

Irish Standard I.S. EN 17106-2:2021

Road operation machinery - Safety - Part 2: Specific requirements for road surface cleaning machines

© CEN 2021 No copying without NSAI permission except as permitted by copyright law.

I.S. EN 17106-2:2021

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

S.R.~xxx: Standard~Recommendation-recommendation~based~on~the~consensus~of~an~expert~panel~and~subject~to~public~consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.

This document is based on: Published:

EN 17106-2:2021 2021-10-20

This document was published ICS number:

under the authority of the NSAI and comes into effect on: 43.160

93.080.99

NOTE: If blank see CEN/CENELEC cover page

NSAI T +353 1 807 3800 Sales:

 1 Swift Square,
 F +353 1 807 3838
 T +353 1 857 6730

 Northwood, Santry
 E standards@nsai.ie
 F +353 1 857 6729

 Dublin 9
 W NSAI.ie
 W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

This is a free page sample. Access the full version online.

National Foreword

I.S. EN 17106-2:2021 is the adopted Irish version of the European Document EN 17106-2:2021, Road operation machinery - Safety - Part 2: Specific requirements for road surface cleaning machines

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

For relationships with other publications refer to the NSAI web store.

Compliance with this document does not of itself confer immunity from legal obligations.

In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

This is a free page sample. Access the full version online.

This page is intentionally left blank

EUROPEAN STANDARD

EN 17106-2

NORME EUROPÉENNE

EUROPÄISCHE NORM

October 2021

ICS 43.160; 93.080.99; C

Supersedes EN 13019:2001+A1:2008, EN 13021:2003+A1:2008, EN 13524:2003+A2:2014

English Version

Road operation machinery - Safety - Part 2: Specific requirements for road surface cleaning machines

Machines d'exploitation des routes - Sécurité - Partie 2 : Prescriptions spécifiques pour les machines de nettoiement des surfaces routières Maschinen für den Straßenbetriebsdienst - Sicherheit -Teil 2 Spezifische Anforderungen für Kehrmaschinen

This European Standard was approved by CEN on 16 August 2021.

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.

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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN 17106-2:2021 (E)

Con	Contents	
Euro	pean forewordp	3
Introduction		4
1	Scope	
2	Normative references	
3	Terms and definitions	
4	Safety requirements and/or protective/risk reduction measures	
4.1	GeneralGeneral	
4.2	Noise reduction at the source at the design stage	
4.3	Noise measurement and declaration	
4.4	Controls and displays	
4.5	Guards	8
4.6	Access systems	9
4.7	Minimum space	
4.8	Fire extinguisher	
4.9	Raising, lowering and slewing mechanisms	
4.10	Water flushing systems and their components	
4.11	Water tank	
4.12	Provisions for service and maintenance	
4.13	Provisions for transport	
4.14	Provisions for storage	
4.15	Stability	
4.16	Hand-held cleaning devices/wander hoses	
4.17	Washing/flushing system	
4.18	Self-propelled ride on road surface cleaning machines	11
4.19	Trailed machines	12
5	Verification of safety requirements or protective measures	13
6	Information for use - Operating instructions	15
Anne	x A (informative) Terminology	16
Anne	x B (informative) List of significant hazards	18
Anne	x C (normative) Noise test code (engineering method grade 2)	23
C.1	General	23
C.2	Scope	23
C.3	A-weighted emission sound pressure level at the operator's station	23
C.4	A-weighted sound power level determination	25
C.5	Operating conditions	28
Anne	ex ZA (informative) Relationship between this European Standard and the essential requirements of Directive 2006/42/EC machinery, and amending	20
	Directive 95/16/EC (recast) [2006 L157] aimed to be covered	30
Bibli	ography	32

European foreword

This document (EN 17106-2:2021) has been prepared by Technical Committee CEN/TC 151 "Construction equipment and building material machines - Safet", 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 April 2022, and conflicting national standards shall be withdrawn at the latest by April 2022.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 13019:2001+A1:2008, EN 13021:2003+A1:2008 and EN 13524:2003+A2:2014.

This document has been prepared under a standardization request 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.

EN 17106:2021 consists of the following parts under the general title "Road operation machinery – Safety":

- Part 1: General requirements
- Part 2: Specific requirements for road surface cleaning machines
- Part 3-1: Winter service machines Specific requirements for snow clearing machines with rotating tools and snow ploughs
- Part 3-2: Winter service machines Specific requirements for spreading machines
- Part 4: Road service area maintenance machines Specific requirements for grass and brush cutting machines

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations 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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

EN 17106-2:2021 (E)

Introduction

This document is a type-C standard as stated in EN ISO 12100:2010.

This document is of relevance, in particular, to 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 organizations, 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 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.

1 Scope

This document together with EN 17106-1:2021 deals with all significant hazards, hazardous situations and events relevant to road surface cleaning machines (as defined in EN 15429-1:2007 and EN 17106-1:2021, 3.7) when used as intended and under the conditions of misuse which are reasonably foreseeable by the manufacturer (see Annex B) associated with the whole lifetime of the machine as described in EN ISO 12100:2010, 5.4.

The requirements of this document are complementary to the common requirements formulated in EN 17106-1:2021. This document does not repeat the requirements from EN 17106-1:2021 but supplements or modifies the requirements for road surface cleaning machines.

This document is not applicable to road surface cleaning machines manufactured before the date of its publication.

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 1829-1:2021, *High pressure water jet machines - Safety requirements - Part 1: Machines*

EN 15429-1:2007, Sweepers - Part 1: Classification and Terminology

EN 15429-4:2015, Sweepers - Part 4: Symbols for operator controls and other displays

EN 17106-1:2021, Road operation machinery - Safety - Part 1: General requirements

EN 60335-2-72:2012, Household and similar electrical appliances - Safety - Part 2-72: Particular requirements for floor treatment machines with or without traction drive, for commercial use

EN 60335-2-79:2012, Household and similar electrical appliances - Safety - Part 2-79: Particular requirements for high pressure cleaners and steam cleaners

EN ISO 2867:2011, Earth-moving machinery - Access systems (ISO 2867:2011)

EN ISO 3744:2010, Acoustics - Determination of sound power levels and sound energy levels of noise sources using sound pressure - Engineering methods for an essentially free field over a reflecting plane (ISO 3744:2010)

EN ISO 11201:2010, Acoustics - Noise emitted by machinery and equipment - Determination of emission sound pressure levels at a work station and at other specified positions in an essentially free field over a reflecting plane with negligible environmental corrections (ISO 11201:2010)

EN ISO 12100:2010, Safety of machinery - General principles for design - Risk assessment and risk reduction (ISO 12100:2010)

EN ISO 13849-1:2015, Safety of machinery - Safety-related parts of control systems - Part 1: General principles for design (ISO 13849-1:2015)

EN ISO 13850:2015, Safety of machinery - Emergency stop function - Principles for design (ISO 13850:2015)

EN ISO 14119:2013, Safety of machinery - Interlocking devices associated with guards - Principles for design and selection (ISO 14119:2013)



This is a free preview	 Purchase the entire 	e publication at the link below:
------------------------	-----------------------------------------	----------------------------------

Product Page

- Dooking for additional Standards? Visit Intertek Inform Infostore
- Dearn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation