

norm**NEN-EN 17281**

Safety requirements - Vehicle cleaning equipment

Publicatie uitsluitend voor commentaar

oktober 2018

ICS 43.180

Commentaar vóór 2018-11-13

Als Europees normontwerp is gepubliceerd: prEN 17281:2018, IDT

Definitief vastgestelde normen zullen als Nederlandse norm gelden. Daarom wordt dit normontwerp in Nederland voor commentaar gepubliceerd. Op het ontwerp ingebracht commentaar zal aan de bevoegde normcommissie worden voorgelegd die hiermee rekening zal houden bij de bepaling van de Nederlandse stem. Indien er geen bezwaar bij NEN wordt gebracht, kan dat leiden tot ongewijzigde definitieve vaststelling van het ontwerp als norm.

Van Europese normen bestaan drie officiële versies: Engels, Frans en Duits. Voor Nederland zal de Engelse versie gelden. Daarnaast kan er gekozen worden voor een andere geautoriseerde versie in het Nederlands.

Normcommissie 341034 'Pompen'



THIS PUBLICATION IS COPYRIGHT PROTECTED

DEZE PUBLICATIE IS AUTEURSRECHTELIJK BESCHERMD

Apart from exceptions provided by the law, nothing from this publication may be duplicated and/or published by means of photocopy, microfilm, storage in computer files or otherwise, which also applies to full or partial processing, without the written consent of the Royal Netherlands Standardization Institute.

The Royal Netherlands Standardization Institute shall, with the exclusion of any other beneficiary, collect payments owed by third parties for duplication and/or act in and out of law, where this authority is not transferred or falls by right to the Reproduction Rights Foundation.

Auteursrecht voorbehouden. Behoudens uitzondering door de wet gesteld mag zonder schriftelijke toestemming van het Koninklijk Nederlands Normalisatie-instituut niets uit deze uitgave worden veelevoudigd en/of openbaar gemaakt door middel van fotokopie, microfilm, opslag in computerbestanden of anderszins, hetgeen ook van toepassing is op gehele of gedeeltelijke bewerking.

Het Koninklijk Nederlands Normalisatie-instituut is met uitsluiting van ieder ander gerechtigd de door derden verschuldigde vergoedingen voor veelevoudiging te innen en/of daartoe in en buiten rechte op te treden, voor zover deze bevoegdheid niet is overgedragen c.q. rechtens toekomt aan de Stichting Reprorecht.

Although the utmost care has been taken with this publication, errors and omissions cannot be entirely excluded. The Royal Netherlands Standardization Institute and/or the members of the committees therefore accept no liability, not even for direct or indirect damage, occurring due to or in relation with the application of publications issued by the Royal Netherlands Standardization Institute.

Hoewel bij deze uitgave de uiterste zorg is nagestreefd, kunnen fouten en onvolledigheden niet geheel worden uitgesloten. Het Koninklijk Nederlands Normalisatie-instituut en/of de leden van de commissies aanvaarden derhalve geen enkele aansprakelijkheid, ook niet voor directe of indirecte schade, ontstaan door of verband houdend met toepassing van door het Koninklijk Nederlands Normalisatie-instituut gepubliceerde uitgaven.

Voorbeeld
Preview

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 17281

September 2018

ICS 43.180

English Version

Safety requirements - Vehicle cleaning equipment

Fahrzeugwaschanlagen - Sicherheitsanforderungen

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 197.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



