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I.S. EN 614-2:2000+A1:2008

Safety of machinery - Ergonomic design principles - Part 2: Interactions between the design of machinery and work tasks

I.S. EN 614-2:2000+A1:2008

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Safety of machinery - Ergonomic design principles - Part 2: Interactions between the design of machinery and work tasks

Sécurité des machines - Principes ergonomiques de
conception - Partie 2: Interactions entre la conception des
machines et les tâches du travail

Sicherheit von Maschinen - Ergonomische
Gestaltungsgrundsätze - Teil 2: Wechselwirkungen
zwischen der Gestaltung von Maschinen und den
Arbeitsaufgaben

This European Standard was approved by CEN on 30 June 2000 and includes Amendment 1 approved by CEN on 14 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.

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Contents

Page

Foreword.....	3
Introduction	4
1 Scope	4
2 Normative references	4
3 Terms and definitions	5
4 Principles of work task design.....	5
4.1 Characteristics of well-designed operator work tasks	5
4.2 Methodology of work task design in relation to machinery design	6
4.2.1 Establishing the design objectives.....	10
4.2.2 Function analysis.....	10
4.2.3 Function allocation	11
4.2.4 Work task specification.....	12
4.2.5 Assignment of work tasks to operators	12
4.3 Evaluation of work task design	13
5 Design procedure	14
Annex A (informative) Interaction between machinery design, task design and job design	15
A.1.1 Good job design.....	15
A.2 Characteristics of well-designed jobs and implications for design	17
A.2.1 Experience and capabilities of the operator	17
A.2.2 Meaningful whole.....	17
A.2.3 Contribution to the total work output	17
A.2.4 Variation.....	17
A.2.5 Autonomy	17
A.2.6 Learning opportunities.....	17
A.2.7 Feedback	17
A.2.8 Over- and underload.....	17
A.2.9 Repetitiveness.....	18
A.2.10 Opportunities for contact.....	18
A.3 Ways of job re-design	18
A.3.1 Job rotation, job enlargement and job enrichment.....	18
A.3.2 Working groups and teams	18
A.3.3 Participative design	19
A.3.4 Managerial development.....	19
Annex B (informative) Illustrative example: Design of a drilling machine	20
B.1 Introduction	20
B.2 Establishing design objectives	21
B.3 Function analysis.....	22
B.4 Function allocation	24
B.5 Work task specification.....	26
Annex ZA (informative)  Relationship between this European Standard and the Essential Requirements of EU Directive 98/37/EC, amended by 98/79/EC 	28
Annex ZB (informative)  Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC 	29

Foreword

This document (EN 614-2:2000+A1:2008) has been prepared by Technical Committee CEN/TC 122 "Ergonomics", 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 March 2009, and conflicting national standards shall be withdrawn at the latest by December 2009.

This document includes Amendment 1, approved by CEN on 2008-08-14.

This document supersedes EN 614-2:2000.

The start and finish of text introduced or altered by amendment is indicated in the text by tags **A1** **A1**.

This European Standard 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).

A1 For relationship with EU Directive(s), see informative Annexes ZA and ZB, which are integral parts of this document. **A1**

EN 614 consists of the following Parts, under the general title Safety of machinery – Ergonomic design principles:

- Part 1: Terminology and general principles
- Part 2: Interactions between the design of machinery and work tasks.

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 United Kingdom.

Introduction

This European Standard helps the designer in applying ergonomics principles to the design of machinery, focusing especially on the interaction between the design of machinery and work tasks.

This is essential since the quality of design and safety of machinery depends on the prospective operators being able to perform their tasks with the machinery in a safe and competent manner. Applying ergonomics principles to the design of machinery and work tasks aims at minimizing the discomfort, fatigue and other impairing effects faced by the operator and thus contributes to the optimal functioning of the work system (EN 292-2:1991, Annex A.1, 1.1.2 (d)) and reduces the risks of negative health effects. Therefore, good design follows ergonomics principles, starts with the specification of system functions and anticipates how the prospective operator will interact with the machinery and other work equipment.

In the design of machinery and work tasks, the physical aspects of the operator's activities are not the only design parameters to be dealt with. Operator activities also include the perception and processing of information, determination of strategies, decision making and communication.

1 Scope

This European Standard establishes the ergonomics principles and procedures to be followed during the design process of machinery and operator work tasks.

This European Standard deals specifically with task design in the context of machinery design, but the principles and methods may also be applied to job design.

This European Standard is directed to designers and manufacturers of machinery and other work equipment. It will also be helpful to those who are concerned with the use of machinery and work equipment, e.g. to managers, organizers, operators and supervisors.

In this European Standard the designer refers to the person or group of persons responsible for the design.

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 reference 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 (including amendments).

EN 614-1:1995, *Safety of machinery – Ergonomic design principles – Part 1: Terminology and general principles*.

EN 894-1, *Safety of machinery – Ergonomics requirements for the design of displays and control actuators – Part 1: General principles for human interactions with displays and control actuators*.

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

EN 292-2:1991/A1:1995, *Safety of machinery - Basic concepts, general principles for design - Part 2: Technical principles and specifications*.

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