საქართველოს სტანდარტი

მოწყობილობების უსაფრთხოება - გაუთვალისწინებელი ხარვეზების პრევენცია

> საქართველოს სტანდარტებისა და მეტროლოგიის ეროვნული სააგენტო თბილისი

სსტ ეწ 1037:1995+A1:2008/2019

საინფორმაციო მონაცემები

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4 პირველად

5 რეგისტრირებულია საქართველოს სტანდარტების და მეტროლოგიის ეროვნული სააგენტოს რეესტრში: 2019 წლის 17 ივლისი №268-1.3-014902

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English Version

Safety of machinery - Prevention of unexpected start-up

Sécurité des machines - Prévention de la mise en marche intempestive

Sicherheit von Maschinen - Vermeidung von unerwartetem Anlauf

This European Standard was approved by CEN on 14 July 1995 and includes Amendment 1 approved by CEN on 18 March 2008.

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 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 Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (EN 1037:1995+A1:2008) has been prepared by Technical Committee CEN/TC 114 "Safety of machinery", the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by October 2008, and conflicting national standards shall be withdrawn at the latest by October 2008.

This document supersedes EN 1037:1995.

This document includes Amendment 1, approved by CEN on 2008-03-18.

The start and finish of text introduced or altered by amendment is indicated in the text by tags 🗗 🐴.

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. (A)

The drafting was carried out by a working group of CEN/TC 114 (WG 9) with participation of experts from CENELEC/TC 44 X.

This standard is a type B1 standard in accordance with EN 414.

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

Introduction

Keeping a machine in a stopped condition while persons are present in danger zones is one of the most important conditions of the safe use of machinery and hence one of the major aims of the machine designer and machine user.

In the past, the concepts of "operating machine" and "stopped machine" were generally unambiguous; a machine was:

- Operating when its movable elements, or some of them, were moving;
- Stopped when its movable elements were at rest.

Machine automation has made the relationship between "operating" and "moving" on the one hand, "stopped" and "at rest" on the other hand, more difficult to define. Automation has also increased the potential for unexpected start-up, and there are a significant number of accidents where machines, stopped for diagnostic work or corrective actions, started up unexpectedly.

Hazards other than mechanical hazards generated by movable elements (e.g. from a laser beam) also need to be taken into account.

The risk assessment relating to the presence of persons in a danger zone of a stopped machine needs to take into account the probability of an unexpected start-up of the hazard-generating machine elements.

This standard provides machine designers and technical committees in charge of preparing machinery safety standards with a survey of built-in measures intended to prevent unexpected start-up.

1 Scope

This standard specifies built-in safety measures aimed at preventing unexpected machine start-up (see 3.2) to allow safe human interventions in danger zones (see Annex A).

This standard applies to unexpected start-up from all types of energy source, i.e.:

- Power supply, e.g. electrical, hydraulic, pneumatic;
- Stored energy due to, e.g., gravity, compressed springs;
- External influences, e.g. from wind;

2 Normative references

This European Standard incorporates, by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

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