:2008 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 27.10.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 03.09.2008.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 15000:2008 consists of the English text of the European standard EN 15000:2008.

This standard is ratified with the order of Estonian Centre for Standardisation dated 27.10.2008 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Date of Availability of the European standard text 03.09.2008.

The standard is available from Estonian standardisation organisation.

ICS 53.060

Võtmesõnad:

# Standardite reprodutseerimis- ja levitamisõigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonilisse süsteemi või edastamine ükskõik millises vormis või millisel teel on keelatud ilma Eesti Standardikeskuse poolt antud kirjaliku loata.

# **EUROPEAN STANDARD**

## **EN 15000**

# NORME EUROPÉENNE EUROPÄISCHE NORM

September 2008

ICS 53,060

#### **English Version**

Safety of industrial trucks - Self propelled variable reach trucks - Specification, performance and test requirements for longitudinal load moment indicators and longitudinal load moment limiters

Sécurité des chariots de manutention - Chariots automoteurs à portée variable - Spécifications, exigences de performance et d'essai pour les indicateurs de moment de charge longitudinal et limiteurs de moment de charge longitudinal Sicherheit von Flurförderzeugen - Kraftbetriebene Stapler mit veränderlicher Reichweite - Spezifikation, Leistung und Prüfbedingungen für Lastmomentanzeiger in Längsrichtung und Lastmomentbegrenzer in Längsrichtung

This European Standard was approved by CEN on 25 July 2008.

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 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 Management Centre has the same status as the official versions.

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



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

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# **Foreword**

This document (EN 15000:2008) has been prepared 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 March 2009, and conflicting national standards shall be withdrawn at the latest by September 2010.

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

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EC Directive(s).

For relationship with EC Directive(s), see informative Annex ZA and B which are integral parts of this document.

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, ay, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

### Introduction

This European Standard is a "Type C" standard as defined in EN ISO 12100-1.

This European Standard has been prepared to be a harmonized standard to provide one means for longitudinal load moment indicators and longitudinal load moment control *systems* used on *self-propelled* variable reach trucks to conform to the essential health and safety requirements of the Machinery Directive, as amended.

When provisions of this type C standard are different from those which are stated in type A or B standards the provisions of this type C standard take precedence over the provisions of other standards, for equipment that have been designed and built according to the provisions of this type C standard. Saprelien Senerated of the

#### 1 Scope

This European Standard specifies the technical requirements, verification and test procedure for the longitudinal load moment indicators (LLMI) and longitudinal load moment control (LLMC) systems operating in the forward direction for self propelled variable reach trucks covered by EN 1459.

This European Standard completes the requirements of Clause 5.8.4 Longitudinal stability of EN 1459:1998.

The LLMI has been designated by the words longitudinal safety warning devices in EN 1459.

This European Standard covers LLMI and LLMC systems for stationary trucks performing loading or placing functions on consolidated, stable and level ground.

This European Standard does not cover the risk due to lateral instability, or instability due to the travelling of the truck. The LLMI and LLMC are not intended for warning of the overturning risk whilst the truck is travelling.

NOTE Acknowledging that, at the time of publication, the requirements included in this European Standard do not represent the state of the art, a transition period of 24 months is permitted after the date of publication, such that manufacturers can develop their products sufficiently to meet the requirements of this European Standard.

#### 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.

EN 1175-1:1998, Safety of industrial trucks – Electrical requirements – Part 1: General requirements for battery powered trucks

EN 1175-2:1998, Safety of industrial trucks – Electrical requirements – Part 2: General requirements of internal combustion engine powered trucks

EN 1175-3:1998, Safety of industrial trucks — Electrical requirements — Part 3: Specific requirements for the electric power transmission systems of internal combustion engine powered trucks

EN 1459:1998, Safety of industrial trucks - Self propelled variable reach trucks

EN 12895:2000, Industrial trucks — Electromagnetic compatibility

EN 60529:1991, Degrees of protection provided by enclosures (IP code) (IEC 60529:1989)

EN ISO 12100-1:2003, Safety of machinery — Basic concepts, general principles for design — Part 1: Basic terminology, methodology (ISO 12100-1:2003)

EN ISO 12100-2:2003, Safety of machinery — Basic concepts, general principles for design — Part 2: Technical principles (ISO 12100-2:2003)

EN ISO 13849-1:2008, Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design (ISO 13849-1:2006)

EN ISO 14121-1:2007, Safety of machinery — Risk assessment — Part 1: Principles (ISO 14121-1:2007)

ISO 3287:1999, Powered industrial trucks - Symbols for operator controls and other displays