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

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

Contents	Page
European foreword.....	4
Introduction.....	5
1 Scope.....	6
2 Normative references.....	6
3 Terms and definitions.....	8
4 List of hazards.....	10
5 Safety requirements and safety measures.....	11
5.1 General safety requirements.....	11
5.2 Additional requirements for systems for the cleaning of rail vehicles.....	15
5.3 Additional requirements for roll-over washing systems.....	15
5.4 Additional requirements for vehicle washing tunnels and vehicle conveying systems.....	16
5.5 Additional requirements for manually movable vehicle washing systems.....	17
6 Testing.....	18
6.1 Testing of general safety requirements.....	18
6.2 Additional testing at systems for the cleaning of rail vehicles.....	20
6.3 Additional testing for roll-over washing systems.....	21
6.4 Additional testing at vehicle washing tunnels and vehicles conveying units.....	21
6.5 Additional testing at manually movable vehicle washing systems.....	22
7 Information for use.....	22
7.1 Instructions for use.....	22
7.2 Marking.....	23
Annex A (informative) Application examples.....	24
A.1 Example for the prevention of crushing points.....	24
Figure A.1 — Prevention of crushing points between front and back of the frames of the travelling mechanisms and end or beginning of the guide rails.....	25
A.2 Example for the prevention of crushing points.....	26
Figure A.2 — Prevention of crushing points between moving parts and floor fixed element.....	26
Annex B (informative) List of significant hazards.....	27
Table B.1 — List of significant hazards.....	27
Annex C (normative) Emission of sound.....	39
C.1 Noise reduction.....	39
C.2 Noise test code.....	39
C.2.1 Normal operation for acoustical noise measurement.....	39
C.2.2 Emission sound pressure level determination.....	40
Figure C.1 — Sound pressure measurement set up of roll over washing systems.....	40
C.2.3 Operating and mounting conditions.....	41
C.2.4 Sound power level determination.....	41

