SLOVENSKI STANDARD
oSIST prEN 16842-2:2015

01-maj-2015

Vozila za talni transport - Vidljivost - Preskusna metoda za preverjanje - 2. del: Vozila s protiutežjo, na katerih voznik sedi, in vozila za neravne terene do vključno 10 000 kg zmogljivosti

Powered industrial trucks - Visibility - Test method for verification - Part 2: Sit-on counter balanced trucks and rough terrain masted trucks up to and including 10 000 kg capacity

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

Chariots de manutention - Visibilité - Méthode d'essai pour la 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

Ta slovenski standard je istoveten z: **prEN 16842-2**

ICS:

53.060	Industrijski tovornjaki	Industrial trucks

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Powered industrial trucks - Visibility - Test method for verification - Part 2: Sit-on counter balanced trucks and rough terrain masted trucks up to and including 10 000 kg capacity

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This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 150.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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Foreword

This document (prEN 16842-2:2015) has been prepared by Technical Committee CEN/TC 150 “Industrial trucks - Safety”, the secretariat of which is held by BSI.

This document is currently submitted to the CEN Enquiry.

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 EU Directive(s).

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

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 counterbalanced 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* (in preparation);

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

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

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

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

— *Part 8: Stand on counterbalanced trucks up to and including 10 000 kg capacity* (in preparation).

The following parts are intended to be developed:

— *VNA trucks;*

— *Pallet stacking trucks (rider controlled);*

— *Burden and personnel carrier;*

— *Tractor (IND Truck);*

— *Single side loader;*

— *Multi-directional forklift truck;*

— *Articulated counterbalanced lift truck;*

— *Lorry mounted industrial trucks;*

— *Rough terrrain masted lorry mounted truck;*

— *Rough terrain variable reach lorry mounted truck;*

— *Variable container handler;*

— *Low lift straddle carriers* (in accordance with 2.19 of ISO/DIS 5053-1);

— *High lift straddle carriers* (in accordance with 2.20 of ISO/DIS 5053-1).

Introduction

This European Standard is used to measure and evaluate the operator's visibility from unladen self-propelled industrial trucks. This European Standard is a "Type C" standard as defined in EN ISO 12100.

This European Standard has been prepared to be a harmonized standard to provide one means for

visibility testing for *self-propelled* industrial 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.

For specific trucks covered by other parts in this series of standards, this European Standard is intended to be used in combination with the requirements in part 1. The requirements in this part take precedence over the general requirements of EN 16842-1.

1 Scope

This European Standard specifies the requirements and test procedures of all around visibility of sit-on self-propelled industrial counterbalanced trucks and rough terrain masted trucks with a capacity ≤ 10 000 kg in accordance with ISO/DIS 5053-1 and should be read in conjunction with EN 16842-1.

Where specific requirements are contained in this part they take precedence over the general requirements of EN 16842-1.

2 Normative reference(s)

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, *Powered industrial trucks — Visibility — Test methods and verification — Part 1: General requirements*

EN ISO 3691-1, *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)*

ISO 5053, *Powered industrial trucks — Terminology*

3 Terms and definitions

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

4 Truck configuration

4.1 General

NOTE 1 For truck test configuration, see EN 16842-1.

4.1.1 Length of fork arms dimension ‘A’ - The test truck shall be equipped with fork arms of the following lengths:

— Trucks up to and including 1 000 kg rated capacity 800 mm,

— Trucks above 1 000 kg and including 5 000 kg rated capacity 1 000 mm and

— Trucks above 5 000 kg and including 10 000 kg rated capacity 1 200 mm.

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

4.1.2 Trucks up to and including 5 000 kg rated capacity shall meet the requirements of Table 1 in 7.2.

Trucks greater than 5 000 kg and up to and including 10 000 kg rated capacity shall meet the requirements of Table 2 in 7.3.

