



SLOVENSKI STANDARD
SIST EN 1175-1:1998/kFprA1:2010
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Varnost vozil za talni transport - Električne zahteve - 1. del: Splošne zahteve za električna vozila za talni transport na baterijski pogon - Dopnilo A1

Safety of industrial trucks - Electrical requirements - Part 1: General requirements for battery powered trucks

Sicherheit von Flurförderzeugen - Elektrische Anforderungen - Teil 1: Allgemeine Anforderungen für Flurförderzeuge mit batterieelektrischem Antrieb

Sécurité des chariots de manutention - Prescriptions électriques - Partie 1: Prescriptions générales des chariots alimentés par batterie

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ICS:

43.120	Električna cestna vozila	Electric road vehicles
53.060	Industrijski tovornjaki	Industrial trucks

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English Version

Safety of industrial trucks - Electrical requirements - Part 1: General requirements for battery powered trucks

Sécurité des chariots de manutention - Prescriptions
électriques - Partie 1: Prescriptions générales des chariots
alimentés par batterie

Sicherheit von Flurförderzeugen - Elektrische
Anforderungen - Teil 1: Allgemeine Anforderungen für
Flurförderzeuge mit batterieelektrischem Antrieb

This draft amendment is submitted to CEN members for unique acceptance procedure. It has been drawn up by the Technical Committee CEN/TC 150.

This draft amendment A1, if approved, will modify the European Standard EN 1175-1:1998. If this draft becomes an amendment, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration.

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Contents

	Page
Foreword	3
1 Modifications to the Foreword	4
2 Modifications to the Introduction.....	5
3 Modifications to Clause 1 (Scope).....	5
4 Modifications to Clause 2 (Normative references).....	5
5 Modifications to Clause 4 (List of significant hazards)	6
6 Modification to 5.9.4 (Pulse control travel systems).....	6
7 Modification to 5.9.5 (Prevention of travel).....	6
8 Modification to 5.9.6 (Steering control).....	6
9 Modification to 5.9.7 (Load handling control).....	6
10 Modification to 5.9.8 (Tiller control).....	7
11 Modification to 5.9.9 (Speed limitation).....	7
12 Modification to 5.9.10 (Slack wire rope or chains).....	7
13 Addition of 5.9.11 (Parameter).....	7
14 Modification to 5.13 (Emergency switching off).....	7
15 Addition of 5.16 (Electromagnetic radiations).....	8
16 Modification to 6.3.4 (Detection of frame faults)	8
17 Modification to 7.3 (Battery)	8
18 Addition of 7.5 (Non-ionising radiation).....	8
19 Modification to Annex ZA	9
20 Addition of Annex ZB.....	9

Foreword

This document (EN 1175-1:1998/FprA1:2010) 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 Unique Acceptance Procedure.

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, see informative Annexes ZA and ZB, which are integral parts of this document.

EN 1175-1:1998/FprA1:2010 (E)**1 Modifications to the Foreword**

Add after the 2nd paragraph:

"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 Annexes ZA and ZB, which are integral parts of this document."

Add after the 3rd paragraph:

The main changes compared to the previous version are:

- addition of Annex ZB;
- editorial modification of Annex ZA;
- minor technical changes in 5.9.4 to 5.9.11 and 7.3;
- reference to EN 292-1 be replaced with EN ISO 12100-1:2003, EN 292-2 be replaced with EN ISO 12100-2:2003 and EN 954-1 be replaced with EN ISO 13849-1:2008;
- addition of requirements for radiation and software parameter."

Delete the whole 3st paragraph.

Replace in the 4st paragraph

"prEN 1726 Safety of machinery - 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." *with* "prEN ISO 3696-1, Industrial trucks - Safety requirements and verification - Part 1: Self-propelled industrial trucks, other than driverless variable-reach trucks and burden-carrier trucks (ISO/DIS 3691-1:2008)",

"prEN 1726-2" *with* "EN 1726-2",

"prEN 1551" *with* "EN 1551",

"prEN 1459" *with* "EN 1459" *and replace* "Variable" *with* "Self propelled variable",

"prEN 1757-1 Safety of industrial trucks - Pedestrian controlled manual and semi manual trucks - Part 1: Stacker trucks" *with* "EN ISO 3691-5, Industrial trucks - Safety requirements and verification - Part 5: Pedestrian-propelled trucks (ISO 3691-5:2009)" *and delete the references to prEN 1757-2 and prEN 1757-4, because they were also superseded by EN ISO 3691-5,*

"prEN 1757-2" *with* "EN 1757-2",

"prEN 1755" *with* "EN 1755" *and replace* "machinery - Industrial" *with* "industrial",

"prEN 12053" *with* "EN 12053" *and replace* "emission" *with* "emissions",

"prEN 13059" *with* "EN 13059" *and*

"prEN 12895" *with* "EN 12895".

