TÖÖSTUSLIKUD MOOTORKÄRUD. NÄHTAVUS. KATSEMEETODID JA KONTROLLIMINE. OSA 2: JUHIISTMEGA VASTUKAALUTÕSTUKID JA MAASTIKUL KASUTATAVAD KAHVELTÕSTUKID KANDEVÕIMEGA KUNI 10 000 KG (K.A)

Powered industrial trucks - Visibility - Test methods and verification - Part 2: Sit-on counterbalance trucks and rough terrain masted trucks up to and including 10 000 kg capacity

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 16842-2:2018 sisaldab Euroopa standardi EN 16842-2:2018 ingliskeelset teksti.	This Estonian standard EVS-EN 16842-2:2018 consists of the English text of the European standard EN 16842-2:2018.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 30.05.2018.	Date of Availability of the European standard is 30.05.2018.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 53.060

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 16842-2

May 2018

ICS 53.060

English Version

Powered industrial trucks - Visibility - Test methods and verification - Part 2: Sit-on counterbalance trucks and rough terrain masted trucks up to and including 10 000 kg capacity

Chariots de manutention automoteurs - Visibilité - Méthodes d'essai et vérification - Partie 2 : Chariots en porte-à-faux à conducteur assis et chariots tout terrain à mât ayant une capacité jusqu'à 10 000 kg inclus

Kraftbetriebene Flurförderzeuge - Sichtverhältnisse - Testmethoden zur Verifikation - Teil 2: Gegengewichtstapler mit Fahrersitz und geländegängige Stapler mit Mast bis zu und einschließlich einer Nenntragfähigkeit von 10 000 kg

This European Standard was approved by CEN on 9 July 2017.

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

Ref. No. EN 16842-2:2018 E

Contents

Page

European foreword

This document (EN 16842-2:2018) has been prepared by Technical Committee CEN/TC 150 “Safety of industrial trucks”, 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 November 2018 and conflicting national standards shall be withdrawn at the latest by November 2018.

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 European Standard is intended to be used in combination with the requirements in EN 16842-1.

The EN 16842 series consists of the following parts under the general title "*Powered industrial trucks – Visibility – Test methods and verification":*

— *Part 1: General requirements;*

— *Part 2: Sit-on counterbalance trucks and rough terrain masted trucks up to and including 10 000 kg capacity;*

— *Part 3: Reach trucks up to and including 10 000 kg capacity* (under preparation);

— *Part 4: Variable reach industrial trucks up to and including 10 000 kg capacity* (under preparation);

— *Part 5: Variable reach industrial trucks greater than10 000 kg capacity* (under preparation);

— *Part 6: Sit-on counterbalance trucks and rough terrain masted trucks greater than 10 000 kg capacity* (under preparation);

— *Part 7: Variable reach and masted container handler* (under preparation);

— *Part 8: Stand on counterbalance trucks up to and including 10 000 kg capacity* (under preparation);

— *Part 9: Order-picking, lateral- and front-stacking trucks with elevating operator position*.

It is intended to develop additional parts related to the following machinery:

— *Pallet stacking trucks (rider controlled);*

— *Burden carrier;*

— *Tractor (IND Truck);*

— *Single side loader;*

— *Multi-directional forklift truck;*

— *Articulated counterbalance lift truck;*

— *Low lift straddle carriers* (as defined in ISO 5053-1:2015, 3.18);

— *High lift straddle carriers* (as defined in ISO 5053-1:2015, 3.19).

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.

Introduction

This document is a type-C standard as stated in EN ISO 12100.

This document is of relevance, in particular, for the following stakeholder groups representing the market players with regard to machinery safety:

— machine manufacturers (small, medium and large enterprises);

— health and safety bodies (regulators, accident prevention organizations, market surveillance, etc.).

Others can be affected by the level of machinery safety achieved with the means of the document by the above-mentioned stakeholder groups:

— machine users/employers (small, medium and large enterprises);

— machine users/employees (e.g. trade unions, organizations for people with special needs);

— service providers, e.g. for maintenance (small, medium and large enterprises);

— consumers (in case of machinery intended for use by consumers).

The above-mentioned stakeholder groups have been given the possibility to participate at the drafting process of this document.

The machinery concerned and the extent to which hazards, hazardous situations or hazardous events are covered are indicated in the Scope of this document.

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

1 Scope

This European Standard specifies the requirements and test procedures for 360° visibility of sit-on self-propelled industrial counterbalance trucks and rough terrain masted trucks (herein after referred to as trucks) with a capacity ≤ 10 000 kg in accordance with ISO 5053-1 and it is intended to be used in conjunction with EN 16842-1.

Where specific requirements in this part are modified from the general requirements in EN 16842-1, the requirements of this part are truck specific and to be used for sit-on self-propelled industrial counterbalance trucks and rough terrain masted trucks with a capacity ≤ 10 000 kg.

This part of EN 16842 deals with all significant hazards, hazardous situations or hazardous events relevant to the visibility of the operator for applicable machines when used as intended and under conditions of misuse which are reasonably foreseeable by the manufacturer.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 16842-1:2018, *Powered industrial trucks - Visibility - Test methods for verification - Part 1: General requirements*

EN ISO 3691-1:2015, *Industrial trucks - Safety requirements and verification - Part 1: Self-propelled industrial trucks, other than driverless trucks, variable-reach trucks and burden-carrier trucks (ISO 3691-1:2011, including Cor 1:2013)*

ISO 5053-1, *Industrial trucks - Terminology and classification - Part 1: Types of industrial trucks*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 16842-1 and ISO 5053-1 apply.

4 Truck configuration

4.1 General

For truck test configuration, EN 16842-1:2018, Clause 4 shall apply.

4.2 Fork arm dimensions

The test truck shall be equipped with fork arms of the following nominal lengths:

— Truck < 1 000 kg rated capacity; 800 mm,

— Truck ≥ 1 000 kg and < 5 000 kg rated capacity; 1 000 mm, and

— Truck ≥ 5 000 kg and ≤ 10 000 kg rated capacity; 1 200 mm.

Other fork arm lengths may be tested if these adversely affect visibility.

Lengths of forks arms shall be noted in the test report as per EN 16842-1:2018, 9.2 i).

NOTE Fork arm lengths in mm are given as two times the length of the standard load centre distance as defined in EN ISO 3691-1:2015, A.2.3.