4.1.3 Tilt of the mast or load carrying surface:

a) Travelling tests

The mast or load carrying surface shall be tilted rearward to the maximum, but not more than 10°, for all travelling tests. If the means of tilting the mast or load carrying surface is accomplished by tilting the truck chassis, these tests shall be performed with the chassis horizontal.

b) Manoeuvring tests

The mast shall be vertical or the load carrying surface horizontal for all manoeuvring tests.

c) Fork arms or load platform tests

The mast shall be vertical or the load carrying surface horizontal for the fork arms or load platform tests.

5 Test equipment

Requirements for test equipment are specified in EN 16842-1, Clause 5.

6 Test procedures (direct visibility)

6.1 Light source position

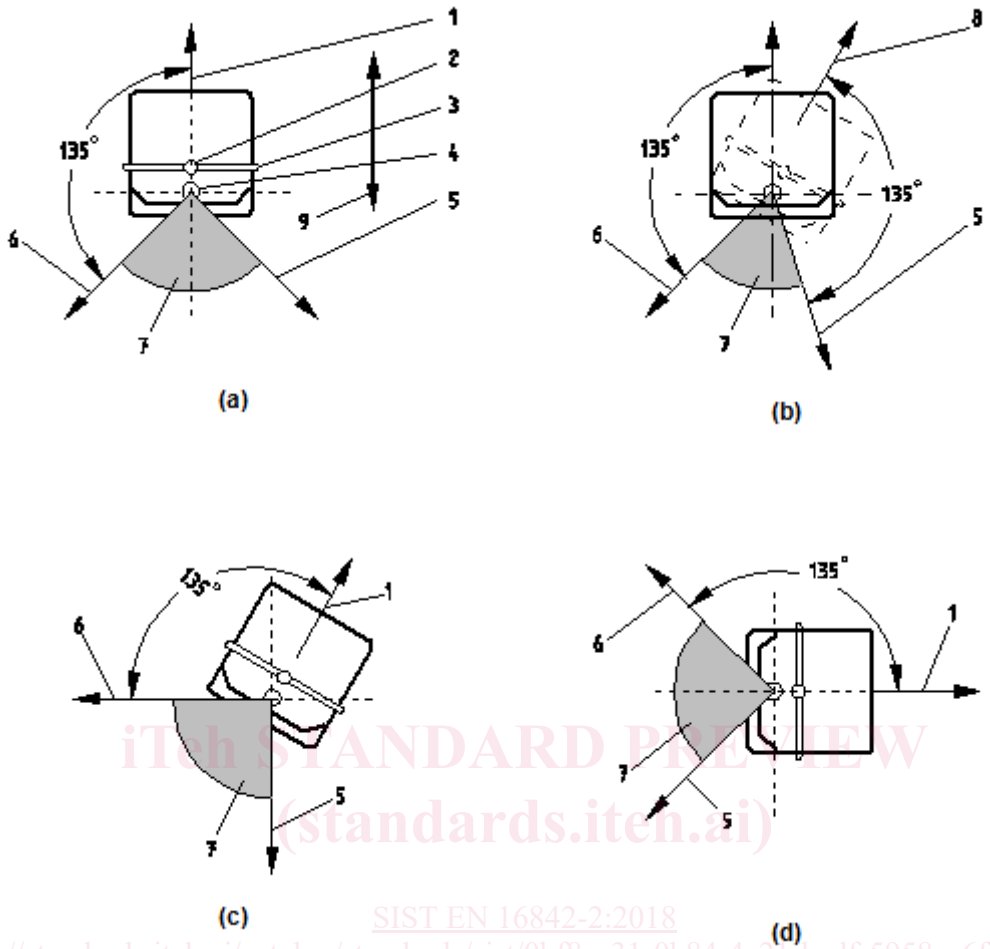
The light source fixture shall be positioned relative to the seat index point (SIP). The seat shall be placed at the closest adjustment position to the mid-point of horizontal and vertical adjustment and the mid-point of the suspension height, if so equipped. For trucks with rotatable seats, the seat may be turned toward the direction of the test being conducted. See Figure 1.

a) Sit-on truck where the operator is facing the line of travel.

b) Sit-on truck where the operator is facing the line of travel equipped with rotatable seat.

c) Sit-on truck where the operator is facing in 45° angle to the line of travel.

d) Sit-on truck where the operator is facing in 90° angle to the line of travel.



