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Road vehicles - Machines for mounting and demounting vehicle tyres - Safety requirements

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

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sécurité

Straßenfahrzeuge - Maschinen für die Montage von
Fahrzeugreifen - Sicherheitsanforderungen

This European Standard was approved by CEN on 10 March 2021.

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EN 17347:2021 (E)**European foreword**

This document (EN 17347:2021) has been prepared by Technical Committee CEN/TC 301 “Road vehicles”, 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of an identical text or by endorsement, at the latest by September 2021, and conflicting national standards shall be withdrawn at the latest by September 2021.

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 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.

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.

Introduction

This document defines the specific safety requirements for machines for mounting and demounting vehicle tyres. It examines all the main hazards and the hazard situations and conditions relating to the type of machine in question, when used as indicated by the manufacturer or in improper conditions reasonably foreseen by the manufacturer. The document defines the necessary technical measures for eliminating or reducing risks caused by significant hazards or danger situations and conditions during transport, use and maintenance.

This document is type “C”, as defined in EN ISO 12100:2010.

When provisions of this C-type standard are different from those which are stated in A or B standards, the provisions of this type C standard take precedence over the provisions of the other standard for machines designed and built according to the provisions of this C standard.

The type of machine in question, and the degree to which the hazards and danger situations/events, are indicated in the “aim and application” section of this document.

EN 17347:2021 (E)**1 Scope**

This document specifies the safety requirements and their verification for the design and building of machines (see the definition in 3.1) for mounting and demounting tyres on the vehicles listed below and identified according to the international categories M1, M2, N1, O1, O2, L4 and L5:

- a) cars
- b) buses
- c) lorries
- d) motor-vehicles for specific or special transport
- e) mobile homes
- f) cargo trailers
- g) car trailers
- h) motorised quadricycles
- i) motor vehicles
- j) mopeds
- k) agricultural machines (if the wheel/tyre dimensions are compatible with the maximum dimensions indicated in the tyre changer user instructions)

The vehicles listed in points a) to f) have an overall full-load mass no greater than 3,5 t.

These machines are designed to ensure the tyre is correctly fitted on the wheel in safe conditions. The document describes how to eliminate or reduce the risks resulting from the foreseen use (or improper but reasonably foreseeable use) of these machines by the operator during normal operation and service. In addition, it specifies the type of information that the manufacturer will supply with regard to safe working procedures.

The document describes all the significant hazards (as listed in Table 1) and the danger situations and events relating to these machines.

This document does not apply to hazards regarding maintenance or repairs carried out by professional maintenance personnel.

This document does not apply to automatic machines (machine, which, after initiation of start by the operator, is capable of independently perform one or more defined sequences of movements that lead to the complete assembly and disassembly of the tyre from the wheel. The operator has the task of supervising the process by intervening, if necessary).

This document does not cover the reliability of control circuits.

This document does not cover the risk of mechanical failure in operating conditions.

This document does not apply to machines manufactured before its date of 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 894-2:1997+A1:2008, *Safety of machinery - Ergonomics requirements for the design of displays and control actuators - Part 2: Displays*

EN 894-3:2000+A1:2008, *Safety of machinery - Ergonomics requirements for the design of displays and control actuators - Part 3: Control actuators*

EN 894-4:2010, *Safety of machinery - Ergonomics requirements for the design of displays and control actuators - Part 4: Location and arrangement of displays and control actuators*

EN 12645:2014, *Tyre pressure measuring instruments - Devices for inspection of pressure and/or inflation / deflation of tyres for motor vehicles - Metrology, requirements and testing*

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 4871:2009, *Acoustics - Declaration and verification of noise emission values of machinery and equipment (ISO 4871:1996)*

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 11688-1:2009, *Acoustics - Recommended practice for the design of low-noise machinery and equipment - Part 1: Planning (ISO/TR 11688-1:1995)*

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

EN 60204-1:2006, *Safety of machinery - Electrical equipment of machines - Part 1: General requirements*

ISO 7010:2019, *Graphical symbols — Safety colours and safety signs — Registered safety signs¹⁾*

ISO 3864-1:2011, *Graphical symbols — Safety colours and safety signs — Part 1: Design principles for safety signs and safety markings*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN

¹⁾ Document impacted by AMD 1:2020.