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Safety requirements - Vehicle cleaning equipment

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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Sicherheitsanforderungen - Fahrzeugwaschanlagen

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

This document (EN 17281:2021) has been prepared by Technical Committee CEN/TC 197 “Pumps”, the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by February 2022, and conflicting national standards shall be withdrawn at the latest by February 2022.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 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) / Regulation(s).

For relationship with EU Directive(s) / Regulation(s), see informative Annex ZA, which is an integral part of this document.

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 17281:2021 (E)**Introduction**

This document is a type-C standard as stated in EN ISO 12100:2010. 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 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 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, i.e. roll-over vehicle washing systems, vehicle washing tunnels, manually movable vehicle washing facilities.

This document does not apply to hand-guided high pressure cleaners which are covered by EN 60335-2-79:2012, 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) can be provided by the vehicle washing system.

This document 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 document.

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 81-20:2020, *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 81-50:2020, *Safety rules for the construction and installation of lifts - Examinations and tests - Part 50: Design rules, calculations, examinations and tests of lift components*

EN 280:2013+A1:2015, *Mobile elevating work platforms - Design calculations - Stability criteria - Construction - Safety - Examinations and tests*

EN 60204-1:2018, *Safety of machinery - Electrical equipment of machines - Part 1: General requirements (IEC 60204-1:2005)*

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

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EN 60529:1991¹⁾, *Degrees of protection provided by enclosures (IP Code) (IEC 60529)*

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 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 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 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 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 13854:2019, *Safety of machinery - Minimum gaps to avoid crushing of parts of the human body (ISO 13854:2017)*

EN ISO 13857:2019, *Safety of machinery - Safety distances to prevent hazard zones being reached by upper and lower limbs (ISO 13857:2019)*

EN ISO 14122-1:2016, *Safety of machinery - Permanent means of access to machinery- Part 1: Choice of fixed means and general requirements of access (ISO 14122-1:2016)*

EN ISO 14122-2:2016, *Safety of machinery - Permanent means of access to machinery - Part 2: Working platforms and walkways (ISO 14122-2:2016)*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN

1) As impacted by EN 60529:1991/A1:2000 and EN 60529:1991/A2:2013.