# საქართველოს სტანდარტი

მიწისქვეშა მაღაროების მანქანები - უსაფრთხოების მოთხოვნები ჰიდრავლიკური სახურავის მექანიზებულ გამაგრებაზე - ნაწილი 1: დამხმარე ერთეულები და მირითადი მოთხოვნები

> საქართველოს სტანდარტებისა და მეტროლოგიის ეროვნული სააგენტო თბილისი

## სსტ ენ 1804-1:2001+A1:2010/2016

## საინფორმაციო მონაცემები

- 1 დამტკიცებულია და შემოღებულია სამოქმედოდ საქართველოს სტანდარტებისა და მეტროლოგიის ეროვნული სააგენტოს 2016 წლის 27 ივლისი  $\mathbb{N}^{\circ}$  53 და 2016 წლის 25 ივლისის  $\mathbb{N}^{\circ}$  52 განკარგულებებით
- 2 მიღებულია გარეკანის თარგმნის მეთოდით სტანდარტიზაციის ევროპული კომიტეტის სტანდარტი ენ 1804-1:2001+A1:2010 "მიწისქვეშა მაღაროების მანქანები უსაფრთხოების მოთხოვნები ჰიდრავლიკური სახურავის მექანიზებულ გამაგრებაზე ნაწილი 1: დამხმარე ერთეულები და მირითადი მოთხოვნები"

### 3 პირველად

**4 რეგისტრირებულია** საქართველოს სტანდარტებისა და მეტროლოგიის ეროვნული სააგენტოს რეესტრში: 2016 წლის 27 ივლისის №268-1.3-9479

აკრძალულია ამ სტანდარტის გადაცემა მესამე პირებისათვის ან/და მისი სხვა ფორმით გავრცელება

# EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 1804-1:2001+A1

January 2010

ICS 73.100.10

Supersedes EN 1804-1:2001

#### **English Version**

# Machines for underground mines - Safety requirements for hydraulic powered roof supports - Part 1: Support units and general requirements

Machines pour mines souterraines - Exigences de sécurité relatives aux soutènements marchants applicables aux piles - Partie 1: Unités de soutènement et exigences générales

Maschinen für den Bergbau unter Tage -Sicherheitsanforderungen für hydraulischen Schreitausbau - Teil 1: Ausbaugestelle und allgemeine Anforderungen

This European Standard was approved by CEN on 21 September 2001 and includes Amendment 1 approved by CEN on 21 December 2009.

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, Croatia, 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: Avenue Marnix 17, B-1000 Brussels

Co	ntents	Page
ore	word	3
ntro	duction	4
1	Scope	4
2	Normative references	5
3	Terms and definitions	6
1	List of hazards	7
5	Safety requirements	
6	Verification of the safety requirements	13
7	User information	14
٩nn	ex A (normative) Tests for verification of the safety requirements and calculation	19
Ann Req	ex ZA (informative) \Lambda Relationship between this European Standard and the Essential uirements of EU Directive 2006/42/EC 🔄	37
3ibl	iography	38

#### **Foreword**

This document (EN 1804-1:2001+A1:2010) has been prepared by Technical Committee CEN/TC 196 "Machines for underground mines - Safety", 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 July 2010, and conflicting national standards shall be withdrawn at the latest by July 2010.

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 includes Amendment 1, approved by CEN on 2009-12-21.

This document supersedes EN 1804-1:2001.

The start and finish of text introduced or altered by amendment is indicated in the text by tags [A].

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).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document. [A]

This standard is Part 1 of a European Standard specifying the safety requirements for hydraulic powered roof supports.

Other parts are:

Part 2: Power set legs and rams

Part 3: Hydraulic control systems

Part 41): Electro-hydraulic control systems

Annex A is normative.

This standard includes a Bibliography.

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, Croatia, 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.

<sup>1)</sup> in preparation

#### Introduction

This European Standard is a Type C-standard as stated in EN 1070.

The extent to which hazards are covered is indicated in the scope of the standard.

While producing (or when compiling) this standard it was assumed that:

- only trained and competent persons operate the machine;
- components without specific requirements are:
- a) designed in accordance with the usual engineering practice and calculation codes;
- b) of sound mechanical construction;
- c) free of defects.
- components are kept in good working order;
- a negotiation took place between the user and the manufacturer concerning the use of the machinery.

#### 1 Scope

This standard specifies the safety requirements for support units when used as specified by the manufacturer or his authorised representative. Examples of support units are frame supports, chock supports, shield supports, paired frames and push-pull support systems including the components of advancing and anchoring devices which provide support functions. This part of the standard excludes fixing elements on the conveyor, coal-winning equipment, power set legs and rams, valves, hydraulic and electro-hydraulic control units, lighting and signalling facilities and other ancillary equipment.

NOTE Some components are dealt with in other parts of this standard.

This standard applies to support units used at temperatures from -10° C to 60° C.

This standard also applies to support components and support accessories which are provided if the support unit is fitted with stowing equipment. This standard identifies and takes account of:

- Possible hazards which may be caused by the operation of support units;
- Areas and operating conditions which may create such hazards;
- Hazardous situations which may cause injury or may be damaging to health;

This standard describes methods for the reduction of these hazards.

A list of hazards covered appears in clause 4.

This European standard does not establish the additional requirements for:

Specially corrosive environments;