Tööstuslike mootorkärude ohutus. Liikur-mootorkärud, mille kandejõud ei ületa 10 000 kg ja tööstuslikud traktorid, mille haakeseadise tõmme ei ületa 20 000 N. Osa 2: Lisanõuded mootorkärudele, kus operaatori asend on tõstetud ja mootorkärudele, mis on spetsiaalselt kavandatud sõitmiseks tõstetud koormaga

Safety of industrial trucks - Self-propelled trucks up to and including 10 000 kg capacity and tractors with a drawbar pull up to and including 20 000 N - Part 2: Additional requirements for trucks with elevating operator position and trucks specially designed to travel with elevated loads

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 1726-2:2001 sisaldab Euroopa standardi EN 1726-2:2000 ingliskeelset teksti. Käesolev dokument on jõustatud 16.02.2001 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 1726-2:2001 consists of the English text of the European standard EN 1726-2:2000. This document is endorsed on 16.02.2001 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: This European standard is applicable, in addition to EN 1726-1 to industrial trucks designed to travel indoors on smooth level prepared surfaces and equipped with vertical, non tilting mast.	**Scope:** This European standard is applicable, in addition to EN 1726-1 to industrial trucks designed to travel indoors on smooth level prepared surfaces and equipped with vertical, non tilting mast.

ICS 53.060

Võtmesõnad: additional requirements, drawbar pull, elevating, industrial trucks, operator position, safety

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 1726-2

September 2000

ICS 53.060

English version

Safety of industrial trucks

Self-propelled trucks up to and including 10 000 kg capacity and tractors with a drawbar pull up to and including 20 000 N

Part 2: Additional requirements for trucks with elevating operator position and trucks specifically designed to travel with elevated loads

Sécurité des chariots de manutention – Chariots automoteurs de capacité n'excédant pas 10 000 kg et tracteurs dont l'effort au crochet est inférieur ou égal à 20 000 N – Partie 2: Dispositions supplémentaires pour les chariots à poste de conduite élevable et les chariots conçus spécialement pour circuler avec la charge en position élevée

Sicherheit von Flurförderzeugen – Motorkraftbetriebene Flurförderzeuge bis einschließlich 10 000 kg Tragfähigkeit und Schlepper bis einschließlich 20 000 N Zugkraft – Teil 2: Zusätzliche Anforderungen für Flurförderzeuge mit hebbarem Fahrerplatz und Flurförderzeuge, die zum Fahren mit angehobener Last gebaut sind

This European Standard was approved by CEN on 2000-04-09.

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 Central Secretariat or to any CEN member.

The European Standards exist 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

Ref. No. EN 1726-2 : 2000 E

CONTENTS

FOREWORD

This European Standard 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 2001, and conflicting national standards shall be withdrawn at the latest by March 2001.

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

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this standard.

This European Standard is one of a series of European Standards for the safety of Industrial trucks.

EN 1175-1	Safety of industrial trucks - Part 1: Electrical requirements for battery-powered trucks
EN 1175-2	Safety of industrial trucks - Part 2: Electrical requirements for internal combustion engine powered trucks
EN 1175-3	Safety of industrial trucks - Part 3: Electrical requirements for electrical power transmission systems of internal combustion engine powered trucks
EN 1459	Safety of industrial trucks - Variable reach trucks
EN 1525	Safety of industrial trucks - Driverless industrial trucks and their systems
EN 1526	Safety of industrial trucks - Automated functions for industrial trucks
EN 1551	Safety of industrial trucks - Self propelled trucks over 10 000 kg capacity
EN 1726-1	Safety of industrial trucks - Self propelled trucks up to and including 10 000 kg capacity and tractors with a drawbar pull up to and including 20 000 N – Part 1 : General requirements
EN 1726-2	Safety of industrial trucks – Self propelled trucks up to and including 10 000 kg capacity and tractors with a drawbar pull up to and including 20 000 N - Part 2: Additional requirements for trucks with elevating operator position and trucks specially designed to travel with elevated load
EN 1755	Safety of industrial trucks - Operation in potentially explosive atmospheres; industrial trucks for use in flammable gas, vapour, mist and dust
prEN 1757-1	Safety of industrial trucks - Pedestrian controlled manual and semi-manual trucks Part 1: Stacker trucks
prEN 1757-2	Safety of industrial trucks - Pedestrian controlled manual and semi-manual trucks Part 2: Pallet trucks with lift height up to 300 mm
prEN 1757-3	Safety of industrial trucks - Pedestrian controlled manual and semi-manual trucks Part 3: Platform trucks
prEN 1757-4	Safety of industrial trucks - Pedestrian controlled manual and semi-manual trucks Part 4: Pallet-trucks with scissors lift
prEN 12053	Safety of industrial trucks - Noise measurement of industrial trucks; sound pressure level at the operator's position and sound power level for the environment
prEN ISO 13564	Safety of industrial trucks - Visibility test method (ISO/DIS 13564 : 1996)
prEN 13059	Safety of industrial trucks - Test method for measuring vibration

EN 12895	Safety of industrial trucks - Electromagnetic compatibility

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

INTRODUCTION

This European Standard is a type C standard as stated in EN 292-1. This standard has been prepared to be a harmonised standard to provide one means of conforming with the essential safety requirements of the Machinery Directive and associated EFTA regulations.

