International Standard

ISO 20500-1

Mobile road construction machinery — Safety —

Part 1: Common requirements

Machines mobiles pour la construction de routes — Sécurité —

Partie 1: Prescriptions communes

First edition
2026-02

Reference number
ISO 20500-1:2026(en)

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Published in Switzerland

Contents

Page

Foreword

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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 document 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).

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This document was prepared by Technical Committee ISO/TC 195, *Building construction machinery and equipment*.

A list of all parts in the ISO 20500 series can be found on the ISO website.

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

The structure of safety standards in the field of machinery is as follows.

a) Type-A standards (basis standards) give basic concepts, principles for design and general aspects that can be applied to machinery.

b) Type-B standards (generic safety standards) dealing with one or more safety aspect(s) or one or more type(s) of safeguards that can be used across a wide range of machinery:

   — type-B1 standards on particular safety aspects (e.g. safety distances, surface temperature, noise);

   — type-B2 standards on safeguards (e.g. two-hands controls, interlocking devices, pressure sensitive devices, guards).

c) Type-C standards (machinery safety standards) dealing with detailed safety requirements for a particular machine or group of machines.

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 (small, medium and large enterprises);

— 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 type-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.

Mobile road construction machinery — Safety —

Part 1: Common requirements

1 Scope

This document specifies the common safety requirements for mobile road construction machinery. The ISO 20500 series is applicable to mobile road construction machinery as listed in Annex A.

NOTE 1 For travelling on public roads, the national roading regulations apply (e.g. braking, steering, lighting).

This document deals with significant hazards, hazardous situations and events relevant to mobile road construction machinery, when used as intended and under conditions foreseen, but also taking into account any reasonably foreseeable misuse thereof (see Annex I).

NOTE 2 The requirements specified in this document are common to two or more families of mobile road construction machinery.

This document gives the common safety requirements for mobile road construction machinery and is intended to be used in conjunction with ISO 20500-2 to ISO 20500-7. These machine specific parts (ISO 20500-2 to ISO 20500-7) do not repeat the requirements from this document but supplement or modify the requirements for the family in question.

This document does not deal with hazards related to transport of dangerous goods by road.

Lightning as a significant and relevant hazard is not covered in this document.

This document specifies the appropriate technical measures to eliminate or reduce risks arising from the significant hazards as specified in Annex I.

This document is not applicable to mobile road construction machinery manufactured before the date of its publication.

As a general principle, dimensions are used according to ISO 3411:2007 in order to cover 5 to 95 percentile of machine operators.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 143:2021, *Respiratory protective devices — Particle filters — Requirements, testing, marking*

EN 12021:2014, *Respiratory equipment — Compressed gases for breathing apparatus*

ISO 2860:1992, *Earth-moving machinery — Minimum access dimensions*

ISO 2867:2011, *Earth-moving machinery — Access systems*

ISO 3411:2007, *Earth-moving machinery — Physical dimensions of operators and minimum operator space envelope*