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EN 1175-3:1998

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English Version

**Safety of industrial trucks - Electrical requirements - Part 3:
Specific requirements for the electric power transmission
systems of internal combustion engine powered trucks**

Sécurité des chariots de manutention - Prescriptions
électriques - Partie 3: Prescriptions particulières des
systèmes à transmission électrique des chariots équipés
d'un moteur thermique

Sicherheit von Flurförderzeugen - Elektrische
Anforderungen - Teil 3: Besondere Anforderungen für
elektrische Kraftübertragungssysteme von
Flurförderzeugen mit Verbrennungsmotoren

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 1175-3:1998. 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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Foreword

This document (EN 1175-3:1998/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 1175-3:1998/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;
- requirements for radiation and software parameters;
- minor technical changes in 5.4.3 to 5.4.4 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.

Delete the whole 3st paragraph.

Replace in the 4st paragraph all the reference at

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" and the whole title with "Safety of industrial trucks - Pedestrian controlled manual and semi-manual trucks - Part 3: Platform trucks",

"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 the whole title with "Safety of industrial trucks - Operation in potentially explosive atmospheres - Use in flammable gas, vapour, mist and dust",

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

"prEN 13059" with "EN 13059" and

"prEN 12895" with "EN 12895".

Replace 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 2.

Replace in 1.1 NOTE 3 with the following:

"NOTE 2 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

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)*

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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*".

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 substances "- battery charging"	"7.3 Battery"
Human error	"5.9.11 Parameter" "7.5 Non ionising radiation"
"Programming errors	5.4.5 Parameter"
"Electromagnetic radiation	5.9.1, 6.4 Non ionising radiation 5.9 Electromagnetic radiations"
Hazard due to functional disorders	"5.4.5 Parameter"

6 Modification to 5.4.3 (Electric travel control systems)

Replace in the last sentence:

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

7 Modification to 5.4.4 (Speed limitation)

Replace in the 2nd paragraph:

"EN 954-1:1996, category 2." with " category 2 in EN ISO 13849-1:2008, 6.2.5."

8 Addition of 5.4.5 (Parameter)

Add a new sub-clause as follows: "

5.4.5 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."

9 Addition of 5.9 (Electromagnetic radiations)

Add the headline and the additional sub-clauses as follows: "

5.9 Electromagnetic radiations

5.9.1 Non ionising radiations

Where trucks are fitted with functional related non-ionising radiation devices (e.g. radio transmitter, RFID reader, data collection system), the radiation shall be minimized with consideration to the influence to persons, in particular with active or non-active implantable medical devices.

5.9.2 Electromagnetic compatibility

Any functional electromagnetic emission and the immunity of the electric/electronic systems shall be within the limits of EN 12895:2000."

10 Addition of 6.4 (Non-ionising radiation)

Add the headline and the additional sub-clause as follows: "

6.4 Non-ionising radiation

If the truck, after the commissioning, can be equipped with devices (e.g. radio transmitter, RFID reader, data collection system) that are likely to emit non-ionising radiation which can cause harm to persons, in particular persons with active or non-active implantable medical devices, a warning shall be given in the instruction manual. If those auxiliary devices are installed by the user, the user itself shall ensure that the supplier instructions are fulfilled and/or no harm for the persons has risen.

Where trucks are fitted with non-ionising radiation devices warning signs shall be installed."

11 Modification to Annex ZA

Replace in the 1th sentence:

"EU Directives 89/392/EEC as amended by 91/368/EEC, 93/44/EEC and 93/68/EEC."

with

"EU directive 98/37/EC, amended by Directive 98/79/EC."