Delete the whole 5st paragraph.

2 Modifications to the Introduction

Replace 1st sentence in the 1st paragraph with

"This European Standard is a type C standard as stated in EN ISO 12100-1:2003".

Replace the 2nd sentence of the 2nd paragraph with

"In addition, machinery should comply as appropriate with EN ISO 12100-2:2003 for hazards which are not covered by this European Standard."

3 Modifications to Clause 1 (Scope)

Delete in 1.1 NOTE 3.

Replace in 1.1 NOTE 4 with the following:

"NOTE 3 The special requirements for operation in potentially explosive atmospheres are not covered in this European Standard."

Replace the whole 2nd sentence in 1.3 with the following:

"For hazards occurring during construction, transportation, commissioning, decommissioning and disposal, reference should be made to EN ISO 12100-2:2003."

4 Modifications to Clause 2 (Normative references)

Delete

"EN 292-1:1991 Safety of machinery - Basic concepts, general principles for design - Part 1: Basic terminology, methodology

EN 292-2:1991 Safety of machinery - Basic concepts, general principles for design - Part 2: Technical principles and specification" *and*

"EN 954-1:1996 Safety of machinery - Safety related parts of control systems - Part 1: General principles for design".

Add

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)*".

Add an additional reference:

"EN 12895:2000, *Industrial trucks — Electromagnetic compatibility*".

EN 1175-1:1998/FprA1:2010 (E)**5 Modifications to Clause 4 (List of hazards)**

Replace the title

“List of hazards“

with “List of significant hazards“.

Add in the list of significant hazards the following quoted text at the appropriate place:

Hazard	Corresponding requirements
Hazard generated by substance "- battery charging"	7.3 Battery
Human error	"5.9.11 Parameter" "7.5 Non ionising radiation"
Hazard due to functional disorders	"5.9.11 Parameter"
"Programming errors	5.9.11 Parameter"
"Electromagnetic radiation	5.16.1 Non ionising radiation 5.16.2 Electromagnetic compatibility"

6 Modification to 5.9.4 (Pulse control travel systems)

Replace in the last sentence:

“in EN 954-1:1996.” with “in EN ISO 13849-1:2008, 6.2.4.”.

7 Modification to 5.9.5 (Prevention of travel)

Replace in the last sentence of the 1th paragraph:

“EN 954-1:1996, category 1.” with “category 1 in EN ISO 13849-1:2008, 6.2.4.”.

8 Modification to 5.9.6 (Steering control)

Replace in the last sentence:

“in EN 954-1:1996.” with “in EN ISO 13849-1:2008, 6.2.6.”.

9 Modification to 5.9.7 (Load handling control)

Replace in the last sentence of the 1th paragraph:

“in EN 954-1:1996.” with “in EN ISO 13849-1:2008, 6.2.4.”.

10 Modification to 5.9.8 (Tiller control)

Replace in the last sentence:

“in EN 954-1:1996.” with “in EN ISO 13849-1:2008, 6.2.4.”.

11 Modification to 5.9.9 (Speed limitation)

Replace in the 2nd paragraph:

“in EN 954-1:1996.” with “in EN ISO 13849-1:2008, 6.2.5.”.

12 Modification to 5.9.10 (Slack wire rope or chains)

Replace in the 2th paragraph:

“in EN 954-1:1996.” with “in EN ISO 13849-1:2008, 6.2.6.”.

13 Addition of 5.9.11 (Parameter)

Add a new sub-clause as follows: "

5.9.11 Parameter

Any uncontrolled change of the electronic system parameter shall maintain the safe operation and correct function of the truck.

Any change of parameter values controlled by the operator shall not result in a hazardous situation. The system shall ensure safe operation and correct function of the truck."

14 Modification to 5.13 (Emergency switching off)

Replace the whole sentence in 5.13.2. letter c)

“c) switch connected into the coil circuit of two separate contactors in at least one pole.”

with

“c) manually actuated control switch disconnecting the power supply to the coil of one contactor in one line of the power supply. Simultaneously to the disconnection, the electronic power switching circuit (e.g. inverter or controller for separate excited motors) shall be deactivated. In trucks driven by series-wound dc motor(s) with mechanical commutator, two independent contactors are required to switch off battery supply.”.