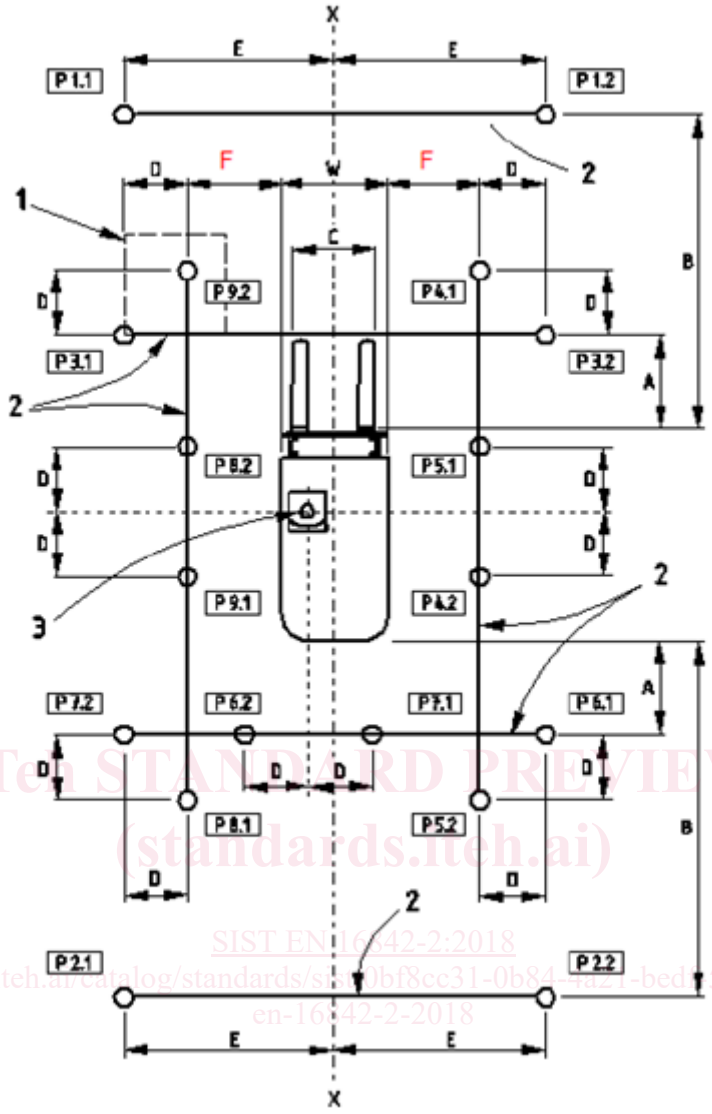
Key

1 0º seat direction
2 SIP
3 row of lights
4 row of lights axis of rotation
5 +135º test direction
6 -135º test direction
7 the row of lights cannot be turned to this area for tests
8 seat direction rotatable
9 forward and rearward truck direction for all seat positions shown

Figure 1 — Seat position and test direction

6.2 Test paths for trucks ≤ 10 000 kg

Test paths P1 to P9 (see Figure 2) shall consist of lines laid out on the floor around the test truck, parallel and perpendicular to the truck longitudinal axis. The test path shall be located from the truck profile which includes the front vertical surface of the fork arms.



Key

A =	1 200	F =	500
B =	4 000	W =	maximum truck width
C =	800 - 1 000	1	test body
D =	250	2	test paths
E =	W/2 + 500	3	axis of rotation

Figure 2 — Test paths, sit-on counter balanced trucks ≤ 10 000 kg

6.3 Measurement procedure

The procedure in EN 16842-1 shall be followed.