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Mining — Mobile machines working underground — Machine safety

*Exploitation minière — Engins mobiles d'exploitation souterraine —
Sécurité des machines*



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Contents

	Page
Foreword	v
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms and definitions	4
4 Safety requirements and/or protective/risk reduction measures	9
4.1 General requirements.....	9
4.1.1 General.....	9
4.1.2 Moving parts.....	9
4.1.3 Equipment carrier restraints.....	10
4.1.4 Starting system.....	10
4.1.5 Unintended movement.....	10
4.2 Lifting and transportation.....	10
4.3 Towing and retrieval.....	10
4.4 Fluid power systems.....	11
4.4.1 Hydraulic systems.....	11
4.4.2 Pneumatic systems.....	12
4.5 Electrical equipment.....	13
4.5.1 General.....	13
4.5.2 Electromagnetic compatibility (EMC).....	13
4.5.3 Batteries.....	13
4.6 Machines powered by diesel engine.....	13
4.6.1 Fuel and exhaust.....	13
4.6.2 Exhaust pipes.....	13
4.6.3 Engine cooling system.....	14
4.7 Fuel systems.....	14
4.7.1 Fuel tanks.....	14
4.7.2 Fuel tank filler inlet.....	14
4.7.3 Fuel tank vent system.....	14
4.7.4 Fuel tank drainage device.....	14
4.7.5 Fuel shut-off system.....	14
4.7.6 Fuel lines.....	15
4.8 Light intensity and quantity.....	15
4.8.1 General.....	15
4.8.2 Head lights.....	15
4.8.3 Tail lights.....	15
4.8.4 Reversing lights.....	15
4.8.5 Stop lamps.....	15
4.8.6 Both direction lights.....	15
4.8.7 Protective systems.....	16
4.9 Warning devices and safety signs.....	16
4.10 Braking.....	16
4.10.1 General requirements.....	16
4.11 Control systems and devices.....	16
4.11.1 General.....	16
4.11.2 Control devices.....	16
4.11.3 Steering systems.....	17
4.11.4 Displays.....	17
4.12 Operator and passenger's position.....	18
4.12.1 Protection.....	18
4.12.2 Access systems.....	18
4.12.3 Visibility.....	18
4.12.4 Interior space, dimensions, and seats.....	19

This is a preview of "ISO 19296:2018". [Click here to purchase the full version from the ANSI store.](#)

4.13	Fire protection.....	19
4.14	Noise	20
4.14.1	Noise reduction at source at the design stage.....	20
4.14.2	Information on noise emission.....	20
4.15	Vibrations.....	21
4.16	Radiation health risks.....	21
4.17	Tyres and rims.....	21
4.18	Stability.....	22
4.19	Load haul dump capacity	22
4.20	Maintenance.....	22
4.20.1	General.....	22
4.20.2	Frequent maintenance.....	22
4.20.3	Support devices	22
4.20.4	Tiltable cab support device	23
4.21	Quick coupler systems.....	23
5	Verification of safety requirements and/or protective/risk reduction measures.....	23
6	Information for use.....	23
6.1	Operator's manual	23
6.1.1	General.....	23
6.1.2	Information on noise emission.....	24
6.1.3	Information concerning hand-arm and whole-body vibration emission	24
6.2	Marking.....	25
6.2.1	General.....	25
6.2.2	Attachment points.....	25
6.2.3	Section or sub-assemblies	25
6.3	Training manuals	26
	Annex A (normative) Brake requirements for rubber tyred underground mining machines.....	27
	Annex B (informative) List of significant hazards, hazardous situations and hazardous events.....	33
	Annex C (normative) Verification table.....	37
	Annex D (informative) Examples of performance levels for safety-related functions.....	42
	Bibliography.....	43

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 82, *Mining*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

This document is a type-C standard as stated in ISO 12100.

This document is of relevance, in particular, for the following stakeholder groups representing the market players with regard to machinery safety:

- machine manufacturers (small, medium and large enterprises);
- health and safety bodies (regulators, accident prevention organisations, market surveillance etc.)

Others can be affected by the level of machinery safety achieved with the means of the document by the above-mentioned stakeholder groups:

- machine users/employers (small, medium and large enterprises);
- machine users/employees (e.g. trade unions, organizations for people with special needs);
- service providers, e.g. for maintenance (small, medium and large enterprises);
- consumers (in case of machinery intended for use by consumers).

The above-mentioned stakeholder groups have been given the possibility to participate at the drafting process of this document.

The machinery concerned and the extent to which hazards, hazardous situations or hazardous events are covered are indicated in the Scope of this document.

When requirements of this type-C standard are different from those which are stated in type-A or -B standards, the requirements of this type-C standard take precedence over the requirements of the other standards for machines that have been designed and built according to the requirements of this type-C standard.

The following assumptions were made in writing this standard:

- a) the operators of the machines are well trained professionals and aware of potential risks of the working environment;
- b) the machines are operated according to the instructions given by the manufacturer in the operating instructions;
- c) administrative controls are in place for preventing unauthorized entry of persons to the area where machines are working;
- d) components are:
 - 1) designed in accordance with the good engineering practice and calculation codes, taking account of shocks and vibration, including all failure modes;
 - 2) made of materials with adequate strength and of suitable quality; and
 - 3) free of defects;
- e) harmful materials, such as asbestos are not used;
- f) components are kept in good repair and working order, so that the required dimensions remain fulfilled despite wear.