SLOVENSKI STANDARD
SIST EN 1726-1:1999/A1:2004

01-junij-2004

Varnost vozil za talni transport - Samognana vozila z nosilnostjo do vključno 10.000 kg in vleč na vozila z vleč no silo do vključno 20.000 N - 1. del: Splošne zahteve

Safety of industrial trucks - Self-propelled trucks up to and including 10000 kg capacity and industrial tractors with a drawbar pull up to and including 20000 N - Part 1: General requirements

Sicherheit von Flurförderzeugen - Motorkraftbetriebene Flurförderzeuge bis einschließlich 10000 kg Tragfähigkeit und Schlepper bis einschließlich 20000 N Zugkraft - Teil 1: Allgemeine Anforderungen

Sécurité des chariots de manutention - Chariots automoteurs dont la capacité n'excede pas 10000 kg et tracteurs dont l'effort au crochet est inférieur ou égal a 20000 N - Partie 1 : Prescriptions générales - Amendement 1: Systemes de retenue de l'opérateur - Spécification et procédure d'essai

Ta slovenski standard je istoveten z: **EN 1726-1:1998/A1:2003**

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53.060	Industrijski tovornjaki	Industrial trucks

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EUROPEAN STANDARD

NORME EUROPÉENNE

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EN 1726-1:1998/A1

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English version

Safety of industrial trucks - Self-propelled trucks up to and including 10000 kg capacity and industrial tractors with a drawbar pull up to and including 20000 N - Part 1: General requirements

Sécurité des chariots de manutention - Chariots automoteurs dont la capacité n'excède pas 10000 kg et tracteurs dont l'effort au crochet est inférieur ou égal à 20000 N - Partie 1 : Prescriptions générales - Amendement 1: Systèmes de retenue de l'opérateur - Spécification et procédure d'essai

Sicherheit von Flurförderzeugen - Motorkraftbetriebene Flurförderzeuge bis einschließlich 10000 kg Tragfähigkeit und Schlepper bis einschließlich 20000 N Zugkraft - Teil 1: Allgemeine Anforderungen

This amendment A1 modifies the European Standard EN 1726-1:1998; it was approved by CEN on 18 March 2003.

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. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Management Centre or to any CEN member.

This amendment 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
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Foreword

This document (EN 1726-1:1998/A1:2003) has been prepared by Technical Committee CEN/TC 150 "Industrial trucks - Safety", the secretariat of which is held by BSI.

This Amendment to the European Standard EN 1726-1:1998 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2004, and conflicting national standards shall be withdrawn at the latest by June 2004.

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.

This amendment to EN 1726-1:1998 covers the need to include the requirement for operator restraint and the specification requirements and test procedure for operator restraint systems, resulting from issues raised by the EU Commission Standing Committee 98/37.

This amendment A1 covers the necessary additional precautions by replacing existing text of EN 1726-1:1998 or adding new clauses as indicated.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

1.7 (new)

(To add) "This Amendment applies to trucks put on the market after the date of publication."

4 List of Hazards

4.1.5

Add under corresponding requirement "5.7.8 Operator restraint"

5 Requirements

5.7.8

Renumber as 5.7.9

5.7.8 (new)

(To add) "5.7.8 Operator restraint

Counterbalanced lift trucks (see ISO 5053:1987, 3.1.3.1.1.), rough terrain trucks (see ISO 5053:1987, 3.1.3.1.8), both sit on trucks with non elevating operator facing forward, and side loading trucks, one side only, (see ISO 5053:1987, 3.1.3.1.7) shall have a restraint device. When a seat belt is used as a restraint device the seat belt shall satisfy the requirements of annex O.

Such device shall not unduly restrict the operation of the truck, e.g. the operator's access, egress, movement, and/or visibility. A means, or guidance on the action to be taken in the event of a tip over, to minimise the residual risk associated with the operators head impacting a solid surface shall be provided on the truck (see 7.3.3.6) and described in the instructions manual.

NOTE Other restraint systems such as enclosures or mechanical devices are possible but not covered by this standard."