The extent to which hazards are covered is indicated in the scope of this standard. In addition, industrial trucks shall comply as appropriate with EN 292-1 for hazards which are not covered by this standard.

1 SCOPE

1.1 This European Standard is applicable, in addition to EN 1726-1 to industrial trucks designed to travel indoors on smooth level prepared surfaces and equipped with vertical, non tilting mast.

a) with an elevating operator position, as defined in 3.1.3.1.6 and 3.1.3.3 of ISO 5053, where the elevating operator position and the load handling device lifts simultaneously to a height of more than 1 200 mm above ground level

and

b) with a load handling device elevated more than 1 200 mm as defined in 3.1.3.1.10 of ISO 5053

For both types of truck the load handling device can be elevated, lowered or horizontally displaced, laden or unladen, while the truck is travelling.

Trucks can be used in guidance systems, without guidance systems or in both systems, and are not intended to tow or push.

1.2 This European Standard covers the technical requirements necessary to minimise the specific hazards listed in clause 4 which could occur during normal operation and maintenance (in accordance with the data given by the manufacturer or his authorised representative) of industrial trucks.

This European Standard does not cover those requirements to minimise hazards which may occur:

- during construction
- when handling suspended loads which may swing freely
- when using trucks on public roads
- when using a work platform fitted to a truck not specifically designed to elevate persons
- when using trucks see 1.1 with tiltable mast.

This European Standard does not repeat all technical rules which are state of the art and which are applicable to the material used to construct the industrial truck. Reference should be made to EN 292-2.

1.3 This European Standard applies to industrial trucks equipped with load handling devices for normal industrial duties, e.g. fork arms and platforms, or attachments for specified applications. Fork arms, load platforms and integrated attachments are considered to be parts of the industrial truck.

Attachments mounted on the load carrier or on the fork arms which are removable by the user are not considered to be part of the industrial truck. For attachments the appropriate clauses of this standard are applicable.

1.4 Where industrial trucks are required to operate in severe conditions (e.g. in extreme climates, in freezer applications, strong magnetic fields) special precautions may be necessary. These are not covered by this standard.

1.5 For trucks with elevating operator position up to and including 1 200 mm and/or trucks especially designed to travel with elevated load up to and including 1 200 mm the requirements of EN 1726-1 apply.

2 NORMATIVE REFERENCES

This European Standard incorporates, by dated or undated reference, provisions from other publications. These normative references are cited at appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments, or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment of revision. For undated references the latest edition of the publication referred to applies.

EN 292-1: 1991	Safety of machinery - Basic concepts - General principles for design Part 1: Basic terminology, methodology
EN 292-2: 1991/ A2: 1997	Safety of machinery - Basic concepts - General principles for design Part 2: Technical principles and specifications
EN 341: 1992	Personal protective equipment against falls from a height - Descender devices
EN 574: 1996	Safety of machinery - Two-hand control devices – Functional aspects – Principles for design
EN 954-1: 1996	Safety of machinery – Safety related parts of control systems – General principles for design
EN 1050: 1996	Safety of machinery - Principles for risk assessment
EN 1175-1:1998	Safety of Industrial trucks – Electrical requirements – General requirements for battery powered trucks
EN 1526:1997	Safety of Industrial trucks - Additional requirements for automated functions on trucks
EN 1726-1:1998	Safety of Industrial trucks - Self-propelled trucks up to and including 10 000 kg capacity and tractors with a drawbar pull up to and including 20 000 N – Part 1 : General requirements
ISO 2860: 1992	Earth-moving machinery – Minimum access dimensions
ISO 5053: 1987	Powered industrial trucks - Terminology
ISO 6292:1996	Powered industrial trucks and tractors - Brake performance and component strength

3 TERMS AND DEFINITIONS

For the purposes of this standard the terms and definitions of the industrial trucks and their components given in ISO 5053 apply together with the following

3.1 Operating with elevated load

The load handling device is designed to be elevated, lowered or horizontally displaced at more than 1 200 mm above ground level whilst the truck is travelling, laden or unladen.

3.2 Elevating operator position

Normal operating position which can be elevated more than 1 200 mm from ground level to the floor of the operator platform, truck.

3.3 Guidance system

The system which guides the truck on a predetermined path by external means not directly controlled by the operator.

3.4 Aisles

The operating area of the truck between the racks.

Note: Aisles can be so designed and dimensioned to accept entry of free ranging trucks or trucks operating with guidance systems.

3.5 Horizontal Displacement

Any horizontal, lateral, reach or rotational movement of the load handling device in relation to the truck or any combination of these movements.