C.2.5 Measurement uncertainties..... 41

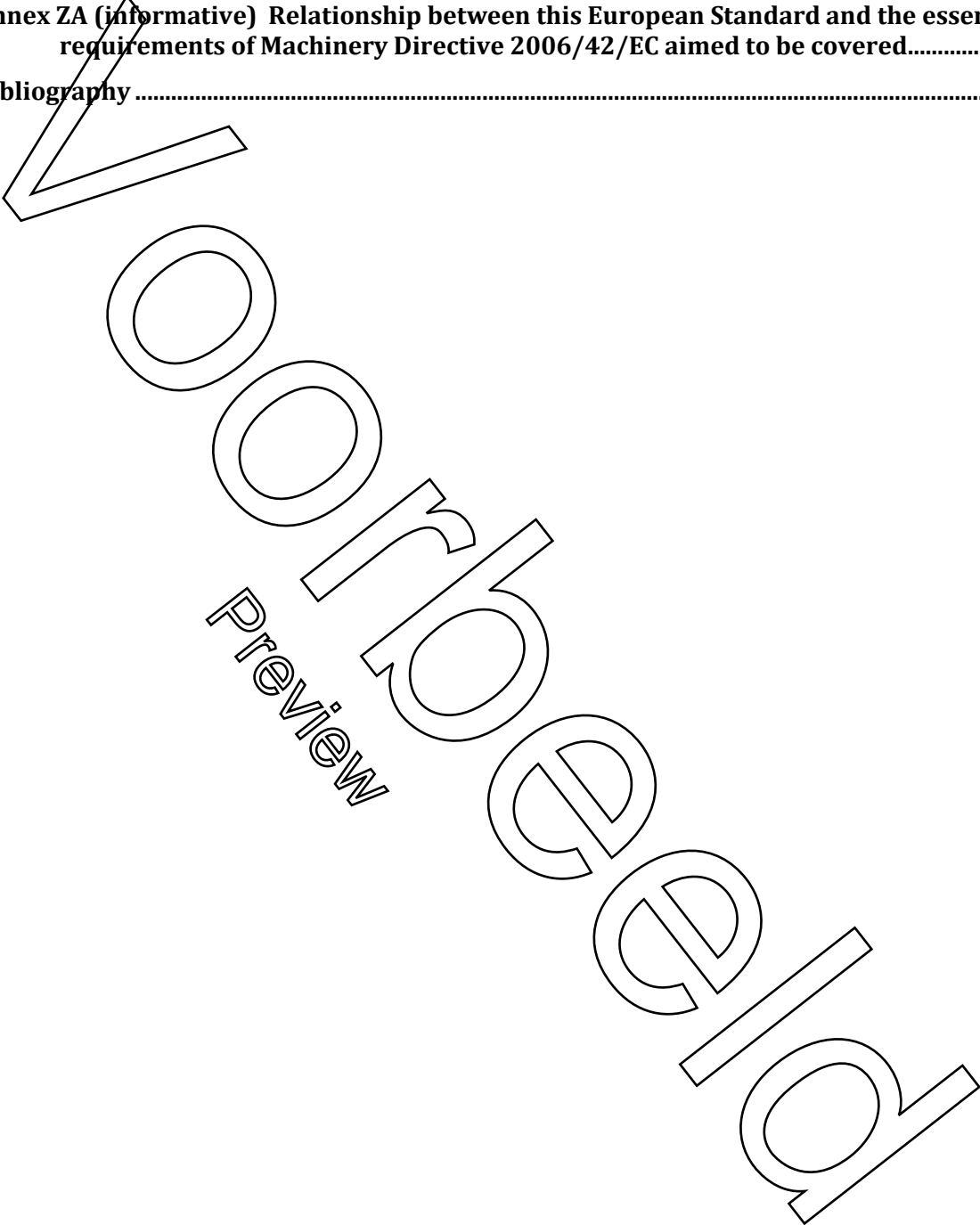
C.2.6 Information to be recorded 41

C.2.7 Information to be reported..... 41

C.2.8 Declaration and verification of noise emission values 41

Annex ZA (informative) Relationship between this European Standard and the essential requirements of Machinery Directive 2006/42/EC aimed to be covered..... 42

Bibliography 46



V

o

o

r

b

e

e

d

Preview

European foreword

This document (prEN 17281:2018) has been prepared by Technical Committee CEN/TC 197 “Pumps”, the secretariat of which is held by AFNOR.

This document is currently submitted to the CEN Enquiry.

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

This standard contains requirements and verifications, on the basis of which vehicle washing systems can be granted the CE mark.

Copyright
Preview

Introduction

The scope of this standard describes the hazards dealt with. For hazards, which are not dealt with in this standard, it is essential that the machines comply with EN ISO 12100, if appropriate.

Where an example is given for the clarification of the text, it should not be considered as the only authorized solution. Each other solution is admitted provided the same result is achieved and an equal level of safety for equal function is guaranteed.

It is not the purpose of this standard to exclude new designs of vehicle washing systems from a later integration. It is essential that a new design at least complies with the safety requirements of this standard.

If vehicle washing systems are operated under special conditions e.g. under the influence of the weather, it is essential that the constructive measures, components and materials as well as service lines are adapted to these conditions.

This standard does not contain requirements for the service life of vehicle washing systems, as it depends on the site and on special demands of the clients.

When preparing the standard, carelessness of the user has partly been taken into account. The basis, however, is intended, not unintended use.

Copyright
Preview

1 Scope

This document contains technical safety requirements for the design, equipment and testing of brushless vehicle washing systems and vehicle washing systems with brushes for, indoor and outdoor operation e.g. roll-over vehicle washing systems, vehicle washing tunnels, manually movable vehicle washing facilities.

This standard does not apply to hand-guided high pressure cleaners which are covered by EN 60335-2-79, to water recycling systems, buildings and doors for entering the traffic zone, for powered ride-on machines and powered walk-behind machines with a traction drive.

NOTE Signals (example doors, lighting systems) may be provided by the vehicle washing system.

This standard contains requirements for the protection of persons and objects from accidents and damages during use and operation of vehicle washing systems.

Persons to be protected are

- operators,
- maintenance and monitoring personnel,
- persons in the vicinity of vehicle washing systems,
- persons sitting in the vehicle during cleaning.

Objects to be protected are

- vehicles.

Significant hazards associated with vehicle washing systems are listed in Clause 4. These hazards have been established by a risk assessment according to EN ISO 12100 and require measures to eliminate the hazard or to reduce the risk. These measures are specified in Clause 5 of this standard.