7 Information for use

7.2.2

(Add new indent)

"— Instructions on the use of the operator restraint device and guidance on his behaviour in the event of a tip over"

7.2.5

(Add new forth bullet)

"— Instruction for regular verification of seat belt related to:

- Cut or frayed strap
- Worn or damaged hardware including anchor points
- Buckle or retractor malfunction
- Loose stitching"

7.3.3.5 (new)

(To add)

"Operator restraint

— Information or symbols giving instructions for the use of the operator restraint device shall be displayed on the truck in clear view of the operator."

7.3.3.6 (new)

(To add)

"Tip over

— Information on the action to be taken in the event of a tip over shall be displayed on the truck in clear view of the operator."

Add a new annex O with the following wording:

Annex O
(normative)

Seat belt – Requirements and test procedure

O.1 Scope

This annex specifies the basic requirements and test procedure to be applied to a seat belt assembly linked to a seat and its mounting structure as specified in 5.7.8 of this standard, when used as an operator restraint method in the event of a tip over of the trucks.

This test procedure is a type test. The test can be carried out on a seat assembly and its mounting structure fitted to a truck of the type for which it has been designed. Alternatively, a test rig may be used which represents the same conditions.

O.2 Terms and definitions

For the purposes of this European Standard, the following terms and definitions apply:

O.2.1
Seat belt assembly
Belt including any buckle, length adjuster, retractor and means for securing to an anchorage, that fastens across the pelvic area to provide pelvic restraint during operation and tip over conditions.

O.2.2
Tip over
The tipping of a truck by approximately a quarter of a turn either laterally or longitudinally, further rotation being prevented by the mast structure.

O.2.3
Mounting structure
The components which transfer the forces applied to the seat belt from the seat belt anchorage to the truck structure.

O.2.4
Body block
The test device used to apply the test load to the seat belt assembly and mounting structure.

O.2.5
Mass of the seat
The mass of all applicable seat components (seat assembly, adjuster rails, suspension).

O.3 Requirements

O.3.1 Performance requirements

During the tests no release of the seat belt shall occur.

When the tests specified in clause O.5 have been completed

- there shall be no failure allowing release of the seat belt or structural failure of any part of the mounting structure, for which permanent deformation is acceptable.
- the length of the seat belt assembly shall not have increased by more than 20%.

- it shall be possible to release the restraint system e.g. buckle.
- Where a retracting seat belt mechanism is fitted, the retractor locking device shall still function when a load is applied to the seat belt.

O.3.2 Specific requirements for the strap

The strap material shall not be less than 46 mm wide measured under no load condition.

The strap material shall be resistant to diluted acids, alkalis, mildew, ageing, moisture and sunlight equal to or better than untreated polyester yarn.

O.4 Test equipment

O.4.1 Test body block

The test force specified in O.5.1 shall be applied to the seat belt assembly and its mounting structure through a test body block in accordance with Figure O.1

The test force specified in O.5.2 shall be applied to the seat belt assembly and its mounting structure through a test body block in accordance with Figure O.2

The test force specified in O.5.3 shall be applied to the seat belt assembly and its mounting structure through a test body block.

O.5 Test method

O.5.1 Lateral pull test

A force F (N) shall be applied for a minimum of 10 s, through the seat belt test body block, to the seat belt assembly and its mounting structure horizontally in the lateral direction of least structural resistance, see Figure O.3. The test body block shall rotate about its longitudinal axis from the position shown (see Figure O.3) to align with the belt. The line of the force applied shall be at right angles to the longitudinal axis of the seat.

$$F = (450\,kg + 4\,times\,the\,mass\,of\,the\,seat\,in\,kg) \times 9{,}81\,m/s^2$$

O.5.2 Forward pull test

A force F (N) shall be applied for a minimum of 10 s, through the seat belt test body block, to the seat belt assembly and its mounting structure in a forward and upward direction acting at an angle of $45°\ ^{+15°}_{-0°}$ from the horizontal, see Figure O.4.

$$F = (450\,kg + 4\,times\,the\,mass\,of\,the\,seat\,in\,kg) \times 9{,}81\,m/s^2$$

O.5.3 Retractor locking device

With the transversal inclination of the seat belt assembly intended by the manufacturer but, not exceeding 30°, a force of 100 N applied horizontally to the belt shall not release the retractor locking device from the locked position.