

საქართველოს სტანდარტი

მანქანა-დანადგარების უსაფრთხოება - უსაფრთხოების მოთხოვნები ცხელი
მილების საგლინავი დგარის

საქართველოს სტანდარტებისა და მეტროლოგიის
ეროვნული სააგენტო
თბილისი

სსტ ენ 15093:2008/2019

საინფორმაციო მონაცემები

1 შემუშავებულია საქართველოს სტანდარტების და მეტროლოგიის ეროვნული სააგენტოს სტანდარტების დეპარტამენტის მიერ

2 დამტკიცებულია და შემოღებულია სამოქმედოდ საქართველოს სტანდარტების და მეტროლოგიის ეროვნული სააგენტოს 2019 წლის 6 დეკემბრის № 98 განკარგულებით

3 მიღებულია გარეკანის თარგმნის მეთოდით სტანდარტიზაციის ევროპული კომიტეტის სტანდარტი ენ 15093:2008 „მანქანა-დანადგარების უსაფრთხოება - უსაფრთხოების მოთხოვნები ცხელი მილების საგლინავი დგარის”

4 პირველად

5 რეგისტრირებულია საქართველოს სტანდარტების და მეტროლოგიის ეროვნული სააგენტოს რეესტრში: 2019 წლის 6 დეკემბერი №268-1.3-016391

დაუშვებელია წინამდებარე სტანდარტის სრული ან ნაწილობრივი კვლავწარმოება, ტირაჟირება და გავრცელება სსიპ საქართველოს სტანდარტებისა და მეტროლოგიის ეროვნული სააგენტოს ნებართვის გარეშე

English Version

Safety of Machinery - Safety requirements for hot flat rolling mills

Sécurité des machines - Prescriptions de sécurité relatives
aux laminoirs à chaud pour produits plats

Sicherheit von Maschinen - Sicherheitsanforderungen an
Warmflachwalzwerke

This European Standard was approved by CEN on 16 August 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.

CEN members are the national standards bodies of 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 United Kingdom.



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Contents

Page

Foreword.....4

Introduction5

1 Scope6

2 Normative References7

3 Terms and definitions9

4 List of significant hazards10

5 Safety requirements and/or measures11

5.1 General requirements for design, planning and risk assessment11

5.2 List of significant hazards, hazardous situations, safety requirements and/or measures16

5.3 Additional safety requirements or measures32

5.4 Noise reduction as a safety requirement34

6 Verification of the safety requirements and/or measures35

7 Information for use36

7.1 General.....36

7.2 Warning devices and safety signs36

7.3 Minimum marking36

7.4 Accompanying documents36

7.5 Maintenance manual39

Annex A (normative) Safety requirements and/or measures for electrical equipment and control systems at hot flat rolling mills41

Annex B (normative) Noise test code45

Annex C (normative) Protection of persons in case of using asphyxiant gases used in fire fighting systems49

Annex D (informative) Example for manufacturer's safety instructions for maintenance at hot flat rolling mills53

Annex E (informative) Machines and/or equipment covered by this European Standard.....55

Annex F (informative) Examples for the inclusion of safety measures56

Annex G (informative) Example for the risk analysis due to interfaces57

Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 98/37/EC58

Annex ZB (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC59

Bibliography60

საინფორმაციო ნაწილი. სრული ტექსტის სახსრავად შეიძინეთ სტანდარტი.

Figures

Figure 1 — Exemplary layout of a hot flat rolling mill	6
Figure F.1 — Looper secured by a locking pin	56
Figure G.1 — Diagram of a hypothetical plant indicating potentially hazardous interfaces	57

Tables

Table 1 — Significant hazards, hazardous situations, safety requirements and/or measures	18
Table 2 — Main noise sources of hot flat rolling mills equipment and exemplary noise reduction measures	35
Table A.1 — Stop functions	43
Table B.1 — Example of declared dual-number noise emission values for work stations and specified measuring points	48

Foreword

This document (EN 15093:2008) has been prepared by Technical Committee CEN/TC 322 "Equipment for making and shaping of metals - Safety requirements", 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 April 2009, and conflicting national standards shall be withdrawn at the latest by April 2009.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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 EC Directive(s).

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

This European Standard has been elaborated by CEN/TC 322/WG 3, comprising experts from: Denmark, Germany, Italy, Sweden and the United Kingdom.

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.

საინფორმაციო ნაწილი. სრული ტექსტის სახანაგად შეიძინეთ სტანდარტი.

Introduction

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

The machinery concerned and the extent to which hazards, hazardous situations and events are covered are indicated in the scope of this European Standard.

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 the other standards, for machines that have been designed and built according to the provisions of this type C standard.

Where for clarity an example of a preventative measure is given in the text, this should not be considered as the only possible solution. Any other solution leading to the same risk reduction is permissible if an equivalent level of safety is achieved.

This European Standard assumes that the equipment is operated and maintained by trained personnel.