

<b>STN</b>	<b>Motorové vozíky Viditeľnosť Skúšobná metóda a overovanie Časť 4: Vozíky s výložníkovým zdvíhacím zariadením s nosnosťou do 10 000 kg vrátane</b>	<b>STN EN 16842-4</b>  26 8835
------------	---	--

Powered industrial trucks- Visibility - Test methods and verification - Part 4 : Industrial variable reach trucks up to and including 10 000 kg capacity

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. 06/19

Obsahuje: EN 16842-4:2019

**128954**

EUROPEAN STANDARD

**EN 16842-4**

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2019

ICS 53.060

English Version

**Powered industrial trucks- Visibility - Test methods and verification - Part 4 : Industrial variable reach trucks up to and including 10 000 kg capacity**

Chariots de manutention automoteurs - Visibilité -  
Méthodes d'essai et vérification - Partie 4 : Chariots de  
manutention à portée variable ayant une capacité  
allant jusqu'à 10 000 kg inclus

Kraftbetriebene Flurförderzeuge - Sichtverhältnisse -  
Prüfverfahren und Verifikation - Teil 4:  
Flurförderzeuge mit veränderlicher Reichweite bis zu  
und einschließlich einer Nenntragfähigkeit von  
10 000 kg

This European Standard was approved by CEN on 22 May 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 16842-4:2019 (E)**

<b>Contents</b>	<b>Page</b>
<b>European foreword</b> .....	<b>3</b>
<b>Introduction</b> .....	<b>5</b>
<b>1 Scope</b> .....	<b>6</b>
<b>2 Normative references</b> .....	<b>6</b>
<b>3 Terms and definitions</b> .....	<b>6</b>
<b>4 Truck configuration</b> .....	<b>6</b>
<b>4.1 General</b> .....	<b>6</b>
<b>4.2 Fork arm dimensions</b> .....	<b>6</b>
<b>5 Test equipment</b> .....	<b>7</b>
<b>6 Test procedures for direct visibility</b> .....	<b>7</b>
<b>6.1 Lighting equipment position</b> .....	<b>7</b>
<b>6.1.1 General</b> .....	<b>7</b>
<b>6.1.2 Sit-on operator</b> .....	<b>7</b>
<b>6.2 Test paths</b> .....	<b>8</b>
<b>6.3 Measurement procedure</b> .....	<b>9</b>
<b>6.4 Test procedure for indirect visibility</b> .....	<b>9</b>
<b>7 Acceptance criteria</b> .....	<b>9</b>
<b>7.1 General</b> .....	<b>9</b>
<b>7.2 Direct visibility</b> .....	<b>9</b>
<b>7.2.1 General</b> .....	<b>9</b>
<b>7.2.2 Travelling visibility</b> .....	<b>9</b>
<b>7.2.3 Manoeuvring visibility</b> .....	<b>9</b>
<b>7.2.4 Fork arms</b> .....	<b>9</b>
<b>7.3 Indirect visibility</b> .....	<b>9</b>
<b>7.4 Criteria for industrial variable-reach trucks <math>\leq 10\,000</math> kg rated capacity</b> .....	<b>10</b>
<b>8 Test report</b> .....	<b>11</b>
<b>9 Information for use</b> .....	<b>11</b>
<b>Bibliography</b> .....	<b>12</b>

## European foreword

This document (EN 16842-4:2019) 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 September 2019, and conflicting national standards shall be withdrawn at the latest by September 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 European Standard is intended to be used in combination with the requirements in EN 16842-1.

EN 16842 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;*
- *Part 4: Industrial variable-reach trucks up to and including 10 000 kg capacity;*
- *Part 5: Industrial variable-reach trucks greater than 10 000 kg capacity*
- *Part 6: Sit-on counterbalance trucks and rough terrain masted trucks greater than 10 000 kg capacity;*
- *Part 7: Variable-reach and masted container trucks handling freight containers of 6 m (20 ft) length and longer;*
- *Part 8: Stand on counterbalance trucks up to and including 10 000 kg capacity (in preparation);*
- *Part 9: Order-picking, lateral- and front-stacking trucks with elevating operator position*
- *Part 10: Towing and pushing tractors and burden carrier;*

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

- Pallet stacking trucks (rider controlled);
- Single side loader;
- Multi-directional forklift truck;
- Articulated counterbalance lift truck;
- Non-stacking low lift straddle carriers (as defined in ISO 5053-1:2015, 3.18);
- Stacking high lift straddle carriers (as defined in ISO 5053-1:2015, 3.19).

**EN 16842-4:2019 (E)**

According to the CEN-CENELEC Internal Regulations, the national standards organisations 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.

**EN 16842-4:2019 (E)****1 Scope**

This document specifies the requirements and test procedures for 360° visibility of sit-on self-propelled industrial variable-reach trucks (herein after referred to as trucks) without a load, with a capacity up to and including 10 000 kg in accordance with ISO 5053-1 and it is intended 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 variable-reach trucks with a capacity up to and including 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.

This document does not apply to rough-terrain variable-reach trucks (see EN 15830).

**2 Normative references**

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 16842-1:2018, *Powered industrial trucks — Visibility — Test methods and verification — Part 1: General requirements*

EN ISO 3691-2:2016, *Industrial trucks — Safety requirements and verification — Part 2: Self-propelled variable-reach trucks (ISO 3691-2:2016)*

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

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