



National Standards Authority of Ireland

IRISH STANDARD

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ICS 73.100.30

**UNDERGROUND MINING MACHINES -
MOBILE EXTRACTING MACHINES AT
THE FACE - SAFETY REQUIREMENTS FOR
SHEARER LOADERS AND PLOUGH
SYSTEMS**

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English version

Underground mining machines - Mobile extracting machines at the face - Safety requirements for shearer loaders and plough systems

Machines d'exploitation de mines et carrières souterraines -
Machines mobiles d'abattage de front de taille - Exigences
de sécurité imposées aux haveuses à tambour(s) et aux
robots

Bergbaumaschinen unter Tage - Mobile Abbaumaschinen im
Streb - Sicherheitsanforderungen für Walzenlader und
Hobelanlagen

This European Standard was approved by CEN on 14 February 2003.

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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 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.



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Foreword

This document (EN 1552:2003) has been prepared by Technical Committee CEN/TC 196, "Machines for underground mines - Safety", the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by October 2003, and conflicting national standards shall be withdrawn at the latest by October 2003.

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 EC Directive(s), see informative annex ZA, which is an integral part of this document.

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.

EN 1552:2003 (E)

Introduction

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

The machinery and the extend to which hazards, hazardous situations and events are covered are indicated in the scope of this document

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.

1 Scope

1.1 This European Standard specifies safety requirements which shall be met to minimize the hazards listed in clause 4 that may occur during the assembly, use, maintenance, repair, decommissioning, disassembly and disposal of shearer loaders and plough systems when operated in accordance with the manufacturer's requirements in underground mining.

The machines work with tools for cutting minerals such as coal, ore, salt and surrounding rock, at a fixed or variable height and are guided on armoured face conveyors or their attachments. Shearer loaders have built-in haulage systems. They may be directly operated by one or more drivers or be remotely or program controlled. Plough systems are remotely controlled. Wireless remote control systems of shearer loaders are used in the immediate environment of the machines.

1.2 This European Standard does not cover any hazards resulting from the electrical equipment associated with the machine. It does not contain any requirements relating to dust suppression or firedamp hazards. Hazards due to noise are also excluded from this standard, but a separate standard is in preparation where hazards due to noise will be addressed.

NOTE Only a small amount of the noise emitted at the point of use of shearer loaders and plough systems is generated by the machines themselves. The noise level is affected more by the breaking mineral and the conveyors. Dust is generated not only by the mode of operation of the machines, but also by the material to be extracted, the environment, the roof support and the conveyor. For example, equipping the machine with a water spray may not completely eliminate the hazard on its own.

It does not cover face conveyors, spill plates and auxiliary devices such as lasers etc.

It is intended for manufacturers producing and marketing complete machines, and for manufacturers assembling machines or parts of machines from different origins or assembling machines for their own use. These are called "manufacturers" in this European Standard.

1.3 This document is not applicable to machines that are manufactured before the date of publication of this European Standard by CEN.

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 (including amendments).

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

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