The safety requirements assume that vehicle washing systems are regularly maintained by trained and competent persons according to the manufacturer's information and that the operators, with the exception of users of self-service washing systems, have been instructed in the handling of vehicle washing systems.

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 81-20, *Safety rules for the construction and installation of lifts — Lifts for the transport of persons and goods — Part 20: Passenger and goods passenger lifts*

EN 81-50, *Safety rules for the construction and installation of lifts — Examinations and tests — Part 50: Design rules, calculations, examinations and tests of lift components*

EN 280, *Mobile elevating work platforms — Design calculations — Stability criteria — Construction — Safety — Examinations and tests*

EN 349, *Safety of machinery — minimum gaps to avoid crushing of parts of the human body*

EN 614-1, *Safety of machinery — Ergonomic design principles — Part 1: Terminology and general principles*

EN 60204-1, *Safety of machinery — Electrical equipment of machines — Part 1: General requirements (IEC 60204-1)*

EN 60335-2-79, *Household and similar electrical appliances — Safety — Part 2-79: Particular requirements for high pressure cleaners and steam cleaners (IEC 60335-2-79)*

EN 60529, *Degrees of protection provided by enclosures (IP Code) (IEC 60529)*

EN ISO 3744, *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)*

EN ISO 4413:2010, *Hydraulic fluid power — General rules and safety requirements for systems and their components (ISO 4413:2010)*

EN ISO 4414:2010, *Pneumatic fluid power — General rules and safety requirements for systems and their components (ISO 4414:2010)*

EN ISO 11200, *Acoustics — Noise emitted by machinery and equipment — Guidelines for the use of basic standards for the determination of emission sound pressure levels at a work station and at other specified positions (ISO 11200)*

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 11202:2010, *Acoustics — Noise emitted by machinery and equipment — Determination of emission sound pressure levels at a work station and at other specified positions applying approximate environmental corrections (ISO 11202:2010)*

EN ISO 11203:2009, *Acoustics — Noise emitted by machinery and equipment — Determination of emission sound pressure levels at a work station and at other specified positions from the sound power level (ISO 11203:1995)*

EN ISO 11204:2010, *Acoustics — Noise emitted by machinery and equipment — Determination of emission sound pressure levels at a work station and at other specified positions applying accurate environmental corrections (ISO 11204:2010)*

EN ISO 11205:2009, *Acoustics — Noise emitted by machinery and equipment — Engineering method for the determination of emission sound pressure levels in situ at the work station and at other specified positions using sound intensity (ISO 11205:2003)*

EN ISO 13850, *Safety of machinery — Emergency stop function — Principles for design (ISO 13850)*

EN ISO 13857, *Safety of machinery — Safety distances to prevent hazard zones being reached by upper and lower limbs (ISO 13857)*

EN ISO 14122-1, *Safety of machinery — Permanent means of access to machinery — Part 1: Choice of fixed means and general requirements of access (ISO 14122-1)*

EN ISO 14122-2, *Safety of machinery — Permanent means of access to machinery — Part 2: Working platforms and walkways (ISO 14122-2)*

ALTIJD DE ACTUELE NORM IN UW BEZIT HEBBEN?

Nooit meer zoeken in de systemen en uzelf de vraag stellen:
“Is NEN-EN 17281:2018 Ontw. en de laatste versie?”™

Via het digitale platform NEN Connect heeft u altijd toegang tot de meest actuele versie van deze norm. Vervallen versies blijven ook beschikbaar. **U en uw collega's** kunnen de norm via NEN Connect makkelijk raadplagen, online en offline.

Kies voor slimmer werken en bekijk onze mogelijkheden op www.nenconnect.nl.

Heeft u vragen?

Onze Klantenservice is bereikbaar maandag tot en met vrijdag, van 8.30 tot 17.00 uur.

Telefoon: 015 2 690 391

E-mail: klantenservice@nen.nl

