

## DIN EN ISO 13766-1



ICS 33.100.01; 53.100

Supersedes  
DIN EN ISO 13766-1:2018-12

**Earth-moving and building construction machinery –  
Electromagnetic compatibility (EMC) of machines with internal electrical  
power supply –  
Part 1: General EMC requirements under typical electromagnetic  
environmental conditions (ISO 13766-1:2018);  
English version EN ISO 13766-1:2018,  
English translation of DIN EN ISO 13766-1:2019-04**

Erdbaumaschinen und Baumaschinen –  
Elektromagnetische Verträglichkeit von Maschinen mit internem elektrischen Bordnetz –  
Teil 1: Allgemeine EMV-Anforderungen unter typischen EMV-Umgebungsbedingungen  
(ISO 13766-1:2018);  
Englische Fassung EN ISO 13766-1:2018,  
Englische Übersetzung von DIN EN ISO 13766-1:2019-04

Engins de terrassement et machines pour la construction des bâtiments –  
Compatibilité électromagnétique (CEM) des machines équipées de réseaux électriques de  
distribution interne –  
Partie 1: Exigences CEM générales dans des conditions électromagnétiques  
environnementales typiques (ISO 13766-1:2018);  
Version anglaise EN ISO 13766-1:2018,  
Traduction anglaise de DIN EN ISO 13766-1:2019-04

Document comprises 52 pages

Translation by DIN-Sprachendienst.

In case of doubt, the German-language original shall be considered authoritative.

*A comma is used as the decimal marker.*

## National foreword

This standard includes safety requirements.

This document (EN ISO 13766-1:2018) has been prepared by Technical Committee ISO/TC 127 “Earth-moving machinery” in collaboration with Technical Committee CEN/TC 151 “Construction equipment and building material machines — Safety”.

The responsible German body involved in its preparation was *DIN-Normenausschuss Maschinenbau* (DIN Standards Committee Mechanical Engineering), Working Committee NA 060-13-01 AA “Earth-moving machinery” of Section “Construction equipment and building material machines”. Representatives of manufacturers and users of earth-moving machinery, and of the employers’ liability insurance associations contributed to this standard.

This standard contains specifications giving detail to the essential requirements set out in Annex I, Clause 1 of the “Machinery Directive”, Directive 2014/30/EU relating to electromagnetic compatibility, and which apply to machines that are either first placed on the market or commissioned within the EEA. This standard serves to facilitate proof of compliance with the essential requirements of that directive.

Once this standard is cited in the Official Journal of the European Union, it is deemed a “harmonized” standard and thus, a manufacturer applying this standard may assume compliance with the requirements of the Machinery Directive (“presumption of conformity”).

The International Standards referred to in Clause 2 and the Bibliography, and which have been taken over as European Standards, have been published as the corresponding DIN EN ISO Standards with the same number.

Where the International Standards and documents referred to are not also DIN ISO Standards with the same number, there are no national standards available.

## Amendments

This standard differs from DIN EN 13309:2010-12 as follows:

- a) Clause 1 “Scope”: the Scope has been updated, a reference to Part 2 of EN ISO 13766 has been made for requirements to safety relevant functions;
- b) Clause 2 “Normative references”: normative references have been updated — as a result, the designation of the functional status in the clause on conducted immunity as well as normative references to single pulses have been updated;
- c) Clause 3 “Terms and definitions”: the clause “Terms and definitions” has been corrected, the clause has been extended to include the subclauses 3.21 “immunity-related functions” and 3.22 “non-immunity related functions”;
- d) subclause 4.1.1 “Fulfilment of requirements”: the wording has been amended in order to assign requirements more clearly;
- e) subclause 4.2.1: “Method of measurement”: a note has been added stating that care is to be taken to ensure a sufficient reception area of the antenna and to avoid potential sources of emissions. The scope of the measuring method BCI as an alternative to the measurement with antennas has been clarified — size limits may be disregarded and the frequency range has been restricted to  $\leq 1\,000$  MHz.

Compared with DIN EN ISO 13766-1:2018-12 the following corrections have been made to the German version:

- a) in the Scope, the translation of the list of electromagnetic interference has been adapted;
- b) in Clause 3, first paragraph, the reference to ISO 13766-1:2018 has been deleted;
- c) in subclause 3.1, the translation of the definition has been adapted;
- d) in subclauses 4.2.2 and 4.3.2, paragraphs 4 and 8 have been clearly set out as a requirement;
- e) in subclause 4.6.2, the translation of the last paragraph has been corrected;
- f) in subclause 4.7.2, the abbreviation “BCI” has been deleted;
- g) in Figure A.6, Footnote a, the last sentence has been deleted;
- h) in subclause B.1.1, the reference has been dated;
- i) in subclauses B.5.2.2.2, C.5.2.2.1 and C.5.2.2.2, each paragraph has been supplemented by “(z. B. *Phasenzentrum*)”;
- j) in subclause B.5.3, the second paragraph has been rendered more precise and a third paragraph has been added;
- k) subclause B.6 is now subclause B.5.6;
- l) editorial corrections have been made.

#### **Previous editions**

DIN EN 13309: 2000–11, 2010–12

DIN EN ISO 13766-1: 2018–12

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English Version

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Teil 1: Allgemeine EMV-Anforderungen unter typischen  
EMV-Umgebungsbedingungen  
(ISO 13766-1:2018)

This European Standard was approved by CEN on 8 May 2018.

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-CENELEC 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-CENELEC Management Centre has the same status as the official versions.

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